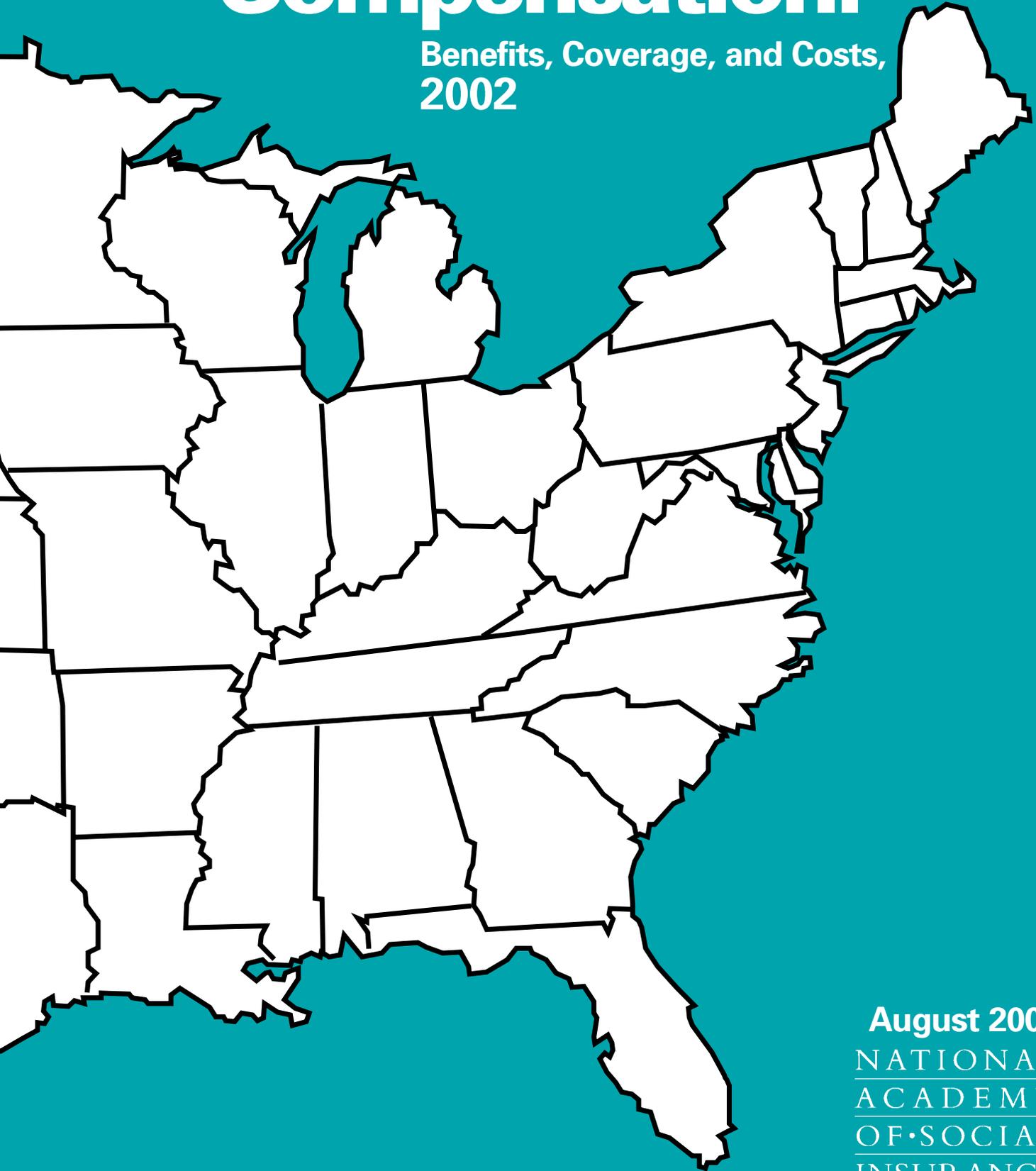


Workers' Compensation:

Benefits, Coverage, and Costs,
2002



August 2004

NATIONAL
ACADEMY
OF SOCIAL
INSURANCE

Washington, DC

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Benefits, Coverage, and Costs,

2002

by

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with advice of the

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

and the

Steering Committee on Workers' Compensation

August 2004

**NATIONAL
ACADEMY
OF SOCIAL
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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 1995, 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 established the Study Panel on National Data on Workers' Compensation, listed on page iv.

This is the seventh 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 2003 extended the data series through 2001. 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 (Williams et al. 2003);
- 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 (Williams et al. 2003); and

- Provide more complete documentation of data collection methods and results, and of methods for estimating coverage, deductibles, and self-insured benefits and costs (Williams et al. 2003).

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 espe-

cially acknowledge 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. This report also benefited from helpful comments during Board review by Christine Baker, Marjorie Baldwin, and Kathryn Olson.

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Highlights

The purpose of this 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, no federal laws set standards for "tax-qualified" plans or impose any reporting requirements. Consequently, states vary greatly in their capacity and methods for assembling data to assess 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 1995. 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 seventh annual report on workers' compensation benefits, coverage, and costs. This report presents new data on developments in workers' compensation in 2002 and updates estimates of benefits, costs, and coverage for the years 1998-2001. The revised estimates in this report replace estimates in the Academy's prior report, *Workers' Compensation: Benefits, Coverage, and Costs, 2001*.

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 in 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 \$53.4 billion in workers' compensation benefits in 2002. Of the total, \$24.3 billion were for medical care and \$29.2 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

Table 1**Comparison of Workers' Compensation Benefits, Coverage, and Costs, 2001-2002
Summary**

| | 2001 | 2002 | Percent Change |
|--|----------|----------|----------------|
| Covered workers (in thousands) | 126,971 | 125,603 | -1.1 |
| Covered wages (in billions) | \$ 4,604 | \$ 4,624 | 0.4 |
| Workers' compensation benefits paid (in billions) | \$ 49.8 | \$ 53.4 | 7.4 |
| Medical benefits | \$ 22.2 | \$ 24.3 | 9.4 |
| Cash benefits | \$ 27.6 | \$ 29.2 | 5.8 |
| Employer costs for workers' compensation (in billions) | \$ 64.5 | \$ 72.9 | 13.0 |
| Benefits per \$100 of covered wages | \$1.08 | \$1.16 | 6.9 |
| Medical benefits per \$100 of covered wages | \$0.48 | \$0.53 | 8.9 |
| Cash benefits per \$100 of covered wages | \$0.60 | \$0.63 | 5.3 |
| Employer costs per \$100 of covered wages | \$1.40 | \$1.58 | 12.5 |
| Benefits per covered worker | \$ 392 | \$ 425 | 8.5 |
| Employer costs per covered worker | \$ 508 | \$ 580 | 14.2 |

Source: National Academy of Social Insurance estimates based on Tables 2, 8, 9, 12, and 13.

amounts and relative to wages of covered workers in the 1990s. In 2002, benefits and costs relative to covered wages continued a rising trend that began in 2001.

Workers' compensation differs from Social Security disability insurance and Medicare in important ways. Workers' compensation pays for medical care for work-related injuries beginning with the date of injury; 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 2002, Social Security paid \$65.6 billion to disabled workers and their dependents, while Medicare paid \$33.4 billion for health care for disabled persons under age 65 (SSA 2003a and CMS 2004).

Some workers also have access to sick leave or long-term disability insurance benefits. About 70 percent of private sector employees have sick leave or short-

term disability coverage, while 30 percent of have no income protection for temporary sickness or disability other than workers' compensation. Benefits typically pay 100 percent of wages for a few weeks. 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.

2002 Developments

In 2002, workers' compensation covered 125.6 million workers, a decline of 1.1 percent from the 127.0 million workers covered in 2001 (Table 1). Total wages of covered workers were \$4.6 trillion in 2002, an increase of 0.4 percent from 2001. The decline in covered workers and very small growth in covered wages reflect the economic recession that began in March 2001 (NBER 2001) and the decline in employment that continued through 2002. States' rules about who is covered by workers' compensation did not change between 2001 and 2002.

Total workers' compensation benefit payments of \$53.4 billion in 2002 were 7.4 percent higher than in 2001. When viewed relative to total wages of covered workers, which grew hardly at all, benefits payments rose by 6.9 percent in 2002; that is benefits per \$100 of covered wages rose from \$1.08 in 2001 to \$1.16 in 2002 (Table 1). Payments for medical care rose 9.4 percent, while cash payments to injured workers increased 5.8 percent in 2002.

Employer costs for workers' compensation as measured for this report 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 2002 were \$72.9 billion, an increase of 13.0 percent from \$64.5 billion in 2001. Relative to total wages of covered workers, employer costs increased to \$1.58 per \$100 of covered wages in 2002, up from \$1.40 per \$100 of covered wages in 2001.

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.

This report includes data and information about 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 pneumo-

coniosis that is financed by employers. Other federal programs akin to workers' compensation that are covered in this report, but not included in national totals are: veterans' compensation benefits of about \$15.8 billion in 2002; 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 second year in a row, workers' compensation benefits relative to covered wages rose in 2002. This was also the second year that employer costs rose relative to covered wages (Figure 1).

Over the longer term, benefits per \$100 of covered wages peaked in 1992 at \$1.68. The benefits of \$1.16 per \$100 of covered wages in 2002 are a decline of about 32 percent from that peak. Employer costs relative to covered wages in 2002 were about 27 percent lower than their peak in 1990, down from \$2.18 to \$1.58 per \$100 of covered wages.

Possible Reasons for Changes in Total Benefits and Costs

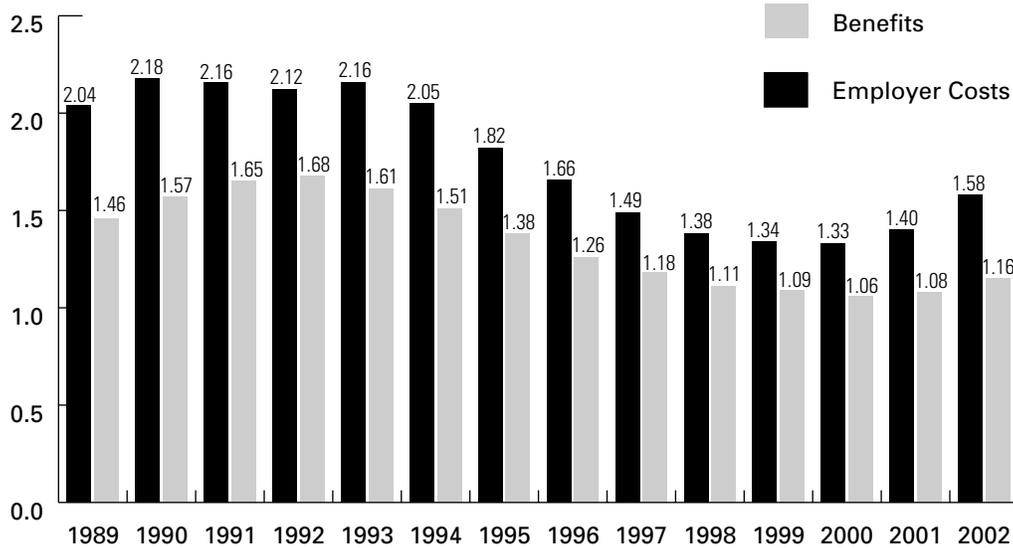
The increases in benefits and costs relative to covered wages in 2002 are due, in part, to very slow growth in covered wages in 2002 of just 0.4 percent. The lagging wage growth reflects job losses in 2002 following the economic recession that began in March 2001. The last time employment declined was in the 1991 economic recession.

Rising medical spending also contributed to the growth in workers' compensation in 2002. Medical benefits rose by 9.4 percent, while cash payments to workers rose 5.8 percent in 2002.

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

Figure 1

Workers' Compensation Benefits and Costs Per \$100 of Covered Wages, 1989–2002



Source: National Academy of Social Insurance estimates.

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 in order to obtain higher permanent disability awards 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 even 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' incen-

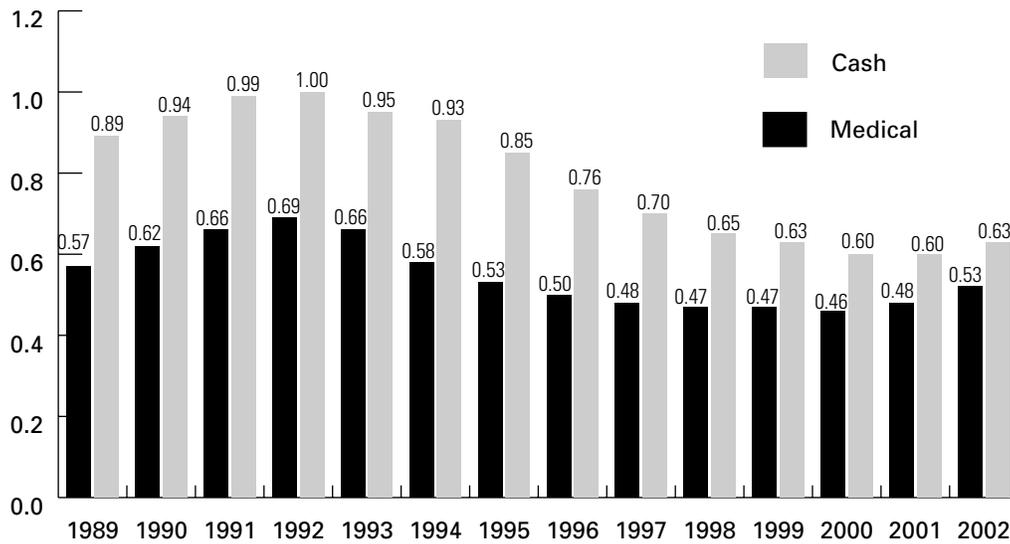
tive to seek additional medical care in order to strengthen their permanent disability claims. On the other hand, worker representatives argue that a stricter adjudicative climate deterred legitimate claims, while restrictions on workers' choice of their treating doctor made it more difficult to get legitimate 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. Between 1992 and 2000 workers' compensation spending for medical care as a share of covered wages fell by 33 percent, from \$0.69 to \$0.46 per \$100 of covered wages (Figure 2).

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 2004a). While data for 2002 are not strictly comparable to prior year data due to changes in OSHA record keeping requirements, the 2002 rate of 1.6 injuries and illnesses involving days away from work per 100 full-time workers is consistent with the data from earlier years. In addition, the National Council on

Figure 2

Workers' Compensation Medical and Cash Benefits per \$100 of Covered Wages, 1989-2002



Source: National Academy of Social Insurance estimates.

Compensation Insurance reports a steady decline in work-related injury rates and claims frequency in the 1990s (NCCI 2002b). 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.

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 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, employees of overseas contractors with the United States, 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 created friction between employers and workers. Ultimately, both employers and employees favored legislation to insure that a worker who sustained an occupational injury or dis-

ease 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, and gave up the right to sue.

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, state laws require employers to obtain insurance or prove they have the financial ability to carry their own risk (self-insure).

Workers' compensation is financed almost exclusively by employers, although economists argue that workers pay for a substantial portion of the costs of the program in the form of lower wages (Leigh et al. 2000, 175-181). The premiums paid by employers are based in part on their industry classifications and the occupational classifications of their workers. Many employers are also experience rated, which results in higher (or lower) premiums for employers whose past experience demonstrates that their workers are paid more (or less) benefits than workers for similar employers in the same insurance classification. The employers' costs of workers' compensation can be affected by other factors, such as deviations, schedule rating, and dividends, as discussed by Thomason, Schmidle, and Burton (2001, Chapter 3).

Types of Workers' Compensation Benefits

Workers' compensation pays for medical care from the date of injury 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 1998-2000 (NCCI 2003a). 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 dollar 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 66 percent of cases involving cash benefits and 26 percent of benefits incurred (Figure 3). 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,

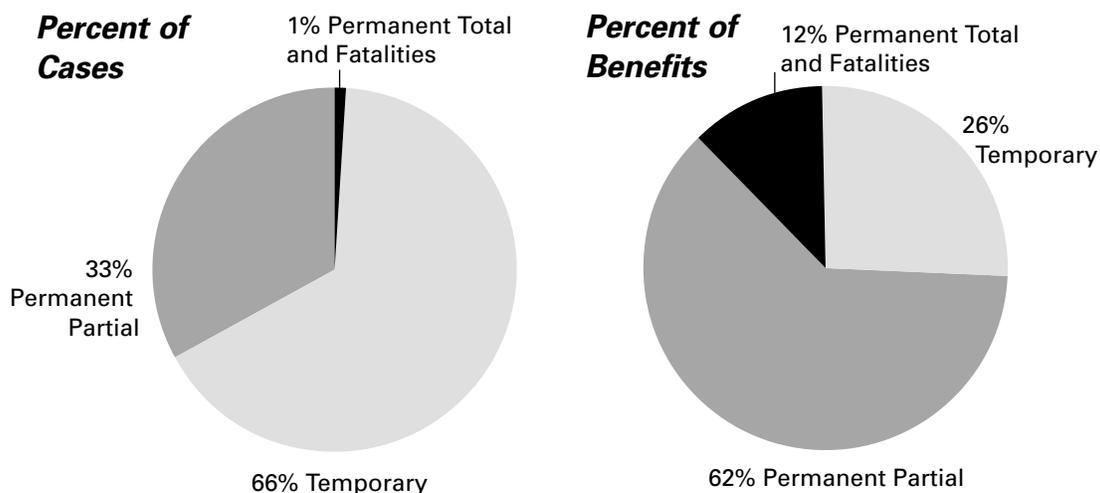
together with fatalities, account for 1 percent of all cases that involve cash benefits, and 12 percent of total benefit spending.

Permanent partial disability benefits are more commonly paid to workers with consequences of their injuries or diseases 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 33 percent of cases that involve any cash payments and for 62 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 subsequent-

Figure 3

Types of Disabilities in Workers' Compensation Cases with Cash Benefits, 1998–2000



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

Source: NCCI 2003a, Exhibits X and XII.

ly received permanent partial benefits ranged from about 3 in 10 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 2002, workers' compensation covered an estimated 125.6 million workers, a decline of 1.1 percent from the 127.0 million workers covered in 2001 (Table 2). Total wages of covered workers were \$4.62 trillion in 2002, an increase of 0.4 percent from 2001. The decline in covered workers and very slow wage growth reflects the continued adverse effects on employment of the recession that began in March 2001. In both 2001 and 2002, job growth was negative and wage growth was slower than at any time in more than two decades. These developments reflect the condition of the overall economy. Workers' compensation coverage rules did not change.

Coverage Rules

Every state except Texas mandates coverage under workers' compensation for almost all private employees (U.S. DOL 2003a). 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.

Table 2

Number of Workers Covered under Workers' Compensation Programs and Total Covered Wages, 1989–2002

| 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 | 4,494 | 8.3 |
| 2001 | 126,971 | -0.1 | 4,604 | 2.4 |
| 2002 | 125,603 | -1.1 | 4,624 | 0.4 |

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

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.

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 2002, 97.9 percent of all UI-covered workers and wages were covered by workers' compensation. They account for about 96 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 2002, and were not covered by either UI or workers' compensation (U.S. DOL 2003b).²

Changes in State Coverage

Because workers' compensation coverage rules did not change between 2001 and 2002, differences in growth rates among states generally reflect changes in the states' overall employment and wages. With regard to covered employment, forty jurisdictions experienced a decline or no change in the number of covered workers, while eleven states experienced an increase in covered jobs in 2002 (Table 3). Alaska showed the largest increase in covered employment

(1.6 percent), while the largest decline was in Massachusetts (2.3 percent).

With regard to wages covered under workers' compensation, eleven jurisdictions registered decreases in covered wages—California, Colorado, Connecticut, Georgia, Illinois, Massachusetts, Michigan, New York, Oregon, Texas, and Virginia. Another seven states saw covered wages rise less than one percent—Kansas, New Hampshire, North Carolina, Ohio, Oklahoma, Utah, and Washington.

Benefit Payments

Workers' compensation medical and cash benefits paid to workers were \$53.4 billion in 2002, an increase of 7.4 percent from \$49.8 billion in 2001 (Table 4). Total benefits increased for the sixth 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 2002, \$53.4 billion in benefits were paid to all active workers' compensation cases, whether the workers receiving benefits were injured in 2002 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.

The A.M. Best data used for this report show benefits paid in each state for 1998 through 2002. They include information for all private carriers in every state and for twenty-one 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

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.

2 For a more in-depth discussion of this methodology see Appendix A and *Workers' Compensation Coverage: Technical Note on Estimates* at www.nasi.org (NASI 2002).

Table 3**Number of Workers Covered by Workers' Compensation and Total Covered Wages, By State, 1998-2002**

| | Covered Workers (in thousands) | | | | | Covered Wages (in millions) | | | | | | |
|----------------------|--------------------------------|--------|--------|--------|--------|-----------------------------|----------|----------|----------|----------|-----------------------------|-------|
| | 1998 | 1999 | 2000 | 2001 | 2002 | 1998 | 1999 | 2000 | 2001 | 2002 | Percent Change 2001-2002 | |
| | Percent Change 2001-2002 | | | | | Percent Change 2001-2002 | | | | | | |
| Alabama | 1,720 | 1,738 | 1,747 | 1,726 | 1,704 | -1.29 | \$45,631 | \$48,038 | \$49,852 | \$51,057 | \$52,037 | 1.92 |
| Alaska | 250 | 252 | 259 | 266 | 270 | 1.59 | 8,256 | 8,382 | 8,856 | 9,391 | 9,786 | 4.20 |
| Arizona | 2,028 | 2,104 | 2,172 | 2,195 | 2,191 | -0.18 | 58,957 | 63,711 | 70,313 | 72,747 | 73,890 | 1.57 |
| Arkansas | 1,038 | 1,056 | 1,074 | 1,071 | 1,064 | -0.69 | 25,048 | 26,505 | 27,952 | 28,874 | 29,515 | 2.22 |
| California | 13,711 | 14,122 | 14,591 | 14,728 | 14,588 | -0.95 | 482,120 | 528,468 | 599,367 | 606,472 | 601,288 | -0.85 |
| Colorado | 1,977 | 2,051 | 2,132 | 2,148 | 2,101 | -2.22 | 63,161 | 69,591 | 78,692 | 80,930 | 79,093 | -2.27 |
| Connecticut | 1,602 | 1,630 | 1,651 | 1,644 | 1,627 | -1.02 | 65,507 | 69,550 | 75,132 | 77,254 | 76,191 | -1.38 |
| Delaware | 383 | 395 | 400 | 400 | 396 | -1.10 | 12,980 | 13,858 | 14,612 | 15,331 | 15,654 | 2.11 |
| District of Columbia | 414 | 431 | 454 | 452 | 458 | 1.31 | 18,650 | 20,622 | 22,539 | 23,788 | 24,634 | 3.56 |
| Florida | 6,231 | 6,450 | 6,664 | 6,754 | 6,765 | 0.17 | 173,808 | 184,929 | 201,923 | 211,244 | 217,178 | 2.81 |
| Georgia | 3,484 | 3,606 | 3,691 | 3,682 | 3,624 | -1.58 | 106,548 | 115,703 | 125,329 | 128,313 | 128,121 | -0.15 |
| Hawaii | 504 | 508 | 523 | 527 | 528 | 0.18 | 14,239 | 14,733 | 15,545 | 15,994 | 16,694 | 4.37 |
| Idaho | 513 | 530 | 550 | 558 | 558 | 0.05 | 12,586 | 13,620 | 15,054 | 15,301 | 15,515 | 1.40 |
| Illinois | 5,684 | 5,754 | 5,840 | 5,793 | 5,679 | -1.97 | 196,468 | 208,109 | 221,437 | 225,549 | 224,324 | -0.54 |
| Indiana | 2,804 | 2,857 | 2,882 | 2,822 | 2,785 | -1.32 | 81,180 | 85,340 | 88,942 | 89,178 | 90,220 | 1.17 |
| Iowa | 1,386 | 1,414 | 1,423 | 1,410 | 1,393 | -1.22 | 35,841 | 37,919 | 39,490 | 40,418 | 41,038 | 1.53 |
| Kansas | 1,250 | 1,265 | 1,279 | 1,286 | 1,270 | -1.21 | 33,188 | 35,149 | 37,198 | 38,411 | 38,730 | 0.83 |
| Kentucky | 1,652 | 1,691 | 1,720 | 1,696 | 1,676 | -1.13 | 43,729 | 46,638 | 49,178 | 50,503 | 51,360 | 1.70 |
| Louisiana | 1,805 | 1,812 | 1,832 | 1,835 | 1,812 | -1.20 | 48,110 | 48,844 | 50,542 | 52,870 | 53,956 | 2.05 |
| Maine | 545 | 560 | 577 | 579 | 577 | -0.37 | 13,883 | 14,856 | 15,715 | 16,445 | 16,887 | 2.69 |
| Maryland | 2,158 | 2,220 | 2,277 | 2,295 | 2,299 | 0.16 | 69,410 | 74,498 | 80,676 | 85,056 | 87,514 | 2.89 |
| Massachusetts | 3,072 | 3,136 | 3,218 | 3,222 | 3,150 | -2.25 | 115,732 | 126,249 | 142,548 | 144,680 | 141,163 | -2.43 |
| Michigan | 4,246 | 4,345 | 4,428 | 4,325 | 4,242 | -1.92 | 146,142 | 154,893 | 163,500 | 161,252 | 161,193 | -0.04 |
| Minnesota | 2,459 | 2,518 | 2,572 | 2,576 | 2,552 | -0.93 | 78,552 | 83,995 | 90,818 | 93,929 | 95,206 | 1.36 |

| | | | | | | | | | | | | |
|-------------------|---------|---------|---------|---------|---------|-------|-----------|-----------|-----------|-----------|-----------|-------|
| Mississippi | 1,035 | 1,057 | 1,056 | 1,033 | 1,027 | -0.61 | 24,269 | 25,396 | 26,207 | 26,364 | 26,900 | 2.03 |
| Missouri | 2,427 | 2,469 | 2,501 | 2,482 | 2,457 | -0.99 | 69,556 | 73,380 | 77,872 | 79,804 | 80,636 | 1.04 |
| Montana | 352 | 359 | 366 | 371 | 374 | 1.02 | 7,767 | 8,147 | 8,637 | 9,102 | 9,482 | 4.17 |
| Nebraska | 826 | 843 | 995 | 860 | 850 | -1.17 | 20,885 | 22,254 | 23,566 | 24,190 | 24,792 | 2.49 |
| Nevada | 906 | 960 | 865 | 1,027 | 1,027 | 0.05 | 27,218 | 29,774 | 32,094 | 33,784 | 34,677 | 2.64 |
| New Hampshire | 568 | 583 | 598 | 602 | 595 | -1.14 | 17,473 | 18,663 | 20,695 | 21,267 | 21,418 | 0.71 |
| New Jersey | 3,627 | 3,720 | 3,809 | 3,809 | 3,792 | -0.46 | 142,862 | 152,386 | 166,150 | 168,391 | 170,802 | 1.43 |
| New Mexico | 655 | 664 | 660 | 673 | 680 | 1.00 | 16,378 | 17,023 | 17,725 | 18,801 | 19,441 | 3.40 |
| New York | 7,949 | 8,154 | 8,325 | 8,287 | 8,135 | -1.83 | 323,095 | 343,628 | 374,687 | 387,229 | 375,634 | -2.99 |
| North Carolina | 3,580 | 3,657 | 3,710 | 3,660 | 3,607 | -1.43 | 100,070 | 107,166 | 114,729 | 116,573 | 117,180 | 0.52 |
| North Dakota | 291 | 295 | 298 | 300 | 300 | 0.04 | 6,591 | 6,908 | 7,249 | 7,593 | 7,843 | 3.28 |
| Ohio | 5,291 | 5,367 | 5,426 | 5,352 | 5,252 | -1.86 | 159,602 | 167,351 | 175,162 | 176,803 | 178,285 | 0.84 |
| Oklahoma | 1,361 | 1,377 | 1,404 | 1,417 | 1,393 | -1.69 | 33,482 | 34,825 | 37,061 | 38,877 | 38,991 | 0.29 |
| Oregon | 1,521 | 1,546 | 1,577 | 1,567 | 1,543 | -1.52 | 44,522 | 47,365 | 51,322 | 51,598 | 51,496 | -0.20 |
| Pennsylvania | 5,252 | 5,349 | 5,444 | 5,444 | 5,396 | -0.87 | 164,776 | 173,798 | 184,030 | 189,065 | 191,743 | 1.42 |
| Rhode Island | 418 | 427 | 437 | 439 | 439 | -0.03 | 12,447 | 13,152 | 14,096 | 14,563 | 15,058 | 3.40 |
| South Carolina | 1,661 | 1,701 | 1,729 | 1,698 | 1,677 | -1.23 | 43,100 | 45,806 | 48,345 | 49,306 | 49,868 | 1.14 |
| South Dakota | 335 | 345 | 353 | 354 | 352 | -0.45 | 7,490 | 8,052 | 8,592 | 8,881 | 9,101 | 2.47 |
| Tennessee | 2,425 | 2,475 | 2,516 | 2,479 | 2,455 | -1.00 | 68,299 | 72,255 | 76,065 | 77,275 | 78,948 | 2.17 |
| Texas | 7,044 | 7,278 | 7,573 | 7,705 | 7,629 | -0.99 | 220,446 | 238,031 | 263,100 | 276,163 | 274,531 | -0.59 |
| Utah | 962 | 986 | 1,011 | 1,017 | 1,006 | -1.06 | 25,461 | 27,143 | 29,109 | 30,124 | 30,233 | 0.36 |
| Vermont | 275 | 282 | 290 | 292 | 290 | -0.92 | 7,245 | 7,726 | 8,325 | 8,758 | 8,896 | 1.57 |
| Virginia | 3,088 | 3,177 | 3,202 | 3,216 | 3,186 | -0.92 | 94,485 | 102,718 | 110,232 | 115,570 | 115,504 | -0.06 |
| Washington | 2,525 | 2,576 | 2,637 | 2,622 | 2,575 | -1.81 | 82,863 | 91,575 | 97,245 | 97,512 | 97,585 | 0.07 |
| West Virginia | 657 | 659 | 664 | 664 | 661 | -0.41 | 16,305 | 16,815 | 17,491 | 18,187 | 18,483 | 1.63 |
| Wisconsin | 2,546 | 2,603 | 2,646 | 2,630 | 2,604 | -0.98 | 72,333 | 76,769 | 80,913 | 82,627 | 84,191 | 1.89 |
| Wyoming | 211 | 216 | 222 | 228 | 230 | 0.91 | 5,133 | 5,448 | 5,859 | 6,295 | 6,564 | 4.27 |
| Total non-federal | 118,704 | 121,566 | 124,269 | 124,219 | 122,844 | -1.11 | 3,763,879 | 4,027,755 | 4,361,767 | 4,469,692 | 4,479,466 | 0.22 |
| Federal employees | 2,781 | 2,783 | 2,871 | 2,753 | 2,758 | 0.21 | 121,490 | 123,286 | 132,731 | 134,712 | 144,329 | 7.14 |
| TOTAL | 121,485 | 124,349 | 127,141 | 126,971 | 125,603 | -1.08 | 3,885,370 | 4,151,040 | 4,494,499 | 4,604,404 | 4,623,795 | 0.42 |

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

Table 4**Workers' Compensation Benefits, by Type of Insurer, 1987–2002 (in millions)**

| Year ^a | Total | Percent Change in Total | Private Carriers | State Funds | Self- Insured | Federal ^b | Medical | Percent Medical |
|-------------------|-----------|----------------------------|---------------------|----------------|------------------|----------------------|----------|--------------------|
| 1987 | \$ 27,317 | 11.0 | \$ 15,453 | \$ 4,084 | \$ 5,082 | \$ 2,698 | \$ 9,912 | 36.3 |
| 1988 | 30,703 | 12.4 | 17,512 | 4,687 | 5,744 | 2,760 | 11,507 | 37.5 |
| 1989 | 34,316 | 11.8 | 19,918 | 5,205 | 6,433 | 2,760 | 13,424 | 39.1 |
| 1990 | 38,238 | 11.4 | 22,222 | 5,873 | 7,249 | 2,893 | 15,187 | 39.7 |
| 1991 | 42,169 | 10.3 | 24,515 | 6,713 | 7,944 | 2,998 | 16,832 | 39.9 |
| 1992 | 45,668 | 8.3 | 25,280 | 7,506 | 9,724 | 3,158 | 18,664 | 40.9 |
| 1993 | 45,330 | -.7 | 24,129 | 7,400 | 10,623 | 3,178 | 18,503 | 40.8 |
| 1994 | 44,586 | -1.6 | 22,306 | 7,587 | 11,527 | 3,166 | 17,194 | 38.6 |
| 1995 | 43,373 | -2.7 | 21,145 | 7,893 | 11,232 | 3,103 | 16,733 | 38.6 |
| 1996 | 41,837 | -3.5 | 20,392 | 7,603 | 10,775 | 3,066 | 16,567 | 39.6 |
| 1997 | 42,314 | 1.1 | 21,645 | 7,266 | 10,623 | 2,780 | 17,306 | 40.9 |
| 1998 | 43,278 | 2.3 | 22,966 | 7,241 | 10,203 | 2,868 | 18,121 | 41.3 |
| 1999 | 45,263 | 4.6 | 24,632 | 7,264 | 10,504 | 2,862 | 19,316 | 42.1 |
| 2000 | 47,621 | 5.2 | 26,513 | 7,449 | 10,702 | 2,957 | 20,710 | 42.9 |
| 2001 | 49,772 | 4.5 | 27,274 | 7,989 | 11,439 | 3,069 | 22,207 | 44.6 |
| 2002 | 53,443 | 7.4 | 29,028 | 9,385 | 11,876 | 3,154 | 24,285 | 45.4 |

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 1997–2002, 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.

Sources: National Academy of Social Insurance estimates. See Appendices B and H.

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 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.

In response to the Academy's 2002 questionnaire for state agencies, we received replies from forty-five states. Appendix C summarizes the kinds of data

each state reported. 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 *Sources and Methods: A Companion to Workers' Compensation: Benefits, Coverage, and Costs, 2002* on the Academy's website at www.nasi.org.

Table 5**Total Amount and Percentage Distribution of Workers' Compensation Benefit Payments by Type of Insurer, 1990–2002**

| Year | Total Benefits (in millions) | Percentage Distribution | | | | | | | |
|------|---------------------------------|-------------------------|------------------|--------------------------|-------------|--------------------------|----------------------|--------------|-------------------------------|
| | | Total | Private Carriers | | State Funds | | Federal ^b | Self-Insured | Self-Insured plus Deductibles |
| | | | All | Deductibles ^a | All | Deductibles ^a | | | |
| 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 | 42,314 | 100.0 | 51.2 | 8.6 | 17.2 | 0.7 | 6.6 | 25.1 | 34.4 |
| 1998 | 43,278 | 100.0 | 53.1 | 9.0 | 16.7 | 0.6 | 6.6 | 23.6 | 33.1 |
| 1999 | 45,263 | 100.0 | 54.4 | 10.5 | 16.0 | 0.6 | 6.3 | 23.2 | 34.3 |
| 2000 | 47,621 | 100.0 | 55.7 | 12.0 | 15.6 | 0.6 | 6.2 | 22.5 | 35.1 |
| 2001 | 49,772 | 100.0 | 54.8 | 11.3 | 16.1 | 0.6 | 6.2 | 23.0 | 34.8 |
| 2002 | 53,443 | 100.0 | 54.3 | 13.7 | 17.6 | 0.9 | 5.9 | 22.2 | 36.8 |

* 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.

Sources of Insurance Coverage

Private insurance carriers remain the largest source of workers' compensation benefits. In 2002, they accounted for 54.3 percent of benefits paid, a slight decline from 54.8 percent of total benefits in 2001 (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 2002. The share of benefits provided by self-insurers was 22.2 percent, a slight decrease from 23.0 percent in 2001. 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.³ 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 17.6 percent in 2002, from 16.1 percent in 2001. A total of twenty-six states have state funds that provide workers' compensation insurance. 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

³ Self-insurance is allowed in three of the exclusive state fund states (Ohio, Washington, and West Virginia).

from federal taxes, and typically 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 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 2002 deductibles totaled about \$7.8 billion, which was 14.7 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 19.0 percent in 1990 to 35.0 percent in 1996, and remained between 33 and 36 percent of total benefits from 1996 through 2001. In 2002, this share increased to 36.8% of benefit payments (Table 5).

Table 6

Estimated Employer-Paid Benefits under Deductible Provisions for Workers' Compensation, (in millions), 1992–2002

| 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 | 4,114 | 3,873 | 241 |
| 1999 | 5,019 | 4,750 | 269 |
| 2000 | 6,017 | 5,726 | 291 |
| 2001 | 5,899 | 5,618 | 281 |
| 2002 | 7,778 | 7,316 | 462 |

* Negligible

Note: Data on deductible benefits were available from eighteen states. Six states do not allow policies with deductibles. For the other twenty-six states and the District of Columbia, deductible benefits were estimated to be the same percentage of benefits as found in the eighteen 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.

The growth in self-insurance and in deductible policies in the early 1990s, as well as the down-turn in 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. The combination of improved underwriting results and higher returns on reserves led to high profits by historical standards within the workers' compensation insurance industry.⁴ The most comprehensive measure of underwriting experience is the overall operating ratio, which is calculated as (1) the total of all carriers expenses, including benefits payments and underwriting expenses (2) minus investment income (3) as a percent of premiums. An operating ratio of less than 100 indicates that the industry is profitable when investment income is included. The operating ratio was less than 100 from 1993 to 2000, and was in the range of 80.2 to 82.1 from 1995 to 1997. Comparable data are available since 1976, and the previous low for the operating ratio was in 1982, when the operating ratio was 88.9 (Yates and Burton 2002).

These high profits led to fierce underwriting competition. Insurance companies began offering multi-year guaranteed cost programs that locked in low

⁴ The ability of the workers' compensation insurance industry to attract adequate capital depends in large part on the rate of return on net worth in workers' compensation compared to the returns available in other segments of the economy. In most years in the 1990s, data from the National Association of Insurance Commissioners and Fortune magazine indicate that the rate of return in the workers' compensation insurance industry was lower than the rate of return available elsewhere in the economy.

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.

Beginning in 1998 the overall operating ratio began to rapidly increase, and reached 109.7 in 2001, indicating that the industry was losing money even when investment income is considered. This deterioration in underwriting results resulted in a hardening of the insurance market, which in turn provided a stimulus for some firms to self-insure. The overall operating ratio then dropped to 100.4 in 2002 (Yates and Burton 2003), indicating that the workers' compensation insurance industry was essentially breaking even in the year to which this report pertains.

Total Medical Payments

The 7.4 percent increase in total workers' compensation benefits from 2001 to 2002 was driven, in part, by the 9.4 percent increase in medical payments. Cash payments to workers rose just 5.8 percent. The share of total workers' compensation benefits that were for medical care rose from 45.1 percent in 2001 to 46.0 percent in 2002 (Table 7). The remaining benefits—54.0 percent of the total in 2002—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. Other reasons for the growth in medical spending include the increasing cost of medical care, the lack of cost controls, and incentives for over-utilization of medical care.

In the 1990s, partially as a response to escalating costs, more workers' compensation programs adopted managed health care, medical fee schedules, and limitations on the employees' choice of treating physician. This change is often credited for decreasing

spending for medical benefits in the mid-1990s. Following a short period of relatively moderate growth in medical benefits during this period, workers' compensation medical benefits have now returned to double-digit annual growth rates (NCCI 2004b). 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).

Changes in State Benefits

On a national level, total benefits (cash plus medical) were 7.4 percent higher in 2002 than in 2001. Focusing only on national growth conceals a great deal of variation among states. Table 8 shows annual changes in state benefit payments in 1998-2002. 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 8.

In nine jurisdictions, benefits declined between 2001 and 2002. The states with a decline include Florida, Louisiana, Maryland, Nevada, North Dakota, Oklahoma, Oregon, Tennessee, and Wisconsin. On the other hand, fourteen states showed an increase in benefits that is at least five percentage points higher than the national average growth rate of 6.9 percent. States with increases more than five percentage points above the national average include Arizona, California, Colorado, Connecticut, Delaware, Idaho, Kansas, Missouri, Nebraska, New Mexico, North Carolina, Utah, Vermont, and West Virginia.

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

- Changes in workers' compensation statutes, new court rulings or new 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;

Table 7**Workers' Compensation Programs, Benefits Paid, 1960–2002^a (in millions)**

| 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 | 42,420 | 2.4 | 24,509 | 17,912 | 42.2 |
| 1999 | 44,400 | 4.7 | 25,244 | 19,156 | 43.1 |
| 2000 | 46,782 | 5.4 | 26,228 | 20,555 | 43.9 |
| 2001 | 48,926 | 4.6 | 26,875 | 22,050 | 45.1 |
| 2002 | 52,606 | 7.5 | 28,387 | 24,220 | 46.0 |

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 State, 1998–2002¹
(in thousands)

| State | 1998 | 1999 | 2000 | 2001 | 2002 | 1998–1999 | 1999–2000 | 2000–2001 | 2001–2002 | 1998–2002 |
|----------------------|------------|------------|------------|------------|------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Alabama | \$ 602,088 | \$ 551,398 | \$ 529,189 | \$ 562,773 | \$ 565,264 | -8.4 | -4.0 | 6.3 | 0.4 | -6.1 |
| Alaska | 127,368 | 130,334 | 145,917 | 171,248 | 187,578 | 2.3 ^a | 12.0 | 17.4 | 9.5 | 47.3 |
| Arizona | 432,965 | 465,554 | 515,241 | 465,319 | 528,491 | 7.5 | 10.7 ^b | -9.7 ^b | 13.6 | 22.1 |
| Arkansas | 174,303 | 185,372 | 197,762 | 206,836 | 222,192 | 6.4 | 6.7 | 4.6 | 7.4 | 27.5 |
| California | 7,365,820 | 7,851,641 | 8,967,630 | 9,605,478 | 11,282,610 | 6.6 | 14.2 | 7.1 | 17.5 | 53.2 |
| Colorado | 810,985 | 738,526 | 835,054 | 586,500 | 807,001 | -8.9 | 13.1 | -29.8 | 37.6 | -0.5 |
| Connecticut | 714,822 | 736,857 | 667,056 | 661,471 | 747,959 | 3.1 | -9.5 | -0.8 | 13.1 | 4.6 |
| Delaware | 147,070 | 133,023 | 146,090 | 145,546 | 168,820 | -9.6 | 9.8 | -0.4 | 16.0 | 14.8 |
| District of Columbia | 90,386 | 90,232 | 88,661 | 92,990 | 101,836 | -0.2 | -1.7 | 4.9 | 9.5 | 12.7 |
| Florida | 2,538,353 | 2,768,044 | 2,544,777 | 2,669,630 | 2,305,828 | 9.0 | -8.1 | 4.9 | -13.6 | -9.2 |
| Georgia | 889,131 | 895,690 | 995,775 | 1,067,327 | 1,082,971 | 0.7 | 11.2 | 7.2 | 1.5 | 21.8 |
| Hawaii | 233,225 | 222,056 | 231,359 | 252,041 | 267,827 | -4.8 | 4.2 | 8.9 | 6.3 | 14.8 |
| Idaho | 164,327 | 168,642 | 179,370 | 198,507 | 233,069 | 2.6 | 6.4 | 10.7 | 17.4 | 41.8 |
| Illinois | 1,838,191 | 1,952,697 | 2,049,223 | 2,139,026 | 2,232,015 | 6.2 | 4.9 | 4.4 | 4.3 | 21.4 |
| Indiana | 481,073 | 510,992 | 545,863 | 531,402 | 577,410 | 6.2 ^c | 6.8 | -2.6 | 8.7 | 20.0 ^c |
| Iowa | 320,761 | 322,176 | 356,807 | 395,657 | 427,507 | 0.4 ^d | 10.7 | 10.9 | 8.1 | 33.3 |
| Kansas | 318,976 | 326,196 | 341,547 | 340,343 | 405,091 | 2.3 | 4.7 | -0.4 | 19.0 | 27.0 |
| Kentucky | 421,386 | 477,867 | 479,338 | 482,076 | 527,088 | 13.4 | 0.3 | 0.6 | 9.3 | 25.1 |
| Louisiana | 442,025 | 464,883 | 493,653 | 501,662 | 499,136 | 5.2 | 6.2 | 1.6 | -0.5 | 12.9 |
| Maine | 253,946 | 265,862 | 266,997 | 265,082 | 292,678 | 4.7 | 0.4 | -0.7 | 10.4 | 15.3 |
| Maryland | 691,285 | 714,356 | 729,656 | 796,186 | 783,686 | 3.3 | 2.1 | 9.1 | -1.6 | 13.4 |
| Massachusetts | 728,771 | 733,191 | 828,159 | 774,473 | 807,434 | 0.6 | 13.0 | -6.5 | 4.3 | 10.8 |
| Michigan | 1,366,988 | 1,392,806 | 1,474,058 | 1,477,986 | 1,512,457 | 1.9 | 5.8 | 0.3 | 2.3 | 10.6 |
| Minnesota | 737,100 | 744,500 | 797,800 | 904,200 | 921,000 | 1.0 | 7.2 | 13.3 | 1.9 | 24.9 |
| Mississippi | 234,873 | 253,664 | 269,342 | 271,163 | 286,538 | 8.0 | 6.2 | 0.7 | 5.7 | 22.0 |
| Missouri | 814,287 | 971,628 | 908,819 | 1,079,745 | 1,226,241 | 19.3 | -6.5 | 18.8 | 13.6 | 50.6 |
| Montana | 136,975 | 145,996 | 169,763 | 172,725 | 190,850 | 6.6 | 16.3 | 1.7 | 10.5 | 39.3 |
| Nebraska | 164,382 | 198,276 | 211,285 | 238,300 | 293,089 | 20.6 ^e | 6.6 ^e | 12.8 | 23.0 ^e | 78.3 ^e |
| Nevada | 331,420 | 384,285 | 360,917 | 384,931 | 352,531 | 16.0 | -6.1 | 6.7 | -8.4 | 6.4 |
| New Hampshire | 169,663 | 190,072 | 181,900 | 215,817 | 216,900 | 12.0 ^f | -4.3 | 18.6 | 0.5 | 27.8 ^f |
| New Jersey | 1,164,184 | 1,239,702 | 1,298,824 | 1,362,965 | 1,470,839 | 6.5 | 4.8 | 4.9 | 7.9 | 26.3 |
| New Mexico | 128,290 | 135,903 | 146,374 | 162,810 | 191,189 | 5.9 | 7.7 ^g | 11.2 ^g | 17.4 | 49.0 |
| New York | 2,600,961 | 2,795,769 | 2,909,115 | 2,978,224 | 3,142,392 | 7.5 | 4.1 | 2.4 | 5.5 | 20.8 |

| | | | | | | | | | | |
|----------------------|------------|------------|------------|------------|------------|-------|-------------------|-------------------|-------------------|-------------------|
| North Carolina | 810,188 | 813,823 | 853,318 | 890,272 | 1,014,136 | 0.4 | 4.9 | 4.3 | 13.9 | 25.2 |
| North Dakota | 68,925 | 69,911 | 74,402 | 76,158 | 74,456 | 1.4 | 6.4 | 2.4 | -2.2 ^h | 8.0 ^h |
| Ohio | 2,076,545 | 2,038,742 | 2,098,528 | 2,248,375 | 2,388,184 | -1.8 | 2.9 | 7.1 | 6.2 | 15.0 |
| Oklahoma | 536,420 | 496,500 | 484,911 | 499,827 | 489,866 | -7.4 | -2.3 | 3.1 | -2.0 | -8.7 |
| Oregon | 430,521 | 384,110 | 412,471 | 455,625 | 447,548 | -10.8 | 7.4 | 10.5 | -1.8 | 4.0 |
| Pennsylvania | 2,418,072 | 2,467,114 | 2,402,614 | 2,440,407 | 2,531,957 | 2.0 | -2.6 | 1.6 | 3.8 | 4.7 |
| Rhode Island | 110,185 | 113,218 | 113,599 | 124,326 | 131,230 | 2.8 | 0.3 | 9.4 | 5.6 | 19.1 |
| South Carolina | 467,277 | 511,735 | 596,526 | 622,985 | 690,451 | 9.5 | 16.6 | 4.4 | 10.8 | 47.8 |
| South Dakota | 67,088 | 72,509 | 66,991 | 74,950 | 79,256 | 8.1 | -7.6 | 11.9 | 5.7 | 18.1 |
| Tennessee | 550,819 | 586,363 | 642,201 | 691,926 | 679,211 | 6.5 | 9.5 | 7.7 | -1.8 | 23.3 |
| Texas | 1,591,818 | 1,874,974 | 2,004,504 | 2,056,355 | 2,275,338 | 17.8 | 6.9 | 2.6 | 10.6 ⁱ | 42.9 ⁱ |
| Utah | 188,543 | 195,774 | 187,729 | 211,279 | 240,179 | 3.8 | -4.1 ^j | 12.5 ^j | 13.7 | 27.4 |
| Vermont | 91,436 | 106,389 | 112,349 | 106,008 | 147,790 | 16.4 | 5.6 | -5.6 | 39.4 | 61.6 ^k |
| Virginia | 658,466 | 629,348 | 680,911 | 671,828 | 700,266 | -4.4 | 8.2 | -1.3 | 4.2 | 6.3 |
| Washington | 1,286,680 | 1,395,246 | 1,527,657 | 1,637,714 | 1,714,497 | 8.4 | 9.5 | 7.2 | 4.7 | 33.2 |
| West Virginia | 644,294 | 687,002 | 690,377 | 712,495 | 829,020 | 6.6 | 0.5 | 3.2 | 16.4 ^l | 28.7 ^l |
| Wisconsin | 703,610 | 724,360 | 768,282 | 923,759 | 893,933 | 2.9 | 6.1 | 20.2 | -3.2 | 27.0 |
| Wyoming | 73,080 | 75,196 | 82,875 | 97,706 | 104,187 | 2.9 | 10.2 | 17.9 | 6.6 | 42.6 |
| Non-federal total | 40,410,346 | 42,400,503 | 44,663,564 | 46,702,433 | 50,289,020 | 4.9 | 5.3 | 4.6 | 7.7 | 24.4 |
| Federal ² | 2,867,876 | 2,862,183 | 2,957,404 | 3,069,267 | 3,153,625 | -0.2 | 3.3 | 3.8 | 2.7 | 10.0 |
| Federal employees | 2,009,862 | 1,999,915 | 2,118,859 | 2,223,088 | 2,317,325 | -0.5 | 5.9 | 4.9 | 4.2 | 15.3 |
| TOTAL | 43,278,222 | 45,262,686 | 47,620,968 | 49,771,700 | 53,442,645 | 4.6 | 5.2 | 4.5 | 7.0 | 23.1 |

- 1 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, 2002* section of the Academy's website at www.nasi.org.
- 2 Includes federal benefits as included in Table 9.

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.

- a 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.
- b Deductible data were not available for 2000-2002. Deductibles were estimated using the average percentage of deductibles for all states where the data were available.
- c Self-insurance data were not available for 1998. The average percentage of total benefits paid by self-insurers in the state in 1999 and 2000 was used.
- d No data were available from the state for 1998. Estimates for 1998 are based on data from A.M. Best.
- e No data were available from the state for 1999 or 2002. Estimates for 1999 and 2002

are based on data from A.M. Best. Estimates for 1998 use the same methodology as those for 2000 and 2001.

The state agency was able to provide private carrier data for 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.

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.

The state agency provided fiscal year data for all years. Averages were used to estimate calendar year data for 1998-2001. Fiscal year 2003 data were not yet available. These data will be used to estimate calendar year 2002 data in the next edition of this report.

The state agency was unable to provide data for 2002. Data from A.M. Best were used. 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.

The state agency was only able to provide data for 1997 and 1998. Estimates for 1999-2002 are based on data received from AM. Best and self-insurance imputations as described in Appendix E.

Tentative data from the state agency for all years.

Table 9**Workers' Compensation Benefits by Type of Insurer and Medical Benefits, by State, 2002**
(in thousands)

| State | Total | Private Carriers ^a | State Funds | Self-Insured ^b | Medical | Percent Medical |
|----------------------|------------|-------------------------------|-------------|---------------------------|------------|-------------------|
| Alabama | \$ 565,264 | \$ 290,009 | \$ - | \$ 275,255 | \$ 327,537 | 57.9 |
| Alaska | 187,578 | 145,324 | - | 42,254 | 106,578 | 56.8 |
| Arizona | 528,491 | 198,728 | 251,698 | 78,065 | 317,623 | 60.1 ^c |
| Arkansas | 222,192 | 145,163 | - | 77,029 | 138,648 | 62.4 ^c |
| California | 11,282,610 | 5,947,614 | 2,191,962 | 3,143,034 | 5,645,031 | 50.0 |
| Colorado | 807,001 | 309,436 | 332,725 | 164,840 | 357,063 | 44.2 |
| Connecticut | 747,959 | 543,266 | - | 204,693 | 310,403 | 41.5 ^c |
| Delaware | 168,820 | 114,348 | - | 54,472 | 84,217 | 49.9 ^d |
| District of Columbia | 101,836 | 79,781 | - | 22,055 | 33,471 | 32.9 |
| Florida | 2,305,828 | 1,817,729 | - | 488,099 | 1,312,016 | 56.9 ^c |
| Georgia | 1,082,971 | 769,767 | - | 313,205 | 516,577 | 47.7 ^c |
| Hawaii | 267,827 | 175,029 | 11,754 | 81,044 | 105,927 | 39.6 |
| Idaho | 233,069 | 89,549 | 127,837 | 15,683 | 132,150 | 56.7 ^c |
| Illinois | 2,232,015 | 1,748,148 | - | 483,867 | 991,015 | 44.4 ^c |
| Indiana | 577,410 | 488,138 | - | 89,272 | 377,212 | 65.3 ^c |
| Iowa | 427,507 | 348,434 | - | 79,073 | 216,319 | 50.6 ^c |
| Kansas | 405,091 | 298,992 | - | 106,099 | 219,559 | 54.2 ^c |
| Kentucky | 527,088 | 334,460 | 47,857 | 144,771 | 281,526 | 53.4 |
| Louisiana | 499,136 | 224,795 | 130,484 | 143,857 | 263,045 | 52.7 ^c |
| Maine | 292,678 | 116,675 | 88,952 | 87,051 | 118,734 | 40.6 |
| Maryland | 783,686 | 400,192 | 192,546 | 190,948 | 307,744 | 39.3 ^c |
| Massachusetts | 807,434 | 689,435 | - | 117,999 | 259,149 | 32.1 |
| Michigan | 1,512,457 | 846,823 | - | 665,634 | 523,260 | 34.6 |
| Minnesota | 921,000 | 612,600 | 98,100 | 210,300 | 437,500 | 47.5 |
| Mississippi | 286,538 | 168,832 | - | 117,706 | 163,484 | 57.1 |
| Missouri | 1,226,241 | 870,112 | 82,685 | 273,443 | 592,878 | 48.3 |
| Montana | 190,850 | 72,764 | 83,070 | 35,016 | 102,013 | 53.5 |
| Nebraska | 293,089 | 214,438 | - | 78,650 | 167,354 | 57.1 ^c |

| | | | | | | |
|----------------------------|-------------------|------------|-----------|------------|-------------------|-------------------|
| Nevada | 352,531 | 230,553 | - | 121,977 | 129,199 | 36.6 |
| New Hampshire | 216,900 | 180,057 | - | 36,843 | 120,596 | 55.6 ^c |
| New Jersey | 1,470,839 | 1,356,231 | - | 114,608 | 759,157 | 51.6 ^d |
| New Mexico | 191,189 | 102,508 | 33,461 | 55,221 | 107,908 | 56.4 |
| New York | 3,142,392 | 1,580,743 | 780,636 | 781,013 | 968,462 | 30.8 |
| North Carolina | 1,014,136 | 774,596 | - | 239,540 | 435,064 | 42.9 ^c |
| North Dakota | 74,456 | 206 | 74,250 | - | 41,106 | 55.2 |
| Ohio | 2,388,184 | 37,652 | 1,878,255 | 472,277 | 1,106,570 | 46.3 |
| Oklahoma | 489,866 | 262,579 | 108,982 | 118,305 | 225,828 | 46.1 ^c |
| Oregon | 447,548 | 213,144 | 192,157 | 42,247 | 227,156 | 50.8 |
| Pennsylvania | 2,531,957 | 1,798,988 | 160,795 | 572,174 | 1,005,602 | 39.7 |
| Rhode Island | 131,230 | 50,076 | 65,054 | 16,100 | 30,143 | 23.0 |
| South Carolina | 690,451 | 463,888 | 51,004 | 175,560 | 204,652 | 29.6 |
| South Dakota | 79,256 | 72,726 | - | 6,530 | 44,020 | 55.5 |
| Tennessee | 679,211 | 526,603 | - | 152,608 | 348,435 | 51.3 ^c |
| Texas | 2,275,338 | 1,762,267 | 258,460 | 254,612 | 1,412,985 | 62.1 ^c |
| Utah | 240,179 | 85,334 | 121,747 | 33,098 | 159,959 | 66.6 ^c |
| Vermont | 147,790 | 122,330 | - | 25,459 | 77,885 | 52.7 ^c |
| Virginia | 700,266 | 555,898 | - | 144,367 | 378,844 | 54.1 ^c |
| Washington | 1,714,497 | 28,768 | 1,225,007 | 460,722 | 589,267 | 34.4 |
| West Virginia ^f | 829,020 | - | 697,271 | 131,749 | 245,450 | 29.6 |
| Wisconsin | 893,933 | 756,599 | - | 137,334 | 461,394 | 51.6 ^d |
| Wyoming | 104,187 | 5,913 | 98,274 | - | 66,487 | 63.8 |
| Non-federal total | 50,289,020 | 29,028,239 | 9,385,022 | 11,875,759 | 23,554,200 | 46.8 |
| Federal ^e | 3,153,625 | | | | 731,134 | 23.2 |
| Federal employees | 2,317,325 | | | | 665,378 | 28.7 |
| TOTAL | 53,442,645 | | | | 24,285,334 | 45.4 |

a States with exclusive funds (Ohio, North Dakota, Washington, West Virginia, and Wyoming) may 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, see Appendix F."

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 Tentative data from the state agency.

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 10

Medical, Cash, and Total Benefits, by state, 2001-2002¹
(in thousands)

| State | 2001 | | | 2002 | | | 2001-2002 Percent Change | | |
|----------------------|-----------|-----------|-----------|-----------|-----------|------------|--------------------------|-------|-------|
| | Medical | Cash | Total | Medical | Cash | Total | Medical | Cash | Total |
| Alabama | 329,138 | 233,634 | 562,773 | 327,537 | 237,727 | 565,264 | -0.5 | 1.8 | 0.4 |
| Alaska | 95,602 | 75,646 | 171,248 | 106,578 | 81,000 | 187,578 | 11.5 | 7.1 | 9.5 |
| Arizona | 285,706 | 179,613 | 465,319 | 317,623 | 210,868 | 528,491 | 11.2 | 17.4 | 13.6 |
| Arkansas | 126,584 | 80,253 | 206,836 | 138,648 | 83,544 | 222,192 | 9.5 | 4.1 | 7.4 |
| California | 4,467,975 | 5,137,503 | 9,605,478 | 5,645,031 | 5,637,579 | 11,282,610 | 26.3 | 9.7 | 17.5 |
| Colorado | 263,391 | 323,109 | 586,500 | 357,063 | 449,939 | 807,001 | 35.6 | 39.3 | 37.6 |
| Connecticut | 276,495 | 384,976 | 661,471 | 310,403 | 437,556 | 747,959 | 12.3 | 13.7 | 13.1 |
| Delaware | 68,085 | 77,460 | 145,546 | 84,217 | 84,604 | 168,820 | 23.7 | 9.2 | 16.0 |
| District of Columbia | 33,264 | 59,726 | 92,990 | 33,471 | 68,365 | 101,836 | 0.6 | 14.5 | 9.5 |
| Florida | 1,513,680 | 1,155,950 | 2,669,630 | 1,312,016 | 993,812 | 2,305,828 | -13.3 | -14.0 | -13.6 |
| Georgia | 515,519 | 551,808 | 1,067,327 | 516,577 | 566,394 | 1,082,971 | 0.2 | 2.6 | 1.5 |
| Hawaii | 103,304 | 148,737 | 252,041 | 105,927 | 161,901 | 267,827 | 2.5 | 8.8 | 6.3 |
| Idaho | 111,561 | 86,946 | 198,507 | 132,150 | 100,919 | 233,069 | 18.5 | 16.1 | 17.4 |
| Illinois | 960,423 | 1,178,603 | 2,139,026 | 991,015 | 1,241,000 | 2,232,015 | 3.2 | 5.3 | 4.3 |
| Indiana | 346,052 | 185,349 | 531,402 | 377,212 | 200,198 | 577,410 | 9.0 | 8.0 | 8.7 |
| Iowa | 182,793 | 212,863 | 395,657 | 216,319 | 211,189 | 427,507 | 18.3 | -0.8 | 8.1 |
| Kansas | 194,336 | 146,007 | 340,343 | 219,559 | 185,532 | 405,091 | 13.0 | 27.1 | 19.0 |
| Kentucky | 265,355 | 216,721 | 482,076 | 281,526 | 245,562 | 527,088 | 6.1 | 13.3 | 9.3 |
| Louisiana | 265,379 | 236,283 | 501,662 | 263,045 | 236,091 | 499,136 | -0.9 | -0.1 | -0.5 |
| Maine | 115,976 | 149,107 | 265,082 | 118,734 | 173,944 | 292,678 | 2.4 | 16.7 | 10.4 |
| Maryland | 314,740 | 481,445 | 796,186 | 307,744 | 475,942 | 783,686 | -2.2 | -1.1 | -1.6 |
| Massachusetts | 273,565 | 500,908 | 774,473 | 259,149 | 548,285 | 807,434 | -5.3 | 9.5 | 4.3 |
| Michigan | 482,602 | 995,384 | 1,477,986 | 523,260 | 989,197 | 1,512,457 | 8.4 | -0.6 | 2.3 |
| Minnesota | 430,500 | 473,700 | 904,200 | 437,500 | 483,500 | 921,000 | 1.6 | 2.1 | 1.9 |
| Mississippi | 148,208 | 122,956 | 271,163 | 163,484 | 123,054 | 286,538 | 10.3 | 0.1 | 5.7 |
| Missouri | 499,423 | 580,322 | 1,079,745 | 592,878 | 633,362 | 1,226,241 | 18.7 | 9.1 | 13.6 |
| Montana | 90,882 | 81,843 | 172,725 | 102,013 | 88,838 | 190,850 | 12.2 | 8.5 | 10.5 |

| | | | | | | | | | |
|-------------------|------------|------------|------------|------------|------------|------------|-------|------|-------------------|
| Nebraska | 120,873 | 117,428 | 238,300 | 167,354 | 125,735 | 293,089 | 38.5 | 7.1 | 23.0 ^a |
| Nevada | 149,794 | 235,137 | 384,931 | 129,199 | 223,332 | 352,531 | -13.7 | -5.0 | -8.4 |
| New Hampshire | 122,584 | 93,233 | 215,817 | 120,596 | 96,304 | 216,900 | -1.6 | 3.3 | 0.5 |
| New Jersey | 658,441 | 704,524 | 1,362,965 | 759,157 | 711,682 | 1,470,839 | 15.3 | 1.0 | 7.9 |
| New Mexico | 93,677 | 69,133 | 162,810 | 107,908 | 83,281 | 191,189 | 15.2 | 20.5 | 17.4 |
| New York | 913,244 | 2,064,980 | 2,978,224 | 968,462 | 2,173,930 | 3,142,392 | 6.0 | 5.3 | 5.5 |
| North Carolina | 398,842 | 491,430 | 890,272 | 435,064 | 579,072 | 1,014,136 | 9.1 | 17.8 | 13.9 |
| North Dakota | 42,124 | 34,033 | 76,158 | 41,106 | 33,350 | 74,456 | -2.4 | -2.0 | -2.2 ^b |
| Ohio | 999,436 | 1,248,939 | 2,248,375 | 1,106,570 | 1,281,614 | 2,388,184 | 10.7 | 2.6 | 6.2 |
| Oklahoma | 238,418 | 261,410 | 499,827 | 225,828 | 264,038 | 489,866 | -5.3 | 1.0 | -2.0 |
| Oregon | 216,747 | 238,878 | 455,625 | 227,156 | 220,392 | 447,548 | 4.8 | -7.7 | -1.8 |
| Pennsylvania | 953,435 | 1,486,972 | 2,440,407 | 1,005,602 | 1,526,355 | 2,531,957 | 5.5 | 2.6 | 3.8 |
| Rhode Island | 28,986 | 95,340 | 124,326 | 30,143 | 101,087 | 131,230 | 4.0 | 6.0 | 5.6 |
| South Carolina | 164,874 | 458,111 | 622,985 | 204,652 | 485,799 | 690,451 | 24.1 | 6.0 | 10.8 |
| South Dakota | 41,635 | 33,315 | 74,950 | 44,020 | 35,236 | 79,256 | 5.7 | 5.8 | 5.7 |
| Tennessee | 357,726 | 334,200 | 691,926 | 348,435 | 330,776 | 679,211 | -2.6 | -1.0 | -1.8 |
| Texas | 1,239,982 | 816,373 | 2,056,355 | 1,412,985 | 862,353 | 2,275,338 | 14.0 | 5.6 | 10.6 ^c |
| Utah | 140,712 | 70,567 | 211,279 | 159,959 | 80,220 | 240,179 | 13.7 | 13.7 | 13.7 |
| Vermont | 47,810 | 58,198 | 106,008 | 77,885 | 69,905 | 147,790 | 62.9 | 20.1 | 39.4 |
| Virginia | 378,911 | 292,917 | 671,828 | 378,844 | 321,422 | 700,266 | 0.0 | 9.7 | 4.2 |
| Washington | 563,451 | 1,074,263 | 1,637,714 | 589,267 | 1,125,230 | 1,714,497 | 4.6 | 4.7 | 4.7 |
| West Virginia | 192,387 | 520,108 | 712,495 | 245,450 | 583,570 | 829,020 | 27.6 | 12.2 | 16.4 ^d |
| Wisconsin | 536,704 | 387,055 | 923,759 | 461,394 | 432,539 | 893,933 | -14.0 | 11.8 | -3.2 |
| Wyoming | 65,967 | 31,739 | 97,706 | 66,487 | 37,700 | 104,187 | 0.8 | 18.8 | 6.6 |
| Non-federal total | 21,427,298 | 25,275,136 | 46,702,433 | 23,554,200 | 26,734,819 | 50,289,020 | 9.9 | 5.8 | 7.7 |

1 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, 2002* section of the Academy's website at www.nasi.org.

- a No data were available from the state for 1999 or 2002. Estimates for 1999 and 2002 are based on data from A.M. Best. Estimates for 1998 use the same methodology as those for 2000 and 2001.
- b The state agency provided fiscal year data for all years. Averages were used to estimate calendar year data for 1998-2001. Fiscal year 2003 data were not yet available. These data will be used to estimate calendar year 2002 data in the next edition of this report.
- c The state agency was unable to provide data for 2002. Data from A.M. Best were used.
- d Tentative data from the state agency for all years.

Source: National Academy of Social Insurance estimates based on data from state agencies and A.M. Best.

- Changes in wage rates to which benefit levels are linked;
- Variations in health care practice patterns across states, which 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 and 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.

Medical Payments in States

The share of benefits for medical care varies among states. In 2002 the share of benefit spending for medical care ranged from lows of under 40 percent—in the District of Columbia, Hawaii, Maryland, Massachusetts, Michigan, Nevada, New York, Pennsylvania, Rhode Island, South Carolina, Washington, and West Virginia—to highs of over 60 percent in Arizona, Arkansas, Indiana, Texas, Utah, and Wyoming (Table 9). 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;
- Differences in medical costs, medical practices, and the role of workers' compensation programs in regulating allowable medical costs;
- Differences in waiting periods for cash benefits and in statutes determining permanent disability awards; 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 9. Methods for estimating medical benefits are described in Appendix F.

At the state level, the vast majority of states show an increase in total medical benefits each year from 1998-2002, with 20 states showing double-digit percent increases between 2001 and 2002 (Table 10). For thirteen of these states, the growth in medical benefits drove the overall increase in total benefits between 2001 and 2002. For example:

- California medical benefits rose by 26.3 percent, while cash payments to workers rose 9.7 percent;
- Delaware medical benefits rose by 23.7 percent, while cash benefits to workers rose 9.2 percent;
- Iowa medical benefits rose by 18.3 percent, while cash benefits to workers fell by 0.8 percent; and
- South Carolina medical benefits rose by 24.1 percent, while cash benefits to workers rose by 6.0 percent.
- West Virginia medical benefits rose by 27.6 percent, while cash benefits to workers rose by 12.2 percent.

This trend suggests that increases in total benefits in some states are driven by medical care much more than cash payments to workers, rather than increased injury rates or benefit payouts.

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. Benefits per \$100 of covered payroll in 1998

through 2002 are shown in Table 11. Due to the stagnant economy in 2002, covered payroll grew hardly at all between 2001 and 2002. In only four jurisdictions did covered payroll rise by as much as 4 percentage points—Alaska, Hawaii, Montana, and Wyoming. Three other jurisdictions saw covered wages fall by more than 2 percentage points—Colorado, Massachusetts, and New York (Table 3). Consequently, when benefits are standardized relative to covered payroll, the state patterns of change are not very different from those revealed by looking only at dollar changes in benefits.

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 across states. Measures of benefit adequacy would compare benefits injured workers received with their actual wage loss. A state with relatively high payments as indicated in Table 11 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 11 may be replacing a relatively high portion of actual earnings losses. By the same token, 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. As discussed in a forthcoming NASI study (Hunt 2004), an appropriate study of adequacy compares 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 for current-year injuries 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

Table 11**State Workers' Compensation Benefits Per \$100 of Covered Wages, by State, 1998–2002**

| | 1998 | 1999 | 2000 | 2001 | 2002 | Percentage Point Change ¹ | |
|----------------------|---------|---------|---------|---------|---------|--------------------------------------|-------------------|
| | | | | | | 2001-2002 | 1998-2002 |
| Alabama | \$ 1.32 | \$ 1.15 | \$ 1.06 | \$ 1.10 | \$ 1.09 | -.02 | -.23 |
| Alaska | 1.54 | 1.56 | 1.65 | 1.82 | 1.92 | .09 | .37 |
| Arizona | 0.73 | 0.73 | 0.73 | 0.64 | 0.72 | .08 | -.02 |
| Arkansas | 0.70 | 0.70 | 0.71 | 0.72 | 0.75 | .04 | .06 |
| California | 1.53 | 1.49 | 1.50 | 1.58 | 1.88 | .29 | .35 |
| Colorado | 1.28 | 1.06 | 1.06 | 0.72 | 1.02 | .30 | -.26 |
| Connecticut | 1.09 | 1.06 | 0.89 | 0.86 | 0.98 | .13 | -.11 |
| Delaware | 1.13 | 0.96 | 1.00 | 0.95 | 1.08 | .13 | -.05 |
| District of Columbia | 0.48 | 0.44 | 0.39 | 0.39 | 0.41 | .02 | -.07 |
| Florida | 1.46 | 1.50 | 1.26 | 1.26 | 1.06 | -.20 | -.40 |
| Georgia | 0.83 | 0.77 | 0.79 | 0.83 | 0.85 | .01 | .01 |
| Hawaii | 1.64 | 1.51 | 1.49 | 1.58 | 1.60 | .03 | -.03 |
| Idaho | 1.31 | 1.24 | 1.19 | 1.30 | 1.50 | .20 | .20 |
| Illinois | 0.94 | 0.94 | 0.93 | 0.95 | 0.99 | .05 | .06 |
| Indiana | 0.59 | 0.60 | 0.61 | 0.60 | 0.64 | .04 | .05 |
| Iowa | 0.89 | 0.85 | 0.90 | 0.98 | 1.04 | .06 | .15 |
| Kansas | 0.96 | 0.93 | 0.92 | 0.89 | 1.05 | .16 | .08 |
| Kentucky | 0.96 | 1.02 | 0.97 | 0.95 | 1.03 | .07 | .06 |
| Louisiana | 0.92 | 0.95 | 0.98 | 0.95 | 0.93 | -.02 | .01 |
| Maine | 1.83 | 1.79 | 1.70 | 1.61 | 1.73 | .12 | -.10 |
| Maryland | 1.00 | 0.96 | 0.90 | 0.94 | 0.90 | -.04 | -.10 |
| Massachusetts | 0.63 | 0.58 | 0.58 | 0.54 | 0.57 | .04 | -.06 |
| Michigan | 0.94 | 0.90 | 0.90 | 0.92 | 0.94 | .02 | .00 |
| Minnesota | 0.94 | 0.89 | 0.88 | 0.96 | 0.97 | .00 | .03 |
| Mississippi | 0.97 | 1.00 | 1.03 | 1.03 | 1.07 | .04 | .10 |
| Missouri | 1.17 | 1.32 | 1.17 | 1.35 | 1.52 | .17 | .35 |
| Montana | 1.76 | 1.79 | 1.97 | 1.90 | 2.01 | .12 | .25 |
| Nebraska | 0.79 | 0.89 | 0.90 | 0.99 | 1.18 | .20 ^a | .40 ^a |
| Nevada | 1.22 | 1.29 | 1.12 | 1.14 | 1.02 | -.12 | -.20 |
| New Hampshire | 0.97 | 1.02 | 0.88 | 1.01 | 1.01 | .00 | .04 |
| New Jersey | 0.81 | 0.81 | 0.78 | 0.81 | 0.86 | .05 | .05 |
| New Mexico | 0.78 | 0.80 | 0.83 | 0.87 | 0.98 | .12 | .20 |
| New York | 0.81 | 0.81 | 0.78 | 0.77 | 0.84 | .07 | .03 |
| North Carolina | 0.81 | 0.76 | 0.74 | 0.76 | 0.87 | .10 | .06 |
| North Dakota | 1.05 | 1.01 | 1.03 | 1.00 | 0.95 | -.05 ^b | -.10 ^b |
| Ohio | 1.30 | 1.22 | 1.20 | 1.27 | 1.34 | .07 | .04 |
| Oklahoma | 1.60 | 1.43 | 1.31 | 1.29 | 1.26 | -.03 | -.35 |
| Oregon | 0.97 | 0.81 | 0.80 | 0.88 | 0.87 | -.01 | -.10 |
| Pennsylvania | 1.47 | 1.42 | 1.31 | 1.29 | 1.32 | .03 | -.15 |
| Rhode Island | 0.89 | 0.86 | 0.81 | 0.85 | 0.87 | .02 | -.01 |
| South Carolina | 1.08 | 1.12 | 1.23 | 1.26 | 1.38 | .12 | .30 |

continued on p.27

Table 11 continued**State Workers' Compensation Benefits Per \$100 of Covered Wages, by State, 1998–2002**

| | 1998 | 1999 | 2000 | 2001 | 2002 | Percentage Point Change ¹ | |
|--------------------------------|------|------|------|------|------|--------------------------------------|------------------|
| | | | | | | 2001-2002 | 1998-2002 |
| South Dakota | 0.90 | 0.90 | 0.78 | 0.84 | 0.87 | .03 | -.02 |
| Tennessee | 0.81 | 0.81 | 0.84 | 0.90 | 0.86 | -.04 | .05 |
| Texas | 0.72 | 0.79 | 0.76 | 0.74 | 0.83 | .08 ^c | .11 ^c |
| Utah | 0.74 | 0.72 | 0.64 | 0.70 | 0.79 | .09 | .05 |
| Vermont | 1.26 | 1.38 | 1.35 | 1.21 | 1.66 | .45 | .40 ^d |
| Virginia | 0.70 | 0.61 | 0.62 | 0.58 | 0.61 | .02 | -.09 |
| Washington | 1.55 | 1.52 | 1.57 | 1.68 | 1.76 | .08 | .20 |
| West Virginia | 3.95 | 4.09 | 3.95 | 3.92 | 4.49 | .57 ^e | .53 ^e |
| Wisconsin | 0.97 | 0.94 | 0.95 | 1.12 | 1.06 | -.06 | .09 |
| Wyoming | 1.42 | 1.38 | 1.41 | 1.55 | 1.59 | .04 | .16 |
| Total non-federal | 1.07 | 1.05 | 1.03 | 1.04 | 1.12 | .08 | .05 |
| Federal Employees ² | 1.65 | 1.62 | 1.60 | 1.65 | 1.61 | -.04 | -.05 |
| Total | 1.13 | 1.11 | 1.08 | 1.08 | 1.16 | .07 | .03 |

1 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.

2 includes FECA only.

Source: National Academy of Social Insurance estimates based on Tables 3 and 8.

a No data were available from the state for 1999 or 2002. Estimates for 1999 and 2002 are based on data from A.M. Best. Estimates for 1998 use the same methodology as those for 2000 and 2001.

b The state agency provided fiscal year data for all years. Averages were used to estimate calendar year data for 1998-2001. Fiscal year 2003 data were not yet available. These data will be used to estimate calendar year 2002 data in the next edition of this report.

c The state agency was unable to provide data for 2002. Data from A.M. Best were used.

d The state agency was only able to provide data for 1997 and 1998. Estimates for 1999-2002 are based on data received from A.M. Best and self-insurance imputations as described in Appendix E.

e Tentative data from the state agency for all years.

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 current 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 permanently 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 11. 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, such as the Federal Employee Compensation Act. Programs that cover private sector workers and are financed by federal general revenues, such as the Radiation Exposure Compensation Act, 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 2002, total benefits were \$2,317 million, of which 29 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 \$115 million, or 4.9 percent of total benefits (U.S. DOL 2004b). 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 held that the Constitution prohibits states from

extending coverage to such individuals. 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 offshore drilling enterprises.

Private employers cover longshore and harbor workers by purchasing private insurance or self-insuring. In fiscal year 2002, about 300 self-insured employers and 350 insurance companies reported a total of 22,293 lost-time injuries to the federal Office of Workers' Compensation. Total benefits paid under the Act in 2002 were \$697 million, which included \$242 million paid by private insurance carriers, \$311 million paid by self-insured employers, and \$132 million paid from the federally administered special fund for second injuries and other purposes and \$11 million for the District of Columbia Workmen's Compensation Act (DCCA) Fund. Federal direct administrative costs were \$12.0 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 1997-2002. Total benefits in 2002 were \$827 million, of which \$445 million was paid under Part B and \$382 million was paid under Part C. Part C benefits include \$66 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 \$36.1 million or about 4.4 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 May 2004, 10,479 claims had been paid for a total of \$687 million, or roughly \$66,000 a claim (U.S. DOJ 2004). 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 Program 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 2002 were \$369 million, of which \$6 million were paid as medical benefits (U.S. DOL 2004b). 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 2003, 2.5 million veterans were receiving monthly compensation payments for service-connected disabilities. Just under half the veterans (49 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 \$1.6 million as of September 2003, or about \$19.5 million on an

annual basis (U.S. Department of Veterans Affairs 2003). 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 and are not included in our national totals. 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 2002 were \$72.9 billion, an increase of 13.0 percent from \$64.5 billion in 2001 (Table 12). This was the fourth year in a row that costs increased.

Table 12

Employer Costs for Workers' Compensation by Type of Insurer, 1987–2002
(in millions)

| | Total | Percent Change in Total | 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 | \$ 53,544 | -3.2 | 29,862 | 8,021 | 12,303 | 3,358 |
| 1998 | \$ 53,431 | -0.2 | 30,377 | 7,926 | 11,657 | 3,471 |
| 1999 | \$ 55,688 | 4.2 | 32,033 | 8,068 | 12,092 | 3,496 |
| 2000 | \$ 59,744 | 7.3 | 35,333 | 8,646 | 12,145 | 3,620 |
| 2001 | \$ 64,499 | 8.0 | 36,783 | 11,062 | 12,875 | 3,778 |
| 2002 | \$ 72,883 | 13.0 | 41,242 | 14,282 | 13,461 | 3,898 |

a In all years, federal costs include 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, including Trust Fund Advances from the U.S. Treasury and interest payments on past advances. In years before 1997, federal costs also include the other part of the Black Lung program that is financed solely by federal funds. In 1997–2002, 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 of costs for private carriers and state funds are based on information from A.M. Best and direct contact with state agencies. Costs for federal programs are from the Department of Labor and the Social Security Administration. Self-insured costs are based on information from the National Association of Insurance Commissioners.

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 2004b).

According to these estimates, the cost of employers insuring through private carriers was \$41.2 billion in 2002, or approximately 56.5 percent of total costs. Self-insurers accounted for 18.5 percent of total employer costs, state funds represented 19.6 percent of costs, and federal programs were 5.4 percent.

Between 2001 and 2002, 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 California, total premiums written increased by \$2.4 billion, with the state fund picking up \$1.8 billion and private carriers insuring \$0.6 billion of the increase. The \$2.4 billion increase in California premiums accounts for about 2.9 percentage points of the 13.0 percentage point increase in total employer costs estimated for the nation as a whole.

Trend in Benefit and Cost Ratios

Table 13 shows the trend in benefits paid and employer costs per covered worker and per \$100 of covered wages over the last 15 years. For the second year in a row, workers' compensation benefits relative to covered wages rose; the most recent increase was from \$1.08 in 2001 to \$1.16 per \$100 of covered

wages in 2002. This level is about 32 percent lower than the 1992 peak year, when benefits were \$1.68 per \$100 of covered wages. Employers' costs per \$100 of covered wages also increased for the second year in a row; the most recent increase was from \$1.40 in 2001 to \$1.58 per \$100 of covered wages in 2002. This level is about 27 percent below the peak costs of \$2.18 per \$100 of covered wages in 1990.

Both costs and benefits per covered employee increased for the fourth consecutive year. Benefits per covered worker were \$425 in 2002, up from \$392 in 2001. Employer costs relative to covered workers were \$580 in 2002, an increase from \$508 in 2001.

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 that employers pay reflect insurers' profits (or losses), since the profitability (or lack thereof) will affect the extent of dividends, schedule ratings, and deviations offered by the insurers.

Because premiums rose faster than benefits in 2002, the ratio of total benefits paid to total employer costs in 2002 declined to \$0.73 per \$1.00 of costs from \$0.77 per \$1.00 of costs in 2001.

For the first time, this report shows medical and cash benefits per \$100 of covered wages. While medical benefits of \$0.53 per \$100 of covered wages are lower than cash benefits at \$0.63 of covered wages, they are growing at a faster rate, 8.9 percent from 2001 to 2002 (Table 13). During this same period, cash benefits relative to payroll rose only 5.3 percent. This suggests that while the majority of benefits received by workers are in the form of cash benefits, the rise in medical costs has a greater impact on the overall increase in workers' compensation benefits and costs.

Table 13**Workers' Compensation Benefit and Cost Ratios, 1989–2002***

| Year | Costs per Covered Employee | Costs per \$100 of Wages | Benefits per Covered Employee | Benefits per \$100 of Wages | Benefits per \$1 in Cost | Medical Benefits per \$100 of Wages | Cash Benefits per \$100 Wages |
|------|----------------------------|--------------------------|-------------------------------|-----------------------------|--------------------------|-------------------------------------|-------------------------------|
| 1989 | \$ 462 | \$ 2.04 | \$ 330 | \$ 1.46 | \$.72 | \$.57 | \$.89 |
| 1990 | \$ 504 | \$ 2.18 | \$ 362 | \$ 1.57 | \$.72 | \$.62 | \$.94 |
| 1991 | \$ 532 | \$ 2.16 | \$ 407 | \$ 1.65 | \$.76 | \$.66 | \$.99 |
| 1992 | \$ 549 | \$ 2.12 | \$ 437 | \$ 1.68 | \$.80 | \$.69 | \$ 1.00 |
| 1993 | \$ 571 | \$ 2.16 | \$ 426 | \$ 1.61 | \$.75 | \$.66 | \$.95 |
| 1994 | \$ 552 | \$ 2.05 | \$ 407 | \$ 1.51 | \$.74 | \$.58 | \$.93 |
| 1995 | \$ 508 | \$ 1.82 | \$ 386 | \$ 1.38 | \$.76 | \$.53 | \$.85 |
| 1996 | \$ 482 | \$ 1.66 | \$ 365 | \$ 1.26 | \$.76 | \$.50 | \$.76 |
| 1997 | \$ 453 | \$ 1.49 | \$ 358 | \$ 1.18 | \$.79 | \$.48 | \$.70 |
| 1998 | \$ 440 | \$ 1.38 | \$ 356 | \$ 1.11 | \$.81 | \$.47 | \$.65 |
| 1999 | \$ 448 | \$ 1.34 | \$ 364 | \$ 1.09 | \$.81 | \$.47 | \$.63 |
| 2000 | \$ 470 | \$ 1.33 | \$ 375 | \$ 1.06 | \$.80 | \$.46 | \$.60 |
| 2001 | \$ 508 | \$ 1.40 | \$ 392 | \$ 1.08 | \$.77 | \$.48 | \$.60 |
| 2002 | \$ 580 | \$ 1.58 | \$ 425 | \$ 1.16 | \$.73 | \$.53 | \$.63 |

Source: National Academy of Social Insurance estimates based on Tables 2, 4, and 12.

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 5,534 fatal work injuries occurred in 2002 (Table 14). Transportation incidents continued to be the leading cause of on-the-job fatalities in 2002, 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 acts—homicides, suicides and animal attacks—accounted for 15 percent of deaths, and falls accounted for 13 percent (U.S. DOL 2003c).

Table 14**Number of Fatal Occupational Injuries, 1992–2002**

| Year | Number of Injuries |
|---------------------|--------------------|
| 1992 | 6,217 |
| 1993 | 6,331 |
| 1994 | 6,632 |
| 1995 | 6,275 |
| 1996 | 6,202 |
| 1997 | 6,238 |
| 1998 | 6,055 |
| 1999 | 6,054 |
| 2000 | 5,920 |
| 2001 | 8,801 |
| September 11 events | 2,886 |
| Other | 5,915 |
| 2002 | 5,534 |

Source: U.S. DOL 2003c.

Nonfatal Injuries and Illnesses

A total of 4.7 million nonfatal workplace injuries and illnesses were reported in private industry workplaces during 2002, resulting in a rate of 5.3 cases per one hundred full-time equivalent workers, according to a Bureau of Labor Statistics survey of private sector employers (U.S. DOL 2003d). Many of these cases involved relatively minor injuries that did not result in lost workdays. The frequency of all injuries and illnesses declined from 8.9 per 100 full-time workers in 1992 to 5.7 in 2001 (Table 15).

A total of 1.4 million workplace injuries or illnesses that required recuperation away from work beyond the day of the incident were reported in private industry in 2002 (U.S. DOL 2004a). 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 most common causes of reported injuries or illnesses were: sprains and strains, most often involving the back (43 percent); multiple traumatic injuries (37 percent); bruises and contusions (9 percent); cuts and lacerations (8 percent); fractures (7 percent); carpal tunnel syndrome (2 percent); and heat burns (2 percent). The median time away from work beyond the day of the injury was seven days. In about 26 percent of cases, the worker missed only one or two days of work, while in about 32 percent of cases, the worker missed more than twenty days of work (U.S. DOL 2003e).

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

Table 15

Private Industry Occupational Injury and Illness: Total Non-fatal Cases and Incidence Rates, 1987–2002

| Year ^a | Number of Cases (in millions) | | Incidence Rate ^b | |
|---------------------|-------------------------------|------------------------------------|-----------------------------|------------------------------------|
| | All Cases | Cases with Any Days Away from Work | All Cases | Cases with Any 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 |
| 2002 ^(c) | 4.7 | 1.4 | 5.3 | 1.6 |

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.

c Data for 2002 are not strictly comparable to prior year data due to changes in OSHA recordkeeping requirements.

Source: U.S. DOL 2003d and 2004a.

Table 16**Number of Workers' Compensation Claims per 100,000 Insured Workers:
Private Carriers in Thirty-nine 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 |
| 2000 | 855 | 424 | 5,856 |
| Percent decline, 1992–2000 | -37.0 | -38.9 | -31.1 |

Source: NCCI 1996; 1997; 1998; 1999; 2000; 2001; 2002; 2003a; 2004b

the 1.4 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. Claims per 100,000 insured workers declined steadily between 1992 and 2000. 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 (Table 16). This decline is very similar to the decline in injuries reported to the BLS that involved any days away from work. Between 1992 and 2000, the incidence of injuries that involved days away from work declined by about 40 percent (from 3.0 per one hundred full time workers in 1992 to 1.8 per one hundred full-time workers in 2000) (Table 15).

The frequency of total workers' compensation claims—including medical-only cases that involve little or no lost work time—declined by about 31 percent between 1992 and 2000. This rate of decline is also very similar to the 32 percent decline in the incidence rate for all injuries reported to the BLS (from 8.9 to 6.1 per one hundred full time workers between 1992 and 2000). 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 into 2000.

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 generally 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 37 percent of private sector employees were covered by short-term disability insurance in 2003 (U.S. DOL 2003f).

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 28 percent of private sector employees. Such coverage is most common among white-collar workers. About 40 percent of white collar workers, 20 percent of blue-collar workers, and 10 percent of service workers had this coverage as of March 2003 (U.S. DOL 2003f). 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.

Retirement benefits may also be available to workers who become disabled. Most defined benefit pension plans have some disability provision; benefits may be available at the time of disability or may continue to accrue until retirement age. Defined contribution plans will often make funds in the employee's account available to a disabled worker without penalty.

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. Workers are eligible for workers' compensation benefits from their first day of employment, while Social Security disability benefits require workers to have a substantial work history. Workers' compensation provides benefits for both short-term and long-term disabilities, and for partial as well as total disabilities. These benefits cover only those disabilities arising out of and in the course of employment. Social Security disability benefits are paid only to workers who have long-term impairments that preclude any gainful work whether the disability arose on or off the job. 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 dis-

ability 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 retirement age and shift to Social Security retirement benefits.

While workers' compensation paid \$29.0 billion in cash benefits and \$24.2 billion for medical care in 2002, Social Security paid \$65.6 billion in wage replacement benefits to disabled workers and their dependents and Medicare paid \$33.4 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, long-term care, or attendant care. At the same time, Medicare covers all medical conditions, not just work-related injuries or illnesses. When a worker receiving workers' compensation is also Medicare-eligible, Medicare is the secondary payer under the Medicare Secondary Payer Act.

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.⁵ 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 to Social Security that would otherwise fall upon the employer or insurer. Legislation in 1981 eliminated the states' options to adopt reverse offset laws, but the sixteen states that already had such laws were allowed to keep them.⁶

As of December 2003, about 7.6 million disabled workers and their dependents received Social Security disability benefits (Table 17). About 1.1 million of these individuals (or 14.6 percent) had some connection to workers' compensation or some form of public disability benefits. They include about 208,151 people whose Social Security benefits were reduced under the workers' compensation offset. Another 230,253 beneficiaries received workers' compensation, but the combined benefits were not high enough to be affected by the cap. An additional 61,756 people received workers' compensation but resided in reverse offset states, where any benefit reduction would affect workers' compensation, rather than Social Security benefits. Finally, 141,792 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 4 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

5 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.

6 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.

and allowances increased, particularly during the economic recession of 1990-1991. Since then, benefits relative to covered wages have been fairly stable (SSA 2004).

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 workers 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*

Table 17

Social Security Disability Insurance (DI) Beneficiaries with Workers' Compensation or Public Disability Benefit Involvement, December 2003

| Type of Case | Beneficiaries | | | | | |
|---|---------------|---------|-----------|---------|------------|---------|
| | Total | | Workers | | Dependents | |
| | Number | Percent | Number | Percent | Number | Percent |
| All disability insurance (DI) beneficiaries | 7,590,284 | 100.0 | 5,868,541 | 100.0 | 1,721,743 | 100.0 |
| Total with some connection to WC or PDB | 1,106,299 | 14.6 | 1,019,397 | 17.4 | 86,902 | 5.0 |
| Currently receiving WC or PDB ^a | 438,404 | 5.8 | 355,934 | 6.1 | 82,470 | 4.8 |
| DI reduced due to offset cap ^b | 208,151 | 2.7 | 131,946 | 2.2 | 76,205 | 4.4 |
| DI not affected by cap | 230,253 | 3.0 | 223,988 | 3.8 | 6,265 | 0.4 |
| DI previously offset for WC or PDB ^a | 464,347 | 6.1 | 464,347 | 7.9 | 0 | 0.0 |
| Resides in reverse offset state | 61,756 | 0.8 | 58,920 | 1.0 | 2,836 | 0.2 |
| Pending decision on WC or PDB | 141,792 | 1.9 | 140,196 | 2.4 | 1,596 | 0.1 |

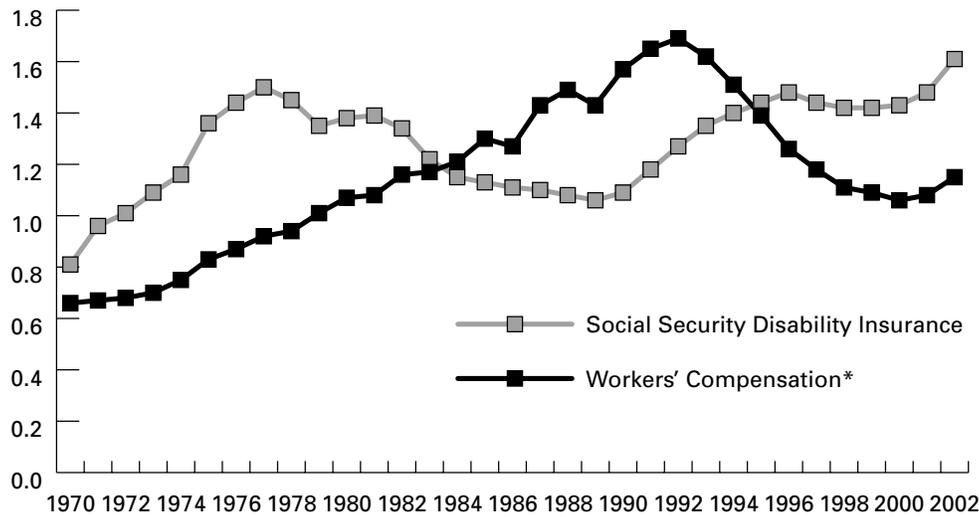
a Includes workers who received a lump-sum settlement in lieu of monthly payments and reverse jurisdiction cases where DI offset is applicable.

b Includes 1,851 workers and 6,057 dependents who are not included in the "All" beneficiaries count because their entire benefit is withheld as a result of workers' compensation or public disability benefit offset.

Source: SSA 2003b.

Figure 4

Social Security Disability Insurance and Workers' Compensation Benefits as a Percent of Wages, 1970-2002



* Starting in 1989, a new method was used to estimate covered wages that accounts for 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.

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.⁷

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 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

⁷ A 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, 1997–2002**

| 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 | 13.7 | 10.5 |
| 1999 | 11.7 | 8.1 | 14.5 | 5.7 |
| 2000 | 12.5 | 7.0 | 15.3 | 5.7 |
| 2001 | 12.4 | -.8 | 16.0 | 4.8 |
| 2002 | 12.6 | 1.6 | 17.2 | 7.3 |
| Cumulative % change 1997 to 2002 | | 27.3 | 38.7 | |

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 2003b and calendar year benefits estimated by the National Academy of Social Insurance.

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 2002, 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 data. From year to year, the two measures changed at different rates. Between 1997 and 2002, the cumulative increase in benefits paid was 38.7 percent compared to a 27.3 percent increase for accident year incurred losses.

There are a number of differences in these time series, which may be contributing to the disparate growth rates. First, benefits paid as part of large deductible programs are reflected in the calendar year data while they are not reflected for all of the states included in the accident year incurred data. In addition, accident year incurred data also exclude information from insurers who became insolvent or were otherwise financially impaired and ceased submitting the source data to the statistical agents. When such financial impairment arose, and there were several large insurers, which experienced such conditions in the late 90's and 2000 through 2002, the impact is likely to have been greater on accident year incurred data than for calendar year data. Further research into the differences between these time series could clarify the difference.

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.

Overall Operating Ratio: The ratio of (1) the total of all carrier expenditures, including losses, loss adjustment expenses, underwriting expenses, and dividends (2) minus investment income earned by carriers on their reserves (30 divided by premiums).

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) (U.S. DOL 2003g). 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 2002, about ten million Americans were self-employed as their main job, according to the Current Population Survey (U.S. DOL 2003b).

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 cases⁸:

- (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 2003a; AFL-CIO 2003).

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

⁸ 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, 2002 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 |
| Alabama | 1,779,536 | 1,486,796 | 69,845 | 5,682 | - | 1,704,009 | 95.8 |
| Alaska | 270,475 | 211,905 | - | - | - | 270,475 | 100.0 |
| Arizona | 2,191,466 | 1,862,469 | - | - | - | 2,191,466 | 100.0 |
| Arkansas | 1,098,540 | 928,643 | 26,694 | 7,824 | - | 1,064,022 | 96.9 |
| California | 14,587,798 | 12,248,873 | - | - | - | 14,587,798 | 100.0 |
| Colorado | 2,100,789 | 1,802,152 | - | - | - | 2,100,789 | 100.0 |
| Connecticut | 1,627,282 | 1,404,249 | - | - | - | 1,627,282 | 100.0 |
| Delaware | 396,777 | 346,705 | - | 1,263 | - | 395,514 | 99.7 |
| District of Columbia | 458,078 | 420,161 | - | - | - | 458,078 | 100.0 |
| Florida | 7,044,362 | 6,088,404 | 279,088 | - | - | 6,765,274 | 96.0 |
| Georgia | 3,712,802 | 3,178,380 | 78,188 | 11,070 | - | 3,623,544 | 97.6 |
| Hawaii | 527,965 | 437,816 | - | - | - | 527,965 | 100.0 |
| Idaho | 558,310 | 451,369 | - | - | - | 558,310 | 100.0 |
| Illinois | 5,678,798 | 4,939,878 | - | - | - | 5,678,798 | 100.0 |
| Indiana | 2,795,386 | 2,433,611 | - | 10,375 | - | 2,785,011 | 99.6 |
| Iowa | 1,392,910 | 1,175,449 | - | - | - | 1,392,910 | 100.0 |
| Kansas | 1,277,925 | 1,057,482 | - | 7,662 | - | 1,270,263 | 99.4 |
| Kentucky | 1,680,217 | 1,422,151 | - | 3,815 | - | 1,676,402 | 99.8 |
| Louisiana | 1,812,443 | 1,482,590 | - | - | - | 1,812,443 | 100.0 |
| Maine | 577,127 | 490,563 | - | - | - | 577,127 | 100.0 |
| Maryland | 2,299,120 | 1,973,719 | - | - | - | 2,299,120 | 100.0 |
| Massachusetts | 3,149,782 | 2,786,447 | - | - | - | 3,149,782 | 100.0 |
| Michigan | 4,335,095 | 3,726,915 | 92,902 | - | - | 4,242,193 | 97.9 |
| Minnesota | 2,552,397 | 2,200,594 | - | - | - | 2,552,397 | 100.0 |
| Mississippi | 1,078,447 | 866,091 | 43,220 | 8,397 | - | 1,026,830 | 95.2 |
| Missouri | 2,571,070 | 2,206,389 | 105,284 | 8,605 | - | 2,457,181 | 95.6 |

| | | | | | |
|-----------------|-------------|-------------|-----------|-------------|-------|
| Montana | 374,379 | 307,725 | - | 374,379 | 00.0 |
| Nebraska | 857,749 | 715,558 | 8,128 | 849,621 | 99.1 |
| Nevada | 1,029,415 | 915,523 | 2,004 | 1,027,411 | 99.8 |
| New Hampshire | 595,198 | 520,174 | - | 595,198 | 100.0 |
| New Jersey | 3,791,805 | 3,267,505 | - | 3,791,805 | 100.0 |
| New Mexico | 707,463 | 557,457 | 19,192 | 679,997 | 96.1 |
| New York | 8,134,990 | 6,830,931 | - | 8,134,990 | 100.0 |
| North Carolina | 3,689,751 | 3,109,327 | 82,292 | 3,607,459 | 97.8 |
| North Dakota | 301,887 | 247,754 | - | 299,819 | 99.3 |
| Ohio | 5,252,202 | 4,564,093 | - | 5,252,202 | 100.0 |
| Oklahoma | 1,393,376 | 1,139,032 | - | 1,393,376 | 100.0 |
| Oregon | 1,543,135 | 1,291,749 | - | 1,543,135 | 100.0 |
| Pennsylvania | 5,396,080 | 4,772,096 | - | 5,396,080 | 100.0 |
| Rhode Island | 458,314 | 404,014 | 19,045 | 438,705 | 95.7 |
| South Carolina | 1,737,285 | 1,447,827 | 52,983 | 1,677,483 | 96.6 |
| South Dakota | 352,042 | 292,692 | - | 352,042 | 100.0 |
| Tennessee | 2,549,698 | 2,204,588 | 90,261 | 2,454,652 | 96.3 |
| Texas | 9,082,069 | 7,615,808 | 1,453,131 | 7,628,938 | 84.0 |
| Utah | 1,005,939 | 854,296 | - | 1,005,939 | 100.0 |
| Vermont | 289,565 | 244,961 | - | 289,565 | 100.0 |
| Virginia | 3,258,444 | 2,776,371 | 72,431 | 3,186,013 | 97.8 |
| Washington | 2,574,694 | 2,098,566 | - | 2,574,694 | 100.0 |
| West Virginia | 661,252 | 546,504 | - | 661,252 | 100.0 |
| Wisconsin | 2,660,922 | 2,296,053 | 56,530 | 2,604,392 | 97.9 |
| Wyoming | 232,089 | 180,061 | - | 230,124 | 99.2 |
| US, non-federal | 125,484,640 | 108,141,327 | 1,087,955 | 122,844,254 | 97.9 |
| Federal | 2,758,372 | - | - | 2,758,372 | 100.0 |
| US TOTAL | 128,243,012 | 108,141,327 | 1,087,955 | 125,602,626 | 97.9 |

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

b Data not available for 2002, applied 2001 data.

Source: National Academy of Social Insurance Estimates.

numerical exemptions are: Alabama, 4.7 percent; Arkansas, 5.1 percent; Florida, 5.8 percent; Georgia, 4.4 percent; Michigan, 4.4 percent; Mississippi, 5.0 percent; Missouri, 4.8 percent; New Mexico, 6.1 percent; North Carolina, 4.7 percent; Rhode Island, 6.0 percent; South Carolina, 4.7 percent; Tennessee, 4.1 percent; Virginia, 4.6 percent; and Wisconsin, 4.4 percent (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 percent) x (56.5 percent) = 3.05 percent. 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 (the most recent year for which data are available) (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

NATIONAL
ACADEMY
OF SOCIAL
INSURANCE

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

NATIONAL
ACADEMY
OF SOCIAL
INSURANCE

Your Name: _____ State: _____ Agency/Organization: _____
E-mail: _____ Phone: _____ Fax: _____

Calendar Year Paid Data — Please provide the information requested below for calendar years 1998–2002. 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 1998–2002.

| | CY 2002 Payments | CY 2001 Payments | CY 2000 Payments | CY 1999 Payments | CY 1998 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 |
| Are the above "gross" amounts that include deductible payments by employers? | <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 |
| Are the above "gross" amounts that include deductible payments by employers? | <input type="checkbox"/> YES <input type="checkbox"/> NO |
| How much was paid in deductibles by employers? | | | | | |
| 4) SPECIAL FUNDS (including second injury, guaranty and other) | | | | | |
| Medical Payments | | | | | |
| Cash Payments | | | | | |
| Vocational Rehabilitation (if not included above) | | | | | |
| TOTAL | | | | | |
| Is this amount included in items 2 and/or 3? | <input type="checkbox"/> YES <input type="checkbox"/> NO |
| If so, which and how much? | | | | | |
| 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 completed data survey to NASI at (202) 452-8111 by SEPTEMBER 19, 2003.

Check here if you are attaching additional information. Contact Cecili Thompson Williams by e-mail at cecili@nasi.org or by phone at (202) 452-8097.

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 1998-2002, by private carriers and by twenty 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 the state fund in South Carolina, or on exclusive state funds in Ohio, North Dakota, Washington, West Virginia, and Wyoming.

The 2002 NASI survey questionnaire for state agencies asked states to report data for five years, from 1998 through 2002. These historical data were used to revise and update estimates for these past years.

In response to the 2002 survey, we received replies from forty-three states, down from forty-five 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-one were able to provide data on the amount of benefits paid by private carriers. In the fifteen 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 benefits 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-four 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 twelve 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 fourteen 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-eight 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-six jurisdictions. These estimates were used for twenty states that were unable to provide any information on medical benefits. Other methods were used for three 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, Utah, and West Virginia 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 and Washington. 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; 2003). 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
2002: 14.8 percent

Table C1**Workers' Compensation Data Provided by States for 2002^a** ■ Shaded areas correspond with provided data

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

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

NA: 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 .

Note 5: Medical data estimated based on data provided by NCCI.

Appendix D: Revised Data for 1998-2001

In preparing the 2002 estimates for workers' compensation benefits, the National Academy of Social Insurance reviewed and revised all data for calendar years 1998-2001. 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 1998-2002.

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**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 Benefits | 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 | 465,319 | 213,563 | 171,994 | 79,762 | 285,706 | 61.4 ^c |
| Arkansas | 206,836 | 139,614 | - | 67,223 | 126,584 | 61.2 ^c |
| California | 9,605,478 | 5,310,076 | 1,471,260 | 2,824,142 | 4,467,975 | 46.5 |
| Colorado | 586,500 | 305,694 | 117,120 | 163,685 | 263,391 | 44.9 |
| Connecticut | 661,471 | 473,669 | - | 187,803 | 276,495 | 41.8 ^c |
| Delaware | 145,546 | 98,583 | - | 46,962 | 68,085 | 46.8 ^c |
| District of Columbia | 92,990 | 76,369 | - | 16,622 | 33,264 | 35.8 |
| Florida | 2,669,630 | 1,909,415 | - | 760,215 | 1,513,680 | 56.7 ^c |
| Georgia | 1,067,327 | 753,118 | - | 314,209 | 515,519 | 48.3 ^c |
| Hawaii | 252,041 | 163,784 | 13,643 | 74,614 | 103,304 | 41.0 |
| Idaho | 198,507 | 90,868 | 96,925 | 10,714 | 111,561 | 56.2 ^c |
| Illinois | 2,139,026 | 1,628,376 | - | 510,650 | 960,423 | 44.9 ^c |
| Indiana | 531,402 | 449,242 | - | 82,159 | 346,052 | 65.1 ^c |
| Iowa | 395,657 | 326,262 | - | 69,395 | 182,793 | 46.2 ^c |
| Kansas | 340,343 | 240,567 | - | 99,776 | 194,336 | 57.1 ^c |
| Kentucky | 482,076 | 306,234 | 35,041 | 140,802 | 265,355 | 55.0 |
| Louisiana | 501,662 | 250,012 | 107,006 | 144,643 | 265,379 | 52.9 ^c |
| Maine | 265,082 | 109,483 | 68,599 | 87,000 | 115,976 | 43.8 |
| Maryland | 796,186 | 394,111 | 213,399 | 188,677 | 314,740 | 39.5 |
| Massachusetts | 774,473 | 655,223 | - | 119,250 | 273,565 | 35.3 |
| Michigan | 1,477,986 | 809,463 | - | 668,523 | 482,602 | 32.7 |
| Minnesota | 904,200 | 610,300 | 91,600 | 202,300 | 430,500 | 47.6 |
| Mississippi | 271,163 | 169,687 | - | 101,477 | 148,208 | 54.7 |
| Missouri | 1,079,745 | 756,912 | 72,192 | 250,641 | 499,423 | 46.3 |
| Montana | 172,725 | 71,065 | 70,858 | 30,802 | 90,882 | 52.6 |
| Nebraska | 238,300 | 174,352 | - | 63,948 | 120,873 | 50.7 |
| Nevada | 384,931 | 236,136 | - | 148,795 | 149,794 | 38.9 |
| New Hampshire | 215,817 | 167,608 | - | 48,209 | 122,584 | 56.8 ^c |
| New Jersey | 1,362,965 | 1,245,075 | - | 117,890 | 658,441 | 48.3 ^c |
| New Mexico | 162,810 | 87,541 | 26,762 | 48,508 | 93,677 | 57.5 |
| New York | 2,978,224 | 1,440,904 | 797,109 | 740,211 | 913,244 | 30.7 |
| North Carolina | 890,272 | 693,517 | - | 196,754 | 398,842 | 44.8 ^c |
| North Dakota | 76,158 | 404 | 75,754 | - | 42,124 | 55.3 |
| Ohio | 2,248,375 | 33,385 | 1,762,619 | 452,371 | 999,436 | 44.5 |
| Oklahoma | 499,827 | 288,678 | 119,814 | 91,334 | 238,418 | 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 | 124,326 | 51,114 | 54,945 | 18,266 | 28,986 | 23.3 |
| South Carolina | 622,985 | 429,771 | 46,157 | 147,057 | 164,874 | 26.5 |
| South Dakota | 74,950 | 69,399 | - | 5,551 | 41,635 | 55.6 |
| Tennessee | 691,926 | 529,925 | - | 162,000 | 357,726 | 51.7 ^c |
| Texas | 2,056,355 | 1,622,737 | 246,848 | 186,770 | 1,239,982 | 60.3 ^c |
| Utah | 211,279 | 78,705 | 93,581 | 38,994 | 140,712 | 66.6 ^c |
| Vermont | 106,008 | 88,196 | - | 17,812 | 47,810 | 45.1 ^c |
| Virginia | 671,828 | 520,880 | - | 150,948 | 378,911 | 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 | 923,759 | 787,330 | - | 136,429 | 536,704 | 58.1 ^c |
| Wyoming | 97,706 | 3,017 | 94,689 | - | 65,967 | 67.5 |
| Non-federal total | 46,702,433 | 27,273,859 | 7,989,273 | 11,439,303 | 21,427,298 | 45.9 |
| Federal ^c | 3,069,267 | | | | 780,176 | 25.4 |
| Federal employees | 2,223,088 | | | | 623,057 | 28.0 |
| TOTAL | 49,771,700 | | | | 22,207,474 | 44.6 |

- a States with exclusive funds (Ohio, North Dakota, Washington, West Virginia, and Wyoming) may 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 NCCL, see Appendix E.
- 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 Tentative data from the state agency.

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**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 | Medical Benefits | Percent Medical |
|----------------------------|------------|-------------------------------|-------------|---------------------------|------------------|-------------------|
| Alabama | \$ 529,189 | \$ 304,964 | \$ - | \$ 224,225 | 295,425 | 55.8 |
| Alaska | 145,917 | 115,459 | | 30,457 | 81,103 | 55.6 |
| Arizona | 515,241 | 240,290 | 204,450 | 70,500 | 311,478 | 60.5 ^c |
| Arkansas | 197,762 | 139,781 | | 57,981 | 118,037 | 59.7 ^c |
| California | 8,967,630 | 5,322,435 | 1,116,125 | 2,529,070 | 4,086,604 | 45.6 |
| Colorado | 835,054 | 343,716 | 267,906 | 223,432 | 385,555 | 46.2 |
| Connecticut | 667,056 | 484,542 | | 182,514 | 258,324 | 38.7 ^c |
| Delaware | 146,090 | 93,606 | | 52,484 | 66,962 | 45.8 ^d |
| District of Columbia | 88,661 | 66,237 | | 22,424 | 28,636 | 32.3 |
| Florida | 2,544,777 | 1,906,722 | | 638,055 | 1,378,225 | 54.2 ^c |
| Georgia | 995,775 | 695,992 | | 299,782 | 460,722 | 46.3 ^c |
| Hawaii | 231,359 | 154,884 | 9,480 | 66,995 | 91,185 | 39.4 |
| Idaho | 179,370 | 76,072 | 89,770 | 13,528 | 100,712 | 56.1 ^c |
| Illinois | 2,049,223 | 1,564,048 | | 485,175 | 903,455 | 44.1 ^c |
| Indiana | 545,863 | 461,468 | | 84,395 | 353,378 | 64.7 ^c |
| Iowa | 356,807 | 290,261 | | 66,546 | 176,014 | 49.3 ^c |
| Kansas | 341,547 | 244,623 | | 96,924 | 204,366 | 59.8 ^c |
| Kentucky | 479,338 | 332,039 | 23,597 | 123,702 | 256,252 | 53.5 |
| Louisiana | 493,653 | 243,538 | 104,484 | 145,631 | 246,335 | 49.9 ^c |
| Maine | 266,997 | 120,148 | 57,258 | 89,591 | 108,667 | 40.7 |
| Maryland | 729,656 | 376,593 | 177,088 | 175,975 | 272,203 | 37.3 |
| Massachusetts | 828,159 | 701,202 | | 126,956 | 255,658 | 30.9 |
| Michigan | 1,474,058 | 796,329 | | 677,729 | 472,355 | 32.0 |
| Minnesota | 797,800 | 529,400 | 88,100 | 180,300 | 369,500 | 46.3 |
| Mississippi | 269,342 | 178,037 | | 91,305 | 145,667 | 54.1 |
| Missouri | 908,819 | 647,304 | 51,939 | 209,577 | 418,070 | 46.0 |
| Montana | 169,763 | 72,503 | 70,629 | 26,630 | 88,902 | 52.4 ^c |
| Nebraska | 211,285 | 162,479 | | 48,806 | 102,073 | 48.3 |
| Nevada | 360,917 | 224,619 | | 136,298 | 168,689 | 46.7 |
| New Hampshire | 181,900 | 143,869 | | 38,032 | 86,430 | 47.5 ^c |
| New Jersey | 1,298,824 | 1,190,528 | - | 108,296 | 617,137 | 47.5 ^d |
| New Mexico | 146,374 | 82,364 | 17,579 | 46,431 | 83,159 | 56.8 |
| New York | 2,909,115 | 1,346,945 | 839,136 | 723,034 | 869,843 | 29.9 |
| North Carolina | 853,318 | 645,745 | - | 207,573 | 379,076 | 44.4 ^c |
| North Dakota | 74,402 | 416 | 73,986 | 0 | 41,053 | 55.2 |
| Ohio | 2,098,528 | 28,216 | 1,630,436 | 439,876 | 871,606 | 41.5 |
| Oklahoma | 484,911 | 281,990 | 110,039 | 92,882 | 223,210 | 46.0 ^c |
| Oregon | 412,471 | 222,142 | 158,660 | 31,669 | 202,144 | 49.0 |
| Pennsylvania | 2,402,614 | 1,676,662 | 156,237 | 569,715 | 912,842 | 38.0 |
| Rhode Island | 113,599 | 52,283 | 42,079 | 19,237 | 25,916 | 22.8 |
| South Carolina | 596,526 | 411,643 | 42,830 | 142,053 | 158,601 | 26.6 |
| South Dakota | 66,991 | 62,016 | - | 4,976 | 37,328 | 55.7 |
| Tennessee | 642,201 | 504,352 | - | 137,849 | 328,898 | 51.2 ^c |
| Texas | 2,004,504 | 1,600,461 | 222,841 | 181,202 | 1,199,402 | 59.8 ^c |
| Utah | 187,729 | 71,823 | 87,978 | 27,928 | 131,215 | 69.9 |
| Vermont | 112,349 | 95,824 | - | 16,525 | 53,835 | 47.9 ^c |
| Virginia | 680,911 | 528,369 | - | 152,542 | 356,860 | 52.4 ^c |
| Washington | 1,527,657 | 20,742 | 1,135,120 | 371,795 | 534,173 | 35.0 |
| West Virginia ^f | 690,377 | 0 | 589,260 | 101,117 | 186,850 | 27.1 |
| Wisconsin | 768,282 | 656,232 | - | 112,050 | 453,275 | 59.0 ^c |
| Wyoming | 82,875 | 933 | 81,942 | 0 | 54,731 | 66.0 |
| Non-federal total | 44,663,564 | 26,512,846 | 7,448,948 | 10,701,773 | 20,012,138 | 44.8 |
| Federal ^c | 3,620,415 | | | | 697,825 | 19.3 |
| Federal Employees | 2,118,859 | | | | 542,505 | 25.6 |
| TOTAL | 48,283,979 | | | | 20,709,963 | 42.9 |

- a States with exclusive funds (Ohio, North Dakota, Washington, West Virginia, and Wyoming) may 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 Tentative data from the state agency.

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, 1999
(in thousands)**

| State | Total | Private Carriers ^a | State Funds | Self-Insured ^b | Medical Benefits | Percent Medical |
|----------------------------|------------|-------------------------------|-------------|---------------------------|------------------|-------------------|
| Alabama | \$ 551,398 | \$ 295,847 | \$ | \$ 255,550 | \$ 309,393 | 56.1 |
| Alaska | 130,334 | 102,229 | 0 | 28,105 | 70,291 | 53.9 |
| Arizona | 465,554 | 210,522 | 192,237 | 62,794 | 267,572 | 57.5 ^c |
| Arkansas | 185,372 | 123,081 | 0 | 62,291 | 112,676 | 60.8 ^c |
| California | 7,851,641 | 4,596,363 | 1,012,910 | 2,242,368 | 3,504,327 | 44.6 |
| Colorado | 738,526 | 335,299 | 196,348 | 206,879 | 297,482 | 40.3 ^c |
| Connecticut | 736,857 | 521,892 | 0 | 214,965 | 288,797 | 39.2 ^c |
| Delaware | 133,023 | 91,315 | 0 | 41,708 | 59,952 | 45.1 ^d |
| District of Columbia | 90,232 | 71,148 | 0 | 19,084 | 32,503 | 36.0 |
| Florida | 2,768,044 | 1,835,421 | 0 | 932,622 | 1,503,825 | 54.3 ^c |
| Georgia | 895,690 | 619,723 | 0 | 275,968 | 443,514 | 49.5 ^c |
| Hawaii | 222,056 | 148,803 | 6,995 | 66,258 | 85,513 | 38.5 |
| Idaho | 168,642 | 69,887 | 84,809 | 13,947 | 94,122 | 55.8 ^c |
| Illinois | 1,952,697 | 1,506,917 | 0 | 445,779 | 836,374 | 42.8 ^c |
| Indiana | 510,992 | 434,614 | 0 | 76,378 | 335,983 | 65.8 ^c |
| Iowa | 322,176 | 261,573 | 0 | 60,602 | 160,112 | 49.7 ^c |
| Kansas | 326,196 | 234,197 | 0 | 91,998 | 181,382 | 55.6 ^c |
| Kentucky | 477,867 | 308,195 | 22,624 | 147,047 | 258,368 | 54.1 ^c |
| Louisiana | 464,883 | 219,050 | 106,460 | 139,373 | 233,752 | 50.3 ^c |
| Maine | 265,862 | 117,607 | 53,382 | 94,872 | 100,345 | 37.7 |
| Maryland | 714,356 | 378,079 | 166,582 | 169,695 | 305,892 | 42.8 |
| Massachusetts | 733,191 | 615,203 | 0 | 117,988 | 234,056 | 31.9 |
| Michigan | 1,392,806 | 749,350 | 0 | 643,456 | 413,859 | 29.7 |
| Minnesota | 744,500 | 479,300 | 88,100 | 177,100 | 315,600 | 42.4 |
| Mississippi | 253,664 | 162,891 | 0 | 90,773 | 132,971 | 52.4 |
| Missouri | 971,628 | 708,109 | 39,496 | 224,023 | 481,139 | 49.5 |
| Montana | 145,996 | 58,017 | 63,437 | 24,542 | 70,426 | 48.2 |
| Nebraska | 198,276 | 158,010 | 0 | 40,266 | 104,423 | 52.7 ^c |
| Nevada | 384,285 | 14,817 | 240,612 | 128,855 | 133,219 | 34.7 |
| New Hampshire | 190,072 | 148,837 | 0 | 41,236 | 96,830 | 50.9 ^c |
| New Jersey | 1,239,702 | 1,135,341 | 0 | 104,360 | 578,264 | 46.6 ^d |
| New Mexico | 135,903 | 76,356 | 14,762 | 44,784 | 75,650 | 55.7 |
| New York | 2,795,769 | 1,314,422 | 836,452 | 644,895 | 839,719 | 30.0 |
| North Carolina | 813,823 | 593,192 | 0 | 220,631 | 362,784 | 44.6 ^c |
| North Dakota | 69,911 | 377 | 69,534 | 0 | 37,836 | 54.1 |
| Ohio | 2,038,742 | 37,923 | 1,571,005 | 429,814 | 811,564 | 39.8 |
| Oklahoma | 496,500 | 290,726 | 117,018 | 88,756 | 220,612 | 44.4 ^c |
| Oregon | 384,110 | 202,220 | 145,285 | 36,605 | 183,332 | 47.7 |
| Pennsylvania | 2,467,114 | 1,709,488 | 178,122 | 579,505 | 870,282 | 35.3 |
| Rhode Island | 113,218 | 56,892 | 34,868 | 21,459 | 24,633 | 21.8 |
| South Carolina | 511,735 | 334,787 | 42,705 | 134,243 | 134,897 | 26.4 |
| South Dakota | 72,509 | 66,699 | 0 | 5,825 | 34,091 | 47.0 |
| Tennessee | 586,363 | 451,270 | 0 | 135,093 | 306,682 | 52.3 ^c |
| Texas | 1,874,974 | 1,499,076 | 205,299 | 170,599 | 1,031,352 | 55.0 ^c |
| Utah | 195,774 | 73,892 | 85,583 | 36,299 | 136,077 | 69.5 |
| Vermont | 106,389 | 87,139 | 0 | 19,250 | 50,398 | 47.4 ^c |
| Virginia | 629,348 | 490,828 | 0 | 138,520 | 334,154 | 53.1 ^c |
| Washington | 1,395,246 | 24,628 | 1,032,108 | 338,510 | 479,577 | 34.4 |
| West Virginia ^f | 687,002 | 0 | 583,941 | 103,061 | 183,747 | 26.7 |
| Wisconsin | 724,360 | 609,241 | 0 | 115,119 | 421,631 | 58.2 ^c |
| Wyoming | 75,196 | 1,432 | 73,764 | 0 | 48,434 | 64.4 |
| Non-federal total | 42,400,503 | 24,632,227 | 7,264,438 | 10,503,851 | 18,630,417 | 43.9 |
| Federal ^c | 3,495,522 | | | | 685,962 | 19.6 |
| Federal employees | 1,999,915 | | | | 525,747 | 26.3 |
| TOTAL | 45,896,025 | | | | 19,316,379 | 42.1 |

- a States with exclusive funds (Ohio, North Dakota, Washington, West Virginia, and Wyoming) may 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 Tentative data from the state agency.

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 D4**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 Benefits | Medical Percent |
|----------------------|------------|-------------------------------|-------------|---------------------------|------------------|-------------------|
| Alabama | \$ 551,398 | \$ 295,847 | \$ | \$ 255,550 | \$ 309,393 | 56.1 |
| Alabama | \$ 602,088 | \$ 348,977 | \$ | \$ 253,111 | \$ 284,980 | 47.3 |
| Alaska | 127,368 | 94,311 | | 33,057 | 67,986 | 53.4 |
| Arizona | 432,965 | 180,545 | 182,053 | 70,367 | 235,456 | 54.4 ^c |
| Arkansas | 174,303 | 117,808 | | 56,495 | 99,477 | 57.1 ^c |
| California | 7,365,820 | 4,214,725 | 934,780 | 2,216,316 | 3,171,827 | 43.1 |
| Colorado | 810,985 | 298,797 | 328,885 | 183,303 | 306,151 | 37.8 |
| Connecticut | 714,822 | 510,204 | | 204,617 | 295,221 | 41.3 ^c |
| Delaware | 147,070 | 90,009 | | 57,060 | 63,422 | 43.1 ^d |
| D.C. | 90,386 | 66,423 | | 23,963 | 30,226 | 33.4 |
| Florida | 2,538,353 | 1,888,149 | | 650,204 | 1,431,391 | 56.4 ^c |
| Georgia | 889,131 | 585,353 | | 303,777 | 418,913 | 47.1 ^c |
| Hawaii | 233,225 | 164,668 | 2,060 | 66,497 | 87,019 | 37.3 |
| Idaho | 164,327 | 70,156 | 79,992 | 14,179 | 91,215 | 55.5 ^c |
| Illinois | 1,838,191 | 1,383,668 | | 454,524 | 762,088 | 41.5 ^c |
| Indiana | 481,073 | 407,689 | | 73,384 | 319,996 | 66.5 |
| Iowa | 320,761 | 255,576 | | 65,186 | 156,935 | 48.9 ^c |
| Kansas | 318,976 | 223,176 | | 95,800 | 173,153 | 54.3 ^c |
| Kentucky | 421,386 | 262,633 | 22,139 | 136,614 | 223,528 | 53.0 ^c |
| Louisiana | 442,025 | 203,700 | 96,355 | 141,970 | 216,290 | 48.9 ^c |
| Maine | 253,946 | 116,059 | 51,119 | 86,768 | 89,050 | 35.1 ^c |
| Maryland | 691,285 | 336,699 | 164,275 | 190,311 | 261,249 | 37.8 ^c |
| Massachusetts | 728,771 | 584,359 | | 144,412 | 226,460 | 31.1 |
| Michigan | 1,366,988 | 726,793 | | 640,195 | 387,139 | 28.3 |
| Minnesota | 737,100 | 468,800 | 95,100 | 173,200 | 306,000 | 41.5 |
| Mississippi | 234,873 | 150,029 | | 84,844 | 131,643 | 56.0 |
| Missouri | 814,287 | 581,920 | 39,710 | 192,658 | 322,071 | 39.6 ^c |
| Montana | 136,975 | 44,874 | 68,653 | 23,447 | 65,562 | 47.9 |
| Nebraska | 164,382 | 126,577 | | 37,805 | 87,859 | 53.4 ^c |
| Nevada | 331,420 | 9,844 | 217,064 | 104,512 | 129,613 | 39.1 |
| New Hampshire | 169,663 | 132,663 | | 37,000 | 86,189 | 50.8 ^c |
| New Jersey | 1,164,184 | 1,063,003 | | 101,180 | 519,878 | 44.7 ^d |
| New Mexico | 128,290 | 69,537 | 15,084 | 43,670 | 75,037 | 58.5 |
| New York | 2,600,961 | 1,125,494 | 850,823 | 624,644 | 818,060 | 31.5 |
| North Carolina | 810,188 | 557,135 | | 253,053 | 360,534 | 44.5 ^c |
| North Dakota | 68,925 | 214 | 68,711 | | 36,789 | 53.4 |
| Ohio | 2,076,545 | 27,447 | 1,616,286 | 432,812 | 818,019 | 39.4 |
| Oklahoma | 536,420 | 280,322 | 156,046 | 100,052 | 232,891 | 43.4 ^c |
| Oregon | 430,521 | 221,916 | 145,135 | 63,470 | 206,798 | 48.0 |
| Pennsylvania | 2,418,072 | 1,646,492 | 201,653 | 569,927 | 834,245 | 34.5 |
| Rhode Island | 110,185 | 52,268 | 30,952 | 26,964 | 23,947 | 21.7 |
| South Carolina | 467,277 | 288,480 | 49,104 | 129,693 | 135,859 | 29.1 |
| South Dakota | 67,088 | 61,376 | | 5,712 | 32,709 | 48.8 |
| Tennessee | 550,819 | 420,571 | | 130,248 | 283,121 | 51.4 ^c |
| Texas | 1,591,818 | 1,267,117 | 175,368 | 149,333 | 934,397 | 58.7 ^c |
| Utah | 188,543 | 71,657 | 75,863 | 41,024 | 129,325 | 68.6 |
| Vermont | 91,436 | 78,510 | | 12,925 | 42,152 | 46.1 |
| Virginia | 658,466 | 489,368 | | 169,098 | 343,341 | 52.1 ^c |
| Washington | 1,286,680 | 17,222 | 964,077 | 305,381 | 449,559 | 34.9 |
| West Virginia | 644,294 | | 539,026 | 105,268 | 177,028 | 27.5 |
| Wisconsin | 703,610 | 580,797 | | 122,813 | 409,655 | 58.2 ^c |
| Wyoming | 73,080 | 2,181 | 70,899 | | 46,657 | 63.8 |
| Total non-federal | 40,410,346 | 22,966,287 | 7,241,213 | 10,202,846 | 17,438,110 | 43.2 |
| Federal ^c | 3,470,760 | | | | 682,653 | 19.7 |
| Federal employees | 2,009,862 | | | | 473,432 | 23.6 |
| Total | 43,881,106 | | | | 18,120,763 | 41.3 |

- a States with exclusive funds (Ohio, North Dakota, Washington, West Virginia, and Wyoming) may 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 Tentative data from the state agency.

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 1998-2002. This procedure is outlined in Appendix A.
- 2) Collect total payroll of workers insured by private carriers and competitive state funds for calendar years 1998-2002. 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) to 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 $[(6) \cdot (3) = (4)]$.

Table E1

**Self-Insurer Estimation Results,
1997-2002**

(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 | 49.0 |
| 1999 | 51.2 |
| 2000 | 58.4 |
| 2001 | 53.5 |
| 2002 | 60.1 |

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 2002, twenty-seven 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, Nevada, New Mexico, New York, North Dakota, Ohio, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Washington, 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-six states. For 2002, 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, Nebraska, New Hampshire, North Carolina, Oklahoma, Tennessee, Texas, Utah, Vermont, and Virginia.

For three states, Delaware, New Jersey, and Wisconsin, 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.

For West Virginia, neither NCCI nor agency data were available. The medical percent provided by the state for calendar year 2001 was applied to 2002 estimates.

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.

Fourteen States: Alabama, Alaska, 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 esti-

mate to the state reported amount to estimate the total state private carrier benefits.

Seven States: Arizona, 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.

Weighted Averages:

1998 - 21.71

1999 - 25.88

2000 - 26.78

2001 - 26.13

2002 - 34.12

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 2002. 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 2002. 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 2002. 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 1997-2002 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 2002 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 2002. 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 Program 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 \$19.5 billion in 2002, veterans' compensation is about 67 percent of the size of total cash benefits in other workers' compensation programs, which were \$29.0 billion in 2002. 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, 1997–2002 (in thousands)**

| | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 |
|--|-------------|-------------|-------------|-------------|-------------|-----------|
| Total Benefits | \$1,900,779 | \$2,009,862 | \$1,999,915 | \$2,118,859 | \$2,223,088 | 2,317,325 |
| Compensation Benefits | 1,440,867 | 1,536,430 | 1,474,168 | 1,576,354 | 1,600,031 | 1,651,947 |
| Medical Benefits | 459,912 | 473,432 | 525,747 | 542,505 | 623,057 | 665,378 |
| % Medical | 24 | 24 | 26 | 26 | 28 | 29 |
| Direct Administrative Costs | 80,893 | 80,235 | 87,425 | 91,532 | 109,326 | 115,226 |
| Total Costs | 1,981,672 | 2,090,097 | 2,087,340 | 2,210,391 | 2,332,414 | 2,432,551 |
| Indirect Administrative Costs ^a | 6,835 | 5,750 | 5,584 | 6,197 | 5,056 | 4,596 |

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 2004b.

Table H2**Longshore and Harbor Workers Compensation Act, Benefits and Costs, 1997–2002 (in thousands)**

| | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 |
|--|-----------|-----------|-----------|-----------|-----------|---------|
| Total Benefits | \$617,927 | \$642,321 | \$659,800 | \$671,991 | \$689,065 | 696,450 |
| Insurance Carriers | 219,352 | 238,464 | 232,778 | 249,671 | 236,726 | 242,491 |
| Self-Insured Employers | 263,255 | 261,559 | 283,991 | 278,952 | 307,708 | 310,939 |
| LHWCA Special Fund | 123,772 | 129,777 | 131,152 | 131,564 | 133,374 | 131,684 |
| DCCA Special Fund | 11,548 | 12,521 | 11,879 | 11,804 | 11,341 | 11,336 |
| Percent of Benefits for | | | | | | |
| Medical Care | 23.3 | 24.0 | 24.1 | 24.3 | 24.3 | 24.3 |
| Total Annual Assessments | 121,300 | 122,000 | 141,300 | 145,700 | 145,000 | 136,000 |
| LHWCA | 110,000 | 111,000 | 130,000 | 133,000 | 133,000 | 125,000 |
| DCCA | 11,300 | 11,000 | 11,300 | 12,700 | 12,000 | 11,000 |
| Administrative Expenses ¹ | 9,356 | 9,821 | 10,822 | 11,144 | 11,713 | 11,970 |
| General Revenue | 8,378 | 8,596 | 8,947 | 9,373 | 9,807 | 9,988 |
| Trust Fund | 978 | 1,225 | 1,875 | 1,771 | 1,906 | 1,982 |
| Indirect Administrative Costs ² | 1,799 | 2,107 | 2,247 | 1,787 | 2,207 | 2,514 |

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 a Special Fund, which draws its revenue primarily from annual industry assessments based on anticipated benefit liabilities. This Fund makes direct benefits payments for certain categories of claims and provides 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. Funded by General Revenues.

Table H3**Black Lung Benefits Act, Benefits and Costs, 1997–2002
(in thousands)**

| | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 |
|---|-------------|-------------|-----------|-----------|-----------|---------|
| Total Benefits | \$1,095,585 | \$1,000,383 | \$982,787 | \$929,690 | \$872,787 | 826,980 |
| Part C Compensation | 388,656 | 373,707 | 360,470 | 346,903 | 332,620 | 316,585 |
| Medical Benefits | 92,041 | 80,450 | 74,776 | 69,322 | 61,136 | 65,756 |
| Part B Compensation | 614,888 | 546,226 | 547,541 | 513,465 | 479,031 | 444,639 |
| Total Direct Administrative Costs | | | | | | |
| Part C (DOL) | 25,759 | 31,030 | 33,246 | 32,866 | 34,657 | 36,123 |
| Part B (SSA) | * | 4,332 | 4,223 | 4,275 | 4,760 | 4,635 |
| Trust Fund Advances from U.S. Treasury ^b | 370,000 | 360,000 | 402,000 | 490,000 | 505,000 | 465,000 |
| Interest Payments on Past Advances | 470,635 | 494,726 | 515,016 | 541,117 | 567,814 | 595,589 |
| Coal Tax Revenues Received by the Black Lung Trust Fund | 635,342 | 634,270 | 569,704 | 512,799 | 511,520 | 588,000 |
| Indirect Administrative Costs ^a | 19,903 | 20,115 | 20,882 | 21,348 | 22,207 | 23,050 |

*information not available

a Includes legal and investigative support from the Office of the Solicitor and the Office of the Inspector General, services provided by the Department of the Treasury, and costs for the Office of Administrative Law Judges (OALJ) and the Benefits Review Board (BRB). (Note: OALJ and BRB costs are not included for any other program, but cannot be separately identified for Coal Mine Workers' Compensation).

b Total Trust Fund debt (cumulative advances) at the end of CY 2002 was \$7,718,557,000. In the recent past, most, if not all, of these advances were necessary to pay interest charges on past debt.

Source: U.S. DOL 2004b.

Table H4**Energy Employees Occupational Illness
Compensation Act, Benefits and Costs, 2001-
2002 (in thousands)**

| | 2001 | 2002 |
|-----------------------------|----------|---------|
| Total Benefits | \$67,403 | 369,173 |
| Compensation Benefits | 67,400 | 363,671 |
| Medical Benefits | 3 | 5,502 |
| % medical | - | |
| Direct Administrative Costs | 12,021 | 68,777 |
| Total Costs | 79,424 | 437,950 |

Source: U.S. DOL 2004b.

Table H5**Radiation Exposure Compensation Act, Benefits Paid as of May 5, 2004 (benefits in thousands)**

| Claim Type | Claims | Benefits |
|--------------------|---------------|------------------|
| Childhood Leukemia | 23 | \$1,150 |
| Childhood Leukemia | 24 | \$1,200 |
| Other Downwinder | 6,852 | 341,420 |
| Onsite Participant | 556 | 40,733 |
| Uranium Miner | 2,706 | 269,518 |
| Uranium Miller | 278 | 27,580 |
| Ore Transporter | 63 | 6,280 |
| TOTAL | 10,479 | \$686,732 |

Source: U.S. DOJ 2004.

Table H6**Federal Veterans' Compensation Program, Compensation Paid in September 2003 (benefits in thousands)**

| Class of Dependent | Number | Monthly Value |
|--|-----------|---------------|
| Veteran Recipients – total | 2,485,229 | \$1,627,994 |
| Veterans less than 30 percent disabled (no dependency benefit) | 1,204,037 | 164,122 |
| Veterans 30 percent or more disabled | 1,281,186 | 463,865 |
| Without dependents | 407,131 | 432,901 |
| With dependents | 874,055 | 30,963 |
| Spouse only | 586,428 | 712,276 |
| Spouse, child or children | 225,616 | 245,525 |
| Spouse, child or children, and parents or parents | 809 | 1,468 |
| Spouse, parent or parents | 1,085 | 2,093 |
| Child or children only | 5,779 | 64,375 |
| Child or children, and parent or parents | 336 | 601 |
| Parent or parents only | 2,301 | 4,625 |
| Total dependents on whose account additional compensation was being paid | 1,316,965 | - |
| Spouse | 813,938 | - |
| Children | 498,938 | - |
| Parents | 4,985 | - |

Source: U.S. Department of Veterans Affairs 2004, Table 12.

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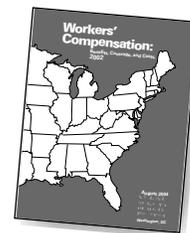
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*Kathleen Buto,
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Proceedings of the fifteenth annual conference of the National Academy of Social Insurance raise a provocative question that goes to the heart of discussion about social insurance and diversity — to what extent must social insurance programs address historical, social, and economic inequities?

Several speakers at the conference discussed the influence of sociocultural factors on socio-economic outcomes for diverse populations. Some pointed out that differences in the treatment of racial and ethnic minorities based on factors such as race, country of origin, and language have contributed to contemporary “gaps” that span an array of socioeconomic indicators, including education, wealth, life expectancy, and health status. These indicators are central to the administration of social insurance programs because they not only help determine whether benefits are received at all but also the type and amount of benefits distributed.

Kathleen Buto is Vice President, Health Policy, Government Affairs at Johnson & Johnson

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Virginia Reno and
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March 2004, Social Security Brief No. 16

The Role of Private Health Plans in Medicare: Lessons from the Past, Looking to the Future

*Kathleen M. King and Mark
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Final Report of the Study Panel on Medicare and Markets

The National Academy of Social Insurance (NASI) convened a study panel in 2001 to consider the role of market-oriented reforms and private health plans in Medicare, as part of its broader project on the future of the Medicare program. The panel interpreted its charge broadly and set as its goal strengthening Medicare overall, including both the fee-for-service (FFS) system and private health plans. Members of the study panel were selected for their recognized expertise and knowledge of Medicare; they were also selected to represent different disciplines and diverse views on the role of private health plans in Medicare. The study panel met four times, convened several conference calls, and commissioned original research in pursuit of its mission. In its work, the panel strove to reach consensus on a wide range of challenging and complex issues. In most cases, the panel reached a common understanding and viewpoint, however, on some issues, there was a divergence of views among panel members, which is noted in the text.

In the study panel’s view, debate over the appropriate role of market forces in Medicare often has been characterized by misunderstanding and polarized by ideology, with claims that do not comport with experience. They do not expect that a better understanding of Medicare’s history and analysis of its performance alone will result in a consensus view on Medicare reform.

Values play an important part — and rightly so — in shaping views about public policy. But they hope that a dispassionate analysis of both original Medicare and Medicare+Choice (M+C) will help clarify the issues and dispel some misconceptions.

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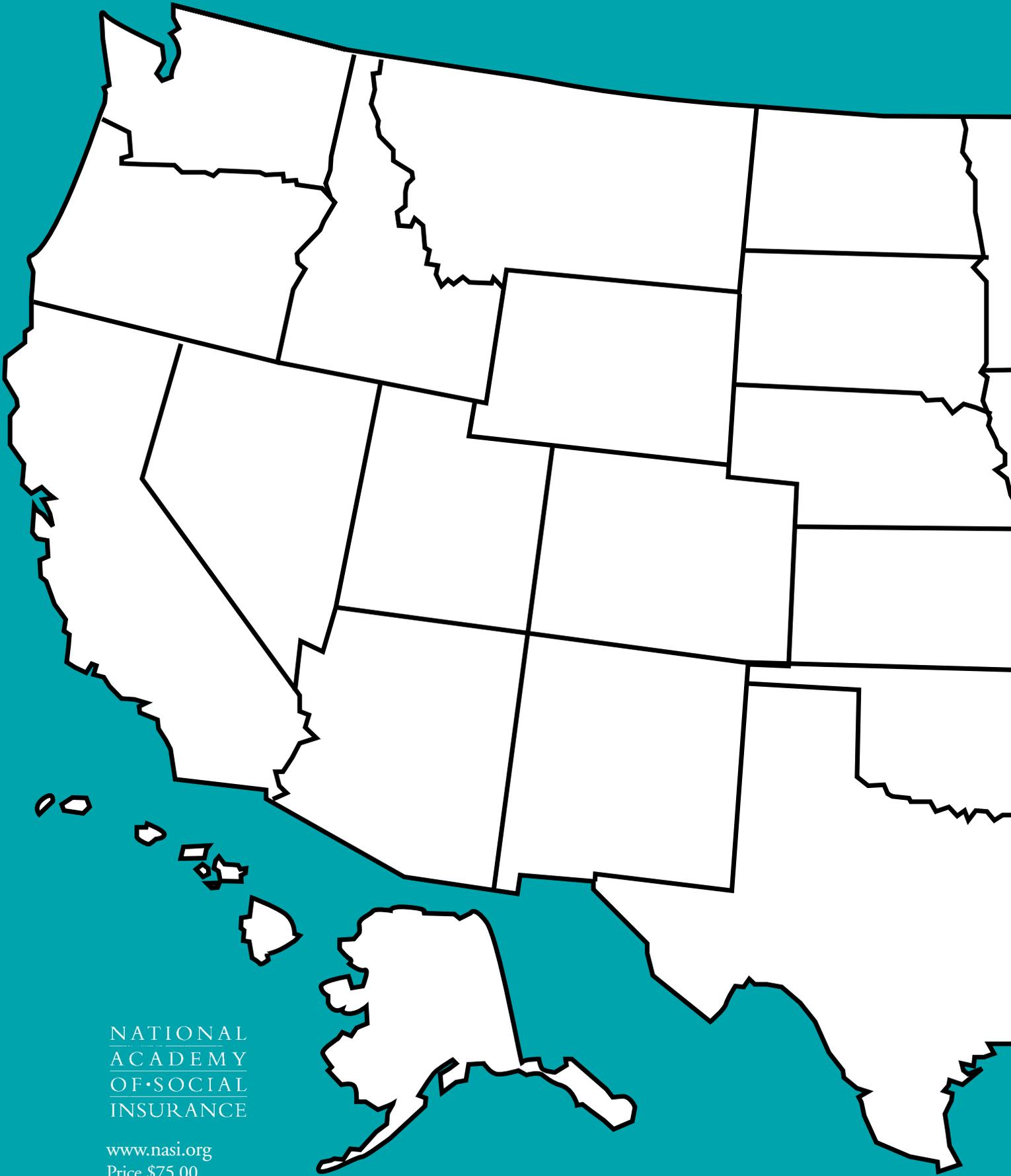
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