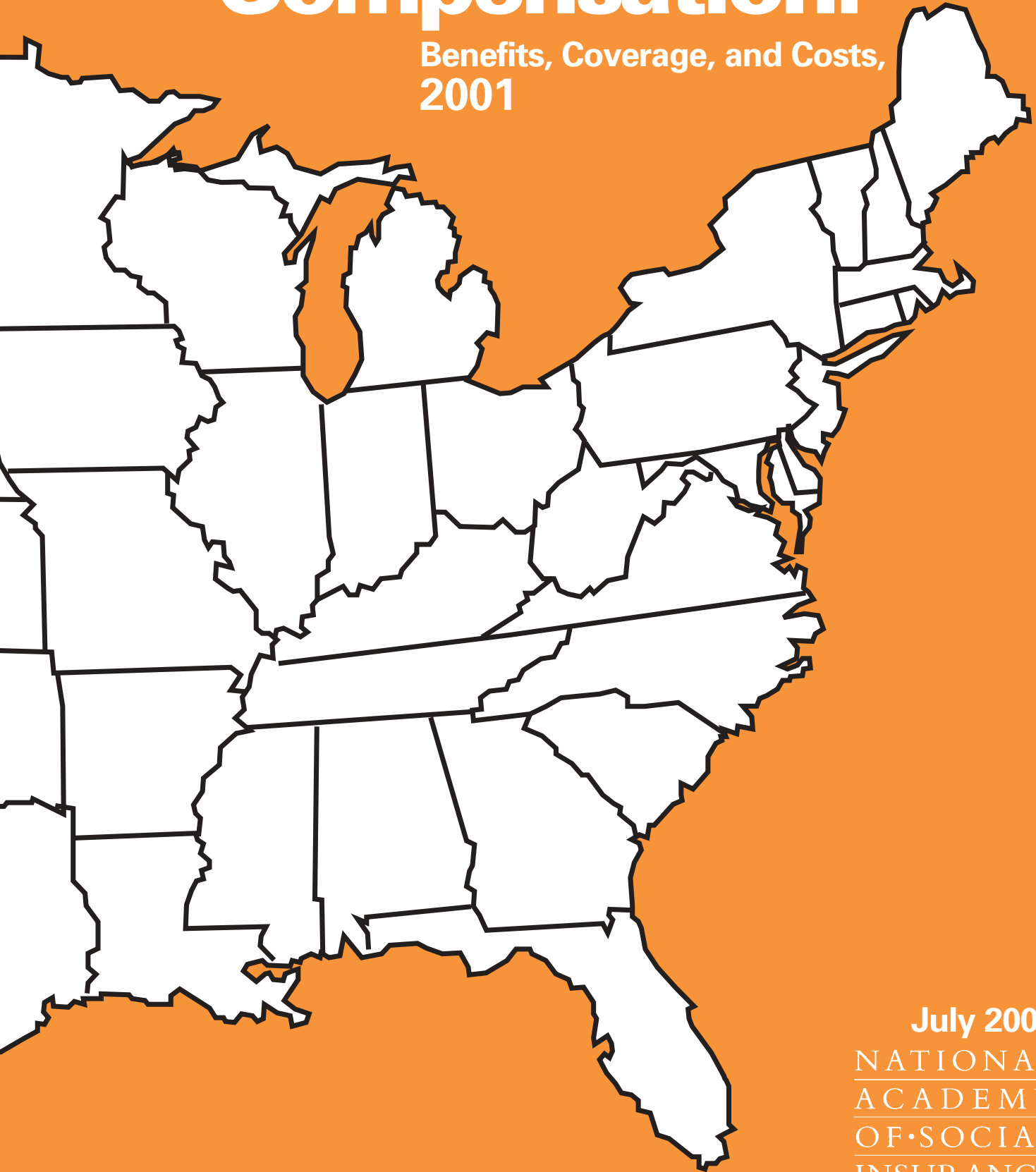


Workers' Compensation:

Benefits, Coverage, and Costs,
2001



July 2003

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This research report presents new data and does not make recommendations. It was prepared with the guidance of the Workers' Compensation Steering Committee and Study Panel on National Data on Workers' Compensation. In accordance with procedures of the Academy, it has been reviewed by a committee of the Board for completeness, accuracy, clarity, and objectivity.

This project received financial support from the Social Security Administration, the Centers for Medicare & Medicaid Services, the Office of Workers' Compensation Programs of the U.S. Department of Labor, and Liberty Mutual Insurance Company. It also received in-kind support in data from the National Council of Compensation Insurance.

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Benefits, Coverage, and Costs,

2001

by

Cecili Thompson Williams, Virginia P. Reno, and
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with advice of the

**Study Panel on National Data on
Workers' Compensation**

and the

Steering Committee on Workers' Compensation

July 2003

**NATIONAL
ACADEMY
OF SOCIAL
INSURANCE
Washington, DC**

Preface

Because workers' compensation statutes are enacted and administered at the state level, it is difficult to get a complete picture of national developments. Until 1993, the U.S. Social Security Administration (SSA) produced the only comprehensive national data on workers' compensation benefits and costs. For more than four decades, SSA's Office of Research, Evaluation, and Statistics filled part of the void in workers' compensation data by piecing together information from various sources to estimate the number of workers covered and, for each state and nationally, the aggregate benefits paid. SSA discontinued the series in 1995 after publishing data for 1992–93.

The SSA data on workers' compensation were a valuable reference for employer groups, insurance organizations, unions, and researchers, who relied on them as the most comprehensive and objective information available. Users of the data turned to the National Academy of Social Insurance as a reliable and independent source to continue and improve upon the data series. The need to continue the series remains particularly urgent as workers' compensation programs are changing rapidly.

In February 1997, the Academy received start-up funding from The Robert Wood Johnson Foundation to launch a research initiative in workers' compensation with its first task to develop methods to continue the national data series. Additional funds have been secured from the Social Security Administration, the Centers for Medicare & Medicaid Services, the Liberty Mutual Insurance Company, the Workers Compensation Research Institute, and the Labor Management Group. In addition, the National Council on Compensation Insurance provided access to important data for the project. Without support from these sources, continuing this vital data series would not have been possible.

To set its agenda and oversee its activities in workers' compensation, the Academy convened the Workers' Compensation Steering Committee, listed on page iii. To provide technical expertise for the data report, it convened the Study Panel on National Data on Workers' Compensation, listed on page iv.

This is the sixth report the Academy has issued on workers' compensation national data. In December 1997, it published a report that extended the data series through 1995. That report was prepared by Jack Schmulowitz, a retired SSA analyst, who also provided the Academy with full documentation of the methods used to produce the estimates in that report. Subsequent reports published by the Academy through 2002 extended the data series through 2000. Those reports used the same basic methodology followed in prior reports but incorporated several significant innovations. In particular, the Academy reports:

- Provide state-level information separating medical and cash benefits (Mont et al. 1999);
- Place workers' compensation in context with other disability insurance programs (Mont et al. 1999);
- Compare the recent trends in the benefit spending for workers' compensation to those for Social Security disability insurance (Mont et al. 1999);
- Discuss the relative advantages and drawbacks of using calendar year benefits paid *vis-à-vis* accident year incurred losses to measure benefit trends (Mont et al. 1999 and refinements in this report);
- Estimate benefits paid under deductible provisions for individual states (Mont et al. 1999);
- Estimate coverage under workers' compensation programs at the state level (Mont et al. 2000);
- Present state-level estimates of the number of covered workers and total covered wages (Mont et al. 2001);
- Report estimates of benefits relative to total wages in each state (Mont et al. 2001);
- Provide information on special federal programs that are similar to workers' compensation, but are not included in national totals in the Academy's series (this report);
- Compare trends in workers' compensation claims frequency for privately insured employers with trends in incidence of work-related injuries reported to the Bureau of Labor Statistics (this report); and

- Provide more complete documentation of data collection methods and results, and of methods for estimating coverage, deductibles, and self-insured benefits and costs (this report).

This report benefited immeasurably from members of the Academy's Study Panel on National Data on Workers' Compensation, who gave generously of their time and expertise in advising on data sources, data collection, plans for presentation, and in carefully reviewing the draft report. We would like to especially acknowledge three members of the Study Panel: Barry Llewellyn, Senior Divisional Executive and Actuary with the National Council on Compensation Insurance, who provided the

Academy with data and underwriting reports and his considerable expertise on many data issues; Peter Barth, retired Professor of Economics at the University of Connecticut; and Leslie Boden, Professor of Public Health at Boston University, who assisted Academy staff with the self-insurance estimates. This report also benefited from helpful comments during Board review by Barbara Markiewicz, Patricia Owens, and Wayne Vroman.

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Executive Summary

The purpose of the Academy's report is to provide policy-makers with a benchmark of the benefits and costs of workers' compensation to facilitate policy-making and comparisons with other social insurance programs. Workers' compensation pays for medical care and cash benefits for workers who are injured on the job or who contract work-related illnesses. It also pays benefits to families of workers who die of work-related causes. Each state has its own workers' compensation program.

Because no national system exists for uniform reporting of states' experiences with workers' compensation, it is necessary to piece together data from various sources to develop estimates of benefits paid, costs to employers, and the number of workers covered by workers' compensation. Unlike other U.S. social insurance programs, state workers' compensation programs have no federal involvement in financing or administration. And, unlike private pensions or employer-sponsored health benefits that receive favorable tax treatment, federal laws do not set standards for "tax-qualified" plans or impose any reporting requirements. Consequently, states vary greatly in their capacity and methods for assembling data on the performance of workers' compensation programs.

For more than forty years, the research office of the U.S. Social Security Administration had produced national and state estimates of workers' compensation benefits, but that activity ended in 1993. In response to requests from stakeholders and scholars in the workers' compensation field, the National Academy of Social Insurance took on the challenge of continuing that data series. This is the Academy's sixth annual report on workers' compensation benefits, coverage, and costs. This report presents new data on developments in workers' compensation in 2001 and updates estimates of benefits, costs, and coverage for the years 1997–2000. The revised estimates in this report replace estimates in the Academy's prior report, *Workers' Compensation: Benefits, Coverage, and Costs, 2000 New Estimates*.

The audience of the Academy's reports on workers' compensation includes journalists; business and labor leaders; insurers; employee benefit specialists; federal and state policy-makers; and researchers in universities, government, and private consulting

firms. The data are published in the *Statistical Abstract of the United States*, by the U.S. Census Bureau; are used in the annual report of the National Safety Council, *Injury Facts*; and are reported in *Employee Benefit News*, which tracks developments for human resource professionals. The U.S. Social Security Administration publishes the data in its *Annual Statistical Supplement to the Social Security Bulletin* and uses the findings in its estimates of national social welfare expenditures in the United States. The federal Centers for Medicare & Medicaid Services (formerly the Health Care Financing Administration) use the data as part of their estimates and projections of health care spending in the United States. The National Institute for Occupational Safety and Health uses the data to track part of the cost of workplace injuries in the United States. In addition, the International Association of Industrial Accident Boards and Commissions (the organization of state and provincial agencies that oversee workers' compensation in the United States and Canada) uses the information to track and compare performance of workers' compensation programs in the United States with similar systems in Canada.

The report is produced under the oversight of the Academy's Steering Committee on Workers' Compensation and its expert Study Panel on National Data on Workers' Compensation, both of which are listed in the front of this report. The Academy and its expert advisors are continually seeking ways to improve the report and to adjust estimation methods to new developments in the insurance industry and in workers compensation programs.

Background

Workers' compensation is an important component of American social insurance. As a source of support for disabled workers, it is surpassed in size only by Social Security disability insurance and Medicare. Workers' compensation programs in the fifty states, the District of Columbia, and federal programs paid \$49.4 billion in workers' compensation benefits in 2001. Of the total, \$22.0 billion were for medical care and \$27.4 billion were for cash benefits (Table 1).

Workers' compensation programs are undergoing changes. Total benefits rose at double-digit rates in the 1980s, and then declined in absolute dollar amounts and relative to wages of covered workers in the 1990s. In 2001, benefits and costs relative to

Table 1**Workers' Compensation, 2001 Summary**

	2000	2001	Percent Change
Covered workers (in thousands)	127,141	126,972	-0.1
Covered wages (in billions)	\$ 4,495	4,604	2.4
Workers' compensation benefits paid (in billions)	\$ 47.7	\$ 49.4	3.5
Percent of benefits paid for medical care	43.9%	44.9%	2.4
Employer costs for workers' compensation (in billions)	\$ 59.2	\$ 63.9	8.0
Benefits per \$100 of covered wages	\$1.06	\$1.07	1.0
Employer costs per \$100 of covered wages	\$1.32	\$1.39	5.5
Benefits per covered worker	\$ 375	389	3.6
Employer costs per covered worker	\$ 466	504	8.1

Source: National Academy of Social Insurance estimates based on Tables 2, 9, 11, and 12.

covered wages rose for the first time since the early 1990s.

Workers' compensation differs from Social Security disability insurance and Medicare in important ways. Workers' compensation pays for medical care for work-related injuries immediately; it pays temporary disability benefits after a waiting period of three to seven days; and it pays permanent partial and permanent total disability benefits to workers who have lasting consequences of disabilities caused on the job. Social Security and Medicare, in contrast, pay benefits to workers with long-term disabilities of any cause, but only when the disabilities preclude work. Social Security begins after a five-month waiting period and Medicare begins twenty-nine months after the onset of work incapacity. In 2001, Social Security paid \$59.6 billion to disabled workers and their dependents, while Medicare paid \$29.7 billion for health care for disabled persons under age 65 (SSA 2002a and CMS 2003).

Some workers also have access to sick leave or long-term disability insurance benefits. Sick leave is the most common form of wage-replacement for short-term absences from work due to illness or injury of any cause. Benefits typically pay 100 percent of wages for a few weeks. About 30 percent of private sector workers have no income protection for temporary sickness or disability other than workers' compensation. Long-term disability insurance that is financed, at least in part, by employers covers about

one in four private sector employees. Long-term disability insurance benefits are usually paid after a waiting period of three to six months, or after short-term disability benefits end. Long-term disability insurance is generally designed to replace 60 percent of earnings and is reduced if the worker receives workers' compensation or Social Security disability benefits.

2001 Developments

Total workers' compensation benefit payments of \$49.4 billion in 2001 were 3.5 percent higher than in 2000. When viewed relative to total wages of covered workers, benefits payments rose slightly in 2001: benefits per \$100 of covered wages rose from \$1.06 in 2000 to \$1.07 in 2001 (Table 1).

Employer costs for workers' compensation are premiums written for policies in the calendar year, payments made under deductible arrangements, and the benefits and administrative costs of self-insurers. Employer costs in 2001 were \$63.9 billion, an increase of 8.0 percent from \$59.2 billion in 2000. Relative to total wages of covered workers, employer costs increased to \$1.39 per \$100 of covered wages in 2001, up from \$1.32 per \$100 of covered wages in 2000.

The difference between benefits for workers and employer costs per \$100 of wages is accounted for by expenses such as administrative and loss adjustment costs, taxes, and contributions for special funds,

which can include the support of workers' compensation agencies.

A development in the 1990s that complicates the measurement of benefits and costs of workers' compensation is the growing use of large deductible policies. Under deductible policies, the insurer pays all of the workers' compensation insured benefits, but employers are responsible for reimbursing the insurers for those benefits up to a specified deductible amount. In return for accepting a policy with a deductible, the employer pays a lower premium. Our industry sources of data do not provide separate information on deductibles and many states lack data on deductible payments. Consequently, these benefits had to be estimated.

In 2001, workers' compensation covered 127.0 million workers, a decline of 0.1 percent from the 127.1 million workers covered in 2000 (Table 1). Total wages of covered workers were \$4.6 trillion in 2001, an increase of 2.4 percent from 2000. The slight decline in covered workers and slow growth in covered wages reflect the economic recession that began in March 2001 (NBER 2001). States' rules about who is covered by workers' compensation did not change between 2000 and 2001.

A total of 8,786 fatal work injuries occurred in 2001. They include 2,886 deaths of people at work that were caused by the September 11 terrorist attacks and 5,900 deaths from other causes. Workers' compensation benefits for families of workers killed in the terrorist attacks are likely to be reflected in benefit payments in 2002 and later. The Academy's brief, *Social Insurance for Survivors: Family Benefits from Social Security and Workers' Compensation*, describes payments available to families of workers killed at work.

This report for the first time includes data for federal programs that are similar to workers' compensation, but are not included in our national estimates of total benefits. The national workers' compensation totals in this report include programs of the fifty states and the District of Columbia, and federal laws that cover federal civilian employees, private employees under the Longshore and Harbor Workers' Compensation Act, and the portion of the Black Lung benefit program for coal miners with pneumoconiosis that is financed by employers. Other federal

programs akin to workers' compensation covered in this report, but not included in national totals are: veterans' compensation benefits of about \$15.8 billion in 2001; the portion of Black Lung benefits that are financed by federal funds; and smaller federally funded programs that compensate individuals who become ill or die due to harmful exposure in the production and testing of nuclear weapons.

Longer Trends in Workers' Compensation Benefits and Costs

For the first time since 1992, workers' compensation benefits relative to covered wages rose slightly in 2001. This was the first time since 1993 that employer costs rose relative to covered wages (Figure 1). Benefits per \$100 of covered wages peaked in 1992 at \$1.68. The benefits of \$1.07 per \$100 of covered wages in 2001 are a decline of about 36 percent from that peak. Employer costs relative to covered wages in 2001 were about 36 percent lower than their peak in 1990, down from \$2.18 to \$1.39 per \$100 of covered wages.

The absolute dollar amount of benefits rose in 2001 for the fifth year in a row, while employer costs rose for the third consecutive year (Figure 2). The increases in benefits in 1997 through 2001 occurred after dollar benefits had fallen for four years (from 1993 through 1996). The increase in employer costs in 1999 through 2001 occurred after employer costs had declined for five straight years (from 1994 through 1998).

Possible Reasons for Changes in Total Benefits and Costs

The increases in benefits and costs relative to covered wages in 2001 are due, in part, to slow growth in covered wages because of the economic recession that began in March 2001. Before then, the economy had experienced a ten-year expansion (NBER 2001). With the lagging economy in 2001, the number of workers covered by workers' compensation declined slightly and covered wages grew by just 2.4 percent, the smallest wage growth in more than a decade.

In the second half of the 1980s, workers' compensation benefits grew at double-digit rates. Between 1983 and 1992, total benefits grew by 170 percent, and medical benefits grew even faster, increasing

from 36 to 42 percent of total benefits. Some believe that rising workers' compensation medical benefits and costs reflected cost-shifting away from employment-based health insurance to workers' compensation as the regular health insurance system introduced managed care and other forms of cost controls in the 1980s (Burton 1997). Business representatives in the workers' compensation field believe that other factors contributed to the rise in workers' compensation medical costs. They believe that workers had an incentive to seek additional medical care to establish a higher degree of permanent disability status because contested claims are sometimes settled as a multiple of the amount of medical costs incurred. On the other hand, workers' representatives point to studies that indicate that substantial numbers of injured workers never file for workers' compensation benefits (Shannon and Lowe 2002; Biddle et al. 1998).

Declines in workers' compensation benefits in the mid-1990s may be due to many causes. In response to rising workers' compensation costs in the late 1980s and early 1990s, employers and insurers expanded the use of disability management techniques with the aim of improving return to work and lowering workers compensation costs.

At the same time, workers' compensation systems followed the general health care system in introducing managed care and other cost controls to reduce

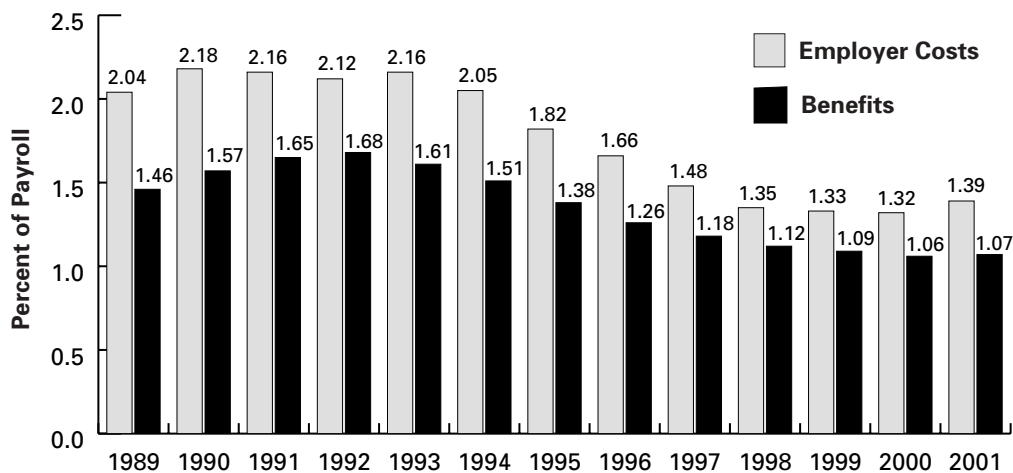
the growth in medical spending. Business representatives believe that the adoption of more objective methods of rating permanent disability and controls against "doctor shopping" reduced claimants' incentive to seek additional medical care in order to strengthen their permanent disability claims. On the other hand, worker representatives emphasize that a stricter adjudicative climate deterred legitimate claims and restrictions on workers' choice of their treating doctor made it more difficult to get their claims documented and approved.

It is plausible that retrenchment in either the general health care system or in workers' compensation health care will influence decisions of both patients and doctors about which system they will seek to pay for health care, particularly in cases of borderline work relatedness. The share of workers compensation spending for medical care declined from 42 percent of total benefits in 1992 to 39 percent in 1995. Since then, it gradually rose to about 45 percent in 2001.

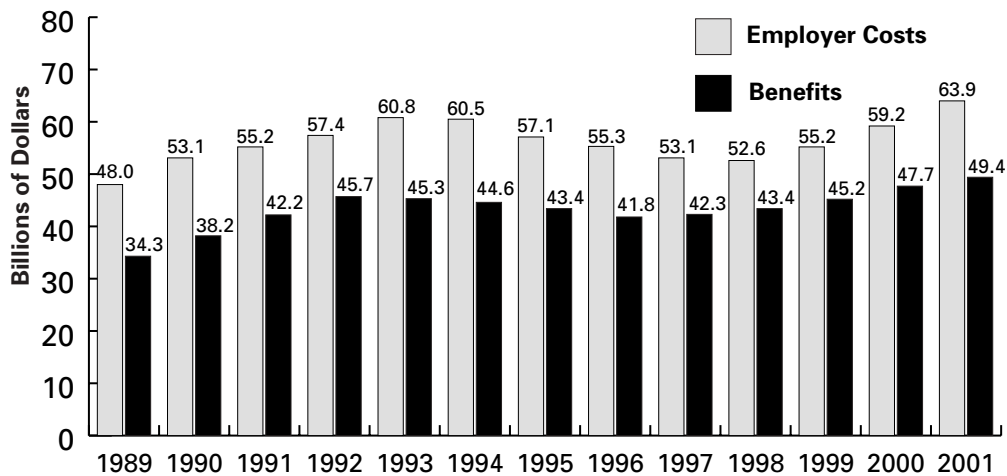
According to the U.S. Bureau of Labor Statistics, private sector employers have reported fewer workplace injuries or illnesses that result in lost workdays during the 1990s. The number of such injuries or illnesses per 100 full-time workers declined from 3.0 in 1992 to 1.7 in 2001 (U.S. DOL 2003a). In addition, the National Council on Compensation Insurance reports a steady decline in work-related

Figure 1

National Workers' Compensation Benefits and Costs Per \$100 of Covered Wages, 1989–2001



Source: National Academy of Social Insurance estimates.

Figure 2**Workers' Compensation Benefits and Costs, 1987–2001**

Source: National Academy of Social Insurance estimates.

injury rates and claims frequency in the 1990s (NCCI 2002d). These findings suggest that workplaces are becoming safer. At the same time, a number of studies indicate significant under-reporting of work-related injuries or illnesses (Azaroff et al. 2002; Shannon and Lowe 2002; and Biddle et al. 1998). We know of no comprehensive study that determines whether the extent of under-reporting has changed over time.

Changes in rules or practices about whether health conditions are compensable under workers' compensation could also contribute to changes in overall system benefits and costs and in the nature of injuries reported. There is evidence that between 7.0 and 9.4 percent of the decline in injury rates between 1991 and 1997 is an indirect result of tighter eligibility standards and claims-filing restrictions for workers' compensation (Boden and Ruser 2003). Fewer cases reported to the workers' compensation system could result in fewer injuries reported in the BLS survey.

In response to rapid growth in costs in the late 1980s, some jurisdictions introduced changes that affect eligibility or benefits, such as: (a) limiting compensability when a pre-existing condition is involved; (b) stricter evidentiary requirements; (c) limiting compensability for particular conditions, such as mental stress or cumulative trauma disorders; (d) stricter rules for permanent disability benefits; and (e) discouraging fraudulent claims (Burton and Spieler 2001). For older workers, in particular, it

may be difficult to discern the extent to which a condition is directly related to events on the job, or whether it is the cumulative impact of aging and life-long arduous work. Given this gray area, changes in rules or practices with regard to compensability could have a significant impact as a growing share of the workforce is over age 50. The 1999 Current Population Survey indicates that 22.3 percent of workers' aged 55–64 have a disability that affects their ability to work. This rate steadily decreases with age to 12.9 percent of those between the ages of 45–54 and 8.9 percent of those between the ages of 35–44. The nature of these disabilities in older workers, however, is disproportionately of a gradual nature as opposed to resulting from traumatic injury at work (Burton and Spieler 2001).

Interaction with other disability benefit programs could also affect overall system benefits and costs. In the 1980s, when workers' compensation grew rapidly as a share of covered wages, Social Security disability benefits actually declined as a share of covered wages, following retrenchments in that program in the early 1980s (Figure 3). On the other hand, in the 1990s, workers' compensation declined while Social Security disability benefits rose as a share of covered wages. While most workers' compensation recipients would not be eligible for Social Security because their disabilities are only temporary or partial, those with the most significant disabilities who might qualify for Social Security would be the more costly workers' compensation cases. To date, the interaction of

workers' compensation and Social Security disability insurance has received little analytic attention.

Overview of Workers' Compensation

Workers' compensation provides benefits to workers who are injured on the job or who contract a work-related illness. Benefits include medical treatment for work-related conditions and cash payments that partially replace lost wages. Temporary total disability benefits are paid while the worker recuperates away from work. If the condition has lasting consequences after the worker heals, permanent disability benefits may be paid. In case of a fatality, the worker's dependents receive survivor benefits.

Workers' compensation was the first form of social insurance in the United States. The first workers' compensation law in the United States was enacted in 1908 to cover certain federal civilian workers. By 1920, all but seven states had enacted workers' compensation laws. Today, each of the fifty states and the District of Columbia has its own program. A separate program covers federal civilian employees. Other

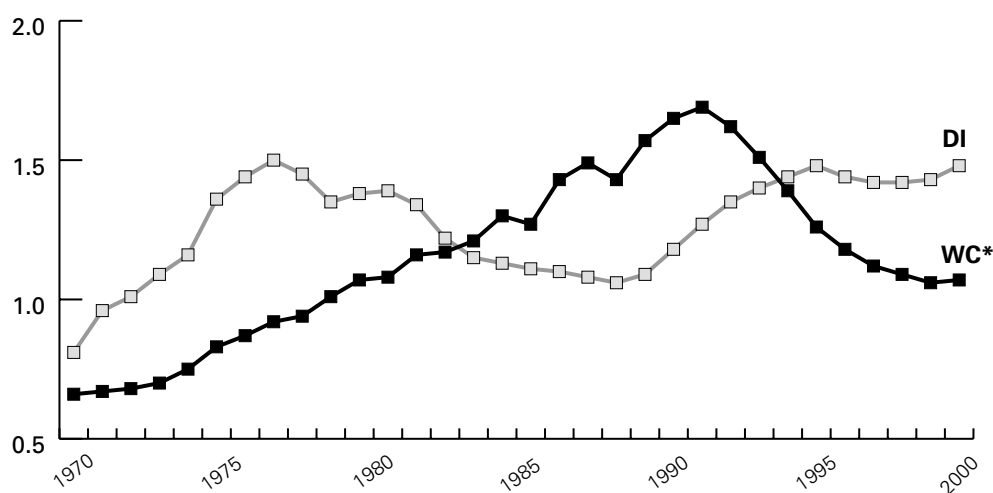
federal programs provide benefits to coal miners with black lung disease, longshore and harbor workers, energy employees, and veterans injured on active duty in the armed forces.

Before workers' compensation laws were enacted, an injured worker's only legal remedy for a work-related injury was to bring a tort suit against the employer and prove that the employer's negligence caused the injury. At the time, employers could use three common-law defenses to avoid compensating the worker: assumption of risk (showing that the injury resulted from an ordinary hazard of employment), the fellow-worker rule (showing that the injury was due to a fellow-worker's negligence), and contributory negligence (showing that, regardless of any fault of the employer, the worker's own negligence contributed to the accident).

Under the tort system, workers often did not recover damages and sometimes experienced delays or high costs when they did. While employers generally prevailed in court, they nonetheless were at risk for substantial and unpredictable losses if the workers' suits were successful. Litigation between employers and workers created friction between the two groups. Ultimately, both employers and employees favored

Figure 3

Types of Disabilities in Workers' Compensation Cases with Cash Benefits, 1997–1999



* Starting in 1989, a new method was used to estimate covered wages that accounts the decrease of benefits as a percent of covered wages in that year. For more information, see NASI 1997.

Source: National Academy of Social Insurance and the Office of the Chief Actuary, Social Security Administration.

legislation to insure that a worker who sustained an occupational injury or disease arising out of and in the course of employment would receive predictable compensation without delay, irrespective of who was at fault. As a *quid pro quo*, the employer's liability was limited. Under the exclusive remedy concept, the worker accepted workers' compensation as payment in full, without recourse to an additional tort suit. Employers are responsible for benefit payments as prescribed by workers' compensation laws, thereby ending their liability.

Workers' compensation programs are designed and administered by the states. They vary across states in terms of who is allowed to provide insurance, which injuries or illnesses are compensable, and the level of benefits. Generally, the state laws require employers to obtain insurance or prove they have the financial ability to carry their own risk (self-insure).

Workers' compensation programs are financed almost exclusively by employers. The premiums paid by employers are based on their industry classification and the occupational classifications of their workers. Most large employers are also experience-rated, which results in higher or lower premiums for employers whose past experience demonstrates that their workers are at greater or less risk of occupational injuries or disease than are workers for similar employers in the same industry.

Types of Workers' Compensation Benefits

Workers' compensation covers medical care immediately and pays cash benefits for lost work time after a three to seven day waiting period. Most workers' compensation cases do not involve lost work time greater than the waiting period for cash benefits. In these cases, only medical benefits are paid. "Medical-only" cases are quite common, but they represent a small share of benefit payments, according to data provided by the National Council on Compensation Insurance. Medical-only cases accounted for 78 percent of workers' compensation cases, but only 6 percent of all benefits incurred, according to information about insured employers in thirty-eight states for policy years spanning 1997–1999 (NCCI 2002a). On the other hand, cases that involved cash benefits accounted for 22 percent of cases and

94 percent of benefits (for cash and medical care combined).

Cash benefits differ according to the duration and severity of the worker's disability. *Temporary total disability* benefits are paid when the workers' lost time exceeds the three- to seven-day waiting period. Most states pay weekly benefits for temporary total disability that replace two-thirds of the worker's pre-injury wage, subject to a weekly maximum that varies from state to state. In many cases, workers fully recover, return to work, and benefits end. In some cases, they return to work before they reach maximum medical improvement and have reduced responsibilities and a lower salary. In those cases, they receive *temporary partial disability* benefits. Temporary disability benefits are the most common type of cash benefits. They account for 68 percent of cases involving cash benefits and 26 percent of benefits incurred (Figure 4).

If a worker has very significant disabilities after he or she reaches maximum medical improvement, *permanent total disability* benefits might be paid. These cases are relatively rare. Permanent total disabilities, together with fatalities, account for less than 1 percent of all cases that involve cash benefits, and 11 percent of total benefit spending.

Permanent partial disability benefits are more commonly paid to workers with consequences of their injuries or disease that continue after they reach maximum medical improvement. Methods for determining whether a worker is entitled to permanent partial benefits are complex and differ among states, as do methods for deciding the degree of partial disability and the amount of benefits to be paid (Barth and Niss 1999). In some jurisdictions, the extent of partial disability can range from less than 5 percent up to 99.75 percent of total disability. Cash benefits for permanent partial disability are frequently limited to a specified duration or an aggregate dollar limit. Permanent partial disabilities account for 31 percent of cases that involve any cash payments and for 63 percent of spending.

A recent in-depth study examined the likelihood that workers' compensation claimants would receive permanent partial disability benefits. It focused on individuals in six states who had experienced more than seven days of lost work time. Those who subsequently received permanent partial benefits ranged from about three in ten in one state, to more than half of

cases with at least one week of lost work time in two other states (Barth et al. 2002).

Covered Employment

In 2001, workers' compensation covered an estimated 127.0 million workers, a decline of 0.1 percent from the 127.1 million workers covered in 2000 (Table 2). Total wages of covered workers were \$4.6 trillion in 2001, an increase of 2.6 percent from 2000. The slight decline in covered workers and slow growth in covered wages reflect the economic recession that began in March 2001 (NBER 2001).

Wages generally rise faster than the number of jobs because many jobs have formal or informal arrangements for pay increases that keep pace with price inflation and productivity growth. For the nation as a whole between 2000 and 2001, prices, as measured by the consumer price index, rose by 2.7 percent and productivity (that is output per hour worked) rose by 0.8 percent (SSA 2003, table V.B.1).

Coverage Rules

Every state except Texas mandates coverage under workers' compensation for almost all private employ-

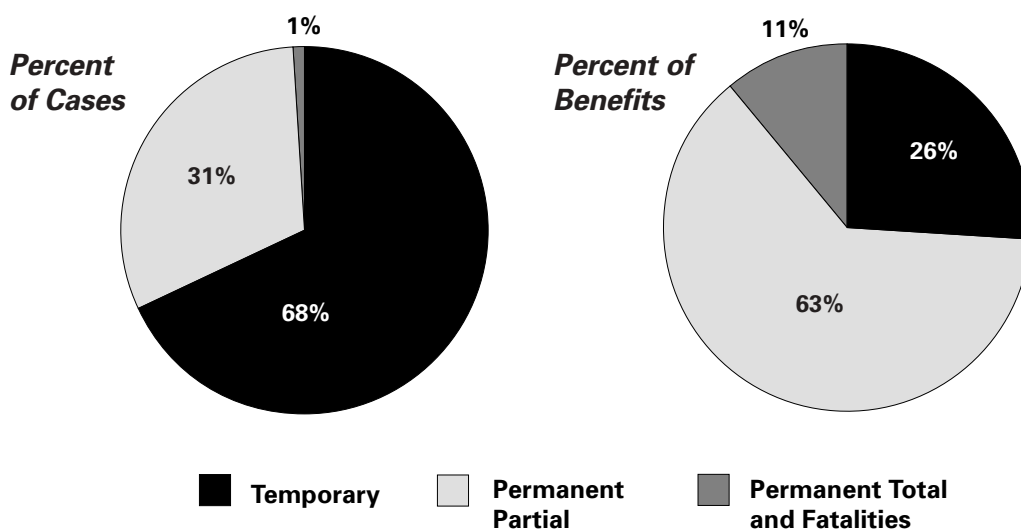
ees (U.S. DOL 2002h). In Texas, coverage is voluntary, but employers not offering coverage are not protected from tort suits. An employee not covered by workers' compensation insurance is allowed to file suit claiming the employer is liable for his or her work-related injury or illness.

States with mandatory coverage may exempt certain categories of workers, such as those in very small firms, certain agricultural workers, household workers, employees of charitable or religious organizations, or employees of some units of state and local government. Employers with fewer than three workers are exempt from workers' compensation coverage in Arkansas, Georgia, Michigan, New Mexico, North Carolina, Virginia, and Wisconsin. Employers with fewer than four workers are exempt in Florida, Rhode Island, and South Carolina. Those with fewer than five employees are exempt in Alabama, Mississippi, Missouri, and Tennessee.

The rules for agricultural workers vary among states. In sixteen states (in addition to Texas), farm employers are exempt from mandatory workers' compensation coverage altogether. In other states, coverage is compulsory for some or all farm employers.

Figure 4

Social Security Disability Insurance and Workers' Compensation Benefits as a Percent of Wages, 1970–2000



Medical only cases are excluded. The data include only privately insured employers in thirty-eight states. Benefits are incurred losses.

Source: NCCI 2002a Exhibits X and XII.

Table 2**Number of Workers Covered under Workers' Compensation Programs and Total Covered Wages, 1990–2001**

Year	Total Workers		Total Wages	
	(in thousands)	Percent Change	(in billions)	Percent Change
1989	103,900	-	\$ 2,347	-
1990	105,500	1.5	2,442	4.0
1991	103,700	-1.7	2,553	4.5
1992	104,588	0.9	2,711	6.2
1993	106,503	1.8	2,810	3.7
1994	109,582	2.9	2,955	5.2
1995	112,377	2.6	3,132	6.0
1996	114,773	2.1	3,328	6.2
1997	118,145	2.9	3,591	7.9
1998	121,485	2.8	3,885	8.2
1999	124,349	2.4	4,151	6.8
2000	127,141	2.2	4,495	8.3
2001	126,972	-0.1	4,604	2.4

Source: National Academy of Social Insurance estimates. See Appendix A.

Method for Estimating Coverage

Because no national system exists for counting workers covered by workers' compensation, the number of covered workers and their covered wages must be estimated. The Academy's methods for estimating coverage are described in Appendix A. In brief, we start with the number of workers and total wages in each state that are covered by unemployment insurance (UI). Almost all (97.6 percent) of U.S. wage and salary workers are covered by UI¹. We subtract from UI coverage, estimates of the workers and wages that are not required to be covered by workers' compensation because of exemptions for small firms and farm employers and because coverage for employers in Texas is voluntary.

Using these methods we estimate that in 2001, 97.9 percent of all UI-covered workers and wages were covered by workers' compensation. They account for 95.6 percent of all wage and salary workers in the

United States, not counting self-employed persons. About ten million U.S. workers were self-employed as their main job in 2000, and were not covered by either UI or workers' compensation (U.S. DOL 2002c).

Changes in State Coverage

Because workers' compensation coverage rules did not change between 2000 and 2001, differences in growth rates among states generally reflect changes in the states' overall employment and wages. With regard to covered employment, twenty-four jurisdictions experienced a decline or no change in the number of covered workers, while twenty-seven states experienced an increase in covered jobs in 2001 (Table 3). Alaska showed the largest increase in covered employment (3.0 percent), while the largest declines were in Michigan and Indiana (with declines of 2.1 percent) and in federal employment, which fell by 4.1 percent.

¹ An estimated 10% to 30% of employers have misclassified regular workers as independent contractors. These workers are not counted in unemployment insurance coverage estimates due to this misclassification. These workers are also not reflected in the Academy's workers' compensation coverage estimates which are based on UI coverage. For more information on the misclassification of independent contractors see De Silva et al. 2000.

Table 3**Number of Workers Covered by Workers' Compensation and Total Covered Wages, By State, 2001**

	Covered Workers (in thousands)					Percent Change		Covered Wages (in millions)					Percent Change	
	1997	1998	1999	2000	2001	2000-2001	2000-2001	1997	1998	1999	2000	2001	2000-2001	2000-2001
Alabama	1,687	1,720	1,738	1,747	1,726	-1.18	\$43,240	\$45,631	\$48,038	\$49,852	\$51,057	2.42	2.42	
Alaska	244	250	252	259	266	3.00	7,913	8,256	8,382	8,856	9,391	6.04	6.04	
Arizona	1,934	2,028	2,104	2,172	2,195	1.07	52,928	58,957	63,711	70,313	72,747	3.46	3.46	
Arkansas	1,022	1,038	1,056	1,074	1,071	-0.22	23,482	25,048	26,505	27,952	28,874	3.30	3.30	
California	13,273	13,711	14,122	14,591	14,728	0.94	442,333	482,120	528,468	599,367	606,472	1.19	1.19	
Colorado	1,898	1,977	2,051	2,132	2,148	0.78	56,376	63,161	69,591	78,692	80,930	2.84	2.84	
Connecticut	1,573	1,602	1,630	1,651	1,644	-0.44	61,195	65,507	69,550	75,132	77,254	2.82	2.82	
Delaware	372	383	395	400	400	-0.07	11,926	12,980	13,858	14,612	15,331	4.92	4.92	
District of Columbia	407	414	431	454	452	-0.36	17,402	18,650	20,622	22,539	23,788	5.54	5.54	
Florida	5,994	6,231	6,450	6,664	6,754	1.35	158,197	173,808	184,929	201,923	211,244	4.62	4.62	
Georgia	3,368	3,484	3,606	3,691	3,682	-0.25	96,779	106,548	115,703	125,329	128,313	2.38	2.38	
Hawaii	503	504	508	523	527	0.81	13,893	14,239	14,733	15,545	15,994	2.89	2.89	
Idaho	497	513	530	550	558	1.52	11,776	12,586	13,620	15,054	15,301	1.64	1.64	
Illinois	5,563	5,684	5,754	5,840	5,793	-0.82	182,787	196,468	208,109	221,437	225,549	1.86	1.86	
Indiana	2,748	2,804	2,857	2,882	2,822	-2.09	75,456	81,180	85,340	88,942	89,178	0.27	0.27	
Iowa	1,351	1,386	1,414	1,423	1,410	-0.87	33,242	35,841	37,919	39,490	40,418	2.35	2.35	
Kansas	1,210	1,250	1,265	1,279	1,286	0.55	30,708	33,188	35,149	37,198	38,411	3.26	3.26	
Kentucky	1,616	1,652	1,691	1,720	1,696	-1.43	40,948	43,729	46,638	49,178	50,503	2.70	2.70	
Louisiana	1,763	1,805	1,812	1,832	1,835	0.15	44,916	48,110	48,844	50,542	52,870	4.61	4.61	
Maine	531	545	560	577	579	0.47	13,011	13,883	14,856	15,715	16,445	4.65	4.65	
Maryland	2,106	2,158	2,220	2,277	2,295	0.81	64,619	69,410	74,498	80,676	85,056	5.43	5.43	
Massachusetts	2,996	3,072	3,136	3,218	3,222	0.14	106,521	115,732	126,249	142,548	144,680	1.50	1.50	
Michigan	4,139	4,246	4,345	4,428	4,325	-2.31	135,520	146,142	154,893	163,500	161,252	-1.37	-1.37	
Minnesota	2,395	2,459	2,518	2,572	2,576	0.16	72,012	78,552	83,995	90,818	93,929	3.43	3.43	

Mississippi	1,008	1,035	1,057	1,056	1,033	-2.13	22,577	24,269	25,396	26,207	26,364	0.60
Missouri	2,376	2,427	2,469	2,501	2,482	-0.78	65,278	69,556	73,380	77,872	79,804	2.48
Montana	342	352	359	366	371	1.34	7,302	7,767	8,147	8,637	9,102	5.39
Nebraska	865	901	954	995	1,021	2.61	19,598	20,900	22,277	23,596	24,226	2.67
Nevada	810	831	849	865	866	0.15	24,781	27,212	29,766	32,084	33,772	5.26
New Hampshire	550	568	583	598	602	0.63	16,003	17,473	18,663	20,695	21,267	2.76
New Jersey	3,545	3,627	3,720	3,809	3,809	0.00	132,496	142,862	152,386	166,150	168,391	1.35
New Mexico	628	655	664	660	673	1.98	15,055	16,378	17,023	17,725	18,801	6.07
New York	7,739	7,949	8,154	8,325	8,287	-0.46	298,391	323,095	343,628	374,687	387,229	3.35
North Carolina	3,488	3,580	3,657	3,710	3,660	-1.36	92,460	100,070	107,166	114,729	116,573	1.61
North Dakota	286	291	295	298	300	0.70	6,203	6,591	6,908	7,249	7,593	4.76
Ohio	5,198	5,291	5,367	5,426	5,352	-1.36	150,027	159,602	167,351	175,162	176,803	0.94
Oklahoma	1,310	1,361	1,377	1,404	1,417	0.95	31,057	33,482	34,825	37,061	38,877	4.90
Oregon	1,492	1,521	1,546	1,577	1,567	-0.62	41,999	44,522	47,365	51,322	51,598	0.54
Pennsylvania	5,161	5,252	5,349	5,444	5,444	-0.01	154,476	164,776	173,798	184,030	189,065	2.74
Rhode Island	411	418	427	437	439	0.36	11,620	12,447	13,152	14,096	14,563	3.31
South Carolina	1,611	1,661	1,701	1,729	1,698	-1.74	39,931	43,100	45,806	48,345	49,306	1.99
South Dakota	329	335	345	353	354	0.24	6,967	7,490	8,052	8,592	8,881	3.37
Tennessee	2,386	2,425	2,475	2,516	2,479	-1.45	64,031	68,299	72,255	76,065	77,275	1.59
Texas	6,703	7,044	7,278	7,573	7,705	1.74	197,495	220,446	238,031	263,100	276,163	4.97
Utah	932	962	986	1,011	1,017	0.53	23,607	25,461	27,143	29,109	30,124	3.49
Vermont	269	275	282	290	292	0.64	6,786	7,245	7,726	8,325	8,758	5.21
Virginia	2,941	3,088	3,177	3,202	3,216	0.41	84,341	94,485	102,718	110,232	115,570	4.84
Washington	2,443	2,525	2,576	2,637	2,622	-0.55	74,353	82,863	91,575	97,245	97,512	0.27
West Virginia	648	657	659	664	664	-0.03	15,712	16,305	16,815	17,491	18,187	3.98
Wisconsin	2,493	2,546	2,603	2,646	2,630	-0.58	67,847	72,333	76,769	80,913	82,627	2.12
Wyoming	208	211	216	222	228	2.77	4,875	5,133	5,448	5,859	6,295	7.44
Total non-federal	115,364	118,704	121,566	124,269	124,219	-0.04	3,472,447	3,763,889	4,027,770	4,361,787	4,469,716	2.47
Federal employees	2,781	2,781	2,783	2,871	2,753	-4.14	118,959	121,490	123,286	132,731	134,712	1.49
Total	118,145	121,485	124,349	127,141	126,972	-0.13	3,591,406	3,885,379	4,151,055	4,494,518	4,604,428	2.45

Source: National Academy of Social Insurance estimates (see Appendix A).

With regard to wages covered under workers' compensation, eight jurisdictions registered increases in covered wages of 5 percent or more—Alaska, the District of Columbia, Maryland, Montana, Nevada, New Mexico, Vermont, and Wyoming. On the other hand, six states saw covered wages rise less than one percent—Indiana, Michigan, Mississippi, Ohio, Oregon, and Washington.

Benefit Payments

Workers' compensation cash and medical benefits paid to workers were \$49.4 billion in 2001, an increase of 3.5 percent from \$47.7 billion in 2000 (Table 4). Total benefits increased for the fifth year in a row, after a four-year decline that ended in

1996. These are the benefits paid to all workers in a given year, regardless of the year their injuries occurred or their illnesses began. This measure is known as *calendar year paid benefits*. Thus, in 2001, \$49.4 billion in benefits were paid to all active workers' compensation cases, whether the workers receiving benefits were injured in 2001 or in a previous year.

Method for Estimating Benefits

Our estimates of workers' compensation benefits paid are based on two main sources: responses to the Academy's questionnaire from state agencies and data purchased from A.M. Best, a private company that specializes in collecting insurance data and rating insurance companies.

Table 4

Workers' Compensation Benefits, by Type of Insurer, 1987–2001 (in millions)

Year ^a	Total	Percent Change in Total	Private Carriers	State Funds	Self- Insured	Federal ^b
1987	\$ 27,317	11.0	\$ 15,453	\$ 4,084	\$ 5,082	\$ 2,698
1988	30,703	12.4	17,512	4,687	5,744	2,760
1989	34,316	11.8	19,918	5,205	6,433	2,760
1990	38,238	11.4	22,222	5,873	7,249	2,893
1991	42,169	10.3	24,515	6,713	7,944	2,998
1992	45,668	8.3	25,280	7,506	9,724	3,158
1993	45,330	-.7	24,129	7,400	10,623	3,178
1994	44,586	-1.6	22,306	7,587	11,527	3,166
1995	43,373	-2.7	21,145	7,893	11,232	3,103
1996	41,837	-3.5	20,392	7,603	10,775	3,066
1997	42,313	1.1	21,645	7,266	10,623	2,780
1998	43,355	2.5	23,069	7,241	10,177	2,868
1999	45,197	4.2	24,635	7,264	10,436	2,862
2000	47,684	5.5	26,618	7,445	10,664	2,957
2001	49,354	3.5	27,060	7,935	11,290	3,069

a Estimated benefits paid under deductible provisions are included beginning in 1992.

b In all years, federal benefits includes those paid under the Federal Employees' Compensation Act for civilian employees and the portion of the Black Lung benefit program that is financed by employers and are paid through the federal Black Lung Disability Trust fund. In years before 1997, federal benefits also include the other part of the Black Lung program that is financed solely by federal funds. In 1997–2001, federal benefits also include a portion of employer-financed benefits under the Longshore and Harbor Workers Compensation Act that are not reflected in state data—namely, benefits paid by self-insured employers and by special funds under the LHWCA. See Appendix H for more information about federal programs.

Source: National Academy of Social Insurance estimates.

The A.M. Best data show benefits paid in each state for 1997 through 2001. They include information for all private carriers in every state and for nineteen of the twenty-six state funds, but do not include any information about self-insured employers or about benefits paid under deductible arrangements. Under deductible policies written by private carriers or state funds, the insurer pays all of the workers' compensation benefits, but employers are responsible for reimbursing the insurer for those benefits up to a specified deductible amount. Deductibles may be written into an insurance policy either on a per-injury basis or an aggregate basis, or a combination of a per-injury basis with an aggregate cap. States vary in the maximum deductibles they allow. In return for accepting a policy with a deductible, the employer pays a lower premium.

The Academy's 2001 questionnaire for state agencies was revised and improved in several ways with the advice of its expert Study Panel. First, the questionnaire asked states to report five years of data from 1997 through 2001. The historical reports were used to improve and update the Academy's estimates for prior years. Updated estimates for 1997–2000 are used in the body of this report. The detailed tables for 1997–2000 in Appendix D should be used in place of previously published data. Second, the questionnaire asked for more information about benefits paid under deductible arrangements—in particular, whether these arrangements are allowed in the state and, if they are, whether or not benefits paid under deductible policies are included in the benefit data that the state reports, and the amount of benefits paid under deductible arrangements. Third, the 2001 questionnaire asked for more detail about special funds—such as second injury funds—to help ensure that all workers' compensation benefits are counted.

In response to the 2001 survey, the Academy received replies from forty-five states, up from thirty-eight last year. Appendix C summarizes the kinds of data each state was able to report. States had the most difficulty reporting amounts of benefits paid under deductible arrangements. The Academy's methods for estimating these benefits are described in Appendix G. Appendix E describes methods for estimating benefits paid by self-insured employers, when states were unable to provide this information,

which is not available from any other source. A detailed, state-by-state explanation of how the estimates in this report are produced is in *Workers' Compensation: Sources and Methods* on the Academy's website at www.nasi.org.

Sources of Insurance Coverage

Private insurance carriers remain the largest source of workers' compensation benefits. In 2001, they accounted for 54.8 percent of benefits paid, a slight decline from 55.8 percent of total benefits in 2000 (Table 5). Private carriers are allowed to sell workers' compensation insurance in all but five states that have exclusive state funds—Ohio, North Dakota, Washington, West Virginia, and Wyoming.

Self-insured employers are the second largest provider of workers compensation benefits in 2001. The share of benefits provided by self-insurers was 22.9 percent, a slight increase from 22.4 percent in 2000. Employers are allowed to self-insure for workers' compensation in all states except North Dakota and Wyoming, which require all employers to obtain insurance from the state fund.² In other states, employers can self-insure their risk for workers' compensation benefits if they prove they have the financial capacity to do so. Many large employers choose to self-insure. Some states permit groups of employers in the same industry to self-insure through what is called group self-insurance. Benefits provided under group self-insurance are included with the self-insured benefits in this report.

The share of benefits provided by state funds rose to 16.1 percent in 2001, from 15.6 percent in 2000. A total of twenty-six states provide workers' compensation benefits through state funds. They include the five exclusive state fund states, and twenty-one others. In general, state funds are established by an act of the state legislature, have at least part of their board appointed by the governor, are usually exempt from federal taxes, and often serve as the insurer of last resort—that is, they do not deny insurance coverage to employers who have difficulty purchasing it privately. Not all state funds meet all these criteria, however. In some cases, it is not altogether clear whether an entity is a state fund or a private insurer, or whether it is a state fund or a state entity that is self-insuring workers' compensation benefits for its

² Self-insurance is allowed in three of the exclusive state fund states (Ohio, Washington, and West Virginia).

own employees. Consequently, the Academy's expert panel decided to classify as state funds all twenty-six entities that are members of the American Association of State Compensation Insurance Funds (AASCIF) (AASCIF 1999). This includes the South Carolina fund, which is the required insurer for state employees and is available to cities and counties to insure their employees, but does not insure private employers.

Trends in Deductibles and Self-Insurance

Prior to the 1990s, deductible policies were not common, but their popularity grew in the mid-1990s. In 1992, benefits under deductible policies totaled \$1.3 billion, or about 2.7 percent of total benefits (Table 6). By 2000, they had risen to \$6.1 billion, or 12.7 percent of total benefits. In 2001 deductibles totaled about \$5.9 billion, which was 11.9 percent of total benefits paid.

In Tables 4 and 5, benefits reimbursed by employers under deductible policies are included with private carrier or state fund benefits, depending on the type of insurer they use. Table 6 shows separately the dollar amount of benefits that employers paid under deductible provisions with each type of insurance.

Employers who have policies with deductibles are, in effect, self-insuring up to the amount of the deductible. That is, they are bearing that portion of the financial risk. Adding deductibles to self-insured benefit payments shows the share of the total market where employers are assuming financial risk. This share of total benefit payments rose from 19.7 percent in 1990 to 35.9 percent in 1996, and has remained between 33 and 36 percent of total benefits since 1996. In 2001, employers assumed the financial risk for 34.8 percent of benefit payments (Table 5).

The growth in self-insurance and in deductible policies in the early 1990s, as well as the down-turn in

Table 5

Total Amount and Percentage Distribution of Workers' Compensation Benefit Payments by Type of Insurer, 1990–2001

Year	Total Benefits (in millions)	Percentage Distribution							
		Total	Private Carriers All Deductibles ^a		State Funds All Deductibles ^a		Federal ^b	Self-Insured	Self-Insured plus Deductibles
1990	\$ 38,238	100.0	58.1	n/a	15.4	n/a	7.6	19.0	19.0
1991	42,169	100.0	58.1	n/a	15.9	n/a	7.1	18.8	18.8
1992	45,668	100.0	55.4	2.7	16.4	*	6.9	21.3	24.0
1993	45,330	100.0	53.2	4.4	16.3	*	7.0	23.4	27.9
1994	44,586	100.0	50.0	5.9	17.0	0.4	7.1	25.9	32.2
1995	43,373	100.0	48.8	7.1	18.2	0.7	7.2	25.9	33.7
1996	41,837	100.0	48.7	8.3	18.2	0.9	7.3	25.8	35.0
1997	42,313	100.0	51.2	8.6	17.2	0.7	6.6	25.1	34.4
1998	43,355	100.0	53.2	9.0	16.7	0.6	6.6	23.5	33.0
1999	45,197	100.0	54.5	10.6	16.1	0.6	6.3	23.1	34.2
2000	47,684	100.0	55.8	12.1	15.6	0.6	6.2	22.4	35.1
2001	49,354	100.0	54.8	11.2	16.1	0.8	6.2	22.9	34.8

* Negligible
n/a Not available

a The percentage of total benefits paid by employers under deductible provisions with this type of insurance.
b Reflects federal benefits included in Table 4.

Source: National Academy of Social Insurance estimates based on Tables 4 and 6.

Table 6**Estimated Employer-Paid Benefits under Deductible Provisions for Workers' Compensation, (in millions), 1992–2001**

Year	Total	Private Carriers	State Funds
1992	\$ 1,250	\$ 1,250	*
1993	2,027	2,008	\$ 19
1994	2,834	2,645	189
1995	3,384	3,060	324
1996	3,859	3,492	367
1997	3,928	3,650	278
1998	4,147	3,906	241
1999	5,038	4,769	269
2000	6,059	5,769	290
2001	5,887	5,513	373

* Negligible

Note: Data on deductible benefits were available from nineteen states. Six states do not allow policies with deductibles. For the other twenty-five states and the District of Columbia, deductible benefits were estimated to be the same percentage of benefits as found in the nineteen states in which independent estimates of the size of benefits paid under deductible provisions were available.

Source: National Academy of Social Insurance estimates. See Appendix G for methods.

self-insurance later in the 1990s, probably reflects dynamics of the insurance market that altered the relative cost to employers of purchasing private insurance *vis-à-vis* self insuring.

In the late 1980s and early 1990s, when workers' compensation benefits and costs rose rapidly, many states had administrative pricing systems that set the premium levels that insurance companies could charge, and often states limited the rate of increase in premiums. As a result, premiums did not rise as fast as costs. Growing numbers of employers were not able to buy insurance because insurers did not want to sell insurance at premiums that were less than their expected costs.

Because states require that employers have insurance, they provide ways for high-cost employers to buy it. In some states, the state fund insures all applicants. Some states use a residual market for high-risk employers and then require that insurers underwrite a share of the *residual market* as a condition for doing business in the state. During the late 1980s and early 1990s, some states set premiums in the

residual market that did not recognize the higher cost associated with residual market employers. To cover the gap between premiums charged to employers in the residual market and their actual losses, residual market pools assessed fees on insurance companies based on the insurer's share of aggregate premiums written in the voluntary market in the state. (Similar fees generally were not assessed on self-insured employers in the state. And assessments could be reduced by lowering premiums through the use of high deductibles.) As costs rose during the late 1980s, more employers ended up in the residual market, residual market losses grew, and rising fees assessed on insurers drove up the price of premiums charged to employers who were not in the residual market.

The combination of rising costs and the structure of administered prices in the private insurance market encouraged employers to set up self-insured plans, which did not share in assessments to cover the cost of the residual market. Similarly, insurers and employers turned to hybrid plans that combine large deductibles with private insurance as a way to lower

their aggregate premiums, and consequently, their share of assessments for the operating losses in the residual market.

The mid-1990s brought both a decline in workers' compensation benefits and costs, and an easing of pressure on insurance rates. Also, regulatory actions and reforms in rate setting for residual market policies allowed for more flexibility in pricing and thus reduced the size of the residual market. These amounted to approval of higher prices for the residual market than those that had previously been established based on statewide experience. In addition to allowing rate differentials, other reforms were instituted to make residual market rating systems more sensitive to market forces.

Declining workers' compensation benefits and costs in the mid-1990s combined with a vibrant economy and high financial market returns enabled insurance companies to earn more from invested premiums. This led to very high profits by historical standards in the workers' compensation insurance industry and to fierce underwriting competition (Yates and Burton 2002). Insurance companies began offering multi-year guaranteed cost programs that locked in low premium rates for employers, thus greatly reducing the employers' cost and risk. The favorable offers made the purchase of insurance attractive to employers who otherwise would self-insure. Tax advantages inherent in the purchase of insurance also made it attractive—that is, employers can take an immediate tax deduction for premiums they pay for insurance, while when they self-insure, tax deductions accrue only later as they pay claims. These factors led to a shift away from self-insurance in favor of purchase of insurance later in the 1990s.

During the latter part of the 1990s, combined operating ratios, which measure insurer losses relative to premiums taken, rose significantly and profits for companies writing workers' compensation insurance fell (NCCI 2002a). This may suggest a hardening of the insurance market and a move back towards self-insurance.

Total Medical Payments

The share of total workers' compensation benefits that were for medical care rose from 43.9 percent in 2000 to 44.9 percent in 2001 (Table 7). The remaining benefits—55.1 percent of the total in

2001—were cash payments to disabled workers or to the families of deceased workers.

The share of benefits for medical care increased steadily during the 1980s and into the early 1990s. Some analysts believe that part of the rise in medical benefits was due to cost shifting between regular health insurance and workers' compensation. An incentive to shift costs existed because medical care not associated with workers' compensation was introducing costs controls and managed care during this period. Employees might have preferred workers' compensation medical care because it did not impose deductibles and, in some cases, allowed more choice about treating physicians. Health care providers also had an incentive to bill cases in the workers' compensation system because they would not have to operate within the restrictions of managed care plans.

In the 1990s, partially as a response to escalating costs, workers' compensation programs began adopting managed health care. This change is often credited for decreasing spending for medical benefits in the mid-1990s. The rising share of benefits for medical care in 2000 and 2001 may be partly due to adjustments made by providers to counterbalance the cost saving measures introduced by managed care. A number of studies suggest that cost savings from introducing managed care are a one-time change and do not lead to a permanent reduction in the rate of cost growth (Chernew et al. 1998).

Medical Payments in States

The share of benefits for medical care varies among states. In 2001 the share of benefit spending for medical care ranged from lows of under 40 percent—in the District of Columbia, Massachusetts, Michigan, Nevada, New York, Pennsylvania, Rhode Island, South Carolina, Washington, and West Virginia—to highs of over 60 percent in Arizona, Arkansas, Indiana, Utah, and Wyoming (Table 8). Many factors in a state can influence the relative share of benefits for medical care as opposed to cash wage-replacement or survivor benefits. Among them are:

- Different levels of earnings replacement provided by cash benefits, which mean that, all else being equal, states with more generous cash benefits have a lower share of benefits used for medical care;

Table 7**Workers' Compensation Programs Benefits Paid, 1960–2001^a**

Year	Total	Percent Change	Cash	Medical	Percent Medical
1960	1,295		860	435	33.6
1961	1,374	6.1	914	460	33.5
1962	1,489	8.4	994	495	33.2
1963	1,582	6.2	1,057	525	33.2
1964	1,707	7.9	1,142	565	33.1
1965	1,814	6.3	1,214	600	33.1
1966	2,000	10.3	1,320	680	34.0
1967	2,189	9.5	1,439	750	34.3
1968	2,376	8.5	1,546	830	34.9
1969	2,634	10.9	1,714	920	34.9
1970	2,921	10.9	1,871	1,050	35.9
1971	3,184	9.0	2,054	1,130	35.5
1972	3,507	10.1	2,257	1,250	35.6
1973	4,058	15.7	2,578	1,480	36.5
1974	4,826	18.9	3,066	1,760	36.5
1975	5,641	16.9	3,611	2,030	36.0
1976	6,603	17.1	4,223	2,380	36.0
1977	7,663	16.1	4,983	2,680	35.0
1978	8,773	14.5	5,793	2,980	34.0
1979	10,315	17.6	6,795	3,520	34.1
1980	11,879	15.2	7,932	3,947	33.2
1981	13,319	12.1	8,888	4,431	33.3
1982	14,740	10.7	9,682	5,058	34.3
1983	15,884	7.8	10,203	5,681	35.8
1984	18,044	13.6	11,620	6,424	35.6
1985	20,614	14.2	13,116	7,498	36.4
1986	23,031	11.7	14,389	8,642	37.5
1987	25,773	11.9	15,861	9,912	38.5
1988	29,234	13.4	17,715	11,519	39.4
1989	32,837	12.3	19,538	13,299	40.5
1990	36,804	12.1	21,737	15,067	40.9
1991	40,778	10.8	24,063	16,715	41.0
1992	43,264	6.1	25,134	18,130	41.9
1993	41,569	-3.9	24,160	17,409	41.9
1994	43,391	4.4	26,307	17,084	39.4
1995	42,289	-2.5	25,658	16,631	39.3
1996	40,682	-3.8	24,222	16,460	40.5
1997	41,434	1.8	24,256	17,178	41.5
1998	42,497	2.6	24,544	17,953	42.2
1999	44,335	4.3	25,294	19,041	42.9
2000	46,846	5.7	26,295	20,551	43.9
2001	48,508	3.5	26,710	21,799	44.9

a Data include benefits paid to federal employees under the Federal Employees' Compensation Act. All other federal workers' compensation benefits are excluded.

Source: National Academy of Social Insurance estimates and Nelson 1992.

Table 8**Workers' Compensation Benefits by Type of Insurer and Medical Benefits, by State, 2001
(in thousands)**

State	Total	Private Carriers ^a	State Funds	Self-Insured ^b	Medical	Percent Medical
Alabama	\$ 562,773	\$ 304,347	\$0	\$258,425	\$329,138	58.5
Alaska	171,248	133,209	-	38,038	95,602	55.8
Arizona	392,861	171,438	141,660	79,762	241,217	61.4 ^c
Arkansas	201,136	138,650	-	62,485	123,095	61.2 ^c
California	9,604,446	5,309,044	1,471,260	2,824,142	4,467,765	46.5
Colorado	581,266	303,608	116,312	161,346	260,999	44.9
Connecticut	661,471	473,669	-	187,803	276,495	41.8 ^c
Delaware	144,588	97,935	-	46,654	67,470	46.7 ^d
District of Columbia	92,463	75,842	-	16,622	33,076	35.8
Florida	2,639,132	1,887,602	-	751,530	1,496,388	56.7 ^c
Georgia	1,067,327	753,118	-	314,209	515,519	48.3 ^c
Hawaii	252,041	164,739	12,688	74,614	103,304	41.0
Idaho	197,151	90,255	96,256	10,640	110,799	56.2 ^c
Illinois	2,115,569	1,617,229	-	498,340	949,890	44.9 ^c
Indiana	528,005	446,371	-	81,634	343,830	65.1 ^c
Iowa	395,981	324,016	-	71,965	182,943	46.2 ^c
Kansas	340,343	240,567	-	99,776	194,336	57.1 ^c
Kentucky	524,566	338,591	34,799	151,176	288,952	55.1
Louisiana	501,662	248,848	108,171	144,643	265,379	52.9 ^c
Maine	263,852	108,726	68,126	87,000	115,433	43.7
Maryland	787,442	391,391	211,926	184,125	311,194	39.5
Massachusetts	763,795	650,701	-	113,095	269,793	35.3
Michigan	1,477,986	809,463	-	668,523	482,602	32.7
Minnesota	908,100	613,300	91,600	203,200	432,300	47.6
Mississippi	271,163	169,687	-	101,477	148,208	54.7
Missouri	1,108,464	859,909	72,305	176,251	452,771	40.8
Montana	172,725	71,065	70,858	30,802	90,882	52.6
Nebraska	237,045	173,097	-	63,948	120,251	50.7
Nevada	380,756	235,531	-	145,226	148,169	38.9
New Hampshire	214,755	167,420	-	47,335	121,981	56.8 ^c
New Jersey	1,198,095	1,082,604	-	115,492	577,487	48.2 ^d

New Mexico	162,022	96,854	16,660	48,508	91,688	56.6
New York	2,978,224	1,440,904	797,109	740,211	913,244	30.7
North Carolina	867,965	678,689	-	189,276	388,848	44.8 ^c
North Dakota	79,633	404	79,229	-	44,125	55.4
Ohio	2,249,200	34,210	1,762,619	452,371	999,803	44.5
Oklahoma	497,008	286,686	118,987	91,334	237,073	47.7 ^c
Oregon	455,625	223,980	191,825	39,820	216,747	47.6
Pennsylvania	2,440,407	1,724,421	146,715	569,271	953,435	39.1
Rhode Island	114,599	47,644	50,457	16,498	26,737	23.3
South Carolina	532,374	367,262	39,444	125,668	140,893	26.5
South Dakota	74,950	69,399	-	5,551	41,635	55.6
Tennessee	682,927	525,158	-	157,769	353,073	51.7 ^c
Texas	2,043,451	1,611,537	245,144	186,770	1,232,201	60.3 ^c
Utah	209,192	78,161	92,935	38,095	139,322	66.6 ^c
Vermont	105,017	87,606	-	17,412	47,363	45.1 ^c
Virginia	664,632	517,285	-	147,347	374,852	56.4 ^c
Washington	1,637,714	27,538	1,187,235	422,941	563,451	34.4
West Virginia ^f	712,495	-	615,581	96,916	192,387	27.0
Wisconsin	921,857	787,518	-	134,339	535,599	58.1 ^c
Wyoming	97,706	3,017	94,689	-	65,967	67.5
Non-federal total	46,285,207	27,060,245	7,934,591	11,290,374	21,175,714	45.8
Federal ^e	3,069,289				780,176	25.4
Federal employees	2,223,088				623,057	28.0
Total	49,354,496				21,955,890	44.5

a States with exclusive funds (Ohio, North Dakota, Washington, West Virginia, and Wyoming) have small amounts of benefits paid in the private carrier category. This results from two sources: companies with group policies that overlap states and the fact that some companies include excess workers' compensation coverage in their reports of workers' compensation benefits to A.M. Best.

b Self-insurance includes individual self-insurers and group self-insurance.

c Medical percentages based on data provided by NCCI, see Appendix F.

d Medical percentage based on the weighted average of states where medical data were available.

e Federal benefits include: those paid under the Federal Employees' Compensation Act for civilian employees; the portion of the Black Lung benefit program that is financed by employers; and a portion of benefits under the Longshore and Harbor Workers' Compensation Act that are not reflected in state data, namely, benefits paid by self-insured employers and by special funds under the LHWCA. See Appendix H for more information about federal programs.

f Preliminary estimates under review by the state.

Source: National Academy of Social Insurance estimates based on data received from state agencies, the U.S. Department of Labor, A.M. Best, and the National Council on Compensation Insurance.

Table 9**Workers' Compensation Benefits by State, 1997–2001 (in thousands)**

State	1997	1998	1999	2000	2001	1997– 1998	1998– 1999	1999– 2000	2000– 2001	1997– 2001
	Alabama	\$ 530,230	\$ 602,088	\$ 551,398	\$ 529,189	\$ 562,773	13.6	-8.4	-4.0	6.3
Alaska	128,043	127,368	130,334	145,917	171,248	-0.5 ¹	2.3 ¹	12.0	17.4	33.7
Arizona	449,791	432,965	465,554	515,241	392,861	-3.7	7.5	10.7 ²	-23.8 ²	-12.7
Arkansas	170,465	170,891	173,054	194,470	201,136	0.2	1.3	12.4	3.4	18.0
California	7,073,544	7,365,820	7,851,641	8,967,630	9,604,446	4.1	6.6	14.2	7.1	35.8
Colorado	820,169	810,985	738,527	835,054	581,266	-1.1	-8.9	13.1	-30.4	-29.1
Connecticut	731,830	714,822	736,857	667,056	661,471	-2.3	3.1	-9.5	-0.8	-9.6
Delaware	143,424	147,070	133,023	146,090	144,588	2.5	-9.6	9.8	-1.0	0.8
District of Columbia	88,449	90,386	90,232	88,661	92,463	2.2	-0.2	-1.7	4.3	4.5
Florida	2,442,989	2,538,353	2,768,045	2,544,777	2,639,132	3.9	9.0	-8.1	3.7	8.0
Georgia	861,394	889,131	895,690	995,775	1,067,327	3.2	0.7	11.2	7.2	23.9
Hawaii	254,915	233,225	222,056	231,359	252,041	-8.5	-4.8	4.2	8.9	-1.1
Idaho	153,209	164,327	168,642	179,370	197,151	7.3	2.6	6.4	9.9	28.7
Illinois	1,764,455	1,838,191	1,952,698	2,049,223	2,115,569	4.2	6.2	4.9	3.2	19.9
Indiana	445,840	481,073	510,992	545,863	528,005	7.9 ³	6.2 ³	6.8	-3.3	18.4 ³
Iowa	286,029	303,873	309,458	352,188	395,981	6.2 ⁴	1.8 ⁴	13.8	12.4	38.4
Kansas	313,511	318,976	326,196	341,547	340,343	1.7	2.3	4.7	-0.4	8.6
Kentucky	451,246	421,386	477,867	479,338	524,566	-6.6	13.4	0.3	9.4	16.2
Louisiana	439,594	442,025	464,883	493,653	501,662	0.6	5.2	6.2	1.6	14.1
Maine	282,152	253,946	265,862	266,997	263,852	-10.0	4.7	0.4	-1.2	-6.5
Maryland	717,093	691,285	714,356	729,656	787,442	-3.6	3.3	2.1	7.9	9.8
Massachusetts	746,851	728,771	733,191	828,159	763,795	-2.4	0.6	13.0	-7.8	2.3
Michigan	1,332,222	1,366,988	1,392,806	1,474,058	1,477,986	2.6	1.9	5.8	0.3	10.9
Minnesota	738,600	737,100	744,500	797,800	908,100	-0.2	1.0	7.2	13.8	22.9
Mississippi	231,413	234,873	253,664	269,342	271,163	1.5	8.0	6.2	0.7	17.2
Missouri	979,857	979,596	1,021,046	1,084,687	1,108,464	0.0	4.2	6.2	2.2	13.1
Montana	142,957	136,975	145,996	169,763	172,725	-4.2	6.6	16.3	1.7	20.8
Nebraska	216,949	164,382	198,276	211,285	237,045	-24.2 ⁵	20.6 ⁵	6.6 ⁵	12.2	9.3 ⁵
Nevada	324,204	331,419	384,283	360,915	380,756	2.2	16.0	-6.1	5.5	17.4
New Hampshire	173,562	169,663	190,073	181,900	214,755	-2.2 ⁶	12.0 ⁶	-4.3	18.1	23.7 ⁶
New Jersey	1,079,724	1,096,758	1,152,102	1,198,172	1,198,095	1.6	5.0	4.0	0.0	11.0
New Mexico	135,684	128,290	135,903	146,374	162,022	-5.4	5.9	7.7 ⁷	10.7 ⁷	19.4
New York	2,619,771	2,600,961	2,795,769	2,909,115	2,978,224	-0.7	7.5	4.1	2.4	13.7
North Carolina	687,291	810,188	813,823	853,318	867,965	17.9	0.4	4.9	1.7	26.3

North Dakota	68,312	68,929	69,912	74,406	79,633	0.9	1.4	6.4	7.0	16.6
Ohio	2,035,906	2,076,545	2,038,742	2,098,528	2,249,200	2.0	-1.8	2.9	7.2	10.5
Oklahoma	578,371	536,420	496,500	484,911	497,008	-7.3	-7.4	-2.3	2.5	-14.1
Oregon	417,222	430,521	384,110	412,471	455,625	3.2	-10.8	7.4	10.5	9.2
Pennsylvania	2,492,347	2,418,072	2,467,114	2,402,614	2,440,407	-3.0	2.0	-2.6	1.6	-2.1
Rhode Island	113,382	109,471	110,952	109,433	114,599	-3.5	1.4	-1.4	4.7	1.1
South Carolina	459,377	467,277	511,735	596,526	532,374	1.7	9.5	16.6	-10.8	15.9
South Dakota	69,649	67,088	72,509	66,991	74,950	-3.7	8.1	-7.6	11.9	7.6
Tennessee	473,498	550,819	586,363	642,201	682,927	16.3	6.5	9.5	6.3	44.2
Texas	1,476,585	1,591,818	1,874,975	2,004,504	2,043,451	7.8	17.8	6.9	1.9	38.4
Utah	170,321	188,543	195,774	187,729	209,192	10.7	3.8	-4.1 ⁸	11.4 ⁸	22.8
Vermont	86,097	91,436	106,389	112,349	105,017	6.2 ⁹	16.4	5.6	-6.5	22.0 ⁹
Virginia	562,402	658,466	629,348	680,911	664,632	17.1 ¹⁰	-4.4	8.2	-2.4	18.2
Washington	1,217,522	1,286,680	1,395,246	1,527,657	1,637,714	5.7	8.4	9.5	7.2	34.5
West Virginia ^c	614,061	644,294	687,002	690,377	712,495	4.9	6.6	0.5	3.2	16.0
Wisconsin	670,070	703,610	724,360	768,282	921,857	5.0	2.9	6.1	20.0	37.6
Wyoming	70,382	73,080	75,196	82,875	97,706	3.8	2.9	10.2	17.9	38.8
Non-federal total	39,532,961	40,487,217	42,335,025	44,726,705	46,285,207	2.4	4.6	5.6	3.5	17.1
Federal ^b	2,780,051	2,867,876	2,862,183	2,957,404	3,069,289	3.2	-0.2	3.3	3.8	10.4
Federal employees	1,900,779	2,009,862	1,999,915	2,118,859	2,223,088	5.7	-0.5	5.9	4.9	17.0
Total	42,313,012	43,355,093	45,197,208	47,684,109	49,354,496	2.5	4.2	5.5	3.5	16.6

a In states with a note, there was a difference in methods between the two years being compared for at least one component of the estimates. Some of the percent change in benefits, therefore, might be due to the differing methods. The notes are below. For more detail on state by state methodologies, see, *Sources and Methods: A Companion to Workers' Compensation: Benefits, Coverage, and Costs, 2001 New Estimates* section of the Academy's website at www.nasi.org.

b Includes federal benefits as included in Table 8.

c Preliminary estimates under review by the state.

Source: National Academy of Social Insurance estimates based on data from state agencies, A.M. Best, the U.S. Department of Labor and the Social Security Administration.

- 1 Deductible data were not available for 1998. Deductibles were estimated using the average percentage of deductibles for the state in years when the data were available.
- 2 Deductible data were not available for 2000. Deductibles were estimated using the average percentage of deductibles for all states where the data were available.
- 3 Self-insurance data were not available for 1997 or 1998. The average percentage of total benefits paid by self-insurers in the state in 1999 and 2000 was used.
- 4 No data were available from the state for 1998. Estimates for 1998 are based on data from A.M. Best.
- 5 No data were available from the state for 1999. Estimates for 1999 are based on data from A.M. Best. Estimates for 1998 use the same methodology as those for 2000 and 2001. Estimates for 1997 are also the same as 2000 and 2001 with the exception of the self-insurance estimate which is based on the average percentage of total benefits paid by self-insurers in the state in 1998–2001.
- 6 The state agency was able to provide private carrier data for 1997 and 1998 only. The agency also provided self-insurance data for 1998. The 1999–2001 estimates are based on A.M. Best data and self-insurance imputations as described in Appendix E.
- 7 The state agency was unable to provide state fund benefit data for 2001. The 2001 estimates for state fund benefits are based on the percentage of total benefits paid by the state fund in 2000.
- 8 The state agency was only able to provide state fund and medical data for 1999 and 2000. For all other years and insurance carriers estimates are based on data received from A.M. Best and self-insurance imputations as described in Appendix E.
- 9 The state agency was only able to provide data for 1997 and 1998. Estimates for 1999–2001 are based on data received from A.M. Best and self-insurance imputations as described in Appendix E.
- 10 The state agency was unable to provide reliable benefit data for 1998. Estimates for 1998 are based on data received from A.M. Best and self-insurance imputations as described in Appendix E.

Table 10**State Workers' Compensation Benefits Per \$100 of Covered Wages, by State, 1997–2001**

	1997	1998	1999	2000	2001	Percentage Point Change ^a	
						2000–2001	1997–2001
Alabama	\$ 1.23	\$ 1.32	\$ 1.15	\$ 1.06	\$ 1.10	.04	-.12
Alaska	1.62	1.54	1.56	1.65	1.82	.18	.21
Arizona	0.85	0.73	0.73	0.73	0.54	-.19 ¹	-.31
Arkansas	0.73	0.68	0.65	0.70	0.70	.00	-.03
California	1.60	1.53	1.49	1.50	1.58	.09	-.02
Colorado	1.45	1.28	1.06	1.06	0.72	-.34	-.74
Connecticut	1.20	1.09	1.06	0.89	0.86	-.03	-.34
Delaware	1.20	1.13	0.96	1.00	0.94	-.06	-.26
District of Columbia	0.51	0.48	0.44	0.39	0.39	.00	-.12
Florida	1.54	1.46	1.50	1.26	1.25	-.01	-.29
Georgia	0.89	0.83	0.77	0.79	0.83	.04	-.06
Hawaii	1.83	1.64	1.51	1.49	1.58	.09	-.26
Idaho	1.30	1.31	1.24	1.19	1.29	.10	-.01
Illinois	0.97	0.94	0.94	0.93	0.94	.01	-.03
Indiana	0.59	0.59	0.60	0.61	0.59	-.02	.00 ²
Iowa	0.86	0.85	0.82	0.89	0.98	.09	.12
Kansas	1.02	0.96	0.93	0.92	0.89	-.03	-.13
Kentucky	1.10	0.96	1.02	0.97	1.04	.06	-.06
Louisiana	0.98	0.92	0.95	0.98	0.95	-.03	-.03
Maine	2.17	1.83	1.79	1.70	1.60	-.09	-.56
Maryland	1.11	1.00	0.96	0.90	0.93	.02	-.18
Massachusetts	0.70	0.63	0.58	0.58	0.53	-.05	-.17
Michigan	0.98	0.94	0.90	0.90	0.92	.02	-.07
Minnesota	1.03	0.94	0.89	0.88	0.97	.09	-.06
Mississippi	1.02	0.97	1.00	1.03	1.03	.00	.00
Missouri	1.50	1.41	1.39	1.39	1.39	.00	-.11
Montana	1.96	1.76	1.79	1.97	1.90	-.07	-.06
Nebraska	1.11	0.79	0.89	0.90	0.98	.08	-.13 ³
Nevada	1.31	1.22	1.29	1.12	1.13	.00	-.18
New Hampshire	1.08	0.97	1.02	0.88	1.01	.13	-.07 ⁴
New Jersey	0.81	0.77	0.76	0.72	0.71	-.01	-.10

New Mexico	0.90	0.78	0.80	0.83	0.86	0.04 ⁵	-0.04
New York	0.88	0.81	0.81	0.78	0.77	-0.01	-0.11
North Carolina	0.74	0.81	0.76	0.74	0.74	.00	.00
North Dakota	1.10	1.05	1.01	1.03	1.05	.02	-0.05
Ohio	1.36	1.30	1.22	1.20	1.27	.07	-0.08
Oklahoma	1.86	1.60	1.43	1.31	1.28	-0.03	-0.58
Oregon	0.99	0.97	0.81	0.80	0.88	.08	-0.11
Pennsylvania	1.61	1.47	1.42	1.31	1.29	-0.01	-0.32
Rhode Island	0.98	0.88	0.84	0.78	0.79	.01	-0.19
South Carolina	1.15	1.08	1.12	1.23	1.08	-0.15	-0.07
South Dakota	1.00	0.90	0.90	0.78	0.84	.06	-0.16
Tennessee	0.74	0.81	0.81	0.84	0.88	.04	.14
Texas	0.75	0.72	0.79	0.76	0.74	-0.02	-0.01
Utah	0.72	0.74	0.72	0.64	0.69	.05 ⁶	-0.03
Vermont	1.27	1.26	1.38	1.35	1.20	-0.15	-0.07 ⁷
Virginia	0.67	0.70	0.61	0.62	0.58	-0.04	-0.09
Washington	1.64	1.55	1.52	1.57	1.68	.11	.04
West Virginia	3.91	3.95	4.09	3.95	3.92	-0.03	.01
Wisconsin	0.99	0.97	0.94	0.95	1.12	.17	.13
Wyoming	1.44	1.42	1.38	1.41	1.55	.14	.11
Total non-federal	1.14	1.08	1.05	1.03	1.04	.01	-0.10
Federal employees ^b	1.60	1.65	1.62	1.60	1.65	.05	.05
Total	1.18	1.12	1.09	1.07	1.07	.01	-0.11

a In states with a note, there was a difference in methods between the two years being compared for at least one component of the estimates. Some of the percent change in benefits, therefore, might be due to the differing methods. The notes are below. For more detail on state by state methodologies, see *Sources and Methods: A Companion to Workers' Compensation: Benefits, Coverage, and Costs, 2001 New Estimates* section of the Academy's website at www.nasi.org.

b Includes federal employees only.

Source: National Academy of Social Insurance estimates based on Tables 3 and 9.

- 1 Deductible data were not available for 2000. Deductibles were estimated using the average percentage of deductibles for all states where the data were available.
- 2 Self-insurance data were not available for 1997 or 1998. The average percentage total benefits paid by self-insurers in the state in 1999 and 2000 was used.
- 3 No data were available from the state for 1999. Estimates for 1999 are based on data from A.M. Best. Estimates for 1998 use the same methodology as those for 2000 and 2001. Estimates for 1997 are also the same as 2000 and 2001 with the exception of the self-insurance estimate which is based on the average percentage of total benefits paid by self-insurers in the state in 1998–2001.
- 4 The state agency was able to provide private carrier data for 1997 and 1998 only. The agency also provided self-insurance data for 1998. The 1999–2001 estimates are based on A.M. Best data and self-insurance imputations as described in Appendix E.
- 5 The state agency was unable to provide state fund benefit data for 2001. The 2001 estimates for state fund benefits are based on the percentage of total benefits paid by the state fund in 2000.
- 6 The state agency was only able to provide state fund and medical data for 1999 and 2000. For all other years and insurance carriers estimates are based on data received from A.M. Best and self-insurance imputations as described in Appendix E.
- 7 The state agency was only able to provide data for 1997 and 1998. Estimates for 1999–2001 are based on data received from AM. Best and self-insurance imputations as described in Appendix E.

- Differences in medical costs, medical practices, and the role of workers' compensation programs in regulating allowable medical costs; and
- The industry mix in each state, which influences the types of illnesses and injuries that occur and thus the level of medical costs.

Some states were not able to report the portion of their total benefits that were for medical care. In those cases, medical benefits were estimated based on information from the National Council of Compensation Insurance and from other states. These cases are footnoted in Table 8. Methods for estimating medical benefits are described in Appendix F.

Changes in State Benefits

On a national level, total benefits (cash plus medical) were 3.5 percent higher in 2001 than in 2000. Focusing only on national growth conceals a great deal of variation among states. Table 9 shows annual changes in state benefit payments in 1997–2001. In some cases, estimation methods changed from one year to the next because states or A.M. Best were not able to provide consistent information. Cases in which estimating methods changed from one year to the next are footnoted in Table 9.

In eleven jurisdictions, benefits declined between 2000 and 2001. The states with a decline include Arizona, Colorado, Connecticut, Delaware, Indiana, Kansas, Maine, Massachusetts, South Carolina, Vermont, and Virginia. On the other hand, thirteen states showed an increase in benefits that is at least five percentage points higher than the national average growth rate of 3.5 percent. States with increases more than five percentage points above the national average include Alaska, Hawaii, Idaho, Iowa, Maryland, Minnesota, Nebraska, New Hampshire, New Mexico, Oregon, South Dakota, Wisconsin, and Wyoming.

Benefits vary within a state from year to year for many reasons, including:

- Changes in workers' compensation statutes which affect coverage or levels of benefits;
- Court rulings or changes in administrative procedures;

- Changes in the mix of occupations or industries, because jobs differ in their rates of injury and illness;
- Fluctuations in employment, because more people working means more people at risk of a job-related illness or injury;
- Changes in wage rates to which benefit levels are linked;
- Variations in health care practice patterns across states influence the costs of medical care;
- Fluctuations in the number and severity of injuries and illnesses for other reasons (for example, in a small state, one industrial accident involving many workers in a particular year can show up as a noticeable increase in statewide benefit payments); and
- Changes in reporting procedures (for example, as state agencies update their record keeping systems the type of data they are able to report often changes (new legislation can also affect the data a state is able to provide)).

Because of the myriad of reasons behind changes in benefits—including reporting changes—caution should be used in interpreting any single year-to-year change in a particular state.

State Benefits Relative to Wages

One way to standardize state benefit payments to take account of states' differing sizes is to divide each state's benefits by the number of workers covered by the state's workers' compensation program. A second way is to divide total benefits by total wages of covered workers. The latter takes account of both the number of workers and prevailing wage levels in the state. The benefits standardized as a percent of covered wages helps show whether large growth in benefits payments may be due to growth in the state's population of covered workers and covered payroll. Indeed, four states (Alaska, Nebraska, New Mexico, and Wyoming) that had relatively large increases in benefits between 2000 and 2001 also experienced above-average increases in the number of covered workers and covered wages. In most cases, when benefits are shown relative to covered wages, the growth rates are more modest (Table 10). For example:

- Alaska benefits rose by 17.4 percent, while benefits per \$100 of wages rose from \$1.65 to \$1.82, which is a 10.3 percent increase;
- Nebraska benefits rose by 12.2 percent, while benefits per \$100 of wages rose from \$0.90 to \$0.98, which is a 0.9 percent increase;
- New Mexico benefits rose by 10.7 percent, while benefits per \$100 of wages rose from \$0.83 to \$0.86, which is a 0.4 percent increase; and
- Wyoming benefits rose by 17.9 percent, while benefits per \$100 of wages rose from \$1.41 to \$1.55, which is a 1.0 percent increase.

Similarly, in some states, the increase in total benefits was less than the growth in the state's covered workers and covered wages. Consequently, the jurisdiction's benefits relative to covered wages declined in 2001. For example:

- In Florida, total benefits grew by 3.7 percent, while benefits per \$100 of wages declined from \$1.26 to \$1.25, which is a 0.1 percent decrease;
- In Louisiana, total benefits grew by 1.6 percent, while benefits per \$100 of wages declined from \$0.98 to \$0.95, which is a 0.3 percent decrease;
- In Montana, total benefits grew by 1.7 percent, while benefits per \$100 of wages fell from \$1.97 to \$1.90, which is a 0.4 percent decrease; and
- In New York, total benefits grew by 2.4 percent, but benefits per \$100 of wages declined from \$0.78 to \$0.77, which is a 0.1 percent decrease.

While benefit payments that are standardized relative to wages in a state provide a useful perspective for looking at changes within particular states over time, the data do not provide meaningful comparisons of the adequacy of benefits among states. Measures of benefits adequacy would compare benefits injured workers received with their actual wage loss. A state with relatively high payments as indicated in Table 10 may in fact be replacing a relatively low portion of injured workers' actual earnings losses. Alternatively, a state with relatively low benefits as indicated in Table 10 may be replacing a relatively high por-

tion of actual earnings losses. Similarly, these figures do not show the comparative cost to employers of locating their business in one state versus another. Some reasons for cautioning against using these data to compare the adequacy of benefits for workers or the costs to employers across states, are set out below.

Caveats on comparing benefit adequacy across states. An appropriate study of adequacy would compare the benefits disabled workers actually receive with the wages they lose because of their injuries or occupational diseases. Such data are not available on a consistent basis across states. Aggregate benefits relative to aggregate covered wages or employment could be high or low in a given state for a number of reasons unrelated to the adequacy of benefits that injured workers receive.

First, a state with more workers in high-risk industries—such as mining or construction—may pay more benefits simply because they have a higher proportion of injured workers and more workers with serious, permanent disabilities that occurred on the job.

Second, states differ considerably in their compensability rules—that is, the criteria they use for determining whether an injury is work-related and therefore will be paid by the workers' compensation program. A state with a relatively lenient compensability threshold might pay more cases, and therefore have higher aggregate benefits relative to the total number of workers in the state, yet pay below-average benefits to workers with serious injuries.

Third, states have different policies about how they pay permanent disabilities. Some pay benefits for life or until retirement age. Others limit benefits for permanent disabilities to a few years or to a specified dollar amount. Still others have policies that permit or encourage lump-sum settlements for permanent disabilities. Differences in these policies can have a major impact on the benefits a state actually pays in a given year, relative to the size of its total workforce or total covered wages.

Fourth, benefits actually paid in the year (which are the data reported here) will be influenced by injuries that occurred in prior years. A state with a disproportionately large number of injured workers who are being compensated for permanent disabilities that occurred in the past would appear to pay above

average benefits, when, in fact, the actual benefits for recently injured workers may not be above average. Alternatively, a state with a long period of future benefit payments may appear to be below average on the basis of the current year's payments when in fact the ultimate benefits required to be paid for recent injuries may be above average.

Fifth, variations in state wages can lead to cross-state differences in benefits per covered worker. Wages in a state are influenced by the mix of industries and occupations in that state. Because the cash component of benefits paid is linked to wages, states with higher wages will tend to pay higher benefits, all else being equal. To some extent, this is controlled for when using benefits relative to covered wages. However, because benefits are capped to not exceed a maximum dollar amount, states with many highly-paid workers could have lower benefits relative to covered wages.

Sixth, the demographic composition of the workforce varies among states. Younger workers are more likely to experience injuries, but older workers are prone to certain chronic conditions that are relatively expensive.

Seventh, state economic activity can influence benefits per covered worker in other ways apart from differing wage rates. A state experiencing a recession will have fewer workers and fewer people working overtime. Furthermore, the reductions in hours worked will probably not be distributed evenly across industries or occupations. This will affect who is working, what they are earning, and the distribution of the type of injuries or illness occurring.

Eighth, variations among states in both the price of medical care services and the variations in use of services and practice patterns will have an impact on the amount of medical benefits paid.

Finally, in-migration or out-migration in a state will affect benefits per covered worker. For example, a state that is paying a large number of permanently disabled workers from past years would have rising benefits relative to its total work force if it experienced substantial out-migration of healthy workers, but could have declining benefits per worker if it experienced substantial in-migration of uninjured workers. Yet the benefits actually received by perma-

nently injured workers in that state may not have changed.

Caveats on comparing employer costs across states.

An employer's costs for workers' compensation in different states would best be compared by knowing the premiums that comparable employers are charged in each state (Thomason et al. 2001). These premiums would be affected by the employer's insurance classification and its own experience with past injury rates and the severity of injuries its workers sustained. Data on aggregate benefits per worker, or relative to total wages in the state, do not provide this information, for the following reasons.

First, a company in a high-risk industry would not necessarily experience lower costs if it moved to a state with predominantly low-risk industries, since the migrating company will still be in the high-risk insurance classification.

Second, changes in state policies would affect new employers, but these changes are not fully reflected in our data on benefits relative to wages. Premiums charged employers in a given year are based on the costs of injuries it is expected to incur in that year under policies in effect that year. If a state had changed its policies either to lower future costs or to make future benefits more adequate, those policies would not be fully reflected in benefits currently being paid to workers in that state as shown in Table 10. For example, a state that tightened its rules would be expected to have lower future costs for new employers, yet it would not show lower benefits per worker immediately because it would continue to pay workers who were permanently disabled in the past under the old rules.

Third, the employers' costs for workers' compensation nationally exceed the benefits paid to workers because of factors such as administrative costs and profits (or losses) of private carriers. The relationship of employers' costs relative to workers' benefits varies among states because of various factors, such as the extent of competition in the workers' compensation insurance market.

In brief, state-level benefits paid per worker or relative to total wages in the state are a way to standardize aggregate benefit payments between large and small states. However, much more refined data and

analyses are needed to assess the adequacy of benefits that individual workers receive, or the costs that particular employers would incur in different states.

Federal Programs

Various federal programs compensate certain categories of workers for disabilities caused on the job and provide benefits to dependents of workers who die of work-related causes. Each program is described briefly below along with an explanation of whether and how it is included in our national totals of workers' compensation benefits. Our aim in this report is to include in national totals for workers' compensation those federally administered programs that are financed by employers and that are not otherwise included in workers' compensation benefits reported by states. Programs that cover private sector workers and are financed by federal general revenues are not included in our national totals for workers' compensation benefits and employer costs. More detail on these programs is in Appendix H.

Federal Employees. The Federal Employee Compensation Act of 1916, which superceded previous workers' compensation laws for federal employees, provided the first comprehensive workers' compensation program for federal civilian employees. In 2001, total benefits were \$2,223 million, of which 28 percent were for medical care. The share of benefits for medical care is lower than in most state programs because federal cash benefits, particularly for higher-wage workers, replace a larger share of past wages than is the case in most state programs. Administrative costs of the program were \$109 million, or 4.9 percent of total benefits (U.S. DOL 2002f). Federal employees' benefits and the cost to the employer (the federal government) are included in the national totals in this report.

Longshore and Harbor Workers. The Longshore and Harbor Workers Compensation Act (LHWCA) requires employers to provide workers' compensation protection for longshore, harbor, and other maritime workers. The original program, enacted in 1927, covered maritime employees injured while working over navigable waters because the Supreme Court had found them ineligible for state workers' compensation benefits. The program also covers other workers who fall outside the jurisdiction of state programs, such as employees on overseas military bases, those working overseas for private contractors of the

United States, and private employees engaged in off-shore drilling enterprises.

Private employers cover longshore and harbor workers by purchasing private insurance or self-insuring. In fiscal year 2001, about 330 self-insured employers and 410 insurance companies reported a total 23,480 lost-time injuries to the federal Office of Workers' Compensation. Total benefits paid under the Act in 2001 were \$689 million, which included \$237 million paid by private insurance carriers, \$308 million paid by self-insured employers, and \$145 million paid from the federally administered special funds for second injuries and other purposes. Federal direct administrative costs were \$11.7 million or about 1.7 percent of benefits paid (Table H2). The Academy's data series on benefits and costs of workers' compensation includes at least part of the benefits paid by private carriers under the LHWCA in the states where the companies operate. The benefits are not identified separately in the information provided by A.M. Best and state agencies. Benefits paid by private employers who self-insure under the Longshore and Harbor Workers Compensation Act are not reported by states or A.M. Best. Consequently, these benefits and employer costs are included with federal programs in this report.

Coal Miners with Black Lung Disease. The Black Lung Benefits Act, enacted in 1969, provides compensation for coal miners with pneumoconiosis, or black lung disease, and their survivors. The program has two parts. Part B is financed by federal general revenues. Part C is paid through the Black Lung Disability Trust Fund, which is financed by coal mine operators through a federal excise tax on coal that is mined and sold in the United States. In this report, only the Part C benefits that are financed by employers are included in national totals of workers' compensation benefits and employer costs in 1997–2001. Total benefits in 2001 were \$873 million, of which \$479 million was paid under Part B and \$394 million was paid under Part C. Part C benefits include \$61 million for medical care. Medical benefits are available only to Part C beneficiaries and only for diagnosis and treatment of black lung disease. Medical benefits are a small share of black lung benefits because many of the recipients of benefits are deceased coal miners' dependents, whose medical care is not covered by the program. Federal direct administrative costs were \$34.7 million or about 4.0 percent of benefit payments (Table H3).

Workers Exposed to Radiation. The Radiation Exposure Compensation Act of 1990 provides lump-sum compensation payments to individuals who contracted certain cancers and other serious diseases as a result of exposure to radiation released during above ground nuclear weapons tests or during employment in underground uranium mines. The lump-sum payments are specified in law and range from \$50,000 to \$100,000. From the beginning of the program through April 2003, 8,622 claims had been paid for a total of \$571 million, or roughly \$66,000 a claim (U.S. DOJ 2003). The program is financed with federal general revenues and is not included in national totals in this report.

Energy Employees. The Energy Employees Occupational Illness Compensation Act of 2000 provides lump-sum payments up to \$150,000 to civilian workers (and/or their survivors) who became ill as a result of exposure to radiation, beryllium, or silica in the production or testing of nuclear weapons. It also provides smaller lump-sum payments up to \$50,000 to individuals found eligible for an award under the Radiation Exposure Compensation Act. Medical benefits are awarded for the treatment of covered conditions. This program first began making payments in 2001. Total benefits in 2001 were \$67 million, of which \$3,000 were paid as medical benefits (U.S. DOL 2003b). These general-revenue financed benefits are not included in our national totals.

Veterans of Military Service. U.S. military personnel are covered by the federal veterans' compensation program of the Department of Veterans Affairs, which provides cash benefits to veterans who sustained total or partial disabilities while on active duty. In September 2001, 2.3 million veterans were receiving monthly compensation payments for service-connected disabilities. Just over half the veterans (52 percent) had a disability rating of 30 percent or less, while the others had higher-rated disabilities. Total monthly payments for the disabled veterans and their dependents were \$1.3 million as of September 2001, or about \$15.8 million on an annual basis (U.S. Department of Veterans Affairs 2002). Veterans' compensation is not included in our national estimates of workers' compensation.

Railroad Employees and Merchant Marines. Finally, federal laws specify employee benefits for railroad workers involved in interstate commerce and

seamen in the U.S. Merchant Marines. The benefits are not workers' compensation benefits. Instead, other programs provide health insurance and short-term and long-term cash benefits for ill or injured workers whether or not their conditions are work-related. Under federal laws, these workers also retain the right to bring tort suits against their employers for negligence in the case of work-related injuries or illness (National Commission on State Workmen's Compensation Laws 1973).

Employer Costs

Employer costs for workers' compensation in 2001 were \$63.9 billion, an increase of 8.0 percent from \$59.2 billion in 2000 (Table 11). This was the third year in a row that costs increased.

Total costs to employers who purchase insurance from private carriers and state funds consist of premiums written in the calendar year plus the payments made under deductible provisions. For self-insured employers, the costs include benefit payments and administrative costs. Because self-insured employers often do not separately record administrative costs for workers' compensation, their administrative costs must be estimated. They are assumed to be the same share of benefits as administrative costs for other insurers. This percentage is based on the ratio of administrative costs to total benefits as reported by private insurers to the National Association of Insurance Commissioners. This ratio is based on direct loss adjustment expenses and their expense for taxes, licenses, and fees. For more information on the self-insurance costs estimates, see Appendix C. For the federal employee program, employer costs are benefits paid plus administrative costs (U.S. DOL 2002f).

According to these estimates, the cost of employers insuring through private carriers was \$36.8 billion in 2001, or approximately 57.5 percent of total costs. Self-insurers accounted for 20.1 percent of total employer costs, state funds represented 17.3 percent of costs, and federal programs were 5.1 percent.

Between 2000 and 2001, the share of employer costs insured through state funds rose, while the share insured through private carriers declined. This is due in large part to increased premiums written by the California State Compensation Insurance Fund. In

Table 11**Employer Costs for Workers' Compensation by Type of Insurer, 1987–2001
(in millions)**

	Total	Percent Change	Private Carriers	State Funds	Self-Insurance	Federal ^a
1987	\$ 38,095		\$ 25,448	\$ 5,515	\$ 5,404	\$ 1,728
1988	\$ 43,284	13.6	28,538	6,660	6,175	1,911
1989	\$ 47,955	10.8	31,853	7,231	6,915	1,956
1990	\$ 53,123	10.8	35,054	8,003	7,910	2,156
1991	\$ 55,216	3.9	35,713	8,698	8,677	2,128
1992	\$ 57,395	3.9	34,539	9,608	10,794	2,454
1993	\$ 60,819	6.0	35,596	10,902	11,791	2,530
1994	\$ 60,517	-0.5	33,997	11,235	12,795	2,490
1995	\$ 57,089	-5.7	31,554	10,512	12,467	2,556
1996	\$ 55,293	-3.1	30,453	10,190	12,049	2,601
1997	\$ 53,053	-4.1	29,862	8,021	12,282	2,888
1998	\$ 52,635	-0.8	30,377	7,926	11,355	2,976
1999	\$ 55,173	4.8	32,033	8,068	12,092	2,981
2000	\$ 59,204	7.3	35,333	8,646	12,145	3,079
2001	\$ 63,931	8.0	36,783	11,063	12,875	3,210

a In all years, federal costs includes those paid under the Federal Employees' Compensation Act for civilian employees and the portion of the Black Lung benefit program that is financed by employers and are paid through the federal Black Lung Disability Trust fund. In years before 1997, federal costs also include the other part of the Black Lung program that is financed solely by federal funds. In 1997–2001, federal costs also include a portion of employer-financed benefits under the Longshore and Harbor Workers Compensation Act that are not reflected in state data—namely, costs paid by self-insured employers and by special funds under the LHWCA. See Appendix H for more information about federal programs.

Source: National Academy of Social Insurance estimates.

California, total premiums written increased by \$2.0 billion, with the state fund picking up \$1.8 billion and private carriers insuring \$0.2 billion of the increase. The \$2.0 billion increase in California premiums accounts for about 3.5 percentage points of the 8.1 percentage point increase in total employer costs estimated for the nation as a whole.

Trends in Benefit and Cost Ratios

Table 12 shows the trend during the 1990s in benefits paid and employer costs per covered worker and per \$100 of covered wages. For the first time since

1992, workers' compensation benefits relative to covered wages rose slightly from \$1.06 in 2000 to \$1.07 per \$100 of covered wages in 2001. This level is about 36 percent lower than the 1992 peak year, when benefits were \$1.57 per \$100 of covered wages. Employer costs per \$100 of covered wages in 2001 also rose slightly from 2000 for the first time since 1993 when costs relative to wages were at \$2.16 per \$100 of covered wages. Employer costs relative to wages increased from \$1.32 in 2000 to \$1.39 in 2001. The ratio of employer costs to covered wages increased by 35 percent between 1993 and 2001.

Both costs and benefits per covered employee increased for the third consecutive year. Benefits per

Table 12**Workers' Compensation Benefit and Cost Ratios, 1989–2001**

Year	Costs per Covered Employee	Costs per \$100 of Wages	Benefits per Covered Employee	Benefits per \$100 of Wages	Benefits per \$1 in Cost
1989	\$ 462	\$ 2.04	\$ 330	\$ 1.46	\$.72
1990	\$ 504	\$ 2.18	\$ 362	\$ 1.57	\$.72
1991	\$ 532	\$ 2.16	\$ 407	\$ 1.65	\$.76
1992	\$ 549	\$ 2.12	\$ 437	\$ 1.68	\$.80
1993	\$ 571	\$ 2.16	\$ 426	\$ 1.61	\$.75
1994	\$ 552	\$ 2.05	\$ 407	\$ 1.51	\$.74
1995	\$ 508	\$ 1.82	\$ 386	\$ 1.38	\$.76
1996	\$ 482	\$ 1.66	\$ 365	\$ 1.26	\$.76
1997	\$ 449	\$ 1.48	\$ 358	\$ 1.18	\$.80
1998	\$ 433	\$ 1.35	\$ 357	\$ 1.12	\$.82
1999	\$ 444	\$ 1.33	\$ 363	\$ 1.09	\$.82
2000	\$ 466	\$ 1.32	\$ 375	\$ 1.06	\$.81
2001	\$ 504	\$ 1.39	\$ 389	\$ 1.07	\$.77

Source: National Academy of Social Insurance estimates based on Tables 2, 4, and 11.

covered worker were \$389 in 2001, up from \$375 in 2000. Employer costs relative to covered workers were \$504 in 2001, an increase from \$466 in 2000.

Costs to employers and benefits paid to workers do not change at the same rate from year to year for a number of reasons. First, benefits are those actually paid to workers in a given year, including many workers' with injuries that occurred in prior years, while insurance premiums written in a given year reflect insurers' expected future liabilities for injuries that occur in the year. Second, premiums are influenced by insurers' past and anticipated investment returns on reserves that they set aside to cover future liabilities. Thus, an increase in expected liabilities or a decline in investment returns would contribute to an increase in premiums. Finally, premiums employers pay reflect insurers' profits (or losses).

Because premiums rose faster than benefits in 2001, the ratio of total benefits paid to total employer costs in 2001 declined to \$0.77 per \$1.00 of costs from \$0.81 per \$1.00 of costs in 2000.

Work Injuries, Occupational Illness and Fatalities

While national data are not available on the number of persons who file workers' compensation claims or receive benefits in a given year, the Bureau of Labor Statistics collects information about work-related fatalities and nonfatal work injuries or occupational illnesses.

Fatalities at Work

A total of 8,786 fatal work injuries occurred in 2001. They include 2,886 deaths related to the September 11 terrorist attacks and 5,900 deaths from other causes (Table 13).

Of the more than 3,000 people killed in the terrorist attacks, 2,886 are classified as being at work—at the World Trade Center or the Pentagon; or on business travel or as crew aboard the planes that crashed in Pennsylvania, New York, and Virginia; or as rescue workers (U.S. DOL 2002d). In all states, a widowed spouse and children under age 18 are eligible for workers' compensation benefits when workers are killed on the job.

Table 13**Number of Fatal Occupational Injuries, 1992–2001**

Year	Number of Injuries
1992	6,217
1993	6,331
1994	6,632
1995	6,275
1996	6,112
1997	6,238
1998	6,026
1999	6,023
2000	5,920
2001	8,786
September 11 events	2,886
Other	5,900

Source: U.S. DOL 2002d.

Over 2,200 claims involving the death of a worker resulting from the terrorist attacks were reported to the New York Workers' Compensation Board by March 22, 2002. These claims emanating from events of one day were more than four times the typical number of death claims filed in New York for an entire year (NASI 2002a). The Academy's Brief, *Social Insurance for Survivors: Family Benefits from Social Security and Workers' Compensation*, provides more information on the types of benefits available to families of workers killed on the job (Mont et al. 2002).

The 5,900 deaths from workplace injuries other than the September 11 events reflect a slight decline from 5,920 work-related deaths in 2000. Transportation incidents continued to be the leading cause of on-the-job fatalities in 2001, accounting for 43 percent of the total. Contact with objects and equipment—being caught in equipment or hit or crushed by falling objects—was the second leading cause of death, accounting for 16 percent of deaths. Violent

Table 14**Fatal Occupational Injuries from September 11 Events and Other Causes, by Industry, 2001**

Industry	September 11		All other in 2001	
	Number	Percent	Number	Percent
Total	2,886	100	5,900	100
Private Industry	2,256	78	5,270	89
Agriculture	-	-	740	13
Mining	-	-	170	3
Construction	58	2	1,225	21
Manufacturing	-	-	599	10
Transportation and public utilities	78	3	911	15
Wholesale trade	27	1	220	4
Retail trade	118	4	537	9
Finance, insurance and real estate	1,715	59	86	1
Services	230	8	767	13
Government	622	22	630	11
Federal (incl. resident armed forces)	124	4	161	3
State	49	2	112	2
Local	449	16	332	6

Source: U.S. DOL 2002d. *Table 2. Fatal occupational injuries and employment by industry, 2001* and *Table A. Fatal occupational injuries from events on September 11, 2001, by industry and occupation.*

Table 15**Private Industry Occupational Injury and Illness: Total Cases and Incidence Rates, 1987–2001**

Year ^a	Number of Cases (in millions)		Incidence Rate ^b	
	All Cases	Cases with Days Away from Work	All Cases	Cases with Days Away from Work
1987	6.0	2.5	8.3	3.4
1988	6.4	2.6	8.6	3.5
1989	6.6	2.6	8.6	3.4
1990	6.8	2.6	8.8	3.4
1991	6.3	2.6	8.4	3.2
1992	6.8	2.3	8.9	3.0
1993	6.7	2.3	8.5	2.9
1994	6.8	2.2	8.4	2.8
1995	6.6	2.0	8.1	2.5
1996	6.2	1.9	7.4	2.2
1997	6.1	1.8	7.1	2.1
1998	5.9	1.7	6.7	2.0
1999	5.7	1.7	6.3	1.9
2000	5.7	1.7	6.1	1.8
2001	5.2	1.5	5.7	1.7

a Data after 1991 exclude fatal work-related injuries and illnesses.

b The incidence rate is the number of cases per one hundred full-time workers.

Source: U.S. DOL 2002d.

acts—homicides, suicides and animal attacks—accounted for 15 percent of deaths, and falls accounted for 14 percent.

Workers killed in the terrorist attacks worked in very different industries from those of other workers killed on the job (Table 14). Workers in finance, insurance, and real estate industries account for nearly six in ten victims of the terrorist attacks, but just 1 percent of other work-related fatalities. Government workers—mainly police, fire fighters, and rescue workers of local government—accounted for another two in ten of the victims of the September 11 attacks, while government workers accounted for about one in ten other work-related deaths. In industries with the highest risk of workplace fatalities—mining, agriculture, construction, and transportation—more than 3,000 workers lost their lives in 2001 in events unrelated to the terrorist attacks.

Nonfatal Injuries and Illnesses

A total of 5.2 million nonfatal workplace injuries and illnesses were reported in private industry workplaces during 2001, resulting in a rate of 5.7 cases per one hundred full-time equivalent workers, according to a Bureau of Labor Statistics survey of private sector employers (U.S. DOL 2002d). Many of these cases involved relatively minor injuries that did not result in lost workdays.

A total of 1.5 million reported workplace injuries or illnesses in private employment that required recuperation away from work beyond the day of the incident in 2001 (U.S. DOL 2003a). The number of such injuries or illnesses per one hundred full-time workers declined from 3.0 in 1992 to 1.7 in 2001 (Table 15).

The survey does not allow BLS to estimate separately the nonfatal injuries and illnesses related to the terrorist attacks of September 11. Because BLS was not able to survey employers that were located in the World Trade Center, the survey undoubtedly undercounts nonfatal injuries and illnesses caused by the terrorist attack (U.S. DOL 2003a). It does not separately identify cases of mental conditions—such as post-trauma mental disorders—or respiratory illness that affected many workers in the aftermath and clean-up of the attack on the World Trade Center. Because the survey includes only private employers, it does not reflect the experience of public safety and rescue workers employed by local, state, or federal governments.

Of the 1.5 million cases of nonfatal injuries or illnesses reported in 2001, just 5 percent were classified as illnesses; and the large majority of these were conditions such as contact dermatitis or carpal tunnel syndrome, which are easier to relate directly to workplace activity than are conditions with long latent periods.

The most common causes of reported injuries or illnesses were: sprains and strains, most often involving the back (44 percent); bruises and contusions (9 percent); cuts and lacerations (7 percent); fractures

(7 percent); back pain (3 percent); carpal tunnel syndrome (2 percent); and heat burns (2 percent). The median time away from work beyond the day of the injury was six days. In about 26 percent of cases, the worker missed only one or two days of work, while in about 28 percent of cases, the worker missed more than twenty days of work.

Workers' compensation programs have a waiting period of three to seven days of work loss before cash benefits are paid. If lost work time exceeds a certain period—usually fourteen to twenty-one days—workers are retroactively paid for the waiting period. Of the 1.5 million reported cases of private sector lost workdays, about one in four would not have met a three-day waiting period, and nearly half would not have met a six-day waiting period.

While data are not available on the number of workers' compensation claims for all employers throughout the nation, the National Council on Compensation Insurance compiles information on the frequency of claims for privately insured employers in thirty-nine states (Table 16). These data show declining trends similar to national trends in workplace injuries reported by the Bureau of Labor Statistics.

Table 16

Number of Workers' Compensation Claims per 100,000 Insured Workers: Private Carriers in 39 Jurisdictions

Policy Period	Temporary Total	Permanent partial	Total (including medical only)
1992	1,358	694	8,504
1993	1,331	644	8,279
1994	1,300	565	7,875
1995	1,217	459	7,377
1996	1,124	419	6,837
1997	1,070	414	6,725
1998	977	452	6,474
1999	858	434	5,933
Percent change, 1992–1999	-36.8	-37.5	-30.2

Source: NCCI 1996; 1997; 1998; 1999; 2000; 2001; 2002a; 2003.

The frequency of claims per 100,000 insured workers declined steadily between 1992 and 1999. Temporary total disability claims are those in which days away from work exceeded the three- to seven-day waiting period. The frequency of these claims declined by about 37 percent. This decline is very similar to the decline in injuries reported to the BLS that involved any days away from work. Between 1992 and 1999, the incidence of injuries that involved days away from work declined by about 37 percent (from 3.0 per one hundred full time workers in 1992 to 1.9 per one hundred full-time workers for policy year 1999).

The frequency of total workers' compensation claims—including medical-only cases that involve little or no lost work time—declined by about 30 percent between 1992 and 1999. This rate of decline is also very similar to the 29 percent decline in the incidence rate for all injuries reported to the BLS (from 8.9 to 6.3 per one hundred full time workers between 1992 and 1999). Thus, both injury rates as reported to BLS and workers' compensation claim frequency as compiled by the National Council of Compensation Insurance show very similar downward trends in the 1990s.

Comparing Workers' Compensation with Other Disability Benefit Programs

Other sources of support for disabled workers include sick leave, short-term and long-term disability benefits, Social Security disability insurance, and Medicare. Unlike workers' compensation, these programs are not limited to injuries or illness caused on the job.

Other Disability Benefits

Sick leave is the most common form of wage-replacement for short-term absences from work due to illness or injury. Benefits typically pay 100 percent of wages for a few weeks.

Short-term disability insurance is required by law in five states: California, Hawaii, New Jersey, New York, and Rhode Island. These state programs gener-

ally pay benefits that replace half of the worker's lost earnings, subject to a maximum weekly benefit. Most programs pay benefits for up to twenty-six weeks, although California pays for up to fifty-two weeks. In California and Rhode Island, the benefits are financed solely by employee contributions. In other states, employers also contribute.

Workers in other states may have short-term disability insurance that is offered and financed, at least in part, by employers. Benefits usually last for up to twenty-six weeks and typically replace about half of the worker's prior earnings. About 34 percent of private sector employees were covered by short-term disability insurance in 2000 (U.S. DOL 2002a).

An estimated 70 percent of all private sector workers have some coverage for temporary sickness or disability other than workers' compensation. They include 26 percent who have only sick leave, 20 percent who have only temporary disability insurance, and 24 percent who have both (Mashaw and Reno 1996, p. 100). Thus, about 30 percent of private sector employees have no provision other than workers' compensation for wage replacement during temporary absence from work due to sickness or disability.

Long-term disability insurance that is financed, at least in part, by employers covers about 26 percent of private sector employees. Such coverage is most common among professionals. About 51 percent of professionals, 27 percent of clerical and sales workers, and 14 percent of blue-collar and service workers had this coverage in 2000 (U.S. DOL 2002a). Long-term disability insurance benefits are usually paid after a waiting period of three to six months, or after short-term disability benefits end. Long-term disability insurance is generally designed to replace 60 percent of earnings, although replacement rates of 50 percent and 66 percent are also common. Almost all long-term disability insurance is coordinated with Social Security disability benefits and workers' compensation. That is, the long-term disability benefits are reduced dollar for dollar by the social insurance benefits. For example, if Social Security benefits replaced 40 percent of the worker's prior earnings, the long-term disability benefit would pay the balance to achieve a 60 percent replacement. Long-term disability insurance is also sold in individual policies, typically to high-earning professionals. Such individual policies are not included in these data.

Social Security Disability Insurance and Medicare

Workers' compensation is surpassed in size only by the federal Social Security disability insurance program and the accompanying Medicare program in providing cash and medical benefits to disabled workers.

While Social Security disability benefits and workers' compensation are the nation's two largest work-based disability benefit programs, the two programs are quite different. Social Security disability benefits are paid only to workers who have long-term impairments that preclude any gainful work. By law, the benefits are paid only to workers who are unable to engage in any substantial gainful activity by reason of a medically determinable physical or mental impairment that is expected to last a year or result in death. The impairment has to be of such severity that the worker is not only unable to do his or her prior work, but is unable to do any substantial gainful work that exists in the national economy. Social Security disability benefits begin after a five-month waiting period. Medicare coverage begins for those on Social Security disability benefits after a further twenty-four-month waiting period, or twenty-nine months after the onset of disability.

Many who receive Social Security disability benefits have impairments associated with aging. The portion of insured workers who receive benefits rises sharply at older ages, from less than 1 percent of the youngest insured workers to about 15 percent of insured workers age 60–64 (Reno and Eichner 2000). Relatively few individuals who receive Social Security disability benefits return to work. Typically, they leave the disability benefit rolls when they die or reach age 65 and shift to Social Security retirement benefits.

While workers' compensation paid \$27.4 billion in cash benefits and \$22.0 billion for medical care in 2001, Social Security paid \$59.6 billion in wage replacement benefits to disabled workers and their dependents and Medicare paid \$29.7 billion for medical and hospital care for disabled persons under

age 65. Thus, aggregate workers' compensation cash benefits were just under half the total amount of Social Security disability benefits, and workers' compensation medical benefits were about three-fourths the total amount paid by Medicare. Medicare benefits are less comprehensive than medical care under workers' compensation, because there is a twenty-four-month waiting period, Medicare requires beneficiary cost sharing in the form of deductibles and co-insurance, and it does not cover prescription drugs. At the same time, Medicare covers all medical conditions, not just work-related injuries or illnesses.

Coordination between workers' compensation and Social Security disability benefits

If a worker becomes eligible for both workers' compensation and Social Security disability benefits, one of the programs limits benefits in order to avoid excessive payments relative to the workers' past earnings. The Social Security amendments of 1965 required that Social Security disability benefits be reduced, so that the combined total of workers' compensation and Social Security disability benefits would not exceed 80 percent of the workers' prior earnings.³ States, however, were allowed to establish reverse offset laws, whereby workers' compensation payments would be reduced if the worker received Social Security disability benefits. The reverse offset shifts costs that would otherwise fall upon the employer (or insurer) to Social Security. Legislation in 1981 eliminated the states' option to adopt reverse offset laws, but the sixteen states that already had such laws were allowed to keep them.⁴

As of December 2002, about 7.22 million disabled workers and their dependents received Social Security disability benefits (Table 17). About 509,100 of these individuals (or 7.0 percent) had some connection to workers' compensation. They include about 113,100 people whose Social Security benefits were reduced under the workers' compensation offset. Another 217,500 beneficiaries received workers' compensation, but the combined benefits were not high enough to be affected by the cap. An

³ The current cap remains at 80 percent of the worker's average indexed earnings before disability. However, in the relatively few cases where Social Security disability benefits alone, for the worker and dependents, amount to more than the 80 percent of prior earnings, the benefits are not reduced below the DI amount.

⁴ States with reverse offset laws are: California, Colorado, Florida, Hawaii, Illinois, Louisiana, Minnesota, Montana, Nevada, New Jersey, New York, North Dakota, Ohio, Oregon, Washington, and Wisconsin.

Table 17**Social Security Disability Insurance (DI) Beneficiaries with Workers' Compensation Involvement, as of December 31, 2002**

Type of Case	Number	Percent
Total disability insurance (DI) beneficiaries	7,221,268	100.0
Total with some connection to workers' compensation	509,093	7.0
Receiving workers' compensation—total	373,505	5.2
Resides in reverse offset state	42,896	0.6
DI benefits subject to workers' compensation offset	330,609	4.6
DI reduced due to offset cap	113,113	1.6
DI not affected by cap	217,496	3.0
Pending ^a	135,588	1.9

a Pending cases are cases where DI beneficiaries have indicated that they are in the process of applying for workers' compensation or that their disability resulted from an injury on the job.

Source: SSA 2002b.

additional 42,900 people received workers' compensation but resided in reverse offset states, where any benefit reduction would affect workers' compensation, rather than Social Security benefits. Finally, about 135,600 beneficiaries indicated to SSA that their disabilities were job-related, but their status with regard to workers' compensation was undecided or unknown.

Trends in Social Security Disability Benefits and Workers' Compensation

Figure 3 illustrates the long-term trend in Social Security disability benefits and workers' compensation as a share of covered wages. Social Security disability benefits grew rapidly in the early 1970s and then declined through the late 1980s, after policy changes in the late 1970s and early 1980s reduced benefits and tightened eligibility rules. From 1990 to 1996, Social Security benefits again rose as claims and allowances increased, particularly during the economic recession of 1990–1991. Since then, benefits relative to covered wages have been fairly stable (SSA 2003).

The trend in workers' compensation benefits as a share of covered wages follows a very different pattern. Total workers' compensation benefits (cash and medical combined) were less than Social Security

disability benefits during the 1970s, but grew steadily throughout the 1970s and surpassed Social Security disability benefits in the mid 1980s. When Social Security benefits flattened out during the mid-1980s, workers' compensation payments continued to grow at a rapid rate. Then, as workers' compensation payments declined as a share of covered wages in 1992–2000, Social Security benefits rose.

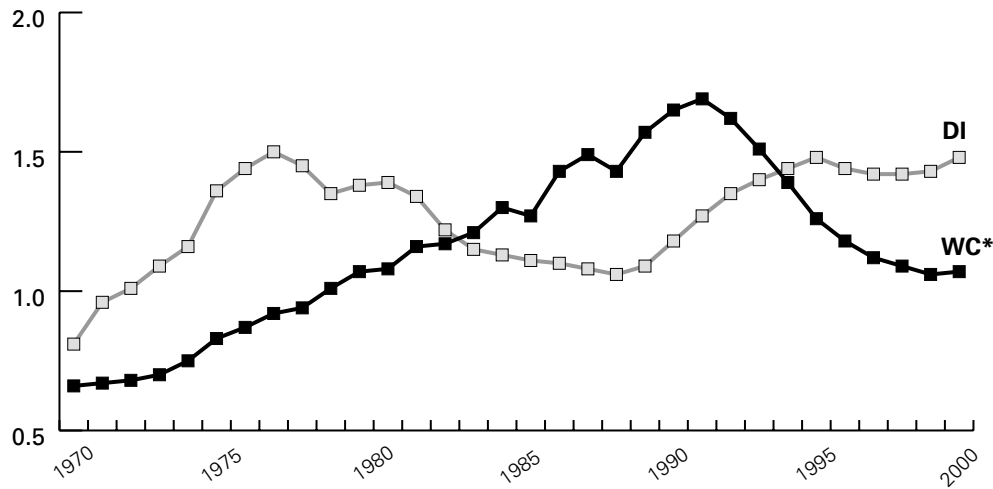
The opposite trends in workers' compensation and Social Security disability benefits during much of the last twenty-five years raise the question of whether retrenchments in one program increase demands placed on the other, and vice-versa. The substitutability of Social Security disability benefits and workers' compensation for workers with severe, long-term disabilities that are, at least arguably, work-related, or might be exacerbated by the demands of work, has received little attention by researchers and is not well understood (Burton and Spieler 2001).

Incurred Losses Compared with Benefits Paid

The Academy's estimates of workers' compensation benefits in this report are the amounts paid to work-

Figure 3

Types of Disabilities in Workers' Compensation Cases with Cash Benefits, 1997–1999



* Starting in 1989, a new method was used to estimate covered wages that accounts the decrease of benefits as a percent of covered wages in that year. For more information, see NASI 1997.

Source: National Academy of Social Insurance and the Office of the Chief Actuary, Social Security Administration.

ers in a calendar year regardless of whether the injuries occurred in the current year or a past year. This measure, *calendar year benefits paid*, is commonly used in reporting other social insurance, private employee benefits, and other income security programs. A different measure, *accident year incurred losses*, is commonly used for workers' compensation insurance that is purchased from private carriers and some state funds. It measures benefit liabilities incurred by the insurer for injuries that occur in a particular year, regardless of whether the benefits are paid in the current year or a future year. (The term losses and benefits are used interchangeably because benefits to the worker are losses to the insurer.) Both measures, calendar year benefits paid and accident year losses incurred, reveal important information.⁵

For the purpose of setting insurance premiums, it is important to estimate the incurred losses that the premiums are to cover. When an employer purchases workers' compensation insurance for a particular year, the premiums cover current and future benefit liabilities for all injuries that occur during the policy year. State rating bureaus and the National Council

on Compensation Insurance, which provides advisory rate-making and statistical services in thirty-six states, focus on accident year (or policy year) incurred losses.

Accident year incurred losses are considered more sensitive at picking up ultimate benefits that will be owed to newly injured workers in response to policy changes. For example, if a state lowered benefits or tightened compensability rules for new injuries as of a given date, then future benefits would be expected to decline. Similarly, if a state raised benefits or expanded the range of injuries that would be compensated by workers' compensation, then future benefits would be expected to increase. The policy change would show up immediately in estimates of accident year incurred losses, but it would show up more slowly in measures of calendar year benefits paid because the latter measure includes payments for past injuries that would not be affected by the policy change.

A disadvantage of relying solely on accident year incurred losses is that it takes many years before the

⁵A fuller discussion of these measures is in Thomason et al. 2001, Appendix B.

Table 18**Comparison of Accident-Year Incurred Losses with Calendar-Year Benefits Paid by Private Carriers and State Funds in Thirty-six States, 1997–2001**

Year	Accident year incurred losses ^a		Calendar year benefits paid ^b	
	Billions of dollars	Percent Change	Billions of dollars	Percent change
1997	9.9		12.4	
1998	10.8	9.1	13.9	11.6
1999	11.7	8.1	14.6	5.0
2000	12.5	7.0	15.5	6.4
2001	12.4	-.8	15.5	.1
Cumulative % change 1997 to 2001		25.3	24.8	

a These data are for the thirty-six states reported in the *Calendar-Accident Year Underwriting Results* of the National Council on Compensation Insurance, page 17. They include private carrier and state fund (where relevant) losses incurred in Alabama, Alaska, Arizona, Arkansas, Colorado, Connecticut, the District of Columbia, Florida, Georgia, Hawaii, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Mississippi, Missouri, Montana, Nebraska, New Hampshire, New Mexico, North Carolina, Oklahoma, Oregon, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, and Virginia.

Accident year data exclude benefits paid under the following categories: underground coal mining, F-classification, national defense project, and excess business. The accident year data also exclude benefits paid under deductible policies.

b Based on National Academy of Social Insurance data in this report for the states listed in note a. These data are for private carriers and states funds (where relevant) and include benefits paid under deductible policies

Source: NCCI 2002b and calendar year benefits estimated by the National Academy of Social Insurance.

actual losses for an accident year are final. Future losses must be estimated and are updated annually. The National Council on Compensation Insurance updates accident year incurred losses for sixteen years before the data for a particular year are considered final. In contrast, calendar year benefits paid are final at the end of the calendar year.

Accident year incurred losses are estimated for insurance policies purchased from private carriers and from some state funds, but this information is not routinely available for other state funds and for self-insured employers. In addition, accident year data exclude benefits under large deductible policies and all benefits of certain categories of privately insured employers. For the years 1997 through 2001, Table 18 compares *accident year losses incurred* reported by the National Council on Compensation Insurance and *calendar year benefits paid* estimated by the National Academy of Social Insurance for private carriers and state funds in thirty-six states that are

included in the NCCI. From year to year, the two measures changed at different rates. However, between 1997 and 2000, the cumulative changes are very similar for the two measures: incurred losses rose by 25.3 percent and calendar year benefits paid rose by 24.8 percent.

Reasons for the Trend in Workers' Compensation Benefits and Costs

The increases in benefits and costs relative to covered wages in 2001 are due, in part, to slow growth in covered wages because of the economic recession that began in March 2001. Before then, the economy had experienced a ten-year expansion (NBER 2001). With the lagging economy in 2001, the number of workers covered by workers' compensa-

tion declined slightly and covered wages grew by just 2.4 percent, the smallest wage growth in more than a decade.

In the second half of the 1980s, workers' compensation benefits grew at double-digit rates (Table 7). Between 1983 and 1992, total benefits grew by 170 percent, and medical benefits grew even faster, increasing from 36 to 42 percent of total benefits. Some believe that rising workers' compensation medical benefits and costs reflected cost-shifting away from employment-based health insurance to workers' compensation as the regular health insurance system introduced managed care and other forms of cost controls in the 1980s (Burton 1997). Business representatives in the workers' compensation field believe that other factors contributed to the rise in workers' compensation medical costs. They believe that workers had an incentive to seek additional medical care to establish a higher degree of permanent disability status because contested claims are sometimes settled as a multiple of the amount of medical costs incurred. On the other hand, workers' representatives point to studies that indicate that substantial numbers of injured workers never file for workers' compensation benefits (Shannon and Lowe 2002; Biddle et al. 1998).

Declines in workers' compensation benefits in the mid-1990s may be due to many causes. In response to rising workers' compensation costs in the late 1980s and early 1990s, employers and insurers expanded the use of disability management techniques with the aim of improving return-to-work and lowering workers' compensation costs. At the same time, workers' compensation systems followed the general health care system in introducing managed care and other cost controls to reduce the growth in medical spending. Business representatives believe that the adoption of more objective methods of rating permanent disability and controls against "doctor shopping" reduced claimants' incentive to seek additional medical care in order to strengthen their permanent disability claims. On the other hand, worker representatives emphasize that a stricter adjudicative climate deterred legitimate claims and restrictions on workers' choice of their treating doctor made it more difficult to get their claims documented and approved.

It is plausible that retrenchment in either the general health care system or in workers' compensation health care will influence decisions of both patients and doctors about which system they will seek to pay for health care, particularly in cases of borderline work relatedness. The share of workers' compensation spending for medical care declined from 42 percent of total benefits in 1992 to 39 percent in 1995. Since then, it gradually rose to about 45 percent in 2001.

According to the U.S. Bureau of Labor Statistics, private sector employers reported fewer workplace injuries or illnesses that result in lost workdays during the 1990s (Table 15). The number of such injuries or illnesses per one hundred full-time workers declined from 3.0 in 1992 to 1.7 in 2001. These findings suggest that workplaces are becoming safer. At the same time, a number of studies indicate significant under-reporting of work-related injuries or illnesses (Azaroff et al. 2002; Shannon and Lowe 2002; and Biddle et al. 1998). We know of no comprehensive study that determines whether the extent of under-reporting has changed over time.

Changes in rules or practices about whether health conditions are compensable under workers' compensation could also contribute changes in overall system benefits and costs and in the nature of injuries reported. It is possible that some of the decline in injury rates is an indirect result of tighter eligibility standards for workers compensation. Fewer cases reported to the workers' compensation system could result in fewer injuries reported in the BLS survey.

In response to rapid growth in costs in the late 1980s, some jurisdictions introduced changes that affect eligibility, such as: (a) limiting compensability when a pre-existing condition is involved; (b) stricter evidentiary requirements; (c) limiting compensability for particular conditions, such as mental stress or cumulative trauma disorders; (d) stricter rules for permanent disability benefits; and (e) discouraging fraudulent claims (Burton and Spieler 2001). For older workers, in particular, it may be difficult to discern the extent to which a condition is directly related to events on the job, or whether it is the cumulative impact of aging and lifelong arduous work. Given this gray area, changes in rules or practices with regard to compensability could have a

significant impact as a growing share of the workforce is over age 50.

Interaction with other disability benefit programs could also affect overall system benefits and costs. In the 1980s, when workers' compensation grew rapidly as a share of covered wages, Social Security disability benefits actually declined as a share of covered wages, following retrenchments in that program in the early 1980s. On the other hand, in the 1990s, workers'

compensation declined while Social Security disability benefits rose as a share of covered wages. While most workers' compensation recipients would not be eligible for Social Security because their disabilities are only temporary or partial, those with the most significant disabilities who might qualify for Social Security would tend to be the most costly workers' compensation cases. To date, the interaction of workers' compensation and Social Security disability insurance has received little analytic attention.

Glossary

AASCIF: American Association of State Compensation Insurance Funds. For more information, visit www.aascif.org.

Accident Year: The year in which an injury occurred, or the year of onset of an illness. Accident year benefits refer to the benefits associated with all injuries and illnesses occurring in that year, regardless of the year they were actually paid.

BLS: Bureau of Labor Statistics. For more information, visit www.bls.gov.

Calendar year benefits: Benefits paid to workers in a given year, regardless of when the injury or illness occurred.

Combined operating ratio: The ratio of underwriting results to premiums. It is the ratio of payments made by insurers to premiums collected. It does not take into account income that insurers receive from the investment of their reserves.

Covered employment: Jobs that are covered by workers' compensation programs.

CPS: Current Population Survey. For more information, visit www.bls.census.gov/cps.

DI: See SSDI.

FECA: Federal Employees' Compensation Act.

Incurred losses: Losses paid to date plus liabilities for future benefits.

Loss adjustment expenses: Salaries and fees paid to adjusters, as well as other expenses incurred from adjusting claims.

Losses: Benefits paid by insurers.

Managed Care: Managed care plans typically have two common features: payment to providers for services based on a per capita rate, and a primary care doctor who serves as the gatekeeper and referral source for a medical care organization or group of professionals. Because payments are not made on a fee-for-service basis, the managed care plan assumes

the risk for the population it serves, and has an incentive to provide care as efficiently as possible.

NAIC: National Association of Insurance Commissioners. For more information, visit www.naic.org.

NCCI: National Council on Compensation Insurance. For more information, visit www.ncci.com.

Permanent Partial Disability (PPD): A disability that although permanent does not completely limit a person's ability to work.

Permanent Total Disability (PTD): A permanent disability that precludes all work.

Residual Market: The mechanism used to provide insurance for employers who are unable to purchase insurance in the voluntary private market. In some states the state fund is the "insurer of last resort." In others, there is a separate pool financed by assessments of private insurers. Also, assigned risk pool.

SSA: Social Security Administration. For more information, visit www.ssa.gov.

SSDI: Social Security disability insurance. Also, DI.

Temporary Partial Disability (TPD): A temporary disability that does not completely limit a person's ability to work.

Temporary Total Disability (TTD): A disability that precludes all work, but for a limited period of time.

Underwriting expenses: Commissions, brokerage expenses, general expenses, taxes, licenses, and fees.

Underwriting results: The sum of losses, loss adjustment expenses, and underwriting expenses.

Unemployment insurance (UI): Federal-state program that provides cash benefits to workers who meet certain eligibility requirements established at the state level, including wages earned, time spent working, and becoming unemployed through no fault of their own.

USDOL: United States Department of Labor. For more information, visit www.dol.gov.

WC: Workers' compensation.

Work related injury-illness: An injury or illness that arises out of and in the course of employment. The definition of a work-related injury that is compensable under a state's workers' compensation program can be quite complex and varies across states.

Appendix A

Methodology for Coverage Estimates

Estimates of workers' compensation coverage by the National Academy of Social Insurance start with the number of workers in each state who are covered by unemployment insurance (UI). Almost all (96.7 percent) of U.S. wage and salary workers are covered by UI. Those who are not required to be covered include: some farm and domestic workers who earn less than a threshold amount from one employer; some state and local employees, such as elected officials; employees of some non-profit entities, such as religious organizations, for whom coverage is optional in some states; unpaid family workers; and railroad employees who are covered under a separate unemployment insurance program. Railroad workers are also not covered by state workers' compensation because they have other arrangements (NASI 2002b).

The largest group of workers who are not covered under either unemployment insurance or workers' compensation are self-employed individuals who have not incorporated their businesses. In 2000, about ten million Americans were self-employed as their main job, according to the Current Population Survey (U.S. DOL 2002c).

All U.S. employers who are required to pay unemployment taxes must report quarterly to their state employment security agencies information about their employees and payroll covered by unemployment insurance. These employer reports are the basis for statistical reports prepared by the U.S. Bureau of Labor Statistics, known as the ES-202 data. These data are a census of the universe of U.S. workers who are covered by unemployment insurance.

Key assumptions underlying NASI estimates of workers' compensation coverage are: (1) Workers whose employers do not report that they are covered by UI are not covered by workers' compensation. (2) Workers whose employers report they are covered by UI are generally covered by workers' compensation as well, except in the following cases⁶:

- (a) Workers in small firms (which are required to provide UI coverage in every state) are not covered by workers' compensation if the state law exempts small firms from mandatory workers' compensation coverage.
- (b) Employees in agricultural industries (who may be covered by UI) are not covered by workers' compensation if the state law exempts agricultural employers from mandatory workers' compensation coverage.
- (c) In Texas, where workers' compensation coverage is elective for almost all employers, estimates are based on periodic surveys conducted by the Texas Research and Oversight Council.

All federal employees are covered by workers' compensation, regardless of the state in which they work.

Small Firm Exemptions. NASI assumes that workers are not covered by workers' compensation if they work for small firms in the fourteen states that exempt small employers from mandatory coverage. Private firms with fewer than three employees are exempt from mandatory coverage in seven states: Arkansas, Georgia, Michigan, New Mexico, North Carolina, Virginia, and Wisconsin. Those with fewer than four employees are exempt in three states: Florida, Rhode Island, and South Dakota. Finally, firms with fewer than five employees are exempt from mandatory coverage in Alabama, Mississippi, Missouri, and Tennessee (U.S. DOL 2002h; AFL-CIO 2002).

The number of employees in small firms is estimated using data from the U.S. Small Business Administration, which show the proportion of employees in all private firms in each state who worked for firms with fewer than five employees in 2000 (the most recent year for which data are available). Those percentages for the fourteen states with numerical exemptions are: Alabama, 4.7%; Arkansas, 5.1%; Florida, 5.8%; Georgia, 4.4%; Michigan, 4.4%; Mississippi, 5.0%;

⁶ In previous editions of this report the number of state and local government employees exempted from workers' compensation coverage was estimated. This has not been done for the 2001 estimates or the revised 1997–2000 estimates. The methods for determining how many state and local government employees are not covered by workers' compensation and whether they are covered for work injuries under alternative arrangements is currently being reviewed. In future editions of this report, the state and local government exemption will be resumed.

Table A1**Documenting Workers' Compensation Coverage Estimates, 2001 Annual Averages**

State	UI Covered Jobs ^a		Workers' Compensation Exemptions			WC Covered Jobs	WC as a % of UI
	Total	Private, non-farm firms	Small Firm	Agriculture	Texas		
Alabama	1,803,008	1,504,066	70,656	5,995	-	1,726,357	95.7
Alaska	266,247	209,615	-	-	-	266,247	100.0
Arizona	2,195,470	1,862,614	-	-	-	2,195,470	100.0
Arkansas	1,106,056	930,718	26,754	7,873	-	1,071,429	96.9
California	14,727,949	12,284,276	-	-	-	14,727,949	100.0
Colorado	2,148,470	1,858,163	-	-	-	2,148,470	100.0
Connecticut	1,644,008	1,424,967	-	-	-	1,644,008	100.0
Delaware	401,236	353,443	-	1,307	-	399,929	99.7
District of Columbia	452,136	417,045	-	-	-	452,136	100.0
Florida	7,031,517	6,052,832	277,457	-	-	6,754,060	96.1
Georgia	3,776,899	3,241,764	79,747	15,343	-	3,681,809	97.5
Hawaii	527,022	438,339	-	-	-	527,022	100.0
Idaho	558,027	446,738	-	-	-	558,027	100.0
Illinois	5,792,697	5,060,751	-	-	-	5,792,697	100.0
Indiana	2,832,666	2,473,434	-	10,476	-	2,822,190	99.6
Iowa	1,410,098	1,189,708	-	-	-	1,410,098	100.0
Kansas	1,293,474	1,074,650	-	7,599	-	1,285,875	99.4
Kentucky	1,699,498	1,440,099	-	3,891	-	1,695,607	99.8
Louisiana	1,834,514	1,501,346	-	-	-	1,834,514	100.0
Maine	579,261	490,608	-	-	-	579,261	100.0
Maryland	2,295,377	1,975,332	-	-	-	2,295,377	100.0
Massachusetts	3,222,248	2,855,418	-	-	-	3,222,248	100.0
Michigan	4,420,036	3,809,183	94,953	-	-	4,325,083	97.9
Minnesota	2,576,254	2,225,675	-	-	-	2,576,254	100.0
Mississippi	1,085,300	867,027	43,267	8,892	-	1,033,141	95.2
Missouri	2,597,008	2,231,513	106,483	8,700	-	2,481,825	95.6

Montana	370,613	302,648	-	370,613	100.0
Nebraska	1,028,907	886,588	8,168	1,020,739	99.2
Nevada	867,886	757,952	1,965	865,921	99.8
New Hampshire	602,068	528,871	-	602,068	100.0
New Jersey	3,809,281	3,295,353	-	3,809,281	100.0
New Mexico	699,903	549,880	18,931	673,240	96.2
New York	8,286,591	6,999,660	-	8,286,591	100.0
North Carolina	3,743,592	3,161,850	83,682	3,659,910	97.8
North Dakota	301,719	248,077	2,029	299,690	99.3
Ohio	5,351,930	4,670,849	-	5,351,930	100.0
Oklahoma	1,417,406	1,164,346	-	1,417,406	100.0
Oregon	1,566,947	1,298,731	-	1,566,947	100.0
Pennsylvania	5,443,545	4,825,556	-	5,443,545	100.0
Rhode Island	458,476	404,982	19,090	438,822	95.7
South Carolina	1,758,264	1,464,676	53,599	1,698,448	96.6
South Dakota	353,635	294,386	-	353,635	100.0
Tennessee	2,574,816	2,235,232	91,515	2,479,491	96.3
Texas	9,172,455	7,722,516	1,467,593	7,704,862	84.0
Utah	1,016,752	867,522	-	1,016,752	100.0
Vermont	292,239	247,710	-	292,239	100.0
Virginia	3,288,910	2,811,643	73,352	3,215,558	97.8
Washington	2,622,139	2,132,000	-	2,622,139	100.0
West Virginia	663,962	549,142	-	663,962	100.0
Wisconsin	2,687,464	2,323,419	57,204	2,630,260	97.9
Wyoming	230,043	178,414	1,986	228,057	99.1
US, non-federal	126,886,019	108,141,327	1,096,690	124,219,189	97.9
Federal	2,752,569	-	-	2,752,569	100.0
US Total	129,638,588	108,141,327	1,096,690	126,971,758	97.9

a UI-covered employment reported in the ES-202 data produced by the United States Bureau of Labor Statistics.

Source: National Academy of Social Insurance Estimates.

Missouri, 4.8%; New Mexico, 6.1%; North Carolina, 4.7%; Rhode Island, 6.0%; South Carolina, 4.7%; Tennessee, 4.1%; Virginia, 4.6%; and Wisconsin, 4.4% (U.S. SBA 2002).

To estimate the proportion of workers in firms with fewer than three or four employees, we used national data on small firms from the U. S. Census Bureau (U.S. Census Bureau 1999). Of workers in firms with fewer than five employees, 78.6 percent worked in firms with fewer than four employees and 56.5 percent worked in firms with fewer than three employees. These ratios were applied to the percentage of workers in firms with fewer than five employees in the respective states. For example, the proportion of Arkansas private sector workers in firms with fewer than three employees is: $(5.4\%) \times (56.5\%) = 3.05\%$. These ratios are applied to the number of UI covered workers in the private, non-farm firms in each state. In the fourteen States together, we estimate that 1.1 million workers were excluded from workers' compensation coverage in 2000 because of the small employer exclusion from mandatory coverage.

Agricultural Exemptions. We estimate agricultural workers to be excluded from workers' compensation coverage if they work in the sixteen states where agricultural employers are exempt from mandatory coverage. These states are: Alabama, Arkansas, Delaware, Georgia, Indiana, Kansas, Kentucky, Missouri, Mississippi, North Dakota, Nebraska, New Mexico, Nevada, Rhode Island, South Carolina, and Tennessee. In each of these jurisdictions, we subtract from UI coverage those workers employed in agricultural industries.

Texas. In Texas, where workers' compensation coverage is elective for almost all employers, the NASI estimate of coverage is based on periodic surveys conducted by the Texas Workers' Compensation Research and Oversight Council, which found 84.0 percent of Texas employees were covered in 2001 (Shields and Campbell 2001). This ratio was applied to all UI-covered Texas employees other than federal government workers (who were not included in the surveys cited above).

Appendix B Questionnaire for State Agencies

Annual Data Survey — Project on National Data for Workers' Compensation

NATIONAL ACADEMY OF SOCIAL INSURANCE

Your Name: _____ State: _____ Agency/Organization: _____

e-mail: _____ Phone: _____ Fax: _____

NATIONAL ACADEMY OF SOCIAL INSURANCE

Calendar Year Paid Data — Please provide the information requested below for calendar years 1997-2001. Calendar year paid data refer to all payments made that year regardless of accident year and regardless of whether the case was closed or remains open. If you are unable to report calendar year data, please indicate the 12-month period of the data you are reporting. Please be sure to list benefits paid, not incurred. If your state does not collect the data that enable you to fill out this questionnaire, please send us any information you may have pertaining to benefit payments in 1997-2001.

	CY 2001 Payments	CY 2000 Payments	CY 1999 Payments	CY 1998 Payments	CY 1997 Payments
1) SELF INSURERS (group and individual)					
Medical Payments					
Cash Payments					
Vocational Rehabilitation (if not included above)					
TOTAL					
2) PRIVATE CARRIERS (if state permits private carriers)					
Medical Payments					
Cash Payments					
Vocational Rehabilitation (if not included above)					
TOTAL					
Are deductibles allowed for private carriers?	<input type="checkbox"/> yes <input type="checkbox"/> no	<input type="checkbox"/> yes <input type="checkbox"/> no	<input type="checkbox"/> yes <input type="checkbox"/> no	<input type="checkbox"/> yes <input type="checkbox"/> no	<input type="checkbox"/> yes <input type="checkbox"/> no
Are the above "gross" amounts that include deductible payments by employers?	<input type="checkbox"/> yes <input type="checkbox"/> no	<input type="checkbox"/> yes <input type="checkbox"/> no	<input type="checkbox"/> yes <input type="checkbox"/> no	<input type="checkbox"/> yes <input type="checkbox"/> no	<input type="checkbox"/> yes <input type="checkbox"/> no
How much was paid in deductibles by employers?					
3) STATE FUNDS (if state has competitive or exclusive fund)					
Medical Payments					
Cash Payments					
Vocational Rehabilitation (if not included above)					
TOTAL					
Are deductibles allowed for the state fund?	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO
Are the above "gross" amounts that include deductible payments by employers?	<input type="checkbox"/> yes <input type="checkbox"/> no	<input type="checkbox"/> yes <input type="checkbox"/> no	<input type="checkbox"/> yes <input type="checkbox"/> no	<input type="checkbox"/> yes <input type="checkbox"/> no	<input type="checkbox"/> yes <input type="checkbox"/> no
How much was paid in deductibles by employers?					
4) SPECIAL FUNDS (including second injury, priority and other) PLEASE ALSO SEE THE ATTACHED SUPPLEMENT ON SPECIAL FUNDS					
Medical Payments					
Cash Payments					
Vocational Rehabilitation (if not included above)					
TOTAL					
Is this amount included in items 2 and/or 3? If so, which and how much?	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO
5) CALENDAR YEAR TOTAL BENEFITS PAID (Should equal the sum of items #1-4)					
Medical Payments					
Cash Payments					
Vocational Rehabilitation (if not included above)					
TOTAL					

Please fax your response to NASI at (202) 452-8111 by OCTOBER 4, 2002.

Appendix C

Data Availability

Estimates of benefits paid and employer costs for workers' compensation by the National Academy of Social Insurance (NASI) rely on two main sources: responses to the NASI survey questionnaire from state agencies and data purchased from A.M. Best, a private company that specializes in collecting insurance data and rating insurance companies.

The A.M. Best data show the experience of private carriers in every state, but do not include any information about self-insured employers or about benefits paid under deductible arrangements. The A.M. Best data show total "direct losses" (that is, benefits) paid in each state in 1997–2001, by private carriers and by nineteen entities that we classify as state funds, based on their membership in the American Association of State Compensation Insurance Funds. A.M. Best did not provide information on state funds in Hawaii, Kentucky, Missouri, New Mexico, and South Carolina, or on exclusive state funds in Ohio, North Dakota, Washington, West Virginia, and Wyoming.

The 2001 NASI survey questionnaire for state agencies was expanded and improved in several key ways. First, it asked states to report data for five years, from 1997 through 2001. These historical data were used to revise and update estimates for these past years. Second, it asked for more information about benefits paid under deductible arrangements—in particular, whether deductible arrangements are allowed in the state and, if they are, whether or not benefits paid under deductible arrangements are included in the benefit data reported on its questionnaire. Third, the 2001 questionnaire asked for more information about special funds—such as second injury funds. Information on special funds help ensure that all workers' compensation benefits are counted. Benefits paid from special funds are pro-rated to private carriers, state funds, and self-insurers according to either their respective shares of assessments for the special fund or their respective shares of other benefit payments.

In response to the 2001 survey, we received replies from forty-five states, up from thirty-eight last year. In many cases, follow-up contacts were made with states to clarify specific questions. In Table C-1, the

shaded areas indicate the information provided by each state in response to the survey.

Private Carrier Benefits

Of the fifty-one jurisdictions, forty-six allow private carriers to write workers' compensation policies. Of these, thirty-three were able to provide data on the amount of benefits paid by private carriers. In the eleven other states, A.M. Best data were used to estimate private carrier benefits. An estimate of benefits paid under deductible policies was added to benefits paid reported by A.M. Best to estimate total private carrier benefits in these states. Methods for estimating deductible amounts are described in Appendix G.

State Fund Benefits

Twenty-six states have a state fund for writing workers' compensation policies. Of these, nineteen states were able to provide benefit data. One state was able to provide data that could be used to estimate the amount of benefits paid by the state fund by subtracting various components from total benefit figures provided. A.M. Best data were used to estimate state fund benefits in states unable to provide the data. An estimate of benefits paid under deductible policies was added to benefit reported by A.M. Best to estimate total state fund benefits in these states.

Self-Insured Benefits

All jurisdictions except North Dakota and Wyoming allow employers to self-insure. Thirty-six of these were able to provide data on benefits paid by self-insurers. Another three states provided other data that was used to estimate the amount of benefits paid by self-insurers. Self-insurance benefits were imputed for the ten states that were unable to provide data. The self-insurance imputation methods are described in Appendix E.

Benefits under Deductible Policies

Forty-five states allow carriers to write deductible policies for workers compensation. Of these, four were able to provide the amount of benefits paid under deductible policies. Benefits under deductible arrangements were estimated for another twelve states by subtracting A.M. Best data on benefits paid

(which do not include deductible benefits) from data reported by the state agency (which, in these cases, included deductible benefits). Deductible benefits in the remaining states were estimated using the weighted average of the percent of benefits under deductible arrangements in states where data were available, as described in Appendix G.

Medical Benefits

Twenty-nine states were able to provide information on the share of their total benefits that were for medical care. The National Council on Compensation Insurance provided estimates of the percent of benefits that were for medical care in thirty-seven jurisdictions. These estimates were used for twenty states that were unable to provide any information on medical benefits. Other methods were used for two states for which no information was available from the state or NCCI. More detail on methods to estimate medical benefits is in Appendix F.

Employer Costs

NASI estimates of employer costs for benefits paid under private insurance and state funds are the sum of “direct premiums written” as reported by A.M. Best, plus our estimate of benefits paid under deductible arrangements (which are not reflected in premiums). In some cases, data provided by state agencies are used instead of A.M. Best data. Private carrier premium data for Delaware and Texas were provided by the state agencies. State fund premium data for North Dakota, Texas, and Utah were provided by the state agencies. In addition, for the eight

state funds for which A.M. Best did not provide premium data, information on premiums was sought from the state fund. These data were available from Kentucky, Washington, and West Virginia. Estimates for Hawaii, Missouri, New Mexico, South Carolina, and Wyoming are based on the ratio of private carrier to state fund benefits. This ratio was then applied to private carrier costs to estimate the employer costs of insuring through state funds.

For self-insured employers, the costs include benefit payments and administrative costs. Because self-insured employers often do not separately record administrative costs for workers’ compensation, their administrative costs must be estimated. They are assumed to be the same share of benefits as administrative costs for other insurers. This percentage is based on the ratio of administrative costs to total benefits as reported by private insurers to the National Association of Insurance Commissioners (NAIC 1998; 1999; 2000; 2001; 2002). This ratio is based on direct loss adjustment expenses and their expense for taxes, licenses, and fees. The ratios were:

1997: 15.7 percent

1998: 14.5 percent

1999: 15.8 percent

2000: 14.0 percent

2001: 14.6 percent

Table C1**Workers' Compensation Data Provided by States for 2001^a** ■ Shaded areas correspond with provided data

State	Calendar Year Paid				
	Private Carriers	State Funds	Self-Insureds	Deductibles	Medical
Alabama	■	N/A	■	Note 1	■
Alaska	■	N/A	■	Note 1	■
Arizona	■	■	■	Note 1	Note 4
Arkansas	■	N/A	■	■	Note 4
California	■	■	■	Note 1	■
Colorado	■	■	■	■	■
Connecticut	■	■	■	Note 1	Note 4
Delaware	Note 2	N/A	Note 2	■	Note 5
D.C.	■	N/A	■	■	■
Florida	■	N/A	■	■	Note 4
Georgia	■	N/A	■	Note 1	Note 4
Hawaii	■	■	■	Note 1	■
Idaho	■	■	■	■	Note 4
Illinois	■	N/A	■	■	Note 4
Indiana	■	N/A	■	■	Note 4
Iowa	■	N/A	■	■	Note 4
Kansas	■	N/A	■	Note 1	Note 4
Kentucky	■	■	■	■	■
Louisiana	■	■	■	Note 1	Note 4
Maine	■	Note 1	■	■	■
Maryland	■	■	■	■	■
Massachusetts	■	N/A	■	■	■
Michigan	■	N/A	■	Note 1	■
Minnesota	■	■	■	■	■
Mississippi	■	N/A	■	Note 1	■
Missouri	■	■	■	■	■
Montana	■	■	■	Note 1	■
Nebraska	■	N/A	■	■	■
Nevada	■	■	■	■	■
New Hampshire	■	N/A	■	■	Note 4
New Jersey	■	N/A	■	Note 1	Note 5
New Mexico	■	■	■	■	■
New York	■	■	Note 3	Note 1	■
North Carolina	■	N/A	■	■	Note 4
North Dakota	N/A	■	N/A	N/A	■
Ohio	N/A	■	■	N/A	■
Oklahoma	■	■	■	■	Note 4
Oregon	■	■	■	■	■
Pennsylvania	■	■	■	■	■
Rhode Island	■	■	■	■	■
South Carolina	■	■	■	■	■
South Dakota	■	N/A	■	Note 1	■
Tennessee	■	N/A	■	■	Note 4
Texas	■	■	Note 3	■	Note 4
Utah	■	■	■	■	Note 4
Vermont	■	N/A	■	■	Note 4
Virginia	■	N/A	■	■	Note 4
Washington	N/A	■	■	N/A	■
West Virginia	N/A	■	■	N/A	■
Wisconsin	■	N/A	■	N/A	Note 4
Wyoming	N/A	■	N/A	N/A	■

a Data were provided by state workers' compensation agencies, insurance rating boards, departments of labor, and industrial commissions.

N/A: Not applicable.

Note 1: Data were not directly available but could be computed by subtracting various components from total benefit figures provided.

Note 2: Computed from information provided on premiums.

Note 3: Based on data on the percent of claims filed by self-insurers.

Note 4: Medical data provided by NCCI.

Appendix D

Revised Data for 1997–2000

In the preparing the 2001 estimates for workers' compensation benefits, the National Academy of Social Insurance reviewed and revised all data for calendar years 1997–2000. The revision process began by requesting historical data from all data sources, including state workers' compensation agencies. These agencies received our revised Data Questionnaire (Appendix B) which asked for more detailed data for calendar years 1997–2001.

The revised benefit estimates are reported in the following tables. Revisions to the historical data increase consistency in historical methodology and enhance comparability between years. The following are key revisions made to the historical data:

- Revised data consistently use the same medical benefit estimation methodology described in Appendix F.
- Revised data consistently use the same deductible estimation methodology described in Appendix G.
- Self-insurance benefit imputations were revised using historical data as report in Appendix E.
- Changes in data reported by state agencies were captured by the revised data questionnaire and are reflected in the revised estimates.
- Administrative costs for self-insurance were reestimated based on updated information from the National Association of Insurance Commissioners as described in Appendix C.

The revised data in this Appendix should be used in place of previously published data. Historical data displayed in the body of this report incorporate these revisions.

Table D1**Revised Workers' Compensation Benefits by Type of Insurer and Medical Benefits, by State, 2000
(in thousands)**

State	Total	Private Carriers ^a	State Funds	Self-Insured ^b	Percent Medical
Alabama	\$ 529,189	\$ 304,964	\$ -	\$ 224,225	55.8
Alaska	145,917	115,459		30,457	55.6
Arizona	515,241	240,290	204,450	70,500	60.5 ^c
Arkansas	194,470	139,781		54,688	59.7 ^c
California	8,967,630	5,322,435	1,116,125	2,529,070	45.6
Colorado	835,054	343,716	267,906	223,432	46.2
Connecticut	667,056	484,542		182,514	38.7 ^c
Delaware	146,090	93,606		52,484	45.8 ^d
District of Columbia	88,661	66,237		22,424	32.3
Florida	2,544,777	1,906,722		638,055	54.2 ^c
Georgia	995,775	695,992		299,782	46.3 ^c
Hawaii	231,359	154,884	9,480	66,995	39.4
Idaho	179,370	76,072	89,770	13,528	56.1 ^c
Illinois	2,049,223	1,564,048		485,175	44.1 ^c
Indiana	545,863	461,468		84,395	64.7 ^c
Iowa	352,188	290,261		61,927	49.3 ^c
Kansas	341,547	244,623		96,924	59.8 ^c
Kentucky	479,338	332,039	23,597	123,702	53.5
Louisiana	493,653	243,538	104,484	145,631	49.9 ^c
Maine	266,997	120,148	57,258	89,591	40.7
Maryland	729,656	376,593	177,088	175,975	37.3
Massachusetts	828,159	701,202		126,956	30.9
Michigan	1,474,058	796,329		677,729	32.0
Minnesota	797,800	529,400	88,100	180,300	46.3
Mississippi	269,342	178,037		91,305	54.1
Missouri	1,084,687	853,539	51,777	179,371	43.2
Montana	169,763	72,503	70,629	26,630	52.4 ^c
Nebraska	211,285	162,479		48,806	48.3
Nevada	360,915	224,618		136,298	46.7
New Hampshire	181,900	143,869		38,032	47.5 ^d
New Jersey	1,198,172	1,088,645	-	109,528	47.5 ^d
New Mexico	146,374	85,274	14,668	46,431	56.6
New York	2,909,115	1,346,945	839,136	723,034	29.9
North Carolina	853,318	645,745	-	207,573	44.4 ^c
North Dakota	74,406	416	73,990	0	55.2
Ohio	2,098,528	28,216	1,630,436	439,876	41.5
Oklahoma	484,911	281,990	110,039	92,882	46.0 ^c
Oregon	412,471	222,142	158,660	31,669	49.0
Pennsylvania	2,402,614	1,676,662	156,237	569,715	38.0
Rhode Island	109,433	50,484	40,925	18,023	23.0
South Carolina	596,526	411,643	42,830	142,053	26.6
South Dakota	66,991	62,016	-	4,976	55.7
Tennessee	642,201	504,352	-	137,849	51.2 ^c
Texas	2,004,504	1,600,461	222,841	181,202	59.8 ^c
Utah	187,729	71,823	87,978	27,928	69.9
Vermont	112,349	95,824	-	16,525	47.9 ^c
Virginia	680,911	528,369	-	152,542	52.4 ^c
Washington	1,527,657	20,742	1,135,120	371,795	35.0
West Virginia	690,377	0	589,260	101,117	27.1
Wisconsin	768,282	656,232	-	112,050	59.0 ^c
Wyoming	82,875	933	81,942	0	66.0
Non-federal total	44,726,705	26,618,307	7,444,726	10,663,674	44.7
Federal ^c	3,083,573				22.7
Federal Employees	2,118,859				25.6
Total	47,810,278				43.3

- a States with exclusive funds (Ohio, North Dakota, Washington, West Virginia, and Wyoming) also have small amounts of benefits paid in the private carrier category. This results from two sources: companies with group policies that overlap states and the fact that some companies include excess workers' compensation coverage in their reports of workers' compensation benefits to A.M. Best.
- b Self-insurance includes individual self-insurers and group self-insurance.
- c Medical percentages based on data provided by NCCI. See Appendix F
- d Medical percentage based on the weighted average of states where medical data were available.
- e Federal benefits include: those paid under the Federal Employees' Compensation Act for civilian employees; the portion of the Black Lung benefit program that is financed by employers; and a portion of benefits under the Longshore and Harbor Workers' Compensation Act that are not reflected in state data, namely, benefits paid by self-insured employers and by special funds under the LHWCA. See Appendix H for more information about federal programs.

Source: National Academy of Social Insurance estimates based on data received from state agencies, the U.S. Department of Labor, A.M. Best, and the National Council on Compensation Insurance.

Table D2**Revised Workers' Compensation Benefits by Type of Insurer and Medical Benefits, by State, 1999
(in thousands)**

State	Total	Private Carriers ^a	State Funds	Self-Insured ^b	Percent Medical
Alabama	\$ 551,398	\$ 295,849	\$	\$ 255,550	56.1
Alaska	130,334	102,229	0	28,105	53.9
Arizona	465,554	210,522	192,237	62,794	57.5 ^c
Arkansas	173,054	123,082	0	49,973	60.8 ^c
California	7,851,641	4,596,363	1,012,910	2,242,368	44.6
Colorado	738,527	335,299	196,348	206,879	40.3 ^c
Connecticut	736,857	521,892	0	214,965	39.2 ^c
Delaware	133,023	91,316	0	41,708	44.8 ^d
District of Columbia	90,232	71,148	0	19,084	36.0
Florida	2,768,045	1,835,422	0	932,623	54.3 ^c
Georgia	895,690	619,723	0	275,968	49.5 ^c
Hawaii	222,056	148,803	6,995	66,258	38.5
Idaho	168,642	69,887	84,809	13,947	55.8 ^c
Illinois	1,952,698	1,506,918	0	445,780	42.8 ^c
Indiana	510,992	434,615	0	76,378	65.8 ^c
Iowa	309,458	261,573	0	47,885	49.7 ^c
Kansas	326,196	234,197	0	91,998	55.6 ^c
Kentucky	477,867	308,195	22,624	147,047	54.1 ^c
Louisiana	464,883	219,050	106,460	139,373	50.3 ^c
Maine	265,862	117,607	53,382	94,872	37.7
Maryland	714,356	378,079	166,582	169,695	42.8
Massachusetts	733,191	615,203	0	117,988	31.9
Michigan	1,392,806	749,350	0	643,456	29.7
Minnesota	744,500	479,300	88,100	177,100	42.4
Mississippi	253,664	162,891	0	90,773	52.4
Missouri	1,021,046	805,925	39,347	175,774	42.3
Montana	145,996	58,017	63,437	24,542	48.2
Nebraska	198,276	158,010	0	40,266	52.7 ^c
Nevada	384,283	14,816	240,612	128,855	34.7
New Hampshire	190,073	148,837	0	41,236	50.9 ^c
New Jersey	1,152,102	1,041,952	0	110,151	46.4 ^d
New Mexico	135,903	75,968	15,150	44,784	50.7
New York	2,795,769	1,314,422	836,452	644,895	30.0
North Carolina	813,823	593,192	0	220,631	44.6 ^c
North Dakota	69,912	377	69,535	0	54.1
Ohio	2,038,742	37,923	1,571,005	429,814	39.8
Oklahoma	496,500	290,726	117,018	88,756	44.4 ^c
Oregon	384,110	202,220	145,285	36,605	47.7
Pennsylvania	2,467,114	1,709,488	178,122	579,505	35.3
Rhode Island	110,952	55,578	34,519	20,855	21.5
South Carolina	511,735	334,787	42,705	134,243	26.4
South Dakota	72,509	66,699	0	5,825	47.0
Tennessee	586,363	451,270	0	135,093	52.3 ^c
Texas	1,874,975	1,499,077	205,299	170,599	55.0 ^c
Utah	195,774	73,892	85,583	36,299	69.5
Vermont	106,389	87,139	0	19,250	47.4 ^c
Virginia	629,348	490,828	0	138,520	53.1 ^c
Washington	1,395,246	24,628	1,032,108	338,510	34.4
West Virginia	687,002	0	583,941	103,061	26.7
Wisconsin	724,360	609,241	0	115,119	58.2 ^c
Wyoming	75,196	1,432	73,764	0	64.4
Non-federal total	42,335,025	24,634,956	7,264,330	10,435,754	43.7
Federal ^c	2,984,729				23.0
Federal employees	1,999,915				26.3
Total	45,319,754				42.4

- a States with exclusive funds (Ohio, North Dakota, Washington, West Virginia, and Wyoming) also have small amounts of benefits paid in the private carrier category. This results from two sources: companies with group policies that overlap states and the fact that some companies include excess workers' compensation coverage in their reports of workers' compensation benefits to A.M. Best.
- b Self-insurance includes individual self-insurers and group self-insurance.
- c Medical percentages based on data provided by NCCI. See Appendix F.
- d Medical percentage based on the weighted average of states where medical data were available.
- e Federal benefits include: those paid under the Federal Employees' Compensation Act for civilian employees; the portion of the Black Lung benefit program that is financed by employers; and a portion of benefits under the Longshore and Harbor Workers' Compensation Act that are not reflected in state data, namely, benefits paid by self-insured employers and by special funds under the LHWCA. See Appendix H for more information about federal programs.

Source: National Academy of Social Insurance estimates based on data received from state agencies, the U.S. Department of Labor, A.M. Best, and the National Council on Compensation Insurance.

Table D3**Revised Workers' Compensation Benefits by Type of Insurer and Medical Benefits, by State, 1998
(in thousands)**

State	Total	Private Carriers ^a	State Funds	Self-Insured ^b	Medical Percent
Alabama	\$ 602,088	\$ 348,977	\$	\$ 253,111	47.3
Alaska	127,368	94,311		33,057	53.4
Arizona	432,965	180,545	182,053	70,367	54.4 ^c
Arkansas	170,891	117,808		53,083	57.1 ^c
California	7,365,820	4,214,725	934,780	2,216,316	43.1
Colorado	810,985	298,797	328,885	183,303	37.8
Connecticut	714,822	510,204		204,617	41.3 ^c
Delaware	147,070	90,009		57,060	43.1 ^d
D.C.	90,386	66,423		23,963	33.4
Florida	2,538,353	1,888,149		650,204	56.4 ^c
Georgia	889,131	585,353		303,777	47.1 ^c
Hawaii	233,225	164,668	2,060	66,497	37.3
Idaho	164,327	70,156	79,992	14,179	55.5 ^c
Illinois	1,838,191	1,383,668		454,524	41.5 ^c
Indiana	481,073	407,689		73,384	66.5
Iowa	303,873	255,576		48,297	48.9 ^c
Kansas	318,976	223,176		95,800	54.3 ^c
Kentucky	421,386	262,633	22,139	136,614	53.0 ^c
Louisiana	442,025	203,700	96,355	141,970	48.9 ^c
Maine	253,946	116,059	51,119	86,768	35.1 ^c
Maryland	691,285	336,699	164,275	190,311	37.8 ^c
Massachusetts	728,771	584,359		144,412	31.1
Michigan	1,366,988	726,793		640,195	28.3
Minnesota	737,100	468,800	95,100	173,200	41.5
Mississippi	234,873	150,029		84,844	56.0
Missouri	979,596	767,628	39,579	172,389	42.1 ^c
Montana	136,975	44,874	68,653	23,447	47.9
Nebraska	164,382	126,577		37,805	53.4 ^c
Nevada	331,419	9,843	217,064	104,512	39.1
New Hampshire	169,663	132,663		37,000	50.8 ^c
New Jersey	1,096,758	980,880		115,878	44.6 ^d
New Mexico	128,290	69,147	15,474	43,670	52.6
New York	2,600,961	1,125,494	850,823	624,644	31.5
North Carolina	810,188	557,135		253,053	44.5 ^c
North Dakota	68,929	214	68,715		53.4
Ohio	2,076,545	27,447	1,616,286	432,812	39.4
Oklahoma	536,420	280,322	156,046	100,052	43.4 ^c
Oregon	430,521	221,916	145,135	63,470	48.0
Pennsylvania	2,418,072	1,646,492	201,653	569,927	34.5
Rhode Island	109,471	52,013	30,874	26,584	21.9
South Carolina	467,277	288,480	49,104	129,693	29.1
South Dakota	67,088	61,376		5,712	48.8
Tennessee	550,819	420,571		130,248	51.4 ^c
Texas	1,591,818	1,267,117	175,368	149,333	58.7 ^c
Utah	188,543	71,657	75,863	41,024	68.6
Vermont	91,436	78,510		12,925	46.1
Virginia	658,466	489,368		169,098	52.1 ^c
Washington	1,286,680	17,222	964,077	305,381	34.9
West Virginia	644,294		539,026	105,268	27.5
Wisconsin	703,610	580,797		122,813	58.2 ^c
Wyoming	73,080	2,181	70,899		63.8
Total non-federal	40,487,217	23,069,226	7,241,399	10,176,593	43.2
Federal ^c	2,980,366				22.9
Federal employees	2,009,862				23.6
Total	43,467,583				41.8

- a States with exclusive funds (Ohio, North Dakota, Washington, West Virginia, and Wyoming) also have small amounts of benefits paid in the private carrier category. This results from two sources: companies with group policies that overlap states and the fact that some companies include excess workers' compensation coverage in their reports of workers' compensation benefits to A.M. Best.
- b Self-insurance includes individual self-insurers and group self-insurance.
- c Medical percentages based on data provided by NCCI. See Appendix F.
- d Medical percentage based on the weighted average of states where medical data were available.
- e Federal benefits include: those paid under the Federal Employees' Compensation Act for civilian employees; the portion of the Black Lung benefit program that is financed by employers; and a portion of benefits under the Longshore and Harbor Workers' Compensation Act that are not reflected in state data, namely, benefits paid by self-insured employers and by special funds under the LHWCA. See Appendix H for more information about federal programs.

Source: National Academy of Social Insurance estimates based on data received from state agencies, the U.S. Department of Labor, A.M. Best and the National Council of Compensation Insurance.

Table D4**Revised Workers' Compensation Benefits by Type of Insurer and Medical Benefits, by State, 1997
(in thousands)**

State	Total	Private Carriers ^a	State Funds	Self-Insured ^b	Medical Percent
Alabama	\$ 530,230	\$ 265,486	\$ -	\$ 264,744	52.2
Alaska	128,043	96,790		31,253	52.9
Arizona	449,791	178,201	198,145	73,445	54.0 ^c
Arkansas	170,465	116,275		54,190	56.7 ^c
California	7,073,544	3,869,236	904,451	2,299,857	42.2
Colorado	820,169	280,528	323,696	215,945	39.9
Connecticut	731,830	513,329		218,501	39.7 ^c
Delaware	143,424	83,043		60,381	41.5 ^d
D.C.	88,449	73,675		14,775	32.9
Florida	2,442,989	1,472,225		970,764	57.1 ^c
Georgia	861,394	547,080		314,314	48.0 ^c
Hawaii	254,915	186,154	110	68,651	37.0
Idaho	153,209	66,050	72,646	14,512	52.0 ^c
Illinois	1,764,455	1,313,345		451,110	42.7 ^c
Indiana	445,840	377,831		68,010	66.7
Iowa	286,029	240,862		45,167	47.5 ^c
Kansas	313,511	206,795		106,716	53.7 ^c
Kentucky	451,246	270,472	23,245	157,530	48.8 ^c
Louisiana	439,594	201,771	94,710	143,114	47.6 ^c
Maine	282,152	130,402	47,517	104,232	32.9
Maryland	717,093	322,326	187,227	207,539	39.6
Massachusetts	746,851	595,704		151,147	28.7
Michigan	1,332,222	688,948		643,275	28.8
Minnesota	738,600	464,900	105,000	168,700	40.8
Mississippi	231,413	130,098		101,315	55.5
Missouri	979,857	774,188	36,112	169,557	41.7 ^c
Montana	142,957	48,275	72,332	22,399	45.5
Nebraska	216,949	174,198		42,752	53.3
Nevada	324,204	6,103	223,326	94,776	36.4
New Hampshire	173,562	132,562		41,000	47.3 ^c
New Jersey	1,079,724	947,777		131,947	43.8 ^d
New Mexico	135,684	69,040	16,183	50,460	50.3
New York	2,619,771	1,167,535	856,447	595,789	31.6
North Carolina	687,291	458,987		228,304	41.1 ^c
North Dakota	68,312	217	68,095		51.8
Ohio	2,035,906	24,190	1,575,658	436,058	35.9
Oklahoma	578,371	252,641	218,944	106,786	42.4 ^c
Oregon	417,222	208,179	144,492	64,551	46.1
Pennsylvania	2,492,347	1,639,917	241,606	610,824	32.2
Rhode Island	113,382	51,629	30,662	31,091	21.6
South Carolina	459,377	287,411	44,410	127,556	27.7
South Dakota	69,649	63,423		6,226	48.0
Tennessee	473,498	357,490		116,008	48.7 ^c
Texas	1,476,585	1,132,818	206,301	137,466	57.0 ^c
Utah	170,321	61,514	71,510	37,297	67.5
Vermont	86,097	73,559		12,538	43.2 ^c
Virginia	562,402	451,714		110,688	50.3 ^c
Washington	1,217,522	13,283	924,884	279,355	35.0
West Virginia	614,061		509,115	104,946	29.3
Wisconsin	670,070	555,104		114,966	56.6 ^c
Wyoming	70,382	1,310	69,072		62.0
Total non-federal	39,532,961	21,644,588	7,265,897	10,622,525	42.3
Federal ^c	2,887,681				21.8
Federal employees	1,900,779				24.2
Total	42,420,642				40.9

- a States with exclusive funds (Ohio, North Dakota, Washington, West Virginia, and Wyoming) also have small amounts of benefits paid in the private carrier category. This results from two sources: companies with group policies that overlap states and the fact that some companies include excess workers' compensation coverage in their reports of workers' compensation benefits to A.M. Best.
- b Self-insurance includes individual self-insurers and group self-insurance.
- c Medical percentages based on data provided by NCCI See Appendix F.
- d Medical percentage based on the weighted average of states where medical data were available.
- e Federal benefits include: those paid under the Federal Employees' Compensation Act for civilian employees; the portion of the Black Lung benefit program that is financed by employers; and a portion of benefits under the Longshore and Harbor Workers' Compensation Act that are not reflected in state data, namely, benefits paid by self-insured employers and by special funds under the LHWCA. See Appendix H for more information about federal programs.

Source: National Academy of Social Insurance estimates based on data received from state agencies, the U.S. Department of Labor, A.M. Best and the National Council of Compensation Insurance.

Appendix E

Self-Insurer Benefits Estimation

This report uses a methodology that incorporates historical data to estimate self-insurance benefits in states that were not able to provide recent information. That methodology is as follows:

- 1) Estimate total covered payroll for all states for calendar years 1997–2001. This procedure is outlined in Appendix A.
- 2) Collect total payroll of workers insured by private carriers and competitive state funds for calendar years 1997–2001. This information is available for the majority of states from the NCCI.
- 3) Using (1) and (2), generate an estimate of the percent of payroll covered by self-insurers for all states where these data are available. The percentage of payroll covered by self-insurers is $[(1)-(2)]/(1)$.
- 4) Estimate the percent of total benefits paid by self-insurers in states where these data are available by dividing self-insurance benefits by total benefits.
- 5) Determine the ratio of the percent of total benefits paid by self-insurers (4) to the percent of payroll covered by self-insurers (3) in each state. This ratio is $(4)/(3)$.
- 6) Estimate the average ratio of the percent of total benefits paid by self-insurers (4) to the percent of payroll covered by self-insurers (3) for all states where these data are available.

- 7) Apply this ratio to the percent of payroll covered by self-insurers in states where self-insurance benefits need to be estimated, to obtain an estimate of self-insurance benefits in these states $[(6) \cdot (3) = (4)]$.

For one state, Nevada, neither an estimate of the percent of payroll covered by self-insurers nor an estimate of self-insurer benefits are available for calendar years 1997 and 1998. The percent of self-insurer benefits was available from the state agencies for 1996 and 1999–2001. Simple extrapolation was used to estimate the percent of self-insurance in 1997 and 1998.

Table E1

**Self-Insurer Estimation Results,
1997–2001**

(6) Average Ratio of the percent of total benefits covered by self-insurers to the percent of payroll paid by self-insurers, $(4)/(3)$

Year	Ratio
1997	54.2
1998	48.7
1999	52.7
2000	58.2
2001	52.7

Appendix F

Medical Benefit Estimation

Estimates by the National Academy of Social Insurance (NASI) of the percent of total benefits paid that were for medical care are based on reports from state agencies and from estimates provided by the National Council on Compensation Insurance (NCCI).

For 2001, twenty-nine states provided information on the share of total benefits paid in their states that were for medical care. NASI estimates are based on these state reports for: Alabama, Alaska, California, Colorado, the District of Columbia, Hawaii, Kentucky, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Mexico, New York, North Dakota, Ohio, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Washington, West Virginia, and Wyoming.

The National Council on Compensation Insurance (NCCI) is a national organization that assists private carriers and insurance commissioners in setting

workers' compensation rates in selected states. NCCI provided NASI estimates of the percent of private carrier benefits paid that were for medical care in thirty-seven states. For 2001, we used this percentage to estimate the share of total benefits (including self-insured benefits) that were for medical care in twenty states for which state reports of medical benefits were not available. Those states are: Arizona, Arkansas, Connecticut, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Louisiana, New Hampshire, North Carolina, Oklahoma, Tennessee, Texas, Utah, Vermont, Virginia, and Wisconsin.

For two states, New Jersey and Delaware, neither state reports nor NCCI estimates of medical benefits were available. For these states, the weighted average of the share total benefits that were for medical care in the other forty-nine jurisdictions was used. In Delaware, the final percentage is different from this weighed average because it takes account of the medical benefits reported for the Second Injury Fund in Delaware.

Appendix G

Deductible Estimation Methodology

NASI has six methods for estimating deductible benefits and total benefits, depending on what is reported by the state.

Method A:

State reports deductible amounts.

Method: Use deductible amount reported by state.

Four States: Minnesota, Oregon, Pennsylvania, and South Carolina.

Method B:

States say deductibles are included in their totals, but do not report amounts of deductibles.

Method: Estimate deductibles by subtracting Net Losses Paid as reported by A.M. Best from state report.

Fifteen States: Alabama, Alaska, Arizona, California, Connecticut, Georgia, Hawaii, Kansas, Louisiana, Michigan, Mississippi, Montana, New Jersey, New York, and South Dakota.

Note: Before using A.M. Best data, state fund and private carrier data are separated out from both data reported by A.M. Best and state agencies (where necessary, i.e., where A.M. Best or the state agency classify as private carrier an entity that we classify as a state fund).

Method C:

State reports benefit amounts and report their totals do not include deductibles, which are allowed in the state. State does not report deductible amounts.

Method: Estimate deductible amount, as the average percentage deductible in the states for which we have data on deductibles (A and B above). Add the estimate to the state reported amount to estimate the total state private carrier benefits.

Six States: Iowa, Kentucky (state fund only), Maryland (state fund only), Missouri, New Mexico, and Texas.

Method D:

Deductibles are not allowed in the state.

Method: Use state reports as totals. Deductibles equal zero.

Six States: North Dakota, Ohio, Washington, West Virginia, Wisconsin, and Wyoming.

Method E:

State does not report benefit amounts. Deductibles are allowed.

Method: Use Net Losses Paid as reported by A.M. Best and add estimated deductibles, based on the weighted average percentage of benefits under deductible arrangements in states where we have data (A and B, above).

Twenty-two States: Arkansas, Colorado, Delaware, the District of Columbia, Florida, Idaho, Illinois, Indiana, Kentucky (private carrier only), Maine, Maryland (private carrier only), Massachusetts, Nebraska, Nevada, New Hampshire, North Carolina, Oklahoma, Rhode Island, Tennessee, Utah, Vermont, and Virginia.

Appendix H Federal Programs

This report aims to include in national totals for workers' compensation those federal programs that are financed by employers and that are not otherwise included in workers' compensation benefits reported by states in 1997 through 2001. The accompanying tables provide detailed information on federally administered programs, including some that are not included in national totals in this report.

Table H-1 reports benefits and administrative costs for federal civilian employees under the Federal Employees' Compensation Act in 1997 through 2001. These benefits to workers and costs to the federal government as employer are included in national totals in this report, and are classified with federal programs.

Table H-2 shows benefits reported to the U.S. Department of Labor by insurers and self-insured employers under the Longshore and Harbor Workers' Compensation Act in 1997 through 2001. Ideally, benefits and employer costs under the LHWCA would be counted in the states where the employee is located, because our estimates of covered employment and covered workers count these workers and wages in the states where they work. We believe that at least part of LHWCA benefits paid through private insurance carriers are included in state data that are reported to us by A.M. Best or the states. At the same time, self-insured employers under the LHWCA are not included in A.M. Best data and are unlikely to be included in state reports; benefits paid from the LHWCA special funds are not included in state data. Thus, for 1997–2001 data, our estimates of total federal benefits include benefits paid by self-insured employers and the special funds under the LHWCA. Without other information, we assume that privately insured benefits under the program are included in state reports. Whether and how LHWCA benefits can be reflected in state reports is a subject for analysis.

Table H-3 shows benefits under the Black Lung Benefit program for 1997 through 2001 for both parts of the program. Part B is financed by federal

funds and was administered by the Social Security Administration until 1997 when administration shifted to the U.S. Department of Labor. Part C is financed by employers through an excise tax on coal mined and sold in the United States. Its benefits are paid from the federal Black Lung Disability Trust Fund. In this report, only Part C benefits and costs are included in federal benefits and national totals of workers' compensation benefits and costs for 1997 through 2001. In 1996 and prior years, both parts of the program are included in federal benefits, but only employer costs not financed through general revenues are included for part B of the program. No data are available on the experience of employers who self-insure under the Black Lung program. Any such benefits and costs are not reflected in Table H-3 and are not included in national estimates.

Table H-5 provides information on the Energy Employees' Occupational Illness Compensation Act of 2000, which first began making payments in 2001. Table H-6 shows cumulative payments under the Radiation Exposure Compensation Act since its enactment in 1990. Both of these programs are federally financed and compensate workers or other civilians who became ill or died due to harmful exposure in the production and testing of nuclear weapons. Finally, Table H-6 provides information on the Veterans' Compensation program, which pays cash benefits to veterans who sustain disabilities while on active duty in the U.S. armed forces. This program is somewhat similar to workers' compensation in that it is financed by the employer (the federal government) and compensates for injuries or illness caused on the job (the armed forces). It is also different from other workers' compensation programs in many respects. With cash benefits of about \$15.8 billion in 2001, veterans' compensation is about 60 percent of the size of total cash benefits in other workers' compensation programs, which were \$26.7 billion in 2001. Because it is large and qualitatively different from other programs, veterans' compensation benefits are reported, but they are not included in national totals to measure trends in regular workers' compensation programs.

Table H1**Federal Employees Compensation Act, Benefits and Costs, 1997–2001 (in thousands)**

	1997	1998	1999	2000	2001
Total Benefits	\$1,900,779	\$2,009,862	\$1,999,915	\$2,118,859	\$2,223,088
Compensation Benefits	1,440,867	1,536,430	1,474,168	1,576,354	1,600,031
Medical Benefits	459,912	473,432	525,747	542,505	623,057
% Medical	24	24	26	26	28
Direct Administrative Costs	80,893	80,235	87,425	91,532	109,326
Total Costs	1,981,672	2,090,097	2,087,340	2,210,391	2,332,414
Indirect Administrative Costs ^a	6,835	5,750	5,584	6,197	5,056

a Includes legal and investigative support from the Office of the Solicitor and the Office of the Inspector General. Funded by General Revenues.

Source: U.S. DOL 2003b.

Table H2**Longshore and Harbor Workers' Compensation, Benefits and Costs, 1997–2001 (in thousands)**

	1997	1998	1999	2000	2001
Total Benefits	\$617,927	\$642,321	\$659,800	\$671,991	\$689,043
Insurance Carriers	219,352	238,464	232,778	249,671	236,620
Self-Insured Employers	263,255	261,559	283,991	278,952	307,708
LHWCA Special Fund	123,772	129,777	131,152	131,564	133,374
DCCA Special Fund	11,548	12,521	11,879	11,804	11,341
Percent of Benefits for Medical Care	23.3	24.0	24.1	24.3	24.3
Administrative Expenses ¹	9,356	9,821	10,822	11,144	11,713
General Revenue	8,378	8,596	8,947	9,373	9,807
Trust Fund	978	1,225	1,875	1,771	1,906
Indirect Administrative Costs ²	1,799	2,107	2,247	1,787	2,207

1 Longshore program administrative funding is divided between two sources. Industry oversight and claims activities are funded from general tax revenues. The program also exercises fiduciary responsibility for two Special Funds, which draw revenue primarily from annual industry assessments based on anticipated benefit liabilities. These Funds make direct benefit payments for certain categories of claims and provide funding for the program's rehabilitation staff and Special Fund oversight activities.

2 Includes legal and investigative support from the Office of the Solicitor and the Office of the Inspector General. These are not employer costs, but are provided for through General Revenue appropriations.

Source: U.S. DOL 2003b.

Table H3**Coal Mine (Black Lung), Benefits and Costs, 1997–2001 (in thousands)**

	1997	1998	1999	2000	2001
Total Benefits	\$1,095,585	\$1,000,383	\$982,787	\$929,690	\$872,787
Part C Compensation	388,656	373,707	360,470	346,903	332,620
Medical Benefits	92,041	80,450	74,776	69,322	61,136
Part B Compensation	614,888	546,226	547,541	513,465	479,031
Total Administrative Costs	25,759	31,030	33,246	32,866	34,657
Part C (DOL)	25,759	26,698	29,023	28,591	29,897
Part B (SSA)	*	4,332	4,223	4,275	4,760
Coal Tax Revenues Received by the Black Lung Trust Fund ^b	635,342	634,270	569,784	512,799	511,520
Indirect Administrative Costs ^a	19,903	20,115	20,882	21,348	22,207

* information not available

a Includes legal and investigative support from the Office of the Solicitor and the Office of the Inspector General. Funded by General Revenues.

b Does not include the Black Lung Trust Fund debt of \$7,253,557,000 which represents advances from the Treasury Department to pay operating costs not covered by revenues.

Source: U.S. DOL 2003b.

Table H4**Energy Employees Occupational Illness
Compensation Act, Benefits and Costs, 2000
(in thousands)**

Total Benefits	\$67,403
Compensation Benefits	67,400
Medical Benefits	3
% medical	-
Direct Administrative Costs	12,021
Total Costs	79,424

Source: U.S. DOL 2003b.

Table H5**Radiation Exposure Compensation Act, Benefits Paid as of April 2, 2003 (benefits in thousands)**

Claim Type	Claims	Benefits
Childhood Leukemia	23	\$1,150
Other Downwinder	5,531	276,101
Onsite Participant	447	32,706
Uranium Miner	2,388	237,897
Uranium Miller	184	18,400
Ore Transporter	49	4,900
Total	8,622	\$571,153

Source: U.S. DOJ 2003.

Table H6**Federal Veterans' Compensation Program, Compensation Paid in September 2001 (benefits in thousands)**

Class of Dependent	Number	Monthly Value
Veteran Recipients – total	2,321,103	\$1,317,185
Veterans less than 30 percent disabled (no dependency benefit)	1,211,807	157,097
Veterans 30 percent or more disabled	1,109,296	1,160,088
Without dependents	350,500	342,609
With dependents	758,796	817,479
Spouse only	508,768	554,405
Spouse, child or children	195,744	201,460
Spouse, child or children, and parents or parents	845	1,472
Spouse, parent or parents	996	1,815
Child or children only	50,364	53,170
Child or children, and parent or parents	351	614
Parent or parents only	2,328	4,542
Total dependents on whose account additional compensation was being paid	1,143,940	-
Spouse	705,752	-
Children	433,213	-
Parents	4,975	-

Source: U.S. Department of Veterans Affairs 2002, Table 12.

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