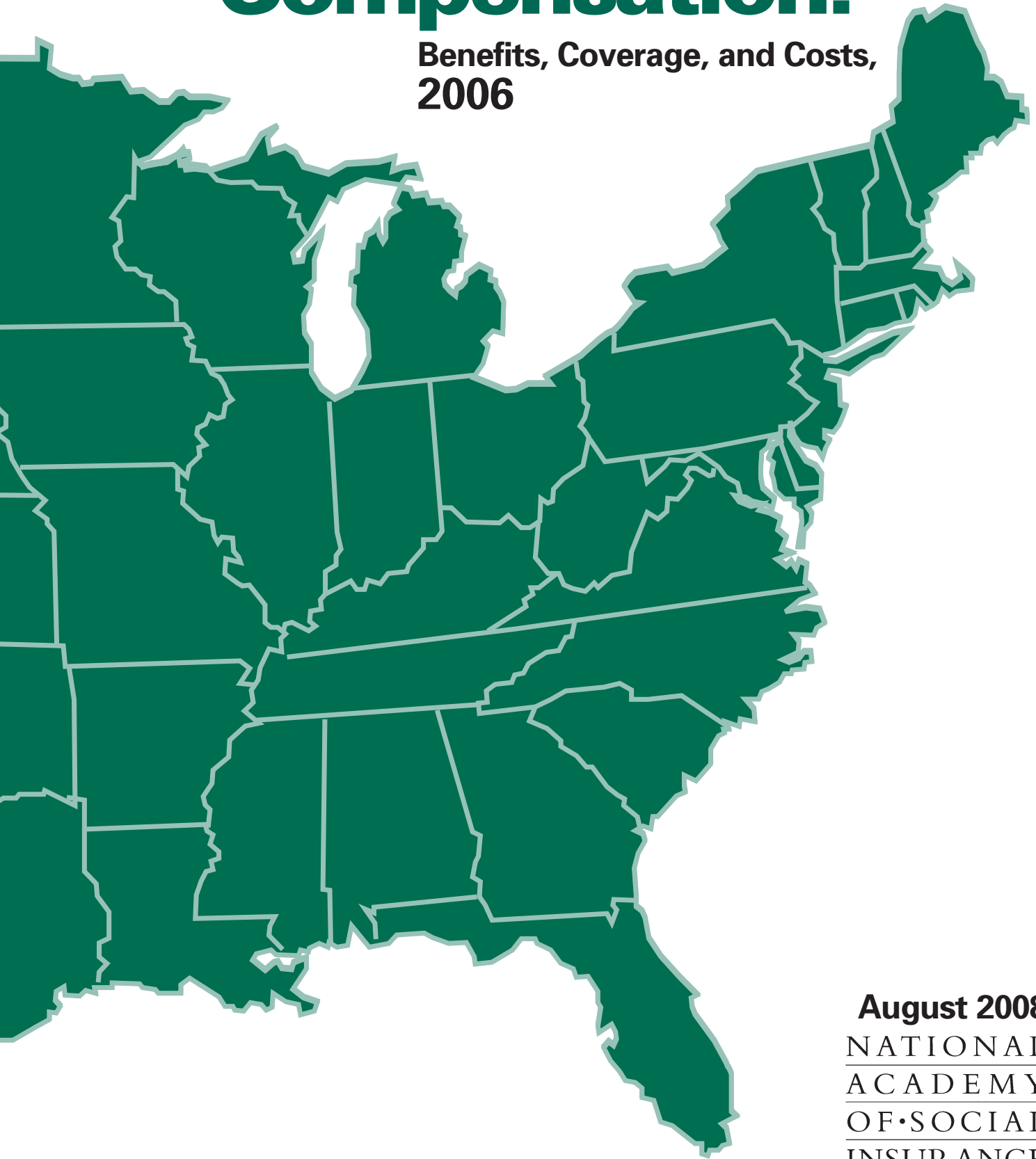


Workers' Compensation:

Benefits, Coverage, and Costs,
2006



August 2008
NATIONAL
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The National Academy of Social Insurance is a nonprofit, nonpartisan organization made up of the nation's leading experts on social insurance. Its mission is to promote understanding of how social insurance contributes to economic security and a vibrant economy.

Social insurance encompasses broad-based systems for insuring workers and their families against economic insecurity caused by loss of income from work and the cost of health care. NASI's scope covers social insurance such as Social Security, Medicare, workers' compensation and unemployment insurance, and related public assistance and private employee benefits.

The Academy convenes study panels that are charged with conducting research, issuing findings, and, in some cases, reaching recommendations based on their analysis. Members of these groups are selected for their recognized expertise and with due consideration for the balance of disciplines and perspectives appropriate to the project.

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

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

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Workers' Compensation:

**Benefits, Coverage, and Costs,
2006**

by

Ishita Sengupta, Virginia Reno, and John F. Burton, Jr.

with advice of the

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

August 2008

**NATIONAL
ACADEMY
OF SOCIAL
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Washington, DC**

Preface

This is the eleventh report the Academy has issued on workers' compensation national data. Before the National Academy of Social Insurance began the program, the U.S. Social Security Administration (SSA) produced the only comprehensive national data on workers' compensation benefits and costs with annual estimates dating back to 1946. SSA discontinued the series in 1995 after publishing data for 1992–93. 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. In December 1997, it published a report that extended the data series through 1995. Today funding for the project comes from the Social Security Administration, the Centers for Medicare & Medicaid Services, and the U.S. Department of Labor. In addition, the National Council on Compensation Insurance and National Association of Insurance Commissioners provide access to important data for the project. Without support from these sources, continuing this vital data series would not be possible.

This report benefited from the expertise of members of the Study Panel on National Data on Workers' Compensation, who gave generously of their time and knowledge in advising on data sources and presentation, interpreting results, and reviewing the draft report. The panel is listed on page ii.

We would like to especially acknowledge Barry Llewellyn, Senior Divisional Executive and Actuary with the National Council on Compensation Insurance, Eric Nordman, Director of Research, National Association of Insurance Commissioners, Greg Krohm, Executive Director, International Association of Industrial Accident Boards and Commissions, and Les Boden, Professor, Boston University, who provided the Academy with data and their considerable expertise on many data issues. This report also benefited from helpful comments during Board review by Robert Aurbach, Paul Cullinan, and Eli Donkar.

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Highlights

This report provides a benchmark of the benefits and costs of workers' compensation to facilitate policymaking and comparisons with other social insurance and employee benefit programs. Workers' compensation pays for medical care, rehabilitation 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.

Need for this Report

The lack of uniform reporting of states' experiences with workers' compensation makes it 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 federal tax treatment, no federal laws set standards for "tax-qualified" plans or require comprehensive reporting of workers' compensation coverage and benefits.¹ The general lack of federally-mandated data means that states vary greatly in the data they have available to assess the performance of workers' compensation programs.

For more than forty years, the research office of the U.S. Social Security Administration 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 eleventh annual report on workers' compensation benefits, coverage, and costs. This report presents new data on developments in workers' compensation in 2006 and updates estimates of benefits, costs, and coverage for the years 2002–2005. The revised estimates in this report replace estimates in the Academy's prior reports.

Target Audience

The audience for the Academy's reports on workers' compensation includes journalists, business and labor leaders, insurers, employee benefit specialists, federal and state policymakers, 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, *Injury Facts* by the National Safety Council, *Employee Benefit News*, which tracks developments for human resource professionals and *Fundamentals of Employee Benefit Programs* from the Employee Benefit Research Institute. The U.S. Social Security Administration publishes the data in its *Annual Statistical Supplement to the Social Security Bulletin*. The federal Centers for Medicare & Medicaid Services 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 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 administer workers' compensation in the United States and Canada) uses the information to track and compare the performance of workers' compensation programs in the United States with similar systems in Canada.

The report is produced with the oversight of the members of the Academy's Study Panel on National Data on Workers' Compensation, who are listed in the front of this report. The Academy and its expert advisors are continually seeking ways to improve the report and to adapt estimation methods to track new developments in the insurance industry and in workers' compensation programs.

Workers' Compensation and Other Disability Benefits

Workers' compensation is an important part 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

1 There is a new reporting requirement enacted in 2007, Section 111 of S 2499 (now Public Law No. 110-173) that says workers' compensation claims administrators must report to CMS (Center for Medicare and Medicaid Services) information about workers' compensation recipients who are entitled to Medicare.

Table 1**Comparison of Workers' Compensation Benefits*, Coverage, and Costs**, 2005–2006, Summary**

Aggregate Amounts	2005	2006	Change In Percent
United States			
Covered workers (in thousands)	128,141	130,322	1.7
Covered wages (in billions)	\$5,212	\$5,543	6.3
Workers' compensation benefits paid (in billions)	\$55.5	\$54.7	-1.5
Medical benefits	\$26.3	\$26.5	0.7
Cash benefits	\$29.2	\$28.2	-3.5
Employer costs for workers' compensation (in billions)	\$88.9	\$87.6	-1.5
California			
Covered workers (in thousands)	14,992	15,256	1.8
Covered wages (in billions)	\$689	\$734	6.5
Workers' compensation benefits paid (in billions)	\$10.9	\$10.1	-7.2
Medical benefits	\$5.1	\$5.1	-0.1
Cash benefits	\$5.8	\$5.0	-13.4
Employer costs for workers' compensation (in billions)	\$20.4	\$17.0	-16.6
Outside California			
Covered workers (in thousands)	113,149	115,066	1.7
Covered wages (in billions)	\$4,523	\$4,808	6.3
Workers' compensation benefits paid (in billions)	\$44.6	\$44.5	-0.1
Medical benefits	\$21.2	\$21.4	1.0
Cash benefits	\$23.4	\$23.2	-1.0
Employer costs for workers' compensation (in billions)	\$68.5	\$70.5	3.0
Amount per \$100 of covered Wages			Change In Amount[#]
United States			
Benefits paid	\$1.07	\$0.99	-\$0.08
Medical payments	\$0.50	\$0.48	-\$0.03
Cash payments to workers	\$0.56	\$0.51	-\$0.05
Employer costs	\$1.71	\$1.58	-\$0.13
California			
Benefits paid	\$1.59	\$1.38	-\$0.20
Medical payments	\$0.74	\$0.70	-\$0.05
Cash payments to workers	\$0.84	\$0.69	-\$0.16
Employer costs	\$2.96	\$2.32	-\$0.64
Outside California			
Benefits paid	\$0.99	\$0.93	-\$0.06
Medical payments	\$0.47	\$0.44	-\$0.02
Cash payments to workers	\$0.52	\$0.48	-\$0.04
Employer costs	\$1.51	\$1.47	-\$0.05

Figures may not add to total due to rounding.

Table 1 continued

* Benefits are payments in the calendar year to injured workers and to providers of their medical care.

** Costs are employer expenditures in the calendar year for workers' compensation benefits, administrative costs, and/or insurance premiums. Costs for self-insuring employers are benefits paid in the calendar year plus the administrative costs associated with providing those benefits. Costs for employers who purchase insurance include the insurance premiums paid during the calendar year plus the payments of benefits under large deductible plans during the year. The insurance premiums must pay for all of the compensable consequences of the injuries that occur during the year, including the benefits paid in the current as well as future years.

Source: National Academy of Social Insurance estimates based on Tables 2, 8, 9, 11, 12 and D1.

\$54.7 billion in benefits in 2006. Of the total, \$26.5 billion paid for medical care and \$28.2 billion paid for cash benefits (Table 1).

Workers' compensation differs from Social Security disability insurance and Medicare in important ways. Workers' compensation pays for medical care for work-related injuries beginning immediately after the injury occurs; it pays temporary disability benefits after a waiting period of three to seven days; it pays permanent partial and permanent total disability benefits to workers who have lasting consequences of disabilities caused on the job; in most states it pays rehabilitation and training benefits for those unable to return to pre-injury careers; and it pays benefits to survivors of workers who die of work-related causes. Social Security, in contrast, pay benefits to workers with long-term disabilities of any cause, but only when the disabilities preclude work. Social Security also pays for rehabilitation services and it also pays for survivor benefits to families of deceased workers. Social Security begins after a five-month waiting period and Medicare begins twenty-nine months after the onset of medically verified inability to work. In 2006, Social Security paid \$91.7 billion in cash benefits to disabled workers and their dependents, while Medicare paid \$52.2 billion for health care for disabled persons under age 65 (SSA, 2007d and CMS, 2007).

Paid sick leave, temporary disability benefits, and long-term disability insurance for non-work-related injuries or diseases are also available to some workers. About 70 percent of private sector employees have sick leave or short-term disability coverage, while 30 percent have no income protection for temporary incapacity other than workers' compensation. Sick leave typically pays 100 percent of wages for a few

weeks. Private long-term disability insurance that is financed, at least in part, by employers covers about 30 percent of private sector employees and is 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.

Trends in Workers' Compensation Benefits and Costs

Total cash benefits to injured workers and medical payments for their health care were \$54.7 billion in 2006, a 1.5 percent decline from \$55.5 billion in 2005. Medical payments slightly increased to \$26.5 billion, while cash benefits to injured workers declined by 3.5 percent, to \$28.2 billion from \$29.2 billion in the prior year (Table 1).

Costs to employers fell by 1.5 percent in 2006 to \$87.6 billion. Costs for self-insured employers are the benefits they pay plus their administrative costs. For employers who buy insurance, costs are the premiums they pay in the year, plus benefits they pay under deductible arrangements in their insurance policies. From an insurance company's perspective, premiums received in a year are not expected to match up with benefits paid that year. Rather the premiums are expected to cover all future liabilities for injuries that occur in the year.

NASI measures of benefits and employer costs are designed to reflect the aggregate experience of two stakeholder groups – workers who rely on compensation for workplace injuries and employers who pay the bills. The NASI measures are not designed to

assess the performance of the insurance industry or insurance markets. Other organizations analyze insurance trends.²

For long-term trends, it is useful to consider workers' compensation benefits and employer costs relative to aggregate wages of covered workers. In a steady state, one might expect benefits to keep pace with covered wages. This would be the case with no change in the frequency or severity of injuries and if wage replacement benefits for workers and medical payments to providers tracked the growth of wages in the economy generally. However, in reality benefits and costs relative to wages vary significantly over the years.

In 2006, aggregate wages of covered workers rose by 6.3 percent. This increase was the combined effect of 1.7 percent increase in covered workers – due to job

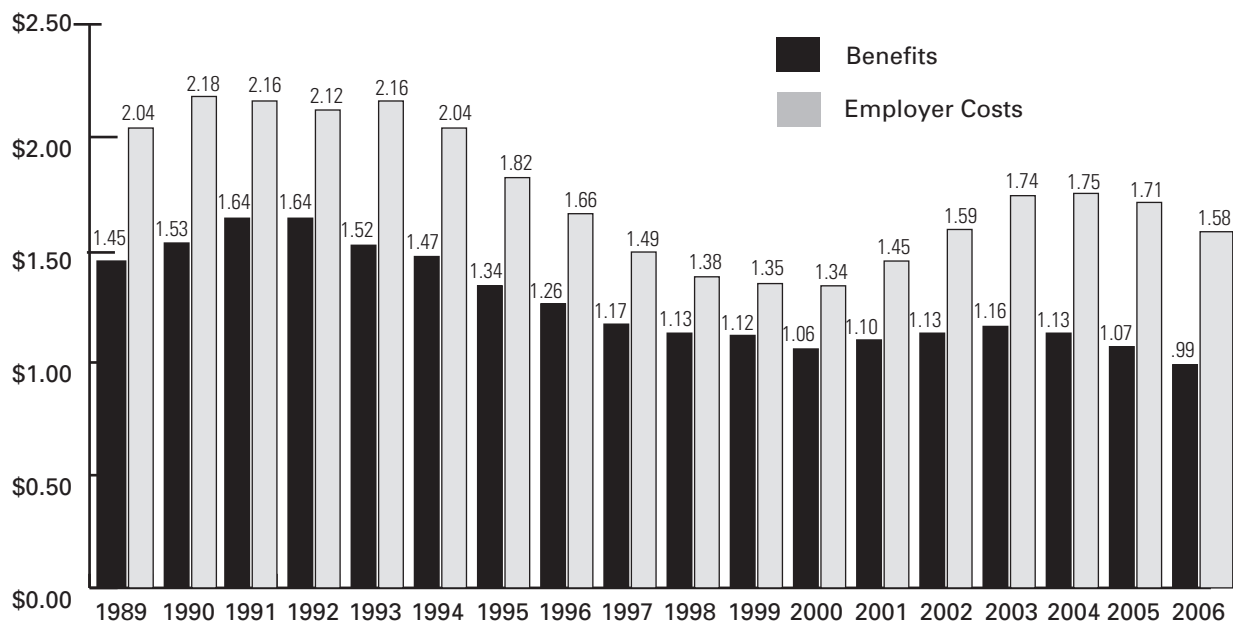
growth in the economy – and a 4.6 percent increase in the workers' average wages.

When measured relative to the wages of covered workers, both employer costs and benefits for workers fell in 2006 (Table 1). Total payments on workers' behalf fell by eight cents to \$0.99 per \$100 of covered wages. Medical payments fell from \$0.50 per \$100 of wages in 2005 to \$0.48 in 2006, while wage-replacement benefits fell by five cents per \$100 of wages to \$0.51. The cost to employers fell by thirteen cents per \$100 of covered wages, to \$1.58 in 2006.

Figure 1 shows the trends in employer costs and in cash and medical benefits combined as a share of covered wages over the past 18 years. Benefits and costs declined sharply from their peaks in the early

Figure 1

Workers' Compensation Benefits* and Costs Per \$100 of Covered Wages, 1989–2006**



Source: National Academy of Social Insurance estimates.

* Benefits are payments in the calendar year to injured workers and to providers of their medical care.

** Costs are employer expenditures in the calendar year for workers' compensation benefits, administrative costs, and/or insurance premiums. Costs for self-insuring employers are benefits paid in the calendar year plus the administrative costs associated with providing those benefits. Costs for employers who purchase insurance include the insurance premiums paid during the calendar year plus the payments of benefits under large deductible plans during the year. The insurance premiums must pay for all of the compensable consequences of the injuries that occur during the year, including the benefits paid in the current as well as future years.

2 Rating bureaus, for example, assess insurance developments in the states and advise regulators and insurers on premium changes.

1990s, reached a low in 2000, rebounded somewhat after 2000, and then declined in the last few years. As a share of covered wages, benefits in 2006 were at their lowest point in the last eighteen years at \$0.99 per \$100 of wages in 2006 (it is discussed in details later in the report). Figure 2 shows the trend in medical and cash payments separately. The decline in benefits over time has been largely in cash payments. In 2006, cash benefits per \$100 of wages were at their lowest point in the past 18 years, at \$0.51 per \$100 of wages.

National Trends Outside of California

California's workers' compensation program has changed significantly over the past few years. Because it is a big state (with 13 percent of national payroll and 18.6 percent of total benefits in 2006), California's large shifts in benefits and employer costs have altered the course of national trends. For this reason, it is useful to examine national trends outside of California.

Unprecedented growth in California workers' compensation costs in 2001-2003 led to major reforms in 2003 and 2004. The comprehensive changes sought to limit spending by introducing evidence-based medical treatment guidelines, creating medical

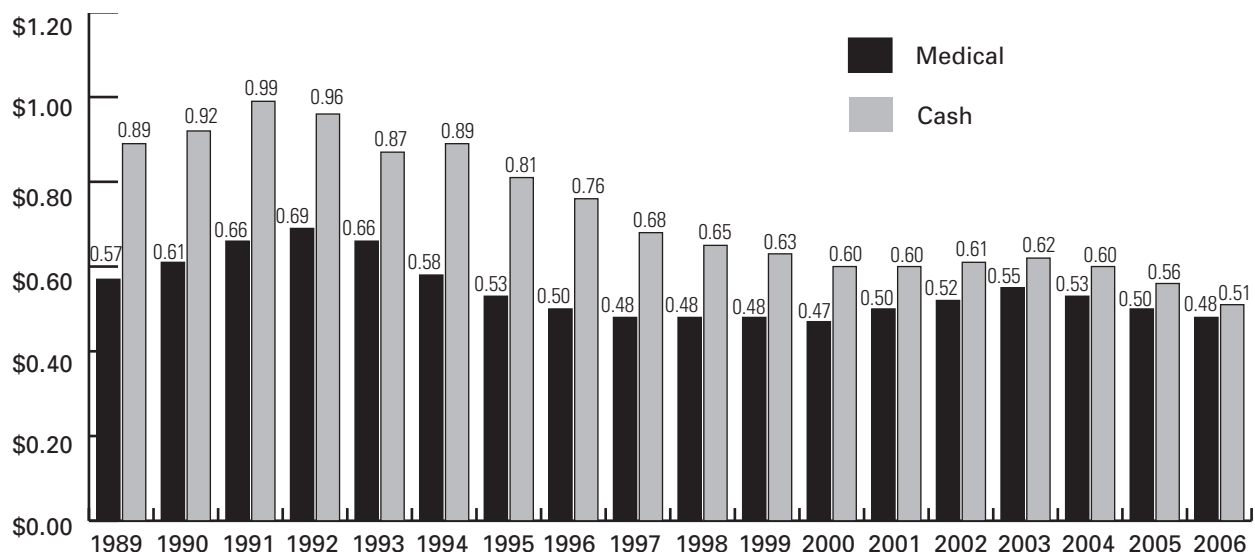
provider networks, setting time limits on temporary disability benefits, establishing a more objective rating schedule for permanent disability, and setting transparent fee schedules for outpatient surgery centers, hospitals, and pharmaceuticals. A new Academy brief, *Workers' Compensation in California and the Nation: Benefit and Employer Cost Trends, 1989-2005*, tracks the California changes through 2005 (Sengupta et al., (forthcoming)). California benefits and costs declined in 2005 and continued to decline in 2006.

Table 1 shows the 2006 changes in California and in the rest of the nation outside California. California's cash benefit payments dropped 13.4 percent in 2006. California medical benefit payments changed relatively little in 2006 after recording a 16 percent drop in the previous year. Costs to California employers fell 16.6 percent in 2006, after showing a 9.8 percent drop in 2005.

When California is excluded, the rest of the nation showed almost no change in total benefit payments (in contrast with a 1.5 percent drop when California is included). Employer costs outside California rose by 3.0 percent (in contrast with a drop of 1.5 percent when California is included).

Figure 2

Workers' Compensation Medical and Cash Benefits Per \$100 of Covered Wages, 1989–2006



Source: National Academy of Social Insurance estimates.

When changes in California are shown relative to aggregate wages of covered workers, medical payments per \$100 of covered wages fell by five cents to \$0.70 and cash benefits fell by 16 cents to \$0.69. Outside California medical benefits fell by two cents to \$0.44 per \$100 of wages, cash payments to workers also fell by four cents to \$0.48 per \$100 of covered wages, and employer costs fell by five cents to \$1.47 per \$100 of covered wages.

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 even after the worker's healing period, permanent disability benefits may be paid. In case of a fatality, the worker's dependents receive survivor benefits.

Germany enacted the first modern workers' compensation laws, known as Sickness and Accident Laws, in 1884, following their introduction by Chancellor Otto von Bismarck (Clayton, 2004). The next such laws were adopted in England in 1897. 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. The first state laws were passed in 1911. The subsequent adoption of state workers' compensation programs has been called a significant event in the nation's economic, legal, and political history.

The adoption of these laws throughout the nation required great efforts by business and labor to reach agreements on the specifics of the benefits to be provided and on which industries employers would have to provide these benefits. 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 U.S. government, certain energy employees exposed to hazardous material, workers engaged in

the manufacturing of atomic bombs, 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 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 ensure that a worker who sustained an occupational injury or disease arising out of and in the course of employment would receive predictable compensation without delay, regardless of who was at fault. As a *quid pro quo*, the employer's liability was limited. Under the exclusive remedy concept, the worker accepts workers' compensation as payment in full and gives up the right to sue.

Workers' compensation programs 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 approval from the regulatory authority, after demonstrating 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). 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 – as evaluated by actuarial formulas that consider injury frequency and aggregate benefit payments – is worse

(or better) than the experience of similar employers in the same insurance classification. The employers' costs of workers' compensation can also be affected by other factors, such as deviations, schedule rating, and dividends (Thomason et al, 2001). These competitive pricing adjustments vary over the course of the insurance underwriting cycle.

Types of Workers' Compensation Benefits

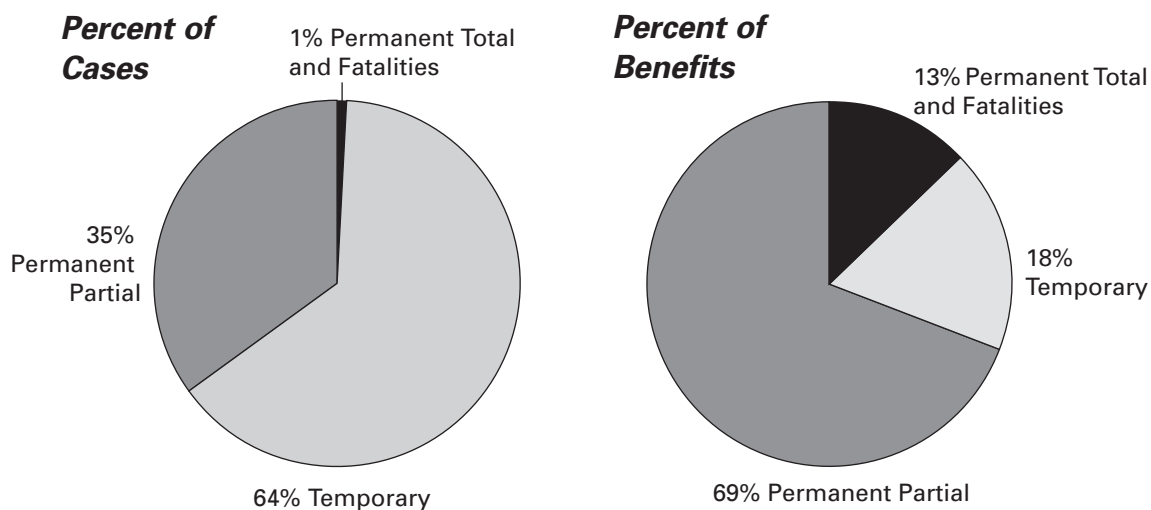
Workers' compensation pays for medical care immediately and pays cash benefits for lost work time after a three-to-seven day waiting period. Most workers' compensation cases do not involve lost work time greater than the waiting period for cash benefits. In these cases, only medical benefits are paid. 'Medical only' cases are quite common, but they represent a small share of benefit payments. Medical-only cases accounted for 77 percent of workers' compensation cases, but only 6 percent of all benefits paid, according to information about insured employers in forty-one states for policy years spanning 1998–2003 (NCCI, 2007a). The remaining 23 percent of cases that involved cash benefits accounted for 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 worker is temporarily precluded from performing the pre-injury job or another job for the employer that the worker could have performed prior to the injury. 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 most 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 lower pay. In those cases, they receive temporary partial disability benefits in some states. Temporary disability benefits are the most common type of cash benefits. They account for 64 percent of cases involving cash benefits and 18 percent of benefits incurred (Figures 3).

If a worker has very significant impairments that are judged to be permanent 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

Figure 3

Types of Disabilities in Workers' Compensation Cases with Cash Benefits, 2003



Cases classified as permanent partial include cases that are closed with lump sum settlements. Benefits paid in cases classified as permanent partial, permanent total and fatalities can include any temporary total disability benefits also paid in such cases. The data are from the first report from the NCCI *Annual Statistical Bulletin*.

Source: *Annual Statistical Bulletin*, NCCI 2006, Exhibits X and XII.

cash benefits, and 13 percent of total cash benefit payments.

Permanent partial disability benefits are paid when the worker has impairments that, although permanent, do not completely limit the worker's ability to work. States differ in their methods for determining whether a worker is entitled to permanent partial benefits, the degree of partial disability and the amount of benefits to be paid (Barth and Niss, 1999; Burton, 2005). Cash benefits for permanent partial disability are frequently limited to a specified duration or an aggregate dollar limit. Permanent partial disabilities account for 35 percent of cases that involve any cash payments and for 69 percent of payments.

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

Methods for compensating permanent impairments fall into several broad categories (Barth, 2004). About 43 jurisdictions use a schedule—a list of body parts that are covered. Typically, a schedule appears in the underlying statute and lists benefits to be paid for specific losses, for example, the loss of a finger. These losses invariably include the upper and lower extremities and may also include an eye. Most state schedules also include the loss of hearing in one or both ears. Injuries to the spine that are permanently disabling are typically not scheduled, nor are injuries to internal organs, head injuries, and occupational diseases. The schedules historically were the list of covered injuries and the unscheduled injury methodologies followed later.

For unscheduled conditions, the approaches used can be categorized into four methods:

- An *impairment-based approach*, used in 19 states, is most common. In approximately 14 of these states, a worker with an unscheduled permanent partial disability receives benefits based entirely on the degree of impairment with or without a formula that takes into account the personal characteristics of the

injured worker. Any future earnings losses of the worker are not considered.

- A *loss-of-earning-capacity approach* is used in 13 states. This approach links the benefit to the worker's ability to earn or to compete in the labor market and involves a forecast of the economic impact that the impairment will have on the worker's future earnings.
- In a *wage-loss approach*, used in 10 states, benefits are paid for the actual or ongoing losses that a worker incurs. In some states, the permanent partial disability benefit begins after maximum medical improvement has been achieved. In some cases permanent disability benefits can simply be the extension of temporary disability benefits until the disabled worker returns to employment.
- In a *bifurcated approach* used in nine jurisdictions, the benefit for a permanent disability depends on the worker's employment status at the time that the worker's condition is assessed, after the condition has stabilized. If the worker has returned to employment with earnings at or near the pre-injury level, the benefit is based on the degree of impairment. If the worker has not returned to employment, or has returned but at lower wages than before the injury, the benefit is based on the degree of lost earning capacity.

In Massachusetts (and in Florida from 1979 to 1990) injured workers could qualify for two tracks of benefits paid concurrently, one is which is designed to compensate for work disability and one of which is designed to compensate for noneconomic loss (Burton, 2008). The noneconomic loss benefit was known as impairment benefits in Florida and is known as specific injuries in Massachusetts.

Total Covered Employment

In 2006, workers' compensation covered an estimated 130.3 million workers, an increase of 1.7 percent from the 128.1 million workers covered in 2005 (Table 2). Total wages of covered workers were \$5.5 trillion in 2006, an increase of 6.3 percent from 2005. In 2006, employment increased for the third year in a row after having declined between 2000 and 2003. These developments reflect the condition of the overall economy. Workers' compensation

coverage rules did not change significantly during the period.

Coverage Rules

Every state except Texas requires almost all private employers to provide workers' compensation coverage (U.S. DOL, 2006). In Texas, coverage is voluntary, but employers not providing coverage are not protected from tort suits. An employee not covered by workers' compensation insurance or an approved self-insurance plan is allowed to file suit claiming the employer is liable for his or her work-related injury or illness in every state.

Other states exempt employers from mandatory coverage of 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 mandatory workers' compensation coverage in Arkansas, Colorado, Georgia, Michigan, New Mexico, North Carolina, Virginia, and Wisconsin. Employers with fewer than four workers are exempt in Florida and South Carolina. Those with fewer than five employees are exempt in Alabama, Mississippi, Missouri, and Tennessee.

The rules for agricultural workers vary among states. In eleven 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

Table 2

Number of Workers Covered under Workers' Compensation Programs and Total Covered Wages, 1989–2006

Year	Total Workers		Total Wages	
	(in thousands)	Percent Change	(in billions)	Percent Change
1989	103,900		\$ 2,360	
1990	105,500	1.5	2,506	6.2
1991	103,700	-1.7	2,567	2.4
1992	104,588	0.9	2,719	5.9
1993	106,503	1.8	2,819	3.7
1994	109,582	2.9	2,965	5.2
1995	112,377	2.6	3,143	6.0
1996	114,773	2.1	3,337	6.2
1997	118,145	2.9	3,591	7.6
1998	121,485	2.8	3,885	8.2
1999	124,349	2.4	4,151	6.8
2000	127,141	2.2	4,495	8.3
2001	126,972	-0.1	4,604	2.4
2002	125,603	-1.1	4,615	0.2
2003	124,685	-0.7	4,717	2.2
2004	125,863	0.9	4,953	5.0
2005	128,141	1.8	5,212	5.2
2006	130,322	1.7	5,543	6.3

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

Table 3**Number of Workers Covered by Workers' Compensation and Total Covered Wages, By State, 2002–2006**

	Covered Workers (in thousands)					Covered Wages (in millions)					2005-2006 2006 % Change
	2002	2003	2004	2005	2006	2002	2003	2004	2005	2006	
Alabama	1,704	1,698	1,720	1,763	1,797	\$52,037	\$53,617	\$56,310	59,734	\$63,733	6.7
Alaska	270	275	279	285	291	9,786	10,098	10,582	11,145	11,829	6.1
Arizona	2,191	2,222	2,304	2,438	2,562	73,890	77,118	83,541	92,048	101,587	10.4
Arkansas	1,064	1,061	1,073	1,092	1,112	29,515	30,246	32,014	33,674	35,512	5.5
California	14,588	14,553	14,706	14,992	15,256	601,288	616,879	653,145	689,220	734,344	6.5
Colorado	2,101	2,064	2,074	2,120	2,173	79,093	79,589	82,643	87,206	93,534	7.3
Connecticut	1,627	1,605	1,611	1,624	1,652	76,191	77,519	82,095	85,989	90,531	5.3
Delaware	396	396	406	412	417	15,654	16,166	17,209	18,370	19,259	4.8
District of Columbia	458	459	467	474	479	24,634	25,560	27,418	28,975	31,082	7.3
Florida	6,765	6,840	7,039	7,309	7,498	217,178	227,172	245,133	266,392	285,969	7.3
Georgia	3,624	3,597	3,663	3,751	3,838	128,121	130,129	137,088	144,796	153,029	5.7
Hawaii	528	538	554	572	586	16,694	17,564	18,893	20,170	21,527	6.7
Idaho	558	562	578	601	631	15,515	15,890	16,988	18,234	20,259	11.1
Illinois	5,679	5,606	5,611	5,660	5,733	224,324	226,180	235,915	246,223	260,371	5.7
Indiana	2,785	2,774	2,802	2,827	2,845	90,220	91,998	96,522	99,459	103,263	3.8
Iowa	1,393	1,385	1,404	1,428	1,453	41,038	42,247	44,770	46,958	49,539	5.5
Kansas	1,270	1,251	1,263	1,272	1,293	38,730	38,953	40,854	42,610	45,708	7.3
Kentucky	1,676	1,673	1,688	1,717	1,738	51,360	52,803	55,423	57,711	60,527	4.9
Louisiana	1,812	1,820	1,831	1,807	1,776	53,956	55,315	57,648	59,917	64,267	7.3
Maine	577	577	583	581	584	16,887	17,450	18,282	18,636	19,387	4.0
Maryland	2,299	2,306	2,332	2,372	2,405	87,514	90,465	95,769	101,405	107,102	5.6
Massachusetts	3,150	3,089	3,087	3,110	3,146	141,163	142,621	150,515	155,261	164,373	5.9
Michigan	4,242	4,175	4,152	4,148	4,085	161,193	163,935	166,930	170,240	171,402	0.7
Minnesota	2,552	2,542	2,567	2,607	2,637	95,206	97,750	103,238	105,878	110,727	4.6

Mississippi	1,027	1,020	1,026	1,032	1,042	1.0	26,900	27,629	28,730	30,123	31,895	5.9
Missouri	2,457	2,447	2,466	2,499	2,532	1.3	80,636	81,917	85,074	88,993	93,134	4.7
Montana	374	380	390	400	413	3.2	9,482	9,935	10,542	11,342	12,304	8.5
Nebraska	850	850	866	876	886	1.1	24,792	25,571	26,990	28,106	29,637	5.4
Nevada	1,027	1,062	1,127	1,197	1,253	4.6	34,677	37,255	41,514	46,104	49,863	8.2
New Hampshire	595	596	605	613	619	1.1	21,418	22,135	23,566	24,714	26,140	5.8
New Jersey	3,792	3,787	3,812	3,856	3,890	0.9	170,802	174,951	182,512	190,048	200,091	5.3
New Mexico	680	688	703	720	748	3.8	19,441	20,187	21,420	22,790	25,116	10.2
New York	8,135	8,089	8,142	8,220	8,302	1.0	375,634	381,651	405,898	426,395	460,017	7.9
North Carolina	3,607	3,577	3,633	3,707	3,812	2.8	117,180	119,091	125,399	132,140	141,640	7.2
North Dakota	300	302	309	316	323	2.4	7,843	8,221	8,811	9,313	9,978	7.1
Ohio	5,252	5,202	5,214	5,232	5,238	0.1	178,285	181,304	188,314	193,622	200,236	3.4
Oklahoma	1,393	1,366	1,382	1,420	1,461	2.9	38,991	39,576	41,442	43,994	48,671	10.6
Oregon	1,543	1,533	1,565	1,623	1,671	2.9	51,496	52,299	55,191	58,792	63,001	7.2
Pennsylvania	5,396	5,364	5,390	5,446	5,503	1.0	191,743	196,858	206,104	214,203	225,608	5.3
Rhode Island	439	443	447	468	471	0.7	15,058	15,906	16,576	17,865	18,771	5.1
South Carolina	1,677	1,679	1,697	1,725	1,759	2.0	49,868	51,154	53,504	56,244	59,723	6.2
South Dakota	352	353	358	365	373	2.3	9,101	9,413	9,930	10,410	11,068	6.3
Tennessee	2,455	2,453	2,494	2,537	2,579	1.7	78,948	81,411	86,074	89,989	95,817	6.5
Texas	7,386	7,102	6,949	7,193	7,498	4.2	265,805	260,476	265,326	286,422	315,913	10.3
Utah	1,006	1,006	1,037	1,080	1,135	5.1	30,233	30,732	32,742	35,320	39,176	10.9
Vermont	290	288	292	295	297	0.8	8,896	9,148	9,610	9,962	10,440	4.8
Virginia	3,186	3,191	3,268	3,348	3,401	1.6	115,504	119,804	128,706	137,742	145,707	5.8
Washington	2,575	2,583	2,625	2,697	2,781	3.1	97,585	99,821	102,162	108,677	118,182	8.7
West Virginia	661	656	665	673	683	1.4	18,483	18,738	19,689	20,550	21,770	5.9
Wisconsin	2,604	2,602	2,626	2,657	2,679	0.8	84,191	86,579	90,812	93,822	98,170	4.6
Wyoming	230	232	240	247	260	4.9	6,564	6,833	7,373	8,087	9,400	16.2
Total non-federal	122,602	121,920	123,123	125,407	127,593	1.7	4,470,740	4,565,857	4,796,160	5,049,814	5,374,520	6.4
Federal employees	2,758	2,764	2,740	2,734	2,729	-0.2	144,329	150,819	158,294	163,663	169,525	3.6
TOTAL	125,360	124,685	125,863	128,141	130,322	1.7	\$4,615,069	\$4,716,676	\$4,953,089	\$5,212,075	\$5,542,613	6.3

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

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 of U.S. wage and salary workers are covered by UI (NASI, 2002). We subtract from UI coverage the 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 2006, 97.4 percent of all UI-covered workers and wages were covered by workers' compensation. Self-employed persons are not covered by unemployment insurance or by workers' compensation.

Changes in State Coverage

Because the primary workers' compensation coverage rules did not change between 2005 and 2006, differences in growth rates among states generally reflect changes in the states' overall employment and wages. In Texas, where workers' compensation is voluntary for employers, coverage slightly increased from 76 percent of workers in 2004 to 77 percent in 2006 according to a survey in Texas (TDI, 2006). Only Louisiana and Michigan experienced a decline in the number of covered workers due to decline in overall employment. All other jurisdictions experienced an increase in covered jobs in 2006. With regard to wages covered under workers' compensation, all jurisdictions registered increases in 2006 over 2005 (Table 3).

NASI's coverage estimates seek to count the number of workers who are legally required to be covered under the state laws. Several recent studies have found that actual coverage is less than legally required coverage because of evasive strategies, such as not reporting employees or misclassifying them as independent contractors (Greenhouse, 2008, FPI, 2007). As a practical matter, NASI lacks the information needed to systematically estimate compliance or non-compliance with state laws.

Benefit Payments

Workers' compensation payments for medical treatment and cash benefits combined were \$54.7 billion in 2006, a decrease of 1.5 percent from \$55.5 billion in 2005 (Table 4). These are 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. That is, in 2006, \$54.7 billion in benefits were paid for all workers' compensation cases, whether workers were injured in 2006 or in a previous year.

Sources of Insurance Coverage

Method for Estimating Benefits

Our estimates of workers' compensation benefits paid are based on three main sources: responses to the Academy's questionnaire from state agencies, data from National Association of Insurance Commissioners (NAIC), 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 2002 through 2006. They include information for all private carriers in every state and for eighteen of the twenty-six state funds, but do not include any information about self-insured employers or about benefits paid under deductible arrangements. Under deductible policies written by private carriers or state funds, the insurer pays all of the workers' compensation benefits, but employers are responsible for reimbursing the insurer for those benefits up to a specified deductible amount. Deductibles may be written into an insurance policy 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.

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. If states were unable to report benefits paid by self-insured employers, these amounts had to be estimated; the methods for estimating self-insured benefits are described in Appendix E. A detailed, state-by-state explanation of how the estimates in this report are produced is provided in *Sources and Methods: A Companion to Workers' Compensation: Benefits*,

Table 4**Workers' Compensation Benefits, by Type of Insurer, 1987–2006 (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	38,237	11.4	22,222	5,873	7,249	2,893	15,187	39.7
1991	42,187	10.3	24,515	6,713	7,962	2,998	16,832	39.9
1992	44,660	5.9	24,030	7,829	9,643	3,158	18,664	41.8
1993	42,925	-3.9	21,773	8,105	9,857	3,189	18,503	43.1
1994	43,482	1.3	21,391	7,398	11,527	3,166	17,194	39.5
1995	42,122	-3.1	20,106	7,681	11,232	3,103	16,733	39.7
1996	41,960	-0.4	21,024	8,042	9,828	3,066	16,739	39.9
1997	41,971	0.0	21,676	7,157	10,357	2,780	17,397	41.5
1998	43,987	4.8	23,579	7,187	10,354	2,868	18,622	42.3
1999	46,313	5.3	26,383	7,083	9,985	2,862	20,055	43.3
2000	47,699	3.0	26,874	7,388	10,481	2,957	20,933	43.9
2001	50,827	6.6	27,905	8,013	11,839	3,069	23,137	45.5
2002	52,297	2.9	28,085	9,139	11,920	3,154	24,203	46.3
2003	54,931	5.0	28,531	10,487	12,727	3,185	25,784	46.9
2004	56,053	2.0	28,212	11,049	13,535	3,256	26,334	47.0
2005	55,510	-1.0	28,195	10,912	13,145	3,258	26,282	47.3
2006	54,686	-1.5	27,550	10,751	13,114	3,270	26,479	48.4

(a) Estimated benefits paid under deductible provisions are included beginning in 1992. Benefits are payments in the calendar year to injured workers and to providers of their medical care.

(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 1997–2006, federal benefits also include a portion of employer-financed benefits under the Longshore and Harbor Workers Compensation Act that are not reflected in state data—namely, benefits paid by self-insured employers and by special funds under the LHWCA. See Appendix H for more information about federal programs.

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

Coverage, and Costs, 2006 on the Academy's website at www.nasi.org.

Private insurance carriers remain the largest source of workers' compensation benefits. In 2006, they accounted for 50.4 percent of benefits paid, a slight decrease from 50.8 percent of total benefits in 2005 (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 Virginia³, and Wyoming. When benefits paid under deductible arrangements are excluded, privately insured benefits account for 36.4 percent of total benefits paid (Table 5).

3 West Virginia allowed private carriers to sell workers' compensation insurance beginning July 1, 2008.

Table 5**Total Amount and Percentage Distribution of Workers' Compensation Benefit Payments by Type of Insurer, 1990–2006**

Year	Total Benefits (in millions)	Percentage Distribution							
		Private Carriers		State Funds		Federal ^b	Self-Insured	Self-Insured plus Deductibles	Total
		All	Deductibles ^a	All	Deductibles ^a				
(1)	(2)	(3)	(4)	(5)	(6)	(2)+(4)+(6)	(1)+(3)+(5)+(6)		
1990	\$38,237	58.1	n/a	15.4	n/a	7.6	19.0	19.0	100.0
1991	42,187	58.1	n/a	15.9	n/a	7.1	18.9	18.8	100.0
1992	44,660	53.8	2.8	17.5	*	7.1	21.6	24.0	100.0
1993	42,925	50.7	4.7	18.9	*	7.4	23.0	27.9	100.0
1994	43,482	49.2	6.1	17.0	0.4	7.3	26.5	33.0	100.0
1995	42,122	47.7	7.3	18.2	0.8	7.4	26.7	34.7	100.0
1996	41,960	50.1	8.3	19.2	0.6	7.3	23.4	32.3	100.0
1997	41,971	51.6	9.0	17.1	0.6	6.6	24.7	34.2	100.0
1998	43,987	53.6	10.0	16.3	0.6	6.5	23.5	34.1	100.0
1999	46,313	57.0	11.8	15.3	0.5	6.2	21.6	33.8	100.0
2000	47,699	56.3	12.4	15.5	0.6	6.2	22.0	35.0	100.0
2001	50,827	54.9	12.0	15.8	0.6	6.0	23.3	35.9	100.0
2002	52,297	53.7	12.9	17.5	0.8	6.0	22.8	36.5	100.0
2003	54,931	51.9	14.5	19.1	0.9	5.8	23.2	38.5	100.0
2004	56,053	50.3	13.7	19.7	0.9	5.8	24.1	38.7	100.0
2005	55,510	50.8	13.7	19.7	1.0	5.9	23.7	38.3	100.0
2006	54,686	50.4	14.0	19.7	1.0	6.0	24.0	39.0	100.0

* 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.

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 their state funds. In other states, employers may apply for permission from the regulatory authority to 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 or trade association to self-insure through 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 remained stable at 19.7 percent in 2006 (Table 5). 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 from federal taxes, and typically serve as the insurer of last resort—that is, provide 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, 2006). 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.

Federal programs accounted for 6.0 percent of benefits paid in 2006. These benefits include payments under the Federal Employee' Compensation Act for civilian employees and the portion of the Black Lung benefit program that is financed by employers and paid through the federal Black Lung Disability Trust Fund. Finally, federal benefits include benefits under the Longshore and Harbor Workers' Compensation Act that are paid by self-insured employers and by special funds under that Act. More detail about federal programs is in Appendix H.

Trends in Deductibles

Prior to the 1990s, policies with deductibles were not common, but their popularity grew in the mid 1990s. In 1992, benefits under deductible policies totaled \$1.3 billion, or about 2.8 percent of total benefits (Table 6). By 2000 they had risen to \$6.2 billion, or 13.0 percent of total benefits. In 2006 deductibles totaled \$8.2 billion, which was 15.0 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. Table 6 shows separately the estimated 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

Table 6

Estimated Employer-Paid Benefits under Deductible Provisions for Workers' Compensation, 1992–2006 (in millions)

Year	Total	Private Carriers	State Funds	Deductibles as a % of Total Benefits
1992	\$1,250	\$1,250	*	2.8
1993	2,027	2,008	\$ 19	4.7
1994	2,834	2,645	189	6.5
1995	3,384	3,060	324	8.0
1996	3,716	3,470	246	8.9
1997	3,994	3,760	234	9.5
1998	4,644	4,399	245	10.6
1999	5,684	5,452	232	12.3
2000	6,201	5,931	270	13.0
2001	6,388	6,085	303	12.6
2002	7,174	6,763	411	13.7
2003	8,429	7,948	481	15.3
2004	8,173	7,657	516	14.6
2005	8,113	7,584	529	14.6
2006	8,205	7,654	550	15.0

* Negligible

Note: Data on deductible benefits were available from seven states. Five states do not allow policies with deductibles. For twelve states data were computed by subtracting various components from total benefit figures provided. For the other twenty-six states and the District of Columbia, deductible benefits were calculated using a ratio of the manual equivalent premiums.

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 34.7 percent in 1995, and then remained between 32 and 36 percent of total benefits through 2001. By 2006 this share had increased to 39.0 percent of benefit payments (Table 5).

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

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 (Burton, 2007). These relatively high profits led to fierce underwriting competition. Insurance companies began offering multi-year guaranteed cost programs that locked in low premium rates for employers, thus greatly reducing the employers' cost and risk. The timing of tax advantages also made the purchase of insurance 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 the purchase of insurance later in the 1990s.

Since 1999, the share of benefits paid directly by employers (through self-insurance and large deductibles combined) has been rising. In 2006, the share of benefits paid by employers reached 39.0 percent. In 2006 private carrier payments net of deductibles were 36.4 percent while benefits paid by employers through self-insurance and deductibles were 39.0 percent of total payments (Table 5).

Changes in State Benefits

On a national level, total benefits (cash plus medical) were 1.5 percent lower in 2006 than in 2005. The decline for the nation was driven by a large drop in California's benefit payments (7.2 percent), as shown in Table 1. Outside California, benefits for the nation decreased by a mere 0.1 percent. Table 7 shows annual changes in state benefit payments between 2002 and 2006.

In eighteen states, benefits declined between 2005 and 2006 (Table 9). Alaska, California, Colorado, Florida, Hawaii, Idaho, Louisiana, Michigan,

Minnesota, Nebraska, New Hampshire, North Carolina, North Dakota, Ohio, Tennessee, Texas, Virginia, Wisconsin. The rest of the states showed an increase in benefits, except for Alabama which showed almost no change.

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;
- 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).

Medical Payments in States

The share of benefits for medical care varies among states. In 2006, the share of benefit spending for medical care ranged from lows of less than 40 percent—in Massachusetts, Michigan, New York, Rhode Island, and Washington—to highs of over 60 percent in Alabama, Arizona, Arkansas, Florida, Idaho, Indiana, Nebraska, South Dakota, Texas, Utah and Wisconsin (Table 8). Many factors in a state can influence the relative share of benefits for medical care as opposed to cash wage replacement or survivor benefits. Among them are:

- Different levels of earnings replacement provided by cash benefits, which mean that, all else being equal, states with more generous cash

benefits have a lower share of benefits used for medical care;

- Differences in medical costs, medical practices, and the role of workers' compensation programs in regulating allowable medical costs;
- Differences in the role of the state agency, statutes and case law in defining the limits of medical necessity;
- 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.

Medical benefits were estimated based on information from the National Council on Compensation Insurance for all those states where it was available and on reports from the states where (NCCI) data were not available. Methods for estimating medical benefits are described in Appendix F.

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 total benefits by total wages of covered workers, which takes account of the number of workers and prevailing wage levels in the state. The measure of benefits as a percentage 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 2002 through 2006 are shown in Table 10. In 2006, covered payroll rose by 6.3 percent (Table 3). In ten jurisdictions covered payroll rose more than eight percentage points—Arizona, Idaho, Montana, Nevada, New Mexico, Oklahoma, Texas, Utah, Washington and Wyoming. When benefits are standardized relative to covered payroll, the state patterns of change are somewhat different from those revealed by looking only at dollar changes in benefits.

Although 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 wage loss or

Table 7

Workers' Compensation Benefits* by State and Annual Percent Change, 2002–2006
(in thousands)

State	Percent Change								
	2002	2003	2004	2005	2006	2002-2003	2003-2004	2004-2005	2005-2006
Alabama ²	\$565,264	\$580,184	\$575,697	\$608,972	\$609,167	2.6	-0.8	5.8	0.0
Alaska ²	172,665	176,521	185,082	182,721	182,036	2.2	4.8	-1.3	-0.4
Arizona ³	477,568	515,231	548,172	542,781	608,258	7.9	6.4	-1.0	12.1
Arkansas ^{1,6,7}	217,606	224,753	228,402	207,642	219,216	3.3	1.6	-9.1	5.6
California ²	10,926,157	12,401,472	12,452,993	10,934,229	10,149,271	13.5	0.4	-12.2	-7.2
Colorado ¹	756,658	753,726	844,647	889,099	870,908	-0.4	12.1	5.3	-2.0
Connecticut ¹	677,590	677,510	711,167	708,300	713,120	0.0	5.0	-0.4	0.7
Delaware ^{1,5,7}	138,963	155,365	160,192	172,590	206,623	11.8	3.1	7.7	19.7
District of Columbia ^{1,5}	89,879	84,254	96,567	91,349	91,763	-6.3	14.6	-5.4	0.5
Florida ¹	2,595,825	2,821,211	2,730,040	2,793,834	2,532,864	8.7	-3.2	2.3	-9.3
Georgia ^{1,5}	933,655	989,661	1,125,864	1,199,491	1,210,174	6.0	13.8	6.5	0.9
Hawaii ²	267,827	274,922	271,290	250,779	242,685	2.6	-1.3	-7.6	-3.2
Idaho ^{1,5}	203,223	214,192	236,987	245,602	238,212	5.4	10.6	3.6	-3.0
Illinois ^{1,5}	2,168,594	2,155,818	2,261,418	2,398,845	2,487,602	-0.6	4.9	6.1	3.7
Indiana ^{1,6}	548,078	564,011	594,153	607,970	615,323	2.9	5.3	2.3	1.2
Iowa ^{1,5}	404,681	428,614	451,536	481,794	492,346	5.9	5.3	6.7	2.2
Kansas ^{1,6}	342,216	337,273	370,614	384,920	397,713	-1.4	9.9	3.9	3.3
Kentucky ^{1,5}	699,998	722,882	729,600	700,960	709,628	3.3	0.9	-3.9	1.2
Louisiana ¹	621,377	669,997	726,116	667,177	578,804	7.8	8.4	-8.1	-13.2
Maine ¹	260,461	233,531	267,537	272,045	282,589	-10.3	14.6	1.7	3.9
Maryland ¹	687,838	716,409	776,900	766,741	815,351	4.2	8.4	-1.3	6.3
Massachusetts ^{1,7}	876,848	1,052,982	968,629	903,674	934,660	20.1	-8.0	-6.7	3.4
Michigan ²	1,512,457	1,476,850	1,517,386	1,473,598	1,464,204	-2.4	2.7	-2.9	-0.6
Minnesota ³	873,887	889,119	915,753	922,344	921,232	1.7	3.0	0.7	-0.1
Mississippi ¹	290,663	291,753	310,635	312,111	341,078	0.4	6.5	0.5	9.3
Missouri ²	1,033,458	1,080,870	1,119,871	1,155,906	1,174,633	4.6	3.6	3.2	1.6
Montana ²	199,577	216,715	223,354	239,120	248,299	8.6	3.1	7.1	3.8
Nebraska ^{1,5}	268,741	268,627	286,507	302,327	263,435	0.0	6.7	5.5	-12.9
Nevada ²	315,886	329,333	358,732	386,333	393,555	4.3	8.9	7.7	1.9

New Hampshire ^{1,5}	214,135	221,753	213,164	217,662	213,719	3.6	-3.9	2.1	-1.8
New Jersey ^{1,5}	1,397,952	1,484,904	1,503,372	1,618,694	1,672,471	6.2	1.2	7.7	3.3
New Mexico ²	177,333	190,840	198,267	230,591	237,551	7.6	3.9	16.3	3.0
New York ^{2,7}	3,010,694	3,114,144	3,335,330	3,191,485	3,323,634	3.4	7.1	-4.3	4.1
North Carolina ^{1,5}	1,004,323	1,081,970	1,167,080	1,390,884	1,358,084	7.7	7.9	19.2	-2.4
North Dakota ³	73,517	78,430	83,237	81,933	81,197	6.7	6.1	-1.6	-0.9
Ohio ⁴	2,272,551	2,442,187	2,434,715	2,447,038	2,383,544	7.5	-0.3	0.5	-2.6
Oklahoma ¹	509,444	555,092	577,581	588,804	628,438	9.0	4.1	1.9	6.7
Oregon ³	503,490	499,625	536,289	549,640	613,288	-0.8	7.3	2.5	11.6
Pennsylvania ³	2,478,709	2,565,344	2,594,238	2,677,899	2,684,611	3.5	1.1	3.2	0.3
Rhode Island ^{1,6}	146,036	132,313	145,152	139,166	155,707	-9.4	9.7	-4.1	11.9
South Carolina ³	592,530	656,935	688,115	769,553	795,636	10.9	4.7	11.8	3.4
South Dakota ²	73,478	74,241	77,409	85,889	90,937	1.0	4.3	11.0	5.9
Tennessee ^{1,5,6}	722,717	784,786	815,299	862,577	793,559	8.6	3.9	5.8	-8.0
Texas ^{1,6}	2,372,763	1,970,869	1,632,806	1,553,445	1,397,899	-16.9	-17.2	-4.9	-10.0
Utah ^{1,5}	214,340	188,073	217,479	239,328	245,217	-12.3	15.6	10.0	2.5
Vermont ^{1,6}	119,578	120,130	123,570	121,895	124,323	0.5	2.9	-1.4	2.0
Virginia ^{2,5}	635,108	709,166	759,147	854,978	837,685	11.7	7.0	12.6	-2.0
Washington ⁴	1,716,435	1,800,849	1,836,234	1,846,493	1,926,644	4.9	2.0	0.6	4.3
West Virginia ^{4,6}	791,762	823,300	793,834	694,235	695,857	4.0	-3.6	-12.5	0.2
Wisconsin ⁴	881,756	833,005	898,366	1,170,055	1,043,244	-5.5	7.8	30.2	-10.8
Wyoming ⁴	107,475	114,252	120,062	116,528	117,311	6.3	5.1	-2.9	0.7
Non-federal total	\$49,143,768	\$51,745,997	\$52,796,587	\$52,252,030	\$51,415,307	5.3	2.0	-1.0	-1.6
Federal ^a	3,153,626	3,184,685	3,256,202	3,258,155	3,270,322	1.0	2.2	0.1	0.4
Federal employees	2,317,325	2,367,757	2,445,077	2,462,059	2,454,861	2.2	3.3	0.7	-0.3
TOTAL	\$52,297,394	\$54,930,682	\$56,052,789	\$55,510,185	\$54,685,629	5.0	2.0	-1.0	-1.5

* Benefits are payments in the calendar year to injured workers and to providers of their medical care
a Includes federal benefits as included in Table 8.

1 Deductible data were not available. Deductibles were estimated using the a ratio based on Manual Equivalent premiums.

2 Deductible data were estimated by subtracting the AM Best data from Agency data.

3 Deductible data was given by the Agency.

4 Deductibles not allowed

5 Self-insurance data were not available and were imputed. Method is outlined in Appendix E.

6 Self-Insurance data for some years is imputed using previous years' data

7 Estimation methodology for the year 2006 may be different from previous years.

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

Table 8

Workers' Compensation Benefits* by Type of Insurer and Medical Benefits, by State, 2006
(in thousands)

State	Private Carriers	State Funds	Self-Insured ^b	Total	Percent Medical	Medical
Alabama	\$287,974	\$	\$321,193	\$ 609,167	66.6	\$405,705 ^c
Alaska	134,519	-	47,517	182,036	58.4	106,309 ^c
Arizona	136,623	369,138	102,497	608,258	69.3	421,523 ^c
Arkansas	138,751	-	80,465	219,216	64.2	140,737 ^c
California	4,732,404	2,221,261	3,195,606	10,149,271	50.4	5,110,678
Colorado	242,970	429,401	198,537	870,908	49.2	428,487 ^c
Connecticut	520,567	-	192,553	713,120	44.3	315,912 ^c
Delaware	152,083	-	54,540	206,623	58.2	120,254
District of Columbia	73,974	-	17,788	91,763	40.8	37,439 ^c
Florida	2,022,564	-	510,300	2,532,864	64.0	1,621,033 ^c
Georgia	867,268	-	342,905	1,210,174	50.4	609,927 ^c
Hawaii	132,967	30,315	79,403	242,685	40.7	98,773 ^c
Idaho	56,028	143,428	38,756	238,212	62.0	147,691 ^c
Illinois	1,864,465	-	623,137	2,487,602	48.2	1,199,024 ^c
Indiana	512,532	-	102,791	615,323	69.3	426,419 ^c
Iowa	378,798	-	113,548	492,346	52.6	258,974 ^c
Kansas	260,062	-	137,651	397,713	58.6	233,060 ^c
Kentucky	360,039	88,642	260,946	709,628	58.9	417,971 ^c
Louisiana	329,550	125,275	123,979	578,804	52.8	305,609 ^c
Maine	105,882	95,442	81,265	282,589	41.1	116,144 ^c
Maryland	431,177	236,023	148,151	815,351	43.2	352,231 ^c
Massachusetts	781,807	-	152,853	934,660	35.3	330,104
Michigan	852,208	-	611,996	1,464,204	37.3	545,782
Minnesota	617,082	62,791	241,358	921,232	50.9	468,569
Mississippi	193,410	-	147,668	341,078	58.2	198,507 ^c
Missouri	727,862	102,987	343,784	1,174,633	52.4	615,508 ^c
Montana	81,274	123,044	43,982	248,299	57.6	143,020 ^c
Nebraska	208,903	-	54,533	263,435	62.7	165,174 ^c
Nevada	266,547	-	127,008	393,555	45.1	177,493 ^c

New Hampshire	168,522	-	45,197	213,719	59.7	127,591 ^c
New Jersey	1,283,199	-	389,272	1,672,471	49.7	830,915
New Mexico	112,501	33,035	92,016	237,551	57.4	136,354 ^c
New York	1,491,830	1,058,221	773,584	3,323,634	36.0	1,196,508
North Carolina	988,937	-	369,147	1,358,084	44.8	608,422 ^c
North Dakota ^a		81,197	-	81,197	55.7	45,218
Ohio ^a	26,343	1,921,443	435,758	2,383,544	44.1	1,051,774
Oklahoma	241,389	262,962	124,087	628,438	44.1	277,141 ^c
Oregon	259,175	267,668	86,445	613,288	54.0	331,176 ^c
Pennsylvania	1,731,055	353,784	599,772	2,684,611	43.8	1,176,607
Rhode Island	40,189	95,085	20,433	155,707	33.0	51,383 ^c
South Carolina	560,356	53,716	181,563	795,636	45.9	364,999 ^c
South Dakota	74,569	-	16,369	90,937	65.0	59,109 ^c
Tennessee	602,097	-	191,461	793,559	51.6	409,476 ^c
Texas	806,300	304,750	286,848	1,397,899	60.6	847,127 ^c
Utah	70,535	128,005	46,677	245,217	70.1	171,897 ^c
Vermont	107,622	-	16,701	124,323	50.3	62,535 ^c
Virginia	620,331	-	217,354	837,685	59.6	499,260 ^c
Washington ^a	30,302	1,448,619	447,723	1,926,644	36.1	694,577
West Virginia ^{a,f}	3,669	598,708	93,480	695,857	49.5	344,475
Wisconsin	859,915	-	183,329	1,043,244	72.7	758,351
Wyoming ^a	783	116,528	-	117,311	49.5	58,073 ^d
Non-federal total	\$27,549,912	\$10,751,467	\$13,113,929	\$51,415,307	49.8	\$25,621,027
Federal ^e				3,270,322	26.2	857,591
Federal employees				2,454,861	28.0	686,935
TOTAL				\$54,685,629	48.4	\$26,478,618

*Benefits are payments in the calendar year to injured workers and to providers of their medical care.

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 the fact that some employers doing business in states with exclusive state funds may need to obtain coverage from private carriers under the LHWCA act or employers liability coverage which the state fund is not authorized to provide. In addition, private carriers may provide excess compensation coverage in some of these states.

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 percentages 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 Due to data unavailability, we have used previous years' state fund benefit data for West Virginia.

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

Table 9

Medical, Cash and Total Benefits, by state, 2005-2006^a
(in thousands)

State	2005			2006			2005-2006 Percent Change		
	Medical	Cash	Total	Medical	Cash	Total	Medical	Cash	Total
Alabama	\$ 401,918	\$ 207,054	\$ 608,972	\$ 405,705	\$ 203,462	\$ 609,167	0.9	-1.7	0.0
Alaska	104,839	77,882	182,721	106,309	75,727	182,036	1.4	-2.8	-0.4
Arizona	352,773	190,008	542,781	421,523	186,735	608,258	19.5	-1.7	12.1
Arkansas	134,842	72,800	207,642	140,737	78,479	219,216	4.4	7.8	5.6
California	5,115,681	5,818,548	10,934,229	5,110,678	5,038,593	10,149,271	-0.1	-13.4	-7.2
Colorado	434,114	454,985	889,099	428,487	442,421	870,908	-1.3	-2.8	-2.0
Connecticut	295,447	412,853	708,300	315,912	397,208	713,120	6.9	-3.8	0.7
Delaware	101,656	70,934.62	172,590	120,254	86,368	206,623	18.3	21.8	19.7
District of Columbia	31,570	59,779	91,349	37,439	54,324	91,763	18.6	-9.1	0.5
Florida	1,740,115	1,053,719	2,793,834	1,621,033	911,831	2,532,864	-6.8	-13.5	-9.3
Georgia	606,826	592,665	1,199,491	609,927	600,246	1,210,174	0.5	1.3	0.9
Hawaii	98,665	152,114	250,779	98,773	143,912	242,685	0.1	-5.4	-3.2
Idaho	146,999	98,603	245,602	147,691	90,520	238,212	0.5	-8.2	-3.0
Illinois	1,186,967	1,211,878	2,398,845	1,199,024	1,288,578	2,487,602	1.0	6.3	3.7
Indiana	416,183	191,787	607,970	426,419	188,904	615,323	2.5	-1.5	1.2
Iowa	245,322	236,472	481,794	258,974	233,372	492,346	5.6	-1.3	2.2
Kansas	219,901	165,019	384,920	233,060	164,653	397,713	6.0	-0.2	3.3
Kentucky	386,001	314,959	700,960	417,971	291,657	709,628	8.3	-7.4	1.2
Louisiana	340,221	326,956	667,177	305,609	273,196	578,804	-10.2	-16.4	-13.2
Maine	108,328	163,717	272,045	116,144	166,445	282,589	7.2	1.7	3.9
Maryland	307,301	459,441	766,741	352,231	463,119	815,351	14.6	0.8	6.3
Massachusetts	328,326	575,348	903,674	330,104	604,557	934,660	0.5	5.1	3.4
Michigan	510,063	963,535	1,473,598	545,782	918,422	1,464,204	7.0	-4.7	-0.6
Minnesota	460,385	461,959	922,344	468,569	452,662	921,232	1.8	-2.0	-0.1
Mississippi	171,980	140,130	312,111	198,507	142,570	341,078	15.4	1.7	9.3
Missouri	598,168	557,739	1,155,906	615,508	559,125	1,174,633	2.9	0.2	1.6

Montana	132,359	106,761	239,120	143,020	105,279	248,299	8.1	-1.4	3.8
Nebraska	180,889	121,439	302,327	165,174	98,261	263,435	-8.7	-19.1	-12.9
Nevada	178,767	207,566	386,333	177,493	216,062	393,555	-0.7	4.1	1.9
New Hampshire	129,274	88,388	217,662	127,591	86,129	213,719	-1.3	-2.6	-1.8
New Jersey	802,423	816,271	1,618,694	830,915	841,556	1,672,471	3.6	3.1	3.3
New Mexico	134,028	96,563	230,591	136,354	101,197	237,551	1.7	4.8	3.0
New York	1,098,681	2,092,804	3,191,485	1,196,508	2,127,126	3,323,634	8.9	1.6	4.1
North Carolina	621,720	769,164	1,390,884	608,422	749,662	1,358,084	-2.1	-2.5	-2.4
North Dakota	45,085	36,849	81,933	45,218	35,979	81,197	0.3	-2.4	-0.9
Ohio	1,144,090	1,302,949	2,447,038	1,051,774	1,331,770	2,383,544	-8.1	2.2	-2.6
Oklahoma	276,222	312,582	588,804	277,141	351,297	628,438	0.3	12.4	6.7
Oregon	300,130	249,510	549,640	331,176	282,113	613,288	10.3	13.1	11.6
Pennsylvania	1,147,532	1,530,367	2,677,899	1,176,607	1,508,004	2,684,611	2.5	-1.5	0.3
Rhode Island	47,256	91,910	139,166	51,383	104,324	155,707	8.7	13.5	11.9
South Carolina	353,033	416,520	769,553	364,999	430,637	795,636	3.4	3.4	3.4
South Dakota	56,924	28,965	85,889	59,109	31,828	90,937	3.8	9.9	5.9
Tennessee	467,652	394,924	862,577	409,476	384,082	793,559	-12.4	-2.7	-8.0
Texas	964,442	589,003	1,553,445	847,127	550,772	1,397,899	-12.2	-6.5	-10.0
Utah	166,162	73,166	239,328	171,897	73,320	245,217	3.5	0.2	2.5
Vermont	58,854	63,041	121,895	62,535	61,789	124,323	6.3	-2.0	2.0
Virginia	483,129	371,849	854,978	499,260	338,425	837,685	3.3	-9.0	-2.0
Washington	654,264	1,192,229	1,846,493	694,577	1,232,067	1,926,644	6.2	3.3	4.3
West Virginia	334,930	359,305	694,235	344,475	351,382	695,857	2.8	-2.2	0.2
Wisconsin	768,399	401,657	1,170,055	758,351	284,893	1,043,244	-1.3	-29.1	-10.8
Wyoming	56,218	60,310	116,528	58,073	59,238	117,311	3.3	-1.8	0.7
Non-federal total	25,447,052	26,804,978	52,252,030	25,621,027	25,794,280	51,415,307	0.7	-3.8	-1.6

a In states with a note, there was a difference in methods between the two years being compared for at least one component of the estimates. Some of the percent change in benefits, therefore, might be due to the differing methods. The notes are given in Table 8. For more detail on state by state methodologies, see, *Sources and Methods: A Companion to Workers' Compensation: Benefits, Coverage, and Costs, 2006* section of the Academy's website at www.nasi.org.

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

Table 10**Workers' Compensation Benefits Per \$100 of Covered Wages, by State, 2002–2006**

	2002	2003	2004	2005	2006	Dollar Amount Change	
						2005-2006	2002-2006
Alabama	\$ 1.09	\$ 1.08	\$ 1.02	\$ 1.02	\$ 0.96	\$ -.06	\$ -.13
Alaska	1.76	1.75	1.75	1.64	1.54	-.10	-.23
Arizona	0.65	0.67	0.66	0.59	0.60	.01	-.05
Arkansas	0.74	0.74	0.71	0.62	0.62	.00	-.12
California	1.82	2.01	1.91	1.59	1.38	-.20	-.44
Colorado	0.96	0.95	1.02	1.02	0.93	-.09	-.03
Connecticut	0.89	0.87	0.87	0.82	0.79	-.04	-.10
Delaware	0.89	0.96	0.93	0.94	1.07	.13	.19
District of Columbia	0.36	0.33	0.35	0.32	0.30	-.02	-.07
Florida	1.20	1.24	1.11	1.05	0.89	-.16	-.31
Georgia	0.73	0.76	0.82	0.83	0.79	-.04	.06
Hawaii	1.60	1.57	1.44	1.24	1.13	-.12	-.48
Idaho	1.31	1.35	1.40	1.35	1.18	-.17	-.13
Illinois	0.97	0.95	0.96	0.97	0.96	-.02	-.01
Indiana	0.61	0.61	0.62	0.61	0.60	-.02	-.01
Iowa	0.99	1.01	1.01	1.03	0.99	-.03	.01
Kansas	0.88	0.87	0.91	0.90	0.87	-.03	-.01
Kentucky	1.36	1.37	1.32	1.21	1.17	-.04	-.19
Louisiana	1.15	1.21	1.26	1.11	0.90	-.21	-.25
Maine	1.54	1.34	1.46	1.46	1.46	.00	-.08
Maryland	0.79	0.79	0.81	0.76	0.76	.01	-.02
Massachusetts	0.62	0.74	0.64	0.58	0.57	-.01	-.05
Michigan	0.94	0.90	0.91	0.87	0.85	-.01	-.08
Minnesota	0.92	0.91	0.89	0.87	0.83	-.04	-.09
Mississippi	1.08	1.06	1.08	1.04	1.07	.03	-.01
Missouri	1.28	1.32	1.32	1.30	1.26	-.04	-.02
Montana	2.10	2.18	2.12	2.11	2.02	-.09	-.09
Nebraska	1.08	1.05	1.06	1.08	0.89	-.19	-.20
Nevada	0.91	0.88	0.86	0.84	0.79	-.05	-.12
New Hampshire	1.00	1.00	0.90	0.88	0.82	-.06	-.18
New Jersey	0.82	0.85	0.82	0.85	0.84	-.02	.02
New Mexico	0.91	0.95	0.93	1.01	0.95	-.07	.03
New York	0.80	0.82	0.82	0.75	0.72	-.03	-.08
North Carolina	0.86	0.91	0.93	1.05	0.96	-.09	.10
North Dakota	0.94	0.95	0.94	0.88	0.81	-.07	-.12
Ohio	1.27	1.35	1.29	1.26	1.19	-.07	-.08
Oklahoma	1.31	1.40	1.39	1.34	1.29	-.05	-.02
Oregon	0.98	0.96	0.97	0.93	0.97	.04	.00
Pennsylvania	1.29	1.30	1.26	1.25	1.19	-.06	-.10
Rhode Island	0.97	0.83	0.88	0.78	0.83	.05	-.14
South Carolina	1.19	1.28	1.29	1.37	1.33	-.04	.14

continued on p.25

Table 10 continued**Workers' Compensation Benefits Per \$100 of Covered Wages, by State, 2002–2006**

	2002	2003	2004	2005	2006	Dollar Amount Change	
						2005-2006	2002-2006
South Dakota	0.81	0.79	0.78	0.83	0.82	.00	.01
Tennessee	0.92	0.96	0.95	0.96	0.83	-.13	-.09
Texas	0.89	0.76	0.62	0.54	0.44	-.10	-.45
Utah	0.71	0.61	0.66	0.68	0.63	-.05	-.08
Vermont	1.34	1.31	1.29	1.22	1.19	-.03	-.15
Virginia	0.55	0.59	0.59	0.62	0.57	-.05	.03
Washington	1.76	1.80	1.80	1.70	1.63	-.07	-.13
West Virginia	4.28	4.39	4.03	3.38	3.20	-.18	-1.09
Wisconsin	1.05	0.96	0.99	1.25	1.06	-.18	.02
Wyoming	1.64	1.67	1.63	1.44	1.25	-.19	-.39
Total non-federal	1.10	1.13	1.10	1.03	0.96	-.08	-.14
Federal Employees ^a	1.61	1.57	1.54	1.50	1.45	-.06	-.16
Total	1.13	1.16	1.13	1.07	0.99	-.08	-.15

a includes FECA only.

Source: National Academy of Social Insurance estimates based on Tables 3, 8, D1, D2, D3 and D4.

other impact on their well-being. A state with relatively high payments as indicated in Table 10 may in fact be replacing a relatively low portion of injured workers' earnings losses.

Alternatively, a state with relatively low benefits as indicated in Table 10 may be replacing a relatively high portion of 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 the Academy's study panel report *Adequacy of Earnings Replacement in Workers' Compensation Programs* (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 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, states 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 specified number of 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 pays in a given year, relative to the size of its total workforce or total covered wages.

Fourth, benefits actually paid in the given 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. In a given state, the mix of industries and occupations influences wages. Because the cash component of benefits paid is linked to wages, states with higher wages will tend to pay higher benefits, all else being equal. To some extent, this is controlled for when using benefits relative to covered wages. However, because benefits are capped to not exceed a maximum dollar amount, states with many highly paid workers could have lower benefits relative to covered wages.

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

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

Eighth, variations among states in both the price of medical care services and the variations in use of ser-

vices and practice patterns will have an impact on the amount of medical benefits paid.

Ninth, and finally, migration into or out of 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 using benefits data to compare employer costs across states. These are benefits paid to workers, not necessarily employer costs in a given year. An employer's costs for workers' compensation in different states is best 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 would 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 to employers in a given year are based on the costs of injuries it is expected to incur in that year under policies in effect that year. If a state had changed its policies either to lower future costs or to make future benefits more adequate, those policies would not be fully reflected in benefits currently being paid to workers in that state as shown in Table 10. For example, a state that tightened its rules would be expected to have lower future costs for new employers, yet it would not show lower benefits per worker immediately because it would continue to pay workers who were permanently disabled in the past under the old rules.

Third, 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 and the administrative complexity of different state systems.

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.

Employer Costs

Employer costs for workers' compensation in 2006 were \$87.6 billion, a decrease of 1.5 percent from \$88.9 billion in 2005 (Table 11). Relative to total wages of covered workers, employer costs decreased to \$1.58 per \$100 of covered wages in 2006, down from \$1.71 per \$100 of covered wages in 2005 (Table 12).

For self-insured employers, the costs include benefit payments made during the calendar year and the administrative costs associated with providing those benefits. Because self-insured employers often do not separately record administrative costs for workers' compensation, their administrative costs must be estimated. The costs are assumed to be the same share of benefits as are administrative costs reported by private insurers to the National Association of Insurance Commissioners. These administrative costs include direct defense and cost containment expenses and expenses 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, 2006). For employers who purchase insurance from private carriers and state funds, costs consist of premiums written in the calendar year plus payments of benefits made under deductible provisions. The growing use of large deductible policies complicates the measurement of benefits and costs. As mentioned before, 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, as described in Appendix G.

According to these estimates, costs for employers insuring through private carriers were \$52.1 billion in 2006, or approximately 59.4 percent of total costs. Self-insurers accounted for 18.0 percent of total employer costs, state funds represented 17.9 percent of costs, and federal programs were 4.7 percent (Table 11).

Trend in Benefit and Cost Ratios

Table 12 shows the trend in benefits paid and employer costs per \$100 of covered wages over the last 18 years. For the third year in a row, workers' compensation benefits relative to covered wages fell in 2006. Employers' cost per \$100 of covered wages fell for the second year in a row. As noted earlier, the national decline in employer costs was driven by a sharp decline in employer costs in California. If California is excluded, employer costs fell five cents per \$100 of covered wages (Table 1). Nationally, employer costs of \$1.58 per \$100 of covered wages in 2006 remain well above their lowest point at \$1.34 per \$100 of wages in 2000 but well below their 1989 level of \$2.04 per \$100 of wages. The ratio of benefits paid to employer costs is \$0.62 in 2006, the lowest unchanged from 2005. The 2005-2006 ratio of benefits to employer costs is the low point of the 18 year trend.

What accounts for the difference between benefits paid to workers and costs to employers? For self-insured employers (or the federal employee program), the difference reflects our estimates of administrative costs (or actual reported costs in the case of the federal program). For these employers, the costs in a calendar year pertain to benefits paid in the same year.

For insured benefits, employer costs are influenced by trends in premiums. Premiums paid by employers do not necessarily track trends in benefits received by

Table 11**Employer Costs for Workers' Compensation by Type of Insurer, 1987–2006
(in millions)**

Year	Total	% Change	Private Carriers		State Funds		Federal ^a		Self-Insurance	
			Total	% of Total	Total	% of Total	Total	% of Total	Total	% of Total
1987	\$38,095	*	\$25,448	66.8	\$5,515	14.5	\$1,728	4.5	\$5,404	14.2
1988	43,284	13.6	28,538	65.9	6,660	15.4	1,911	4.4	6,175	14.3
1989	47,955	10.8	31,853	66.4	7,231	15.1	1,956	4.1	6,915	14.4
1990	53,123	10.8	35,054	66.0	8,003	15.1	2,156	4.1	7,910	14.9
1991	55,216	3.9	35,713	64.7	8,698	15.8	2,128	3.9	8,677	15.7
1992	57,395	3.9	34,539	60.2	9,608	16.7	2,454	4.3	10,794	18.8
1993	60,819	6.0	35,596	58.5	10,902	17.9	2,530	4.2	11,791	19.4
1994	60,517	-0.5	33,997	56.2	11,235	18.6	2,490	4.1	12,795	21.1
1995	57,089	-5.7	31,554	55.3	10,512	18.4	2,556	4.5	12,467	21.8
1996	55,293	-3.1	30,453	55.1	10,190	18.4	2,601	4.7	12,049	21.8
1997	53,544	-3.2	29,862	55.8	8,021	15.0	3,358	6.3	12,303	23.0
1998	53,431	-0.2	30,377	56.9	7,926	14.8	3,471	6.5	11,657	21.8
1999	55,835	4.5	33,422	59.9	7,484	13.4	3,496	6.3	11,433	20.5
2000	60,065	7.6	35,673	59.4	8,823	14.7	3,620	6.0	11,949	19.9
2001	66,642	10.9	37,768	56.7	11,534	17.3	3,778	5.7	13,561	20.3
2002	73,499	10.3	41,295	56.2	14,620	19.9	3,898	5.3	13,686	18.6
2003	82,062	11.7	45,493	55.4	17,691	21.6	3,970	4.8	14,908	18.2
2004	86,818	5.8	48,084	55.4	18,935	21.8	4,073	4.7	15,726	18.1
2005	88,915	2.4	51,094	57.5	18,116	20.4	4,096	4.6	15,608	17.6
2006	87,580	-1.5	52,066	59.4	15,645	17.9	4,138	4.7	15,730	18.0

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 interest payments on past Trust Fund advances from the U.S. Treasury. In years before 1997, federal costs also include the other part of the Black Lung program that is financed solely by federal funds. In 1997–2006, 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 administrative costs are based on information from the National Association of Insurance Commissioners.

workers in a given year for a number of reasons. First, premiums in a calendar year must pay for all of the compensable consequences of the injuries that occur during the year, including the benefits paid in the current as well as future years. Thus, the premiums for 2006 include benefit payments during the year for 2006 injuries, plus reserves for payment of benefits for the 2006 injuries in 2006 and after. In addition, premiums must cover expenses such as

administrative and loss adjustment costs, taxes, profits or losses of insurance carriers, and contributions for special funds, which can include the support of workers' compensation agencies.

From the insurer's perspective, the premiums reflect all future costs the insurer expects to incur for injuries that occur in the year. Thus, an increase in expected liabilities could lead to an increase in pre-

Table 12**Workers' Compensation Benefit* and Cost** Ratios, 1989–2006**

Year	Employer Costs per \$100 of Wages	Benefits per per \$100 of Wages	Benefits per \$1 in Employer Cost	Medical Benefits per \$100 of Wages	Cash Benefits per \$100 of Wages
1989	\$2.04	\$1.45	0.71	\$0.57	\$0.89
1990	2.18	1.53	0.70	0.61	0.92
1991	2.16	1.64	0.76	0.66	0.99
1992	2.12	1.64	0.78	0.69	0.96
1993	2.16	1.52	0.71	0.66	0.87
1994	2.04	1.47	0.72	0.58	0.89
1995	1.82	1.34	0.74	0.53	0.81
1996	1.66	1.26	0.76	0.50	0.76
1997	1.49	1.17	0.78	0.48	0.68
1998	1.38	1.13	0.82	0.48	0.65
1999	1.35	1.12	0.83	0.48	0.63
2000	1.34	1.06	0.79	0.47	0.60
2001	1.45	1.10	0.76	0.50	0.60
2002	1.59	1.13	0.71	0.52	0.61
2003	1.74	1.16	0.67	0.55	0.62
2004	1.75	1.13	0.65	0.53	0.60
2005	1.71	1.07	0.62	0.50	0.56
2006	1.58	0.99	0.62	0.48	0.51

* Benefits are payments in the calendar year to injured workers and to providers of their medical care.

** Costs are employer expenditures in the calendar year for workers' compensation benefits, administrative costs, and/or insurance premiums. Costs for self-insuring employers are benefits paid in the calendar year plus the administrative costs associated with providing those benefits. Costs for employers who purchase insurance include the insurance premiums paid during the calendar year plus the payments of benefits under large deductible plans during the year. The insurance premiums must pay for all of the compensable consequences of the injuries that occur during the year, including the benefits paid in the current as well as future years.

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

miums and a decline in expected liabilities could lead to a decline in premiums. Second, premiums can be influenced by insurers' past and anticipated investment returns on reserves that they set aside to cover future liabilities. Thus, a decline in investment returns would contribute to an increase in premiums, while an improvement in investment returns could lead to a decline in premiums. Finally, premiums 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.

Work Injuries, Occupational Illness and Fatalities

National data are not available on the number of persons who file workers' compensation claims or receive benefits in a given year, but trends can be seen in related data series: The Bureau of Labor Statistics collects information about work-related fatalities and nonfatal work injuries or occupational illnesses; and the NCCI has information on privately

insured workers' compensation claims in forty-one states (NCCI, 2007).

Fatalities at Work

A total of 5,840 fatal work injuries occurred in 2006 (Table 13), which is a 1.8 percent increase from the number reported in 2005 and which continues a general trend of increasing workplace fatalities since 2002. Transportation incidents continued to be the leading cause of on-the job fatalities in 2006, accounting for 42 percent of the total. Contact with objects and equipment, falls, and assault and violent acts (homicides, and self-inflicted injuries), were the other leading causes of death, accounting for 17 percent, 14 percent, and 13 percent respectively (U.S. DOL, 2007b).

Nonfatal Injuries and Illnesses

The Bureau of Labor Statistics reports a total of 4.1 million nonfatal workplace injuries and illnesses in

private industry workplaces during 2006, resulting in a rate of 4.4 cases per one hundred full-time equivalent workers (U.S. DOL, 2007d). Many of these cases involved relatively minor injuries that did not result in lost workdays. The frequency of reported non-fatal occupational injuries and illnesses has declined every year since 1992 (Table 14).

A total of 1.2 million workplace injuries or illnesses that required recuperation away from work beyond the day of the incident were reported in private industry in 2006 (U.S. DOL, 2007c). The rate of such reported injuries or illnesses per one hundred full-time workers declined from 3.0 in 1992 to 1.3 in 2006 (Table 14). Some of the most common workplace injuries and illnesses are: Sprains and strains (39.9 percent); bruises and contusions (8.6 percent); cuts and lacerations (8.4 percent); fractures (8 percent); heat burns (1.5 percent); carpal tunnel syndrome (1.1 percent); tendonitis, chemical burns and amputations (1.7 percent).

The National Council on Compensation Insurance reports on the frequency of workers' compensation claims for privately insured employers and some state funds in forty one states (Table 15). These data show declining trends similar to national trends in workplace injuries reported by the Bureau of Labor Statistics. 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 per 100,000 insured workers declined by 45.6 percent between 1992 and 2003 (Table 15). This decline is very similar to the decline in injuries reported by the BLS that involved days away from work. Between 1992 and 2003, the incidence of injuries that involved days away from work declined by about 50 percent (from 3.0 per one hundred full-time workers in 1992 to 1.5 per one hundred full-time workers in 2003) (Table 14). The frequency of total workers' compensation claims—including medical-only cases that involve little or no lost work time—declined by about 41.5 percent between 1992 and 2003. This rate of decline is similar to the 44 percent decline in the incidence rate for all injuries reported to the BLS in the same period (from 8.9 to 5.0 per one hundred full-time workers between 1992 and 2003).

Injury Reporting

Studies during the past several decades have consistently concluded that various systems — including

Table 13
Number of Fatal Occupational Injuries,
1992–2006

Year	Number of Fatalities
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
2003	5,575
2004	5,764
2005	5,734
2006	5,840

Source: U.S. DOL 2007b.
<http://www.bls.gov/news.release/pdf/cfoi.pdf>

Table 14**Private Industry Occupational Injuries and Illnesses: Total Non-fatal Cases and Incidence Rates, 1987–2006**

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
2003	4.4	1.3	5.0	1.5
2004	4.3	1.3	4.8	1.4
2005	4.2	1.2	4.6	1.4
2006	4.1	1.2	4.4	1.3

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 and beyond are not strictly comparable to prior year data due to changes in OSHA recordkeeping requirements.

Source: U.S. DOL 2007d.

<http://www.bls.gov/news.release/pdf/osh.pdf>

the BLS Survey of Occupational Injuries and Illnesses and state workers' compensation programs — under count total workplace injuries and illnesses. However, if the extent of under-reporting remains constant over time, this factor does not explain trends in reported injury rates. Hensler et al. (1991) report that 60 percent of those with work-related injuries involving medical care or lost worktime received workers' compensation benefits. A study by Lakdawalla and Reville based on the National Longitudinal Survey of Youth indicates that 55 per-

cent of reported occupational injuries result in workers' compensation claims. Smith et al. (2005) use National Health Interview Survey (NHIS) data and derive injury rates for private industry that are 1.4 times the BLS estimates. Using data from the 2002 Washington State Behavioral Risk Factor Surveillance System survey, Fan et al. (2006) estimate that only 52 percent of injured workers filed a workers' compensation claim. In another recent study, Rosenman et al. (2006) conclude that BLS and workers' compensation data account respectively

Table 15

**Number of Workers' Compensation Claims per 100,000 Insured Workers:
Private Carriers in Thirty-six Jurisdictions, 1992-2003**

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	927	461	6,446
2000	875	437	6,035
2001	807	423	5,543
2002	766	419	5,189
2003	739	411	4,973
Percent decline, 1992–2003	-45.6	-40.8	-41.5

Source: NCCI 1996–2007

for 32 percent and 66 percent of workplace injuries and illnesses in Michigan. Boden and Ozonoff (2008) studied 6 other states. Their upper-bound estimates suggest that the BLS captures between 51 percent and 76 percent of lost-time injuries in these states, while workers' compensation captures 65 percent to 93 percent. Less conservative estimates suggest ranges of 37 percent to 71 percent and 52 percent to 85 percent respectively.

Further studies are underway to assess the accuracy of BLS data and to help understand whether certain injuries or illnesses are more likely to be underreported. However, BLS conducted a quality assurance study and verified that its Survey of Occupational Injuries and Illnesses accurately reflected the information recorded on the OSHA logs at the time the information was collected. The problem is that employers may not record all cases on the OSHA log that should be recorded according to OSHA record-keeping rules. Employers may also not record cases that are in dispute. In this case, the Survey cannot

give an accurate estimate of the "true" number of OSHA recordable injuries and illnesses. Further, there may be some scope differences between the cases that appear in WC and those that appear on OSHA logs.

Azaroff et al. (2002) provide a review of many studies of injury reporting and a discussion of reasons for underreporting. Workers may not report compensable injuries because, for example, they don't know that they are covered by workers' compensation, they fear employer retaliation (Pransky et al. 1999), they believe that obtaining benefits can be difficult and stressful (Strunin and Boden 2004), and they think that benefits are not worth the risks of filing (Fricker 1997). Low-wage and temporary workers may be least likely to file for these reasons (Shannon and Lowe 2002). For injuries and illnesses that take time to develop, like carpal tunnel syndrome and silicosis, the worker may not be aware of the workplace connection, and therefore will not report. Studies have typically shown much less reporting for such condi-

tions (Stanbury et al. 1995, Biddle et al. 1998, Morse et al. 1998, Milton et al. 1998). Other research suggests that tighter eligibility standards and claims filing restrictions for workers' compensation may explain part of the decline in injury rates. The primary impact of such restrictions is likely to be on workers' compensation claims. Still, fewer cases entered into the workers' compensation system could result in fewer injuries reported to the BLS. Boden and Ruser (2003) find that between 7.0 and 9.4 percent of the decline in injury rates measured by BLS between 1991 and 1997 is an indirect result of tighter eligibility standards and claims filing restrictions for workers' compensation.

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 illnesses caused on the job.

Other Disability Benefits

Sick leave is the common form of wage replacement for short-term absences from work due to illness or injury. Benefits pay 100 percent of wages for a few weeks. Laws in five states require short-term disability insurance: California, Hawaii, New Jersey, New York, and Rhode Island. These state programs 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 Hawaii, New Jersey, and New York, 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 38 percent of private sector employees were covered by short-term disability insurance in 2007 (U.S. DOL, 2007c).

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). 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 30 percent of private sector employees. Such coverage is most common among management, professional and related workers. About 54 percent of management and professional related, 30 percent of workers in sales and office, and 11 percent of service workers had this coverage as of March 2007 (U.S. DOL, 2007c). 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 between 50 percent and 66 percent are also common. Almost all long-term disability insurance is coordinated with Social Security disability benefits and workers' compensation benefits. That is, the private 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, but do not have the insurance features of defined benefit pensions or disability insurance. In addition Supplemental Security Income and Medicaid provide cash and medical assistance to disabled individuals who have low incomes. These means-tested benefits are based on need rather than work experience and are not covered in this report.

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 differ in many respects. 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. Social

Security disability benefits are provided 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 disability benefits begin after a five-month waiting period. Medicare coverage begins for those on Social Security disability benefits after a further twenty-four-month waiting period, or twenty-nine months after the onset of disability.

Many who receive Social Security disability benefits have impairments associated with aging. The share 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

Table 16

Social Security Disability Insurance (DI) Beneficiaries with Workers' Compensation (WC) or Public Disability Benefit (PDB)¹ Involvement, December 2007

Type of Case	Beneficiaries					
	Total		Workers		Dependents	
	Number	Percent	Number	Percent	Number	Percent
All disability insurance beneficiaries	8,916,207	100.0	7,098,723	100.0	1,817,484	100.0
Total with some connection to WC or PDB	1,433,150	16.1	1,082,585	15.3	350,565	19.3
Current connection to WC or PDB	776,536	8.7	586,011	8.3	190,525	10.5
DI reduced by cap	175,455	2.0	119,356	1.7	56,099	3.1
DI not reduced by cap	352,596	4.0	279,176	3.9	73,420	4.0
Reverse jurisdiction	58,639	0.7	45,072	0.6	13,567	0.7
Pending decision on WC or PDB	189,846	2.1	142,407	2.0	47,439	2.6
DI previously offset of WC or PDB	656,614	7.4	496,574	7.0	160,040	8.8

1 Social Security disability benefits are offset against workers' compensation and certain other public disability benefits (PDB). In general, the PDB offset applies to disability benefits earned in state, local, or federal government employment that is not covered by Social Security.

Source: Social Security Administrations' Office of Disability, unpublished tabulations.

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.

Workers' compensation paid \$28.2 billion in cash benefits and \$26.5 billion for medical care in 2006. In that year, Social Security paid \$91.7 billion in wage replacement benefits to disabled workers and their dependents and Medicare paid \$52.2 billion for medical and hospital care for disabled persons under age 65 (SSA 2007d and CMS, 2007). Thus, aggregate workers' compensation cash benefits were about one-third the total amount of Social Security disability benefits, and workers' compensation medical benefits were just over half of the total amount paid by Medicare. Medicare benefits are less comprehensive than medical care under workers' compensation. Medicare requires beneficiary cost sharing in the form of deductibles and co-insurance, and it does not cover certain services. 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 for care related to the occupational injury 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 will limit benefits in order to avoid excessive payments relative to the worker's 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.⁴ 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 workers' compensation employer or insurer. Legislation in 1981 eliminated the states' option to adopt reverse offset laws, but the sixteen states that already had such laws were allowed to keep them.⁵

As of December 2006, about 7.1 million disabled workers and 1.8 million of their dependents received Social Security disability benefits (Table 16). About 1.4 million of these individuals (or 16.1 percent) had some connection to workers' compensation or some other of public disability benefits. Of these, 0.7 million (or 7.4 percent of the total) had their social security benefits reduced at some time on account of the offset.

Trends in Social Security Disability Benefits and Workers' Compensation

Figure 4 illustrates the long-term trends in Social Security disability insurance benefits and workers' compensation cash benefits as a share of covered wages. Social Security disability insurance benefits paid in the year are shown as a percentage of payroll covered by Social Security; similarly, workers' compensation cash benefits paid in the year are shown as a percentage of estimated payroll covered by workers' compensation.

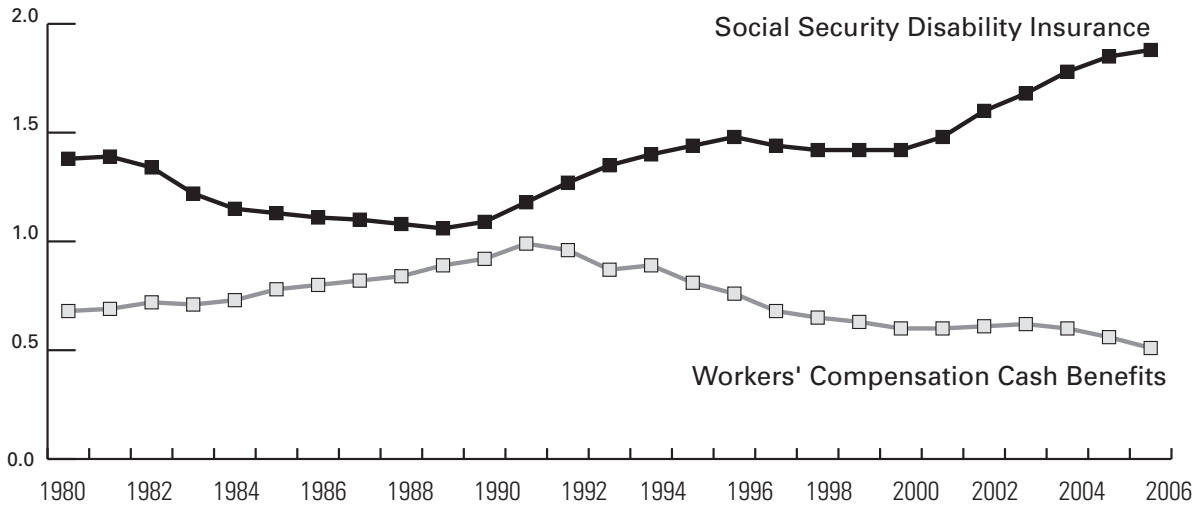
The difference in the trends in benefits paid under the two programs is striking. Workers' compensation cash benefits grew steadily during the 1980s, while Social Security disability benefits declined as administrative and legislated retrenchment policies adopted early in the 1980s took effect. In the 1990s and beyond, workers' compensation cash benefits declined as a share of covered wages as policies

4 The cap remains at 80 percent of the worker's average indexed earnings before disability, except in the relatively few cases when Social Security disability benefits for the worker and dependents exceed 80 percent of prior earnings, the benefits are not reduced below the Social Security amount. This cap also applies to coordination between Social Security disability insurance and other public disability benefits (OPDB) derived from jobs not covered by Social Security- such as state or local government jobs where the governmental employer has chosen not to cover its employees under Social Security.

5 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.

Figure 4

Social Security Disability Insurance and Workers' Compensation Cash Benefits per \$100 of Wages, 1980–2006



* Starting in 1989, a new method was used to estimate covered wages for the workers' compensation program that accounts for the decrease of benefits as a percent of covered wages in that year.

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

designed to reduce eligibility for benefits took effect (Burton and Spieler 2001). Workers' compensation cash benefits as a share of payroll dropped to 0.51 percent in 2006, an all time low since 1980. In contrast, Social Security disability benefits rose as a share of payroll after 1990. The increase flattened out in 1996–2000, then continued an upward trend reaching an all time high of 1.88 percent of covered wages in 2006.

That spending for workers' compensation and Social Security disability insurance moved in opposite directions since 1980 raises 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). Reville and Schoeni (2006) find that work-related disabilities are much more common than might previously have been thought, both among older persons in general and among recipients of Social Security disability insurance benefits in particular. Based on reports in the 1992 Health and Retirement

Study, more than one third (36 percent) of 51–61 year olds whose health limits the amount of work they can do said they became disabled because of an accident, injury, or illness at work. Of those receiving Social Security disability insurance, a similar portion (37 percent) attributed their disability to an accident, injury or illness at work. Furthermore, the 51–61 year olds who attribute their disabling conditions to their jobs are far more likely to receive Social Security disability insurance (29.0 percent) than to report ever having received workers' compensation (12.3 percent). A recent study by Guo and Burton (2008) provides the first empirical evidence that retrenchment in workers' compensation in the 1990s helps explain the increase in Social Security disability insurance applications during the period.

Incurred Benefits 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 paid benefits, is com-

only used in reporting about other social insurance, private employee benefits, and other income security programs. A different measure, accident year incurred losses, which is equivalent to accident year incurred benefits, 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 paid benefits and accident year incurred benefits, reveal important information⁶.

For the purpose of setting insurance premiums, it is vital to estimate the incurred benefits 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 ratemaking and statistical services in thirty-eight states, focus on accident year (or policy year) incurred benefits.

Accident year incurred benefits are considered more sensitive than calendar year paid benefits at picking up the ultimate amount of benefits that will be owed to newly injured workers in response to policy

Table 17

Comparison of Accident-Year Incurred Benefits with Calendar-Year Benefits Paid by Private Carriers and State Funds in Thirty-six States, 2002–2006

Year	Accident year incurred benefits ^a		Calendar year benefits paid ^b	
	Billions of dollars	Percent Change	Billions of dollars	Percent change
2002	12.2		12.7	
2003	12.4	1.9	12.7	.1
2004	12.7	1.7	13.1	3.5
2005	13.1	3.7	13.2	.5
2006	13.9	5.6	13.0	-1.4
Cumulative % change from 2002-2006		12.9	2.7	

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, Nevada, New Hampshire, New Mexico, North Carolina, Oklahoma, Oregon, Rhode Island, 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 excludes benefits paid under deductible policies

Source: NCCI 2007 and calendar year benefits estimated by the National Academy of Social Insurance.

6 For a more detailed discussion of these measures see Thomason et al. 2001, Appendix B.

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 benefits, but it would show up more slowly in measures of calendar year paid benefits 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 benefits is that it takes many years before the losses from a particular year are actually known; in the meantime, estimates for the losses for that accident year are updated annually. The National Council on Compensation Insurance updates accident year incurred benefits for sixteen years before the data for a particular year are considered final. In

contrast, calendar year paid benefits are final at the end of the calendar year.

Accident year incurred benefits 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 2002 through 2006, Table 17 compares accident year incurred benefits reported by the National Council on Compensation Insurance and calendar year paid benefits estimated by the NASI for private carriers and state funds in the thirty-seven states included in the NCCI data. Between 2002 and 2006, the dollar amounts of accident year incurred benefits and calendar year paid benefits are quite similar, although the incurred benefits increased more rapidly than paid benefits during this period.

Glossary

AASCIF: The American Association of State Compensation Insurance Funds (AASCIF) is an association of workers' compensation insurance entities – loosely referred to as state funds – that specialize in writing workers' compensation insurance in a single U.S. state or Canadian province. 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 incurred benefits refer to the benefits associated with all injuries and illnesses occurring in that year, regardless of the year they were actually paid.

BLS: The Bureau of Labor Statistics (BLS) in the U.S. Department of Labor is a statistical agency that collects, processes, analyzes, and disseminates statistical data about the labor market. For more information, visit www.bls.gov.

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

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

Deductibles: Under deductible policies written by private carriers or state funds, the insurer pays all of the workers' compensation benefits, but employers are responsible for reimbursing the insurer for those benefits up to a specified deductible amount. Deductibles may be written into an insurance policy on a per injury basis, or an aggregate basis, or a combination of a per injury basis with an aggregate cap.

Deviations: If a state allows deviations, individual carriers may deviate from the published insurance rates (manual rates) and charge lower (or occasionally higher) rates than those promulgated by the rating organization. Deviations offered by a particular carrier are uniform for all policyholders in the state.

DI: Disability insurance from the Social Security program. See SSDI.

FECA: The Federal Employees' Compensation Act (FECA) provides workers' compensation coverage to

three million federal civilian and postal workers around the world for employment related injuries and occupational diseases.

Incurred Losses (Incurred Benefits): Benefits paid to date plus liabilities for future benefits for injuries that occurred in a specified period.

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

Losses: Benefits paid by insurers.

NAIC: The National Association of Insurance Commissioners (NAIC) is the national organization of insurance regulators in each state. It assists state insurance regulators, individually and collectively, to achieve insurance regulatory goals. For more information, visit www.naic.org.

NCCI: National Council on Compensation Insurance, Inc. (NCCI) is a national organization that assists private carriers and insurance commissioners in setting workers' compensation rates in thirty-seven states. For more information, visit www.ncci.com.

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

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

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

Schedule Rating: If a state allows schedule rating, individual carriers can change (usually decrease) the workers' compensation insurance rate an individual employer would otherwise pay. Insurers can vary the

rates paid by policyholders even among employers in the same insurance classification.

SSA: The U.S. Social Security Administration (SSA) administers the Social Security program, which pays retirement, disability and survivors' benefits to workers and their families, and the federal Supplemental Security Income program that provides income support benefits to low-income aged and disabled individuals. For more information, visit www.ssa.gov.

SSDI: Social Security disability insurance (SSDI) pays benefits to insured workers who sustain severe, long-term work disabilities of any cause. 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 temporarily precludes a person from performing the pre-injury job or another job at the employer that the worker could have performed prior to the injury.

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 become unemployed through no fault of their own and who meet certain eligibility criteria set by the states.

USDOL: The U.S. Department of Labor Department administers a variety of Federal labor laws including those that guarantee workers' rights to safe and healthful working conditions; a minimum hourly wage and overtime pay, freedom from employment discrimination, unemployment insurance, and other income support. 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 or disease that is compensable under a state's workers' compensation program can be quite complex and varies across states.

Appendix A: Coverage Estimates

The National Academy of Social Insurance's estimates of workers' compensation coverage start with the number of workers in each state who are covered by Unemployment Insurance (UI) (U.S. DOL, 2007e). 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, 2002).

The largest groups of workers who are not covered under either unemployment insurance or workers' compensation are self-employed individuals who have not incorporated their businesses.

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 the NASI estimates of workers' compensation coverage, shown in Table A1, are:

- (1) Workers whose employers do not report that they are covered by UI are not covered by workers' compensation.
- (2) Workers that are reported to be covered by UI are generally covered by workers' compensation as well, except in the following cases:
 - (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 eight states: Arkansas, Colorado, Georgia, Michigan, New Mexico, North Carolina, Virginia, and Wisconsin. Those with fewer than four employees are exempt in two states: Florida, and South Carolina. Finally, firms with fewer than five employees are exempt from mandatory coverage in Alabama, Mississippi, Missouri, and Tennessee (U.S. DOL, 2006).

The number of employees in small firms is estimated using data from the U.S. Small Business Administration for each state, which show the proportion of employees in all private firms who worked for firms with fewer than five employees in 2006 (the most recent year for which data are available). Those percentages for the fourteen states with numerical exemptions are: Alabama, 4.7 percent; Arkansas, 5.1 percent; Colorado, 6.2 percent; Florida, 6.1 percent; Georgia, 4.8 percent; Michigan, 4.7 percent; Mississippi, 5.2 percent; Missouri, 5.0 percent; New Mexico, 5.9 percent; North Carolina, 4.9 percent; South Carolina, 5.1 percent; Tennessee, 4.2 percent; Virginia, 4.8 percent; and Wisconsin, 4.4 percent (U.S. SBA, 2007).

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, 2004). Of workers in firms with fewer than five employees, 79.0 percent worked in firms with fewer than four employees and 56.7

Table A1**Documenting Workers' Compensation Coverage Estimates, 2006 Annual Averages**

State	UI Covered Jobs ^a		Workers' Compensation Exemptions			WC Covered Jobs (7)	WC as a % of UI (8)
	Total (1)	Private, non-farm firms (2)	Small Firm ^b (3)	Agriculture (4)	Texas (6)		
Alabama	1,876,611	1,568,675	73,966	5,883	-	1,796,762	95.7
Alaska	290,942	231,114	-	-	-	290,942	100.0
Arizona	2,562,304	2,211,880	-	-	-	2,562,304	100.0
Arkansas	1,147,071	966,238	27,922	7,377	-	1,111,772	96.9
California	15,256,147	12,924,495	-	-	-	15,256,147	100.0
Colorado	2,189,864	1,878,493	17,056	-	-	2,172,808	99.2
Connecticut	1,652,443	1,420,547	-	-	-	1,652,443	100.0
Delaware	416,828	363,101	-	-	-	416,828	100.0
District of Columbia	478,522	440,696	-	-	-	478,522	100.0
Florida	7,824,004	6,825,014	326,227	-	-	7,497,777	95.8
Georgia	3,929,917	3,352,682	91,484	-	-	3,838,433	97.7
Hawaii	586,390	493,969	-	-	-	586,390	100.0
Idaho	630,804	517,143	-	-	-	630,804	100.0
Illinois	5,733,231	5,000,159	-	-	-	5,733,231	100.0
Indiana	2,855,792	2,483,780	-	10,611	-	2,845,181	99.6
Iowa	1,452,650	1,228,912	-	-	-	1,452,650	100.0
Kansas	1,301,559	1,077,645	-	8,310	-	1,293,249	99.4
Kentucky	1,741,467	1,479,437	-	3,854	-	1,737,613	99.8
Louisiana	1,775,679	1,469,456	-	-	-	1,775,679	100.0
Maine	584,449	496,728	-	-	-	584,449	100.0
Maryland	2,404,681	2,071,083	-	-	-	2,404,681	100.0
Massachusetts	3,145,827	2,785,800	-	-	-	3,145,827	100.0
Michigan	4,181,540	3,592,686	96,931	-	-	4,084,609	97.7
Minnesota	2,637,447	2,282,024	-	-	-	2,637,447	100.0
Mississippi	1,096,283	882,215	46,066	7,945	-	1,042,272	95.1
Missouri	2,646,089	2,271,930	114,308	-	-	2,531,781	95.7

Montana	412,702	343,402	-	412,702	100.0
Nebraska	886,151	739,578	-	886,151	100.0
Nevada	1,254,790	1,123,042	2,155	1,252,635	99.8
New Hampshire	619,478	540,333	-	619,478	100.0
New Jersey	3,890,239	3,331,914	-	3,890,239	100.0
New Mexico	776,564	615,155	20,431	747,660	96.3
New York	8,301,671	6,991,558	-	8,301,671	100.0
North Carolina	3,903,223	3,283,459	91,649	3,811,574	97.7
North Dakota	325,742	269,355	2,248	323,494	99.3
Ohio	5,238,052	4,550,776	-	5,238,052	100.0
Oklahoma	1,461,368	1,186,376	-	1,461,368	100.0
Oregon	1,670,912	1,402,987	-	1,670,912	100.0
Pennsylvania	5,502,554	4,871,397	-	5,502,554	100.0
Rhode Island	470,614	416,967	-	470,614	100.0
South Carolina	1,826,632	1,528,344	61,129	1,758,944	96.3
South Dakota	372,752	311,994	-	372,752	100.0
Tennessee	2,680,554	2,321,170	96,668	2,578,816	96.2
Texas	9,737,781	8,196,503	2,239,690	7,498,091	77.0
Utah	1,134,728	974,177	-	1,134,728	100.0
Vermont	297,214	249,772	-	297,214	100.0
Virginia	3,481,905	2,967,911	80,932	3,400,973	97.7
Washington	2,780,785	2,284,573	-	2,780,785	100.0
West Virginia	683,062	567,142	-	683,062	100.0
Wisconsin	2,737,950	2,373,413	59,237	2,678,713	97.8
Wyoming	259,621	205,385	-	259,621	100.0
U.S. non-federal	131,105,585	111,962,585	1,204,007	127,593,404	97.3
Federal	2,728,829	-	-	2,728,829	100.0
U.S. TOTAL	133,834,414	111,962,585	1,204,007	130,322,233	97.4

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

b 2006 data were not available, 2005 data were used.

Source: National Academy of Social Insurance estimates.

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: (5.1 percent) x (56.7 percent) = 2.9 percent. These ratios are applied to the number of UI covered workers in private, non-farm firms in each state. In all the fourteen states with exemptions, we estimate that 1.2 million workers were excluded from workers' compensation coverage in 2006 because of the small employer exclusion from mandatory coverage.

Agricultural Exemptions. We estimate agricultural workers are excluded from workers' compensation coverage if they work in the twelve states where agricultural employers are exempt from mandatory coverage. These states are: Alabama, Arkansas, Indiana, Kansas, Kentucky, Mississippi, Nevada, New Mexico, North Dakota, South Carolina, South

Dakota 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 Institute and the Texas Department of Insurance, which found 77 percent Texas employees were covered in 2006 (TDI, 2006). This ratio was applied to all UI-covered Texas employees other than federal government workers (who were not included in the surveys cited above). A prior survey in 2001 found that 84.0 percent of non-federal workers in Texas were covered (Shields and Campbell, 2001). We revised our past coverage estimate in Texas to 78.6 percent in 2003 and 81.3 in 2002 to phase in the decline from 84.0 percent in 2001 to 77.0 percent in 2006.

Appendix B: Questionnaire for State Agencies

Annual Data Survey - Project on National Data for Workers' Compensation, National Academy of Social Insurance						
Your Name:		Page 1		Agency/Organization:		
E-mail:		State:		Fax:		
		Phone:				
<p>Calendar Year Paid Data -- Please provide the information requested below for calendar years 2002-2006. 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 agency does not have the data to fill out this questionnaire, please send NASI the contact information for the entity or person in your state that may have the information.</p>						
		CY 2006 Payments	CY 2005 Payments	CY 2004 Payments	CY 2003 Payments	CY 2002 Payments
1) INDIVIDUAL SELF-INSURERS						
Medical Payments						
Cash Payments						
Compromise lump sum settlements (if not included above)						
TOTAL						
Is Group Self-insurance allowed in your state?	yes <input type="checkbox"/> no <input type="checkbox"/>	yes <input type="checkbox"/> no <input type="checkbox"/>	yes <input type="checkbox"/> no <input type="checkbox"/>	yes <input type="checkbox"/> no <input type="checkbox"/>	yes <input type="checkbox"/> no <input type="checkbox"/>	yes <input type="checkbox"/> no <input type="checkbox"/>
Does the total above include Group Self Insured?	yes <input type="checkbox"/> no <input type="checkbox"/>	yes <input type="checkbox"/> no <input type="checkbox"/>	yes <input type="checkbox"/> no <input type="checkbox"/>	yes <input type="checkbox"/> no <input type="checkbox"/>	yes <input type="checkbox"/> no <input type="checkbox"/>	yes <input type="checkbox"/> no <input type="checkbox"/>
If not, fill in 2)						
2) GROUP SELF-INSURERS						
Medical Payments						
Cash Payments						
Compromise lump sum settlements (if not included above)						
TOTAL						
3) PRIVATE CARRIERS						
Medical Payments						
Cash Payments						
Compromise lump sum settlements (if not included above)						
TOTAL						
Are deductibles allowed for private carriers?	yes <input type="checkbox"/> no <input type="checkbox"/>	yes <input type="checkbox"/> no <input type="checkbox"/>	yes <input type="checkbox"/> no <input type="checkbox"/>	yes <input type="checkbox"/> no <input type="checkbox"/>	yes <input type="checkbox"/> no <input type="checkbox"/>	yes <input type="checkbox"/> no <input type="checkbox"/>
Does the amount above include deductible payments by employers?	yes <input type="checkbox"/> no <input type="checkbox"/>	yes <input type="checkbox"/> no <input type="checkbox"/>	yes <input type="checkbox"/> no <input type="checkbox"/>	yes <input type="checkbox"/> no <input type="checkbox"/>	yes <input type="checkbox"/> no <input type="checkbox"/>	yes <input type="checkbox"/> no <input type="checkbox"/>
How much was paid under the deductible amounts?						
4) STATE FUNDS (if state has competitive or exclusive fund)						
Medical Payments						
Cash Payments						
Compromise lump sum settlements (if not included above)						
TOTAL						
Are deductibles allowed for the state fund?	yes <input type="checkbox"/> no <input type="checkbox"/>	yes <input type="checkbox"/> no <input type="checkbox"/>	yes <input type="checkbox"/> no <input type="checkbox"/>	yes <input type="checkbox"/> no <input type="checkbox"/>	yes <input type="checkbox"/> no <input type="checkbox"/>	yes <input type="checkbox"/> no <input type="checkbox"/>
Does the amount above include deductible payments by employers?	yes <input type="checkbox"/> no <input type="checkbox"/>	yes <input type="checkbox"/> no <input type="checkbox"/>	yes <input type="checkbox"/> no <input type="checkbox"/>	yes <input type="checkbox"/> no <input type="checkbox"/>	yes <input type="checkbox"/> no <input type="checkbox"/>	yes <input type="checkbox"/> no <input type="checkbox"/>
How much was paid under the deductible amounts?						

Annual Data Survey - Project on National Data for Workers' Compensation
National Academy of Social Insurance

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	CY 2006 Payments	CY 2005 Payments	CY 2004 Payments	CY 2003 Payments	CY 2002 Payments
5) SPECIAL FUNDS (including second injury, and other)					
Medical Payments					
Cash Payments					
Compromise lump sum settlements (if not included above)					
TOTAL					
Is this amount included in items 3 and/or 4? Is so, which and how much?	yes <input type="checkbox"/> no <input type="checkbox"/>	yes <input type="checkbox"/> no <input type="checkbox"/>	yes <input type="checkbox"/> no <input type="checkbox"/>	yes <input type="checkbox"/> no <input type="checkbox"/>	yes <input type="checkbox"/> no <input type="checkbox"/>
6) INSURANCE GUARANTY FUNDS					
Medical Payments					
Cash Payments					
Compromise "lump sum settlements" (if not included above)					
TOTAL					
7) SELF-INSURED GUARANTY FUNDS					
Medical Payments					
Cash Payments					
Compromise "lump sum settlements" (if not included above)					
TOTAL					
8) CALENDAR YEAR TOTAL BENEFITS PAID (Should equal the sum of items #1-7)					
Medical Payments					
Cash Payments					
Compromise lump sum settlements (if not included above)					
TOTAL					

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 2002–2006, by private carriers and by twenty-one 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 Missouri, New Mexico, Oklahoma, South Carolina, or on exclusive state funds in Ohio, North Dakota, Washington, West Virginia, and Wyoming.

The 2006 NASI survey questionnaire for state agencies asked states to report data for five years, from 2002 through 2006. These historical data were used to revise and update estimates for these past years. Table C1 describes the sources of data available for each state used in the data report.

Private Carrier Benefits

Of the fifty-one jurisdictions, forty-six allow private carriers to write workers' compensation policies. Of these, seventeen jurisdictions were able to provide data on the amount of benefits paid by private carriers. In the other states, A.M. Best data were used to estimate private carrier benefits. Estimates of benefits paid under deductible policies were 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, twelve were able to provide benefit data. A.M. Best data and NAIC (National Association of Insurance Commissioners) data were used to estimate state fund benefits in states unable to provide the data. Estimates of bene-

fits paid under deductible policies were 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. Twenty-nine of these jurisdictions were able to provide data on benefits paid by self-insurers. Previous years' self-insured benefit ratio to total benefits were used to estimate the self-insurance data for five states. Self-insurance benefits were imputed for the fifteen states that were unable to provide data. The self-insurance imputation methods are described in Appendix E.

Benefits under Deductible Policies

Forty-six jurisdictions allow carriers to write deductible policies for workers compensation. Of these jurisdictions, six were able to provide the amount of benefits paid under deductible policies. Benefits under deductible arrangements were estimated for another thirteen 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 a ratio of Manual Equivalent Premiums, as described in Appendix G.

Medical Benefits

The agency data for medical share were used in thirteen states. The National Council on Compensation Insurance estimates of the medical share of the benefits were used in thirty-six jurisdictions. Other methods were used for two states for which no information was available from the state or NCCI. More detail on methods to estimate medical benefits is in Appendix F.

Employer Costs

NASI estimates of employer costs for benefits paid under private insurance and state funds are the sum of "direct premiums written" as reported by A.M. Best and the NAIC, 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.

State fund premium data for North Dakota, Ohio and Washington were provided by the state agencies.

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. The costs are assumed to be the same share of benefits as administrative costs reported by private insurers to the National Association of Insurance Commissioners

(NAIC, 1998; 1999; 2000; 2001; 2002; 2003; 2004; 2005; 2006). These administrative costs include direct defense and cost containment expense paid⁷ and their expense for taxes, licenses, and fees⁸. The ratios of these administrative costs to direct losses paid by private insurers were:

2002: 14.8 percent

2003: 17.1 percent

2004: 16.2 percent

2005: 18.7 percent

2006: 19.9 percent

7 Direct Defense and Cost Containment Expense Paid: In 1999, as part of a clarification effort, this line was renamed from "Direct Allocated Loss Adjustment Expenses" to "Direct Defense and Cost Containment Expenses". It includes defense, litigation and medical cost containment expenses, whether internal or external. The fees charged for insurer employees should include overhead, just as an outside firm's charges would include. The expenses exclude expenses incurred in the determination of coverage.

8 Taxes, Licenses, & Fees: State and local insurance taxes deducting guaranty association credits, insurance department licenses and fees, gross guaranty association assessments, and all other (excl. Fed. and foreign income and real estate).

Table C1**Data Sources for 2006**

State	Private Carrier	State Fund	Self-Insured	Second Injury Fund	PC Deductible	SF Deductible	Medical
Alabama	Agency	-	Agency	-	Subtraction	-	NCCI
Alaska	Agency	-	Agency	Yes	Subtraction	-	NCCI
Arizona	Agency	Agency	Agency	Yes	Agency given	Agency given	NCCI
Arkansas	AMBest	-	Imputation	Yes	Manual Premium Method	-	NCCI
California	Rating Bureau	AMBest	Agency	-	Subtraction	Not Allowed	Rating Bureau
Colorado	AMBest	AMBest	Agency	Yes	Manual Premium Method	Manual Premium Method	NCCI
Connecticut	AMBest	-	Agency	Yes	Manual Premium Method	-	NCCI
Delaware	AMBest	-	Imputation	Yes	Rating Bureau	-	Rating Bureau
D.C.	AMBest	-	Imputation	-	Manual Premium Method	-	NCCI
Florida	AMBest	-	Agency	-	Manual Premium	-	NCCI
Georgia	AMBest	-	Imputation	-	Manual Premium Method	-	NCCI
Hawaii	Agency (includes SF)	AMBest	Agency	Yes	Subtraction	Subtraction	NCCI
Idaho	AMBest	AMBest	Imputation	-	Manual Premium Method	Manual Premium Method	NCCI
Illinois	AMBest	-	Imputation	Yes	Manual Premium Method	-	NCCI
Indiana	AMBest	-	Imputed from previous years data	-	Manual Premium Method	-	NCCI
Iowa	AMBest	-	Imputation	-	Manual Premium Method	-	NCCI
Kansas	AMBest	-	Imputed from previous years data	Yes	Manual Premium Method	-	NCCI
Kentucky	AMBest	AMBest	Imputation	Yes	Manual Premium Method	Manual Premium Method	NCCI
Louisiana	AMBest	AMBest	Agency	-	Manual Premium Method	Manual Premium Method	NCCI
Maine	AMBest	AMBest	Agency	-	Manual Premium Method	Manual Premium Method	NCCI
Maryland	AMBest	AMBest	Agency	-	Manual Premium Method	Manual Premium Method	NCCI
Massachusetts	AMBest	-	Agency	Yes	MPNational Average ratio	-	Rating Bureau
Michigan	Agency	-	Agency	Yes	Subtraction	-	Agency
Minnesota	Agency	Agency	Agency	Yes	Agency given	Not Allowed	Agency
Mississippi	AMBest	-	Agency	Yes	Manual Premium Method	-	NCCI
Missouri	Agency	Agency	Agency	Yes	Subtraction	Subtraction	NCCI

Table C1 continued**Data Sources for 2006**

State	Private Carrier	State Fund	Self-Insured	Second Injury Fund	PC Deductible	SF Deductible	Medical
Montana	Agency	Agency	Agency	Yes	Subtraction	Subtraction	NCCI
Nebraska	AMBest	-	Imputation	-	Manual Premium Method	-	NCCI
Nevada	Agency	-	Agency	Yes	Subtraction	-	NCCI
New Hampshire	AMBest	-	Imputation	-	Manual Premium Method	-	NCCI
New Jersey	Rating Bureau	-	Imputed thr' average	-	Subtraction	-	Rating Bureau
New Mexico	Agency	Agency	Agency	Yes	Subtraction	Subtraction	NCCI
New York	AMBest	AMBest	Imputed thr' average	-	MPNational Average ratio	Not Allowed	Rating Bureau
North Carolina	AMBest	-	Imputation	-	Manual Premium Method	-	NCCI
North Dakota	-	Agency	-	-	-	Agency given	Agency
Ohio	AMBest	Agency	Agency	-	Not Allowed	Not Allowed	Agency
Oklahoma	AMBest	AMBest	Agency	-	Manual Premium Method	Manual Premium Method	NCCI
Oregon	Agency	Agency	Agency	-	Agency given	Not Allowed	NCCI
Pennsylvania	Agency	Agency	Agency	Yes	Agency given	Not Allowed	Agency
Rhode Island	AMBest	AMBest	Agency	Yes	Manual Premium Method	Manual Premium Method	NCCI
South Carolina	Agency	Agency	Agency	Yes	Agency given	Not Allowed	NCCI
South Dakota	Agency	-	Agency	-	Subtraction	-	NCCI
Tennessee	AMBest	-	Imputed from previous years data	Yes	Manual Premium Method	-	NCCI
Texas	AMBest	AMBest	Imputed from previous years data	-	MPNational Average ratio	MPNational Average ratio	NCCI
Utah	AMBest	AMBest	Imputation	-	Manual Premium Method	Manual Premium Method	NCCI
Vermont	AMBest	-	Imputed from previous years data	-	Manual Premium Method	-	NCCI
Virginia	Agency	-	Imputation	-	Subtraction	-	NCCI
Washington	AMBest	Agency	Agency	Yes	Not Allowed	Not Allowed	Agency
West Virginia	AMBest	NAIC	Imputed from previous years data	-	Not Allowed	Not Allowed	National Average
Wisconsin	AMBest	-	Agency	Yes	Not Allowed	-	Agency
Wyoming	AMBest	NAIC	-	-	Not Allowed	Not Allowed	National Average

Appendix D: Revised Data for 2002–2005

In preparing the 2006 estimates for workers' compensation benefits, the National Academy of Social Insurance reviewed and revised all data for calendar years 2002-2005. These revised data are shown in Tables D1 to D4. The revision process began by requesting historical data from state workers' compensation agencies and from AM Best. 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 reported 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 re-estimated 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, 2005
(in thousands)**

State	Private Carriers ^a	State Funds	Self-Insured ^b	Total	Percent Medical	Medical Benefits
Alabama	\$300,234	\$	\$308,738	\$608,972	66.0	\$401,918 ^c
Alaska	137,616	-	45,105	182,721	57.4	104,839 ^c
Arizona	134,335	306,239	102,208	542,781	65.0	352,773 ^c
Arkansas	137,437	-	70,205	207,642	64.9	134,842 ^c
California	5,116,262	2,681,112	3,136,855	10,934,229	46.8	5,115,681
Colorado	263,705	417,039	208,356	889,099	48.8	434,114 ^c
Connecticut	526,533	-	181,767	708,300	41.7	295,447 ^c
Delaware	127,546	-	45,044	172,590	58.9	101,656
District of Columbia	73,476	-	17,873	91,349	34.6	31,570 ^c
Florida	2,226,737	-	567,098	2,793,834	62.3	1,740,115 ^c
Georgia	856,451	-	343,040	1,199,491	50.6	606,826 ^c
Hawaii	134,670	34,782	81,327	250,779	39.3	98,665 ^c
Idaho	72,848	132,424	40,330	245,602	59.9	146,999 ^c
Illinois	1,792,373	-	606,473	2,398,845	49.5	1,186,967 ^c
Indiana	510,339	-	97,631	607,970	68.5	416,183 ^c
Iowa	369,646	-	112,148	481,794	50.9	245,322 ^c
Kansas	257,641	-	127,279	384,920	57.1	219,901 ^c
Kentucky	366,137	77,541	257,282	700,960	55.1	386,001 ^c
Louisiana	274,702	153,514	238,961	667,177	51.0	340,221 ^c
Maine	97,363	90,635	84,047	272,045	39.8	108,328 ^c
Maryland	418,101	211,650	136,991	766,741	40.1	307,301 ^c
Massachusetts	754,930	-	148,744	903,674	36.3	328,326
Michigan	858,953	-	614,645	1,473,598	34.6	510,063
Minnesota	623,612	65,327	233,406	922,344	49.9	460,385
Mississippi	173,027	-	139,084	312,111	55.1	171,980 ^c
Missouri	711,428	112,409	332,069	1,155,906	51.7	598,168 ^c
Montana	76,034	119,915	43,171	239,120	55.4	132,359 ^c
Nebraska	239,162	-	63,166	302,327	59.8	180,889 ^c
Nevada	264,261	-	122,072	386,333	46.3	178,767 ^c
New Hampshire	171,202	-	46,459	217,662	59.4	129,274 ^c

New Jersey	1,230,367	-	388,327	1,618,694	49.6	802,423
New Mexico	116,557	28,979	85,055	230,591	58.1	134,028 ^c
New York	1,458,234	967,609	765,642	3,191,485	34.4	1,098,681
North Carolina	1,009,304	-	381,580	1,390,884	44.7	621,720 ^c
North Dakota ^a	0	81,933	0	81,933	55.0	45,085
Ohio ^a	37,693	1,961,918	447,428	2,447,038	46.8	1,144,090
Oklahoma	236,514	229,413	122,878	588,804	46.9	276,222 ^c
Oregon	217,850	260,832	70,958	549,640	54.6	300,130 ^c
Pennsylvania	1,819,582	271,457	586,860	2,677,899	42.9	1,147,532
Rhode Island	31,236	92,914	15,016	139,166	34.0	47,256 ^c
South Carolina	524,368	56,579	188,606	769,553	45.9	353,033 ^c
South Dakota	70,270	-	15,619	85,889	66.3	56,924 ^c
Tennessee	664,586	-	197,990	862,577	54.2	467,652 ^c
Texas	903,187	344,339	305,920	1,553,445	62.1	964,442 ^c
Utah	70,912	122,436	45,980	239,328	69.4	166,162 ^c
Vermont	106,170	-	15,725	121,895	48.3	58,854 ^c
Virginia	631,073	-	223,905	854,978	56.5	483,129 ^c
Washington ^a	-	1,375,658	470,835	1,846,493	35.4	654,264
West Virginia ^a	5,966	598,708	89,561	694,235	48.2	334,930 ^d
Wisconsin	994,625	-	175,431	1,170,055	65.7	768,399
Wyoming ^a	-	116,528	-	116,528	48.2	56,218 ^d
Non-federal total	\$28,195,255	\$10,911,888	\$13,144,887	\$52,252,030	48.7	\$25,447,052
Federal^e				3,258,155	25.6	835,208
Federal employees				2,462,059	27.3	671,056
TOTAL				55,510,185	47.3	26,282,260

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 the fact that some employers doing business in states with exclusive state funds may need to obtain coverage from private carriers under the USL & HW act or employers liability coverage which the state fund is not authorized to provide. In addition, private carriers may provide excess compensation coverage in some of these states.

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 percentages 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.

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, 2004**
(in thousands)

State	Private Carriers ^a	State Funds	Self-Insured ^b	Total	Percent Medical	Medical Benefits
Alabama	\$277,585	\$	\$298,112	\$575,697	62.1	\$357,739 ^c
Alaska	136,391	-	48,690	185,082	55.8	103,263 ^c
Arizona	140,811	303,989	103,372	548,172	64.2	352,096 ^c
Arkansas	156,189	-	72,214	228,402	60.7	138,593 ^c
California	5,555,375	3,202,628	3,694,990	12,452,993	48.9	6,088,486
Colorado	275,217	422,707	146,723	844,647	48.8	411,832 ^c
Connecticut	455,451	-	255,717	711,167	39.6	281,422 ^c
Delaware	119,115	-	41,077	160,192	45.4	72,727
District of Columbia	76,844	-	19,723	96,567	38.2	36,913 ^c
Florida	2,190,241	-	539,799	2,730,040	59.3	1,619,667 ^c
Georgia	811,531	-	314,333	1,125,864	47.8	537,909 ^c
Hawaii	150,840	34,015	86,436	271,290	38.3	103,900 ^c
Idaho	74,680	122,076	40,231	236,987	59.1	140,030 ^c
Illinois	1,685,570	-	575,848	2,261,418	48.5	1,096,919 ^c
Indiana	495,823	-	98,331	594,153	68.0	404,075 ^c
Iowa	343,269	-	108,267	451,536	51.6	233,061 ^c
Kansas	246,092	-	124,522	370,614	55.0	203,699 ^c
Kentucky	385,103	65,706	278,791	729,600	54.0	393,784 ^c
Louisiana	304,102	167,351	254,663	726,116	50.4	366,090 ^c
Maine	90,943	85,746	90,847	267,537	42.0	112,360 ^c
Maryland	455,407	198,973	122,521	776,900	41.4	321,480 ^c
Massachusetts	823,342	-	145,287	968,629	34.4	332,749
Michigan	827,277	-	690,109	1,517,386	37.6	569,855
Minnesota	619,052	65,092	231,609	915,753	48.7	445,579
Mississippi	177,552	-	133,083	310,635	55.9	173,528 ^c
Missouri	684,950	114,560	320,361	1,119,871	50.4	564,841 ^c
Montana	71,858	109,257	42,239	223,354	53.6	119,795 ^c
Nebraska	221,376	-	65,131	286,507	58.9	168,842 ^c
Nevada	240,152	-	118,580	358,732	49.1	176,186 ^c
New Hampshire	167,712	-	45,452	213,164	55.9	119,238 ^c

New Jersey	1,130,454	-	372,918	1,503,372	49.3	741,058
New Mexico	94,436	26,794	77,038	198,267	59.1	117,097 ^c
New York	1,732,841	775,146	827,343	3,335,330	33.8	1,126,449
North Carolina	853,254	-	313,826	1,167,080	44.2	515,664 ^c
North Dakota ^a	260	82,977	-	83,237	56.3	46,870
Ohio ^a	37,509	1,935,728	461,479	2,434,715	46.9	1,141,082
Oklahoma	244,837	215,527	117,216	577,581	46.1	266,021 ^c
Oregon	236,327	228,642	71,320	536,289	53.3	285,971 ^c
Pennsylvania	1,803,792	226,158	564,288	2,594,238	41.2	1,068,661
Rhode Island	41,793	87,218	16,140	145,152	35.1	51,003 ^c
South Carolina	461,543	49,629	176,944	688,115	46.3	318,811 ^c
South Dakota	65,832	-	11,577	77,409	62.9	48,712 ^c
Tennessee	645,277	-	170,022	815,299	51.6	420,903 ^c
Texas	1,001,537	299,884	331,384	1,632,806	60.9	994,162 ^c
Utah	56,204	122,738	38,537	217,479	68.4	148,704 ^c
Vermont	107,141	-	16,429	123,570	45.8	56,549 ^c
Virginia	554,397	-	204,750	759,147	55.1	418,346 ^c
Washington ^a	30,843	1,323,410	481,981	1,836,234	34.6	636,238
West Virginia ^a	7,317	666,250	120,267	793,834	48.0	380,873
Wisconsin	843,431	-	54,935	898,366	64.6	580,651
Wyoming ^a	3,534	116,528	-	120,062	48.0	57,604
<u>Non-federal total</u>	\$28,212,408	\$11,048,728	\$13,535,451	\$52,796,587	48.2	\$25,468,085
Federal ^e				3,256,202	26.6	865,442
Federal Employees				2,445,077	28.5	695,680
TOTAL				56,052,789	47.0	26,333,527

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 the fact that some employers doing business in states with exclusive state funds may need to obtain coverage from private carriers under the USL & HW act or employers liability coverage which the state fund is not authorized to provide. In addition, private carriers may provide excess compensation coverage in some of these states.

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.

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**Workers' Compensation Benefits by Type of Insurer and Medical Benefits, by State, 2003**
(in thousands)

State	Private Carriers ^a	State Funds	Self-Insured ^b	Total	Percent Medical	Medical Benefits
Alabama	\$294,746	\$	\$285,438	\$580,184	62.8	\$364,616 ^c
Alaska	134,235		42,286	176,521	55.0	97,095 ^c
Arizona	143,808	283,626	87,797	515,231	63.4	326,899 ^c
Arkansas	157,749		67,004	224,753	62.1	139,588 ^c
California	5,901,662	2,917,587	3,582,223	12,401,472	51.1	6,334,584
Colorado	248,912	355,897	148,917	753,726	44.2	333,497 ^c
Connecticut	461,427		216,082	677,510	42.7	289,536 ^c
Delaware	119,631		35,734	155,365	45.4	70,536 ^d
District of Columbia	68,341		15,913	84,254	37.0	31,177 ^c
Florida	2,284,094		537,117	2,821,211	58.0	1,636,889 ^c
Georgia	734,377		255,285	989,661	47.4	468,727 ^c
Hawaii	162,168	24,652	88,102	274,922	38.4	105,503 ^c
Idaho	67,196	117,409	29,586	214,192	57.1	122,323 ^c
Illinois	1,643,892		511,925	2,155,818	46.4	999,614 ^c
Indiana	476,347		87,663	564,011	67.6	381,413 ^c
Iowa	335,573		93,042	428,614	48.4	207,602 ^c
Kansas	230,129		107,144	337,273	54.6	184,204 ^c
Kentucky	402,969	62,303	257,610	722,882	54.1	391,348 ^c
Louisiana	293,277	148,124	228,596	669,997	50.8	340,283 ^c
Maine	90,404	68,038	75,089	233,531	46.2	107,904 ^c
Maryland	435,265	166,433	114,711	716,409	41.7	298,846 ^c
Massachusetts	899,987		152,995	1,052,982	33.3	350,395
Michigan	877,007		599,843	1,476,850	36.7	542,574
Minnesota	611,852	60,354	216,914	889,119	47.1	419,001
Mississippi	166,252		125,501	291,753	55.9	162,966 ^c
Missouri	657,912	124,147	298,811	1,080,870	49.5	534,615 ^c
Montana	74,735	103,058	38,922	216,715	52.4	113,598 ^c
Nebraska	213,181		55,446	268,627	59.0	158,503 ^c
Nevada	216,774		112,559	329,333	46.0	151,427
New Hampshire	179,213		42,540	221,753	56.5	125,180 ^c

New Jersey	1,153,917	330,987	1,484,904	47.9	711,057
New Mexico	97,483	24,326	190,840	57.0	108,741 ^c
New York	1,631,501	788,496	3,114,144	32.3	1,005,206
North Carolina	816,757	265,213	1,081,970	45.1	487,850 ^c
North Dakota ^a	273	78,157	78,430	54.9	43,089
Ohio ^a	23,858	1,936,354	2,442,187	46.7	1,140,541
Oklahoma	257,073	181,070	555,092	47.5	263,508 ^c
Oregon	220,585	206,878	499,625	52.2	260,755 ^c
Pennsylvania	1,820,527	180,677	2,565,344	40.5	1,040,169
Rhode Island	37,620	81,162	132,313	31.0	41,028 ^c
South Carolina	441,662	52,085	656,935	47.5	312,056 ^c
South Dakota	63,857	10,383	74,241	62.8	46,628 ^c
Tennessee	642,242	142,544	784,786	52.9	415,098 ^c
Texas	1,303,290	291,919	1,970,869	63.0	1,241,664 ^c
Utah	50,971	109,827	188,073	65.4	122,980 ^c
Vermont	105,130	15,000	120,130	48.5	58,230 ^c
Virginia	541,701	167,465	709,166	56.2	398,245 ^c
Washington ^a	26,675	1,309,767	1,800,849	34.4	619,552
West Virginia ^a	3,274	702,884	823,300	28.9	237,776
Wisconsin	707,535	125,470	833,005	62.9	524,189 ^c
Wyoming ^a	2,169	112,083	114,252	63.1	72,090 ^d
Non-federal total	\$ 28,531,218	\$ 10,487,312	\$ 51,745,997	48.2	\$ 24,940,896
Federal ^e			3,184,685	26.5	842,779
Federal employees			2,367,757	28.3	669,484
TOTAL			54,930,682	46.9	25,783,675

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 the fact that some employers doing business in states with exclusive state funds may need to obtain coverage from private carriers under the USL & HW act or employers liability coverage which the state fund is not authorized to provide. In addition, private carriers may provide excess compensation coverage in some of these states.

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 percentages 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.

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

State	Private Carriers ^a	State Funds	Self-Insured ^b	Total	Percent Medical	Medical Benefits
Alabama	\$290,009	\$	\$275,255	\$565,264	60.7	\$343,115 ^c
Alaska	133,040		39,625	172,665	54.0	93,239 ^c
Arizona	156,862	242,556	78,150	477,568	60.1	287,019 ^c
Arkansas	156,224		61,382	217,606	62.4	135,786 ^c
California	5,583,833	2,191,962	3,150,362	10,926,157	50.0	5,466,790
Colorado	297,644	320,022	138,993	756,658	45.1	341,253 ^c
Connecticut	469,217		208,373	677,590	41.5	281,200 ^c
Delaware	107,787		31,176	138,963	70.9	98,480 ^d
District of Columbia	71,850		18,028	89,879	36.2	32,536 ^c
Florida	2,181,420		414,405	2,595,825	56.9	1,477,024 ^c
Georgia	671,411		262,244	933,655	47.7	445,353 ^c
Hawaii	167,539	17,908	82,380	267,827	37.2	99,632 ^c
Idaho	77,025	97,335	28,863	203,223	56.7	115,228 ^c
Illinois	1,665,349		503,245	2,168,594	44.4	962,856 ^c
Indiana	463,341		84,737	548,078	65.6	359,539 ^c
Iowa	324,939		79,743	404,681	50.6	204,769 ^c
Kansas	235,863		106,353	342,216	54.2	185,481 ^c
Kentucky	424,142	47,008	228,847	699,998	53.9	377,299 ^c
Louisiana	265,141	153,742	202,494	621,377	52.7	327,466 ^c
Maine	97,874	75,536	87,051	260,461	39.6	103,143 ^c
Maryland	403,435	149,592	134,811	687,838	40.4	277,886 ^c
Massachusetts	773,132		103,716	876,848	32.8	287,338
Michigan	846,823		665,634	1,512,457	34.6	523,260
Minnesota	618,031	48,391	207,466	873,887	47.3	413,462
Mississippi	172,953		117,710	290,663	62.2	180,792 ^c
Missouri	629,112	113,951	290,394	1,033,458	49.7	513,629 ^c
Montana	76,311	87,996	35,270	199,577	53.6	106,974 ^c
Nebraska	207,099		61,642	268,741	57.1	153,451 ^c
Nevada	212,130		103,756	315,886	41.1	129,740
New Hampshire	175,384		38,751	214,135	55.6	119,059

New Jersey	1,096,456	301,496	1,397,952	46.2	645,584
New Mexico	93,604	61,967	177,333	56.8	100,725 ^c
New York	1,580,743	649,316	3,010,694	34.1	1,026,698
North Carolina	751,598	252,725	1,004,323	42.9	430,855 ^c
North Dakota ^a	222	73,295	73,517	53.3	39,205
Ohio ^a	37,652	472,277	2,272,551	44.9	1,020,807
Oklahoma	251,560	117,251	509,444	46.1	234,854 ^c
Oregon	238,333	72,999	503,490	50.6	254,766 ^c
Pennsylvania	1,761,444	559,966	2,478,709	40.0	990,861
Rhode Island	48,985	18,136	146,036	30.5	44,541 ^c
South Carolina	398,098	150,661	592,530	44.8	265,453 ^c
South Dakota	63,000	10,478	73,478	61.5	45,189 ^c
Tennessee	604,753	117,964	722,717	51.3	370,754 ^c
Texas	1,726,344	393,397	2,372,763	62.1	1,473,486 ^c
Utah	76,769	31,468	214,340	66.6	142,751 ^c
Vermont	107,578	12,000	119,578	52.7	63,017 ^c
Virginia	495,617	139,492	635,108	54.1	343,593 ^c
Washington ^a	28,773	462,420	1,716,435	34.4	590,036
West Virginia ^a	3,588	131,749	791,762	28.8	227,872
Wisconsin	758,613	123,143	881,756	61.3	540,173 ^c
Wyoming ^a	5,913	101,562	107,475	63.8	68,585
Non-federal total	\$28,084,563	\$9,139,442	\$49,143,768	47.5	\$23,362,603
Federal^e			3,153,626	26.7	840,445
Federal employees			2,317,325	28.7	665,378
Total			52,297,394	46.3	24,203,048

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 the fact that some employers doing business in states with exclusive state funds may need to obtain coverage from private carriers under the USL & HW act or employers liability coverage which the state fund is not authorized to provide. In addition, private carriers may provide excess compensation coverage in some of these states.

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 percentages 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.

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 Estimates

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:

Step A: Calculate the share of payroll that is self-insured (in states where we can).

- 1) Use NASI estimates of total covered payroll for calendar year 2006. This procedure is outlined in Appendix A.
- 2) Obtain total payroll for workers insured by private carriers and competitive state funds for calendar years from NCCI. This information is available for a subset of states (about 37-39 states), which we call “NCCI states.”
- 3) For each of the NCCI states, use [1] and [2] to estimate the payroll covered by self-insurers. This is given by [1]-[2].
- 4) For the NCCI states, use [1] and [2] to estimate the percent of payroll covered by self-insurers. The percentage of payroll covered by self-insurers is [3] / [1].

Step B: Calculate the share of benefits that is self-insured (in states where we can); and

- 5) Compile state-reported data on self-insured benefits where we can.
- 6) Estimate total benefits in states that report self-insured benefits.
- 7) Calculate the share of total benefits that is self-insured in states where we can by dividing self-insured benefits by total benefits.[5]/ [6].

Step C: In states where we have both shares described above, calculate the average relationship between the two shares.

- 8) For each state where we have a self-insured share of payroll [4] and a self-insured share of benefits [7], calculate the ratio between the two shares. This ratio is [7] / [4].
- 9) Determine the number of states where we have both shares. There were 21 such states in 2006.

- 10) Calculate the average ratio between the two shares for the 21 states. The average ratio in 2006 is 64.5 percent (Table E1). That is, on average, the share of benefits that is self-insured is about 64.5 percent of the share of payroll that is self-insured in states where we have both pieces of information.

Step D: For those states where we have prior years’ data on self-insured benefits, use latest available years self-insured benefits to self-insured payroll ratio to estimate the self-insured benefits for 2006.

- 11) The self-insurance data has been imputed using previous years’ data in 5 (out of which 4 were NCCI states and one was a non-NCCI state) states where they were available. Use the ratio of self-insured benefit ratio of the state to the total self-insured benefit ratio (in available years)

$$\left[\frac{\text{State Self Insured Benefits}}{\text{State Total Benefits}} \right] = \frac{\text{Total available Self Insured Benefits}}{\text{Total Benefits}}$$

to impute the ratio in the later years when data was not available.

Step E: Use the average relationship between the two shares to estimate the share of benefits that is self-insured in states where we lack that information, but have an estimate of the share of payroll that is self-insured.

- 12) For each of the NCCI states where we lack self-insured benefit data (39-21-4=12 states), multiply [4] the percentage of payroll covered by self-insurers by the average ratio in [10].
- 13) The ratio in [12] is used to estimate self-insured benefits in those 11 states. We get the self-insured benefits by multiplying (Private Carrier + State Fund Benefits) * $\left[\frac{\text{Ratio in (12)}}{(1-\text{Ratio in (12)})} \right]$

Table E1

Self-Insurer Estimation Results, 2002–2006

Average Ratio of the percent of total benefits paid by self-insurers to the percent of payroll covered by self-insurers, (7)/(4)

Year	Ratio
2002	63.3
2003	64.4
2004	65.3
2005	64.8
2006	63.2

Step F: For states where we lack both ratios described in A and B (above), use the average share of total benefits that is self-insured in the rest of the states.

For 2006, 29 states reported self-insured benefits. For 13 other states, we imputed self-insured benefits using NCCI payroll data. For 5 states we used prior year's data to estimate self-insured benefit payments in 2006. Two exclusive state fund states – North Dakota and Wyoming – do not allow self insurance. For the remaining 3 states – Delaware, New Jersey and New York – we can estimate self-insured benefits based on the average of the other states where we have reported or imputed data.

Appendix F: Medical Benefit Estimates

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 2006, the medical share as reported by the National Council on Compensation Insurance (NCCI) was used for thirty-six states.

The NCCI is a private 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 eight states we used the agency information on medical share given to NASI by the state agencies. For California, Delaware, New Jersey, New York, Pennsylvania we used data on calendar year paid medical benefits data provided by the Rating Bureaus.

For two states, West Virginia, and Wyoming, neither state reports nor NCCI estimates of medical benefits were available. For these states, the weighted average of the share of total benefits that were for medical care in the other forty-nine jurisdictions was used.

Appendix G: Deductible Benefit Estimates

NASI has five 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 or Rating Bureau.

Seven States: Arizona, Delaware, Minnesota, North Dakota, 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.

Twelve States: Alabama, Alaska, California, Hawaii, Michigan, Missouri, Montana, Nevada, New Jersey, New Mexico, South Dakota and Virginia.

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:

Deductibles are not allowed in the state.

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

Five States: Ohio, Washington, West Virginia, Wisconsin, and Wyoming.

Method D:

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 ratio of Manual Equivalent Premiums.

Twenty-four Jurisdictions: Arkansas, Colorado, Connecticut, the District of Columbia, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Mississippi, Nebraska, New Hampshire, North Carolina, Oklahoma, Rhode Island, Tennessee, Utah and Vermont.

Method E:

State does not report benefit amounts. Deductibles are allowed. Manual Equivalent Premiums are not available.

Method: Estimate the average ratio of Manual Equivalent Premiums from those states where it is available. Use this average with the Net Losses paid as reported by A.M. Best to impute deductibles.

Three States: Massachusetts, New York and Texas.

Appendix H: 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 benefits paid under the Federal Employees' 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 given below.

Federal Employees. The Federal Employees' Compensation Act of 1916, which superseded previous workers' compensation laws for federal employees, provided the first comprehensive workers' compensation program for federal civilian employees. In 2006, total benefits were \$2,455 million, of which 28 percent were for medical care. The share of benefits for medical care is lower than in most state programs because federal cash benefits, particularly for higher-wage workers, replace a larger share of pre-injury wages than is the case in most state programs. Administrative costs of the program were \$137 million in calendar year 2006, or 5.6 percent of total benefits (U.S. DOL, 2007a). Table H-1 reports benefits and administrative costs for federal civilian employees under the Federal Employees' Compensation Act in 1997 through 2006. 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.

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 2006, about 540 self-insured employers and insurance companies reported a total of 23,537 lost-time injuries to the federal Office of Workers' Compensation Programs. Total benefits paid under the Act in 2006 were \$880 million, which included \$368 million paid by private insurance carriers, \$369 million paid by self-insured employers, \$133 million paid from the federally administered special fund for second injuries and other purposes, and \$10 million for the District of Columbia Workmen's Compensation Act (DCCA) Fund. Federal direct administrative costs were \$12.7 million or about 1.4 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.

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 2006. 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 1997–2006

Table H1**Federal Employees' Compensation Act, Benefits and Costs, 1997-2006 (in thousands)**

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Benefits	\$1,900,779	\$2,009,862	\$1,999,915	\$2,118,859	\$2,223,088	2,317,325	2,367,757	2,445,077	2,462,059	2,454,861
Compensation Benefits	1,440,867	1,536,430	1,474,168	1,576,354	1,600,031	1,651,947	1,698,273	1,749,397	1,791,003	1,767,926
Medical Benefits	459,912	473,432	525,747	542,505	623,057	665,378	669,484	695,680	671,056	686,935
% Medical	24	24	26	26	28	29	28	28	27	28
Direct Administrative Costs	80,893	80,235	87,425	91,532	109,326	115,226	130,672	131,920	128,536	137,424
Total Costs	1,981,672	2,090,097	2,087,340	2,210,391	2,332,414	2,432,551	2,498,429	2,576,997	2,590,595	2,592,285
Indirect Administrative Costs ^(a)	6,835	5,750	5,584	6,197	5,056	4,596	4,806	4,587	5,494	7,619

(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 2007a.

Table H2**Longshore and Harbor Workers' Compensation Act, Benefits, Costs and Number of DBA Death Claims, 1997–2006 (Dollars in thousands)**

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Benefits	\$617,927	\$642,321	\$659,800	\$671,991	\$689,149	700,563	716,218	747,321	795,466	879,508
Insurance Carriers	219,352	238,464	232,778	249,671	236,726	246,603	262,753	278,887	325,027	367,625
Self-Insured Employers	263,255	261,559	283,991	278,952	307,708	310,940	309,843	322,520	325,694	368,744
LHWCA Special Fund	123,772	129,777	131,152	131,564	133,374	131,684	132,504	135,073	134,230	132,933
DCCA Special Fund	11,548	12,521	11,879	11,804	11,341	11,336	11,118	10,841	10,515	10,206
DBA benefits ^a	6,108	7,691	5,452	8,583	9,411	7,582	11,338	30,079	59,797	115,758
Number of DBA Death Claims	4	1	3	3	5	7	56	231	284	338
Total Annual Assessments	121,300	122,000	141,300	145,700	145,000	136,000	135,800	148,500	146,500	146,500
LHWCA	110,000	111,000	130,000	133,000	133,000	125,000	125,000	137,000	135,000	135,000
DCCA	11,300	11,000	11,300	12,700	12,000	11,000	10,800	11,500	11,500	11,500
Administrative Expenses ^b	9,356	9,821	10,822	11,144	11,713	11,970	12,314	12,514	12,563	12,700
General Revenue	8,378	8,596	8,947	9,373	9,807	9,988	10,297	10,495	10,547	10,672
Trust Fund	978	1,225	1,875	1,771	1,906	1,982	2,017	2,019	2,016	2,028
Indirect Administrative Costs ^c	1,799	2,107	2,247	1,787	2,207	2,514	2,347	2,396	2,019	2,115

^a Included in Total Benefits. Defense Base Act benefits are paid for injuries or deaths of employees working overseas for companies under contract with the U.S. government.

^b 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 benefit payments for certain categories of claims and provides funding for the program's rehabilitation staff and Special Fund oversight activities.

^c 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 2007a.

Table H3**Black Lung Benefits Act, Benefits and Costs, 1997–2006
(in thousands)**

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Benefits	\$1,095,585	\$1,000,383	\$982,787	\$927,973	\$866,069	821,625	769,137	714,045	664,295	609,227
Part C Compensation	388,656	373,707	360,470	346,903	332,620	316,585	303,724	289,699	276,413	262,026
Part C Medical Benefits	92,041	80,450	74,776	69,322	61,136	65,756	59,739	52,992	49,244	41,552
Part B Compensation	614,888	546,226	547,541	511,748	472,313	439,284	405,674	371,354	338,638	305,649
Total Direct Administrative Costs	25,759	31,030	33,246	32,866	34,657	36,123	37,393	38,062	37,930	38,463
Part C (DOL)	25,759	26,698	29,023	28,591	29,897	31,488	31,991	32,157	32,724	33,182
Part B (SSA)	*	4,332	4,223	4,275	4,760	4,635	5,402	5,905	5,206	5,281
Trust Fund Advances from U.S. Treasury ^a	370,000	360,000	402,000	490,000	505,000	465,000	525,000	497,000	446,000	445,000
Interest Payments on Past Advances	470,635	494,726	515,016	541,117	567,814	595,589	620,582	650,579	674,894	694,964
Coal Tax Revenues Received by the Black Lung Trust Fund	635,342	634,270	569,704	512,799	511,520	588,000	480,080	577,575	620,420	598,520
Indirect Administrative Costs ^b	19,903	20,115	20,882	21,348	22,207	23,050	23,459	23,914	24,424	25,242

* information not available

^a Total Trust Fund debt (cumulative advances) at the end of CY 2006 was \$9,631,557,000. In the recent past, most, if not all, of these advances were necessary to pay interest charges on past debt.^b 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).

Source: U.S. DOL 2007a.

data, our estimates of total federal benefits include benefits paid by self-insured employers and the special funds under the LHWCA. Unless otherwise specified, 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.

Total benefits under the Longshore and Harbor Workers' Compensation Act include benefits paid under the Defense Base Act (DBA). Under the DBA, benefits are paid for injuries or deaths of employees (of any nationality) working overseas for companies under contract with the United States government. These benefits are also shown separately in Table H2. Total payments rose from about \$8 million in 2002 to \$116 million in 2006. The num-

ber of DBA death claims per year rose from single digits prior to 2003, to 338 in 2006. The increase reflects, in large part, claims and deaths of employees of companies working under contract for the U.S. government in the war zones in Iraq and Afghanistan.

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, and was administered by the Social Security Administration until 1997 when administration shifted to the U.S. Department of Labor. 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

Table H4

Energy Employees Occupational Illness Compensation Program Act, Part B and Part E Benefits and Costs, 2001-2006 (in thousands)

	2001	2002	2003	2004	2005	2006
Total Benefits Part B	\$67,341	369,173	303,981	275,727	392,503	502,636
Compensation Benefits	67,330	363,671	288,274	250,123	358,751	460,494
Medical Benefits ^a	11	5,502	15,707	25,604	33,752	42,142
Direct Administrative Costs ^b	30,189	69,020	65,941	94,158	106,818	104,872
Total Benefits Part E ^c	n/a	n/a	n/a	n/a	268,635	270,598
Compensation Benefits	n/a	n/a	n/a	n/a	268,586	269,558
Medical Benefits ^d	n/a	n/a	n/a	n/a	49	1,040
Direct Administrative Costs ^b	n/a	n/a	n/a	n/a	39,295	55,088

- a Medical payments made for claimants eligible under Part B only and claimants eligible under both Part B and Part E.
- b Part B costs for 2002-06 include funding for the Department of Health and Human Services/National Institute for Occupational Safety and Health's conduct of dose reconstructions and Special Exposure Cohort determinations. For 2002, these costs were \$32.7 million; 2003, \$26.8 million; 2004, \$51.7 million; 2005, \$50.5 million; and 2006, \$58.6 million. Part E costs for 2005-06 include funding for an Ombudsman position. For 2005, these costs were \$0.3 million; and 2006, \$0.6 million.
- c The Energy Part E benefit program was established in October 2004.
- d Medical payments made for claimants eligible under Part E only.

Source: U.S. DOL 2007a.

Table H5**Radiation Exposure Compensation Act, Benefits Paid as of April 21, 2008 (benefits in thousands)**

Claim Type	Claims	Benefits
Downwinder	12,017	600,820
Onsite Participant	1,187	84,695
Uranium Miner	4,798	479,074
Uranium Miller	1,111	111,100
Ore Transporter	230	23,000
TOTAL	19,343	\$1,298,689

Source: U.S. DOJ 2008.

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 1997–2006. Total benefits in 2006 were \$609 million, of which \$306 million was paid under Part B and \$262 million was paid under Part C. Part C benefits include \$42 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 \$38.5 million or about 6.3 percent of benefit payments.

Table H-3 shows benefits under the Black Lung Benefit program in 1997 through 2006 for both parts of the program. Its benefits are paid directly by the responsible mine operator or insurer or from the federal Black Lung Disability Trust Fund. 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.

Energy Employees. The Energy Employees Occupational Illness Compensation Program Act (EEOICPA) 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. This is Part B of the program, which went into effect in July 2001. It provides smaller lump-sum payments to individuals previously found eligible for an award under the Radiation Exposure Compensation Act. Medical benefits are awarded for the treatment of covered conditions. Total benefits in 2006 were \$503 million, of which \$460 million were paid as compensation benefits (U.S. DOL, 2007a). The EEOICPA originally included a Part D program that required the Department of Energy (DOE) to establish a system for contractor employees and eligible survivors to seek DOE assistance in obtaining

state workers' compensation benefits for work-related exposure to toxic substances at a DOE facility. In October 2004 Congress abolished Part D, creating a new Part E program to be administered by the Department of Labor. Part E provides benefit payments up to \$250,000 for DOE contractor employees, eligible survivors of such employees, and uranium miners, millers, and ore transporters. Wage-loss, medical, and survivor benefits are also provided under certain conditions. Total Part E benefits in 2006 were \$271 million. Benefits under both Part B and Part E are financed by general revenues and are not included in our national totals. Table H-4 provides information on both Part B and Part E of the EEOICPA, as amended.

Workers Exposed to Radiation. The Radiation Exposure Compensation Act of 1990 provides lump-sum compensation payments to individuals who contracted certain cancers and other serious diseases as a result of exposure to radiation released during above ground nuclear weapons tests or during employment in underground uranium mines. The lump-sum payments are specified in law and range from \$50,000 to \$100,000. From the beginning of the program through April 2008, 19,343 claims were paid for a total of \$1,299 million, or roughly \$67,140 a claim (U.S. DOJ, 2008). The program is financed with federal general revenues and is not included in national totals in this report. Table H-5 shows cumulative payments under the Radiation Exposure Compensation Act since its enactment in 1990.

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 2006, 2.7 million veterans were receiving monthly compensation payments for service-connected disabilities. Of these, 45 percent of the veterans 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 \$2.1 billion as of September 2006, or about \$25.6 billion on an annual basis (U.S. Department of Veterans Affairs, 2006). Veterans' compensation is not included in our national estimates of workers' compensation.

Table H-6 provides information on the Veterans' Compensation program. 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 different from other workers' compensation programs in many respects. With cash benefits of about \$25.6 billion in 2006, veterans' compensation is about 87.4 percent of the size of total cash benefits in other workers' compensation programs, which were \$29.3 billion in 2006. 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 H6

**Federal Veterans' Compensation Program, Compensation Paid in September, 2006
(benefits in thousands)**

Class of Dependent	Number	Monthly Value
Veteran Recipients - total	2,725,824	\$2,135,238
Veterans less than 30 percent disabled (no dependency benefit)	1,207,358	180,406
Veterans 30 percent or more disabled	1,518,466	1,954,832
Without dependents	483,384	577,418
With dependents	1,035,082	1,377,414
Spouse only	706,349	985,269
Spouse, child or children	258,050	303,303
Spouse, child or children, and parents or parents	858	1,667
Spouse, parent or parents	1,209	2,552
Child or children only	65,984	79,014
Child or children, and parent or parents	353	654
Parent or parents only	2,279	4,955
Total dependents on whose account additional compensation was being paid	1,537,038	-
Spouse	966,466	-
Children	565,386	-
Parents	5,186	-

Source: U.S. Department of Veterans Affairs 2006, Table 12.

Railroad Employees and Merchant Seamen.

Finally, federal laws specify employee benefits for railroad workers involved in interstate commerce and merchant seamen. The benefits are not workers' compensation benefits and are not included in our national totals. Instead, these 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 (Williams and Barth, 1973).

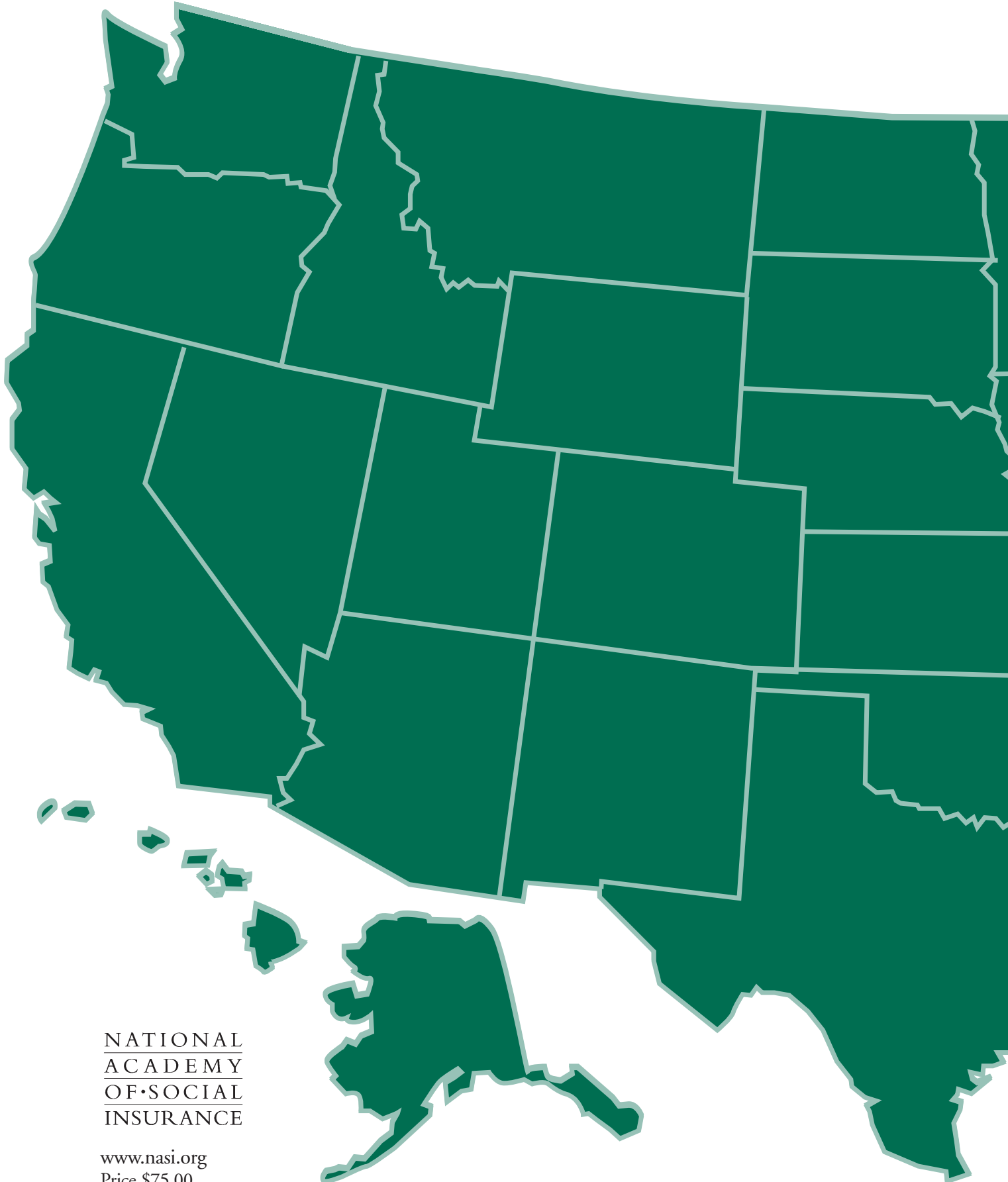
This report includes in national totals for workers' compensation those federal programs that are financed by employers and that are not otherwise included in workers' compensation benefits reported by states in 1997 through 2006. The accompanying tables provided detailed information on federally administered programs, including some that are not included in national totals in this report.

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