

**AUTHORS' NOTE:** Workers' compensation laws assign the responsibility for providing benefits to employers, who in turn provide benefits by one of three mechanisms (depending on the state in which they are located): 1) by purchasing insurance from a private insurance carrier; 2) by purchasing insurance from a state workers' compensation fund; or 3) by qualifying to be a self-insured employer and paying the employees directly. Where private insurance markets exist, the insurance carrier is subject to some sort of price regulation, which varies among states in the degree to which it restricts insurer pricing discretion.

In this volume, we use a unique data set to find that insurance arrangements affect several objectives of the workers' compensation program, including employers' costs, market structure, and workplace safety.

Our results suggest a complicated relationship between insurance arrangements and employers' costs. Employers' costs in exclusive state fund jurisdictions, i.e., those state where the state fund is the sole provider of workers' compensation insurance, are comparable to those in states where there is a private insurance market. On the other hand, employers' costs in states where the state fund competes with private insurers are substantially greater than those in states where there are no state funds. The impact of regulation is similarly complex.

Overall, the statistical analysis indicates that employers' costs are about 10 percent less in the most deregulated workers' compensation markets than in the states with most highly regulated insurance market. However, under more intermediate forms of deregulation, costs may actually be higher than those found in highly regulated markets. In addition, we find that the cost differentials among different regulatory systems are affected by the behavior of the regulatory agency and the stage of the insurance cycle, i.e., the relative strength of the supply of and demand for workers' compensation insurance.

Our results further suggest that the workers' compensation insurance market structure is also affected by rate regulation. Specifically, we found that deregulation reduces market concentration and that markets are more concentrated where regulatory agencies more stringently control rate fluctuations. Finally, we find little evidence that workplace health and safety, as measured by the lost-time injury rate, is affected by the insurance market regulatory environment.

# **Workers' Compensation Benefits, Costs, and Safety under Alternative Insurance Arrangements**

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## **Ch. 1 - Introduction**

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On October 1, 1992, Harold Werner, owner of the Potter Clothing Company of Newport, Rhode Island, received the first workers' compensation insurance policy issued by the Beacon Mutual Insurance Company. Beacon Mutual had been established as a publicly owned workers' compensation carrier by the Rhode Island state legislature two years earlier—using \$5 million in seed money borrowed from the state pension fund—as a means of coping with a workers' compensation insurance system that seemed to be out of control in the late 1980s and early 1990s.<sup>1</sup>

Indeed, it was exceedingly difficult to find anyone who was happy with Rhode Island's program in that period. Insurers were rapidly abandoning the Rhode Island market, claiming that premium rates, which were regulated by the state Department of Business Regulation, were inadequate. In 1988, the incurred losses were in excess of revenues by \$56.2 million, and Peter Burton, a director of the National Council on Compensation Insurance (NCCI), declared that “[t]he Rhode Island workers' compensation program is probably the most out-of-balance system in the United States.”

Private carriers were not the only discontented participants in the Rhode Island workers' compensation program. Rhode Island employers, 90 percent of whom had been forced into the state's assigned-risk pool, were dissatisfied with the high costs of workers' compensation insurance. Skyrocketing compensation costs had been held responsible for some highly publicized departures of business from the state, including a 90-year-old truck body manufacturer that expected to save \$500,000 in compensation costs by moving to Pennsylvania. This dissatisfaction led to a protest march on the statehouse reminiscent of civil rights demonstrations from a bygone era. The march was organized by the Rhode Island Chamber of Commerce and featured businessmen and businesswomen carrying banners and wearing buttons that read, “Everybody out of the [assigned-risk] pool.”

When the state legislature responded to the crisis initially by trimming benefits to workers with permanent partial disabilities, organized labor responded with its own brand of hyperbole. “We are adamantly opposed to any reductions in benefits. We do not see the benefits being received as the problem in this system,” stated George Nee, secretary-treasurer of the state AFL-CIO. Rather, Nee saw the insurance industry as “the root of problem,” claiming that insurers were “making money off the backs of employers and employees in this state.”

In 1989, the insurance industry sought a 139 percent increase in rates for the state's assigned-risk pool. At the time of the increase, over 90 percent of Rhode Island employers were in the pool. The Department of Business Regulation approved an increase of 32 percent. Not surprisingly, insurers were back within six months, asking for a 129 percent increase. The department delayed action on this request while state policymakers scrambled. Two legislative initiatives were enacted: creation of Beacon Mutual as a means for beleaguered employers to escape the dreaded assigned-risk pool, and a reduction of benefits paid to injured workers with a permanent partial disability.

In September 1991, nearly two years after the initial request, the Department of Business Regulation recommended that insurers receive a 55 percent rate increase. However, that next February, the increase was overturned by Rhode Island's Democratic governor, Bruce Sundlun, who accused insurers of collusion in the rate-setting process and expressed skepticism about industry claims that rates were inadequate. At the same time that he froze rates, the governor proposed legislation intended to reduce program costs and obviate the need for a rate increase. Perhaps even more significantly, Sundlun also administratively streamlined the appeals process of the Workers' Compensation Court.

Among other things, the governor's proposed legislation called for a further reduction of benefits for permanently and partially disabled workers, establishment of a fraud prevention unit, and restrictions on medical expenditures. Labor received a guarantee that employers must rehire injured workers whose benefits had expired, as well as provide greater dependency benefits for totally disabled workers and the families of fatally injured workers. Finally, the legislation offered incentives to insurers to remain in or return to the state's insurance market in the form of a "Fresh Start" provision, which required employers to assume 90 percent of the losses sustained by insurers in 1992 and 75 percent of the losses sustained in 1993.

While carefully crafted to offer something to everyone—except, perhaps, claimant attorneys, who were all but driven out of the system by the changes to the Workers' Compensation Court—these reforms seemed to have been surprisingly successful. Within two years, injury rates and severity dropped dramatically, which resulted in the NCCI requesting a 7 percent rate decrease in 1996. By that time, several large insurers, including Liberty Mutual and ITT Hartford, had returned to the state after leaving it during the fiscal crisis of 1989–1990. In 1998, Rhode Island experienced its third straight rate reduction.

Yet not all Rhode Islanders were rejoicing. Although it had supported the overall goals of the process and ultimately the final package, organized labor had reluctantly acquiesced to some of the reforms of 1990 and 1992. By 1998, labor began to argue that it was time to return some of the cost savings to injured workers. A spokesman was quoted as saying that the labor movement would like to "begin a new dialogue" on workers' compensation and that "[u]p until now, the dialogue has been very much one-sided. It's been very much about cutting costs."

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While it remains to be seen whether labor's dissatisfaction will eventually lead to future reforms that restore benefits and thus increase costs once again, the Rhode Island experience illustrates the tensions that exist among the interests of different stakeholders in

the workers' compensation program. It also shows how these various interests, which are translated into program objectives by policymakers, are reconciled in the legislative process. Finally, Rhode Island serves a microcosm illustrating the confluence of forces that have buffeted compensation programs nationwide in recent decades.

As we shall describe in this volume, the workers' compensation program has undergone significant changes in recent decades. Benefits paid to workers and the costs of the program to employers were significantly higher in the early 1990s than at any other time during the last 40 years, although both have declined during the 1990s. These changes in benefit payments and costs were accompanied by fundamental alterations in the insurance arrangements used to finance workers' compensation programs. Most of the 45 jurisdictions (including the District of Columbia) that allow private carriers to sell workers' compensation insurance deregulated the workers' compensation insurance market in the last 20 years. Furthermore, several states established public insurance funds to compete with private insurers, while a few states passed laws expanding the role of private insurers by eliminating state funds or making them compete with private carriers.

These changes in public policy may have a direct bearing on important aspects of the workers' compensation system, including the adequacy of workers' compensation benefits, the affordability of workers' compensation insurance, the efficiency of the workers' compensation benefits delivery system, and the prevention of workplace injuries and diseases. Clearly, workers, employers, insurance carriers, state officials, and other parties to workers' compensation want to know the impact of such statutory revisions.

Remarkably, researchers have paid little attention to the effects of deregulation and other changes in workers' compensation insurance pricing arrangements. In this volume, we address this deficiency through various empirical analyses that use state-specific cost, benefit, and injury data from 48 states for 1975 to 1995. We examine these developments over recent decades in terms of four objectives. First, are the benefits provided by the state workers' compensation programs adequate? Second, are the costs of the program to employers affordable? Third, do the insurance arrangements used to provide the benefits help achieve delivery system efficiency? Fourth, do the insurance arrangements encourage prevention of workplace injuries and diseases? While these are not the only objectives for a workers' compensation program, they are fairly comprehensive and also are particularly relevant for the developments examined in this study.<sup>2</sup>

We will discuss these objectives in greater detail after providing some background information on the workers' compensation system. We will also describe several federal and state policies that have been proposed to achieve these objectives and that will be examined in this study.

## **AN OVERVIEW OF WORKERS' COMPENSATION**

Workers' compensation statutes in every state require employers to provide cash benefits, medical care, and rehabilitation services to workers who experience work-related injuries and

diseases. In this section, we provide a brief overview of the history of workers' compensation in this country. We also highlight salient features of workers' compensation programs.

### **Historical Origins**

Prior to the passage of workers' compensation laws, injured employees' only recourse was to sue their employer for negligence when disabled by work-related injuries or diseases. However, workers seldom won these lawsuits because of the legal doctrines that were prevalent in the 19th and early 20th centuries. On those infrequent occasions when employees did win these lawsuits, employers sometimes had to pay substantial cash awards. The result was unsatisfactory for everyone: employers confronted potentially large and uncertain financial risks, while, at the same time, many workers faced destitution as a result of occupational injuries.

State governments established workers' compensation programs to overcome these deficiencies of the common law. The programs were based on two principles that continue to the present day. First, benefits are provided to injured workers without regard to fault. To qualify for benefits under this no-fault approach, the worker only has to show that the injury is work-related, not that the employer was negligent. Second, the program provides limited liability for employers. Employers are required to pay for the benefits prescribed by the workers' compensation statute, but they are insulated from negligence suits. Furthermore, workers' compensation systems were also intended to make employers' costs of providing benefits predictable, manageable, and insurable and to curtail the delays and expenses of lawsuits.

Workers' compensation laws were established early in the 20th century by state governments rather than by the federal government, because at that time the Supreme Court's interpretation of the U.S. Constitution precluded broad federal legislation for private-sector workers. Most states established workers' compensation programs in the decade after Wisconsin's workers' compensation program went into effect in 1911. This pattern of state control has persisted, with minor exceptions, to the present day. Employees throughout the United States are, for the most part, covered by a state workers' compensation program; federal government involvement is limited to a few programs pertaining to federal employees and longshore workers.<sup>3</sup>

### **Coverage**

Today, most workers—about 97 percent of all workers covered by the state unemployment insurance programs (Mont, Burton, and Reno 2000, pp. 14–15)—are covered by workers' compensation programs.<sup>4</sup> However, even when employed in industries or occupations covered by workers' compensation statutes, workers in most states must also meet four legal tests in order to receive benefits: 1) there must be a personal injury, which in some jurisdictions is interpreted to exclude mental disorders; 2) that results from an accident, which historically was interpreted by many states to exclude injuries that develop over a long

period of time, as opposed to injuries resulting from a single traumatic incident; 3) that must arise out of employment, which means that the source of the injury must be related to the job (if you have a personal quarrel with a neighbor who stalks you to the job and shoots you there, this is unlikely to meet the “arising out of employment” test); and 4) that must occur during the course of employment, which normally requires that the injury occur on the employer’s premises and during working hours. Most work-related injuries can meet these four tests, although there are numerous exceptions.<sup>5</sup>

## **Benefits**

Injured workers who meet the four-part legal test will receive workers’ compensation benefits prescribed by state law. State workers’ compensation programs provide three types of benefits to injured workers. First, medical benefits, including medical rehabilitation, are provided for all injured workers, and in most states there are no statutory limits (such as deductibles or co-payments) on appropriate medical care. Second, some states provide vocational rehabilitation services that must be provided to an injured worker seeking reemployment. Third, cash benefits must be paid to disabled workers who satisfy certain criteria, or to their survivors if the worker was fatally injured.

The statutorily prescribed cash benefits for disabled workers vary by the extent of disability (that is, whether the worker is totally or partially disabled) and by the duration of the disability (whether the consequences of the injury are temporary or permanent). The most common type is temporary total disability (TTD) benefits, which are paid to someone who is completely unable to work but whose injury is of a temporary nature. The weekly TTD benefit is two-thirds of the pre- injury wage in most states, subject to maximum and minimum amounts that vary considerably among states.

Permanent partial disability (PPD) benefits account for the greatest share of benefits payments in states’ workers’ compensation programs (based on the cost of awards). PPD benefits are paid to injured workers who have permanent consequences of their work-related injury or disease. There are two general approaches to PPD benefits: scheduled benefits (paid for injuries listed in the workers’ compensation statute, such as loss of an arm) and nonscheduled benefits (paid for permanent injuries that are not on the schedule, such as a back injury). The method of determining weekly benefits for a PPD case is less uniform and more complicated than that for TTD cases.

Permanent total disability (PTD) benefits are paid to an injured worker who is completely unable to work for an indefinite period; PTD cases are not very common. Finally, death benefits are paid to the survivor(s) of a worker killed on the job; these types of workers’ compensation cases are also not very common.<sup>6</sup>

## **Financing of Benefits**

Workers' compensation laws assign the responsibility for providing the benefits to employers, who in turn can provide the benefits by one of three mechanisms (depending on the state in which they are located): 1) by purchasing insurance from a private insurance carrier; 2) by purchasing insurance from a state workers' compensation fund; or 3) by qualifying to be a self-insured employer and paying the employees directly.

Some states, such as New York, have a three-way system in which all three insurance options are available to employers; the state workers' compensation insurance fund in jurisdictions that permit private carriers are referred to as "competitive" state funds. A few states, such as Ohio, restrict insurance coverage options to self-insurance or the state workers' compensation fund. Jurisdictions that do not permit private carriers to provide coverage are referred to as "exclusive" or "monopolistic" state funds.<sup>7</sup> Still other states, such as New Jersey and Wisconsin, restrict the employers' choices to private insurance carriers or self-insurance. In Chapter 2, we discuss in greater detail these workers' compensation insurance coverage options for employers. Specifically, we trace the changes in the relative importance of the three types of insurance (as measured by the relative distribution of benefit payments) and also discuss in detail the deregulation of the insurance provision by private carriers.

## **OBJECTIVES OF THE WORKERS' COMPENSATION PROGRAMS**

In this section, we describe four objectives of workers' compensation programs that guided our research design and some public policies that may help meet these objectives. One of the themes of this study is that achieving these objectives is complex and, in some cases, counterproductive: achieving one objective often interferes with reaching one or more of the remaining goals. Because the various parties to workers' compensation—including, but not limited to injured workers, employers, state officials, insurers, and the medical community—place different emphasis on the relative worth of each objective, conflicts among these parties often arise with respect to what is the "best" public policy for a state's workers' compensation program.

### **Adequacy**

The National Commission on State Workmen's Compensation Laws (National Commission 1972, pp. 36–37) included adequacy of cash benefits as one of its five objectives for a modern workers' compensation program.<sup>8</sup> The general objective, that "workers' compensation should provide substantial protection against interruption of income," was translated by the National Commission into 27 specific recommendations.<sup>9</sup> One use of the specific recommendations was to provide a basis for assessing the adequacy of state workers' compensation benefits as of 1972. For example, recommendation R3.8 stated that the maximum weekly benefits for temporary total disability benefits should be at least 66.67 percent of the state's average weekly wage by 1973 and at least 100 percent of the state's

average weekly wage by 1975.

At the time of the National Commission's report in 1972, only 10 of the 50 states had weekly maximums for temporary total disability that were greater than 66.67 percent of the state's average weekly wage. The National Commission characterized as "substandard" the TTD maximums in 32 states that were less than 60 percent of the state's average weekly wage. The National Commission thus concluded "a majority of States have maximum weekly benefits which are inadequate" and added this observation (National Commission 1972, p. 61):

Our judgment that the maximum weekly benefit levels are generally inadequate is reinforced by comparing the maximum weekly benefit in each State as of January 1, 1972, with the 1971 poverty level for a non-farm family of four persons, which is \$79.56 a week. It is distressing that as of January 1, 1972, the maximum weekly benefit for temporary total benefits in more than half the states did not reach this poverty level.

The National Commission standards also allow an ongoing assessment of state workers' compensation programs. The National Commission made 84 recommendations, designating 19 of them as "essential," and recommended that, if necessary, Congress should guarantee compliance with these 19 essential recommendations by federal legislation. Although Congress has never enacted such legislation, the U.S. Department of Labor has monitored the progress of the states in complying with the 19 essential recommendations on a continuing basis.

Nine of these 19 provide quantifiable measures of the adequacy of cash benefits that we rely on in this study. The recommendations can be summarized under three types of benefits:

- **Temporary Total Disability Benefits:** A worker's weekly benefit should be at least 66.67 percent of the worker's preinjury wage, subject to a maximum of 100 percent of the state's average weekly wage. There should be no limit on the duration or dollar amount of these benefits while the worker is disabled.
- **Permanent Total Disability Benefits:** A worker's weekly benefit should be at least 66.67 percent of the worker's preinjury wage, subject to a maximum of 100 percent of the state's average weekly wage. There should be no limit on the duration or dollar amount of these benefits while the worker is disabled. These benefits should not be paid to workers who retain substantial earning capacity.
- **Death Benefits:** A survivor's weekly benefit should be at least 66.67 percent of the worker's preinjury wage, subject to a maximum of 100 percent of the state's average weekly wage. There should be no limit on the duration or dollar amount of these benefits during the statutory period of dependency, which, for example, is for the life of the widow or widower or until remarriage.

There is one major category of cash benefits for which the National Commission was unable to reach a consensus and make recommendations, namely, permanent partial disability benefits. Fortunately, an alternative source that provides an operational measure of adequacy for evaluating permanent partial disability benefits exists in the Workmen's Compensation and Rehabilitation Law, generally known as the "Model Act," published by the Council of State Governments.

The Model Act was originally published in the 1960s and then was revised in 1974 to make the proposed statutory language consistent with the recommendations of the National Commission. The Model Act (revised)<sup>10</sup> will be used in Chapter 4 as the standard of adequacy against which state workers' compensation laws will be evaluated in this study for the period since 1975.<sup>11</sup> We will also examine whether the policy prescription of the National Commission—the enactment of federal standards to ensure compliance with the 19 essential recommendations—is still warranted on the basis of the progress that states have made to improve the adequacy of the cash benefits in their workers' compensation programs.

### **Affordability**

Fulfillment of the adequacy objective may sometimes jeopardize another objective of modern workers' compensation programs, namely, affordability. Affordability is concerned with designing a workers' compensation program that employers, workers, and the public can afford without serious adverse consequences, such as loss of jobs. Although affordability was not specified as one of the objectives of a modern workers' compensation program by the National Commission, the importance of affordability was implicitly recognized in the Commission's report (pp. 124–125):

The economic system of the United States encourages the forces of efficiency and mobility. These forces tend to drive employers to locate where the environment offers the best prospect for profit ... Any State which seeks to regulate the by-product of industrialization, such as work accidents, invariably must tax or charge employers to cover the expenses of such regulation. The combination of mobility and regulation poses a dilemma for policymakers in State governments. Each State is forced to consider carefully how it regulates its domestic enterprises because relatively restrictive or costly regulation may precipitate the departure of the employers to be regulated or deter the entry of new enterprises.

When it prepared its report, the National Commission did not feel that the interstate differences in workers' compensation costs were sufficient to induce any rational employer to move to another state in order to reduce costs. The National Commission reached this conclusion because, at the time (1972), interstate differences in workers' compensation costs rarely exceeded 1 percent of payroll, and such differences were relatively insignificant compared to interstate variation in other costs such as wage levels. Despite this reassurance about the implausibility that employers would make relocation decisions based on workers' compensation costs, the National Commission (1972, p. 125) went on to provide a warning:

While the facts dictate that no State should hesitate to improve its workers' compensation program for fear of losing employers, unfortunately this appears to be an area where emotion too often triumphs over fact . . . whenever a State legislature contemplates an improvement in workers' compensation which will increase insurance costs, the legislators will hear claims from some employers that the increase in costs will force a business exodus. It will be virtually impossible for the legislators to know how genuine are these claims . . .

When the sum of these inhibiting factors is considered, it seems likely that many States have been dissuaded from reform of their workers' compensation statutes because of the specter of the vanishing employer, even if that apparition is a product of fancy not fact. A few States have achieved genuine reform, but most suffer with inadequate laws because of the drag of laws of competing states.

In this study, we will examine whether the average cost of workers' compensation insurance in the United States has increased and, in particular, whether the differences among states in the costs of workers' compensation insurance have widened since the National Commission's report in 1972. Such developments would mean that the specter of the vanishing employer is more credible now than it was when the National Commission characterized the threat as "a product of fancy not fact."

There is anecdotal evidence that by the early 1990s, workers' compensation costs had become a serious threat to employer viability. A 1992 cover story in *Nation's Business* was entitled "Workers' Comp Costs: Out of Control." Thompson (1992, p. 22) documented the financial ruin that almost befell a California company run by Robert Boucher, who stated (perhaps with some hyperbole), "This cancer [workers' compensation] is killing thousands and thousands of honest companies." Thompson also reported that the estimated costs of workers' compensation were \$62 billion in 1991, nearly triple the amount spent in 1980, and postulated that "[a]t the present growth rate, costs will nearly triple again by the year 2000." In retrospect, the concerns about costs appear exaggerated: we now know that total costs of the workers' compensation programs were \$55.2 billion in 1991 and \$52.1 billion in 1998.<sup>12</sup> However, the article was indicative of the general attitude among employers towards workers' compensation costs in the early 1990s, which, in turn, resulted in statutory benefit reductions and other consequences that will be examined in Chapter 2.

If, as we now know to be the case, average workers' compensation costs have increased since the 1970s, and especially if—as we will attempt to demonstrate in this study—interstate cost differences have widened, there is a strong argument for invoking the policy prescription that the National Commission made in light of fears regarding interstate cost differences. The National Commission (1972, p. 27) called for federal standards for workers' compensation programs, using this rationale:

We believe that the threat of or, if necessary, the enactment of Federal mandates will remove from each state the main barrier to effective workers' compensation reform: the fear that compensation costs may drive employers to move away to markets where protection for disabled workers is inadequate but less expensive.

This rationale is unassailable—or so it would seem. If there are differences among states in workers' compensation costs as well as in the adequacy of the cash benefits in their workers' compensation statutes, then forcing laggard states to improve their benefits should result in less interstate variation in costs. However, earlier research by Krueger and Burton (1990) raised serious doubts about the assertion that federal standards would reduce the disparity among states in workers' compensation costs. We will revisit this issue in our empirical analysis in Chapter 4.

### **Delivery System Efficiency**

A third objective of a modern workers' compensation program that was articulated by the National Commission (1972, p. 99) was an effective delivery system. This was necessary to ensure that the “other program objectives are met efficiently and comprehensively” (National Commission 1972, p. 39). Responsibility for an effective delivery system lay with a variety of private and public organizations (including insurance carriers, workers' compensation agencies, and courts) and with various individuals who are also involved (including employees, attorneys, physicians, employees, and employers). We translate the effective delivery system objective into an objective of delivery system efficiency, by which we mean that workers' compensation benefits of a particular quality should be provided at the least possible administrative cost.

One of our principal goals in this volume is to evaluate the effect of different insurance arrangements on the employers' costs of workers' compensation insurance. We will thus examine whether, after controlling for factors such as injury rates and benefits levels, particular insurance arrangements are associated with lower workers' compensation insurance rates. If, for example, we find that, after controlling for benefits and other factors, provision of insurance by exclusive state workers' compensation funds is associated with lower workers' compensation insurance rates, then we could conclude that the presence of such a state fund helps achieve delivery system efficiency. Likewise, if strict regulation of rates charged by private carriers results in lower rates than would be achieved with deregulation, then the regulation of rates helps achieve delivery system efficiency.

Determining the net impact of various insurance arrangements on the costs of workers' compensation insurance is a complicated endeavor. There are a variety of factors affecting insurance rates, such as the levels of cash and medical benefits, that must be measured and taken into consideration. Furthermore, there are subtle interrelations between the insurance cycle and the effects of deregulation of private carriers that must also be addressed before any conclusions about delivery system efficiency can be made. Moreover, there are a wide variety of forms of workers' compensation insurance market deregulation that

have been adopted by states in recent decades. These permutations must also be taken into consideration when evaluating the delivery system efficiency of state workers' compensation programs. All of these are examined in Chapters 5 to 7.

## **Prevention**

The National Commission (1972, p. 87) also postulated that the encouragement of safety is one of the basic objectives of a modern workers' compensation program. The National Commission noted that the workers' compensation program operates in at least two ways to reduce the frequency and severity of work-related injuries and diseases. First, state agencies and private and public carriers provide employers with preventive services, including safety engineering. Second, the program provides a monetary incentive to employers to improve their safety records.

The monetary (financial) incentive occurs because workers' compensation insurance is experience-rated, which means that the premium charged depends on the level of benefit payments. There are two steps in the experience-rating process, beginning with industry-level (or occupational-level) experience rating.<sup>13</sup> Every employer who purchases insurance is assigned to a particular insurance classification, for which the initial insurance rate can be determined by looking in an insurance manual. In addition, medium or large employers are eligible for firm-level experience rating, which means they pay more or less than the initial rates depending on their own experience relative to other firms in the same insurance classification.

The traditional rationale for experience rating is that it provides an incentive for employers to improve their safety records in order to reduce their insurance premiums. Empirical evidence regarding the success of experience rating as a prevention tool is mixed: some studies suggest that experience rating promotes safety, but others do not.<sup>14</sup>

Our study is concerned with another dimension of the relationship between workers' compensation and safety: namely, the effect of different insurance arrangements on improving workplace safety. One issue is whether competitive and exclusive state funds are more or less likely to promote safety and health than are private insurance carriers. Some have argued, for example, that private carriers are likely to emphasize profits over safety, and therefore that state funds are more likely to be concerned with worker safety and health. Another workplace safety issue is whether the type of regulation of private carriers affects safety incentives. One argument is that administered pricing or other forms of price regulation will distort the financial incentives to improve workplace safety and, therefore, that deregulation is likely to improve workplace safety.

We examine these various possible relationships among workplace safety and insurance arrangements in workers' compensation in Chapter 8. There are obvious policy implications of any finding that the prevention objective is furthered by a state's choices about whether to rely on a state fund or private carriers for workers' compensation coverage, and,

if private carriers are allowed, whether the insurance rates charged by those carriers should be regulated.

### **Relationships among Objectives**

We have discussed four objectives for a workers' compensation program that provide the conceptual framework for our study: adequacy of benefits, affordability, delivery system efficiency, and injury prevention. In this volume, we will examine various public policies that states or the federal government could adopt to achieve these objectives. Ideally, policies that help achieve one objective will also facilitate reaching another objective. Thus, if regulation of private carriers both lowers workers' compensation insurance rates and improves workplace safety, a state that uses this approach will foster both the delivery system efficiency and prevention objectives.

Candor compels us to admit, at this point, that some policies that help achieve one objective may actually impede the realization of another objective. Thus, for example, higher levels of benefits may help improve benefit adequacy but may also undermine affordability and contribute to job losses. One contribution we make in this study is to help quantify the tradeoffs between adequacy and affordability that would result from a federal statute requiring adequate benefits. This is one of our tasks in Chapter 4.

Another contribution we make is our analysis of the possible tradeoffs in using different public policies regarding insurance arrangements. We will quantify, for example, the possible savings to employers from deregulation of private insurance carriers. We will then be able to compare these possible savings with the added costs of achieving adequate cash benefits resulting from federal standards. These are some of our tasks in Chapter 9.

The conclusions we reach at this book's end are, of course, the result of the requisite groundwork that we have prepared for the reader as well as for ourselves. The remainder of this volume begins in the next chapter with an overview of salient developments in workers' compensation developments since 1960. We then (in Chapter 3) critique various ways of measuring employers' costs of workers' compensation and explain the relative advantages of our cost methodology. In Chapter 4, we present our basic model for determining costs and *inter alia* use it to examine the possible effects of federal workers' compensation standards on adequacy of benefits and affordability. Chapter 5 compares the costs of workers' compensation insurance provided by state versus private carriers. In the succeeding two chapters, we review economic theory and our empirical findings about the effects of insurance regulation on workers' compensation costs and market structure. The impact on workplace safety of different workers' compensation arrangements is investigated in Chapter 8. Chapter 9 contains our conclusions about the public policy implications of our empirical research, including policy prescriptions.

## Notes

1. Information about the recent history of Rhode Island workers' compensation reform came from various issues of the *Providence Journal*. Citations are available from Terry Thomason on request. We are indebted to Matthew Bodah for his assistance in compiling this history.
2. For an alternative version of the objectives of workers' compensation programs, see the National Commission (1972). "Equity" is often used as an additional objective or criterion for the workers' compensation program. The National Commission (p. 137) defined an "equitable" workers' compensation program as one that delivered "benefits and services fairly as judged by the program's consistency in providing equal benefits or services to workers in identical circumstances and its rationality in providing benefits and services in proportion to the impairment or disability for those with different degrees of loss." For an example of the use of the equity criterion to evaluate permanent partial disability benefits in the workers' compensation program, see Berkowitz and Burton (1987).
3. The decentralized nature of workers' compensation in the United States has advantages and disadvantages for researchers. One advantage is that variation among states provides a natural laboratory for evaluating the impact of different public policies. There are considerable variations among the states in many aspects of their workers' compensation programs, with various combinations of the features we are examining. For example, some states that rely solely on private carriers and self-insuring employers to provide workers' compensation coverage have low statutory benefits, while other states with identical insurance arrangements have generous statutory benefits. This interstate variability in combinations of attributes makes it easier to determine the net effect on costs of different insurance pricing arrangements. However, the decentralized nature of workers' compensation in the United States and the lack of a federal presence is also disadvantageous, because it results in a paucity of comparable data. Most of our research effort for this book was devoted to constructing a comparable data set for the 48 jurisdictions in our study.
4. There is less than 100 percent coverage because of exemptions that are permitted by state workers' compensation statutes. These exemptions include 1) employers with few employees (e.g., three or less); 2) exempted industries, such as state and local governments and agriculture; 3) occupational exemptions, such as household workers; and 4) a Texas law that allows employers in the state to elect not to provide coverage. Certain employees—those who are "casual" workers or workers not engaged in the normal trade or business of the employer—may not be protected by a state workers' compensation law, even when their employer is otherwise within the scope of the mandatory coverage specified by the statute. In addition, independent contractors normally are not covered by workers' compensation.
5. The coverage of work-related diseases by workers' compensation has been more problematic, as discussed by Spieler and Burton (1998).
6. Additional information on workers' compensation cash benefits is included in Appendix D.
7. As of 1999, Ohio, Nevada, Washington state, and West Virginia had exclusive state funds and permitted self-insurance; North Dakota and Wyoming had exclusive state funds and did not permit self-insurance.

8. The term *workmen's compensation* was generally used to describe the program as late as 1972, when the National Commission submitted its report. Shortly thereafter, most jurisdictions and commentators adopted *workers' compensation* as the preferred term. We have retained *workmen's compensation* when referring to the name of the National Commission, but have used *workers' compensation* in all references to the contents of the National Commission's report.
9. The National Commission made 84 recommendations in total covering all aspects of workers' compensation programs and designated 19 of them as "essential."
10. The Model Act (revised) is reprinted as Appendix A of Larson and Larson (1999).
11. The procedure used to make the Model Act (revised) an adequacy standard is discussed in Thomason and Burton (2000a).
12. The principle of full disclosure requires an admission: the source of the \$62.0 billion estimate for the costs of the workers' compensation program in 1992 cited in Thompson (1992, p. 23) was Burton (1992).
13. Some writers define what we term "industry-level (or occupational-level) experience rating" as *class rating* and would confine the term *experience rating* to what we refer to as "firm-level experience rating." Regardless of differences in terminology, economic theory posits that both levels of what we call "experience rating" promote workplace safety and health.
14. After reviewing all of the available (and conflicting) empirical evidence, Burton and Chelius (1997, p. 266) endorsed a view that experience rating "has had at least some role in improving safety for large firms."