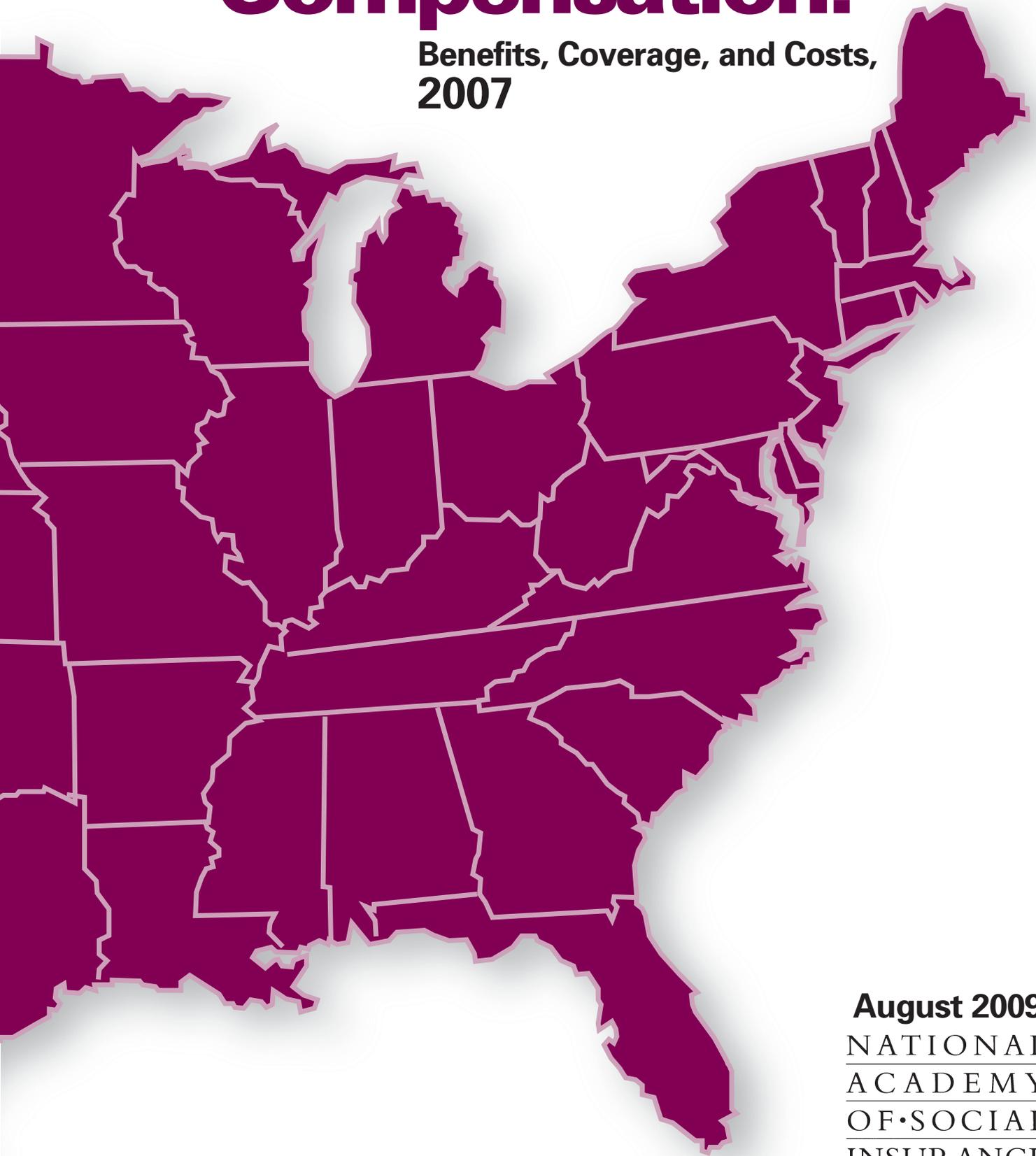


Workers' Compensation:

Benefits, Coverage, and Costs,
2007



August 2009
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1776 Massachusetts Ave., NW

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E-mail nasi@nasi.org

Website: www.nasi.org

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, 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,
2007**

by

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

with advice of the

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

August 2009

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

Preface

This is the twelfth report the Academy has issued on workers' compensation national data. Before the National Academy of Social Insurance began the publication, 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 is the fifth edition of the report co-authored by Ishita Sengupta, Virginia Reno, and me. Ishita warrants her name being listed first in recognition of the amounts of time and energy she devoted to the publication. This report also 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. We also thank Frank Neuhauser, University of California, Berkeley; Allan Hunt, Upjohn Institute; Mike Manley, Oregon Department of Consumer and Business Services; Alex Swedlow, California Workers' Compensation Institute; and Doug Holmes, UWC for their suggestions for this report. This report also benefited from helpful comments during Board review by Bill Johnson, Rene Parent and Hank Patterson.

John F. Burton, Jr.
Chair, *Study Panel on National Data on Workers' Compensation*

National Academy of Social Insurance Workers' Compensation Data Study Panel

John F. Burton, Jr., *Chair*
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Labor Studies & Employment
Relations, School of
Management & Labor Relations
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Professor, W. P. Carey School of
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Shelby Hallmark
Director, Office of Workers'
Compensation Programs
U.S. Department of Labor

**Jay S. Himmelstein, M.D.,
MPH**
Professor, Family Medicine and
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Chief Health Policy Strategist,
Center for Health Policy and
Research, University of
Massachusetts Medical School

Douglas J. Holmes
President, UWC -Strategic
Services on Unemployment
and Workers' Compensation

H. Allan Hunt
Senior Economist
W.E. Upjohn Institute

Kate Kimpan
Vice President, Workers'
Compensation Programs
Dade Moeller & Associates

Gregory Krohm
Executive Director
International Association of
Industrial Accident Boards and
Commissions

Barry Llewellyn
Senior Divisional Executive,
Regulatory Services
National Council on
Compensation Insurance, Inc.

Mike Manley
Research Coordinator
Oregon Department of
Consumer and Business Services

Frank Neuhauser
Research Faculty
University of Berkeley

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Director of Research
National Association of
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Director, Institute for Civil
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Assistant Commissioner for
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Conditions, U.S. Bureau of
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Emily A. Spieler
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University School of Law

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Marriott International, Inc.

Alex Swedlow
Executive Vice
President/Research
California Workers'
Compensation Institute

Richard A. Victor
Executive Director, Workers'
Compensation Research Institute

Alex Wasarhelyi
Project Officer, Social Security
Administration

Benjamin Washington
Statistician, National Health
Statistics Group, Office of the
Actuary, Centers for Medicare
and Medicaid Services

William J. Wiatrowski
Associate Commissioner
Office of Compensation &
Working Conditions
U.S. Department of Labor,
Bureau of Labor Statistics

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Highlights

This report provides a benchmark of the coverage, 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 twelfth annual report on workers' compensation benefits, coverage, and costs. This report presents new data on developments in workers' compensation in 2007 and updates estimates of benefits, costs, and coverage for the years 2003–2006. 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 workers' compensation claims administrators must report to the CMS (Centers for Medicare and Medicaid Services) information about workers' compensation recipients who are entitled to Medicare.

Table 1**Workers' Compensation Benefits*, Coverage, and Costs**, 2006–2007, Summary**

Aggregate Amounts	2006	2007	Change In Percent
United States			
Covered workers (in thousands)	130,339	131,734	1.1
Covered wages (in billions)	\$5,543	\$5,855	5.6
Workers' compensation benefits paid (in billions)	54.3	55.4	2.0
Medical benefits	26.3	27.2	3.3
Cash benefits	28.0	28.3	0.8
Employer costs for workers' compensation (in billions)	87.3	85.0	-2.7
California			
Covered workers (in thousands)	15,256	15,395	0.9
Covered wages (in billions)	\$734	\$775	5.5
Workers' compensation benefits paid (in billions)	10.1	9.9	-2.2
Medical benefits	5.1	5.4	5.4
Cash benefits	5.0	4.5	-10.0
Employer costs for workers' compensation (in billions)	17.0	14.6	-14.3
Outside California			
Covered workers (in thousands)	115,083	116,339	1.1
Covered wages (in billions)	\$4,808	\$5,081	5.7
Workers' compensation benefits paid (in billions)	44.2	45.5	3.0
Medical benefits	21.2	21.8	2.8
Cash benefits	23.0	23.7	3.2
Employer costs for workers' compensation (in billions)	70.3	70.4	0.1
Amount per \$100 of Covered Wages			Change In Amount[#]
United States			
Benefits paid	\$0.98	\$0.95	-\$0.03
Medical payments	0.47	0.46	-0.01
Cash payments to workers	0.51	0.48	-0.03
Employer costs	1.58	1.45	-0.13
California			
Benefits paid	\$1.38	\$1.28	-\$0.10
Medical payments	0.70	0.69	-0.01
Cash payments to workers	0.69	0.58	-0.11
Employer costs	2.32	1.88	-0.44
Outside California			
Benefits paid	\$0.92	\$0.90	-\$0.02
Medical payments	0.44	0.43	-0.01
Cash payments to workers	0.48	0.47	-0.01
Employer costs	1.46	1.39	-0.07

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.

\$55.4 billion in benefits in 2007. Of the total, \$27.2 billion paid for medical care and \$28.3 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 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 2007, Social Security paid \$95.9 billion in cash benefits to disabled workers and their dependents, while Medicare paid \$57.2 billion for health care for disabled persons under age 65 (SSA, 2008d and CMS, 2008).

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 43 percent of all private sector employees are not provided any paid sick leave (BLS, 2007a). 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 \$55.4 billion in 2007, a 2.0 percent increase from \$54.3 billion in 2006. Medical payments increased by 3.3 percent to \$27.2 billion and cash benefits to injured workers slightly increased, to \$28.3 billion, from the prior year (Table 1).

Costs to employers fell by 2.7 percent in 2007 to \$85.0 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 2007, aggregate wages of covered workers rose by 5.6 percent (Table 2). This increase was the combined effect of 1.1 percent increase in covered work-

ers – due to job growth in the economy – and a 4.5 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 2007 (Table 1). Total payments on workers' behalf fell by three cents to \$0.95 per \$100 of covered wages: medical payments fell from \$0.47 per \$100 of wages in 2006 to \$0.46 in 2007, while wage-replacement benefits fell by three cents per \$100 of wages to \$0.48. The cost to employers fell by thirteen cents per \$100 of covered wages, to \$1.45 in 2007 from \$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 19 years. Benefits and

Table 2

Number of Workers Covered under Workers' Compensation Programs and Total Covered Wages, 1989–2007

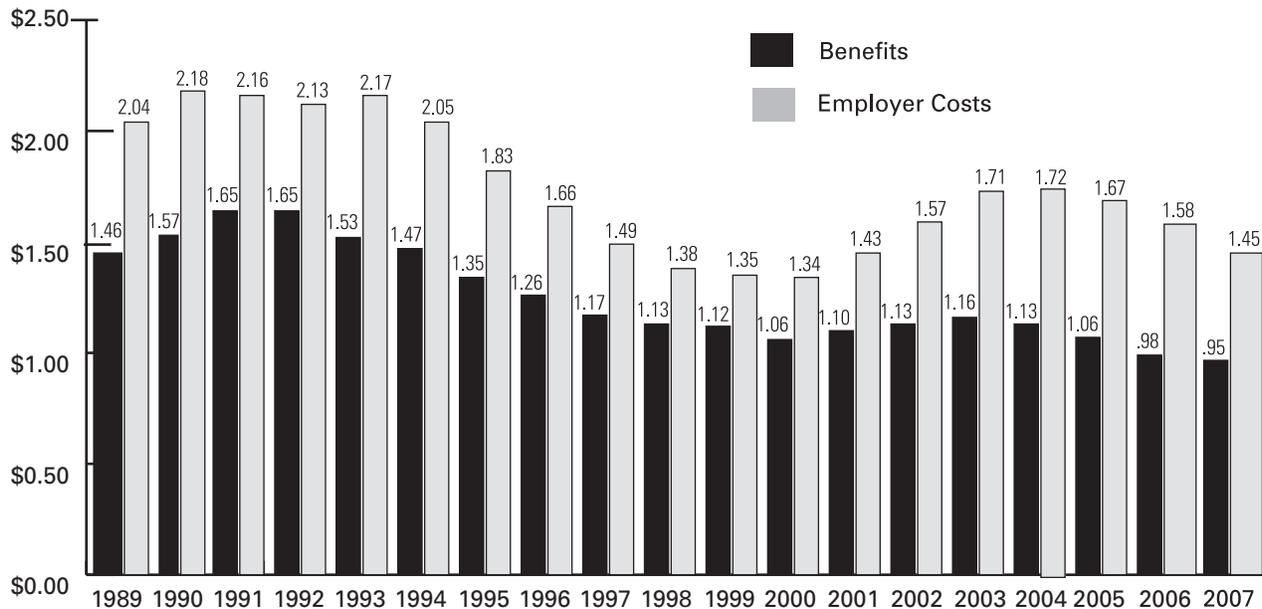
Year	Total Workers		Total Wages	
	(in thousands)	Percent Change	(in billions)	Percent Change
1989	103,900		\$ 2,347	
1990	105,500	1.5	2,442	4.0
1991	103,700	-1.7	2,553	4.5
1992	104,300	0.6	2,700	5.7
1993	106,200	1.8	2,802	3.8
1994	109,400	3.0	2,949	5.2
1995	112,800	3.1	3,123	5.9
1996	114,773	1.7	3,337	6.9
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	125,878	1.0	4,953	5.0
2005	128,158	1.8	5,212	5.2
2006	130,339	1.7	5,543	6.3
2007	131,734	1.1	5,855	5.6

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

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

Figure 1

Workers' Compensation Benefits* and Costs Per \$100 of Covered Wages, 1989–2007**



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.

costs declined sharply from their peaks in the early 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 2007 were at their lowest point in the last nineteen years at \$0.95 per \$100 of wages in 2007 (discussed in detail later in the report). Figure 2 shows the trend in medical and cash payments separately. In 2007, both medical and cash benefits per \$100 of wages were at their lowest point in the past 19 years, at 0.46 and \$0.48 per \$100 of wages respectively.

National Trends With and Without California

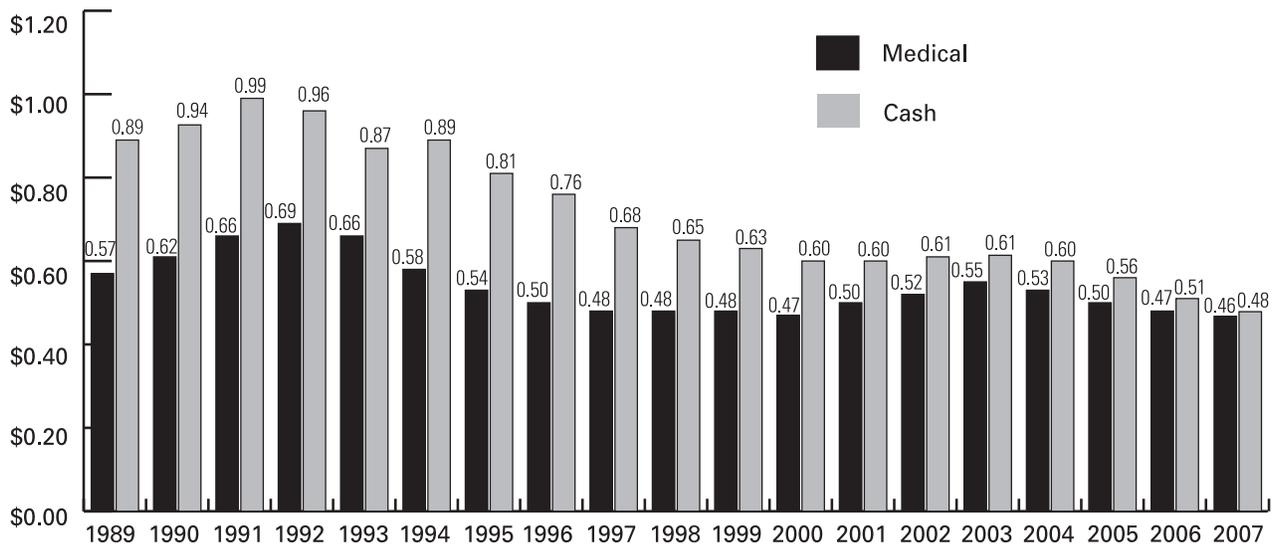
California's workers' compensation program has changed significantly over the past few years. Because it is a big state (with 13.2 percent of national payroll and 17.8 percent of total benefits in 2007), California's large shifts in benefits and employer costs have altered the course of national trends. 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., 2008). California benefits paid to workers and costs to employers continued to decline in 2007.

Figure 2

Workers' Compensation Medical and Cash Benefits Per \$100 of Covered Wages, 1989–2007



Source: National Academy of Social Insurance estimates.

Table 1 shows the 2007 changes in California and in the rest of the nation outside California. California's cash benefit payments dropped 10.0 percent in 2007. California medical benefit payments increased in 2007 after recording a 16 percent drop in 2005 and no change in 2006. Costs to California employers fell 14.3 percent in 2007, after showing a 16.6 percent drop in 2006.

When California is excluded, total benefit payments in the rest of the nation increased by 3.0 percent (in contrast with a 2.0 percent increase when California is included). Employer costs outside California increased slightly by 0.1 percent (in contrast with a drop of 2.7 percent when California is included).

When changes in California are shown relative to aggregate wages of covered workers, medical payments per \$100 of covered wages fell by one cent to \$0.69 while cash benefits fell by 11 cents to \$0.58. Outside California medical and cash benefits both fell by one cent to \$0.43 and \$0.47 per \$100 of wages, and employer costs fell by seven cents to \$1.39 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. Workers' compensation benefits are not subject to federal or state income taxes.

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 and 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. Initial reforms took the form of employer liability acts, which eliminated some of the common-law defenses. Nonetheless, employees still had to prove negligence, which remained a significant obstacle to recovery (Burton and Mitchell, 2003).³ Ultimately, both employers and employees favored workers' compensation legislation to ensure that a worker who sustained an occupational injury or disease arising out of and in the course of employ-

ment 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. 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). Workers' compensation coverage is mandatory in all states but Texas. Generally, state laws require employers who wish to self-insure for workers' compensation to obtain approval from the state regulatory authority, after demonstrating financial ability to carry their own risk (self-insure). For those employers who purchase insurance, the premiums 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, Schmidle, and Burton, 2001). These competitive pricing adjustments vary over the course of the insurance underwriting cycle.

Covered Employment and Wages

In 2007, workers' compensation covered an estimated 131.7 million workers, an increase of 1.1 percent from the 130.3 million workers covered in 2006 (Table 2). Total wages of covered workers were \$5.9 trillion in 2007, an increase of 5.6 percent from 2006. Workers' compensation coverage rules did not change significantly during this period.

3 As a result, the employers' liability approach was abandoned in all jurisdictions and industries except the railroads, where it still exists.

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, 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 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 2007, 97.3 percent of all UI-covered workers and wages were covered by workers' compensation. Self-employed

persons are not covered by unemployment insurance or usually by workers' compensation.

NASI's coverage estimates seek to count the number of workers who are legally required to be covered under the state laws. The methodology may undercount the number of persons who are actually covered. For example, in some states, self-employers may voluntarily elect to be covered and in those states with numerical exemptions, some small firms may voluntarily purchase workers' compensation insurance. The NASI methodology may also overestimate the number of workers actually covered by workers' compensation. Several recent studies have found that actual coverage is less than legally-required coverage because of evasive strategies by employers, 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.

Changes in State Coverage

Because the primary workers' compensation coverage rules did not change between 2006 and 2007, 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 decreased from 77 percent of workers in 2006 to 76 percent in 2007 according to surveys of Texas employers. Only Michigan, Ohio and Rhode Island 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 2007. With regard to wages covered under workers' compensation, all jurisdictions registered increases in 2007 over 2006 (Table 3).

Cash and Medical Benefits

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 1998–2004 (NCCI, 2008). 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 most states. Temporary disability benefits are the most common type of cash

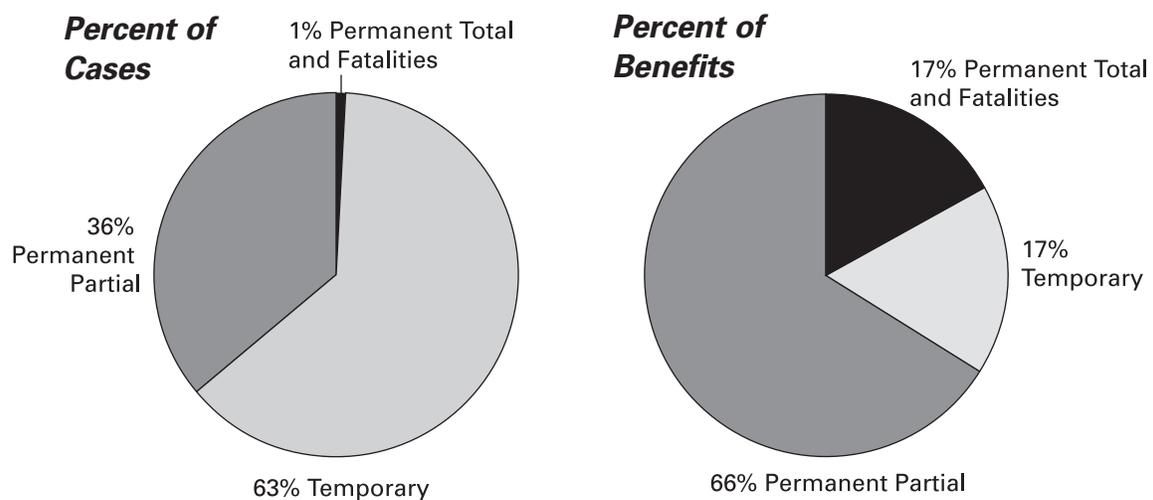
benefits. They account for 63 percent of cases involving cash benefits and 17 percent of benefits incurred (Figure 3).

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 cash benefits, and 17 percent of total cash benefit payments (Figure 3).

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). 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. Cash benefits for permanent partial disability are frequently

Figure 3

Types of Disabilities in Workers’ Compensation Cases with Cash Benefits, 2004



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 2008, Exhibits X and XII.

Table 3**Number of Workers Covered by Workers' Compensation and Total Covered Wages, By State, 2003–2007**

	Covered Workers (in thousands)					Covered Wages (in millions)					2006-2007 2007 % Change	
	2003	2004	2005	2006	2007	2003	2004	2005	2006	2007		
Alabama	1,698	1,720	1,763	1,797	1,823	1.4	\$53,617	\$56,310	\$59,734	63,733	\$66,881	4.9
Alaska	275	279	285	291	294	1.0	10,098	10,582	11,145	11,829	12,576	6.3
Arizona	2,222	2,304	2,438	2,562	2,595	1.3	77,118	83,541	92,048	101,587	106,805	5.1
Arkansas	1,061	1,073	1,092	1,112	1,119	0.6	30,246	32,014	33,674	35,512	37,684	6.1
California	14,553	14,706	14,992	15,256	15,395	0.9	616,879	653,145	689,220	734,344	774,856	5.5
Colorado	2,064	2,090	2,137	2,190	2,241	2.3	79,589	82,643	87,206	93,534	99,900	6.8
Connecticut	1,605	1,611	1,624	1,652	1,666	0.8	77,519	82,095	85,989	90,531	96,705	6.8
Delaware	396	406	412	417	418	0.3	16,166	17,209	18,370	19,259	19,727	2.4
District of Columbia	459	467	474	479	487	1.8	25,560	27,418	28,975	31,082	33,345	7.3
Florida	6,840	7,039	7,309	7,498	7,504	0.1	227,172	245,133	266,392	285,969	295,537	3.3
Georgia	3,597	3,663	3,751	3,838	3,891	1.4	130,129	137,088	144,796	153,029	162,094	5.9
Hawaii	538	554	572	586	594	1.3	17,564	18,893	20,170	21,527	22,751	5.7
Idaho	562	578	601	631	648	2.7	15,890	16,988	18,234	20,259	21,433	5.8
Illinois	5,606	5,611	5,660	5,733	5,782	0.9	226,180	235,915	246,223	260,371	274,339	5.4
Indiana	2,774	2,802	2,827	2,845	2,858	0.5	91,998	96,522	99,459	103,263	106,460	3.1
Iowa	1,385	1,404	1,428	1,453	1,467	1.0	42,247	44,770	46,958	49,539	52,115	5.2
Kansas	1,251	1,263	1,272	1,293	1,324	2.4	38,953	40,854	42,610	45,708	48,589	6.3
Kentucky	1,673	1,688	1,717	1,738	1,760	1.3	52,803	55,423	57,711	60,527	63,553	5.0
Louisiana	1,820	1,831	1,807	1,776	1,837	3.5	55,315	57,648	59,917	64,267	69,554	8.2
Maine	577	583	581	584	588	0.6	17,450	18,282	18,636	19,387	20,272	4.6
Maryland	2,306	2,332	2,372	2,405	2,422	0.7	90,465	95,769	101,405	107,102	112,688	5.2
Massachusetts	3,089	3,087	3,110	3,146	3,185	1.2	142,621	150,515	155,261	164,373	175,410	6.7
Michigan	4,175	4,152	4,148	4,085	4,031	-1.3	163,935	166,930	170,240	171,402	173,932	1.5
Minnesota	2,542	2,567	2,607	2,637	2,655	0.7	97,750	103,238	105,878	110,727	117,268	5.9

Mississippi	1,020	1,026	1,032	1,042	1,057	1.4	27,629	28,730	30,123	31,895	33,524	5.1
Missouri	2,447	2,466	2,499	2,532	2,555	0.9	81,917	85,074	88,993	93,134	97,736	4.9
Montana	380	390	400	413	423	2.6	9,935	10,542	11,342	12,304	13,303	8.1
Nebraska	850	866	876	886	901	1.6	25,571	26,990	28,106	29,637	31,420	6.0
Nevada	1,062	1,127	1,197	1,253	1,265	1.0	37,255	41,514	46,104	49,863	53,018	6.3
New Hampshire	596	605	613	619	622	0.5	22,135	23,566	24,714	26,140	27,104	3.7
New Jersey	3,787	3,812	3,856	3,890	3,900	0.2	174,951	182,512	190,048	200,091	209,120	4.5
New Mexico	688	703	720	748	763	2.0	20,187	21,420	22,790	25,116	26,986	7.4
New York	8,089	8,142	8,220	8,302	8,427	1.5	381,651	405,898	426,395	460,017	500,392	8.8
North Carolina	3,577	3,633	3,707	3,812	3,909	2.5	119,091	125,399	132,140	141,640	150,910	6.5
North Dakota	302	309	316	323	330	1.9	8,221	8,811	9,313	9,978	10,720	7.4
Ohio	5,202	5,214	5,232	5,238	5,230	-0.2	181,304	188,314	193,622	200,236	206,919	3.3
Oklahoma	1,366	1,382	1,420	1,461	1,489	1.9	39,576	41,442	43,994	48,671	51,750	6.3
Oregon	1,533	1,565	1,623	1,671	1,699	1.7	52,299	55,191	58,792	63,001	66,588	5.7
Pennsylvania	5,364	5,390	5,446	5,503	5,549	0.8	196,858	206,104	214,203	225,608	237,990	5.5
Rhode Island	443	447	468	471	470	-0.1	15,906	16,576	17,865	18,771	19,304	2.8
South Carolina	1,679	1,697	1,725	1,759	1,795	2.1	51,154	53,504	56,244	59,723	62,910	5.3
South Dakota	353	358	365	373	381	2.2	9,413	9,930	10,410	11,068	11,828	6.9
Tennessee	2,453	2,494	2,537	2,579	2,598	0.7	81,411	86,074	89,989	95,817	100,434	4.8
Texas	7,102	6,949	7,193	7,498	7,636	1.8	260,476	265,326	286,422	315,913	338,828	7.3
Utah	1,006	1,037	1,080	1,135	1,184	4.3	30,732	32,742	35,320	39,176	43,139	10.1
Vermont	288	292	295	297	297	0.1	9,148	9,610	9,962	10,440	10,864	4.1
Virginia	3,191	3,268	3,348	3,401	3,437	1.1	119,804	128,706	137,742	145,707	153,522	5.4
Washington	2,583	2,625	2,697	2,781	2,857	2.8	99,821	102,162	108,677	118,182	127,500	7.9
West Virginia	656	665	673	683	684	0.2	18,738	19,689	20,550	21,770	22,714	4.3
Wisconsin	2,602	2,626	2,657	2,679	2,694	0.6	86,579	90,812	93,822	98,170	102,040	3.9
Wyoming	232	240	247	260	270	4.2	6,833	7,373	8,087	9,400	10,499	11.7
Total non-federal	121,920	123,139	125,424	127,610	129,007	1.1	4,565,857	4,796,160	5,049,814	5,374,520	5,680,035	5.7
Federal employees	2,764	2,740	2,734	2,729	2,726	-0.1	150,819	158,294	163,663	169,525	176,858	4.3
TOTAL	124,685	125,878	128,158	130,339	131,734	1.1	\$4,716,676	\$4,953,089	\$5,212,075	\$5,542,613	\$5,855,361	5.6

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

limited to a specified duration or an aggregate dollar limit. Permanent partial disabilities account for 36 percent of cases that involve any cash payments and for 66 percent of benefit 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, Helvacian, and Liu., 2002).

Methods for compensating permanent impairments fall into several broad categories (Barth, 2004). About 44 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. Historically the schedules 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:

- ⁿ 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.
- ⁿ 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.
- ⁿ In a *wage-loss approach*, used in 10 states, benefits are paid for the actual or ongoing earnings losses that a worker incurs.

- ⁿ In a *bifurcated approach* used in ten 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, Rhode Island, and Oregon (since 2005) injured workers can qualify for two tracks of permanent partial disability benefits paid concurrently, one of which is designed to compensate for work disability and one of which is designed to compensate for noneconomic loss (Burton, 2008b). The noneconomic loss benefits are known as impairment benefits in Oregon and as specific injuries in Massachusetts. Florida also used the concurrent or dual benefits approach from 1979 to 1990, where one track of benefits was based on the extent of actual wage loss and the other on the degree of permanent impairment.

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 the 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 2003 through 2007. 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 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, 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, Coverage, and Costs, 2007* on the Academy's website at www.nasi.org.

National Trends in Insurance Arrangements

Private insurance carriers remain the largest source of workers' compensation benefits (Table 4). In 2007, they accounted for 51.2 percent of benefits paid (Table 5). Private carriers are allowed to sell workers' compensation insurance in all but four states that have exclusive state funds—Ohio, North Dakota, Washington, and Wyoming.⁴ When benefits paid under deductible arrangements are excluded, privately insured benefits account for 37.4 percent of total benefits paid. (Table 5).

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 declined from 19.6 percent in 2006 to 18.7 percent

in 2007. A total of twenty-six states have state funds that provide workers' compensation insurance. They include the four exclusive state fund states (plus West Virginia, where the former exclusive state fund continued to pay benefits), and twenty-one others in which the state funds compete with private carriers. 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, 2007). 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 2007. 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. Federal benefits also 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 details about federal programs are in Appendix H.

Trends in Deductibles and Self Insurance

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 2007

4 The West Virginia exclusive state fund was no longer selling policies in 2007 but was still paying benefits in 2007 for policies sold in previous years.

Table 4**Workers' Compensation Benefits, by Type of Insurer, 1987–2007 (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	54,739	7.7	28,395	10,442	12,717	3,185	25,733	47.0
2004	55,905	2.1	28,125	11,003	13,521	3,256	26,266	47.0
2005	55,208	-1.2	27,995	10,888	13,066	3,258	26,143	47.4
2006	54,329	-1.6	27,351	10,664	13,043	3,270	26,291	48.4
2007	55,427	2.0	28,382	10,379	13,327	3,340	27,156	49.0

(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 1997–2007, 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.

deductibles totaled \$8.2 billion, which was 14.8 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 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 24.0 percent in 1992 to 34.7 percent in 1995, and then remained between 32 and 36 percent of total bene-

Table 5**Total Amount and Percentage Distribution of Workers' Compensation Benefit Payments by Type of Insurer, 1990–2007**

Year	Total Benefits (in millions)	Percentage Distribution							
		Private Carriers		State Funds		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	54,739	51.9	14.4	19.1	0.9	5.8	23.2	38.5	100.0
2004	55,905	50.3	13.7	19.7	0.9	5.8	24.2	38.8	100.0
2005	55,208	50.7	13.6	19.7	0.9	5.9	23.7	38.1	100.0
2006	54,329	50.3	13.8	19.6	0.9	6.0	24.0	38.7	100.0
2007	55,427	51.2	13.8	18.7	0.9	6.0	24.0	38.8	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.

fits through 2001. Between 2003 and 2007 the combined share has stabilized between 38 and 39 percent of benefit payments (Table 5).

The growth in self-insurance and in deductible policies in the early 1990s, as well as the downturn 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 as well as the rate of change in underlying system costs. Insurers began offering large-deductible policy options as a way to compete with self-insurance even though, in many

cases, insurers were providing first dollar claims administration while receiving less than a first dollar premium. There are several factors influencing decisions to purchase insurance or to self-insure. One is that workers compensation losses usually involve a high frequency of low-cost claims and a low frequency of high-cost claims. This characteristic of workers compensation allows large employers to estimate the annual cost generated by these smaller claims so that their cost can be budgeted for should the employer decide to self-insure, while the employer can protect itself from the more unpredictable large claims through some form of insurance arrangement.

Table 6**Estimated Employer-Paid Benefits under Deductible Provisions for Workers' Compensation, 1992–2007 (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	8,376	7,902	474	15.3
2004	8,159	7,648	511	14.6
2005	7,990	7,487	504	14.5
2006	7,985	7,479	506	14.7
2007	8,185	7,661	524	14.8

* 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.

Another is the direction, amount, and potential for rapid changes in premiums insurers charge for insurance. Residual markets, which are available in many states as the market of last resort for employers unable to secure mandatory workers' compensation coverage in the voluntary market, can also influence such decisions, especially where the regulated price for such coverage is inadequate and employers in the voluntary market may be subject to higher prices needed to fund insurer assessments for residual market losses (a similar experience occurs for policyholders of state funds that are the market of last resort). Also, an employer may decide to self-insure or partially self-insure because it wishes to either administer its own claims or to be free to select a claims administrator other than the insurer. The timing of tax advantages can also make 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. For mergers and acquisitions, the surviving enterprise decides how to handle this risk, e.g. either uniformly under a blanket corporate program consistent with their philosophy or by subsidiary corporation based upon unique risk and tolerance levels. All of these factors can impact trends in insurance, self-insurance, and large deductible purchasing decisions although the strength of the relationships undoubtedly vary over time and, in some cases, the causes and effects and timing are complicated and difficult to document.

Since 1999, the share of benefits paid directly by employers (through self-insurance and large deductibles combined) has been rising. In 2007, the share of benefits paid by employers reached 38.8 per-

cent. In 2007 private carrier payments net of deductibles were 37.4 percent of total payments declining from a comparable share of 45.2 percent in 1999 (Table 5).

State Benefits

On a national level, total benefits (cash plus medical) were 2.0 percent higher in 2007 than in 2006. This national increase in benefit payments was restrained due to the decline in California's benefit payments (2.2 percent), as shown in Table 1. Outside California, benefits for the nation increased by 3.0 percent.

Table 7 shows annual changes in state benefit payments between 2003 and 2007. In fourteen states, benefits declined between 2006 and 2007—California, Colorado, Delaware, District of Columbia, Kentucky, Maine, Massachusetts, Mississippi, Nevada, New Hampshire, New York, South Carolina, Tennessee, and Vermont. The rest of the states showed an increase in benefits.

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

- n Changes in workers' compensation statutes, new court rulings, or new administrative procedures;
- n Changes in the mix of occupations or industries, because jobs differ in their rates of injury and illness;
- n Fluctuations in employment, because more people working means more people at risk of a job-related illness or injury;
- n Changes in wage rates to which benefit levels are linked;
- n Variations in health care practice, which influence the costs of medical care;
- n 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);
- n 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 state are able to provide); and

- n States where procedures or criteria for lump-sum agreements are changed, which may affect the amounts in the agreements classified as indemnity payments or medical benefits, thus altering the share of total benefits reported as medical benefits.

State Benefits by Type of Insurance Arrangements

The shares of workers' compensation benefits by type of insurer vary considerably among the states (Table 8). In the five states with exclusive state funds, the shares accounted for by the state funds vary from 100 percent in North Dakota and 96.8 percent in Wyoming – states that do not allow self-insurance – to 81.4 percent in Ohio and 75.3 percent in Washington – states that allow qualifying employers to self-insure. Private carriers account for a very small percentage of benefits in these states (other than North Dakota). This may be due to policies sold to employers in those states providing multi-state coverage and also some exclusive funds may be restricted to providing state workers' compensation benefits and might not be permitted to offer employers liability coverage, USL&HW Act coverage, or excess coverage for authorized self-insureds.

West Virginia was in a transition during 2007 from a state with an exclusive state fund that allowed self-insurance to a state that will have private insurance carriers and self-insurance but no state fund. During 2007, the state fund still accounted for 58.9 percent of all benefit payments, in part because workers with injuries prior to 2007 were still receiving their benefits from the state fund in that year.

In the twenty-one states with competitive state funds in 2007, the percentage of benefits accounted for by the state funds varied from 59.5 percent in Arizona to 5.4 percent in South Carolina, where the state fund is restricted to providing coverage to state or local government workers within the state.

The share of self-insurance in states that allow, it varies widely by state, ranging from highs of 50.8 percent in Alabama to lows of 13.3 percent in Rhode Island to 0 percent in North Dakota and Wyoming, which do not allow self-insurance. This wide variation in the share of self-insurance reflects the complex nature of the workers' compensation insurance market.

Table 7**Workers' Compensation Benefits* by State (in thousands) and Annual Percent Change, 2003–2007**

State	2003	2004	2005	2006	2007	Percent Change				
						2003-2004	2004-2005	2005-2006	2006-2007	
Alabama ²	\$543,279	\$532,000	\$565,013	\$562,632	\$584,941	-2.1	6.2	-0.4	4.0	
Alaska ²	176,521	185,082	182,721	182,036	184,080	4.8	-1.3	-0.4	1.1	
Arizona ³	515,231	562,545	538,785	608,258	647,417	9.2	-4.2	12.9	6.4	
Arkansas ^{1,6,7}	227,332	235,917	212,534	223,269	242,743	3.8	-9.9	5.1	8.7	
California ²	12,445,277	12,477,592	10,924,388	10,142,772	9,916,028	0.3	-12.4	-7.2	-2.2	
Colorado ¹	753,566	844,615	887,997	860,748	829,747	12.1	5.1	-3.1	-3.6	
Connecticut ¹	677,461	712,388	708,413	708,049	725,915	5.2	-0.6	-0.1	2.5	
Delaware ^{1,5,7}	155,888	161,075	182,959	203,097	195,339	3.3	13.6	11.0	-3.8	
District of Columbia ^{1,5}	84,594	97,122	91,585	91,522	87,695	14.8	-5.7	-0.1	-4.2	
Florida ¹	2,962,350	2,818,396	2,991,066	2,611,363	2,684,761	-4.9	6.1	-12.7	2.8	
Georgia ^{1,5}	998,192	1,134,215	1,214,855	1,214,622	1,339,121	13.6	7.1	0.0	10.3	
Hawaii ²	274,922	271,290	250,779	242,685	247,294	-1.3	-7.6	-3.2	1.9	
Idaho ^{1,5}	214,764	237,782	245,451	244,788	276,108	10.7	3.2	-0.3	12.8	
Illinois ^{1,5}	2,168,210	2,275,955	2,403,734	2,479,051	2,722,402	5.0	5.6	3.1	9.8	
Indiana ^{1,6}	563,951	593,139	607,416	606,909	643,783	5.2	2.4	-0.1	6.1	
Iowa ^{1,5}	430,451	454,172	485,399	493,881	509,546	5.5	6.9	1.7	3.2	
Kansas ^{1,6}	295,588	370,697	384,849	384,201	393,722	25.4	3.8	-0.2	2.5	
Kentucky ^{1,5}	727,922	731,983	696,870	654,570	647,706	0.6	-4.8	-6.1	-1.0	
Louisiana ¹	669,838	725,819	548,760	571,955	579,810	8.4	-24.4	4.2	1.4	
Maine ¹	233,599	267,617	272,194	284,660	271,495	14.6	1.7	4.6	-4.6	
Maryland ¹	716,294	773,854	759,153	808,363	830,927	8.0	-1.9	6.5	2.8	
Massachusetts ^{1,7}	1,014,587	968,835	904,087	938,408	887,673	-4.5	-6.7	3.8	-5.4	
Michigan ²	1,476,850	1,517,386	1,473,598	1,464,204	1,501,538	2.7	-2.9	-0.6	2.5	
Minnesota ³	892,341	915,753	922,344	921,232	936,085	2.6	0.7	-0.1	1.6	
Mississippi ¹	291,688	310,513	311,911	338,058	331,508	6.5	0.5	8.4	-1.9	
Missouri ²	806,029	883,406	869,813	808,763	853,967	9.6	-1.5	-7.0	5.6	
Montana ²	204,975	209,820	224,790	231,804	240,997	2.4	7.1	3.1	4.0	
Nebraska ^{1,5}	270,035	288,156	302,790	265,848	291,068	6.7	5.1	-12.2	9.5	
Nevada ²	329,333	358,732	386,333	393,555	377,749	8.9	7.7	1.9	-4.0	

New Hampshire ^{1,5}	222,430	213,745	217,451	212,364	200,208	-3.9	1.7	-2.3	-5.7
New Jersey ^{1,5}	1,489,221	1,511,146	1,618,630	1,836,524	1,967,609	1.5	7.1	13.5	7.1
New Mexico ²	190,840	198,267	230,591	237,551	239,536	3.9	16.3	3.0	0.8
New York ^{2,7}	3,123,197	3,352,577	3,191,358	3,303,113	3,204,053	7.3	-4.8	3.5	-3.0
North Carolina ^{1,5}	1,087,880	1,173,827	1,392,488	1,334,831	1,340,245	7.9	18.6	-4.1	0.4
North Dakota ³	78,453	83,237	82,033	81,297	91,612	6.1	-1.4	-0.9	12.7
Ohio ⁴	2,414,651	2,434,715	2,447,038	2,383,544	2,478,080	0.8	0.5	-2.6	4.0
Oklahoma ¹	554,839	577,384	588,511	626,863	656,359	4.1	1.9	6.5	4.7
Oregon ³	499,625	535,509	548,420	562,483	585,699	7.2	2.4	2.6	4.1
Pennsylvania ³	2,565,344	2,594,070	2,677,899	2,684,611	2,747,847	1.1	3.2	0.3	2.4
Rhode Island ^{1,6}	132,301	145,148	139,374	154,713	154,931	9.7	-4.0	11.0	0.1
South Carolina ³	656,935	688,115	769,553	795,636	771,281	4.7	11.8	3.4	-3.1
South Dakota ²	74,241	77,409	85,889	108,550	119,351	4.3	11.0	26.4	9.9
Tennessee ^{1,5,6}	778,672	807,603	812,900	872,351	764,896	3.7	0.7	7.3	-12.3
Texas ^{1,6}	1,971,510	1,630,461	1,552,690	1,393,021	1,423,150	-17.3	-4.8	-10.3	2.2
Utah ^{1,5}	188,900	218,375	239,502	242,027	267,856	15.6	9.7	1.1	10.7
Vermont ^{1,6}	120,208	123,333	121,691	124,488	118,987	2.6	-1.3	2.3	-4.4
Virginia ^{2,5}	712,867	763,544	856,137	831,260	1,058,759	7.1	12.1	-2.9	27.4
Washington ⁴	1,800,551	1,836,005	1,846,324	1,926,515	1,994,598	2.0	0.6	4.3	3.5
West Virginia ^{4,6}	823,300	749,812	693,764	645,467	699,748	-8.9	-7.5	-7.0	8.4
Wisconsin ⁴	833,005	898,366	1,170,055	1,043,244	1,094,074	7.8	30.2	-10.8	4.9
Wyoming ⁴	114,252	120,062	116,528	117,311	126,983	5.1	-2.9	0.7	8.2
Non-federal total	\$51,554,290	\$52,648,566	\$51,949,416	\$51,059,066	\$52,087,023	2.1	-1.3	-1.7	2.0
Federal ^a	3,184,685	3,256,202	3,258,155	3,270,322	3,339,892	2.2	0.1	0.4	2.1
Federal employees ^b	2,367,757	2,445,077	2,462,059	2,454,861	2,586,700	3.3	0.7	-0.3	5.4
TOTAL	\$54,738,975	\$55,904,768	\$55,207,571	\$54,329,388	\$55,426,915	2.1	-1.2	-1.6	2.0

* 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, 2007
(in thousands)

State	Private Carriers		State Funds		Self-Insured ^b		Totals	Percent Medical	Medical ^c
	Benefits	Percent Share	Benefits	Percent Share	Benefits	Percent Share			
Alabama	\$287,882	49.2	\$0		\$297,059	50.8	\$ 584,941	68.5	\$400,827
Alaska	132,685	72.1			51,395	27.9	184,080	62.5	115,124
Arizona	154,150	23.8	384,964	59.5	108,303	16.7	647,417	68.9	446,226
Arkansas	154,463	63.6			88,280	36.4	242,743	63.6	154,265
California	4,738,130	47.8	1,982,559	20.0	3,195,339	32.2	9,916,028	54.3	5,384,927
Colorado	229,988	27.7	408,023	49.2	191,736	23.1	829,747	47.5	394,027
Connecticut	538,338	74.2			187,577	25.8	725,915	43.7	317,296
Delaware	146,158	74.8			49,181	25.2	195,339	57.1	111,539
District of Columbia	70,704	80.6			16,991	19.4	87,695	36.6	32,116
Florida	1,959,011	73.0			725,749	27.0	2,684,761	62.3	1,671,543
Georgia	961,999	71.8			377,122	28.2	1,339,121	48.5	649,417
Hawaii	129,383	52.3	33,022	13.4	84,889	34.3	247,294	42.3	104,568
Idaho	72,310	26.2	146,649	53.1	57,149	20.7	276,108	60.9	168,179
Illinois	2,024,567	74.4			697,836	25.6	2,722,402	47.2	1,285,856
Indiana	535,086	83.1			108,697	16.9	643,783	70.2	452,076
Iowa	393,463	77.2			116,083	22.8	509,546	51.6	262,771
Kansas	273,370	69.4			120,352	30.6	393,722	61.3	241,166
Kentucky	350,376	54.1	85,220	13.2	212,111	32.7	647,706	58.0	375,870
Louisiana	292,128	50.4	151,785	26.2	135,896	23.4	579,810	52.6	305,170
Maine	95,085	35.0	90,873	33.5	85,537	31.5	271,495	43.3	117,631
Maryland	440,618	53.0	234,812	28.3	155,497	18.7	830,927	43.1	357,981
Massachusetts	766,945	86.4			120,729	13.6	887,673	34.7	308,171
Michigan	912,633	60.8			588,906	39.2	1,501,538	35.6	534,444
Minnesota	630,571	67.4	55,222	5.9	250,292	26.7	936,085	51.8	484,745
Mississippi	184,455	55.6			147,053	44.4	331,508	57.9	192,040
Missouri	536,166	62.8	85,672	10.0	232,129	27.2	853,967	54.6	465,895
Montana	70,821	29.4	126,090	52.3	44,086	18.3	240,997	56.7	136,760
Nebraska	219,885	75.5			71,183	24.5	291,068	62.8	182,763
Nevada	255,528	67.6			122,221	32.4	377,749	45.6	172,386

New Hampshire	158,924	79.4	41,283	20.6	200,208	61.4	122,993
New Jersey	1,501,895	76.3	465,714	23.7	1,967,609	48.0	944,548
New Mexico	123,101	51.4	85,247	35.6	239,536	58.6	140,441
New York	1,486,568	46.4	758,368	23.7	3,204,053	36.0	1,153,459
North Carolina	968,220	72.2	372,025	27.8	1,340,245	45.7	612,947
North Dakota ^a			91,612	100.0	91,612	56.2	51,485
Ohio ^a	19,335	0.8	441,131	17.8	2,478,080	41.5	1,029,325
Oklahoma	265,417	40.4	129,477	19.7	656,359	43.0	282,015
Oregon	229,444	39.2	82,346	14.1	585,699	53.5	313,250
Pennsylvania	1,793,764	65.3	611,899	22.3	2,747,847	44.6	1,226,746
Rhode Island	42,676	27.5	20,645	13.3	154,931	34.6	53,676
South Carolina	555,769	72.1	173,893	22.5	771,281	41.9	323,201
South Dakota	102,731	86.1	16,620	13.9	119,351	66.6	79,472
Tennessee	632,731	82.7	132,165	17.3	764,896	54.0	413,099
Texas	814,669	57.2	295,157	20.7	1,423,150	61.0	868,336
Utah	81,644	30.5	52,929	19.8	267,856	70.5	188,909
Vermont	102,831	86.4	16,156	13.6	118,987	50.4	59,968
Virginia	796,504	75.2	262,255	24.8	1,058,759	57.4	607,537
Washington ^a	21,894	1.1	470,743	23.6	1,994,598	36.3	723,207
West Virginia ^d	192,785	27.6	95,009	13.6	699,748	50.1	350,808
Wisconsin	930,006	85.0	164,068	15.0	1,094,074	74.2	811,496
Wyoming ^a	4,024	3.2	122,959	96.8	126,983	50.1	63,661
Non-federal total	\$28,381,828	54.5	\$13,326,508	25.6	\$52,087,023	50.4	\$26,246,357
Federal ^e					3,339,892	27.2	909,808
Federal employees ^f					2,586,700	29.1	752,742
TOTAL					\$55,426,915	49.0	\$27,156,165

* 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, 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 For further details see Appendix C1.

^d West Virginia completed the transition from monopolistic state fund to competitive insurance status on July 1, 2008.

^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 Included in the Federal benefits total.

^g These data may not include second injury fund for all states and may be an understatement of total payments data.

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, 2006-2007^a
(in thousands)

State	2006			2007			2006-2007 Percent Change		
	Medical	Cash	Total	Medical	Cash	Total	Medical	Cash	Total
Alabama	\$374,713	\$187,919	\$562,632	\$400,827	\$184,114	\$584,941	7.0	-2.0	4.0
Alaska	106,309	75,727	182,036	115,124	68,957	184,080	8.3	-8.9	1.1
Arizona	421,523	186,735	608,258	446,226	201,191	647,417	5.9	7.7	6.4
Arkansas	143,339	79,930	223,269	154,265	88,478	242,743	7.6	10.7	8.7
California	5,107,964	5,034,808	10,142,772	5,384,927	4,531,102	9,916,028	5.4	-10.0	-2.2
Colorado	423,488	437,260	860,748	394,027	435,719	829,747	-7.0	-0.4	-3.6
Connecticut	313,666	394,383	708,049	317,296	408,618	725,915	1.2	3.6	2.5
Delaware	118,202	\$84,894.50	203,097	111,539	83,800	195,339	-5.6	-1.3	-3.8
District of Columbia	37,341	54,181	91,522	32,116	55,579	87,695	-14.0	2.6	-4.2
Florida	1,671,272	940,091	2,611,363	1,671,543	1,013,218	2,684,761	0.0	7.8	2.8
Georgia	612,169	602,452	1,214,622	649,417	689,704	1,339,121	6.1	14.5	10.3
Hawaii	98,773	143,912	242,685	104,568	142,725	247,294	5.9	-0.8	1.9
Idaho	151,768	93,019	244,788	168,179	107,929	276,108	10.8	16.0	12.8
Illinois	1,194,902	1,284,148	2,479,051	1,285,856	1,436,547	2,722,402	7.6	11.9	9.8
Indiana	420,588	186,321	606,909	452,076	191,708	643,783	7.5	2.9	6.1
Iowa	259,781	234,100	493,881	262,771	246,775	509,546	1.2	5.4	3.2
Kansas	225,142	159,059	384,201	241,166	152,556	393,722	7.1	-4.1	2.5
Kentucky	385,541	269,028	654,570	375,870	271,836	647,706	-2.5	1.0	-1.0
Louisiana	301,992	269,963	571,955	305,170	274,640	579,810	1.1	1.7	1.4
Maine	116,995	167,665	284,660	117,631	153,864	271,495	0.5	-8.2	-4.6
Maryland	349,213	459,150	808,363	357,981	472,946	830,927	2.5	3.0	2.8
Massachusetts	331,427	606,981	938,408	308,171	579,503	887,673	-7.0	-4.5	-5.4
Michigan	545,782	918,422	1,464,204	534,444	967,094	1,501,538	-2.1	5.3	2.5
Minnesota	468,569	452,662	921,232	484,745	451,340	936,085	3.5	-0.3	1.6
Mississippi	196,750	141,308	338,058	192,040	139,468	331,508	-2.4	-1.3	-1.9
Missouri	423,792	384,971	808,763	465,895	388,072	853,967	9.9	0.8	5.6

Montana	133,519	98,285	231,804	136,760	104,237	240,997	2.4	6.1	4.0
Nebraska	166,687	99,161	265,848	182,763	108,305	291,068	9.6	9.2	9.5
Nevada	177,493	216,062	393,555	172,386	205,363	377,749	-2.9	-5.0	-4.0
New Hampshire	126,781	85,583	212,364	122,993	77,215	200,208	-3.0	-9.8	-5.7
New Jersey	910,368	926,156	1,836,524	944,548	1,023,061	1,967,609	3.8	10.5	7.1
New Mexico	136,354	101,197	237,551	140,441	99,095	239,536	3.0	-2.1	0.8
New York	1,189,121	2,113,993	3,303,113	1,153,459	2,050,594	3,204,053	-3.0	-3.0	-3.0
North Carolina	598,004	736,826	1,334,831	612,947	727,298	1,340,245	2.5	-1.3	0.4
North Dakota	45,218	36,079	81,297	51,485	40,128	91,612	13.9	11.2	12.7
Ohio	1,051,774	1,331,770	2,383,544	1,029,325	1,448,755	2,478,080	-2.1	8.8	4.0
Oklahoma	276,447	350,416	626,863	282,015	374,343	656,359	2.0	6.8	4.7
Oregon	303,741	258,742	562,483	313,250	272,449	585,699	3.1	5.3	4.1
Pennsylvania	1,176,607	1,508,004	2,684,611	1,226,746	1,521,101	2,747,847	4.3	0.9	2.4
Rhode Island	51,055	103,658	154,713	53,676	101,254	154,931	5.1	-2.3	0.1
South Carolina	364,999	430,637	795,636	323,201	448,080	771,281	-11.5	4.1	-3.1
South Dakota	70,558	37,993	108,550	79,472	39,878	119,351	12.6	5.0	9.9
Tennessee	450,133	422,218	872,351	413,099	351,797	764,896	-8.2	-16.7	-12.3
Texas	844,171	548,850	1,393,021	868,336	554,814	1,423,150	2.9	1.1	2.2
Utah	169,661	72,366	242,027	188,909	78,947	267,856	11.3	9.1	10.7
Vermont	62,617	61,870	124,488	59,968	59,019	118,987	-4.2	-4.6	-4.4
Virginia	495,431	335,829	831,260	607,537	451,222	1,058,759	22.6	34.4	27.4
Washington	694,541	1,231,974	1,926,515	723,207	1,271,391	1,994,598	4.1	3.2	3.5
West Virginia	320,463	325,004	645,467	350,808	348,939	699,748	9.5	7.4	8.4
Wisconsin	758,351	284,893	1,043,244	811,496	282,578	1,094,074	7.0	-0.8	4.9
Wyoming	58,243	59,068	117,311	63,661	63,322	126,983	9.3	7.2	8.2
Non-federal total	25,433,340	25,625,726	51,059,066	26,246,357	25,840,666	52,087,023	3.2	0.8	2.0

a For more detail on state by state methodologies, see, *Sources and Methods: A Companion to Workers' Compensation: Benefits, Coverage, and Costs, 2007* 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.

Medical Benefits by State

The share of benefits for medical care varies among states (Table 8). In 2007, the share of benefit spending for medical care ranged from lows of less than 40 percent—in the District of Columbia, Massachusetts, Michigan, New York, Rhode Island, and Washington—to highs of over 60 percent in Alabama, Alaska, Arizona, Arkansas, Florida, Idaho, Indiana, Kansas, Nebraska, New Hampshire, South Dakota, Texas, Utah and Wisconsin.

Many factors in a state can influence the relative share of benefits for medical care as opposed to cash benefits. Among them are:

- n Differences in waiting periods for cash benefits and levels of earnings replacement provided by cash benefits, which meant that, all else being equal, states with more generous cash benefits have a lower share of benefits used for medical care;
- n Differences in medical costs, medical practices, and the role of workers' compensation programs in regulating allowable medical costs;
- n Differences in prevalence of lump-sum settlements which can obscure ultimate medical cost.
- n Differences in the role of the state agency, statutes and case law in defining the limits of medical necessity; and
- n Differences in 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 (NCCI) for most states and where NCCI data were not available medical benefits were based on reports from the states. Methods for estimating medical benefits are described in Appendix F.

Over time, the share of benefits for medical care as opposed to cash benefits in each state is affected by the growth rates for these categories of benefits in the state. Among the 51 states (including the District of Columbia), on average from 2006 to 2007, medical benefits increased by 3.2 percent, cash benefits by 0.8 percent, and total (cash plus medical) benefits by 2.0 percent (Table 9).

These averages may be misleading because they include disparate experiences among the states. Among the 37 states with positive total benefit increases (exceeding 0.0 percent), 20 states had increases in medical benefits that exceeded the change in cash benefits, for example, in Missouri, medical benefits increased by 9.9 percent and cash benefits increased by only 0.8 percent; and in Alabama, medical benefits increased by 7.0 percent while cash benefits decreased by 2.0 percent. In the other 17 states with positive total benefit increases (exceeding 0.0 percent), cash benefits increased more rapidly than medical benefits, in Arizona, for example, cash benefits were up 7.7 percent and medical benefits were up 5.9 percent.

Among the 14 states with negative total benefit changes, 5 states had medical benefits that declined more rapidly than cash benefits, such as Colorado, where medical benefits dropped by 7.0 percent while cash benefits dropped by 0.4 percent. However, 4 states had medical benefits that declined less rapidly than cash benefits, such as Nevada, where medical benefits were down 2.9 percent and cash benefits were down 5.0 percent.

While the long-term national trend has been for medical benefits to grow more rapidly than cash benefits (as shown in Figure 2) experience varies greatly among states and from year to year.

State Benefits Relative to Wages

One way to standardize state benefit payments to take account of states' differing sizes of their labor forces 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 or due to other factors.

Benefits per \$100 of covered payroll by state in 2003 through 2007 are shown in Table 10. In 2007 nationally, covered payroll rose by 5.6 percent (Table 3). In five jurisdictions covered payroll rose more than eight percentage points—Louisiana, Montana, New York, Utah, 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. There are 20 states where there was a decrease in benefits relative to covered payroll, in contrast to an increase in the total dollar amount of benefits. An example is Alaska, where between 2006 and 2007 there was a 1.1 percent increase in the total benefits but benefits per \$100 of covered wages decreased by eight cents.

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 other effects of their injuries 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 why it is inappropriate to use 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 for most 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, which resulted in high earnings losses.

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, injured workers may have their benefits reduced by litigation costs for which they are responsible. The amount of these costs will vary from state to state depending on the state's level of litigation, the magnitude of these costs, and the proportion of the costs for which the worker is responsible.

Fourth, in some states, features of the workers' compensation system, employer programs, or labor relations conditions may lead to more effective returns to productive employment for injured workers. Other things equal, a state with better returns to work will have more adequate benefits than another state that pays the same benefits per injured worker.

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, Schmidle, and Burton, 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 benefits 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 statutes 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

Table 10**Workers' Compensation Benefits Per \$100 of Covered Wages, by State, 2003–2007**

	2003	2004	2005	2006	2007	Dollar Amount Change	
						2006-2007	2003-2007
Alabama	\$1.01	\$0.94	\$0.95	\$0.88	\$0.87	-\$0.01	-\$0.14
Alaska	1.75	1.75	1.64	1.54	1.46	-0.08	-0.28
Arizona	0.67	0.67	0.59	0.60	0.61	0.01	-0.06
Arkansas	0.75	0.74	0.63	0.63	0.64	0.02	-0.11
California	2.02	1.91	1.59	1.38	1.28	-0.10	-0.74
Colorado	0.95	1.02	1.02	0.92	0.83	-0.09	-0.12
Connecticut	0.87	0.87	0.82	0.78	0.75	-0.03	-0.12
Delaware	0.96	0.94	1.00	1.05	0.99	-0.06	0.03
District of Columbia	0.33	0.35	0.32	0.29	0.26	-0.03	-0.07
Florida	1.30	1.15	1.12	0.91	0.91	0.00	-0.40
Georgia	0.77	0.83	0.84	0.79	0.83	0.03	0.06
Hawaii	1.57	1.44	1.24	1.13	1.09	-0.04	-0.48
Idaho	1.35	1.40	1.35	1.21	1.29	0.08	-0.06
Illinois	0.96	0.96	0.98	0.95	0.99	0.04	0.03
Indiana	0.61	0.61	0.61	0.59	0.60	0.02	-0.01
Iowa	1.02	1.01	1.03	1.00	0.98	-0.02	-0.04
Kansas	0.76	0.91	0.90	0.84	0.81	-0.03	0.05
Kentucky	1.38	1.32	1.21	1.08	1.02	-0.06	-0.36
Louisiana	1.21	1.26	0.92	0.89	0.83	-0.06	-0.38
Maine	1.34	1.46	1.46	1.47	1.34	-0.13	0.00
Maryland	0.79	0.81	0.75	0.75	0.74	-0.02	-0.05
Massachusetts	0.71	0.64	0.58	0.57	0.51	-0.06	-0.21
Michigan	0.90	0.91	0.87	0.85	0.86	0.01	-0.04
Minnesota	0.91	0.89	0.87	0.83	0.80	-0.03	-0.11
Mississippi	1.06	1.08	1.04	1.06	0.99	-0.07	-0.07
Missouri	0.98	1.04	0.98	0.87	0.87	0.01	-0.11
Montana	2.06	1.99	1.98	1.88	1.81	-0.07	-0.25
Nebraska	1.06	1.07	1.08	0.90	0.93	0.03	-0.13
Nevada	0.88	0.86	0.84	0.79	0.71	-0.08	-0.17
New Hampshire	1.00	0.91	0.88	0.81	0.74	-0.07	-0.27
New Jersey	0.85	0.83	0.85	0.92	0.94	0.02	0.09
New Mexico	0.95	0.93	1.01	0.95	0.89	-0.06	-0.06
New York	0.82	0.83	0.75	0.72	0.64	-0.08	-0.18
North Carolina	0.91	0.94	1.05	0.94	0.89	-0.05	-0.03
North Dakota	0.95	0.94	0.88	0.81	0.85	0.04	-0.10
Ohio	1.33	1.29	1.26	1.19	1.20	0.01	-0.13
Oklahoma	1.40	1.39	1.34	1.29	1.27	-0.02	-0.13
Oregon	0.96	0.97	0.93	0.89	0.88	-0.01	-0.08
Pennsylvania	1.30	1.26	1.25	1.19	1.15	-0.04	-0.15
Rhode Island	0.83	0.88	0.78	0.82	0.80	-0.02	-0.03
South Carolina	1.28	1.29	1.37	1.33	1.23	-0.11	-0.06

continued on p.27

Table 10 continued**Workers' Compensation Benefits Per \$100 of Covered Wages, by State, 2003–2007**

	2003	2004	2005	2006	2007	Dollar Amount Change	
						2006-2007	2003-2007
South Dakota	0.79	0.78	0.83	0.98	1.01	0.03	0.22
Tennessee	0.96	0.94	0.90	0.91	0.76	-0.15	-0.19
Texas	0.76	0.61	0.54	0.44	0.42	-0.02	-0.34
Utah	0.61	0.67	0.68	0.62	0.62	0.00	0.01
Vermont	1.31	1.28	1.22	1.19	1.10	-0.10	-0.22
Virginia	0.60	0.59	0.62	0.57	0.69	0.12	0.09
Washington	1.80	1.80	1.70	1.63	1.56	-0.07	-0.24
West Virginia	4.39	3.81	3.38	2.96	3.08	0.12	-1.31
Wisconsin	0.96	0.99	1.25	1.06	1.07	0.01	0.11
Wyoming	1.67	1.63	1.44	1.25	1.21	-0.04	-0.46
Total non-federal	1.13	1.10	1.03	0.95	0.92	-0.03	-0.21
Federal Employees(a)	1.57	1.54	1.50	1.45	1.46	0.01	-0.11
Total	1.16	1.13	1.06	0.98	0.95	-0.03	-0.21

a includes FECA only.

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

changed its statutes either to lower future benefits 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 2007 were \$85.0 billion, a decrease of 2.7 percent from \$87.3 billion in 2006 (Table 11). Relative to total wages of covered workers, employer costs decreased by 13 cents to \$1.45 per \$100 of covered wages in 2007 from \$1.58 per \$100 of covered wages in 2006 (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

Table 11**Employer Costs for Workers' Compensation by Type of Insurer, 1987–2007
(in millions)**

Year	Total	%	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	65,705	9.4	37,768	57.5	10,598	16.1	3,778	5.8	13,561	20.6
2002	72,577	10.5	41,295	56.9	13,698	18.9	3,898	5.4	13,686	18.9
2003	80,557	11.0	45,276	56.2	16,414	20.4	3,970	4.9	14,897	18.5
2004	85,197	5.8	47,921	56.2	17,494	20.5	4,073	4.8	15,709	18.4
2005	86,949	2.1	50,805	58.4	16,532	19.0	4,096	4.7	15,515	17.8
2006	87,316	0.4	51,715	59.2	15,815	18.1	4,138	4.7	15,649	17.9
2007	84,959	-2.7	50,812	59.8	14,334	16.9	4,236	5.0	15,577	18.3

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 1997–2007, 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.

Insurance Commissioners. These administrative costs include expenses for direct defense and cost containment, 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, 2008a). For employers who purchase insur-

ance 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

Table 12**Workers' Compensation Benefit* and Cost** Ratios, 1989–2007**

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	\$1.46	\$0.71	\$0.57	\$0.89
1990	2.18	1.57	0.70	0.62	0.94
1991	2.16	1.65	0.76	0.66	0.99
1992	2.13	1.65	0.78	0.69	0.96
1993	2.17	1.53	0.71	0.66	0.87
1994	2.05	1.47	0.72	0.58	0.89
1995	1.83	1.35	0.74	0.54	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	1.43	1.10	0.77	0.50	0.60
2002	1.57	1.13	0.72	0.52	0.61
2003	1.71	1.16	0.68	0.55	0.61
2004	1.72	1.13	0.66	0.53	0.60
2005	1.67	1.06	0.63	0.50	0.56
2006	1.58	0.98	0.62	0.47	0.51
2007	1.45	0.95	0.65	0.46	0.48

* 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.

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 insurance 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 \$50.8 billion in 2007, or approximately 59.8 percent of total costs. Self-insurers accounted for 18.3 percent of total employer costs, state funds represented 16.9 percent of costs, and federal programs were 5.0 percent (Table 11).

Trends in Benefits and Costs

Table 12 shows the trend in benefits paid and employer costs per \$100 of covered wages over the last 19 years. Since 2004, workers' compensation benefits and employers' cost relative to covered wages have been on the decline and continued to fall in 2007. Nationally, employer costs of \$1.45 per \$100 of covered wages in 2007 remained above their lowest point at \$1.34 per \$100 of wages in 2000, but were well below their 1990 level of \$2.18 per \$100 of wages.⁵ The benefits paid per \$1 of employer costs is \$0.65 in 2007, an increase by three cents from 2006.

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 largely determined by premiums paid in the year. Premiums paid by employers do not necessarily match benefits received by 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 2007 include benefit payments during the year for 2007 injuries, plus reserves for payment of benefits for the 2007 injuries in 2008 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 premiums 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 could 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 profitability (or lack thereof) will affect the extent of dividends, schedule ratings, and deviations offered by the insurers. Burton (2008a) indicated that "the underwriting results for the workers' compensation insurance industry deteriorated in 2007, but remained highly profitable by historical standards according to results from A.M. Best".

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 NCCI has information on privately insured workers' compensation claims in forty-one states (NCCI, 2008b).

Fatalities at Work

A total of 5,657 fatal work injuries occurred in 2007 (Table 13), which is a 3.1 percent decrease from the number reported in 2006. Only 2002 and 2003 had lower fatality totals than the final 2007 count. Transportation incidents continued to be the leading cause of on-the-job fatalities in 2007, accounting for 39.5 percent of the total. Contact with objects and equipment, assault and violent acts (homicides, and self-inflicted injuries), and falls were the other leading causes of death, accounting for 16.2 percent, 14.8 percent, and 14.7 percent respectively (U.S. DOL, 2008b).

5 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 seven cents per \$100 of covered wages (Table 1).

Table 13
Number of Fatal Occupational Injuries,
1992–2007

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
2007	5,657

Source: U.S. DOL 2008b.
<http://www.bls.gov/news.release/pdf/cfoi.pdf>

Nonfatal Injuries and Illnesses

The Bureau of Labor Statistics reports a total of 4.0 million nonfatal workplace injuries and illnesses in private industry workplaces during 2007, resulting in a rate of 4.2 cases per one hundred full-time equivalent workers (U.S. DOL, 2008d). 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 (incidence rates) 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 2007 (U.S. DOL, 2008d). The rate of such reported injuries or illnesses per one hundred full-time workers declined from 3.0 in 1992 to 1.2

in 2007 (Table 14). Some of the most common workplace injuries and illnesses are: Sprains and strains (38.7 percent); bruises and contusions (8.7 percent); cuts and lacerations (7.9 percent); fractures (8.2 percent); heat burns (1.5 percent); carpal tunnel syndrome (1.0 percent); and tendonitis, chemical burns and amputations (1.4 percent) (U.S.DOL, 2008e).

NCCI reports on the frequency of workers' compensation claims for privately insured employers and some state funds in thirty-six 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 49.9 percent between 1992 and 2004. This decline is very similar to the decline in injuries reported by the BLS that involved days away from work. Between 1992 and 2004, the incidence of injuries that involved days away from work declined by about 53 percent (from 3.0 per one hundred full-time workers in 1992 to 1.4 per one hundred full-time workers in 2004) (Table 14). The frequency of total workers' compensation claims—including medical-only cases that involve little or no lost work time—declined by about 44.9 percent between 1992 and 2004. This rate of decline is similar to the 46.1 percent decline in the incidence rate for all injuries reported to the BLS in the same period (from 8.9 to 4.8 per one hundred full-time workers between 1992 and 2004).

Injury Reporting

Studies during the past several decades have consistently concluded that various systems — including the BLS Survey of Occupational Injuries and Illnesses and state workers' compensation programs — undercount both workplace injuries and illnesses. However, if the extent of under-reporting remained constant over time, the undercounting 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 work-time received workers' compensation benefits. A study by Lakdawalla and Reville based on the National Longitudinal Survey of Youth indicates that 55 percent of reported occupational injuries result in workers' compensation claims. Smith et al. (2005)

Table 14**Private Industry Occupational Injuries and Illnesses: Total Non-fatal Cases and Incidence Rates, 1987–2007**

Year ^a	Number of Cases (in millions)		Incidence Rate ^b	
	Cases with Any Days		Cases with Any Days	
	All Cases	Away from Work	All Cases	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
2007	4.0	1.2	4.2	1.2

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 2008d.

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

used National Health Interview Survey (NHIS) data and derived 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 for 32 percent and 66 percent of workplace injuries

and illnesses in Michigan. Boden and Ozonoff (2008) studied six 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.

Table 15

**Number of Workers' Compensation Claims per 100,000 Insured Workers:
Private Carriers in Thirty-Six Jurisdictions, 1992-2004**

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	870	437	6,003
2001	798	422	5,503
2002	755	415	5,143
2003	717	405	4,893
2004	680	385	4,686
Percent decline, 1992–2004	-49.9	-44.5	-44.9

Source: NCCI 1996–2008

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. The BLS conducted a quality assurance study and verified that its Survey of Occupational Injuries and Illnesses accurately reflected the information reported by employers on logs required under federal Occupational Safety and Health Administration (OSHA) rules. But the survey is as complete as the employer reports. For example, employers may not record cases that are in dispute. Also, long-latency occupational diseases and cases of unknown or disputed etiology would not find their way into OSHA logs. Further, there may be some scope differences between the cases that appear in workers' compensation 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 do not know that they are covered by workers' compensation, they believe that obtaining benefits can be difficult and

stressful (Strunin and Boden 2004), or they think that benefits are not worth the risks of filing (Fricker 1999). Workers may also not report workplace injuries or file for workers' compensation benefits because they fear employer retaliation (Pransky et al. 1999). Workers normally cannot sue their employer for workplace injuries because of the exclusive-remedy doctrine and, if discharged, normally cannot sue their employers because of the employment-at-will doctrine. However, courts in many states now allow lawsuits for wrongful discharge in violation of public policy, such as exercising a statutory right, of which the "classic example" is filing a claim for workers' compensation benefits (Willborn et al. 2007). 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 conditions (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. State laws require short-term disability insurance in five states: 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. The methods used for providing coverage may vary depending on the state. In order to limit benefits, a worker must have a specified amount of past employment or earnings to qualify for benefits. Benefits usually last for up to twenty-six weeks and typically replace about half of the worker's prior earnings. Weekly benefits are related to a claimant's earnings while in covered employment. Both employers and employees may be

required to contribute to the cost of the short-term disability insurance (EBRI, 2009). About 39 percent of private sector employees were covered by short-term disability insurance in 2008 (U.S. DOL, 2008c).

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 56 percent of management and professional related, 32 percent of workers in sales and office, and 12 percent of service workers had this coverage as of March 2007 (U.S. DOL, 2007a). 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 pro-

gram 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. 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 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 \$28.3 billion in cash benefits and \$27.2 billion for medical care in 2007.

In that year, Social Security paid \$95.9 billion in wage replacement benefits to disabled workers and their dependents and Medicare paid \$57.2 billion for medical and hospital care for disabled persons under age 65 (SSA 2008d and CMS, 2008). Thus, aggregate workers' compensation cash benefits were about one third of 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.⁶ 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 few states that already had such laws were allowed to keep them.⁷

6 The cap remains at 80 percent of the worker's average indexed earnings before disability, except that, 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.

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

Table 16**Social Security Disability Insurance (DI) Beneficiaries with Workers' Compensation (WC) or Public Disability Benefit (PDB)¹ Involvement, December 2008**

Type of Case	Total		Workers		Dependents	
	Number	Percent	Number	Percent	Number	Percent
All disability insurance beneficiaries	9,272,786	100.0	7,426,691	100.0	1,846,095	100.0
Total with some connection to WC or PDB	1,434,595	15.5	1,093,417	14.7	341,178	18.5
Current connection to WC or PDB	766,439	8.3	583,923	7.9	182,516	9.9
DI reduced by cap	163,068	1.8	111,348	1.5	51,720	2.8
DI not reduced by cap	360,615	3.9	287,213	3.9	73,402	4.0
Reverse jurisdiction	57,709	0.6	44,748	0.6	12,961	0.7
Pending decision on WC or PDB	185,047	2.0	140,614	1.9	44,433	2.4
DI previously offset of WC or PDB	668,156	7.2	509,494	6.9	158,662	8.6

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 (SSA 2008b)

As of December 2008, about 7.4 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 15.5 percent) had some connection to workers' compensation or some other public disability benefits. Of these, 0.7 million (or 7.2 percent of the total) had their social security benefits previously reduced because of the offset.

Trends in Social Security Disability Benefits and Workers' Compensation

Figure 4 illustrates the long-term trend in Social Security disability benefits and workers' compensation cash benefits as a share of covered wages. Social Security disability benefits grew rapidly in the early 1970s and then declined through the 1980s, after policy changes in the late 1970s and early 1980s reduced benefits and tightened eligibility rules. From 1990 to 1996, Social Security benefits again rose as claims and allowances increased, particularly during the economic recession of 1990–1991. Between 1996–2001, disability insurance benefits relative to

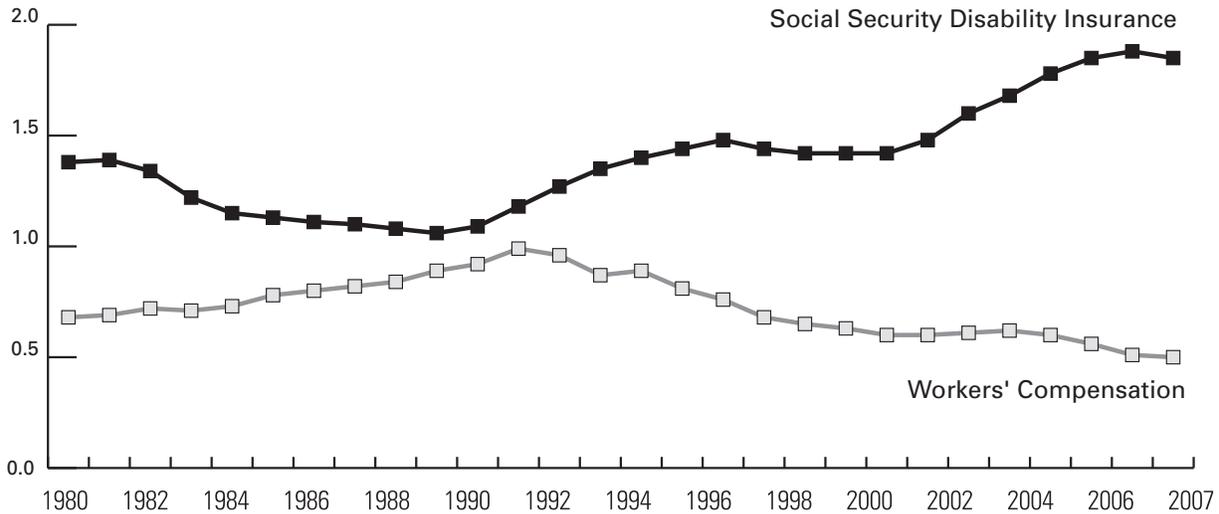
covered wages leveled off and then rose again following the recession of 2001.

The trend in workers' compensation cash benefits as a share of covered wages followed a different pattern. Workers' compensation benefits grew steadily throughout the 1980s and almost surpassed Social Security disability benefits in the early 1990s. Then, as workers' compensation cash benefits declined as a share of covered wages in 1992–2006, Social Security benefits generally rose.

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

Figure 4

**Social Security Disability Insurance and Workers' Compensation Cash Benefits
Per \$100 of Wages, 1980–2007**



* 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.

recent study finds 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 benefits in particular (Reville and Schoeni, 2006). 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 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. The study also finds that 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 Paid Benefits

The National 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 commonly 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 information⁸.

8 A fuller discussion of these measures is in Thomason, Schmidle, and Burton, 2001, Appendix B.

Table 17**Comparison of Accident-Year Incurred Benefits with Calendar-Year Benefits Paid by Private Carriers and State Funds in Thirty-six^a States, 1996–2007**

Year	Accident year incurred benefits ^a		Calendar year benefits paid ^b	
	Billions of Dollars	Percent Change	Billions of Dollars	Percent Change
1996	9.3		10.4	
1997	9.9	6.5	10.6	1.6
1998	10.8	9.1	11.6	10.1
1999	11.8	9.6	11.5	-.8
2000	12.0	1.6	12.5	8.3
2001	12.3	2.4	12.9	3.3
2002	12.2	-.9	12.7	-2.0
2003	12.6	3.3	12.6	-.7
2004	12.9	2.6	13.0	3.6
2005	13.3	2.9	13.3	1.7
2006	14.0	4.8	12.9	-3.1
2007	14.7	5.4	13.3	3.2
Cumulative % change from 1996-2007		47.3	25.3	

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. The data for 1996-1999 include thirty-five states as Nevada is excluded.

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 2008 and calendar year benefits estimated by the National Academy of Social Insurance.

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-six 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 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 1996 through 2007, Table 17 compares accident year incurred benefits reported by NCCI and calendar year paid benefits estimated by NASI for private carriers and state funds in the thirty-six states included in the NCCI data.

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 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.

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

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

Overall Operating Ratio: The combined ratio after dividends minus net investment gain/loss and other income.

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.

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/Overall operating Ratio: The sum of losses, loss adjustment expenses, underwriting expenses, and dividends to policy holders.

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 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, 2008e). 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 thirteen states that exempt small employers from mandatory coverage. Private firms with fewer than three employees are exempt from mandatory coverage in seven states: Arkansas, Georgia, Michigan, New Mexico, North Carolina, Virginia, and Wisconsin. Those with fewer than four employees are exempt in 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 thirteen states with numerical exemptions are: Alabama, 4.5 percent; Arkansas, 4.9 percent; Florida, 5.9 percent; Georgia, 4.7 percent; Michigan, 4.7 percent; Mississippi, 5.2 percent; Missouri, 4.8 percent; New Mexico, 5.6 percent; North Carolina, 4.8 percent; South Carolina, 4.9 percent; Tennessee, 4.0 percent; Virginia, 4.7 percent; and Wisconsin, 4.3 percent (U.S. SBA, 2008).

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, 2005). 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, 2007 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	1,900,205	1,586,252	71,955	5,728	-	1,822,522	95.9	
Alaska	293,990	233,882	-	-	-	293,990	100.0	
Arizona	2,595,406	2,234,894	-	-	-	2,595,406	100.0	
Arkansas	1,152,994	968,901	26,856	7,264	-	1,118,874	97.0	
California	15,394,639	13,014,420	-	-	-	15,394,639	100.0	
Colorado	2,240,513	1,922,611	-	-	-	2,240,513	100.0	
Connecticut	1,666,470	1,434,570	-	-	-	1,666,470	100.0	
Delaware	417,944	363,483	-	-	-	417,944	100.0	
District of Columbia	487,301	448,890	-	-	-	487,301	100.0	
Florida	7,818,063	6,803,332	313,953	-	-	7,504,110	96.0	
Georgia	3,981,342	3,391,525	90,426	-	-	3,890,916	97.7	
Hawaii	594,108	500,874	-	-	-	594,108	100.0	
Idaho	647,823	532,679	-	-	-	647,823	100.0	
Illinois	5,782,011	5,043,457	-	10,810	-	5,782,011	100.0	
Indiana	2,868,833	2,492,221	-	-	-	2,858,023	99.6	
Iowa	1,467,394	1,240,875	-	-	-	1,467,394	100.0	
Kansas	1,332,447	1,103,410	-	8,381	-	1,324,066	99.4	
Kentucky	1,764,091	1,497,495	-	3,950	-	1,760,141	99.8	
Louisiana	1,837,327	1,523,063	-	-	-	1,837,327	100.0	
Maine	588,210	500,302	-	-	-	588,210	100.0	
Maryland	2,422,400	2,082,136	-	-	-	2,422,400	100.0	
Massachusetts	3,185,031	2,820,720	-	-	-	3,185,031	100.0	
Michigan	4,125,157	3,542,854	94,287	-	-	4,030,870	97.7	
Minnesota	2,654,671	2,301,405	-	-	-	2,654,671	100.0	
Mississippi	1,109,288	890,536	44,342	7,890	-	1,057,056	95.3	
Missouri	2,664,949	2,286,474	110,282	-	-	2,554,667	95.9	
Montana	423,281	353,809	-	-	-	423,281	100.0	

Nebraska	900,631	752,917	-	900,631	100.0
Nevada	1,267,618	1,129,428	2,181	1,265,437	99.8
New Hampshire	622,435	542,711	-	622,435	100.0
New Jersey	3,899,781	3,341,428	-	3,899,781	100.0
New Mexico	791,206	628,836	19,801	762,986	96.4
New York	8,427,180	7,103,486	-	8,427,180	100.0
North Carolina	3,999,628	3,366,215	90,890	3,908,738	97.7
North Dakota	331,988	275,242	2,416	329,572	99.3
Ohio	5,229,964	4,542,944	-	5,229,964	100.0
Oklahoma	1,489,454	1,211,137	-	1,489,454	100.0
Oregon	1,698,837	1,426,009	-	1,698,837	100.0
Pennsylvania	5,548,936	4,917,786	-	5,548,936	100.0
Rhode Island	470,274	416,914	-	470,274	100.0
South Carolina	1,861,707	1,557,105	60,159	1,795,044	96.4
South Dakota	380,982	319,694	-	380,982	100.0
Tennessee	2,696,396	2,330,378	93,120	2,598,000	96.4
Texas	10,047,097	8,486,904	2,411,303	7,635,794	76.0
Utah	1,183,684	1,020,381	-	1,183,684	100.0
Vermont	297,491	249,584	-	297,491	100.0
Virginia	3,516,428	2,994,322	79,699	3,436,729	97.7
Washington	2,857,266	2,355,510	-	2,857,266	100.0
West Virginia	684,192	568,999	-	684,192	100.0
Wisconsin	2,751,715	2,384,708	58,070	2,693,645	97.9
Wyoming	270,467	214,781	-	270,467	100.0
U.S. non-federal	132,641,245	113,252,489	1,153,839	129,007,283	97.3
Federal	2,726,304	-	-	2,726,304	100.0
U.S. TOTAL	135,367,549	113,252,489	1,153,839	131,733,587	97.3

a UI-covered employment reported in the ETA-202 data produced by the United States Bureau of Labor Statistics (U.S. DOL, 2008e)

b Data not available for 2006, used the 2005 data.

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: (4.9 percent) x (56.7 percent) = 2.8 percent. These ratios are applied to the number of UI covered workers in private, non-farm firms in each state. In the fourteen States together, we estimate that 1.2 million workers were excluded from workers' compensation coverage in 2007 because of the small employer exclusion from mandatory coverage.

Agricultural Exemptions. We estimate agricultural workers to be excluded from workers' compensation coverage if they work in the 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 76 percent of Texas employees were covered in 2007 (TDI et al, 2008). This ratio was applied to all UI-covered Texas employees other than federal government workers (who were not included in the Texas surveys).

Appendix B: 2007 Survey Questionnaire

Annual Data Survey - Project on National Data for Workers' Compensation, National Academy of Social Insurance						
Your Name:		Page 1	Agency/Organization:		CY 2003 Payments	
E-mail:		State:	Phone:		CY 2004 Payments	
					CY 2005 Payments	
					CY 2006 Payments	
					CY 2007 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?						
Does the total above include Group Self Insured?						
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?						
Does the amount above include deductible payments by employers?						
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?						
Does the amount above include deductible payments by employers?						
How much was paid under the deductible amounts?						

		Page 2				
		CY 2007 Payments	CY 2006 Payments	CY 2005 Payments	CY 2004 Payments	CY 2003 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?	yes <input type="checkbox"/> no <input type="checkbox"/>				
	Is so, which and how much?					
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					
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					
Are you attaching additional information?						
Please e-mail your response to NASI at isengupta@nasi.org or fax to 202-452-8111 by January 19, 2009						
For more information contact Ishita Sengupta by e-mail at isengupta@nasi.org or by phone at 202-452-8097.						

Appendix C: Data Availability

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

The A.M. Best data show the experience of private carriers in every state, but do not include any information about self-insured employers or about benefits paid under deductible arrangements. The A.M. Best data show total "direct losses" (that is, benefits) paid in each state in 2003–2007, 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 competitive state funds in Missouri and South Carolina, or on the exclusive state funds in Ohio, North Dakota, Washington, West Virginia, and Wyoming.

The 2007 NASI survey questionnaire for state agencies asked states to report data for five years, from 2003 through 2007. 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-seven 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. An estimate 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 had a state fund that paid workers' compensation benefits in 2007. Of these, eleven 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. An

estimate of benefits paid under deductible policies was added to benefits reported by A.M. Best to estimate total state fund benefits in these states.

Self-Insured Benefits

All jurisdictions except North Dakota and Wyoming allow employers to self-insure. Twenty-eight of these jurisdictions were able to provide data on benefits paid by self-insurers. Prior years' self-insured benefit ratio to total benefits were used to estimate the self-insurance data for seven states. Self-insurance benefits were imputed for the twelve states that were unable to provide data. The self-insurance imputation methods are described in Appendix E.

Benefits under Deductible Policies

Forty-six jurisdictions allow carriers to write deductible policies for workers compensation. Of these jurisdictions, seven were able to provide the amount of benefits paid under deductible policies. Benefits under deductible arrangements were estimated for another twelve states by subtracting A.M. Best data on benefits paid (which do not include deductible benefits) from data reported by the state agency (which, in these cases, included deductible benefits). Deductible benefits in the remaining states were estimated using a ratio of Manual Equivalent Premiums, as described in Appendix G.

Medical Benefits

The state workers' compensation agency data and rating bureau data for medical share were used in twelve states. The National Council on Compensation Insurance estimates of the medical share of the benefits were used in thirty-seven 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, 1998-2007). These administrative costs include direct defense and cost containment expense paid⁹ and expenses for taxes, licenses, and fees¹⁰. The ratios of these administrative costs to direct losses paid by private insurers were:

2003: 17.1 percent
2004: 16.2 percent
2005: 18.7 percent
2006: 19.9 percent
2007: 19.1 percent

9 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.

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

Table C1**Data Sources for 2007**

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	-	Imputed from previous years data	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	Rating Bureau	-	Imputation	Yes	Agency given	-	Rating Bureau
D.C.	AMBest	-	Imputation	-	Manual Premium Method	-	NCCI
Florida	AMBest	-	Agency	-	Manual Premium Method	-	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	-	Agency	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 2007**

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	Yes	Subtraction	-	Rating Bureau
New Mexico	AMBest	AMBest	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 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	Agency given	Agency
Rhode Island	AMBest	AMBest	Imputed from previous years data	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	-	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	Agency	Imputed from previous years data	-	Not Allowed	Not Allowed	National Average
Wisconsin	AMBest	-	Agency	Yes	Not Allowed	-	Agency
Wyoming	AMBest	Imputed based on prior years' NAIC data	-	-	Not Allowed	Not Allowed	National Average

Appendix D: Revised Data for 2003–2006

In preparing the 2007 estimates for workers' compensation benefits, the National Academy of Social Insurance reviewed and revised all data for calendar years 2003-2006. 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:

- n Revised data consistently use the same medical benefit estimation methodology described in Appendix F.
- n Revised data consistently use the same deductible estimation methodology described in Appendix G.
- n Self-insurance benefit imputations were revised using historical data as reported in Appendix E.
- n Changes in data reported by state agencies were captured by the revised data questionnaire and are reflected in the revised estimates.
- n 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, 2006
(in thousands)**

State	Private Carriers ^a	State Funds	Self-Insured ^b	Total	Percent Medical	Medical ^c
Alabama	\$280,034	\$	\$282,599	\$562,632	66.6	\$374,713
Alaska	134,519		47,517	182,036	58.4	106,309
Arizona	136,623	369,138	102,497	608,258	69.3	421,523
Arkansas	141,246		82,023	223,269	64.2	143,339
California	4,725,905	2,221,261	3,195,606	10,142,772	50.4	5,107,964
Colorado	239,299	422,912	198,537	860,748	49.2	423,488
Connecticut	515,495		192,553	708,049	44.3	313,666
Delaware	152,259		50,838	203,097	58.2	118,202
District of Columbia	73,914		17,608	91,522	40.8	37,341
Florida	1,988,871		622,492	2,611,363	64.0	1,671,272
Georgia	870,300		344,321	1,214,622	50.4	612,169
Hawaii	134,638	28,644	79,403	242,685	40.7	98,773
Idaho	56,724	145,211	42,852	244,788	62.0	151,768
Illinois	1,852,821		626,230	2,479,051	48.2	1,194,902
Indiana	505,347		101,562	606,909	69.3	420,588
Iowa	382,282		111,599	493,881	52.6	259,781
Kansas	260,466		123,735	384,201	58.6	225,142
Kentucky	344,484	84,812	225,273	654,570	58.9	385,541
Louisiana	321,949	122,386	127,620	571,955	52.8	301,992
Maine	106,971	96,424	81,265	284,660	41.1	116,995
Maryland	430,267	235,525	142,571	808,363	43.2	349,213
Massachusetts	784,196		154,212	938,408	35.3	331,427
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	190,391		147,668	338,058	58.2	196,750
Missouri	508,988	80,878	218,898	808,763	52.4	423,792
Montana	72,747	117,961	41,096	231,804	57.6	133,519
Nebraska	209,119		56,729	265,848	62.7	166,687
Nevada	266,547		127,008	393,555	45.1	177,493

New Hampshire	168,800	43,564	212,364	59.7	126,781
New Jersey	1,387,865	448,658	1,836,524	49.6	910,368
New Mexico	112,501	92,016	237,551	57.4	136,354
New York	1,485,956	758,936	3,303,113	36.0	1,189,121
North Carolina	977,349	357,482	1,334,831	44.8	598,004
North Dakota ^a	81,297	81,297	81,297	55.6	45,218
Ohio ^a	26,343	435,758	2,383,544	44.1	1,051,774
Oklahoma	240,635	124,087	626,863	44.1	276,447
Oregon	217,230	77,586	562,483	54.0	303,741
Pennsylvania	1,731,055	599,772	2,684,611	43.8	1,176,607
Rhode Island	39,894	20,433	154,713	33.0	51,055
South Carolina	560,356	181,563	795,636	45.9	364,999
South Dakota	92,453	16,097	108,550	65.0	70,558
Tennessee	659,320	213,031	872,351	51.6	450,133
Texas	803,126	286,345	1,393,021	60.6	844,171
Utah	70,063	44,815	242,027	70.1	169,661
Vermont	107,735	16,753	124,488	50.3	62,617
Virginia	620,331	210,929	831,260	59.6	495,431
Washington ^a	30,300	447,693	1,926,515	36.1	694,541
West Virginia ^a	3,669	86,862	645,467	49.6	320,463
Wisconsin	859,915	183,329	1,043,244	72.7	758,351
Wyoming ^a	783	116,528	117,311	49.6	58,243
Non-federal total	\$27,351,372	\$13,043,375	\$51,059,066	49.8	\$25,433,340
Federal ^d			3,270,322	26.2	857,591
Federal employees ^e			2,454,861	28.0	686,935
TOTAL			\$54,329,388	48.4	\$26,290,931

* 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 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 For further details see Appendix C1.

^d 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.

^e Included in the Federal benefits total.

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, 2005**
(in thousands)

State	Private Carriers ^a	State Funds	Self-Insured ^b	Total	Percent Medical	Medical ^c
Alabama	\$290,843	\$	\$274,170	\$565,013	66.0	\$372,905
Alaska	137,616		45,105	182,721	57.4	104,839
Arizona	134,374	306,306	98,106	538,785	65.0	350,176
Arkansas	142,329		70,205	212,534	64.9	138,019
California	5,106,421	2,681,112	3,136,855	10,924,388	46.8	5,110,176
Colorado	263,278	416,364	208,356	887,997	48.8	433,576
Connecticut	526,646		181,767	708,413	41.7	295,494
Delaware	136,540		46,419	182,959	58.9	107,763
District of Columbia	73,598		17,988	91,585	34.6	31,652
Florida	2,234,100		756,966	2,991,066	62.3	1,862,959
Georgia	866,096		348,760	1,214,855	50.6	614,599
Hawaii	137,002	32,450	81,327	250,779	39.3	98,665
Idaho	72,749	132,243	40,459	245,451	59.9	146,908
Illinois	1,793,708		610,025	2,403,734	49.5	1,189,386
Indiana	510,258		97,158	607,416	68.5	415,803
Iowa	371,981		113,418	485,399	50.9	247,158
Kansas	257,570		127,279	384,849	57.1	219,861
Kentucky	364,322	76,904	255,644	696,870	55.1	383,749
Louisiana	274,028	153,137	121,595	548,760	51.0	279,835
Maine	97,440	90,707	84,047	272,194	39.8	108,387
Maryland	417,866	211,531	129,756	759,153	40.1	304,259
Massachusetts	755,343		148,744	904,087	36.3	328,476
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	172,828		139,084	311,911	55.1	171,870
Missouri	548,558	98,560	222,696	869,813	51.7	450,118
Montana	70,939	113,666	40,186	224,790	55.4	124,427
Nebraska	239,286		63,504	302,790	59.8	181,165
Nevada	264,261		122,072	386,333	46.3	178,767
New Hampshire	170,860		46,591	217,451	59.4	129,149

New Jersey	1,230,367	388,263	1,618,630	49.6	802,391
New Mexico	116,557	85,055	230,591	58.1	134,028
New York	1,458,234	765,515	3,191,358	34.4	1,098,637
North Carolina	1,009,011	383,477	1,392,488	44.7	622,437
North Dakota ^a			82,033	55.0	45,085
Ohio ^a	37,693	1,961,918	2,447,038	46.8	1,144,090
Oklahoma	236,365	229,268	588,511	46.9	276,085
Oregon	217,850	260,832	548,420	54.6	299,464
Pennsylvania	1,819,582	271,457	2,677,899	42.9	1,147,532
Rhode Island	31,297	93,093	139,374	34.0	47,327
South Carolina	524,368	56,579	769,553	45.9	353,033
South Dakota	70,270	15,619	85,889	66.3	56,924
Tennessee	617,856	195,044	812,900	54.2	440,720
Texas	903,691	344,531	1,552,690	62.1	963,973
Utah	70,899	122,414	239,502	69.4	166,283
Vermont	106,064	15,627	121,691	48.3	58,755
Virginia	631,073	225,064	856,137	56.5	483,784
Washington ^a		1,375,532	1,846,324	35.4	654,219
West Virginia	5,966	598,708	693,764	48.6	337,034
Wisconsin	994,625	175,431	1,170,055	65.7	768,399
Wyoming ^a		116,528	116,528	48.6	56,610
Non-federal total	\$27,995,172	\$10,887,786	\$51,949,416	48.7	\$25,307,400
Federal ^d			3,258,155	25.6	835,208
Federal employees ^e			2,462,059	27.3	671,056
TOTAL			\$55,207,571	47.4	\$26,142,608

* 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 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 For further details see Appendix C.1.

d 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.

e Included in the Federal benefits total.

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, 2004**
(in thousands)

State	Private Carriers ^a	State Funds	Self-Insured ^b	Total	Percent Medical	Medical ^c
Alabama	\$267,482	\$	\$264,518	\$532,000	62.1	\$330,586
Alaska	136,391		48,690	185,082	55.8	103,263
Arizona	155,835	303,751	102,959	562,545	64.2	361,328
Arkansas	161,764		74,152	235,917	60.7	143,153
California	5,579,974	3,202,628	3,694,990	12,477,592	48.8	6,091,288
Colorado	275,204	422,687	146,723	844,615	48.8	411,817
Connecticut	456,671		255,717	712,388	39.6	281,905
Delaware	119,216		41,859	161,075	45.4	73,128
District of Columbia	76,976		20,145	97,122	38.3	37,171
Florida	2,199,092		619,304	2,818,396	59.3	1,672,086
Georgia	812,612		321,603	1,134,215	47.8	541,899
Hawaii	152,765	32,089	86,436	271,290	38.3	103,900
Idaho	74,691	122,095	40,996	237,782	59.1	140,500
Illinois	1,687,445		588,510	2,275,955	48.5	1,103,971
Indiana	495,597		97,541	593,139	68.0	403,385
Iowa	343,575		110,597	454,172	51.6	234,422
Kansas	246,175		124,522	370,697	55.0	203,744
Kentucky	384,465	65,598	281,920	731,983	54.0	395,070
Louisiana	303,809	167,190	254,819	725,819	50.4	365,940
Maine	90,984	85,785	90,847	267,617	42.0	112,393
Maryland	456,005	199,234	118,616	773,854	41.4	320,219
Massachusetts	823,548		145,287	968,835	34.4	332,820
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	177,430		133,083	310,513	55.9	173,460
Missouri	556,864	114,101	212,440	883,406	50.4	445,573
Montana	67,752	102,521	39,547	209,820	53.6	112,536
Nebraska	221,629		66,527	288,156	58.9	169,814
Nevada	240,152		118,580	358,732	49.1	176,186
New Hampshire	167,459		46,286	213,745	55.9	119,563

New Jersey	1,130,454	380,692	1,511,146	49.3	744,890
New Mexico	94,436	77,038	198,267	59.1	117,097
New York	1,732,841	844,590	3,352,577	33.8	1,132,274
North Carolina	853,264	320,562	1,173,827	44.2	518,645
North Dakota ^a	260		83,237	56.3	46,870
Ohio	37,509	461,479	2,434,715	46.9	1,141,082
Oklahoma	244,733	117,216	577,384	46.1	265,930
Oregon	236,327	70,540	535,509	53.3	285,555
Pennsylvania	1,803,793	564,287	2,594,070	41.7	1,081,814
Rhode Island	41,824	16,042	145,148	35.1	51,001
South Carolina	461,543	176,944	688,115	46.3	318,811
South Dakota	65,832	11,577	77,409	62.9	48,712
Tennessee	639,923	167,680	807,603	51.6	416,930
Texas	1,001,794	328,706	1,630,461	60.9	992,734
Utah	56,246	39,299	218,375	68.4	149,317
Vermont	107,050	16,283	123,333	45.8	56,440
Virginia	554,397	209,147	763,544	55.1	420,769
Washington ^a	30,839	481,921	1,836,005	34.7	636,179
West Virginia ^a	7,317	112,878	749,812	48.1	360,724
Wisconsin	843,431	54,935	898,366	64.6	580,651
Wyoming ^a	3,534		120,062	48.1	57,760
Non-federal total	\$ 28,125,241	\$ 11,002,575	\$ 52,648,566	48.2	\$ 25,400,738
Federal ^d			3,256,202	26.6	865,442
Federal employees ^e			2,445,077	28.5	695,680
TOTAL			55,904,768	47.0	26,266,180

* 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 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 For further details see Appendix C.1.

d 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.

e Included in the Federal benefits total.

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, 2003
(in thousands)**

State	Private Carriers ^a	State Funds	Self-Insured ^b	Total	Percent Medical	Medical ^c
Alabama	\$286,636	\$	\$256,643	\$543,279	62.8	\$341,423
Alaska	134,235		42,286	176,521	55.0	97,095
Arizona	143,808	283,626	87,797	515,231	63.4	326,899
Arkansas	160,328		67,004	227,332	62.1	141,190
California	5,945,468	2,917,587	3,582,223	12,445,277	51.1	6,357,191
Colorado	248,846	355,803	148,917	753,566	44.2	333,426
Connecticut	461,378		216,082	677,461	42.7	289,515
Delaware	119,726		36,162	155,888	45.4	70,773
District of Columbia	68,349		16,246	84,594	37.0	31,303
Florida	2,291,965		670,385	2,962,350	58.0	1,718,779
Georgia	736,382		261,809	998,192	47.4	472,767
Hawaii	163,025	23,795	88,102	274,922	38.4	105,503
Idaho	67,199	117,414	30,151	214,764	57.1	122,650
Illinois	1,644,764		523,445	2,168,210	46.4	1,005,360
Indiana	476,297		87,654	563,951	67.6	381,373
Iowa	335,442		95,010	430,451	48.4	208,492
Kansas	232,362		63,226	295,588	54.6	161,438
Kentucky	403,443	62,376	262,103	727,922	54.1	394,077
Louisiana	293,176	148,073	228,589	669,838	50.8	340,202
Maine	90,443	68,067	75,089	233,599	46.2	107,935
Maryland	435,182	166,401	114,711	716,294	41.7	298,798
Massachusetts	861,592		152,995	1,014,587	33.3	337,619
Michigan	877,007		599,843	1,476,850	36.7	542,574
Minnesota	615,161	60,335	216,845	892,341	47.0	419,001
Mississippi	166,186		125,501	291,688	55.9	162,929
Missouri	511,636	113,645	180,748	806,029	49.5	398,675
Montana	71,357	96,966	36,652	204,975	52.4	107,444
Nebraska	213,362		56,673	270,035	59.0	159,333
Nevada	216,774		112,559	329,333	46.0	151,427

New Hampshire	179,044	43,386	222,430	56.5	125,562
New Jersey	1,153,917	335,304	1,489,221	47.9	713,124
New Mexico	97,483	24,326	190,840	57.0	108,741
New York	1,631,501	788,496	3,123,197	32.3	1,008,128
North Carolina	816,740	271,140	1,087,880	45.1	490,515
North Dakota ^a	296	78,157	78,453	54.9	43,102
Ohio	23,858	1,908,818	2,414,651	47.2	1,140,670
Oklahoma	256,924	180,965	554,839	47.5	263,388
Oregon	220,585	206,878	499,625	52.2	260,755
Pennsylvania	1,820,530	180,676	2,565,344	41.4	1,061,539
Rhode Island	37,616	81,154	132,301	31.0	41,024
South Carolina	441,662	52,085	656,935	47.5	312,056
South Dakota	63,857	10,383	74,241	62.8	46,628
Tennessee	637,758	140,914	778,672	52.9	411,865
Texas	1,303,814	292,037	1,971,510	63.0	1,242,068
Utah	51,049	109,995	188,900	65.4	123,520
Vermont	105,208	15,000	120,208	48.5	58,267
Virginia	541,701	171,166	712,867	56.2	400,323
Washington	26,671	1,309,550	1,800,551	34.4	619,551
West Virginia ^a	3,274	702,884	823,300	28.9	237,776
Wisconsin	707,535	125,470	833,005	62.9	524,189
Wyoming ^a	2,169	112,083	114,252	63.1	72,090
Non-federal total	\$28,394,722	\$10,442,190	\$51,554,290	48.3	\$24,890,070
Federal ^d			3,184,685	26.5	842,779
Federal employees ^e			2,367,757	28.3	669,484
Total			54,738,975	47.0	25,732,849

* 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 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 For further details see Appendix C1.

^d 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.

^e Included in the Federal benefits total.

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.

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 2007. 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 27 such states in 2007.
- 10) Calculate the average ratio between the two shares for the 27 states. The average ratio in

2007 is 63.7 percent (Table E1). That is, on average, the share of benefits that is self-insured is about 63.7 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 the latest available year’s self-insured benefits to self-insured payroll ratio to estimate the self-insured benefits for 2007.

- 11) The self-insurance data has been imputed using previous years’ data in 7 (out of which 6 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

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

(in available years) 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 (39-27=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

$$(\text{Private Carrier} + \text{State Fund Benefits}) * \left[\frac{\text{Ratio in [12]}}{(1-\text{Ratio in [12]})} \right]$$

Table E1

Self-Insurer Estimation Results, 2003–2007

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
2003	65.1
2004	65.2
2005	64.5
2006	61.9
2007	63.7

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 2007, 28 states reported self-insured benefits. For 12 other states, we imputed self-insured benefits using NCCI payroll data. For 7 states we used prior year's data to estimate self-insured benefit payments in 2007. Two exclusive state fund states – North Dakota and Wyoming – do not allow self insurance. For the remaining 2 states – 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 2007, we used the NCCI data for the medical share for thirty-seven states.

The National Council on Compensation Insurance (NCCI) is a private organization that assists private carriers, competitive state funds, and insurance commissioners in setting workers' compensation rates in

selected states. NCCI provided NASI estimates of the percent of private carrier benefits paid that were for medical care in thirty-seven states. For seven states we used the agency information on medical share given to NASI by the state agencies. For California, Delaware, New Jersey, New York, and Pennsylvania, we used data on calendar year paid medical benefits data provided by 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 agencies or rating bureaus.

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 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 2007, total benefits were \$2,587 million, of which 29 percent were for medical care. The share of benefits for medical care is lower than in most state programs because federal cash benefits, particularly for higher-wage workers, replace a larger share of pre-injury wages than is the case in most state programs. Administrative costs of the program were \$144 million in calendar year 2007, or 5.6 percent of total benefits (U.S. DOL, 2008a). Table H-1 reports benefits and administrative costs for federal civilian employees under the Federal Employees' Compensation Act in 1997 through 2007. 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 2007, about 540 self-insured employers and insurance companies reported a total of 33,395 lost-time injuries to the federal Office of Workers' Compensation Programs. Total benefits paid under the Act in 2007 were \$923 million, which included \$457 million paid by private insurance carriers, \$326 million paid by self-insured employers, \$131 million paid from the federally administered special fund for second injuries and other purposes, and \$10 million for the District of Columbia Workers' 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 2007. 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;

Table H1**Federal Employees' Compensation Act, Benefits and Costs, 1997-2007 (in thousands)**

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
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	2,586,700
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	1,833,958
Medical Benefits	459,912	473,432	525,747	542,505	623,057	665,378	669,484	695,680	671,056	686,935	752,742
% Medical	24	24	26	26	28	29	28	28	27	28	29
Direct Administrative Costs	80,893	80,235	87,425	91,532	109,326	115,226	130,672	131,920	128,536	137,386	143,768
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	2,592,247	2,730,468
Indirect Administrative Costs ^a	6,835	5,750	5,584	6,197	5,056	4,596	4,806	4,587	5,494	7,619	6,774

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 2008a

Table H2**Longshore and Harbor Workers' Compensation Act, Benefits, Costs and Number of DBA Death Claims, 1997–2007 (Dollars in thousands)**

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Total Benefits	\$617,927	\$642,321	\$659,800	\$671,991	\$689,149	700,563	716,218	747,321	795,466	879,508	923,045
Insurance Carriers	219,352	238,464	232,778	249,671	236,726	246,603	262,753	278,887	325,027	367,625	456,773
Self-Insured Employers	263,255	261,559	283,991	278,952	307,708	310,940	309,843	322,520	325,694	368,744	325,544
LHWCA Special Fund	123,772	129,777	131,152	131,564	133,374	131,684	132,504	135,073	134,230	132,933	130,673
DCCA Special Fund	11,548	12,521	11,879	11,804	11,341	11,336	11,118	10,841	10,515	10,206	10,055
DBA benefits ^a	6,108	7,691	5,452	8,583	9,411	7,582	11,338	30,079	59,797	115,758	170,231
Number of DBA Death Claims	4	1	3	3	5	7	56	231	284	338	426
Total Annual Assessments	121,300	122,000	141,300	145,700	145,000	136,000	135,800	148,500	146,500	135,500	135,000
LHWCA	110,000	111,000	130,000	133,000	133,000	125,000	125,000	137,000	135,000	125,000	125,000
DCCA	11,300	11,000	11,300	12,700	12,000	11,000	10,800	11,500	11,500	10,500	10,000
Administrative Expenses ^b	9,356	9,821	10,822	11,144	11,713	11,970	12,314	12,514	12,563	12,700	12,725
General Revenue	8,378	8,596	8,947	9,373	9,807	9,988	10,297	10,495	10,547	10,672	10,699
Trust Fund	978	1,225	1,875	1,771	1,906	1,982	2,017	2,019	2,016	2,028	2,026
Indirect Administrative Costs ^c	1,799	2,107	2,247	1,787	2,207	2,514	2,347	2,396	2,019	2,115	2,437

^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 2008a

benefits paid from the LHWCA special funds are not included in state data. Thus, for 1997–2007 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 \$170 million in 2007. The number of DBA death claims per year rose from single digits prior to 2003, to 426 in 2007. 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 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 1997–2007. Total benefits in 2007 were \$564 million, of which \$277 million was paid under Part B and \$287 million was paid under Part C. Part C benefits include \$39 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 \$39 million or about 6.9 percent of benefit payments.

Table H-3 shows benefits under the Black Lung Benefit program in 1997 through 2007 for both parts of the program. Its benefits are paid directly by the responsible mine operator or insurer, from the federal Black Lung Disability Trust Fund, or from federal general revenue funds. 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 2007 were \$562 million, of which \$490 million were paid as compensation benefits (U.S. DOL, 2008a). 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 2007 were \$409 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-

Table H3**Black Lung Benefits Act, Benefits and Costs, 1997–2007**
(in thousands)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Total Benefits	\$1,095,585	\$1,000,383	\$982,787	\$927,973	\$866,069	821,625	769,137	714,045	664,295	610,570	563,513
Part C Compensation	388,656	373,707	360,470	346,903	332,620	316,585	303,724	289,699	276,413	262,026	248,375
Part C Medical Benefits	92,041	80,450	74,776	69,322	61,136	65,756	59,739	52,992	49,244	41,552	38,545
Part B Compensation	614,888	546,226	547,541	511,748	472,313	439,284	405,674	371,354	338,638	306,992	276,593
Total Direct Administrative Costs	25,759	31,030	33,246	32,866	34,657	36,123	37,393	38,062	37,930	38,463	38,709
Part C (DOL)	25,759	26,698	29,023	28,591	29,897	31,488	31,991	32,157	32,724	33,182	33,374
Part B (SSA)	*	4,332	4,223	4,275	4,760	4,635	5,402	5,905	5,206	5,281	5,335
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	426,000
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	717,214
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	650,432
Indirect Administrative Costs ^b	19,903	20,115	20,882	21,348	22,207	23,050	23,459	23,914	24,424	25,242	26,020

* information not available

^a Total Trust Fund debt (cumulative advances) at the end of CY 2007 was \$10,057,557,000. 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 2008a.

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 March 2009, 20,750 claims were paid for a total of \$1,389 million, or roughly \$66,940 a claim (U.S. DOJ, 2009). 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 the fiscal year 2007, 2.8 million veterans were receiving monthly compensation payments for service-connected disabilities. Of these, 55 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 \$2.3 billion in 2007, or about \$28.0 billion on an annual basis (U.S. Department of Veterans Affairs, 2007). Veterans' compensation is not included in our national estimates of workers' compensation.

Table H4

Energy Employees Occupational Illness Compensation Program Act, Part B and Part E Benefits and Costs, 2001-2007 (in thousands)

	2001	2002	2003	2004	2005	2006	2007
Total Benefits Part B	\$67,341	369,173	303,981	275,727	392,503	502,636	561,824
Compensation Benefits	67,330	363,671	288,274	250,123	358,751	460,494	490,089
Medical Benefits ^a	11	5,502	15,707	25,604	33,752	42,142	71,735
Direct Administrative Costs ^b	30,189	69,020	65,941	94,158	106,818	104,872	107,417
Total Benefits Part E ^c	n/a	n/a	n/a	n/a	268,635	270,598	409,100
Compensation Benefits	n/a	n/a	n/a	n/a	268,586	269,558	407,277
Medical Benefits ^d	n/a	n/a	n/a	n/a	49	1,040	1,823
Direct Administrative Costs ^b	n/a	n/a	n/a	n/a	39,295	55,088	61,671

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 2002-07 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; 2006, \$58.6 million; and 2007, \$55.0 million. Part E costs for 2005-07 include funding for an Ombudsman position. For 2005, these costs were \$0.3 million; 2006, \$0.6 million; and 2007, \$0.8 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 2008a.

Table H5

Radiation Exposure Compensation Act, Benefits Paid as of March 18, 2009 (benefits in thousands)

Claim Type	Claims	Benefits
Downwinder	12,971	648,520
Onsite Participant	1,288	92,106
Uranium Miner	5,024	501,675
Uranium Miller	1,216	121,600
Ore Transporter	251	25,100
TOTAL	20,750	\$1,389,001

Source: U.S. DOJ 2009

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 \$28.0 billion in 2007, veterans' compensation is about 98.9 percent of the size of total cash benefits in other workers' compen-

sation programs, which were \$28.3 billion in 2007. Because it is large and qualitatively different from other programs, veterans' compensation benefits are not included in national totals to measure trends in regular workers' compensation programs.

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 2007. The accompanying tables provide detailed information on federally administered programs, including some that are not included in national totals in this report.

Table H6

Federal Veterans' Compensation Program, Compensation Paid in Fiscal year 2007 (benefits in thousands)

Class of Dependent	Number	Monthly Value
Veteran Recipients - total	2,844,178	\$2,330,771
Veterans less than 30 percent disabled (no dependency benefit)	1,575,199	323,895
Veterans 30 percent or more disabled	1,268,979	2,006,876

Source: U.S. Department of Veterans Affairs 2007

References

- A.M. Best. 2006. Private data request. Oldwick, NJ: A.M. Best.
- American Association of State Compensation Insurance Funds (AASCIF), AASCIF Fact Book, 2007, www.aascif.org
- Azaroff, Lenore S., Charles Levenstein, and David Wegman. 2002. "Occupational Injury and Illness Surveillance: Conceptual Filters Explain Underreporting." *American Journal of Public Health*, 92, no. 9 (September): 1421-1429.
- Barth, Peter. 2004. "Compensating Workers for Permanent Partial Disabilities." *Social Security Bulletin*, 65, no.4.
- Barth, Peter, Mike Helvacian, and Te-Chun Liu. 2002. Who Obtains Permanent Partial Disability Benefits: A Six State Analysis. Cambridge, MA: Workers Compensation Research Institute.
- Barth, Peter, and Michael Niss. 1999. Permanent Partial Disability Benefits: Interstate Differences. Cambridge, MA: Workers Compensation Research Institute.
- Biddle, Jeff, Karen Roberts, Kenneth D. Rosenman, and Edward M. Welch. 1998. "What Percentage of Worker with Work-Related Illness Receive Workers' Compensation Benefits?" *Journal Of Occupational and Environmental Medicine* 40, no. 4 (April): 325-331.
- Boden, Leslie I., and John W. Ruser. 2003. "Workers' Compensation 'Reforms,' Choice of Medical Care Provider, and Reported Workplace Injuries." *Review of Economics and Statistics* 85, no. 4 (November): 923-929. Cambridge, MA: The MIT Press.
- Boden Leslie I. and Al Ozonoff A.2008. "Capture-Recapture Estimates of Nonfatal Workplace Injuries and Illnesses." *Annals of Epidemiology*, 18, no. 6, pp 500-506.
- Burton Jr., John F. 2005. Permanent Partial Disability Benefits. In *Workplace Injuries and Diseases: Prevention and Compensation; Essays in Honor of Terry Thomason*. Edited by Karen Roberts, John F. Burton, Jr., and Matthew M. Bodah. Kalamazoo, MI: W.E. Upjohn Institute for Employment Research.
- Burton, John. F., Jr, 2008a. "Workers' Compensation Insurance Industry Profits Remain High in 2007," *Workers' Compensation Policy Review*, Vol.8, No. 5 (September/ October): 24-31
- Burton, John F., Jr, 2008b. "Workers' Compensation Cash Benefits: Part Two: Cash Benefit Systems and Criteria for Evaluation," *Workers' Compensation Policy Review*, Vol. 8, No. 6 (November/December): 13-31.
- Burton, John F. Jr., and Emily Spieler, 2001. "Workers' Compensation and Older Workers." *Health and Income Security for an Aging Workforce*, no. 3. Washington, DC: National Academy of Social Insurance.
- Burton, John F., Jr. and Daniel J.B. Mitchell. 2003. Employee Benefits and Social Insurance: The Welfare Side of Employee Relations. In *Industrial Relations to Human Resources and Beyond*. Edited by Bruce E. Kaufman, Richard A. Beaumont, and Roy B. Helfgot. Armonk, NY: M.E. Sharpe
- Clayton, Ann. 2004. "Workers' Compensation: A Background for Social Security Professionals." *Social Security Bulletin* 65, No. 4.
- Centers for Medicare & Medicaid Services (CMS). 2008. Private data request.
- Employee Benefit Research Institute (EBRI). 2009. *Fundamentals of Employee Benefit Programs*, Sixth Edition, EBRI-ERF publication.
- Fan Z. Joyce. Bonauto David K. Foley Michael P. Silverstein Barbara A. 2006. "Underreporting of work-related injury or illness to Workers' Compensation: Individual and Industry factors". *Journal of Occupational & Environmental Medicine*, 48(9):914-22.
- FPI. 2007. "New York State Workers' Compensation: How Big is the Coverage Shortfall?" A Fiscal Policy Institute Report, www.fiscalpolicy.org
- Fricker Mary. 1997. "California workers try to secure benefits: debilitating delays. Insult to Injury",

Workers' Comp series. Available at:
<http://www.pressdemo.com/workerscomp>.

Greenhouse, Steven. 2008. "Dozens of Companies Underpay or Misreport Workers, State Says." *The New York Times*, February 12.

Guo, Xuguang (Steve) and John F. Burton, Jr. 2008. "The Relationship between Workers' Compensation and Disability Insurance." *Proceedings of the 60th Annual Meeting*. Champaign, IL: Labor and Employment Relations Association.

Hensler Deborah et al. 1991. "Compensation for accidental injuries in the United States", RAND, Santa Monica R-3999-HHS/ICJ.

Hunt, H. Allan ed. 2004. Adequacy of Earnings Replacement in Workers' Compensation Programs. Kalamazoo, MI: W.E. Upjohn Institute for Employment Research and NASI.

Lakdawalla Darius N, Robert T. Reville, Seth A. Seabury. 2005. "How does health insurance affect workers' compensation filing?" *WR-2005-1-ICJ*.

Leigh, J. Paul, Steven Markowitz, Marianne Fahs, and Philip Landrigan, 2000. Costs of Occupational Injuries and Illnesses. Ann Arbor, MI: The University of Michigan Press.

Milton Donald K., Gina M. Solomon, Richard A. Rosiello, Robert F. Herrick. 1998. "Risk and incidence of asthma attributable to occupational exposure among HMO members", *American Journal of Industrial Medicine*, 33, pp 1-10.

Mashaw, Jerry L., and Virginia P. Reno. 1996. The Environment of Disability Income Policy: Programs, People, History, and Context. Washington, DC: National Academy of Social Insurance.

Morse Timothy F., Charles Dillon, Nicholas Warren, Charles Levenstein and Andrew Warren 1998. "The economic and social consequences of work-related musculoskeletal disorders: The Connecticut upper-extremity surveillance project (CUSP)", *International Journal of Occupational & Environmental Health*. 4:209-216.

National Academy of Social Insurance (NASI). 2002. "Workers' Compensation Coverage: Technical

Note on Estimates." *Workers' Compensation Data Fact Sheet, no. 2*. Washington, DC: National Academy of Social Insurance.

National Association of Insurance Commissioners (NAIC). 1998. Statistical Compilation of Annual Statement Information for Property/Casualty Insurance Companies in 1997. Kansas City, MO: NAIC. Similar publication for the years 1999-2007.

National Council on Compensation Insurance, Inc.(NCCI). 2008. Annual Statistical Bulletin, 1996 Edition. Boca Raton, FL: NCCI. Similar publication for the years 1997-2007.

———. 2002a. Workers' Compensation Issues Report 2002, Boca Raton, FL: NCCI.

———. 2004a. Workers' Compensation Issues Report 2004, Boca Raton, FL: NCCI.

———. 2008a. Private data request. Hoboken, NJ: NCCI.

———. 2008b. Calendar-Accident Year Underwriting Results. Boca Raton, FL: NCCI.

Pransky Glenn, Terry Snyder, Allard Dembe, Jay Himmelstein. 1999. "Under-reporting of work-related disorders in the workplace: a case study and review of the literature", *Ergonomics*, 42:171-182.

Reno, Virginia, and June Eichner. 2000. "Ensuring Health and Income Security for an Aging Workforce." *Health and Income Security for an Aging Workforce*, no. 1. Washington, DC: National Academy of Social Insurance.

Reville, Robert T. and Robert F. Schoeni. 2005. "The Fraction of Disability Caused at Work," *Social Security Bulletin*, 65, no.4.

Rosenman, Kenneth D, Alice Kalush, Mary Jo Reilly, Joseph C. Gardiner, Matthew Reeves and Zhewui Luo. 2006. "How Much Work-Related Injury and Illness is Missed By the Current National Surveillance System?" *Journal of Occupational Environmental Medicine*, 48(4), pp357-365.

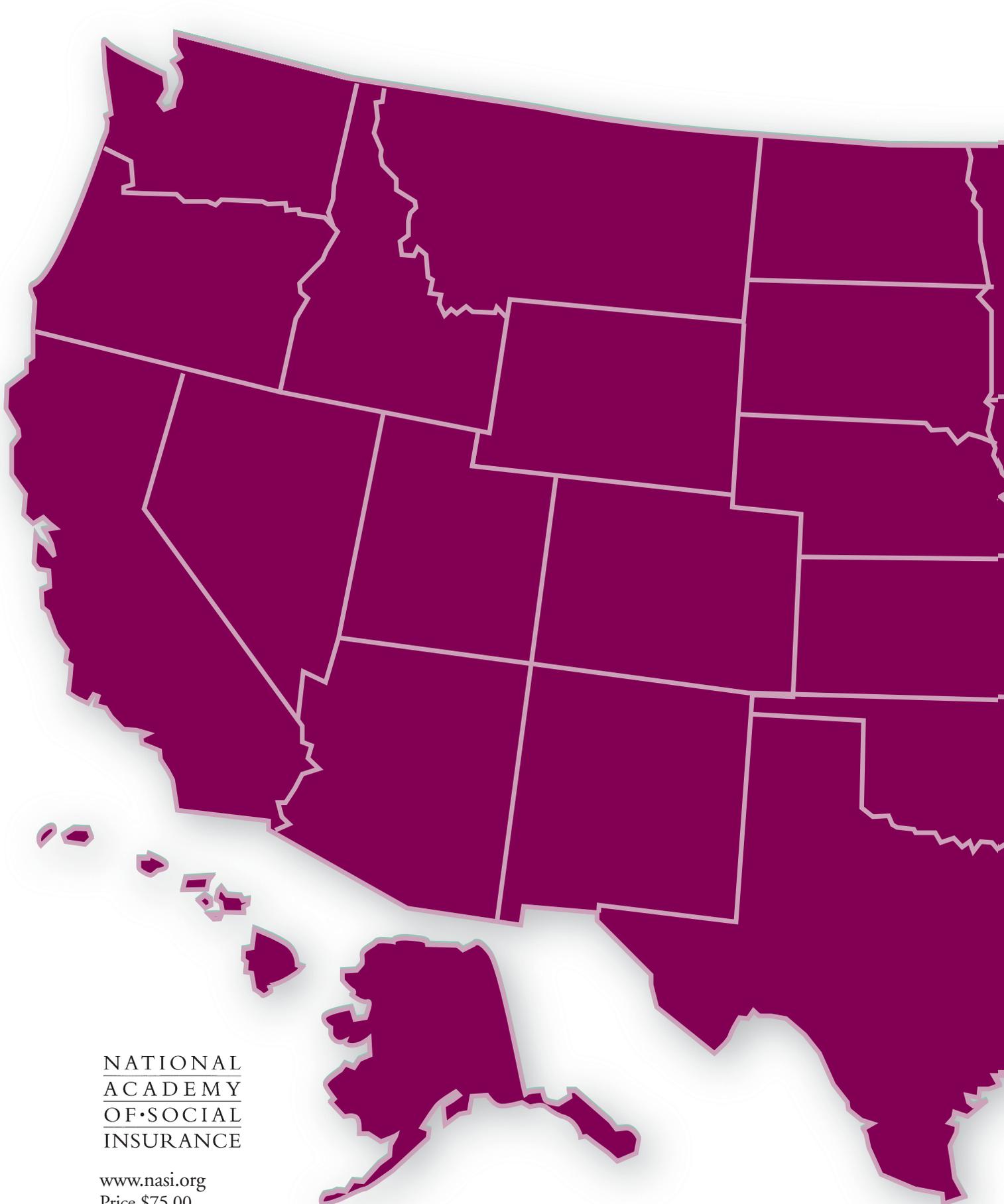
Sengupta I, Virginia Reno, Christine Baker and Lachlan Taylor . 2008. "Workers' compensation in California and in the Nation: Benefits and Employer Cost Trends, 1989-2005," *IAIABC Journal*, Fall 2008 No.9, Washington DC, National Academy of Social Insurance.

- Sengupta I, Virginia Reno and John F. Burton Jr., 2006. *Workers' Compensation: Benefits, Coverage, and Costs*, 2007. Washington, DC: National Academy of Social Insurance.
- Shannon, Harry S., and Graham S. Lowe. 2002. "How Many Injured Workers Do Not File Claims for Workers' Compensation Benefits?" *American Journal of Industrial Medicine* 42:467–473. Hoboken, NJ: Wiley-Liss, Inc.
- Smith, Gordon S., Helen M. Wellman, Gary S. Sorock, Margaret Warner, Theodore K. Courtney, Glenn S. Pransky, and Lois A. Fingerhut. 2005. "Injuries at Work in the US adult population: Contributions to the total injury burden". *American Journal of Public Health*, 95, pp: 1213–1219.
- Social Security Administration (SSA). Office of Research, Evaluation, and Statistics.
 ———. 2008a. Annual Statistical Supplement, 2007. Washington, DC: SSA.
 ———. 2008b. Unpublished data from the Office of Disability. Baltimore, MD: SSA.
 ———. 2008c. Unpublished data from the Office of the Chief Actuary. Baltimore, MD: SSA.
 ———. 2008d. The 2008 Annual Report of the Board of Trustees of the Federal Old Age and Survivors Insurance and Disability Insurance Trust Funds. Washington, DC: SSA.
- Stanbury M, Joyce P, Kipen H. "Silicosis and workers' compensation in New Jersey". 1995. *Journal of Occupational Environmental Medicine*, 37:1342-1347.
- Strunin Lee, and Leslie I. Boden. 2004. "The workers' compensation system: Worker friend or foe?" *American Journal of Industrial Medicine*, 45(4):338-345.
- TDI (Texas Department of Insurance). 2008. Biennial Report of the Texas Department of Insurance to the 81st Legislature. Division of Workers' Compensation.
<http://www.tdi.state.tx.us/wc/regulation/roc/pdf/wc0904est.pdf>
- Thomason, Terry, Timothy P. Schmidle, and John F. Burton Jr. 2001. *Workers' Compensation: Benefits, Costs, and Safety under Alternative Insurance Arrangements*. Kalamazoo, MI: W.E. Upjohn Institute for Employment Research.
- U.S. Census Bureau. 2004. *The Number of Firms and Establishments, Employment, Annual Payroll, and Receipts in 1997 by Industry and Employment Size of Enterprise*. Washington, DC: U.S. Census Bureau.
- U.S. Department of Justice (U.S. DOJ). 2009. Private Data Request. Washington, DC: U.S. DOJ.
- U.S. Department of Labor (U.S. DOL). Employment Standards Administration. Office of Workers' Compensation Programs.
 ———. 2006. *State Workers' Compensation Laws*. Washington, DC: U.S. DOL.
 ———. 2007a. Bureau of Labor Statistics. National Compensation Survey: Employee Benefits in Private Industry in the United States, March 2007. Summary 07-05 (August), Washington, DC: U.S. DOL.
 ———. 2008a. Employment Standards Administration. Office of Workers' Compensation Programs. Private data request. Washington, DC: U.S. DOL.
 ———. 2008b. Bureau of Labor Statistics. National Census of Fatal Occupational Injuries in 2007 (revised). News. USDL 08-1182 (August). Washington, DC: U.S. DOL.
 ———. 2008c. Bureau of Labor Statistics. National Compensation Survey: Employee Benefits in the United States, March 2008, USDL: 08-1122 (August). Washington, DC: U.S. DOL.
 ———. 2008d. Bureau of Labor Statistics. Workplace Injuries and Illnesses in 2007. News. USDL 08-1498 (October). Washington, DC: U.S. DOL.
 ———. 2008e. Bureau of Labor Statistics. Nonfatal occupational injuries and illnesses requiring days away from work, 2007. News. USDL 08-1716 (November). Washington, DC: U.S. DOL.
 ———. 2008e. ES 202 Report. Washington, DC: U.S. DOL.
- U.S. Department of Veterans Affairs. Veterans Benefit Administration. 2007. Annual Benefits Report, Fiscal year 2007. Washington, DC: U.S. Department of Veterans Affairs.
- U.S. Small Business Administration (U.S. SBA). Office of Advocacy. 2008. *Employer Firms*,

Establishments, Employment, and Annual Payroll by Firm Size and State, 2006. Washington, DC: U.S. SBA.

Williams, C. Arthur and Peter S. Barth. 1973. *Compendium on Workmens' Compensation*, Washington, DC: National Commission on State Workmen's Compensation Laws.

Willborn, Steven L., Stewart J. Schwab, John F. Burton Jr., and Gillian L.L. Lester. 2007. *Employment Law: Cases and Materials (Fourth Edition)* Newark, NJ: LexisNexis.



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