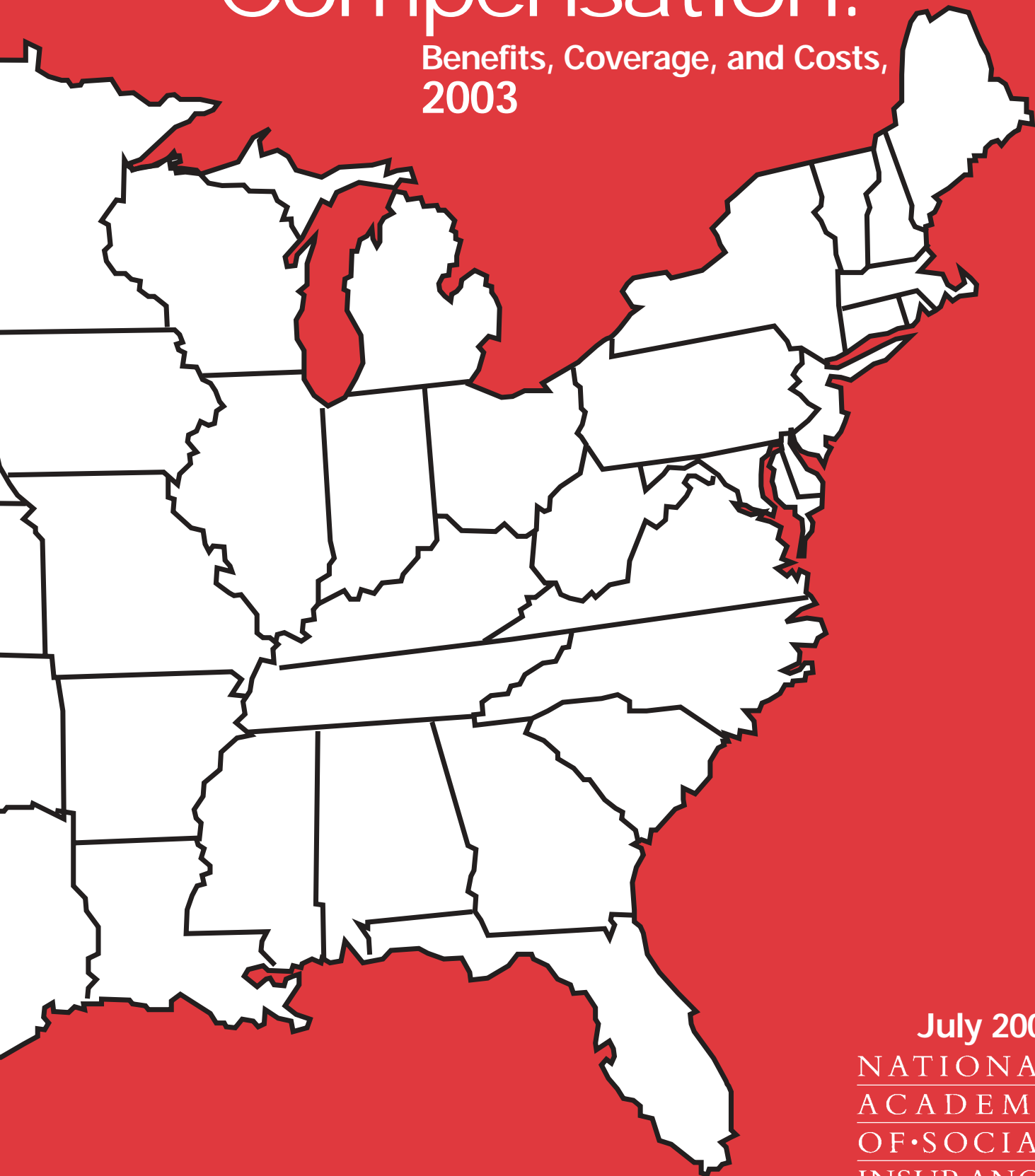


Workers' Compensation:

Benefits, Coverage, and Costs,
2003



July 2005

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The National Academy of Social Insurance is a nonprofit, nonpartisan organization made up of the nation's leading experts on social insurance. Its mission is to conduct research and enhance public understanding of social insurance, develop new leaders, and provide a nonpartisan forum for exchange of ideas on important issues in the field of social insurance. Social insurance, both in the United States and abroad, 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. The Academy's research covers social insurance systems such as Social Security, Medicare, workers' compensation and unemployment insurance, and related social assistance and private employee benefits.

The Academy convenes steering committees and study panels that are charged with conducting research, issuing findings and, in some cases, reaching recommendations based on their analyses. 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. The findings and any recommendations are those of the Study Panel and do not represent an official position of the National Academy of Social Insurance or its funders.

This research report presents new data and does not make recommendations. It was prepared with the guidance of the Workers' Compensation Steering Committee and 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, the Office of Workers' Compensation Programs of the U.S. Department of Labor, and Liberty Mutual Insurance Company. It also received in-kind support in data from the National Council of Compensation Insurance.

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Benefits, Coverage, and Costs,

2003

by

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

with advice of the

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

and the

Steering Committee on Workers' Compensation

July 2005

**NATIONAL
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Preface

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

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

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

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

This is the eighth report the Academy has issued on workers' compensation national data. In December

1997, it published a report that extended the data series through 1995. Jack Schmulowitz, a retired SSA analyst, prepared the report and provided the Academy with full documentation of the methods used to produce the estimates. Subsequent reports published by the Academy through 2004 extended the data series through 2002. Those reports used the same basic methodology followed in prior reports but incorporated several innovations. In particular, the Academy reports:

- Provide state-level information separating medical and cash benefits;
- Place workers' compensation in context with other disability insurance programs;
- Compare the recent trends in the benefit spending for workers' compensation to those for Social Security Disability Insurance;
- Discuss the relative advantages and drawbacks of using calendar year benefits paid *vis-à-vis* accident year incurred losses to measure benefit trends;
- Estimate benefits paid under deductible provisions for individual states;
- Present state-level estimates of the number of covered workers and total covered wages;
- Report estimates of benefits relative to total wages in each state;
- Provide information on special federal programs that are similar to workers' compensation, but are not included in national totals in the Academy's series;
- Compare trends in workers' compensation claims frequency for privately insured employers with trends in incidence of work-related injuries reported by private employers to the Bureau of Labor Statistics;
- Update estimates for the past five years of workers' compensation benefits, costs, and coverage in each report; and
- Provide more complete documentation of methods for collecting data and estimating coverage, deductibles, and self-insured benefits and costs.

During the past year, the Academy completed two additional activities in the workers' compensation field. First, a study panel, chaired by H. Allan Hunt,

completed its report, *Adequacy of Earnings Replacement in Workers' Compensation Programs*. The report was published in 2004 and is available from the W.E. Upjohn Institute for Employment Research. Second, the Academy, in collaboration with the Social Security Administration, convened a seminar in June 2004 on the *Interaction of Workers' Compensation and Social Security Disability Insurance*. Several papers presented by Academy experts for the seminar are now published in the *Social Security Bulletin*. The papers include: "Workers' Compensation: A Background for Social Security Professionals," by Ann Clayton; "Benefit Adequacy in Workers' Compensation Programs," by H. Allan Hunt; "Compensating Workers for Permanent Partial Disabilities," by Peter S. Barth; and "The Fraction of Disability Caused at Work," By Robert T. Reville and Robert F. Schoeni.

This data report benefited from insights gained at the seminar and 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 carefully reviewing the draft report. We would like to especially acknowledge Barry Llewellyn, Senior Divisional Executive and Actuary with the National Council on Compensation Insurance, who provided the Academy with data and underwriting reports and his considerable expertise on many data issues. This report also benefited from helpful comments during Board review by Christine Baker, Paul R. Cullinan and Frederick W. Kilbourne.

John F. Burton, Jr.
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Compensation

Marjorie Baldwin
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Business, School of Health
Management and Policy
Arizona State University

Peter S. Barth
Professor of Economics, Emeritus
University of Connecticut

Keith Bateman
Vice President, Workers'
Compensation, Property
Casualty Insurers Association of
America

Leslie Boden
Professor, School of Public
Health, Boston University

John F. Burton, Jr.
Professor, Labor Studies and
Employment Relations
School of Management & Labor
Relations, Rutgers University

Ann Clayton
Consultant on Workers'
Compensation, Lexington, MA

David Corum
Assistant Vice President
Policy Development and
Research, American Insurance
Association

Donald Elisburg
Attorney at Law, Potomac, MD

James N. Ellenberger
Deputy Commissioner
Virginia Employment
Commission

Shelby Hallmark
Director, Office of Workers'
Compensation Programs
U.S. Department of Labor

Jay S. Himmelstein, M.D.
Director, Robert Wood Johnson
Foundation, Workers'
Compensation Health Initiative
Center for Health Policy and
Research, University of
Massachusetts Medical School

Frederick W. Kilbourne
Independent Actuary
The Kilbourne Company

Kate Kimpan
Associate, 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.

Paul Mattera
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Chief Public Affairs Officer
Liberty Mutual Group

Eric Nordman
Director of Research
National Association of
Insurance Commissioners

Eric J. Oxfeld
President, UWC—Strategic
Services on Unemployment
and Workers' Compensation

Tom Rankin
Past President, California Labor
Federation, AFL-CIO

Robert Reville
Director, Institute for Civil
Justice, RAND

Emily A. Spieler
Dean and Edwin W. Hadley
Professor of Law, Northeastern
University School of Law

Allyn C. Tatum
Vice President of Claims
Tyson Foods

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

Edward M. Welch
Director, Workers'
Compensation Center
School of Labor and Industrial
Relations, Michigan State
University

Study Panel on National Data on Workers' Compensation

John F. Burton Jr., Chair
Professor, Labor Studies and
Employment Relations
Rutgers University

Marjorie Baldwin
Professor, W.P. Carey School
of Business, School of Health
Management and Policy
Arizona State University

Peter S. Barth
Professor of Economics, Emeritus
University of Connecticut

Keith Bateman
Vice President, Workers' Com-
pensation, Property Casualty
Insurers Association of America

Leslie Boden
Professor, School of Public
Health, Boston University

Aaron Catlin
Economist, National Health
Statistics Group, Office of the
Actuary, Centers for Medicare &
Medicaid Services

David Corum
Assistant Vice President, Policy
Development and Research,
American Insurance Association

Donald Elisburg
Attorney at Law, Potomac, MD

James N. Ellenberger
Deputy Commissioner, Virginia
Employment Commission

Shelby Hallmark
Director, Office of Workers'
Compensation Programs
U.S. Department of Labor

Jay S. Himmelstein, M.D.
Director, Robert Wood Johnson
Foundation, Workers' Compensa-
tion Health Initiative, Center
for Health Policy and Research,
University of Massachusetts
Medical School

H. Allan Hunt
Assistant Executive Director
W.E. Upjohn Institute

Kate Kimpan
Associate, Dade Moeller &
Associates

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

Katharine Levit
Consultant, Levit Associates

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

Robert E. McGarrath, Jr.
Coordinator for Workers'
Compensation, AFL-CIO

Eric Nordman
Director of Research, National
Association of Insurance
Commissioners

Eric J. Oxfeld
President, UWC - Strategic
Services on Unemployment
and Workers' Compensation

Robert Reville
Director, Institute for Civil
Justice, RAND

John Ruser
Associate Director for Regional
Economics, Bureau of Economic
Analysis

Robert Steggert
Vice President, Casualty Claims
Marriott International, Inc.

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 &
Medicaid Services

Edward M. Welch
Director, Workers'
Compensation Center, School of
Labor and Industrial Relations,
Michigan State University

William J. Wiatrowski
Assistant Commissioner, Office
of Safety, Health and Working
Conditions, Bureau of Labor
Statistics

Glenn Whittington
Chief, Retired, Branch of
Planning, Policy and Review
U.S. Department of Labor

Project Staff

David Balinski
2005 NASI Intern

Jill Braunstein
Director of Communications

Anita Cardwell
Research Assistant

Virginia Reno
Vice President for Income
Security

Simona Tudose
Communications Associate

Ishita Sengupta
Workers' Compensation
Research Associate

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Highlights

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

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 tax treatment, no federal laws set standards for "tax-qualified" plans or impose any reporting requirements. Consequently, 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 eighth annual report on workers' compensation benefits, coverage, and costs. This report presents new data on developments in workers' compensation in 2003 and updates estimates of benefits, costs, and coverage for the years 1999–2002. The revised estimates in this report replace estimates in the Academy's prior report, *Workers' Compensation: Benefits, Coverage, and Costs, 2002*.

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; are used in the annual report of the National Safety Council, *Injury Facts*, are reported in *Employee Benefit News*, which tracks developments for human resource professionals; and are reported in *Fundamentals of Employee Benefits* by the Employee Benefit Research Institute. The U.S. Social Security Administration publishes the data in its *Annual Statistical Supplement to the Social Security Bulletin* and uses the findings in its estimates of national social welfare expenditures in the United States. The federal Centers for Medicare & Medicaid Services 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 oversee 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 under the oversight of the Academy's Steering Committee on Workers' Compensation and its expert Study Panel on National Data on Workers' Compensation, both of which are listed in the front of this report. The Academy and its expert advisors are continually seeking ways to improve the report and to adapt estimation methods to 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. Workers' compensation programs in the fifty states, the District of Columbia, and federal programs paid \$54.9 billion in workers' compensation benefits in 2003. Of the total, \$25.6 billion were for medical care and \$29.3 billion were for cash benefits (Table 1).

Table 1**Comparison of Workers' Compensation Benefits, Coverage, and Costs, 2002-2003
Summary**

Aggregate Amounts	2002	2003	Change In percent
Covered workers (in thousands)	125,603	125,166	-0.3
Covered wages (in billions)	4,624	4,734	2.4
Workers' compensation benefits paid (in billions)	\$ 53.2	\$ 54.9	3.2
Medical benefits	\$24.3	\$25.6	5.2
Cash benefits	\$28.8	\$29.3	1.5
Employer costs for workers' compensation (in billions)	\$73.7	\$80.8	9.6
Amount per \$100 of covered Wages			In amount
Benefits paid	\$1.15	\$1.16	0.01
Medical payments	\$0.53	\$0.54	0.01
Cash payments to workers	\$0.62	\$0.62	0.00
Employer costs	\$1.59	\$1.71	0.12

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

Workers' compensation differs from Social Security disability insurance and Medicare in important ways. Workers' compensation pays for medical care for work-related injuries immediately; it pays temporary disability benefits after a waiting period of three to seven days; it pays permanent partial and permanent total disability benefits to workers who have lasting consequences of disabilities caused on the job; and it pays benefits to survivors of workers who die of work-related causes. Social Security and Medicare, in contrast, pay benefits to workers with long-term disabilities of any cause, but only when the disabilities preclude work. Social Security begins after a five-month waiting period and Medicare begins twenty-nine months after the onset of medically verified inability to engage in employment. In 2003, Social Security paid \$70.9 billion in cash benefits to disabled workers and their dependents, while Medicare paid \$37.9 billion for health care for disabled persons under age 65 (SSA 2004a, 2005 and CMS 2005).

Paid sick leave, temporary disability benefits, and long-term disability insurance are also available to some workers. About 70 percent of private sector

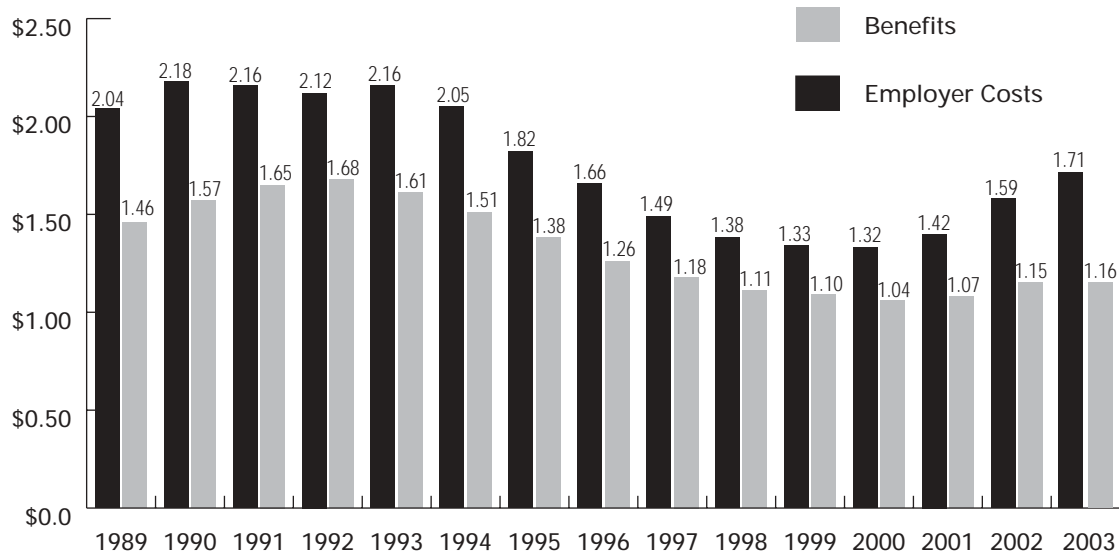
employees have sick leave or short-term disability coverage, while 30 percent have no income protection for temporary incapacity other than workers' compensation. Sick leave typically pays 100 percent of wages for a few weeks. Long-term disability insurance that is financed, at least in part, by employers covers about 28 percent 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.

Recent Developments in Workers' Compensation

In 2003, employers' costs for workers' compensation grew faster than combined payments for cash benefits and medical treatment for injured workers. Costs rose to \$80.8 billion from \$73.7 billion in 2002, an increase of 9.6 percent (Table 1). At the same time, total payment for cash benefits and medical treatment combined were \$54.9 billion, an increase of 3.2 percent over the 2002 amount of \$53.2 billion.

Figure 1

Workers' Compensation Benefits and Costs Per \$100 of Wages, 1989–2003



Source: National Academy of Social Insurance estimates.

When measured relative to aggregate wages of covered workers, total workers' compensation payments rose by one cent for every \$100 of wages in 2003 – or from \$1.15 to \$1.16 (Figure 1). The growth occurred in payments for medical care, which rose from \$0.53 to \$0.54 per \$100 of wages, while benefits paid to injured workers remained at \$0.62 per \$100 of wages in 2003, the same as in 2002 (Figure 2).

The cost to employers – which includes the premiums they pay for workers' compensation insurance (or the benefits they directly provide for workers plus their administrative costs if they self-insure) – rose by 12 cents per \$100 of wages, to \$1.71 in 2003 from \$1.59 in 2002. The increase in costs continues a trend that began in 2000, when workers' compensation costs and benefits relative to wages were at their lowest point in the last 15 years.

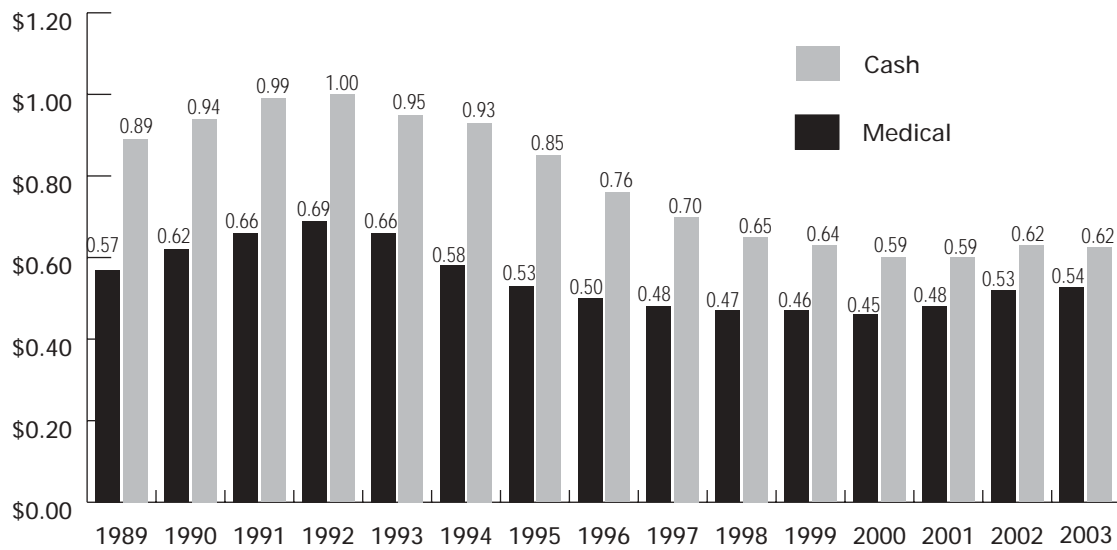
In each year since 2000, employer costs grew faster than cash benefits and payments for medical treatment. Over the three-year period, employer costs per \$100 of payroll rose by 39 cents, from \$1.32 in 2000 to \$1.71 in 2003 (Figure 1). Over the same period, total payments on workers' behalf rose by 12 cents per \$100 of payroll. Of that 12-cent increase, 3 cents went for cash benefits to workers, while 9 cents was for medical treatment (Figure 2).

The recent rise in costs appears to be part of a longer trend of ups and downs in the workers' compensation insurance market. In the 1990s, benefit payments declined and costs to employers fell. Total costs per \$100 of payroll peaked in 1993 at \$2.16, before falling to \$1.32 in 2000. Total benefits per \$100 of wages for cash benefits and medical treatment combined peaked in 1992 at \$1.68, before falling to \$1.04 in 2000. While both costs and benefits as a share of payroll rose after 2000, they remain below their peak levels.

Shifts in employer costs as a share of payroll reflects broader developments in the insurance industry and financial markets. The decline in employer costs in the 1990s occurred as insurance companies, spurred by favorable investment returns, cut the premiums they charged employers in order to expand their market shares. Historically high investment returns contributed to profits in the workers' compensation insurance industry in the mid- and late-1990s. After 2000, low interest rates and poor stock market returns reversed that trend. The workers' compensation insurance industry was unprofitable in 2001 and 2002. Employer costs rose as insurance carriers raised premiums in order to cover future benefit costs. (Yates and Burton, 2004).

Figure 2

Workers' Compensation Medical and Cash Benefits per \$100 of Covered Wages, 1989-2003



Source: National Academy of Social Insurance estimates.

The increases in costs and benefits relative to covered wages since 2000 are due, in part, to sluggish growth in aggregate wages. In each year, wage growth was at historically low levels – at 2.4 percent, 0.4 percent, and 2.4 percent for 2001, 2002 and 2003, respectively. The lagging wage growth reflects a decline in the number of jobs covered by workers' compensation in each of the last three years – of 0.1 percent, 1.1 percent and 0.3 percent, respectively. The loss of covered jobs since 2000 reflects economy-wide job losses due to the sluggish recovery from the economic recession that began in March 2001. State laws about who is covered by workers' compensation did not change.

Historical Trends in Workers' Compensation Benefits

Fluctuations in payments for workers' compensation over the last two decades are influenced by policy developments and the role of workers' compensation in the broader health care and disability income systems. Opinions often differ about the main causes of changes in spending.

In the second half of the 1980s, workers' compensation benefits and costs grew at double-digit rates and payments for medical treatment were a growing share of total payments. Some believe that rising

workers' compensation medical benefits and costs reflected cost-shifting away from employment-based health insurance to workers' compensation as the regular health insurance system introduced managed care and other forms of cost controls in the 1980s (Burton 1997). Business representatives in the workers' compensation field believe that other factors also contributed to the rise in workers' compensation medical costs. They believe that workers had an incentive to seek additional medical care in order to obtain higher permanent disability awards because contested claims are sometimes settled as a multiple of the amount of medical costs incurred. On the other hand, workers' representatives point to studies that find substantial numbers of injured workers never file for workers' compensation benefits (Shannon and Lowe 2002; Biddle et al. 1998) and that most occupational diseases are not compensated by workers' compensation (Leigh and Robbins, 2004).

The decline in workers' compensation benefits in the mid-1990s may have been caused by many factors. In response to rising workers' compensation costs in the late 1980s and early 1990s, employers and insurers expanded the use of disability management techniques with the aim of improving return-to-work by injured workers and lowering workers' compensation costs. At the same time, workers' compensation sys-

tems followed the general health care system in introducing managed care and other cost controls to reduce the growth in medical spending. Business representatives believe that the adoption of more objective methods of rating permanent disability and controls against “doctor shopping” reduced claimants’ incentive to seek additional medical care in order to strengthen their permanent disability claims. On the other hand, worker representatives argue that a stricter adjudicative climate deterred legitimate claims, while restrictions on workers’ choice of their treating doctor made it more difficult to get legitimate claims documented and approved.

It is plausible that retrenchment in either the general health care system or in workers’ compensation health care would influence the decisions of patients or doctors about which system they seek to pay for health care, particularly in cases of borderline work relatedness.

A decline in workplace accidents would also contribute to a decline in aggregate payments in the 1990s. According to surveys by the Bureau of Labor Statistics (BLS), private employers have reported fewer workplace injuries that result in days away from work. The number of reported injuries or illnesses per 100 full-time workers declined from 3.0 in 1992 to 1.5 in 2003 (U.S. DOL 2004e). In addition, the National Council on Compensation Insurance reports a decline in the frequency of workers’ compensation claims during the 1990s (NCCI 2002b). These findings suggest that workplaces are becoming safer.

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

which a condition is directly related to events on the job, or whether it is the cumulative impact of aging and other life experiences. Given this gray area, changes in rules or practices with regard to compensability could have a significant impact as a growing share of the workforce is over age 50. There is evidence that between 7.0 and 9.4 percent of the decline in injury rates between 1991 and 1997, as measured in the BLS surveys, is the result of tighter eligibility standards and claims-filing restrictions for workers’ compensation (Boden and Ruser 2003). Fewer cases reported to the workers’ compensation system could result in fewer injuries reported in the BLS survey.

Interaction with other disability benefit programs could also affect overall system benefits and costs. In the 1980s, when workers’ compensation grew rapidly as a share of covered wages, Social Security disability benefits actually declined as a share of covered wages, following retrenchments in that program in the early 1980s. On the other hand, in the 1990s, workers’ compensation declined while Social Security disability benefits rose as a share of covered wages. While most workers’ compensation recipients would not be eligible for Social Security because their disabilities are only temporary or partial, injured workers with significant long-term work incapacities might qualify for Social Security. A recent study finds that more than one third (36 percent) of persons ages 51-61 whose health limits the kind or amount of work they can do became disabled because of an accident, injury, or illness at work. Of the subset of those disabled individuals who were receiving Social Security disability insurance, a similar portion (37 percent) said they were disabled because of an accident, injury or illness at work. The study finds that workers who attribute their disabling conditions to their jobs are far more likely to be receiving social security disability insurance (29.0 percent) than to ever have received workers’ compensation (4.7 percent) (Reville and Schoeni, 2005). The interaction between workers’ compensation and Social Security disability insurance remains an important topic for further study.

Overview of Workers' Compensation

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

Workers' compensation originated in Europe, where 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.

These laws were adopted throughout the nation, despite the great efforts required to reach agreements between business and labor 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 United States, certain energy employees exposed to hazardous material, and veterans injured on active duty in the armed forces.

Before workers' compensation laws were enacted, an injured worker's only legal remedy for a work-related injury was to bring a tort suit against the employer and prove that the employer's negligence caused the injury. At the time, employers could use three common-law defenses to avoid compensating the worker: Assumption of risk (showing that the injury resulted

from an ordinary hazard of employment); the fellow-worker rule (showing that the injury was due to a fellow-worker's negligence); and contributory negligence (showing that, regardless of any fault of the employer, the worker's own negligence contributed to the accident).

Under the tort system, workers often did not recover damages and sometimes experienced delays or high costs when they did. While employers generally prevailed in court, they nonetheless were at risk for substantial and unpredictable losses if the workers' suits were successful. Litigation created friction between employers and workers. Ultimately, both employers and employees favored legislation to insure that a worker who sustained an occupational injury or disease arising out of and in the course of employment would receive predictable compensation without delay, irrespective of who was at fault. As a *quid pro quo*, the employer's liability was limited. Under the exclusive remedy concept, the worker accepts workers' compensation as payment in full, and gives up the right to sue.

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

Workers' compensation is financed almost exclusively by employers, although economists argue that workers pay for a substantial portion of the costs of the program in the form of lower wages (Leigh et al. 2000). The premiums paid by employers are based in part on their industry classifications and the occupational classifications of their workers. Many employers are also experience rated, which results in higher (or lower) premiums for employers whose past experience demonstrates that their workers are paid more (or less) benefits than those of workers for similar employers in the same insurance classification. The employers' costs of workers' compensation can be affected by other factors, such as deviations, schedule rating, and dividends (Thomason, Schmidle, and Burton 2001). NCCI data indicate that the size of these competitive pricing adjustments varies over time as the nature of the underwriting cycle changes.

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. The National Council on Compensation Insurance finds that medical-only cases accounted for 78 percent of workers' compensation cases, but only 6 percent of all benefits paid, according to information about insured employers in thirty-eight states for policy years spanning 1998–2000 (NCCI 2003a). The remaining 22 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 workers' lost time exceeds the three- to seven-day waiting period. Most states pay weekly benefits for temporary total disability

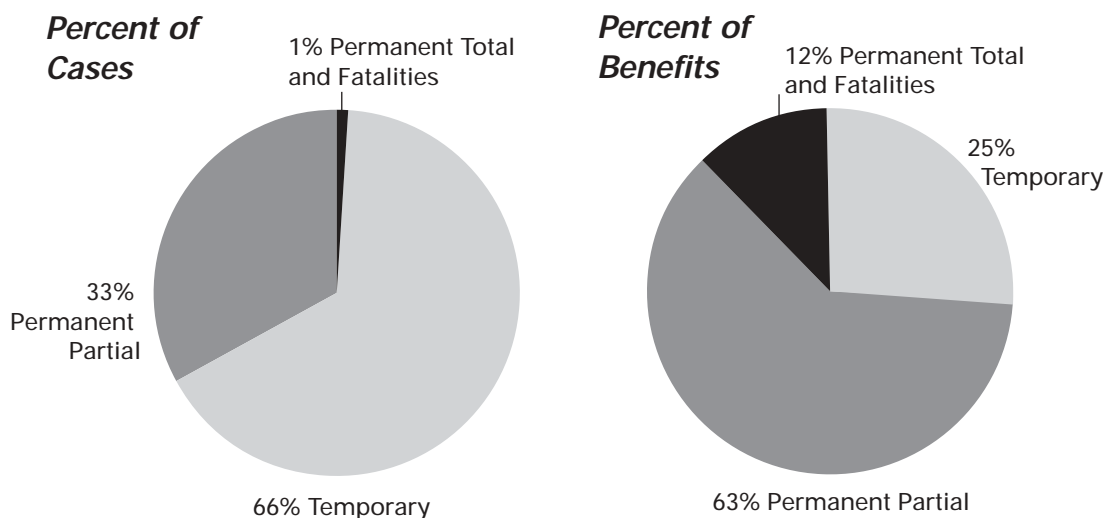
that replace two-thirds of the worker's pre-injury wage, subject to a dollar maximum that varies from state to state. In most cases, workers fully recover, return to work, and benefits end. In some cases, they return to work before they reach maximum medical improvement and have reduced responsibilities and a lower salary. In those cases, they receive *temporary partial disability* benefits. Temporary disability benefits are the most common type of cash benefits. They account for 66 percent of cases involving cash benefits and 25 percent of benefits incurred (Figure 3).

If a worker has very significant physical 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 12 percent of total benefit spending.

Permanent partial disability benefits are more commonly paid to workers with impairments that are judged to be permanent. States differ in their methods for determining whether a worker is entitled to permanent partial benefits, the degree of partial dis-

Figure 3

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



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

Source: NCCI 2004b, Exhibits X and XII.

ability and the amount of benefits to be paid (Barth and Niss 1999). Cash benefits for permanent partial disability are frequently limited to a specified duration or an aggregate dollar limit. Permanent partial disabilities account for 33 percent of cases that involve any cash payments and for 63 percent of spending.

A recent in-depth study examined the likelihood that workers' compensation claimants would receive permanent partial disability benefits. It focused on individuals in six states who had experienced more than seven days of lost work time. Those who subsequently received permanent partial benefits ranged from about 3 in 10 in one state, to more than half of cases with at least one week of lost work time in two other states (Barth et al. 2002).

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

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

- An *impairment-based approach*, used in 19 states, is most common. In approximately 14 of those states, the worker with an unscheduled permanent partial disability receives a benefit based entirely on the degree of impairment. Any future earnings losses of the worker are not considered.
- A *loss-of-earning-capacity approach* is used in 13 states. This approach links the benefit to the worker's ability to earn or to compete in the labor market and involves a forecast of the economic impact that the impairment will have on the worker's future earnings.
- In a *wage-loss approach*, used in 10 states, benefits are paid for the actual or ongoing losses that a worker incurs. In some states, the permanent partial disability benefit begins after maximum medical improvement has been achieved.

In some cases permanent disability benefits can simply be the extension of temporary disability benefits until the disabled worker returns to employment.

- In a *bifurcated approach* used in nine jurisdictions, the benefit for a permanent disability depends on the worker's employment status at the time that the worker's condition is assessed, after the condition has stabilized. If the worker has returned to employment with earnings at or near the pre-injury level, the benefit is based on the degree of impairment. If the worker has not returned to employment, or has returned but at lower wages than before the injury, the benefit is based on the degree of lost earning capacity.

Covered Employment

In 2003, workers' compensation covered an estimated 125.2 million workers, a decline of 0.3 percent from the 125.6 million workers covered in 2002 (Table 2). Total wages of covered workers were \$4.73 trillion in 2003, an increase of 2.4 percent from 2002. The decline in covered workers and very slow wage growth reflects the continued adverse effects on employment of the recession that began in March 2001. In 2001 through 2003, job growth was negative and wage growth was slower than at any time in more than two decades. These developments reflect the condition of the overall economy. Workers' compensation coverage rules did not change.

Coverage Rules

Every state except Texas mandates coverage under workers' compensation for almost all private employees (U.S. DOL 2004a). In Texas, coverage is voluntary, but employers not offering coverage are not protected from tort suits. An employee not covered by workers' compensation insurance is allowed to file suit claiming the employer is liable for his or her work-related injury or illness.

Other states may exempt from mandatory coverage certain categories of workers, such as those in very small firms, certain agricultural workers, household workers, employees of charitable or religious organizations, or employees of some units of state and local government. Employers with fewer than three workers are exempt from mandatory workers' compensation coverage in Arkansas, Colorado, Georgia,

Michigan, New Mexico, North Carolina, Virginia, and Wisconsin. Employers with fewer than four workers are exempt in Florida and South Carolina. Those with fewer than five employees are exempt in Alabama, Mississippi, Missouri, and Tennessee.

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

Method for Estimating Coverage

Because no national system exists for counting workers covered by workers' compensation, the number of covered workers and their covered wages must be estimated. The Academy's methods for estimating coverage are described in Appendix A. In brief, we

start with the number of workers and total wages in each state that are covered by unemployment insurance (UI). About 96 or 97 percent of all 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 2003, 97.9 percent of all UI-covered workers and wages were covered by workers' compensation. They account for about 96 percent of all wage and salary workers in the United States, not counting self-employed persons. About ten million U.S. workers were self-employed as their main job in 2003, and were not covered by either UI or workers' compensation (U.S. DOL 2004b)¹.

Table 2

Number of Workers Covered under Workers' Compensation Programs and Total Covered Wages, 1989–2003

Year	Total Workers		Total Wages	
	(in thousands)	Percent Change	(in billions)	Percent Change
1989	103,900		\$ 2,347	
1990	105,500	1.5	2,442	4.0
1991	103,700	-1.7	2,553	4.5
1992	104,588	0.9	2,711	6.2
1993	106,503	1.8	2,810	3.7
1994	109,582	2.9	2,955	5.2
1995	112,377	2.6	3,132	6.0
1996	114,773	2.1	3,328	6.2
1997	118,145	2.9	3,591	7.9
1998	121,485	2.8	3,885	8.2
1999	124,349	2.4	4,151	6.8
2000	127,141	2.2	4,494	8.3
2001	126,971	-0.1	4,604	2.4
2002	125,603	-1.1	4,624	0.4
2003	125,166	-0.3	4,734	2.4

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

¹ For a more in-depth discussion of this methodology see Appendix A and *Workers' Compensation Coverage: Technical Note on Estimates* at www.nasi.org (NASI 2002).

Table 3
Number of Workers Covered by Workers' Compensation and Total Covered Wages, By State, 1999-2003

	Covered Workers (in thousands)					Covered Wages (in millions)						
	1999	2000	2001	2002	2003	2002-2003 % Change	1999	2000	2001	2002	2003	2002-2003 % Change
Alabama	1,738	1,747	1,726	1,704	1,698	-0.3	\$48,038	\$49,852	\$51,057	\$52,037	\$53,617	3.0
Alaska	252	259	266	270	275	1.6	8,382	8,856	9,391	9,786	10,098	3.2
Arizona	2,104	2,172	2,195	2,191	2,222	1.4	63,711	70,313	72,747	73,890	77,118	4.4
Arkansas	1,056	1,074	1,071	1,064	1,061	-0.3	26,505	27,952	28,874	29,515	30,246	2.5
California	14,122	14,591	14,728	14,588	14,553	-0.2	528,468	599,367	606,472	601,288	616,879	2.6
Colorado	2,051	2,132	2,148	2,101	2,064	-1.7	69,591	78,692	80,930	79,093	79,589	0.6
Connecticut	1,630	1,651	1,644	1,627	1,605	-1.4	69,550	75,132	77,254	76,191	77,519	1.7
Delaware	395	400	400	396	396	0.0	13,858	14,612	15,331	15,654	16,173	3.3
District of Columbia	431	454	452	458	459	0.1	20,622	22,539	23,788	24,634	25,560	3.8
Florida	6,450	6,664	6,754	6,765	6,840	1.1	184,929	201,923	211,244	217,178	227,172	4.6
Georgia	3,606	3,691	3,682	3,624	3,597	-0.7	115,703	125,329	128,313	128,121	130,129	1.6
Hawaii	508	523	527	528	538	1.9	14,733	15,545	15,994	16,694	17,564	5.2
Idaho	530	550	558	558	562	0.7	13,620	15,054	15,301	15,515	15,890	2.4
Illinois	5,754	5,840	5,793	5,679	5,606	-1.3	208,109	221,437	225,549	224,324	226,180	0.8
Indiana	2,857	2,882	2,822	2,785	2,774	-0.4	85,340	88,942	89,178	90,220	91,998	2.0
Iowa	1,414	1,423	1,410	1,393	1,385	-0.5	37,919	39,490	40,418	41,038	42,247	2.9
Kansas	1,265	1,279	1,286	1,270	1,251	-1.5	35,149	37,198	38,411	38,730	38,953	0.6
Kentucky	1,691	1,720	1,696	1,676	1,673	-0.2	46,638	49,178	50,503	51,360	52,803	2.8
Louisiana	1,812	1,832	1,835	1,812	1,820	0.4	48,844	50,542	52,870	53,956	55,315	2.5
Maine	560	577	579	577	577	0.0	14,856	15,715	16,445	16,887	17,450	3.3
Maryland	2,220	2,277	2,295	2,299	2,306	0.3	74,498	80,676	85,056	87,514	90,465	3.4
Massachusetts	3,136	3,218	3,222	3,150	3,089	-1.9	126,249	142,548	144,680	141,163	142,621	1.0
Michigan	4,345	4,428	4,325	4,242	4,175	-1.6	154,893	163,500	161,252	161,193	163,935	1.7
Minnesota	2,518	2,572	2,576	2,552	2,542	-0.4	83,995	90,818	93,929	95,206	97,750	2.7

Mississippi	1,057	1,056	1,033	1,027	1,020	-0.7	25,396	26,207	26,364	26,900	27,629	2.7
Missouri	2,469	2,501	2,482	2,457	2,447	-0.4	73,380	77,872	79,804	80,636	81,917	1.6
Montana	359	366	371	374	380	1.4	8,147	8,637	9,102	9,482	9,935	4.8
Nebraska	843	995	860	850	850	0.1	22,277	23,566	24,190	24,792	25,571	3.1
Nevada	960	865	1,027	1,027	1,062	3.4	29,766	32,094	33,784	34,677	37,255	7.4
New Hampshire	583	598	602	595	596	0.2	18,663	20,695	21,267	21,418	22,135	3.3
New Jersey	3,720	3,809	3,809	3,792	3,787	-0.1	152,386	166,150	168,391	170,802	174,951	2.4
New Mexico	664	660	673	680	688	1.2	17,023	17,725	18,801	19,441	20,187	3.8
New York	8,154	8,325	8,287	8,135	8,089	-0.6	343,628	374,687	387,229	375,634	381,651	1.6
North Carolina	3,657	3,710	3,660	3,607	3,577	-0.9	107,166	114,729	116,573	117,180	119,091	1.6
North Dakota	295	298	300	300	302	0.7	6,908	7,249	7,593	7,843	8,221	4.8
Ohio	5,367	5,426	5,352	5,252	5,202	-1.0	167,351	175,162	176,803	178,285	181,304	1.7
Oklahoma	1,377	1,404	1,417	1,393	1,366	-2.0	34,825	37,061	38,877	38,991	39,576	1.5
Oregon	1,546	1,577	1,567	1,543	1,533	-0.7	47,365	51,322	51,598	51,496	52,299	1.6
Pennsylvania	5,349	5,444	5,444	5,396	5,364	-0.6	173,798	184,030	189,065	191,743	196,858	2.7
Rhode Island	427	437	439	439	443	0.9	13,152	14,096	14,563	15,058	15,906	5.6
South Carolina	1,701	1,729	1,698	1,677	1,679	0.1	45,806	48,345	49,306	49,868	51,154	2.6
South Dakota	345	353	354	352	353	0.3	8,052	8,592	8,881	9,101	9,413	3.4
Tennessee	2,475	2,516	2,479	2,455	2,453	-0.1	72,255	76,065	77,275	78,948	81,411	3.1
Texas	7,278	7,573	7,705	7,629	7,584	-0.6	238,031	263,100	276,163	274,531	278,124	1.3
Utah	986	1,011	1,017	1,006	1,006	0.0	27,143	29,109	30,124	30,233	30,732	1.7
Vermont	282	290	292	290	288	-0.5	7,726	8,325	8,758	8,896	9,148	2.8
Virginia	3,177	3,202	3,216	3,186	3,191	0.1	102,718	110,232	115,570	115,504	119,804	3.7
Washington	2,576	2,637	2,622	2,575	2,583	0.3	91,575	97,245	97,512	97,585	99,821	2.3
West Virginia	659	664	664	661	656	-0.8	16,815	17,491	18,187	18,483	18,738	1.4
Wisconsin	2,603	2,646	2,630	2,604	2,602	-0.1	76,769	80,913	82,627	84,191	86,579	2.8
Wyoming	216	222	228	230	232	0.9	5,448	5,859	6,295	6,564	6,833	4.1
Total non-federal	121,566	124,269	124,219	122,844	122,402	-0.4	4,027,755	4,361,767	4,469,692	4,479,466	4,583,512	2.3
Federal employees	2,783	2,871	2,753	2,758	2,764	0.2	123,286	132,731	134,712	144,329	150,819	4.5
TOTAL	124,349	127,141	126,971	125,603	125,166	-0.3	4,151,040	4,494,499	4,604,404	4,623,795	4,734,330	2.4

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

Changes in State Coverage

Because workers' compensation coverage rules did not change between 2002 and 2003, differences in growth rates among states generally reflect changes in the states' overall employment, mix of employment (self-employed and partnerships versus employee status) and wages. With regard to covered employment, twenty-eight states experienced a decline in the number of covered workers, while twenty-three jurisdictions experienced an increase in covered jobs in 2003 (Table 3). In most states the changes were small, with covered employment rising or falling by less than 1 percentage point. Nevada showed the largest increase in covered employment (3.4 percent), while the largest decline was in Oklahoma (2.0 percent).

With regard to wages covered under workers' compensation, all jurisdictions registered increases in covered wages. Only three states – Colorado, Illinois, and Kansas – saw covered wages rise less than one percent.

Benefit Payments

Workers' compensation payments for medical treatment and cash benefits combined were \$54.9 billion in 2003, an increase of 3.2 percent from \$53.2 billion in 2002 (Table 4). These are benefits paid to all workers in a given year, regardless of the year their injuries occurred or their illnesses began. This measure is known as *calendar year paid benefits*. That is,

Table 4

Workers' Compensation Benefits, by Type of Insurer, 1987–2003 (in millions)

Year ^a	Total	Percent Change in Total	Private Carriers	State Funds	Self-Insured	Federal ^b	Medical	Percent Medical
1987	\$27,317	11.0	\$15,453	\$4,084	\$5,082	\$2,698	\$9,912	36.3
1988	30,703	12.4	17,512	4,687	5,744	2,760	11,507	37.5
1989	34,316	11.8	19,918	5,205	6,433	2,760	13,424	39.1
1990	38,238	11.4	22,222	5,873	7,249	2,893	15,187	39.7
1991	42,169	10.3	24,515	6,713	7,944	2,998	16,832	39.9
1992	45,668	8.3	25,280	7,506	9,724	3,158	18,664	40.9
1993	45,330	-0.7	24,129	7,400	10,623	3,178	18,503	40.8
1994	44,586	-1.6	22,306	7,587	11,527	3,166	17,194	38.6
1995	43,373	-2.7	21,145	7,893	11,232	3,103	16,733	38.6
1996	41,837	-3.5	20,392	7,603	10,775	3,066	16,567	39.6
1997	42,314	1.1	21,645	7,266	10,623	2,780	17,306	40.9
1998	43,278	2.3	22,966	7,241	10,203	2,868	18,121	41.9
1999	45,581	5.3	25,726	6,883	10,109	2,862	19,059	41.8
2000	46,908	2.9	26,160	7,316	10,475	2,957	20,421	43.5
2001	49,485	5.5	27,120	7,888	11,408	3,069	22,133	44.7
2002	53,168	7.4	28,924	9,211	11,879	3,154	24,332	45.8
2003	54,871	3.2	28,716	10,392	12,579	3,185	25,608	46.7

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

(b) In all years, federal benefits includes those paid under the Federal Employees' Compensation Act for civilian employees and the portion of the Black Lung benefit program that is financed by employers and are paid through the federal Black Lung Disability Trust fund. In years before 1997, federal benefits also include the other part of the Black Lung program that is financed solely by federal funds. In 1997–2003, 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.

in 2003, \$54.9 billion in benefits were paid for all workers' compensation cases, whether the workers were injured in 2003 or in a previous year.

The 3.2 percent increase in total benefits from 2002 to 2003 was driven, in large part, by rising spending for medical treatment. Spending for medical care rose by 5.2 percent, while cash payments to injured workers rose by 1.5 percent. The share of total payments that were for medical care rose to 46.7 percent in 2003. This is the largest share of payments for medical care since the data series began more than four decades ago.

When measured relative to aggregate wages of covered workers, total workers' compensation payments rose by one cent for every \$100 of wages in 2003 – or from \$1.15 to \$1.16, as illustrated in Figure 1. That increase was due to spending for medical care. Payments for medical treatment rose by one cent, from \$0.53 to \$0.54 per \$100 of wages, while cash payments to workers remained unchanged at \$0.62 per \$100 of wages in 2003, the same as in 2002.

Method for Estimating Benefits

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

The A.M. Best data used for this report show benefits paid in each state for 1999 through 2003. They include information for all private carriers in every state and for twenty-one of the twenty-six state funds, but do not include any information about self-insured employers or about benefits paid under deductible arrangements. Under deductible policies written by private carriers or state funds, the insurer pays all of the workers' compensation benefits, but employers are responsible for reimbursing the insurer for those benefits up to a specified deductible amount. Deductibles may be written into an insurance policy on a per-injury basis, or an aggregate basis, or a combination of a per-injury basis with an aggregate cap. States vary in the maximum deductibles they allow. In return for accepting a policy with a deductible, the employer pays a lower premium.

Forty-seven states responded to the Academy's 2003 questionnaire. 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; methods for estimating self-insured benefits are describe in Appendix E. A detailed, state-by-state explanation of how the estimates in this report are produced is in *Sources and Methods: A Companion to Workers' Compensation: Benefits, Coverage, and Costs, 2003* on the Academy's website at www.nasi.org.

Sources of Insurance Coverage

Private insurance carriers remain the largest source of workers' compensation benefits. In 2003, they accounted for 52.3 percent of benefits paid, a decline from 54.4 percent of total benefits in 2002 (Table 5). Private carriers are allowed to sell workers' compensation insurance in all but five states that have exclusive state funds—Ohio, North Dakota, Washington, West Virginia, and Wyoming.

Self-insured employers were the second largest provider of workers' compensation benefits in 2003. The share of benefits provided by self-insurers was 22.9 percent, a slight increase from 22.3 percent in 2002. Employers are allowed to self-insure for workers' compensation in all states except North Dakota and Wyoming, which require all employers to obtain insurance from the state fund. In other states, employers can self-insure their risk for workers' compensation benefits if they prove they have the financial capacity to do so. Many large employers choose to self-insure. Some states permit groups of employers in the same industry to self-insure through what is called group self-insurance. Benefits provided under group self-insurance are included with the self-insured benefits in this report.

The share of benefits provided by state funds rose to 18.9 percent in 2003, from 17.3 percent in 2002. A total of twenty-six states have state funds that provide workers' compensation insurance. They include the five exclusive state fund states and twenty-one others. In general, state funds are established by an act of the state legislature, have at least part of their board appointed by the governor, are usually exempt

Table 5**Total Amount and Percentage Distribution of Workers' Compensation Benefit Payments by Type of Insurer, 1990–2003**

Year	Total Benefits (in millions)	Percentage Distribution							
		Total	Private Carriers		State Funds		Federal ^b	Self-Insured	Self-Insured plus Deductibles
			All	Deductibles ^a	All	Deductibles ^a			
1990	\$38,238	100.0	58.1	n/a	15.4	n/a	7.6	19.0	19.0
1991	42,169	100.0	58.1	n/a	15.9	n/a	7.1	18.8	18.8
1992	45,668	100.0	55.4	2.7	16.4	*	6.9	21.3	24.0
1993	45,330	100.0	53.2	4.4	16.3	*	7.0	23.4	27.9
1994	44,586	100.0	50.0	5.9	17.0	0.4	7.1	25.9	32.2
1995	43,373	100.0	48.8	7.1	18.2	0.7	7.2	25.9	33.7
1996	41,837	100.0	48.7	8.3	18.2	0.9	7.3	25.8	35.0
1997	42,314	100.0	51.2	8.6	17.2	0.7	6.6	25.1	34.4
1998	43,278	100.0	53.1	9.0	16.7	0.6	6.6	23.6	33.1
1999	45,581	100.0	56.4	10.9	15.1	0.7	6.3	22.2	33.7
2000	46,908	100.0	55.8	12.3	15.6	0.9	6.3	22.3	35.5
2001	49,485	100.0	54.8	11.8	15.9	0.7	6.2	23.1	35.5
2002	53,168	100.0	54.4	14.5	17.3	1.0	5.9	22.3	37.8
2003	54,871	100.0	52.3	14.3	18.9	0.9	5.8	22.9	38.1

* 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.

from federal taxes, and typically serve as the insurer of last resort—that is, they do not deny insurance coverage to employers who have difficulty purchasing it privately. Not all state funds meet all these criteria, however. In some cases, it is not altogether clear whether an entity is a state fund or a private insurer, or whether it is a state fund or a state entity that is self-insuring workers' compensation benefits for its own employees. Consequently, the Academy's expert panel decided to classify as state funds all twenty-six entities that are members of the AASCIF (American Association of State Compensation Insurance Funds) (AASCIF 2005). This includes the South Carolina fund, which is the required insurer for state employees and is available to cities and counties to insure their employees, but does not insure private employers.

Trends in Deductibles and Self-Insurance

Prior to the 1990s, deductible policies were not common, but their popularity grew in the mid-1990s. In 1992, benefits under deductible policies totaled \$1.3 billion, or about 3.3 percent of total benefits (Table 6). By 2000, they had risen to \$5.8 billion, or 13.3 percent of total benefits. In 2003 deductibles totaled about \$7.9 billion, which was 15.9 percent of total benefits paid.

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

Table 6**Estimated Employer-Paid Benefits under Deductible Provisions for Workers' Compensation, (in millions), 1992–2003**

Year	Total	Private Carriers	State Funds	Deductibles as a % of Total Benefits
1992	\$1,250	\$1,250	*	3.3
1993	2,027	2,008	\$ 19	4.8
1994	2,834	2,645	189	6.2
1995	3,384	3,060	324	7.5
1996	3,859	3,492	367	8.7
1997	3,928	3,650	278	9.1
1998	4,114	3,873	241	9.8
1999	4,961	4,661	300	11.7
2000	5,747	5,321	426	13.3
2001	5,816	5,493	322	12.8
2002	7,711	7,200	511	16.4
2003	7,856	7,360	497	15.9

* Negligible

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

Employers who have policies with deductibles are, in effect, self-insuring up to the amount of the deductible. That is, they are bearing that portion of the financial risk. Adding deductibles to self-insured benefit payments shows the share of the total market where employers are assuming financial risk. This share of total benefit payments rose from 19.0 percent in 1990 to 35.0 percent in 1996, and then remained between 33 and 36 percent of total benefits through 2001. In 2003, this share increased to 38.1 from the 2002 share of 37.8 percent of benefit payments (Table 5).

The growth in self-insurance and in deductible policies in the early 1990s, as well as the down-turn in self-insurance later in the 1990s, probably reflects dynamics of the insurance market that altered the relative cost to employers of purchasing private insurance *vis-à-vis* self insuring.

In the late 1980s and early 1990s, when workers' compensation benefits and costs rose rapidly, many

states had administrative pricing systems that set the premium levels that insurance companies could charge, and often states limited the rate of increase in premiums. As a result, premiums did not rise as fast as costs. Growing numbers of employers were not able to buy insurance in the voluntary market because insurers did not want to sell insurance at premiums that were less than their expected costs.

Because states require that employers have insurance, they provide ways for high-cost employers to buy it. In some states, the state fund insures all applicants. Some states use a *residual market* for high-risk employers and then require that insurers underwrite a share of the residual market as a condition for doing business in the state. During the late 1980s and early 1990s, some states set premiums in the residual market that did not recognize the higher cost associated with residual market employers. To cover the gap between premiums charged to employers in the residual market and their actual losses, residual market pools assessed fees on insurance

companies based on the insurer's share of aggregate premiums written in the voluntary market in the state. (Similar fees generally were not assessed on self-insured employers in the state. And lowering premiums through the use of high deductibles could reduce assessments.) As costs rose during the late 1980s, more employers ended up in the residual market, residual market losses grew, and rising fees assessed on insurers drove up the price of premiums charged to employers who were not in the residual market.

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

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

Declining workers' compensation benefits and costs in the mid-1990s combined with a vibrant economy and high financial market returns enabled insurance companies to earn more from invested premiums. The combination of improved underwriting results and higher returns on reserves led to high profits by historical standards within the workers' compensation insurance industry.² The most comprehensive measure of underwriting experience is the overall operating ratio, which is calculated as (1) the total of

carriers' expenditures, (2) minus investment income (3) as a percent of premiums. An operating ratio of less than 100 indicates that the industry is profitable when investment income is included. The operating ratio was less than 100 from 1993 to 2000, and was in the range of 81.8 to 83.8 from 1995 to 1997. Comparable data are available since 1976, and the previous low for the operating ratio was in 1982, when the operating ratio was 88.9 (Yates and Burton 2004).

These relatively high profits led to fierce underwriting competition. Insurance companies began offering multi-year guaranteed cost programs that locked in low premium rates for employers, thus greatly reducing the employers' cost and risk. The favorable offers made the purchase of insurance attractive to employers who otherwise would self-insure. Tax advantages inherent in the purchase of insurance also made it attractive—that is, employers can take an immediate tax deduction for premiums they pay for insurance, while when they self-insure, tax deductions accrue only later as they pay claims. These factors led to a shift away from self-insurance in favor of purchase of insurance later in the 1990s. Beginning in 1998 the overall operating ratio began to rapidly increase and reached a peak of 108.1 in 2001 and then began to decline. In 2002 it was 100.4, indicating that the industry was breaking even. The overall operating ratio then dropped to 97.8 in 2003 (Yates and Burton 2004), indicating that nationally the workers' compensation insurance industry was making money in the year to which this report pertains.

Changes in State Benefits

On a national level, total benefits (cash plus medical) were 3.2 percent higher in 2003 than in 2002. Focusing only on national growth conceals a great deal of variation among states. Table 7 shows annual changes in state benefit payments between 1999 and 2003. In some cases, estimation methods changed from one year to the next because states or A.M. Best were not able to provide consistent information.

² The ability of the workers' compensation insurance industry to attract adequate capital depends in large part on the rate of return on net worth in workers' compensation compared to the returns available in other segments of the economy. In most years in the 1990s, data from the National Association of Insurance Commissioners and *Fortune* magazine indicate that the rate of return in the workers' compensation insurance industry was lower than the rate of return available elsewhere in the economy.

In eighteen jurisdictions, benefits declined between 2002 and 2003. The jurisdictions with a decline include Alabama, Colorado, District of Columbia, Illinois, Iowa, Kansas, Maine, Michigan, Minnesota, Mississippi, Nevada, Oregon, Rhode Island, Texas, Utah, West Virginia, Wisconsin and Wyoming. On the other hand, eight states showed an increase in benefits that is at least five percentage points higher than the national average growth rate of 3.2 percent. States with increases more than five percentage points above the national average include Arizona, Arkansas, California, Idaho, Maryland, Massachusetts, South Carolina and Virginia.

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

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

Medical Payments in States

The share of benefits for medical care varies among states. In 2003 the share of benefit spending for medical care ranged from lows of less than 40 percent—in the District of Columbia, Hawaii, Maryland, Massachusetts, Michigan, New York, Rhode Island, Washington and West Virginia—to highs of over 60

percent in Arizona, Arkansas, Indiana, Texas, Utah, and Wyoming (Table 8). Many factors in a state can influence the relative share of benefits for medical care as opposed to cash wage-replacement or survivor benefits. Among them are:

- Different levels of earnings replacement provided by cash benefits, which mean that, all else being equal, states with more generous cash benefits have a lower share of benefits used for medical care;
- Differences in medical costs, medical practices, and the role of workers' compensation programs in regulating allowable medical costs;
- Differences in waiting periods for cash benefits and in statutes determining permanent disability awards; and
- The industry-mix in each state, which influences the types of illnesses and injuries that occur, and thus the level of medical costs.

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

In most states, the medical benefits increased more than cash benefits (Table 9).

- California medical benefits rose by 11.5 percent, while cash payments to workers rose 7.7 percent;
- New Mexico medical benefits rose by 8.3 percent, while cash benefits to workers rose 5.7 percent;
- New York medical benefits rose by 7.3 percent, while cash benefits to workers rose by 0.3 percent;
- North Dakota medical benefits rose by 2.6 percent, while cash benefits to workers rose by 1.2 percent.
- Ohio medical benefits rose by 3.1 percent, while cash benefits to workers rose by 1.6 percent; and,
- Pennsylvania medical benefits rose by 5.2 percent, while cash benefits to workers rose by 2.7 percent;

Table 7

Workers' Compensation Benefits by State, 1999–2003
(in thousands)

State	1999	2000	2001	2002	2003	1999-2000	2000-2001	2001-2002	2002-2003	1999-2003
Alabama ¹	\$623,206	\$600,236	\$640,042	\$656,574	\$623,315	-3.7	6.6	2.6	-5.1	0.0
Alaska	130,334	145,917	171,248	187,578	199,364	12.0	17.4	9.5	6.3	53.0
Arizona ¹	384,453	423,733	394,467	417,440	458,790	10.2	-6.9	5.8	9.9	19.3
Arkansas	151,578	145,550	160,486	179,935	198,144	-4.0	10.3	12.1	10.1	30.7
California ⁵	7,851,641	9,450,827	10,082,357	11,882,602	13,021,785	20.4	6.7	17.9	9.6	65.8
Colorado ^{1,3,5}	725,448	808,207	569,053	776,622	693,316	11.4	-29.6	36.5	-10.7	-4.4
Connecticut	736,857	667,056	661,471	747,959	753,618	-9.5	-0.8	13.1	0.8	2.3
Delaware ^{1,3}	131,780	144,610	144,733	165,669	169,158	9.7	0.1	14.5	2.1	28.4
District of Columbia ^{1,3}	89,323	86,839	92,554	100,269	93,677	-2.8	6.6	8.3	-6.6	4.9
Florida ³	2,295,798	2,057,302	2,378,674	2,128,583	2,201,435	-10.4	15.6	-10.5	3.4	-4.1
Georgia	895,690	995,775	1,067,327	1,082,971	1,120,886	11.2	7.2	1.5	3.5	25.1
Hawaii	222,056	231,359	252,041	267,827	274,922	4.2	8.9	6.3	2.6	23.8
Idaho ¹	120,761	113,598	131,998	152,488	181,194	-5.9	16.2	15.5	18.8	50.0
Illinois ^{1,2,4}	1,927,748	1,992,857	2,126,538	2,172,929	2,099,685	3.4	6.7	2.2	-3.4	8.9
Indiana ^{1,3}	504,464	530,922	529,450	566,654	567,587	5.2	-0.3	7.0	0.2	12.5
Iowa ¹	255,679	294,778	330,833	321,456	320,454	15.3	12.2	-2.8	-0.3	25.3
Kansas ^{1,2,3}	319,329	319,013	341,700	350,624	294,304	-0.1	7.1	2.6	-16.1	-7.8
Kentucky ^{1,2,3}	625,782	592,908	659,819	688,375	717,196	-5.3	11.3	4.3	4.2	14.6
Louisiana ^{1,5}	510,247	606,159	629,840	652,199	659,533	18.8	3.9	3.5	1.1	29.3
Maine ^{1,5}	263,703	262,146	264,043	288,673	260,845	-0.6	0.7	9.3	-9.6	-1.1
Maryland	558,315	545,509	574,742	574,327	628,510	-2.3	5.4	-0.1	9.4	12.6
Massachusetts ¹	725,331	808,871	770,636	793,893	890,044	11.5	-4.7	3.0	12.1	22.7
Michigan	1,392,806	1,474,058	1,477,986	1,512,457	1,476,850	5.8	0.3	2.3	-2.4	6.0
Minnesota	744,497	797,787	904,451	921,000	883,619	7.2	13.4	1.8	-4.1	18.7
Mississippi	253,664	269,342	271,163	286,538	271,677	6.2	0.7	5.7	-5.2	7.1
Missouri ¹	972,071	903,194	1,093,147	1,234,583	1,257,962	-7.1	21.0	12.9	1.9	29.4
Montana	145,996	169,763	172,725	190,850	204,677	16.3	1.7	10.5	7.2	40.2
Nebraska ^{1,4}	196,257	206,816	237,262	287,985	290,901	5.4	14.7	21.4	1.0	48.2
Nevada ^{1,2,3}	471,303	425,337	445,558	403,521	369,747	-9.8	4.8	-9.4	-8.4	-21.5
New Hampshire ^{1,2,3}	187,644	176,897	216,105	218,315	224,407	-5.7	22.2	1.0	2.8	19.6

New Jersey	1,244,221	1,293,641	1,370,939	1,471,430	1,542,608	4.0	6.0	7.3	4.8	24.0
New Mexico	138,217	148,643	164,869	183,705	197,026	7.5	10.9	11.4	7.3	42.5
New York	2,795,769	2,909,115	2,978,224	3,142,392	3,220,398	4.1	2.4	5.5	2.5	15.2
North Carolina ^{1,2,3}	839,624	846,846	885,272	994,949	1,059,955	0.9	4.5	12.4	6.5	26.2
North Dakota ^{1,3}	69,179	72,708	74,493	76,025	77,524	5.1	2.5	2.1	2.0	12.1
Ohio ³	2,038,742	2,098,528	2,248,375	2,388,184	2,442,165	2.9	7.1	6.2	2.3	19.8
Oklahoma ^{1,3,5}	491,290	474,128	497,435	520,924	561,643	-3.5	4.9	4.7	7.8	14.3
Oregon	384,110	412,471	455,625	447,927	446,887	7.4	10.5	-1.7	-0.2	16.3
Pennsylvania	2,467,114	2,402,614	2,440,407	2,531,957	2,625,878	-2.6	1.6	3.8	3.7	6.4
Rhode Island ¹	112,073	111,061	117,515	118,322	106,948	-0.9	5.8	0.7	-9.6	-4.6
South Carolina	444,568	515,381	532,374	592,530	656,935	15.9	3.3	11.3	10.9	47.8
South Dakota	86,239	81,229	82,128	93,636	95,119	-5.8	1.1	14.0	1.6	10.3
Tennessee ^{1,2,3}	579,653	627,225	687,890	668,122	710,475	8.2	9.7	-2.9	6.3	22.6
Texas ¹	1,740,572	1,743,901	1,780,989	2,039,625	1,919,527	0.2	2.1	14.5	-5.9	10.3
Utah ^{1,2,3,5}	193,273	182,565	210,050	231,239	201,557	-5.5	15.1	10.1	-12.8	4.3
Vermont ^{1,2}	105,029	109,258	120,223	131,652	140,534	4.0	10.0	9.5	6.7	33.8
Virginia ^{1,2}	666,953	602,035	604,497	624,684	701,464	-9.7	0.4	3.3	12.3	5.2
Washington ³	1,395,246	1,527,657	1,637,714	1,714,497	1,800,477	9.5	7.2	4.7	5.0	29.0
West Virginia ³	695,675	693,056	713,128	832,608	828,913	-0.4	2.9	16.8	-0.4	19.2
Wisconsin ^{2,3}	724,360	768,282	923,761	894,249	839,829	6.1	20.2	-3.2	-6.1	15.9
Wyoming ³	75,196	82,875	97,706	104,187	102,663	10.2	17.9	6.6	-1.5	36.5
Non-federal total	41,700,867	43,950,586	46,416,061	50,013,738	51,686,128	5.4	5.6	7.8	3.3	23.9
Federal ^(a)	2,862,183	2,957,404	3,069,267	3,153,626	3,184,685	3.3	3.8	2.7	1.0	11.3
Federal employees	1,999,915	2,118,859	2,223,088	2,317,325	2,367,757	5.9	4.9	4.2	2.2	18.4
TOTAL	44,563,050	46,907,990	49,485,328	53,167,364	54,870,813	5.3	5.5	7.4	3.2	23.1

(a) Includes federal benefits as included in Table 8.

1) Deductible data were not available. Deductibles were estimated using the average percentage of deductibles for all states where the data were available.

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

3) AM Best data are used for private carrier benefit estimates for all the five years.

4) No data were available from the states for three years. Estimates were based on data from A.M. Best.

5) The state agency was not able to provide state fund data. AM Best data were used to get the estimates.

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

Table 8**Workers' Compensation Benefits by Type of Insurer and Medical Benefits, by State, 2003
(in thousands)**

State	Total	Private Carriers	State Funds	Self-Insured ^b	Medical	Percent Medical
Alabama	\$ 623,315	\$ 368,778	-	\$ 254,537	\$ 396,649	63.6
Alaska	199,364	154,555	-	44,809	115,177	57.8
Arizona	458,790	138,328	232,665	87,797	291,089	63.4 ^c
Arkansas	198,144	124,931	-	73,213	123,061	62.1 ^c
California	13,021,785	6,193,564	3,096,397	3,731,824	6,625,342	50.9
Colorado	693,316	248,425	267,122	177,770	304,082	43.9 ^c
Connecticut	753,618	540,996	-	212,622	322,061	42.7 ^c
Delaware	169,158	121,849	-	47,310	87,780	51.9 ^d
District of Columbia	93,677	72,816	-	20,861	34,664	37.0 ^c
Florida	2,201,435	1,755,931	-	445,505	1,277,290	58.0 ^c
Georgia	1,120,886	782,631	-	338,254	530,878	47.4 ^c
Hawaii	274,922	170,246	17,656	87,020	106,912	38.9
Idaho	181,194	79,771	89,760	11,664	103,479	57.1 ^c
Illinois	2,099,685	1,621,426	-	478,260	973,587	46.4 ^c
Indiana	567,587	479,833	-	87,754	382,175	67.3 ^c
Iowa	320,454	259,176	-	61,278	155,214	48.4 ^c
Kansas	294,304	231,039	-	63,265	160,736	54.6 ^c
Kentucky	717,196	427,439	67,080	222,677	388,270	54.1 ^c
Louisiana	659,533	370,572	143,194	145,766	334,968	50.8 ^c
Maine	260,845	108,748	77,008	75,089	117,963	45.2
Maryland	628,510	343,786	171,983	112,741	250,272	39.8
Massachusetts	890,044	736,577	-	153,468	226,360	25.4
Michigan	1,476,850	877,007	-	599,843	542,574	36.7
Minnesota	883,619	549,184	113,629	220,806	413,033	46.7
Mississippi	271,677	146,181	-	125,495	150,439	55.4
Missouri	1,257,962	866,164	112,497	279,301	596,062	47.4
Montana	204,677	71,336	96,791	36,550	109,947	53.7
Nebraska	290,901	212,837	-	78,063	171,645	59.0 ^c

Nevada	369,747	229,319	-	140,428	170,010	46.0 ^c
New Hampshire	224,407	182,914	-	41,494	126,678	56.5 ^c
New Jersey	1,542,608	1,411,247	-	131,361	825,415	53.5 ^d
New Mexico	197,026	98,116	28,269	70,641	117,206	59.5
New York	3,220,398	1,631,501	788,496	800,401	1,039,503	32.3
North Carolina	1,059,955	809,523	-	250,432	477,924	45.1 ^c
North Dakota ^a	77,524	353	77,171	-	43,159	55.7
Ohio ^a	2,442,165	23,835	1,936,355	481,975	1,140,532	46.7
Oklahoma	561,643	260,758	183,936	116,949	266,618	47.5 ^c
Oregon	446,887	197,762	206,878	42,247	234,162	52.4
Pennsylvania	2,625,878	1,863,327	184,983	577,567	1,058,235	40.3
Rhode Island	106,948	41,521	49,882	15,545	24,348	22.8 ^c
South Carolina	656,935	441,662	52,085	163,188	312,056	47.5 ^c
South Dakota	95,119	91,967	-	3,152	58,699	61.7
Tennessee	710,475	534,835	-	175,640	375,793	52.9 ^c
Texas	1,919,527	1,384,390	161,119	374,018	1,209,318	63.0 ^c
Utah	201,557	54,940	118,442	28,174	131,797	65.4 ^c
Vermont	140,534	125,534	-	15,000	68,120	48.5 ^c
Virginia	701,464	541,801	-	159,663	393,919	56.2 ^c
Washington ^a	1,800,477	26,671	1,309,550	464,256	619,516	34.4
West Virginia ^a	828,913	3,274	708,497	117,142	241,676	29.2
Wisconsin	839,829	703,998	-	135,831	449,374	53.5 ^d
Wyoming ^a	102,663	2,169	100,494	-	64,778	63.1
Non-federal total	51,686,128	28,715,545	10,391,938	12,578,646	24,765,012	47.9
Federal ^e	3,184,685				842,779	26.5
Federal employees	2,367,757				669,484	28.3
TOTAL	54,870,813				25,607,791	46.7

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

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

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

(d) Medical percentage based on the weighted average of states where medical data were available, see Appendix F.

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

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, 2002-2003^a**
(in thousands)

State	2002			2003			2002-2003 Percent Change		
	Medical	Cash	Total	Medical	Cash	Total	Medical	Cash	Total
Alabama	375,810	280,764	656,574	396,649	226,666	623,315	5.5	-19.3	-5.1
Alaska	106,578	81,000	187,578	115,177	84,187	199,364	8.1	3.9	6.3
Arizona	250,882	166,559	417,440	291,089	167,701	458,790	16.0	0.7	9.9
Arkansas	112,279	67,655	179,935	123,061	75,082	198,144	9.6	11.0	10.1
California	5,943,630	5,938,972	11,882,602	6,625,342	6,396,443	13,021,785	11.5	7.7	9.6
Colorado	350,257	426,366	776,622	304,082	389,235	693,316	-13.2	-8.7	-10.7
Connecticut	310,403	437,556	747,959	322,061	431,556	753,618	3.8	-1.4	0.8
Delaware	82,590	83,079	165,669	87,780	81,378	169,158	6.3	-2.0	2.1
District of Columbia	32,956	67,313	100,269	34,664	59,013	93,677	5.2	-12.3	-6.6
Florida	1,211,164	917,419	2,128,583	1,277,290	924,145	2,201,435	5.5	0.7	3.4
Georgia	516,577	566,394	1,082,971	530,878	590,007	1,120,886	2.8	4.2	3.5
Hawaii	105,927	161,901	267,827	106,912	168,010	274,922	0.9	3.8	2.6
Idaho	86,461	66,027	152,488	103,479	77,716	181,194	19.7	17.7	18.8
Illinois	964,781	1,208,149	2,172,929	973,587	1,126,099	2,099,685	0.9	-6.8	-3.4
Indiana	370,156	196,498	566,654	382,175	185,411	567,587	3.2	-5.6	0.2
Iowa	162,657	158,799	321,456	155,214	165,240	320,454	-4.6	4.1	-0.3
Kansas	190,038	160,586	350,624	160,736	133,567	294,304	-15.4	-16.8	-16.1
Kentucky	367,949	320,426	688,375	388,270	328,926	717,196	5.5	2.7	4.2
Louisiana	343,709	308,490	652,199	334,968	324,565	659,533	-2.5	5.2	1.1
Maine	117,119	171,555	288,673	117,963	142,882	260,845	0.7	-16.7	-9.6
Maryland	229,744	344,583	574,327	250,272	378,237	628,510	8.9	9.8	9.4
Massachusetts	254,803	539,090	793,893	226,360	663,685	890,044	-11.2	23.1	12.1
Michigan	523,260	989,197	1,512,457	542,574	934,276	1,476,850	3.7	-5.6	-2.4
Minnesota	437,500	483,500	921,000	413,033	470,586	883,619	-5.6	-2.7	-4.1
Mississippi	163,484	123,054	286,538	150,439	121,238	271,677	-8.0	-1.5	-5.2
Missouri	591,968	642,615	1,234,583	596,062	661,900	1,257,962	0.7	3.0	1.9
Montana	102,013	88,838	190,850	109,947	94,730	204,677	7.8	6.6	7.2

Nebraska	164,439	123,545	287,985	171,645	119,256	290,901	4.4	-3.5	1.0
Nevada	147,886	255,635	403,521	170,010	199,737	369,747	15.0	-21.9	-8.4
New Hampshire	121,383	96,932	218,315	126,678	97,729	224,407	4.4	0.8	2.8
New Jersey	759,462	711,968	1,471,430	825,415	717,193	1,542,608	8.7	0.7	4.8
New Mexico	108,197	75,508	183,705	117,206	79,820	197,026	8.3	5.7	7.3
New York	968,462	2,173,930	3,142,392	1,039,503	2,180,894	3,220,398	7.3	0.3	2.5
North Carolina	426,833	568,116	994,949	477,924	582,031	1,059,955	12.0	2.4	6.5
North Dakota	42,051	33,974	76,025	43,159	34,365	77,524	2.6	1.2	2.0
Ohio	1,106,570	1,281,614	2,388,184	1,140,532	1,301,634	2,442,165	3.1	1.6	2.3
Oklahoma	240,146	280,778	520,924	266,618	295,025	561,643	11.0	5.1	7.8
Oregon	226,579	221,347	447,927	234,162	212,725	446,887	3.3	-3.9	-0.2
Pennsylvania	1,005,602	1,526,355	2,531,957	1,058,235	1,567,643	2,625,878	5.2	2.7	3.7
Rhode Island	26,886	91,436	118,322	24,348	82,600	106,948	-9.4	-9.7	-9.6
South Carolina	265,453	327,076	592,530	312,056	344,879	656,935	17.6	5.4	10.9
South Dakota	55,794	37,842	93,636	58,699	36,420	95,119	5.2	-3.8	1.6
Tennessee	342,746	325,375	668,122	375,793	334,682	710,475	9.6	2.9	6.3
Texas	1,266,607	773,018	2,039,625	1,209,318	710,209	1,919,527	-4.5	-8.1	-5.9
Utah	154,005	77,234	231,239	131,797	69,760	201,557	-14.4	-9.7	-12.8
Vermont	69,380	62,271	131,652	68,120	72,414	140,534	-1.8	16.3	6.7
Virginia	337,954	286,730	624,684	393,919	307,544	701,464	16.6	7.3	12.3
Washington	589,267	1,125,230	1,714,497	619,516	1,180,961	1,800,477	5.1	5.0	5.0
West Virginia	246,579	586,029	832,608	241,676	587,237	828,913	-2.0	0.2	-0.4
Wisconsin	461,557	432,692	894,249	449,374	390,455	839,829	-2.6	-9.8	-6.1
Wyoming	66,487	37,700	104,187	64,778	37,885	102,663	-2.6	0.5	-1.5
Non-federal total	23,505,018	26,508,720	50,013,738	24,765,012	26,921,116	51,686,128	5.4	1.6	3.3

a) In states with a note, there was a difference in methods between the two years being compared for at least one component of the estimates. Some of the percent change in benefits, therefore, might be due to the differing methods. The notes are given in Table 8. For more detail on state by state methodologies, see, Sources and Methods: A Companion to Workers' Compensation: Benefits, Coverage, and Costs, 2003 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.

In some states medical benefits increased but the cash benefits declined.

- Michigan medical benefits rose by 3.7 percent, while cash benefits to workers fell by 5.6 percent.
- Oregon medical benefits rose by 3.3 percent, while cash benefits to workers fell by 3.9 percent.

This trend suggests that increases in total benefits nationwide are driven by medical care much more than cash payments to workers.

State Benefits Relative to Wages

One way to standardize state benefit payments to take account of states' differing sizes is to divide each state's benefits by the number of workers covered by the state's workers' compensation program. A second way is to divide total benefits by total wages of covered workers. The latter takes account of both the number of workers and prevailing wage levels in the state. The benefits standardized as a percent of covered wages helps show whether large growth in benefits payments may be due to growth in the state's population of covered workers and covered payroll. Benefits per \$100 of covered payroll in 1999 through 2003 are shown in Table 10. Due to the stagnant economy in 2003, covered payroll grew only modestly between 2002 and 2003. In only eight jurisdictions did covered payroll rise by as much as 4 percentage points – Arizona, Florida, Hawaii, Montana, Nevada, North Dakota, Rhode Island and Wyoming (Table 3). Consequently, 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.

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

Alternatively, a state with relatively low benefits as indicated in Table 10 may be replacing a relatively high portion of actual earnings losses. By the same

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

Caveats on comparing benefit adequacy across states. As discussed in the Academy's study panel report titled *Adequacy of Earnings Replacement in Workers' Compensation Programs* (Hunt, 2004), an appropriate study of adequacy compares the benefits disabled workers actually receive with the wages they lose because of their injuries or occupational diseases. Such data are not available on a consistent basis across states. Aggregate benefits relative to aggregate covered wages or employment could be high or low in a given state for a number of reasons unrelated to the adequacy of benefits that injured workers receive.

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

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

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

Fourth, benefits actually paid in the year (which are the data reported here) will be influenced by injuries that occurred in prior years. A state with a dispro-

portionately large number of injured workers who are being compensated for permanent disabilities that occurred in the past would appear to pay above average benefits, when, in fact, the actual benefits for recently injured workers may not be above average. Alternatively, a state with a long period of future benefit payments for current-year injuries may appear to be below average on the basis of the current year's payments when in fact the ultimate benefits required to be paid for recent injuries may be above average.

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

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

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

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

Ninth and finally, in-migration or out-migration in a state will affect benefits per covered worker. For example, a state that is paying a large number of permanently disabled workers from past years would have rising benefits relative to its current work force if it experienced substantial out-migration of healthy

workers, but could have declining benefits per worker if it experienced substantial in-migration of uninjured workers. Yet the benefits actually received by permanently injured workers in that state may not have changed.

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

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

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

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

In brief, state-level benefits paid per worker or relative to total wages in the state are a way to standard-

Table 10**State Workers' Compensation Benefits Per \$100 of Covered Wages, by State, 1999–2003**

	1999	2000	2001	2002	2003	Dollar Amount Change ^a	
						2002-2003	1999-2003
Alabama	1.30	1.20	1.25	1.26	1.16	-.10	-.13
Alaska	1.56	1.65	1.82	1.92	1.97	.06	.42
Arizona	0.60	0.60	0.54	0.56	0.59	.03	-.01
Arkansas	0.57	0.52	0.56	0.61	0.66	.05	.08
California	1.49	1.58	1.66	1.98	2.11	.13	.63
Colorado	1.04	1.03	0.70	0.98	0.87	-.11	-.17
Connecticut	1.06	0.89	0.86	0.98	0.97	-.01	-.09
Delaware	0.95	0.99	0.94	1.06	1.05	-.01	.10
District of Columbia	0.43	0.39	0.39	0.41	0.37	-.04	-.07
Florida	1.24	1.02	1.13	0.98	0.97	-.01	-.27
Georgia	0.77	0.79	0.83	0.85	0.86	.02	.09
Hawaii	1.51	1.49	1.58	1.60	1.57	-.04	.06
Idaho	0.89	0.75	0.86	0.98	1.14	.16	.25
Illinois	0.93	0.90	0.94	0.97	0.93	-.04	.00
Indiana	0.59	0.60	0.59	0.63	0.62	-.01	.03
Iowa	0.67	0.75	0.82	0.78	0.76	-.02	.08
Kansas	0.91	0.86	0.89	0.91	0.76	-.15	-.15
Kentucky	1.34	1.21	1.31	1.34	1.36	.02	.02
Louisiana	1.04	1.20	1.19	1.21	1.19	-.02	.15
Maine	1.78	1.67	1.61	1.71	1.49	-.21	-.28
Maryland	0.75	0.68	0.68	0.66	0.69	.04	-.05
Massachusetts	0.57	0.57	0.53	0.56	0.62	.06	.05
Michigan	0.90	0.90	0.92	0.94	0.90	-.04	.00
Minnesota	0.89	0.88	0.96	0.97	0.90	-.06	.02
Mississippi	1.00	1.03	1.03	1.07	0.98	-.08	-.02
Missouri	1.32	1.16	1.37	1.53	1.54	.00	.21
Montana	1.79	1.97	1.90	2.01	2.06	.05	.27
Nebraska	0.88	0.88	0.98	1.16	1.14	-.02	.26
Nevada	1.58	1.33	1.32	1.16	0.99	-.17	-.59
New Hampshire	1.01	0.85	1.02	1.02	1.01	-.01	.01
New Jersey	0.82	0.78	0.81	0.86	0.88	.02	.07
New Mexico	0.81	0.84	0.88	0.94	0.98	.03	.16
New York	0.81	0.78	0.77	0.84	0.84	.01	.03
North Carolina	0.78	0.74	0.76	0.85	0.89	.04	.11
North Dakota	1.00	1.00	0.98	0.97	0.94	-.03	-.06
Ohio	1.22	1.20	1.27	1.34	1.35	.01	.13
Oklahoma	1.41	1.28	1.28	1.34	1.42	.08	.01
Oregon	0.81	0.80	0.88	0.87	0.85	-.02	.04
Pennsylvania	1.42	1.31	1.29	1.32	1.33	.01	-.09
Rhode Island	0.85	0.79	0.81	0.79	0.67	-.11	-.18
South Carolina	0.97	1.07	1.08	1.19	1.28	.10	.31

continued on p.27

Table 10 continued

State Workers' Compensation Benefits Per \$100 of Covered Wages, by State, 1999–2003

	1999	2000	2001	2002	2003	Dollar Amount Change ^a	
						2002-2003	1999-2003
South Dakota	1.07	0.95	0.92	1.03	1.01	-.02	-.06
Tennessee	0.80	0.82	0.89	0.85	0.87	.03	.07
Texas	0.73	0.66	0.64	0.74	0.69	-.05	-.04
Utah	0.71	0.63	0.70	0.76	0.66	-.11	-.06
Vermont	1.36	1.31	1.37	1.48	1.54	.06	.18
Virginia	0.65	0.55	0.52	0.54	0.59	.04	-.06
Washington	1.52	1.57	1.68	1.76	1.80	.05	.28
West Virginia	4.14	3.96	3.92	4.50	4.42	-.08	.29
Wisconsin	0.94	0.95	1.12	1.06	0.97	-.09	.03
Wyoming	1.38	1.41	1.55	1.59	1.50	-.08	.12
Total non-federal	1.04	1.01	1.04	1.12	1.13	.01	.09
Federal Employees ^b	1.62	1.60	1.65	1.61	1.57	-.04	-.05
Total	1.07	1.04	1.07	1.15	1.16	.01	.09

(a) In states with a note, there was a difference in methods between the two years being compared for at least one component of the estimates. Some of the percent change in benefits, therefore, might be due to the differing methods. The notes are below. For more detail on state by state methodologies, see *Sources and Methods: A Companion to Workers' Compensation: Benefits, Coverage, and Costs, 2003 New Estimates* section of the Academy's website at www.nasi.org.

(b) includes FECA only.

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

ize aggregate benefit payments between large and small states. However, much more refined data and analyses are needed to assess the adequacy of benefits that individual workers receive, or the costs that particular employers would incur in different states.

Federal Programs

Various federal programs compensate certain categories of workers for disabilities caused on the job and provide benefits to dependents of workers who die of work-related causes. Each program is described briefly below along with an explanation of whether and how it is included in our national totals of workers' compensation benefits. Our aim in this report is to include in national totals for workers' compensation those federally administered programs that are financed by employers and that are not otherwise included in workers' compensation benefits reported by states, such as the benefits paid under the Federal Employees' Compensation Act. Programs

that cover private sector workers and are financed by federal general revenues, such as the Radiation Exposure Compensation Act, are not included in our national totals for workers' compensation benefits and employer costs. More detail on these programs is in Appendix H.

Federal Employees. The Federal Employees' Compensation Act of 1916, which superceded previous workers' compensation laws for federal employees, provided the first comprehensive workers' compensation program for federal civilian employees. In 2003, total benefits were \$2,368 million, of which 28 percent were for medical care. The share of benefits for medical care is lower than in most state programs because federal cash benefits, particularly for higher-wage workers, replace a larger share of preinjury wages than is the case in most state programs. Administrative costs of the program were \$131 million, or 5.2 percent of total benefits (U.S. DOL

2005b). Federal employees' benefits and the cost to the employer (the federal government) are included in the national totals in this report.

Longshore and Harbor Workers. The Longshore and Harbor Workers' Compensation Act (LHWCA) requires employers to provide workers' compensation protection for longshore, harbor, and other maritime workers. The original program, enacted in 1927, covered maritime employees injured while working over navigable waters because the Supreme Court held that the Constitution prohibits states from extending coverage to such individuals. The program also covers other workers who fall outside the jurisdiction of state programs, such as employees on overseas military bases, those working overseas for private contractors of the United States, and private employees engaged in offshore drilling enterprises.

Private employers cover longshore and harbor workers by purchasing private insurance or self-insuring. In fiscal year 2003, about 330 self-insured employers and 410 insurance companies reported a total of 20,154 lost-time injuries to the federal Office of Workers' Compensation. Total benefits paid under the Act in 2003 were \$716 million, which included \$263 million paid by private insurance carriers, \$310 million paid by self-insured employers, \$133 million paid from the federally administered special fund for second injuries and other purposes, and \$11 million for the District of Columbia Workers' Compensation Act (DCCA) Fund. Federal direct administrative costs were \$12.3 million or about 1.7 percent of benefits paid (Table H2). The Academy's data series on benefits and costs of workers' compensation includes at least part of the benefits paid by private carriers under the LHWCA in the states where the companies operate. The benefits are not identified separately in the information provided by A.M. Best and state agencies. Benefits paid by private employers who self-insure under the Longshore and Harbor Workers' Compensation Act are not reported by states or A.M. Best. Consequently, these benefits and employer costs are included with federal programs in this report.

Coal Miners with Black Lung Disease. The Black Lung Benefits Act, enacted in 1969, provides compensation for coal miners with pneumoconiosis, or black lung disease, and their survivors. The program has two parts. Part B is financed by federal general

revenues. Part C is paid through the Black Lung Disability Trust Fund, which is financed by coal-mine operators through a federal excise tax on coal that is mined and sold in the United States. In this report, only the Part C benefits that are financed by employers are included in national totals of workers' compensation benefits and employer costs in 1997–2003. Total benefits in 2003 were \$771 million, of which \$408 million was paid under Part B and \$363 million was paid under Part C. Part C benefits include \$60 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 \$37.4 million or about 4.6 percent of benefit payments (Table H3).

Workers Exposed to Radiation. The Radiation Exposure Compensation Act of 1990 provides lump-sum compensation payments to individuals who contracted certain cancers and other serious diseases as a result of exposure to radiation released during above ground nuclear weapons tests or during employment in underground uranium mines. The lump-sum payments are specified in law and range from \$50,000 to \$100,000. From the beginning of the program through March 2005, 12,039 claims had been paid for a total of \$781 million, or roughly \$65,000 a claim (U.S. DOJ 2005). The program is financed with federal general revenues and is not included in national totals in this report.

Energy Employees. The Energy Employees Occupational Illness Compensation Program 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 the Part B of the program, which went into effect in July 2001. It provides smaller lump-sum payments to individuals found eligible for an award under the Radiation Exposure Compensation Act. Medical benefits are awarded for the treatment of covered conditions. Total benefits in 2003 were \$304 million, of which \$288 million were paid as compensation benefits (U.S. DOL 2005b). These general-revenue financed benefits are not included in our national totals.

Veterans of Military Service. U.S. military personnel are covered by the federal veterans' compensation program of the Department of Veterans Affairs, which provides cash benefits to veterans who sustained total or partial disabilities while on active duty. In September 2004, 2.6 million veterans were receiving monthly compensation payments for service-connected disabilities. Of these, 47 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 \$1.8 billion as of September 2004, or about \$21.4 billion on an annual basis (U.S. Department of Veterans Affairs 2004). Veterans' compensation is not included in our national estimates of workers' compensation.

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 (William and Barth 1973).

Employer Costs

Employer costs for workers' compensation in 2003 were \$80.8 billion, an increase of 9.6 percent from \$73.7 billion in 2002 (Table 11). Relative to total wages of covered workers, employer costs increased by twelve cents to \$1.71 per \$100 of covered wages in 2003, up from \$1.59 per \$100 of covered wages in 2002 (Table 12).

Total costs to employers who purchase insurance from private carriers and state funds consist of premiums written in the calendar year plus the payments made under deductible provisions. The difference between benefits paid to workers and employer costs per \$100 of wages represents expenses such as administrative and losses adjustment costs, taxes, reserves for future benefit payments, profits or losses of private carriers, and contributions for special funds, which can include the support of workers' compensation 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. They are assumed to be the same share of benefits as administrative costs for other insurers. This percentage is based on the ratio of administrative costs to total benefits as reported by private insurers to the National Association of Insurance Commissioners. This ratio is based on direct loss adjustment expenses and their expense for taxes, licenses, and fees. For more information on the self-insurance costs estimates, see Appendix C. For the federal employee program, employer costs are benefits paid plus administrative costs (U.S. DOL 2005b).

According to these estimates, the cost of employers insuring through private carriers was \$44.7 billion in 2003, or approximately 55.3 percent of total costs. Self-insurers accounted for 18.2 percent of total employer costs, state funds represented 21.5 percent of costs, and federal programs were 4.9 percent. A development in the 1990s that complicates the measurement of benefits and costs of workers' compensation is the growing use of large deductible policies. Under deductible policies, the insurer pays all of the workers' compensation insured benefits, but employers are responsible for reimbursing the insurers for those benefits up to a specified deductible amount. In return for accepting a policy with a deductible, the employer pays a lower premium. Our industry sources of data do not provide separate information on deductibles and many states lack data on deductible payments. Consequently, these benefits had to be estimated.

Between 2002 and 2003, the share of employer costs insured through state funds rose, while the share insured through private carriers declined. This is due in large part to increased premiums written by the California State Compensation Insurance Fund.

Trend in Benefit and Cost Ratios

Table 12 shows the trend in benefits paid and employer costs per \$100 of covered wages over the last 15 years. For the third year in a row, workers' compensation benefits relative to covered wages rose. However, even after the increase to \$1.16 per \$100

Table 11**Employer Costs for Workers' Compensation by Type of Insurer, 1987–2003
(in millions)**

Year	Total	% Change	Private Carriers		State Funds		Federal ^a		Self-Insurance	
			Total	% of Total	Total	% of Total	Total	% of Total	Total	% of Total
1987	\$38,095	*	\$25,448	66.8	\$5,515	14.5	\$1,728	4.5	\$5,404	14.2
1988	43,284	13.6	28,538	65.9	6,660	15.4	1,911	4.4	6,175	14.3
1989	47,955	10.8	31,853	66.4	7,231	15.1	1,956	4.1	6,915	14.4
1990	53,123	10.8	35,054	66.0	8,003	15.1	2,156	4.1	7,910	14.9
1991	55,216	3.9	35,713	64.7	8,698	15.8	2,128	3.9	8,677	15.7
1992	57,395	3.9	34,539	60.2	9,608	16.7	2,454	4.3	10,794	18.8
1993	60,819	6.0	35,596	58.5	10,902	17.9	2,530	4.2	11,791	19.4
1994	60,517	-0.5	33,997	56.2	11,235	18.6	2,490	4.1	12,795	21.1
1995	57,089	-5.7	31,554	55.3	10,512	18.4	2,556	4.5	12,467	21.8
1996	55,293	-3.1	30,453	55.1	10,190	18.4	2,601	4.7	12,049	21.8
1997	53,544	-3.2	29,862	55.8	8,021	15.0	3,358	6.3	12,303	23.0
1998	53,431	-0.2	30,377	56.9	7,926	14.8	3,471	6.5	11,657	21.8
1999	55,386	3.7	32,631	58.9	7,552	13.6	3,496	6.3	11,708	21.1
2000	59,512	7.4	35,048	58.9	8,902	15.0	3,620	6.1	11,942	20.1
2001	65,414	9.9	37,148	56.8	11,419	17.5	3,778	5.8	13,068	20.0
2002	73,723	12.7	41,667	56.5	14,519	19.7	3,898	5.3	13,640	18.5
2003	80,783	9.6	44,676	55.3	17,403	21.5	3,970	4.9	14,734	18.2

(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 1997–2003, federal costs also include a portion of employer-financed benefits under the Longshore and Harbor Workers Compensation Act that are not reflected in state data—namely, costs paid by self-insured employers and by special funds under the LHWCA. See Appendix H for more information about federal programs.

Source: National Academy of Social Insurance estimates of costs for private carriers and state funds are based on information from A.M. Best and direct contact with state agencies. Costs for federal programs are from the Department of Labor and the Social Security Administration. Self-insured costs are based on information from the National Association of Insurance Commissioners.

of covered wages in 2003, the benefits were still lower than their peak in 1992 when benefits were \$1.68 per \$100 of wages. Employers' costs per \$100 of covered wages also increased for the third year in a row. Despite the increase from \$1.59 in 2002 to \$1.71 per \$100 of covered wages in 2003, the costs still remain well below their 1990 peak of \$2.18 per \$100 of wages.

Costs to employers and benefits paid to workers do not change at the same rate from year to year for a

number of reasons. First, benefits are those actually paid to workers in a given year, including many workers with injuries that occurred in prior years, while insurance premiums written in a given year reflect insurers' expected future liabilities for injuries that occur in the year. Second, premiums are influenced by insurers' past and anticipated investment returns on reserves that they set aside to cover future liabilities. Thus, an increase in expected liabilities or a decline in investment returns would contribute to an increase in premiums. Finally, premiums that

Table 12**Workers' Compensation Benefit and Cost Ratios, 1989–2003**

Year	Costs per \$100 of Wages	Benefits per per \$100 of Wages	Benefits per \$1 in Cost	Medical Benefits per \$100 of Wages	Cash Benefits per \$100 Wages
1989	\$2.04	\$1.46	\$0.72	\$0.57	\$0.89
1990	2.18	1.57	0.72	0.62	0.94
1991	2.16	1.65	0.76	0.66	0.99
1992	2.12	1.68	0.80	0.69	1.00
1993	2.16	1.61	0.75	0.66	0.95
1994	2.05	1.51	0.74	0.58	0.93
1995	1.82	1.38	0.76	0.53	0.85
1996	1.66	1.26	0.76	0.50	0.76
1997	1.49	1.18	0.79	0.48	0.70
1998	1.38	1.11	0.81	0.47	0.65
1999	1.33	1.10	0.82	0.46	0.64
2000	1.32	1.04	0.79	0.45	0.59
2001	1.42	1.07	0.76	0.48	0.59
2002	1.59	1.15	0.72	0.53	0.62
2003	1.71	1.16	0.68	0.54	0.62

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

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

As premiums rose faster than benefits in 2003, the ratio of total benefits paid to total employer costs in 2003 declined to \$0.68 per \$1.00 of costs from \$0.72 per \$1.00 of costs in 2002. The ratio of benefits to costs was lower in 2003 than in any other year since 1989.

While medical benefits of \$0.54 per \$100 of covered wages are lower than cash benefits at \$0.62 of covered wages, they increased in 2003 by a cent whereas there was no change in the cash benefits relative to covered wages from 2002 (Table 12). This suggests that while the majority of benefits received by workers are in the form of cash benefits, the rise in medical costs had a greater impact on the overall increase in workers' compensation benefits and costs.

Work Injuries, Occupational Illness and Fatalities

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

Fatalities at Work

A total of 5,575 fatal work injuries occurred in 2003 (Table 13), which represent a slight increase in the number of fatalities from 2002. Transportation incidents continued to be the leading cause of on-the-job fatalities in 2003, accounting for 42 percent of the total. Contact with objects and equipment—being caught in equipment or hit or crushed by falling objects— and violent acts—homicides,

suicides and animal attacks —were the second leading causes of death, each accounting for 16 percent of deaths (U.S. DOL 2004c).

Table 13
Number of Fatal Occupational Injuries, 1992–2003

Year	Number of Injuries
1992	6,217
1993	6,331
1994	6,632
1995	6,275
1996	6,202
1997	6,238
1998	6,055
1999	6,054
2000	5,920
2001	8,801
September 11 events	2,886
Other	5,915
2002	5,534
2003	5,575

Source: U.S. DOL 2004c.

Nonfatal Injuries and Illnesses

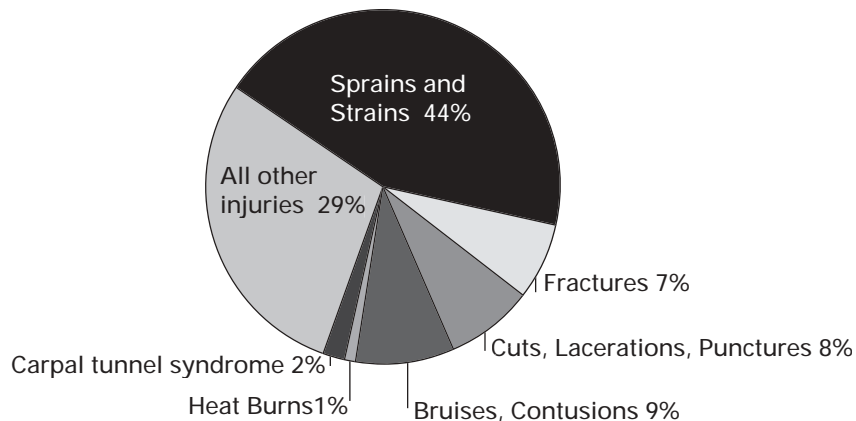
A total of 4.4 million nonfatal workplace injuries and illnesses were reported in private industry workplaces during 2003, resulting in a rate of 5.0 cases per one hundred full-time equivalent workers, according to a Bureau of Labor Statistics survey of private sector employers (U.S. DOL 2004f). Many of these cases involved relatively minor injuries that did not result in lost workdays. The frequency of all injuries and illnesses declined from 8.9 per 100 full-time workers in 1992 to 5.0 in 2003 (Table 14).

A total of 1.3 million workplace injuries or illnesses that required recuperation away from work beyond the day of the incident were reported in private industry in 2003 (U.S. DOL 2004f). The number of such injuries or illnesses per one hundred full-time workers declined from 3.0 in 1992 to 1.5 in 2003 (Table 14). The median time away from work beyond the day of the injury was eight days. In about one in four would not have met a three-day waiting period, and nearly half would not have met a six-day waiting period (U.S. DOL 2005a).

Women are somewhat less likely than men to sustain workplace injuries that involve days away from work. While women make up 47 percent of private sector employees (DOL, 2005c), they account for 35 percent of reported injuries that involved days away from work (U.S. DOL, 2005a).

Figure 4

Number of Nonfatal Occupational Injuries and Illnesses Involving Days Away from Work, U.S. Private Industry, 2003



Source: US DOL, 2005a

Table 14**Private Industry Occupational Injury and Illness: Total Non-fatal Cases and Incidence Rates, 1987–2003**

Year ^a	Number of Cases (in millions)		Incidence Rate ^b	
	All Cases	Cases with Any Days Away from Work	All Cases	Cases with Any Days Away from Work
1987	6.0	2.5	8.3	3.4
1988	6.4	2.6	8.6	3.5
1989	6.6	2.6	8.6	3.4
1990	6.8	2.6	8.8	3.4
1991	6.3	2.6	8.4	3.2
1992	6.8	2.3	8.9	3.0
1993	6.7	2.3	8.5	2.9
1994	6.8	2.2	8.4	2.8
1995	6.6	2.0	8.1	2.5
1996	6.2	1.9	7.4	2.2
1997	6.1	1.8	7.1	2.1
1998	5.9	1.7	6.7	2.0
1999	5.7	1.7	6.3	1.9
2000	5.7	1.7	6.1	1.8
2001	5.2	1.5	5.7	1.7
2002 ^(c)	4.7	1.4	5.3	1.6
2003	4.4	1.3	5.0	1.5

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 2004e.

The most common causes of reported injuries or illnesses were: Sprains and strains, most often involving the back (43 percent); bruises and contusions (9 percent); cuts, lacerations and punctures (8 percent); fractures (7 percent); carpal tunnel syndrome (2 percent); heat burns (2 percent); and all other injuries (29 percent) (Figure 4).

Workers' Compensation Claims

The National Council on Compensation Insurance reports on the frequency of workers' compensation claims for privately insured employers 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. Claims per 100,000 insured workers declined steadily

between 1992 and 2000. Temporary total disability claims are those in which days away from work exceeded the three- to seven-day waiting period. The frequency of these claims declined by about 37 percent. This decline is very similar to the decline in injuries reported to the BLS that involved days away from work. Between 1992 and 2000, the incidence of injuries that involved days away from work declined by about 40 percent (from 3.0 per one hundred full-time workers in 1992 to 1.8 per one hundred full-time workers in 2000) (Table 14).

The frequency of total workers' compensation claims—including medical-only cases that involve little or no lost work time—declined by about 31 percent between 1992 and 2000. This rate of decline

Table 15**Number of Workers' Compensation Claims per 100,000 Insured Workers:
Private Carriers in Thirty-six Jurisdictions, 1992-2000**

Policy Period	Temporary Total	Permanent partial	Total (including medical only)
1992	1,358	694	8,504
1993	1,331	644	8,279
1994	1,300	565	7,875
1995	1,217	459	7,377
1996	1,124	419	6,837
1997	1,070	414	6,725
1998	977	452	6,474
1999	858	434	5,933
2000	855	424	5,856
Percent decline, 1992–2000	-37.0	-38.9	-31.1

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

is also very similar to the 31 percent decline in the incidence rate for all injuries reported to the BLS in the same period (from 8.9 to 6.1 per one hundred full-time workers between 1992 and 2000).

Various studies indicate that some workplace injuries and diseases do not show up as workers' compensation claims because workers don't know they are eligible or do not file for other reasons (Leigh and Robbins, 2004; Leigh et al, 2000; Azaroff et al., 2002; Shannon and Loew 2002; and Biddle 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 as measured in BLS surveys. 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. Fewer cases entered into the workers' compensation system could result in fewer injuries reported to the BLS. We know of no comprehensive study to determine whether the extent of underreporting of workplace injuries has changed over time.

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

Laws in five states require short-term disability insurance: California, Hawaii, New Jersey, New York, and Rhode Island. These state programs generally pay benefits that replace half of the worker's lost earnings, subject to a maximum weekly benefit. Most programs pay benefits for up to twenty-six weeks,

although California pays for up to fifty-two weeks. In California and Rhode Island, the benefits are financed solely by employee contributions. In other states, employers also contribute.

Workers in other states may have short-term disability insurance that is offered and financed, at least in part, by employers. Benefits usually last for up to twenty-six weeks and typically replace about half of the worker's prior earnings. About 38 percent of private sector employees were covered by short-term insurance in 2003 (U.S. DOL 2004f).

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

Long-term disability insurance that is financed, at least in part, by employers covers about 28 percent of private sector employees. Such coverage is most common among white-collar workers. About 39 percent of white-collar workers, 21 percent of blue-collar workers, and 11 percent of service workers had this coverage as of March 2004 (U.S. DOL 2004f). 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 long-term disability benefits are reduced dollar for dollar by the social insurance benefits. For example, if Social Security benefits replaced 40 percent of the worker's prior earnings, the long-term disability benefit would pay the balance to achieve a 60 percent replacement. Long-term disability insurance is also sold in individual policies, typically to high-earning professionals. Such individual policies are not included in these data.

Retirement benefits may also be available to workers who become disabled. Most defined benefit pension

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

Social Security Disability Insurance and Medicare

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

While Social Security disability benefits and workers' compensation are the nation's two largest work-based disability benefit programs, the two programs are quite different. Workers are eligible for workers' compensation benefits from their first day of employment, while Social Security disability benefits require workers to have a substantial work history. Workers' compensation provides benefits for both short-term and long-term disabilities, and for partial as well as total disabilities. These benefits cover only those disabilities arising out of and in the course of employment. Social Security disability benefits are paid only to workers who have long-term impairments that preclude any gainful work whether the disability arose on or off the job. By law, the benefits are paid only to workers who are unable to engage in any substantial gainful activity by reason of a medically determinable physical or mental impairment that is expected to last a year or result in death. The impairment has to be of such severity that the worker is not only unable to do his or her prior work, but is unable to do any substantial gainful work that exists in the national economy. Social Security disability benefits begin after a five-month waiting period. Medicare coverage begins for those on Social Security disability benefits after a further twenty-four-month waiting period, or twenty-nine months after the onset of disability.

Many who receive Social Security disability benefits have impairments associated with aging. The portion of insured workers who receive benefits rises sharply at older ages, from less than 1 percent of the youngest insured workers to about 15 percent of insured workers age 60–64 (Reno and Eichner 2000). Relatively few individuals who receive Social

Security disability benefits return to work. Typically, they leave the disability benefit rolls when they die or reach retirement age and shift to Social Security retirement benefits.

While workers' compensation paid \$29.3 billion in cash benefits and \$25.6 billion for medical care in 2003, Social Security paid \$70.9 billion in wage replacement benefits to disabled workers and their dependents and Medicare paid \$37.9 billion for medical and hospital care for disabled persons under age 65. Thus, aggregate workers' compensation cash benefits were less than half the total amount of Social Security disability benefits, and workers' compensation medical benefits were less than three-fourth the total amount paid by Medicare. Medicare benefits are less comprehensive than medical care under workers' compensation, because there is a twenty-four-month waiting period. Medicare requires beneficiary cost sharing in the form of deductibles and co-insurance, and it does not cover outpatient prescription drugs³, long-term care, or attendant care. At the same time, Medicare covers all medical conditions, not just work-related injuries or illnesses. When a worker receiving workers' compensation is also Medicare-eligible, Medicare is the secondary payer under the Medicare Secondary Payer Act.

Coordination between workers' compensation and Social Security disability benefits

If a worker becomes eligible for both workers' compensation and Social Security disability benefits, one of the programs will limit benefits in order to avoid excessive payments relative to the worker's past earnings. The Social Security amendments of 1965 required that Social Security disability benefits be reduced, so that the combined total of workers' compensation and Social Security disability benefits would not exceed 80 percent of the workers' prior earnings.⁴ States, however, were allowed to establish reverse offset laws, whereby workers' compensation payments would be reduced if the worker received Social Security disability benefits. The reverse offset

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

As of December 2003, about 7.6 million disabled workers and their dependents received Social Security disability benefits (Table 16). About 1.3 million of these individuals (or 16.6 percent) had some connection to workers' compensation or some form of public disability benefits. They include about 212,088 people whose Social Security benefits were reduced under the workers' compensation offset. Another 231,008 beneficiaries received workers' compensation, but the combined benefits were not high enough to be affected by the cap. An additional 44,816 people received workers' compensation but resided in reverse offset states, where any benefit reduction would affect workers' compensation, rather than Social Security benefits. Finally, 141,642 beneficiaries indicated to SSA that their disabilities were job-related, but their status with regard to workers' compensation was undecided or unknown.

Trends in Social Security Disability Benefits and Workers' Compensation

Figure 5 illustrates the long-term trend in Social Security disability benefits and workers' compensation as a share of covered wages. Social Security disability benefits grew rapidly in the early 1970s and then declined through the late 1980s after policy changes in the late 1970s and early 1980s reduced benefits and tightened eligibility rules. From 1990 to 1996, Social Security benefits again rose as claims and allowances increased, particularly during the economic recession of 1990–1991. 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 benefits as a share of covered wages followed a different pattern. Total workers' compensation benefits (cash and med-

3 The Medicare Modernization Act of 2003 creates a new outpatient prescription drug benefit that will start to take effect in 2006.

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

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

Table 16

Social Security Disability Insurance (DI) Beneficiaries with Workers' Compensation (WC) or Public Disability Benefit (PDB) Involvement, December 2004

Type of Case	Beneficiaries					
	Total		Workers		Dependents	
	Number	Percent	Number	Percent	Number	Percent
All disability insurance (DI) beneficiaries	7,590,284	100.0	5,868,541	100.0	1,721,743	100.0
Total with some connection to WC or PDB	1,260,248	16.6	1,019,398	17.4	240,850	14.0
Currently receiving WC or PDB ^a	629,554	8.3	538,737	9.2	90,817	5.3
DI reduced due to offset cap ^b	212,088	2.8	132,766	2.3	79,322	4.6
DI not affected by cap	231,008	3.0	224,026	3.8	6,982	0.4
DI previously offset for WC or PDB ^a	630,694	8.3	480,661	8.2	150,033	8.7
Resides in reverse offset state	44,816	0.6	41,923	0.7	2,893	0.2
Pending decision on WC or PDB	141,642	1.9	140,022	2.4	1,620	0.1

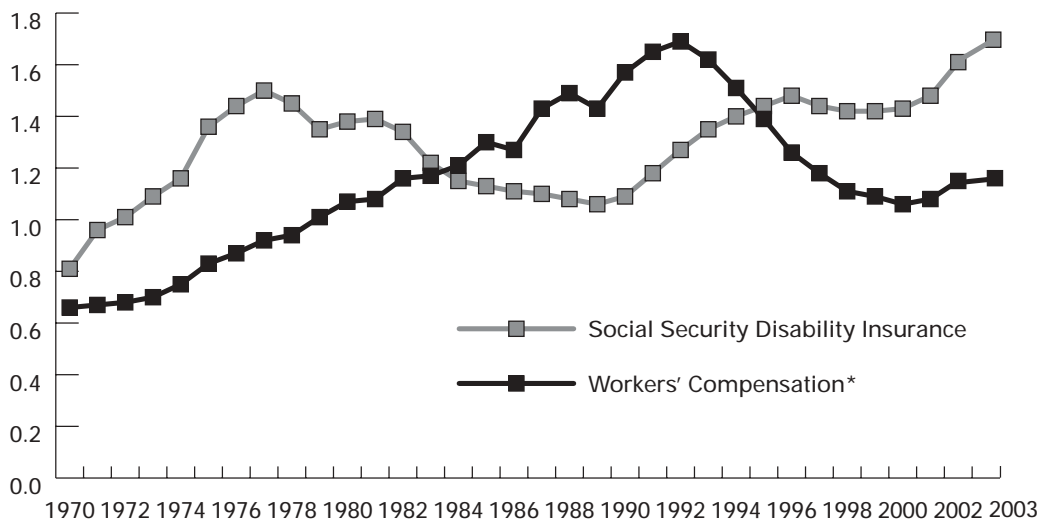
a Includes workers who received a lump-sum settlement in lieu of monthly payments and reverse jurisdiction cases where DI offset is applicable.

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

Source: SSA 2004b

Figure 5

Social Security Disability Insurance and Workers' Compensation Benefits as a Percent of Wages, 1970-2003



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

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

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

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

A 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, 2005). 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 like or amount of work they can do became disabled because of an accident, injury, or illness at work. Of the subset who were 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).

Incurred Losses Compared with Benefits Paid

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

ers in a calendar year regardless of whether the injuries occurred in the current year or a past year. This measure, *calendar year benefits paid*, is commonly used in reporting other social insurance, private employee benefits, and other income security programs. A different measure, *accident year incurred losses*, is commonly used for workers' compensation insurance that is purchased from private carriers and some state funds. It measures benefit liabilities incurred by the insurer for injuries that occur in a particular year, regardless of whether the benefits are paid in the current year or a future year. (The term losses and benefits are used interchangeably because benefits to the worker are losses to the insurer.) Both measures, calendar year benefits paid and accident year losses incurred, reveal important information.⁶

For the purpose of setting insurance premiums, it is important to estimate the incurred losses that the premiums are to cover. When an employer purchases workers' compensation insurance for a particular year, the premiums cover current and future benefit liabilities for all injuries that occur during the policy year. State rating bureaus and the National Council on Compensation Insurance, which provides advisory ratemaking and statistical services in thirty-six states, focus on accident year (or policy year) incurred losses.

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

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

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

Table 17**Comparison of Accident-Year Incurred Losses with Calendar-Year Benefits Paid by Private Carriers and State Funds in Thirty-six States, 1997–2003**

Year	Accident year incurred losses ^a		Calendar year benefits paid ^b	
	Billions of dollars	Percent Change	Billions of dollars	Percent change
1997	9.9		12.4	
1998	10.8	9.1	13.7	10.5
1999	11.8	9.3	14.5	5.6
2000	12.7	7.6	14.8	2.3
2001	13.0	2.4	15.4	4.2
2002	12.8	-1.5	16.5	6.8
2003	12.9	0.8	16.4	-0.3
Cumulative % change from 1997-2003		30.3	32.4	

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

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

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

Source: NCCI 2004b and calendar year benefits estimated by the National Academy of Social Insurance.

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

Accident year incurred losses are estimated for insurance policies purchased from private carriers and from some state funds, but this information is not routinely available for other state funds and for self-insured employers. In addition, accident year data exclude benefits under large deductible policies and all benefits of certain categories of privately insured employers. For the years 1997 through 2003, Table 17 compares *accident year losses incurred reported* by the National Council on Compensation Insurance

and *calendar year benefits paid* estimated by the National Academy of Social Insurance for private carriers and state funds in thirty-six states that are included in the NCCI data. From year to year, the two measures change at different rates, although over an extended period, the two measures should be similar. Between 1997 and 2003, the cumulative increase in benefits paid was 32.4 percent compared to a 30.3 percent increase for accident year incurred losses.

There are a number of differences in these time series, which may be contributing to the disparate growth rates in particular years. First, benefits paid as part of large deductible programs are reflected in the calendar year data, while they are not reflected for all of the states included in the accident year incurred data. In addition, accident year incurred data also

exclude information from insurers who became insolvent or were otherwise financially impaired and ceased submitting the source data to the statistical agents. When such financial impairment arose, and there were several large insurers that experienced

such conditions in the late 90's and 2000 through 2003, the impact is likely to have been greater on accident year incurred data than for calendar year data. Further research into the differences between these time series could clarify the difference.

Glossary

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

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

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

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

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

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

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

DI: See SSDI.

FECA: Federal Employees' Compensation Act.

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

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

Losses: Benefits paid by insurers.

Managed Care: MedPAC defines managed care as any system of health payment or delivery arrangements where the health plan attempts to control or coordinate use of health services by its enrolled members in order to contain health expenditures, improve quality, or both. Arrangements often involve

a defined delivery system of providers with some form of contractual arrangement with the plan.

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

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

Overall Operating Ratio: The ratio of (1) the total of all carrier expenditures, including losses, loss adjustment expenses, underwriting expenses, and dividends (2) minus investment income earned by carriers on their reserves (3) divided by premiums.

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

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

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

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

SSDI: Social Security disability insurance. Also, DI.

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

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

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

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

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

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

WC: Workers' compensation.

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

Appendix A: Methodology for Coverage Estimates

Estimates of workers' compensation coverage by the National Academy of Social Insurance start with the number of workers in each state who are covered by unemployment insurance (UI) (U.S. DOL 2004g). Almost 96 or 97 percent (U.S. DOL, 2004b) of workers are covered by UI. Those who are not required to be covered include: Some farm and domestic workers who earn less than a threshold amount from one employer; some state and local employees, such as elected officials; employees of some non-profit entities, such as religious organizations, for whom coverage is optional in some states; unpaid family workers; and railroad employees who are covered under a separate unemployment insurance program. Railroad workers are also not covered by state workers' compensation because they have other arrangements (NASI 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. In 2003, about 10.3 million Americans were self-employed as their main job, according to the Current Population Survey (U.S. DOL 2004b).

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

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

- (a) Workers in small firms (which are required to provide UI coverage in every state) are not covered by workers' compensation if the state law

exempts small firms from mandatory workers' compensation coverage.

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

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

Small Firm Exemptions. NASI assumes that workers are not covered by workers' compensation if they work for small firms in the fourteen states that exempt small employers from mandatory coverage. Private firms with fewer than three employees are exempt from mandatory coverage in eight states: Arkansas, Colorado, Georgia, Michigan, New Mexico, North Carolina, Virginia, and Wisconsin. Those with fewer than four employees are exempt in two states: Florida, and South Carolina. Finally, firms with fewer than five employees are exempt from mandatory coverage in Alabama, Mississippi, Missouri, and Tennessee (U.S. DOL 2004a; AFL-CIO 2003).

The number of employees in small firms is estimated using data from the U.S. Small Business Administration, which show the proportion of employees in all private firms in each state who worked for firms with fewer than five employees in 2002 (the most recent year for which data are available). Those percentages for the fourteen states with numerical exemptions are: Alabama, 5.1 percent; Arkansas, 5.2 percent; Colorado, 6.0 percent; Florida, 6 percent; Georgia, 4.7 percent; Michigan, 4.6 percent; Mississippi, 5.3 percent; Missouri, 4.9 percent; New Mexico, 6.1 percent; North Carolina, 4.8 percent; South Carolina, 5.0 percent; Tennessee, 4.3 percent; Virginia, 4.7 percent; and Wisconsin, 4.5 percent (U.S. SBA 2002).

Table A1

Documenting Workers' Compensation Coverage Estimates, 2003 Annual Averages

State	UI Covered Jobs ^a		Workers' Compensation Exemptions			WC Covered Jobs	WC as a % of UI
	Total	Private, non-farm firms	Small Firm	Agriculture	Texas		
Alabama	1,773,222	1,477,528	69,409	5,512	-	1,698,301	95.8
Alaska	274,695	215,629	-	-	-	274,695	100.0
Arizona	2,221,996	1,888,713	-	-	-	2,221,996	100.0
Arkansas	1,094,876	922,938	26,530	7,834	-	1,060,512	96.9
California	14,553,353	12,234,599	-	-	-	14,553,353	100.0
Colorado	2,064,289	1,764,918	-	-	-	2,064,289	100.0
Connecticut	1,605,207	1,385,398	-	-	-	1,605,207	100.0
Delaware	396,842	357,976	-	1,293	-	395,549	99.7
District of Columbia	458,674	409,333	-	-	-	458,674	100.0
Florida	7,121,725	6,149,312	281,880	-	-	6,839,845	96.0
Georgia	3,689,310	3,141,876	77,290	15,354	-	3,596,666	97.5
Hawaii	537,892	447,333	-	-	-	537,892	100.0
Idaho	562,260	453,838	-	-	-	562,260	100.0
Illinois	5,606,133	4,874,515	-	-	-	5,606,133	100.0
Indiana	2,784,854	2,416,969	-	10,374	-	2,774,480	99.6
Iowa	1,385,330	1,167,291	-	-	-	1,385,330	100.0
Kansas	1,258,689	1,041,131	-	7,786	-	1,250,903	99.4
Kentucky	1,676,698	1,419,385	-	3,823	-	1,672,875	99.8
Louisiana	1,820,457	1,487,116	-	-	-	1,820,457	100.0
Maine	577,299	490,036	-	-	-	577,299	100.0
Maryland	2,306,057	1,980,273	-	-	-	2,306,057	100.0
Massachusetts	3,089,112	2,735,384	-	-	-	3,089,112	100.0
Michigan	4,266,725	3,661,821	91,279	-	-	4,175,446	97.9
Minnesota	2,542,200	2,193,124	-	-	-	2,542,200	100.0
Mississippi	1,070,998	855,603	42,697	8,506	-	1,019,795	95.2
Missouri	2,560,340	2,192,147	104,604	8,480	-	2,447,256	95.6

Montana	379,522	311,456	-	-	379,522	100.0
Nebraska	858,593	715,907	8,380	-	850,213	99.0
Nevada	1,064,090	947,396	1,941	-	1,062,149	99.8
New Hampshire	596,385	519,224	-	-	596,385	100.0
New Jersey	3,787,442	3,253,936	-	-	3,787,442	100.0
New Mexico	716,120	562,571	19,368	8,325	688,427	96.1
New York	8,089,293	6,785,421	-	-	8,089,293	100.0
North Carolina	3,657,988	3,070,541	81,266	-	3,576,722	97.8
North Dakota	304,210	249,516	2,157	-	302,053	99.3
Ohio	5,201,808	4,511,632	-	-	5,201,808	100.0
Oklahoma	1,365,548	1,114,764	-	-	1,365,548	100.0
Oregon	1,533,069	1,285,932	-	-	1,533,069	100.0
Pennsylvania	5,363,549	4,734,086	-	-	5,363,549	100.0
Rhode Island	462,401	407,252	19,197	512 ^b	442,692	95.7
South Carolina	1,738,609	1,447,726	52,979	6,606	1,679,024	96.6
South Dakota	352,928	293,285	-	-	352,928	100.0
Tennessee	2,547,532	2,200,108	90,077	4,814	2,452,641	96.3
Texas	9,028,131	7,541,904	1,444,501	-	7,583,630	84.0
Utah	1,006,253	853,363	-	-	1,006,253	100.0
Vermont	288,145	242,927	-	-	288,145	100.0
Virginia	3,263,271	2,779,100	72,503	-	3,190,768	97.8
Washington	2,583,106	2,100,621	-	-	2,583,106	100.0
West Virginia	655,949	541,361	-	-	655,949	100.0
Wisconsin	2,658,057	2,292,821	56,451	-	2,601,606	97.9
Wyoming	234,111	181,493	1,959	-	232,152	99.2
U.S. non-federal	125,035,343	106,308,529	1,085,530	103,656	122,401,656	97.9
Federal	2,764,373	-	-	-	2,764,373	100.0
U.S. TOTAL	127,799,716	106,308,529	1,085,530	103,656	125,166,029	97.9

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

b Data not available for 2003, applied 2002 data.

Source: National Academy of Social Insurance estimates.

To estimate the proportion of workers in firms with fewer than three or four employees, we used national data on small firms from the U. S. Census Bureau (U.S. Census Bureau 1999). Of workers in firms with fewer than five employees, 78.6 percent worked in firms with fewer than four employees and 56.5 percent worked in firms with fewer than three employees. These ratios were applied to the percentage of workers in firms with fewer than five employees in the respective states. For example, the proportion of Arkansas private sector workers in firms with fewer than three employees is: (5.4 percent) x (56.5 percent) = 3.05 percent. These ratios are applied to the number of UI covered workers in private, non-farm firms in each state. In the fourteen States together, we estimate that 1.1 million workers were excluded from workers' compensation coverage in 2003 because of the small employer exclusion from mandatory coverage.

Agricultural Exemptions. We estimate agricultural workers to be excluded from workers' compensation

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

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

Appendix B: Questionnaire for State Agencies

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

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

Calendar Year Paid Data - Please provide the information requested below for calendar years 1999-2003. Calendar year paid data refer to all payments made that year, regardless of accident year and regardless of whether the case was closed or remains open. If you are unable to report calendar year data, please indicate the 12-month period of the data you are reporting. Please be sure to list benefits paid, not incurred. If your state does not collect the data that enable you to fill out this questionnaire, please send us any information you may have pertaining to benefit payments in 1999-2003.

	CY 2003 Payments	CY 2002 Payments	CY 2001 Payments	CY 2000 Payments	CY 1999 Payments
1) SELF-INSURERS (group and individual)					
Medical Payments					
Cash Payments					
Vocational Rehabilitation (if not included above)					
TOTAL					
2) PRIVATE CARRIERS					
Medical Payments					
Cash Payments					
Vocational Rehabilitation (if not included above)					
TOTAL					
Are deductibles allowed for private carriers?					
Do the above amounts include deductibles?					
How much was paid in deductibles?					
3) STATE FUNDS (if state has competitive or exclusive fund)					
Medical Payments					
Cash Payments					
Vocational Rehabilitation (if not included above)					
TOTAL					
Are deductibles allowed for the state fund?					
Do the above amounts include deductibles?					
How much was paid in deductibles?					
4) SPECIAL FUNDS (including second injury, guaranty and other)					
Medical Payments					
Cash Payments					
Vocational Rehabilitation (if not included above)					
TOTAL					
Is this amount included in items 2 and/or 3?					
Is so, which and how much?					
5) CALENDAR YEAR TOTAL BENEFITS PAID (Should equal the sum of items 1-4)					
Medical Payments					
Cash Payments					
Vocational Rehabilitation (if not included above)					
TOTAL					

Are you attaching additional information? _____

Please e-mail your response to NASI at isengupta@nasi.org or fax to 202-452-8111 by September 17, 2004
 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 1999–2003, by private carriers and by twenty-one entities that we classify as state funds, based on their membership in the American Association of State Compensation Insurance Funds. A.M. Best did not provide information on the state fund in South Carolina, or on exclusive state funds in Ohio, North Dakota, Washington, West Virginia, and Wyoming.

The 2003 NASI survey questionnaire for state agencies asked states to report data for five years, from 1999 through 2003. These historical data were used to revise and update estimates for these past years.

In response to the 2003 survey, we received replies from forty-six states. In many cases, follow-up contacts were made with states to clarify specific questions. In Table C-1, the shaded areas indicate the information provided by each state in response to the survey.

Private Carrier Benefits

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

State Fund Benefits

Twenty-six states have a state fund for writing workers' compensation policies. Of these, twenty-one

were able to provide benefit data. One state was able to provide data that could be used to estimate the amount of benefits paid by the state fund by subtracting various components from total benefit figures provided. A.M. Best data were used to estimate state fund benefits in states unable to provide the data. An estimate of benefits paid under deductible policies was added to benefits reported by A.M. Best to estimate total state fund benefits in these states.

Self-Insured Benefits

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

Benefits under Deductible Policies

Forty-four jurisdictions allow carriers to write deductible policies for workers compensation. Of these, four were able to provide the amount of benefits paid under deductible policies. Benefits under deductible arrangements were estimated for another thirteen states by subtracting A.M. Best data on benefits paid (which do not include deductible benefits) from data reported by the state agency (which, in these cases, included deductible benefits). Deductible benefits in the remaining states were estimated using the weighted average of the percent of benefits under deductible arrangements in states where data were available, as described in Appendix G.

Medical Benefits

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

Employer Costs

NASI estimates of employer costs for benefits paid under private insurance and state funds are the sum of “direct premiums written” as reported by A.M. Best, plus our estimate of benefits paid under deductible arrangements (which are not reflected in premiums). In some cases, data provided by state agencies are used instead of A.M. Best data. State fund premium data for Colorado, North Dakota, Ohio, Washington and West Virginia were provided by the state agencies. Estimates for Wyoming are based on the average of the ratio of premiums to benefits by other exclusive state funds.

For self-insured employers, the costs include benefit payments and administrative costs. Because self-insured employers often do not separately record administrative costs for workers’ compensation, their

administrative costs must be estimated. They are assumed to be the same share of benefits as administrative costs for other insurers. This percentage is based on the ratio of administrative costs to total benefits as reported by private insurers to the National Association of Insurance Commissioners (NAIC 1998; 1999; 2000; 2001; 2002; 2003; 2004). This ratio is based on direct loss adjustment expenses and their expense for taxes, licenses, and fees. The ratios were:

1997: 15.7 percent

1998: 14.5 percent

1999: 15.8 percent

2000: 14.0 percent

2001: 14.6 percent

2002: 14.8 percent

2003: 17.1 percent

Table C1

Workers' Compensation Data Provided by States for 2003^a ■ Shaded areas correspond with provided data

State	Calendar Year Paid				
	Private Carriers	State Funds	Self-Insureds	Deductibles	Medical
Alabama		NA			
Alaska		NA		Note 1	
Arizona					Note 4
Arkansas		NA		N/A	Note 4
California				Note 1	
Colorado					Note 4
Connecticut		NA		Note 1	Note 4
Delaware		NA	Note 2		Note 5
District of Columbia		NA	Note 3		Note 4
Florida	Note 6	NA			Note 4
Georgia		NA		Note 1	Note 4
Hawaii				Note 1	
Idaho					Note 4
Illinois		NA	Note 3		Note 4
Indiana		NA			Note 4
Iowa		NA			Note 4
Kansas	Note 6	NA			Note 4
Kentucky	Note 6		Note 3		Note 4
Louisiana					Note 4
Maine					
Maryland				Note 1	
Massachusetts		NA			
Michigan		NA		Note 1	
Minnesota					
Mississippi		NA		Note 1	
Missouri					
Montana				Note 1	
Nebraska	Note 6	NA			Note 4
Nevada			Note 3		Note 4
New Hampshire		NA	Note 3		Note 4
New Jersey		NA		Note 1	
New Mexico				Note 1	
New York			Note 3	Note 1	
North Carolina		NA	Note 3		Note 4
North Dakota	NA		NA		
Ohio	NA			NA	
Oklahoma					Note 4
Oregon					
Pennsylvania					
Rhode Island					Note 4
South Carolina					Note 4
South Dakota		NA		Note 1	
Tennessee		NA	Note 3		Note 4
Texas			Note 3		Note 4
Utah			Note 3		Note 4
Vermont		NA			Note 4
Virginia		NA	Note 3		Note 4
Washington	NA			NA	
West Virginia	NA			NA	
Wisconsin	Note 6	NA	Note 3	NA	Note 5
Wyoming	NA		NA	NA	

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

NA: Not applicable.

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

Note 2: Computed from information provided on premiums.

Note 3: Self-insured benefits as described in Appendix E.

Note 4: Medical data provided by NCCI .

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

Note 6: Data provided by agency either was not complete or provided accident year data hence AM Best data were used.

Appendix D: Revised Data for 1999–2002

In preparing the 2003 estimates for workers' compensation benefits, the National Academy of Social Insurance reviewed and revised all data for calendar years 1999–2002. The revision process began by requesting historical data from state workers' compensation agencies and from AM Best.

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

- Revised data consistently use the same medical benefit estimation methodology described in Appendix F.
- Revised data consistently use the same deductible estimation methodology described in Appendix G.

- Self-insurance benefit imputations were revised using historical data as reported in Appendix E.
- Changes in data reported by state agencies were captured by the revised data questionnaire and are reflected in the revised estimates.
- Administrative costs for self-insurance were re-estimated based on updated information from the National Association of Insurance Commissioners as described in Appendix C.

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

Table D1

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

State	Total	Private Carriers ^a	State Funds	Self-Insured ^b	Medical Benefits	Percent Medical
Alabama	\$656,574	\$381,320	\$ -	\$275,255	\$375,810	57.2
Alaska	187,578	145,324	-	42,254	106,578	56.8
Arizona	417,440	149,695	189,596	78,150	250,882	60.1 ^c
Arkansas	179,935	119,863	-	60,071	112,279	62.4 ^c
California	11,882,602	6,374,566	2,191,962	3,316,073	5,943,630	50.0
Colorado	776,622	307,253	330,377	138,993	350,257	45.1 ^c
Connecticut	747,959	543,266	-	204,693	310,403	41.5 ^c
Delaware	165,669	112,213	-	53,455	82,590	49.9 ^d
District of Columbia	100,269	78,214	-	22,055	32,956	32.9 ^c
Florida	2,128,583	1,798,743	-	329,840	1,211,164	56.9 ^c
Georgia	1,082,971	769,767	-	313,205	516,577	47.7 ^c
Hawaii	267,827	175,029	11,754	81,044	105,927	39.6
Idaho	152,488	78,429	62,984	11,075	86,461	56.7 ^c
Illinois	2,172,929	1,700,954	-	471,975	964,781	44.4 ^c
Indiana	566,654	479,045	-	87,609	370,156	65.3 ^c
Iowa	321,456	260,103	-	61,353	162,657	50.6 ^c
Kansas	350,624	244,091	-	106,532	190,038	54.2 ^c
Kentucky	688,375	441,596	57,342	189,438	367,949	53.5
Louisiana	652,199	355,279	153,063	143,857	343,709	52.7 ^c
Maine	288,673	114,417	87,205	87,051	117,119	40.6
Maryland	574,327	300,292	159,324	114,711	229,744	40.0
Massachusetts	793,893	675,894	-	117,999	254,803	32.1
Michigan	1,512,457	846,823	-	665,634	523,260	34.6
Minnesota	921,000	611,861	98,096	211,561	437,500	47.5
Mississippi	286,538	168,832	-	117,706	163,484	57.1
Missouri	1,234,583	853,581	107,559	273,443	591,968	47.9
Montana	190,850	72,764	83,070	35,016	102,013	53.5
Nebraska	287,985	210,704	-	77,281	164,439	57.1
Nevada	403,521	263,629	-	139,892	147,886	36.6
New Hampshire	218,315	181,159	-	37,156	121,383	55.6 ^c
New Jersey	1,471,430	1,356,832	-	114,597	759,462	51.6 ^d
New Mexico	183,705	95,046	24,948	63,711	108,197	58.9
New York	3,142,392	1,580,743	780,636	781,013	968,462	30.8
North Carolina	994,949	759,484	-	235,465	426,833	42.9 ^c
North Dakota ^a	76,025	271	75,754	-	42,051	55.3
Ohio ^a	2,388,184	37,652	1,878,255	472,277	1,106,570	46.3
Oklahoma	520,924	258,053	144,566	118,305	240,146	46.1 ^c
Oregon	447,927	213,487	192,157	42,283	226,579	50.6
Pennsylvania	2,531,957	1,798,988	160,795	572,174	1,005,602	39.7
Rhode Island	118,322	46,976	55,246	16,100	26,886	22.7 ^c
South Carolina	592,530	398,098	43,770	150,661	265,453	44.8 ^c
South Dakota	93,636	89,962	-	3,674	55,794	59.6
Tennessee	668,122	517,713	-	150,409	342,746	51.3 ^c
Texas	2,039,625	1,462,646	186,144	390,835	1,266,607	62.1 ^c
Utah	231,239	83,669	115,641	31,928	154,005	66.6 ^c
Vermont	131,652	119,652	-	12,000	69,380	52.7 ^c
Virginia	624,684	495,648	-	129,036	337,954	54.1 ^c
Washington ^a	1,714,497	28,768	1,225,007	460,722	589,267	34.4
West Virginia ^a	832,608	3,588	697,271	131,749	246,579	29.6
Wisconsin	894,249	756,599	-	137,650	461,557	51.6 ^d
Wyoming ^a	104,187	5,913	98,274	-	66,487	63.8
Non-federal total	50,013,738	28,924,494	9,210,795	11,878,968	23,505,018	47.0
Federal ^c	3,153,626				827,117	26.2
Federal employees	2,317,325				665,378	28.7
TOTAL	53,167,364				24,332,135	45.8

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

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, 2001
(in thousands)**

State	Total	Private Carriers ^a	State Funds	Self-Insured ^b	Medical Benefits	Percent Medical
Alabama	\$640,042	\$381,617	\$-	\$258,425	\$371,693	58.1
Alaska	171,248	133,209	-	38,038	95,602	55.8
Arizona	394,467	172,167	142,262	80,038	242,203	61.4 ^c
Arkansas	160,486	109,639	-	50,847	98,217	61.2 ^c
California	10,082,357	5,573,702	1,544,303	2,964,352	4,689,795	46.5
Colorado	569,053	309,461	118,562	141,029	248,107	43.6 ^c
Connecticut	661,471	473,669	-	187,803	276,495	41.8 ^c
Delaware	144,733	98,033	-	46,700	67,702	46.8 ^d
District of Columbia	92,554	75,977	-	16,578	33,108	35.8 ^c
Florida	2,378,674	1,924,430	-	454,244	1,348,708	56.7 ^c
Georgia	1,067,327	753,118	-	314,209	515,519	48.3 ^c
Hawaii	252,041	163,784	13,643	74,614	103,304	41.0
Idaho	131,998	61,069	61,480	9,449	74,183	56.2 ^c
Illinois	2,126,538	1,618,869	-	507,668	954,815	44.9 ^c
Indiana	529,450	447,593	-	81,857	344,776	65.1 ^c
Iowa	330,833	258,868	-	71,965	152,845	46.2 ^c
Kansas	341,700	241,707	-	99,994	195,111	57.1 ^c
Kentucky	659,819	423,424	43,679	192,716	363,461	55.1 ^c
Louisiana	629,840	357,019	128,178	144,643	333,186	52.9 ^c
Maine	264,043	108,845	68,198	87,000	115,517	43.7
Maryland	574,742	290,216	169,194	115,331	222,718	38.8
Massachusetts	770,636	651,386	-	119,250	272,209	35.3
Michigan	1,477,986	809,463	-	668,523	482,602	32.7
Minnesota	904,451	610,309	91,622	202,520	430,610	47.6
Mississippi	271,163	169,687	-	101,477	148,208	54.7
Missouri	1,093,147	752,131	90,374	250,641	502,671	46.0
Montana	172,725	71,065	70,858	30,802	90,882	52.6
Nebraska	237,262	173,314	-	63,948	120,358	50.7 ^c
Nevada	445,558	273,328	-	172,230	173,387	38.9 ^c
New Hampshire	216,105	167,831	-	48,273	122,747	56.8 ^c
New Jersey	1,370,939	1,240,353	-	130,586	662,379	48.3 ^d
New Mexico	164,869	85,980	21,218	57,671	99,296	60.2
New York	2,978,224	1,440,904	797,109	740,211	913,244	30.7
North Carolina	885,272	689,623	-	195,650	396,602	44.8 ^c
North Dakota ^a	74,493	507	73,986	-	41,103	55.2
Ohio ^a	2,248,375	33,385	1,762,619	452,371	999,436	44.5
Oklahoma	497,435	286,988	119,113	91,334	237,277	47.7 ^c
Oregon	455,625	223,980	191,825	39,820	216,747	47.6
Pennsylvania	2,440,407	1,724,421	146,715	569,271	953,435	39.1
Rhode Island	117,515	48,935	50,313	18,266	27,274	23.2 ^c
South Carolina	532,374	367,262	39,444	125,668	243,827	45.8 ^c
South Dakota	82,128	79,677	-	2,450	47,902	58.3
Tennessee	687,890	526,835	-	161,055	355,639	51.7 ^c
Texas	1,780,989	1,250,281	152,921	377,787	1,073,936	60.3 ^c
Utah	210,050	78,250	93,033	38,767	139,893	66.6 ^c
Vermont	120,223	100,022	-	20,201	54,221	45.1 ^c
Virginia	604,497	468,677	-	135,820	340,936	56.4 ^c
Washington ^a	1,637,714	27,538	1,187,235	422,941	563,451	34.4
West Virginia ^a	713,128	633	615,581	96,916	192,558	27.0
Wisconsin	923,761	787,332	-	136,429	536,705	58.1 ^d
Wyoming ^a	97,706	3,017	94,689	-	65,967	67.5
Non-federal total	46,416,061	27,119,529	7,888,156	11,408,378	21,352,567	46.0
Federal ^e	3,069,267	-	-	-	780,176	25.4
Federal Employees	2,223,088	-	-	-	623,057	28.0
TOTAL	49,485,328	-	-	-	22,132,743	44.7

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

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

Table D3

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

State	Total	Private Carriers ^a	State Funds	Self-Insured ^b	Medical Benefits	Percent Medical
Alabama	\$600,236	\$ 376,011	\$ -	\$224,225	\$ 332,434	55.4
Alaska	145,917	115,459	-	30,457	81,103	55.6
Arizona	423,733	190,796	162,338	70,600	256,159	60.5 ^c
Arkansas	145,550	102,950	-	42,601	86,874	59.7 ^c
California	9,450,827	5,617,453	1,173,744	2,659,631	4,306,862	45.6
Colorado	808,207	338,344	263,718	206,144	355,713	44.0 ^c
Connecticut	667,056	484,542	-	182,514	258,324	38.7 ^c
Delaware	144,610	92,658	-	51,953	66,382	45.9 ^d
District of Columbia	86,839	64,415	-	22,424	28,048	32.3 ^c
Florida	2,057,302	1,868,645	-	188,657	1,114,214	54.2 ^c
Georgia	995,775	695,992	-	299,782	460,722	46.3 ^c
Hawaii	231,359	156,876	7,488	66,995	91,185	39.4
Idaho	113,598	50,841	53,562	9,195	63,783	56.1 ^c
Illinois	1,992,857	1,521,027	-	471,830	878,604	44.1 ^c
Indiana	530,922	448,837	-	82,085	343,672	64.7 ^c
Iowa	294,778	232,638	-	62,140	145,415	49.3 ^c
Kansas	319,013	221,675	-	97,338	190,883	59.8 ^c
Kentucky	592,908	410,709	29,188	153,011	316,966	53.5 ^c
Louisiana	606,159	348,022	112,506	145,631	302,476	49.9 ^c
Maine	262,146	116,872	55,683	89,591	106,643	40.7
Maryland	545,509	287,078	139,677	118,754	203,083	37.2
Massachusetts	808,871	681,915	-	126,956	249,704	30.9
Michigan	1,474,058	796,329	-	677,729	472,355	32.0
Minnesota	797,787	529,436	88,070	180,281	369,408	46.3
Mississippi	269,342	178,037	-	91,305	145,667	54.1
Missouri	903,194	629,885	63,731	209,578	435,603	48.2
Montana	169,763	72,503	70,629	26,630	88,902	52.4
Nebraska	206,816	158,009	-	48,806	99,894	48.3 ^c
Nevada	425,337	264,711	-	160,626	198,798	46.7 ^c
New Hampshire	176,897	139,911	-	36,986	84,209	47.6 ^c
New Jersey	1,293,641	1,190,292	-	103,348	615,821	47.6 ^d
New Mexico	148,643	77,983	13,865	56,795	89,255	60.0
New York	2,909,115	1,346,945	839,136	723,034	869,843	29.9
North Carolina	846,846	640,847	-	205,999	376,201	44.4 ^c
North Dakota ^a	72,708	513	72,195	-	39,349	54.1
Ohio ^a	2,098,528	28,216	1,630,436	439,876	871,606	41.5
Oklahoma	474,128	274,234	107,012	92,882	218,246	46.0 ^c
Oregon	412,471	222,142	158,660	31,669	202,144	49.0
Pennsylvania	2,402,614	1,676,662	156,237	569,715	912,842	38.0
Rhode Island	111,061	50,876	40,947	19,237	25,319	22.8 ^c
South Carolina	515,381	355,648	37,004	122,730	231,267	44.9 ^c
South Dakota	81,229	78,728	-	2,501	47,038	57.9
Tennessee	627,225	492,591	-	134,634	321,228	51.2 ^c
Texas	1,743,901	1,221,263	147,921	374,717	1,043,469	59.8 ^c
Utah	182,565	69,848	85,558	27,159	127,605	69.9 ^c
Vermont	109,258	93,188	-	16,071	52,354	47.9 ^c
Virginia	602,035	467,163	-	134,872	315,522	52.4 ^c
Washington ^a	1,527,657	20,742	1,135,120	371,795	534,173	35.0
West Virginia ^a	693,056	2,679	589,260	101,117	187,575	27.1
Wisconsin	768,282	656,232	-	112,050	453,275	59.0 ^d
Wyoming ^a	82,875	933	81,942	-	54,731	66.0
Non-federal total	43,950,586	26,160,301	7,315,626	10,474,659	19,722,950	44.9
Federal ^c	2,957,404				697,825	23.6
Federal employees	2,118,859				542,505	25.6
TOTAL	46,907,990				20,420,775	43.5

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

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

Table D4**Revised Workers' Compensation Benefits by Type of Insurer and Medical Benefits, by State, 1999
(in thousands)**

State	Total	Private Carriers ^a	State Funds	Self-Insured ^b	Medical Benefits	Medical Percent
Alabama	\$623,206	\$367,657	\$0	\$255,550	\$344,318	55.2
Alaska	130,334	102,229	-	28,105	70,291	53.9
Arizona	384,453	168,131	153,528	62,794	220,960	57.5 ^c
Arkansas	151,578	107,772	-	43,807	92,135	60.8 ^c
California	7,851,641	5,610,841	1,012,910	2,242,368	3,504,327	44.6
Colorado	725,448	335,383	196,397	193,668	292,214	40.3 ^c
Connecticut	736,857	521,892	-	214,965	288,797	39.2 ^c
Delaware	131,780	90,462	-	41,318	59,418	45.1 ^d
District of Columbia	89,323	70,239	-	19,084	32,175	36.0 ^c
Florida	2,295,798	1,819,091	-	476,708	1,247,263	54.3 ^c
Georgia	895,690	619,723	-	275,968	443,514	49.5 ^c
Hawaii	222,056	148,803	6,995	66,258	85,513	38.5
Idaho	120,761	53,296	57,045	10,420	67,399	55.8 ^c
Illinois	1,927,748	1,487,664	-	440,084	825,689	42.8 ^c
Indiana	504,464	429,062	-	75,402	331,690	65.8 ^c
Iowa	255,679	207,794	-	47,885	127,065	49.7 ^c
Kansas	319,329	226,708	-	92,621	177,564	55.6 ^c
Kentucky	625,782	401,391	31,828	192,563	338,321	54.1 ^c
Louisiana	510,247	325,510	111,127	73,610	289,629	56.8 ^c
Maine	263,703	116,130	52,700	94,872	99,524	37.7
Maryland	558,315	334,233	130,667	93,416	231,415	41.4
Massachusetts	725,331	607,343	-	117,988	231,547	31.9
Michigan	1,392,806	749,350	-	643,456	413,859	29.7
Minnesota	744,497	479,317	88,070	177,110	315,637	42.4
Mississippi	253,664	162,891	-	90,773	132,971	52.4
Missouri	972,071	699,375	48,673	224,023	469,612	48.3
Montana	145,996	58,017	63,437	24,542	70,426	48.2
Nebraska	196,257	155,991	-	40,266	103,360	52.7 ^c
Nevada	471,303	313,269	-	158,034	163,386	34.7 ^c
New Hampshire	187,644	146,935	-	40,709	95,593	50.9 ^c
New Jersey	1,244,221	1,133,396	-	110,825	580,825	46.7 ^d
New Mexico	138,217	73,359	11,727	53,130	80,945	58.6
New York	2,795,769	1,314,422	836,452	644,895	839,719	30.0
North Carolina	839,624	611,999	-	227,626	374,285	44.6 ^c
North Dakota ^a	69,179	469	71,694	-	36,914	53.4
Ohio ^a	2,038,742	37,923	1,571,005	429,814	811,564	39.8
Oklahoma	491,290	287,012	115,523	88,756	218,297	44.4 ^c
Oregon	384,110	202,220	145,285	36,605	183,332	47.7
Pennsylvania	2,467,114	1,709,488	178,122	579,505	870,282	35.3
Rhode Island	112,073	56,182	34,433	21,459	24,374	21.7 ^c
South Carolina	444,568	290,845	37,100	116,623	210,218	47.3 ^c
South Dakota	86,239	83,534	-	2,705	42,410	49.2
Tennessee	579,653	446,106	-	133,547	303,172	52.3 ^c
Texas	1,740,572	1,231,188	154,059	355,326	957,422	55.0 ^c
Utah	193,273	72,948	84,489	35,835	134,339	69.5 ^c
Vermont	105,029	86,025	-	19,004	49,754	47.4 ^c
Virginia	666,953	528,434	-	138,520	354,121	53.1 ^c
Washington ^a	1,395,246	24,628	1,032,108	338,510	479,577	34.4
West Virginia ^a	695,675	8,673	583,941	103,061	186,067	26.7
Wisconsin	724,360	609,241	-	115,119	421,631	58.2 ^d
Wyoming ^a	75,196	1,432	73,764	-	48,434	64.4
Total non-federal	41,700,867	25,726,021	6,883,079	10,109,229	18,373,299	44.1
Federal ^c	2,862,183				685,962	24.0
Federal employees	1,999,915				525,747	26.3
Total	44,563,050				19,059,261	42.8

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

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

Appendix E: Self-Insurer Benefits Estimation

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

- 1) Estimate total covered payroll for all states for calendar years 1999–2003. This procedure is outlined in Appendix A.
- 2) Collect total payroll of workers insured by private carriers and competitive state funds for calendar years 1999–2003. This information is available for the majority of states from the NCCI.
- 3) Use (1) and (2) to estimate the percent of payroll covered by self-insurers for all states where these data are available. The percentage of payroll covered by self-insurers is $[(1)-(2)]/(1)$.
- 4) Estimate the percent of total benefits paid by self-insurers in states where these data are available by dividing self-insurance benefits by total benefits.
- 5) Determine the ratio of the percent of total benefits paid by self-insurers (4) to the percent of payroll covered by self-insurers (3) to in each state. This ratio is $(4)/(3)$.
- 6) Estimate the average ratio of the percent of total benefits paid by self-insurers (4) to the

percent of payroll covered by self-insurers (3) for all states where these data are available.

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

Table E1

**Self-Insurer Estimation Results,
1997–2003**

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

Year	Ratio
1997	54.2
1998	49.0
1999	51.2
2000	58.4
2001	53.5
2002	60.1
2003	63.0

Appendix F: Medical Benefit Estimation

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

For 2003, twenty-two states provided information on the share of total benefits paid in their states that were for medical care. NASI estimates are based on these state reports for: Alabama, Alaska, California, Hawaii, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, New Mexico, New York, North Dakota, Ohio, Oregon, Pennsylvania, South Dakota, Washington, West Virginia and Wyoming.

The National Council on Compensation Insurance (NCCI) is a national organization that assists private carriers and insurance commissioners in setting workers' compensation rates in selected states. NCCI provided NASI estimates of the percent of private

carrier benefits paid that were for medical care in thirty-six states. For 2003, we used this percentage to estimate the share of total benefits (including self-insured benefits) that were for medical care in twenty-five jurisdictions for which state reports of medical benefits were not available. Those are: Arizona, Arkansas, Colorado, Connecticut, District of Columbia, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Nebraska, Nevada, New Hampshire, North Carolina, Oklahoma, Rhode Island, Tennessee, Texas, Utah, Vermont and Virginia.

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

Appendix G: Deductible Estimation Methodology

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

Method A:

State reports deductible amounts.

Method: Use deductible amount reported by state.

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

Method B:

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

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

Thirteen States: Alaska, California, Connecticut, Georgia, Hawaii, Maryland, Michigan, Mississippi, Montana, New Jersey, New Mexico, New York, and South Dakota.

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

Method C:

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

Method: Estimate deductible amount, as the average percentage deductible in the states for which we have

data on deductibles (A and B above). Add the estimate to the state reported amount to estimate the total state private carrier benefits.

Seven States: Alabama, Illinois, Maine, Massachusetts, Missouri, Rhode Island and Vermont.

Method D:

Deductibles are not allowed in the state.

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

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

Method E:

State does not report benefit amounts. Deductibles are allowed.

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

Sixteen Jurisdictions: Colorado, Delaware, the District of Columbia, Florida, Indiana, Kansas, Kentucky (private carrier only), Louisiana (State fund only), Nebraska, Nevada, New Hampshire, North Carolina, North Dakota (private carriers only), Oklahoma, Tennessee and Utah.

Weighted Averages:

1999 – 24.27	2000 – 23.30	2001 – 25.39
2002 – 31.49	2003 – 29.42	

Appendix H: Federal Programs

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 2003. The accompanying tables provide detailed information on federally administered programs, including some that are not included in national totals in this report.

Table H-1 reports benefits and administrative costs for federal civilian employees under the Federal Employees' Compensation Act in 1997 through 2003. These benefits to workers and costs to the federal government as employer are included in national totals in this report, and are classified with federal programs.

Table H-2 shows benefits reported to the U.S. Department of Labor by insurers and self-insured employers under the Longshore and Harbor Workers' Compensation Act in 1997 through 2003. Ideally, benefits and employer costs under the LHWCA would be counted in the states where the employee is located, because our estimates of covered employment and covered workers count these workers and wages in the states where they work. We believe that at least part of LHWCA benefits paid through private insurance carriers are included in state data that are reported to us by A.M. Best or the states. At the same time, self-insured employers under the LHWCA are not included in A.M. Best data and are unlikely to be included in state reports; benefits paid from the LHWCA special funds are not included in state data. Thus, for 1997–2003 data, our estimates of total federal benefits include benefits paid by self-insured employers and the special funds under the LHWCA. Without other information, we assume that privately insured benefits under the program are included in state reports. Whether and how LHWCA benefits can be reflected in state reports is a subject for analysis.

Table H-3 shows benefits under the Black Lung Benefit program in 1997 through 2003 for both

parts of the program. Part B is financed by federal funds and was administered by the Social Security Administration until 1997 when administration shifted to the U.S. Department of Labor. Part C is financed by employers through an excise tax on coal mined and sold in the United States. Its benefits are paid directly by the responsible mine operator or insurer or from the federal Black Lung Disability Trust Fund. No data are available on the experience of employers who self-insure under the Black Lung program. Any such benefits and costs are not reflected in Table H-3 and are not included in national estimates.

Table H-4 provides information on Part B of the Energy Employees Occupational Illness Compensation Program Act of 2000, which first began making payments in 2001. Table H-5 shows cumulative payments under the Radiation Exposure Compensation Act since its enactment in 1990. Both of these programs are federally financed and compensate workers or other civilians who became ill or died due to harmful exposure in the production and testing of nuclear weapons. Finally, Table H-6 provides information on the Veterans' Compensation program, which pays cash benefits to veterans who sustain disabilities while on active duty in the U.S. armed forces. This program is somewhat similar to workers' compensation in that it is financed by the employer (the federal government) and compensates for injuries or illness caused on the job (the armed forces). It is also different from other workers' compensation programs in many respects. With cash benefits of about \$21.4 billion in 2003, veterans' compensation is about 73.0 percent of the size of total cash benefits in other workers' compensation programs, which were \$29.3 billion in 2003. Because it is large and qualitatively different from other programs, veterans' compensation benefits are reported, but they are not included in national totals to measure trends in regular workers' compensation programs.

Table H1**Federal Employees' Compensation Act, Benefits and Costs, 1997–2003 (in thousands)**

	1997	1998	1999	2000	2001	2002	2003
Total Benefits	\$1,900,779	\$2,009,862	\$1,999,915	\$2,118,859	\$2,223,088	2,317,325	2,367,757
Compensation Benefits	1,440,867	1,536,430	1,474,168	1,576,354	1,600,031	1,651,947	1,698,273
Medical Benefits	459,912	473,432	525,747	542,505	623,057	665,378	669,484
% Medical	24	24	26	26	28	29	28
Direct Administrative Costs	80,893	80,235	87,425	91,532	109,326	115,226	130,621
Total Costs	1,981,672	2,090,097	2,087,340	2,210,391	2,332,414	2,432,551	2,498,378
Indirect Administrative Costs ^a	6,835	5,750	5,584	6,197	5,056	4,596	4,806

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 2005b.

Table H2**Longshore and Harbor Workers' Compensation Act, Benefits and Costs, 1997–2003 (in thousands)**

	1997	1998	1999	2000	2001	2002	2003
Total Benefits	\$617,927	\$642,321	\$659,800	\$671,991	\$689,065	696,450	716,218
Insurance Carriers	219,352	238,464	232,778	249,671	236,726	242,491	262,753
Self-Insured Employers	263,255	261,559	283,991	278,952	307,708	310,939	309,843
LHWCA Special Fund	123,772	129,777	131,152	131,564	133,374	131,684	132,504
DCCA Special Fund	11,548	12,521	11,879	11,804	11,341	11,336	11,118
Total Annual Assessments	121,300	122,000	141,300	145,700	145,000	136,000	135,800
LHWCA	110,000	111,000	130,000	133,000	133,000	125,000	125,000
DCCA	11,300	11,000	11,300	12,700	12,000	11,000	10,800
Administrative Expenses ¹	9,356	9,821	10,822	11,144	11,713	11,970	12,314
General Revenue	8,378	8,596	8,947	9,373	9,807	9,988	10,297
Trust Fund	978	1,225	1,875	1,771	1,906	1,982	2,017
Indirect Administrative Costs ²	1,799	2,107	2,247	1,787	2,207	2,514	2,347

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

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

Source: U.S. DOL 2005b.

Table H3**Black Lung Benefits Act, Benefits and Costs, 1997–2003
(in thousands)**

	1997	1998	1999	2000	2001	2002	2003
Total Benefits	\$1,095,585	\$1,000,383	\$982,787	\$929,690	\$872,787	826,980	771,149
Part C Compensation	388,656	373,707	360,470	346,903	332,620	316,585	303,724
Medical Benefits	92,041	80,450	74,776	69,322	61,136	65,756	59,739
Part B Compensation	614,888	546,226	547,541	513,465	479,031	444,639	407,686
Total Direct Administrative Costs	25,759	31,030	33,246	32,866	34,657	36,123	37,393
Part C (DOL)	25,759	26,698	29,023	28,591	29,897	31,488	31,991
Part B (SSA)	*	4,332	4,223	4,275	4,760	4,635	5,402
Trust Fund Advances from U.S. Treasury ^b	370,000	360,000	402,000	490,000	505,000	465,000	525,000
Interest Payments on Past Advances	470,635	494,726	515,016	541,117	567,814	595,589	620,582
Coal Tax Revenues Received by the Black Lung Trust Fund	635,342	634,270	569,704	512,799	511,520	588,000	480,080
Indirect Administrative Costs ^a	19,903	20,115	20,882	21,348	22,207	23,050	23,459

*information not available

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

(b) Total Trust Fund debt (cumulative advances) at the end of CY 2003 was \$8,243,557,000. In the recent past, most, if not all, of these advances were necessary to pay interest charges on past debt.

Source: U.S. DOL 2005b.

Table H4**Energy Employees Occupational Illness Compensation Program Act, Part B Benefits and Costs, 2001-2003
(in thousands)**

	2001	2002	2003
Total Benefits	\$67,341	369,173	303,981
Compensation Benefits	67,330	363,671	288,274
Medical Benefits	11	5,502	15,707
Direct Administrative Costs	30,144	68,777	65,589
Total Costs	97,485	437,950	369,570

Source: U.S. DOL 2005b.

Table H5**Radiation Exposure Compensation Act, Benefits Paid as of March 22, 2005 (benefits in thousands)**

Claim Type	Claims	Benefits
Downwinder	8,064	401,694
Onsite Participant	624	45,727
Uranium Miner	2,909	289,472
Uranium Miller	362	36,096
Ore Transporter	80	7,980
TOTAL	12,039	\$780,971

Source: U.S. DOJ 2005.

Table H6**Federal Veterans' Compensation Program, Compensation Paid in September, 2004 (benefits in thousands)**

Class of Dependent	Number	Monthly Value
Veteran Recipients - total	2,555,696	\$1,781,834
Veterans less than 30 percent disabled (no dependency benefit)	1,200,715	167,700
Veterans 30 percent or more disabled	1,354,981	1,614,134
Without dependents	428,535	475,538
With dependents	926,446	1,138,595
Spouse only	625,702	797,627
Spouse, child or children	236,006	262,981
Spouse, child or children, and parents or parents	826	1,507
Spouse, parent or parents	1,144	2,260
Child or children only	60,099	68,845
Child or children, and parent or parents	366	653
Parent or parents only	2,303	4,723
Total dependents on whose account additional compensation was being paid	1,387,998	-
Spouse	863,678	-
Children	519,208	-
Parents	5,112	-

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

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Uncharted Waters: Paying Benefits From Individual Accounts in Federal Retirement Policy

Kenneth S. Apfel
Michael J. Graetz
Virginia P. Reno
Joni Lavery
Catherine Hill, eds.



Implementing any system of universally available individual accounts requires answers to three broad questions: How will money get into these accounts? How will the funds in these accounts be invested and managed? How will individuals or their families obtain payments from these accounts? Much analysis has been produced attempting to answer these questions in recent years, but most of the analyses have focused on the "accumulation" phase — how individuals, in concert with their employers, a government institution or regulated private financial institutions, would get the money into the accounts, then invest and manage the accounts' assets during the person's working years. In contrast, questions surrounding the "payout" phase — how individuals would receive their funds after retirement or upon death or disability—have frequently been neglected. This report examines these largely unexplored issues in depth.

Why is it important to examine these "payout" issues? Since a central goal of retirement security policy is to assure some level of adequate income, it is essential that any debate about creating individual accounts include a complete understanding of how the benefits will be received. How would the assets accumulated in individual accounts be paid out during retirement? Will

individuals have funds available to them before retirement? Do these answers change if an individual becomes disabled or dies before retirement? What rights does a spouse or former spouse have to these accounts? Can creditors reach the accounts? What institutions—government or private—will be responsible for making payments from the accounts? If private institutions are responsible, will the federal or state governments regulate their conduct? If these new accounts are part of Social Security or integrated with Social Security reforms, what will happen to payouts of Social Security benefits? These are the kinds of questions this report addresses in detail.

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Options to Balance Social Security Funds Over the Next 75 Years

Virginia P. Reno and Joni Lavery
Social Security is in excellent financial shape over the next decade; it is running surpluses while the rest of the federal government is running deficits. If the Trustees' "best estimates" for the next 75 years hold true, Social Security funds will fall short of benefit costs in about 2042. In that year, taxes coming in will be sufficient to pay 73 percent of benefits promised under current law. Many options are possible to ensure that all legislated benefits can be paid. This brief explores a variety of changes that eliminate all or part of the shortfall. Removing the cap on wages subject to Social Security taxes — \$90,000 in 2005 — would bring in enough new money to eliminate the deficit. Price-indexing the benefit formula would reduce bene-

fits enough to erase the deficit. Many combinations of changes would remedy the projected shortfall for 75 years and beyond. The brief also notes how proposals to create individual Social Security accounts differ from plans to bring about long-term solvency.

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Six New Papers on Workers' Compensation and Disability Insurance

The *Social Security Bulletin* in Vol. 65 No. 4 (May 2005) published six papers that grew out of the seminar, "Interaction of Workers' Compensation and Social Security Disability Insurance," co-sponsored by the National Academy of Social Insurance (NASI) and the Social Security Administration, which took place in June 2004.

The papers are listed below and available for download free-of-charge from www.nasi.org:

- ▲ *Compensating Workers for Permanent Partial Disabilities*, by Peter S. Barth
- ▲ *Workers' Compensation: A Background for Social Security Professionals*, by Ann Clayton
- ▲ *Benefit Adequacy in State Workers' Compensation Programs*, by H. Allan Hunt
- ▲ *The Fraction of Disability Caused at Work*, by Robert T. Reville and Robert F. Schoeni
- ▲ *Reassessing the Relationship Between Disability Insurance and Workers' Compensation*, by James B. Lockhart III
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