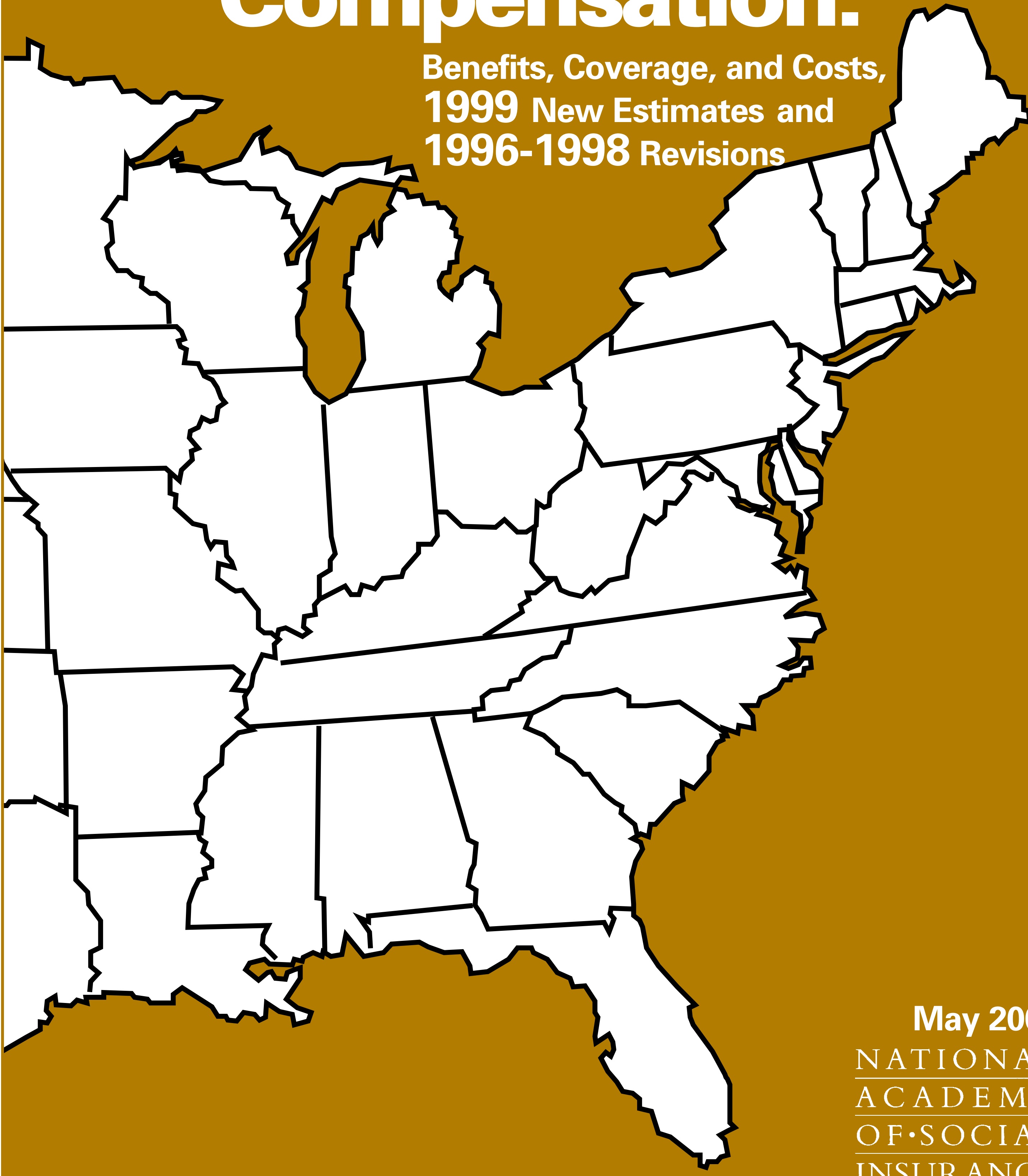
Workers' Compensation:

Benefits, Coverage, and Costs, 1999 New Estimates and 1996-1998 Revisions



May 2001

NATIONAL ACADEMY OF•SOCIAL INSURANCE

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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. 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.

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

This project received financial support from the Health Care Financing Administration, Liberty Mutual Insurance Company, and the Social Security Administration. It also received in-kind support in data from the National Council of Compensation Insurance.

ISBN: 1-884902-35-9

Workers' Compensation:

Benefits, Coverage, and Costs, 1999 New Estimates and 1996-1998 Revisions

by

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with advice of the

Study Panel on National Data on Workers' Compensation

and the

Steering Committee on Workers' Compensation

May, 2001

NATIONAL ACADEMY OF·SOCIAL INSURANCE

Washington, DC

Preface

Workers' compensation programs have undergone many changes in recent decades. Total benefits paid for medical care and cash benefits for injured workers rose dramatically during the 1980s, and then declined sharply during most of the 1990s. This report presents new data on developments in 1999.

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

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

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

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

This is the fourth report the Academy has issued on workers' compensation national data. In December 1997, it published a report that extended the data series through 1995. That report was prepared by Jack Schmulowitz, a retired SSA analyst, who also provided the Academy with full documentation of the methods used to produce the estimates in that report. Subsequent reports published by the Academy in 1999 and 2000 extended the data series through 1998. Those reports used the same basic methodology followed in prior reports but incorporated several significant innovations. In particular the Academy reports:

- Provided state level estimates separating medical and cash benefits;
- Placed workers' compensation in context with other disability insurance programs;
- Compared the recent trends in the benefit spending for workers' compensation to those for Social Security disability insurance;
- Discussed the relative advantages and drawbacks of using different measures of benefits — in particular, calendar year paid benefits vis a vis accident year incurred losses;
- Estimated benefits paid under deductible provisions for individual states; and
- Developed a new method for estimating coverage under workers' compensation programs at the state level.

This report provides estimates for 1999, the most recent year for which data are available. In addition to continuing the improvements made in past reports, this report:

- Presents state-level estimates of the number of covered workers and total covered wages; and
- Reports estimates of benefits relative to total wages in each state.

Finally, this report includes significant revisions to previously published estimates for 1996 through

1998. These revised figures should be used in place of previously published data. Historical data displayed in the body of this report incorporate those revisions.

We are pleased that prior reports in this series have been used and cited by a large and diverse audience of journalists, business and labor leaders, insurers, employee benefit specialists, federal and state policy makers, and researchers in universities, government, and private consulting firms. We consider this report series to be an evolving product. As we continue to extend the original data series, we will also expand and improve it. We welcome suggestions for further improvements and extensions.

This report benefited immeasurably from members of the Academy's Study Panel on National Data on Workers' Compensation, who gave generously of their time and expertise in advising on data sources, data collection, plans for presentation, and in carefully reviewing the draft report. We would like to especially acknowledge two members of the Study Panel: Barry Llewellyn, Senior Divisional Executive and Actuary with the National Council on Compensation Insurance, who provided the Academy with data and underwriting reports and his considerable expertise on many data issues; and Terry Thomason, Director of the Labor Research Center at the University of Rhode Island, for his extensive work assisting with the coverage estimates in this report. This report also benefited from helpful comments during Board review by Paul Cullinan, Richard Hobbie, and Wayne Vroman.

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Highlights

1999 Developments

With the strong economy in 1999, the number of workers covered by workers' compensation rose by 2.5 percent and the total wages of covered workers grew by 6.6 percent (Table 1).

Workers' compensation benefit payments for workers with job-related injuries or illnesses were $43.4 billion in 1999. The benefits include payments for medical care for the ill or injured workers and cash wage-replacement payments to the workers or their surviving dependents. The 1999 payments were 2.5 percent higher than in 1998. When viewed relative to the total wages of covered workers, however, benefit payments declined in 1999 to 1.05 percent of covered payroll from 1.09 percent of payroll in 1998.

Employer costs for workers' compensation in 1999 were $53.3 billion, an increase of 0.9 percent over 1998. Relative to total wages of covered workers, however, employer costs also declined in 1999 to 1.29 percent of covered payroll from 1.37 percent of covered payroll in 1998.

Longer Trends

1999 is the seventh year in a row that benefits relative to covered wages declined. It is the sixth consecutive year that employer costs declined relative to covered wages (Figure 1). Benefits as a percent of wages peaked in 1992 at 1.69 percent. The drop to 1.05 percent of covered wages in 1999 is a decline of about 38 percent. Employer costs peaked in 1993 at 2.17 percent of covered wages. The fall to 1.29 percent of wages in 1999 is a decline of about 41 percent.

While workers' compensation benefits and costs continued a long-term decline relative to covered wages, the absolute dollar amount of benefits and costs rose in 1999 for the second year in a row (Figure 2). The increases in 1998 and 1999 occurred after dollar benefits had fallen for five years (1993-1997) and employer costs had declined for four years (1994-1997).

This report revises and extends the data series published by the Academy in 2000, entitled *Workers' Compensation: Benefits, Coverage, and Costs, 1997-1998, New Estimates.* It presents national data for 1999, including workers' compensation payments by state, by type of insurer, and for medical care and cash benefits separately. It also provides estimates of how many people are covered by workers' compensation. For the first time in this series, the report includes state-level estimates of the number of covered workers and total covered wages. It also provides estimates of benefits relative to total wages in each state. Finally, as explained in the methodology section, the report includes significant revisions to previously published estimates for 1996 through 1998.

Table 1

Workers' Compensation, 1999: Summary

	1998	1999	Percent Change
Covered workers (in millions)	120.9	123.9	2.5
Covered wages (in billions)	$ 3,866	$ 4,123	6.6
Workers' compensation benefits paid (in billions)	$ 42.3	$ 43.4	2.5
Employer costs for workers' compensation (in billions)	$ 52.8	$ 53.3	0.9
Benefits as a percent of covered wages	1.09 %	1.05 %	-3.9
Employer costs as a percent of covered wages	1.37 %	1.29 %	-5.4
Benefits per covered worker	$ 350	$ 350	0.0
Employer costs per covered worker	$ 437	$ 430	-1.6

Source: National Academy of Social Insurance estimates based on Tables 2, 5, 12, and 13.

Overview of Workers' Compensation

Workers' compensation programs provide benefits to workers who are injured on the job or who contract a work-related illness. Benefits include cash payments designed to partially replace lost wages for time spent away from work, as well as payments for medical care associated with work-related illness or injury. In case of a fatality, the worker's dependents receive survivor benefits.

Workers' compensation was the first form of social insurance in the United States. The first workers' compensation law was enacted in 1908 to cover certain federal civilian workers. By 1920, all but seven states had enacted workers' compensation laws. Today, each of the 50 states and the District of Columbia has its own program. As of 1999, the latest year of data in this report, there are federal programs for federal employees, for coal miners with black lung disease, and for longshore and harbor workers.

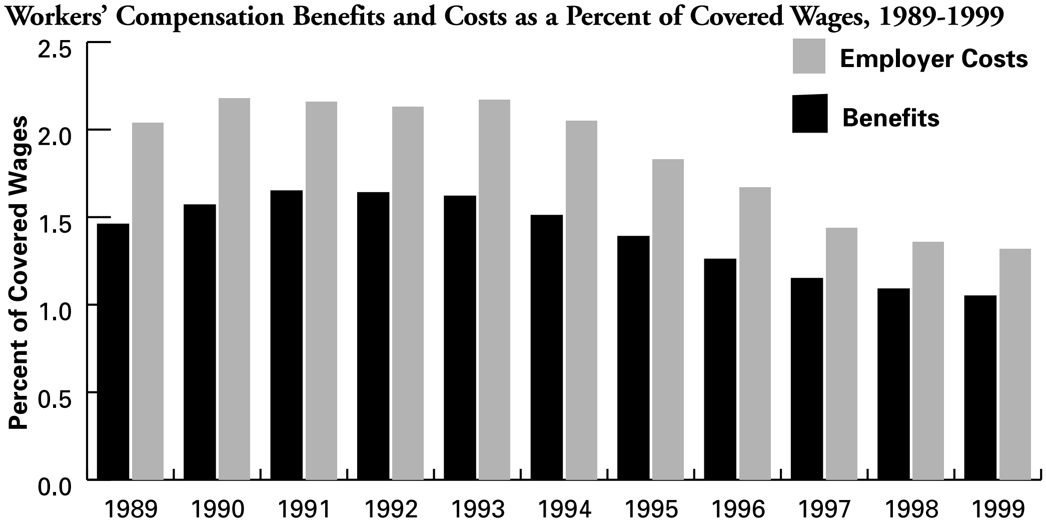
Before workers' compensation laws were enacted, an injured worker's only legal remedy for a work-related injury was to bring a tort suit against the employer and prove that the employer's negligence caused the injury. At the time, employers could use three common-law defenses to avoid compensating the worker: assumption of risk (showing that the injury resulted from an ordinary hazard of employment); the fellow-worker rule (proving that the injury was due to a fellow-worker's negligence); and contributory negligence (proving 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. Furthermore, litigation between employers and workers created friction between the two groups. Consequently, 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 accepted workers' compensation as payment in full, without recourse to an additional tort suit. Employers are responsible for benefit payments as prescribed by workers' compensation laws, thereby ending their liability.

Workers' compensation programs are designed and administered by the states. They are mandated for most employers in every state except Texas, where employers may opt out of the program. Workers'

Figure 1

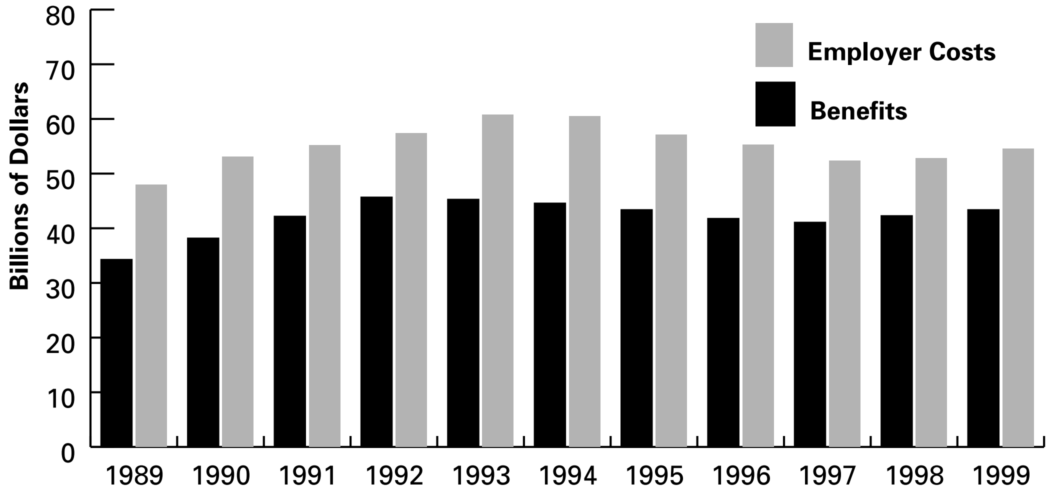
Workers' Compensation Benefits and Costs as a Percent of Covered Wages, 1989-1999



Source: National Academy of Social Insurance estimates, Table 13.

Figure 2

Workers' Compensation Benefits and Costs, 1989-1999



Source: National Academy of Social Insurance estimates, Tables 5 and 12.

compensation programs vary across states in terms of who is allowed to provide insurance, which injuries or illnesses are compensable, and how benefit levels are determined. Generally, the state laws require employers to obtain insurance or prove they have the financial ability to carry their own risk (self-insure). Insurance can be purchased from commercial insurers in all but the five states that have exclusive state funds (Ohio, North Dakota, Washington, West Virginia, and Wyoming). Nevada used to have an exclusive fund, but that was changed as of July 1, 1999. Insurance can also be purchased from publicly operated state funds in 27 states (U.S. Department of Labor, 2000a). South Carolina also has a state fund, which is mandatory for state agencies and available to city and county agencies, but not to private enterprises (American Association of State Compensation Insurance Funds, 1999).

Self-insurance is used by some larger employers. Many states permit groups of employers in the same industry to insure through what is called group self-insurance. In this report, group self-insurance is included with individual self-insurance. Two states — North Dakota and Wyoming — do not permit employers to self-insure.

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

State workers' compensation programs are unlike other social insurance programs in the United States — such as Social Security, Medicare, and unemployment insurance — in that they have no federal involvement in financing, administration, or mandatory minimum coverage standards (U.S. Department of Labor, 2000a, and Social Security Administration, 2000). And unlike many private employer-sponsored benefits that receive favored treatment under federal taxes — such as pensions and employee health insurance — federal laws do not set standards for "qualified" plans or impose reporting requirements. In brief, there is no federal involvement with state workers' compensation programs, and thus no uniform federal reporting of states' experience.

While the federal government has no role in state programs, it administers the Federal Employees Compensation Act (FECA), which covers civilian employees of the federal government, the Longshore and Harbor Workers' Compensation Act, which covers longshore, harbor and other maritime workers, and the Federal Black Lung Program, which pays benefits to coal miners with black lung disease and their dependents and survivors (U.S. Department of Labor, 2000b). U.S. military personnel are covered by the federal veterans' compensation program, which provides cash benefits and medical care to veterans who sustained total or partial disabilities while on active duty. The veterans' compensation program is not included in the data in this report. Finally, railroad workers involved in interstate commerce and seamen in the U.S. Merchant Marines are not covered by a workers' compensation program. Instead, they have health insurance and short-term and long-term cash benefit plans that cover disabilities whether or not the conditions are work-related. In addition, under federal laws these workers retain the right to bring tort suits against their employers for negligence in the case of work-related injuries or illness (National Commission on State Workmen's Compensation Laws, 1973).

Covered Employment

In 1999, workers' compensation programs covered 123.9 million workers, which was 2.5 percent more than the 120.9 million workers covered in 1998 (Table 2). Covered payroll in 1999 – that is total wages paid to covered workers – was $4.1 trillion, an increase of 6.6 percent from 1998.

Every state except Texas mandates coverage under workers' compensation for most private employees (U.S. Department of Labor, 2000a). In Texas, coverage is voluntary, but employers not offering coverage are not protected from tort suits. An employee not covered by workers–compensation insurance is allowed to file suit claiming the employer is liable for his or her work-related injury or illness.

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

The rules for agricultural workers vary considerably among states. In fifteen states coverage is completely voluntary. In twelve states it is compulsory. In other states, agricultural employers are exempted from coverage if they employ fewer than a minimum number of employees (ranging from three to ten), or if those employees earn less than a certain amount per year (generally $1,200 to $2,500) or the total days worked by employees is below a certain threshold (for example, 400 days in Illinois). Other provisions include (but are not limited to) exempting "family farms" (Minnesota), seasonal or casual workers (Maine), and farms not using certain specified equipment (South Dakota).

The number of workers covered by workers compensation, both nationally and at the state level, must be estimated. As a baseline for estimating coverage, the National Academy of Social Insurance uses the number of workers covered by state unemployment insurance (UI) programs. Those data are collected nationally and are based on quarterly tax reports that employers submit to state employment security agencies. Almost all wage and salary workers (about 97-98 percent) are covered by unemployment insurance. The main exceptions are employees of very small farms and household employees who earn less than a threshold amount (U.S. Department of Labor, 1997).

Table 2

Number of Workers Covered under Workers' Compensation Programs and Total Covered Wages, 1990-1999

Year	Workers (in millions)	Total Wages (in billions)
1989	103.9	$ 2,347
1990	105.5	2,442
1991	103.7	2,553
1992	104.3	2,700
1993	106.2	2,802
1994	109.4	2,949
1995	112.8	3,123
1996	114.6	3,317
1997	117.7	3,578
1998	120.9	3,866
1999	123.9	4,123

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

Table 3

Total Employment and Total Covered Workers by Program, 1999 (in thousands)

Total number of workers-Current Population Survey[a]	130,208
Wage and salary	121,323
Self-employed	8,790
Unpaid family workers	95
Number of covered jobs (wage and salary workers only)	
Unemployment insurance coverage[b]	127,079
Non-federal workers	124,296
Federal employees	2,783
Workers' compensation coverage[c]	123,947
Non-federal workers	121,163
Federal employees	2,783

a The Current Population Survey is a monthly survey of households that is used for official estimates of the size of the labor force, employment, and unemployment. Numbers reported here are annual averages of monthly estimates of the number of employed persons in the United States.

b Based on data compiled by state employment security agencies from reports filed by employers as part of their tax reporting for unemployment insurance. Annual averages of monthly data are released by the Employment and Training Administration of the U.S. Department of Labor in their ETA 202 report.

c Estimates in this report for non-federal workers are based on differences in state laws between unemployment insurance and workers' compensation coverage. See Appendix A. Coverage for federal employees is the same as that for unemployment insurance.

Source: National Academy of Social Insurance estimates based on U.S. Department of Labor, 2000c and U.S. Department of Labor, 2000f.

In estimating coverage in 1993-1996, the number of workers covered by workers' compensation was estimated to be 97 percent of the total number of workers covered by the UI program who were not federal employees, plus the total number of federal workers. This figure was based on reports made by some states published in the Department of Labor's *State Workers' Compensation Administration Profiles*. It also was roughly comparable to estimates produced by the Bureau of Labor Statistics based on establishment surveys used to construct the Employment Cost Index.

For 1997-1999, workers' compensation coverage was estimated for each state by taking account of differences between UI and workers' compensation coverage rules in each state. This procedure, which is outlined in Appendix A, yields a national estimate of workers' compensation coverage that is very similar to the approximation used in prior years – or about 97 percent of the non-federal UI covered workforce, plus all federal employees (Table 3).

Table 3 compares workers' compensation coverage (and UI coverage) to the size of the total work force, as it is measured in the current population survey (CPS). In comparing the two sources, it is useful to recognize definitional differences. The UI numbers are counts of *jobs* that are filled by workers. The CPS numbers are counts of *workers* who hold jobs. Thus, if a worker holds two jobs, he or she is counted as one worker in the CPS, but as two covered jobs in the UI data. The BLS estimates that about 5 percent of all persons in the labor force hold more than one job and therefore are counted more than once in the data on covered jobs (U.S. Department of Labor, 2000c). The estimates of workers' compensation coverage reported here refer to covered jobs.

Table 4

Number of Workers Covered by Workers' Compensation and Total Covered Wages, By State, 1997-1999

	Covered Workers (in thousands)			Percent Change		Covered Wages (in millions)			Percent Change	
	1997	1998	1999	1997-98	1998-99	1997	1998	1999	1997-98	1998-99
Alabama	1,659	1,692	1,700	1.9	0.5	$42,531	$44,880	$47,170	5.5	5.1
Alaska	244	250	252	2.3	0.8	7,913	8,256	8,381	4.3	1.5
Arizona	1,934	2,028	2,104	4.8	3.7	52,928	58,957	63,718	11.4	8.1
Arkansas	1,011	1,027	1,044	1.5	1.6	23,233	24,779	26,207	6.7	5.8
California	13,273	13,712	14,135	3.3	3.1	442,333	482,136	528,918	9.0	9.7
Colorado	1,898	1,977	2,051	4.1	3.8	56,376	63,161	69,588	12.0	10.2
Connecticut	1,573	1,602	1,630	1.8	1.7	61,195	65,507	69,783	7.0	6.5
Delaware	370	381	393	3.0	3.3	11,854	12,901	13,768	8.8	6.7
District of Columbia	407	414	432	1.6	4.4	17,402	18,649	20,506	7.2	10.0
Florida	6,255	6,527	6,720	4.4	3.0	165,075	181,944	186,767	10.2	2.7
Georgia	3,337	3,451	3,575	3.4	3.6	95,875	105,536	114,738	10.1	8.7
Hawaii	503	504	508	0.1	0.8	13,893	14,239	14,728	2.5	3.4
Idaho	497	513	530	3.4	3.1	11,776	12,586	13,618	6.9	8.2
Illinois	5,521	5,641	5,713	2.2	1.3	181,405	194,982	206,531	7.5	5.9
Indiana	2,721	2,776	2,828	2.0	1.9	74,696	80,365	84,466	7.6	5.1
Iowa	1,344	1,380	1,405	2.7	1.9	33,081	35,668	37,636	7.8	5.5
Kansas	1,202	1,242	1,258	3.3	1.3	30,522	32,991	34,938	8.1	5.9
Kentucky	1,606	1,641	1,681	2.2	2.5	40,675	43,438	46,166	6.8	6.3
Louisiana	1,763	1,805	1,812	2.4	0.4	44,916	48,110	48,798	7.1	1.4
Maine	531	545	560	2.6	2.8	13,011	13,883	14,856	6.7	7.0
Maryland	2,106	2,158	2,220	2.4	2.9	64,619	69,411	74,475	7.4	7.3
Massachusetts	2,981	3,057	3,117	2.5	2.0	105,982	115,147	125,475	8.6	9.0
Michigan	4,133	4,240	4,339	2.6	2.3	135,336	145,953	154,644	7.8	6.0
Minnesota	2,395	2,459	2,517	2.7	2.3	72,012	78,552	83,990	9.1	6.9

Mississippi	992	1,017	1,038	2.6	2.0	22,222	23,855	24,944	7.3	4.6
Missouri	2,342	2,388	2,427	2.0	1.6	64,358	68,331	72,114	6.2	5.5
Montana	342	352	358	2.9	1.8	7,302	7,767	8,144	6.4	4.9
Nebraska	801	821	838	2.6	2.1	19,463	20,758	22,115	6.7	6.5
Nevada	864	899	952	4.1	5.8	24,595	27,009	31,997	9.8	18.5
New Hampshire	550	568	583	3.2	2.7	16,003	17,473	18,664	9.2	6.8
New Jersey	3,545	3,611	3,719	1.9	3.0	132,496	142,112	151,570	7.3	6.7
New Mexico	616	626	633	1.5	1.2	14,784	15,638	16,248	5.8	3.9
New York	7,635	7,842	8,045	2.7	2.6	294,361	318,732	338,802	8.3	6.3
North Carolina	3,483	3,575	3,649	2.7	2.1	92,310	99,989	106,903	8.3	6.9
North Dakota	284	289	293	1.7	1.4	6,168	6,552	6,876	6.2	4.9
Ohio	5,198	5,291	5,368	1.8	1.5	150,027	159,602	167,392	6.4	4.9
Oklahoma	1,310	1,361	1,376	3.9	1.1	31,057	33,482	34,703	7.8	3.6
Oregon	1,450	1,477	1,502	1.9	1.7	40,794	43,245	46,029	6.0	6.4
Pennsylvania	5,161	5,252	5,387	1.8	2.6	154,476	164,775	174,537	6.7	5.9
Rhode Island	354	359	367	1.6	2.0	9,997	10,710	11,302	7.1	5.5
South Carolina	1,586	1,634	1,673	3.0	2.4	39,313	42,424	45,038	7.9	6.2
South Dakota	326	332	341	2.0	2.8	6,897	7,415	7,971	7.5	7.5
Tennessee	2,354	2,393	2,438	1.6	1.9	63,166	67,396	71,274	6.7	5.8
Texas	6,548	6,814	7,241	4.1	6.3	192,939	213,249	227,960	10.5	6.9
Utah	932	962	987	3.2	2.6	23,607	25,461	27,139	7.9	6.6
Vermont	269	275	282	2.3	2.7	6,786	7,245	7,728	6.8	6.7
Virginia	2,935	3,008	3,094	2.5	2.8	84,146	92,030	99,996	9.4	8.7
Washington	2,443	2,526	2,575	3.4	2.0	74,353	82,871	91,543	11.5	10.5
West Virginia	648	657	659	1.4	0.3	15,712	16,305	16,814	3.8	3.1
Wisconsin	2,489	2,542	2,598	2.1	2.2	67,741	72,219	76,599	6.6	6.1
Wyoming	207	210	214	1.7	2.1	4,835	5,101	5,410	5.5	6.1
Total non-federal	114,925	118,101	121,163	2.8	2.6	3,458,545	3,743,780	3,999,679	8.2	6.8
Federal employees	2,796	2,797	2,783	0.0	-0.5	119,159	122,437	123,217	2.8	0.6
TOTAL	117,721	120,898	123,947	2.7	2.5	3,577,704	3,866,217	4,122,896	8.1	6.6

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

Table 5

Workers' Compensation Benefits, by Type of Insurer, 1987-1999 (in millions)

Year	Total	Private Carriers	State Funds	Self-Insured	Federal Programs	Percent Change in Total
1987	$ 27,317	$ 15,453	$ 4,084	$ 5,082	$ 2,698	11.0
1988	30,703	17,512	4,687	5,744	2,760	12.4
1989	34,316	19,918	5,205	6,433	2,760	11.8
1990	38,238	22,222	5,873	7,249	2,893	11.4
1991	42,169	24,515	6,713	7,944	2,998	10.3
1992[a]	45,668	25,280	7,506	9,724	3,158	8.3
1993[a]	45,330	24,129	7,400	10,623	3,178	-0.7
1994[a]	44,586	22,306	7,587	11,527	3,166	-1.6
1995[a]	43,373	21,145	7,893	11,232	3,103	-2.7
1996[a]	41,836	20,392	7,603	10,775	3,066	-3.5
1997[a]	41,147	20,978	7,290	9,875	3,004	-1.6
1998[a]	42,312	22,821	7,278	9,222	2,991	2.8
1999[a]	43,371	23,813	7,232	9,337	2,989	2.5

a Includes estimated benefits paid under deductible provisions.

Sources: National Academy of Social Insurance estimates. Data on private carrier benefits and state fund benefits were purchased by special order from A.M. Best, a national data-collection organization for private insurance. Data were modified based on information from state agencies. Data on federal programs are from the U.S. Department of Labor, 2000b and Social Security Administration, 2000. Data on self-insurance benefits are from state administrative records in states where those data are available. See Appendix D for methodology for imputing values for states not reporting information.

This report includes, for the first time since NASI began producing the data, estimates of covered workers and total wages covered by workers' compensation for individual states. Over the period 1997-1999, covered employment and wages grew in every state (Table 4). Federal civilian employees were the only exception. Their numbers declined slightly between 1997 and 1999.

Because workers' compensation coverage rules did not change over this period, differences in growth rates among states generally reflect changes in their total employment and wages. States with above-average increases in both covered employment and wages between 1997 and 1999 include: Arizona, California, Colorado, Delaware, Georgia, Nevada, New Hampshire, and Texas. Four states had above average growth in employment, but not in wages – Idaho, Florida, South Carolina and Utah – while two states had above average growth only in wages – Massachusetts and Washington.

Benefit Payments

Workers' compensation cash and medical benefits paid to workers increased for a second consecutive year following a five-year decline that ended in 1997. Total benefits paid rose from $42.3 billion in 1998 to $43.4 billion in 1999, an increase of 2.5 percent (Table 5), about the same as the 2.8 percent growth experienced in the previous year.

Benefit payments shown in Table 5 include benefits paid to all workers in a specified year, regardless of the year their injuries occurred or their illnesses began. This measure is known as *calendar year paid benefits*. Thus in 1999, $43.4 billion in benefits were paid to all active workers' compensation cases, whether the workers receiving benefits were injured in 1999 or in a previous year.

Table 6

Total Amount and Percentage Distribution of Workers' Compensation Benefit Payments by Type of Insurer, 1990-1999

		Percentage Distribution							
	Total Benefits		Private Carriers		State Funds				Self-Insured plus
Year	(in millions)	Total	All	Deductibles[a]	All	Deductibles[a]	Federal Programs	Self-Insured	Deductibles
1990	$ 38,238	100.0	58.1	n/a	15.4	n/a	7.6	19.0	19.0
1991	42,169	100.0	58.1	n/a	15.9	n/a	7.1	18.8	18.8
1992	45,668	100.0	55.4	2.7	16.4	*	6.9	21.3	24.0
1993	45,330	100.0	53.2	4.4	16.3	*	7.0	23.4	27.9
1994	44,586	100.0	50.0	5.9	17.0	0.4	7.1	25.9	32.2
1995	43,373	100.0	48.8	7.1	18.2	0.7	7.2	25.9	33.7
1996	41,836	100.0	48.7	7.5	18.2	1.8	7.3	25.8	35.0
1997	41,147	100.0	51.0	7.3	17.7	2.4	7.3	24.0	33.7
1998	42,312	100.0	53.9	8.2	17.2	2.6	7.1	21.8	32.6
1999	43,371	100.0	54.9	7.2	16.7	2.5	6.9	21.5	31.2

a The percentage of total benefits paid by employers under deductible provisions with this type of insurance.
* Negligible
n/a Not available

Source: National Academy of Social Insurance estimates based on Tables 5 and 7

Methodology

Because the federal government has no role in state workers' compensation programs and no national reporting system exists, estimates for national benefits must be developed from the sum of estimates made for each state and for the federally-administered programs. These national estimates are based on reports from state and federal agencies and from private organizations, such as A. M. Best, a company that specializes in collecting insurance data and rating insurance companies, and the National Council on Compensation Insurance (NCCI), which assists carriers and insurance commissioners in most states in setting workers' compensation rates.

Often information in various state reports is not in the exact form needed for this report and must be adjusted, based on further information obtained by direct consultation with state workers' compensation agencies. Even with direct consultation, estimates could not be obtained for some states. In those cases, values had to be imputed based on available data, including prior information from the state and other states' experience. Table B1 in Appendix B shows the categories of data the Academy was able to obtain from state agencies. A detailed state-by-state explanation of how the estimates in this report are produced is in *Sources and Methods: Documentation for Workers' Compensation: Benefits, Coverage, and Costs, 1999 New Estimates and 1996-1998 Revisions* on the Academy's website at www.nasi.org.

In the process of developing estimates for 1999, updated figures were obtained for a few states for benefit payments in 1997 and 1998. In addition some inconsistencies were discovered in the treatment of deductible payments and the categorization of state funds. Based on this new information, data for 1996 through 1998 were revised. These revised figures are found in Appendix C and should be used in place of previously published data. Historical data displayed in the body of this report incorporate those revisions.

Types of Insurers

Private insurance carriers remain the primary provider of workers' compensation benefits. In 1999, they accounted for 54.9 percent of benefits paid (Table 6). The share of benefits paid by private carriers grew for the third straight year, reaching a share not seen since

1992. The share of benefits paid by self-insurers, the next largest provider, declined slightly from 21.8 percent in 1998 to 21.5 percent in 1999. Estimates for benefits paid by self-insurers in states that did not report such information were imputed using the procedure explained in Appendix D.

The share of benefits paid by state funds declined to 16.7 percent in 1999, from 17.2 percent in 1998. This report makes some revisions in the classification of state funds. In general, state funds are established by an act of legislature, have at least part of their board appointed by the governor, are usually exempt from federal taxes, and often serve as the insurer of last resort. Not all state funds meet all of these criteria, however. In some states, agencies within the state do not agree on the exact status of particular funds. Therefore, the Academy's expert panel decided to classify as state funds all funds that are members of the American Association of State Compensation Insurance Funds (AASCIF). This change is reflected in the 1999 data and in the revised data for 1996-1998 in Appendix C. This change results in state funds in states where they were not previously indicated, in Hawaii, Kentucky, Maine, Missouri, New Mexico, and South Carolina.

A development that has complicated the classification of benefits by type of insurer is the use of large deductibles. Under deductible policies, insurance carriers pay all of the workers' compensation benefits, but employers are responsible for reimbursing 100 percent of those benefits up to specified amounts to the carrier. The amount the employer is obligated to reimburse is called a deductible. Deductibles may be written into an insurance policy either on a per-injury basis or an aggregate basis, or a combination of a per-injury basis with an aggregate cap. States can vary in the maximum deductible they will allow. In return for accepting a policy with a deductible provision, employers pay lower premiums.

Prior to the 1990s, deductible policies were not common, but their popularity grew in the mid-1990s. In 1992, benefits under deductible provisions totaled $1.3 billion, or about 2.7 percent of total benefits. By 1998, they had risen to $4.6 billion, or 10.8 percent of total benefits (Table 7). In 1999, however, they declined to $4.2 billion, which was 9.7 percent of total benefits paid.

In Table 5, benefits reimbursed by employers under deductible provisions are included with private carri-

Table 7

Estimated Employer-Paid Benefits under Deductible Provisions for Workers' Compensation, (in millions), 1992-1999

Year	Total	Private Carriers	State Funds
1992	$ 1,250	$ 1,250	*
1993	2,027	2,008	$ 19
1994	2,834	2,645	189
1995	3,384	3,060	324
1996	3,859	3,126	733
1997	3,978	3,014	976
1998	4,567	3,481	1,084
1999	4,204	3,120	1,084

* Negligible

Note: Data on deductible benefits were available from 17 states. Seven states do not allow policies with deductibles. For the other 26 states and the District of Columbia deductible benefits were estimated to be the same percentage of benefits as found in the 17 states in which independent estimates of the size of benefits paid under deductible provisions were available.

Source: National Academy of Social Insurance estimates based on interviews and data received from state agency and rating bureau staff.

er or state fund benefits, depending on the type of insurer they use. Table 6 shows separately the proportion of total benefits that employers paid under deductible provisions with each type of insurance. The decline in deductible benefits is similar to the declining share in self-insurance within the workers' compensation market. Employers who have policies with deductibles are, in effect, self-insuring themselves up to the amount of the deductible. That is, they are bearing that portion of the financial risk. Thus, 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 a high of 35.0 percent in 1996, and then gradually declined to 31.2 percent in 1999. 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 a 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 premium levels. As a result, premiums did not rise as fast as costs. Growing numbers of firms were not able to buy insurance because insurers did not want to sell them insurance with premium levels that were less than their expected costs.

Because states require that firms have insurance, they have ways for high-cost firms 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, some states set premiums in the residual market that did not recognize the higher cost associated with residual market employers. To cover the gap between premiums charged to employers in the residual market and their actual losses, residual market pools assessed fees on insurance companies based on the insurer's share of aggregate premiums written in the voluntary market in the state. (Similar fees generally were not assessed on self-insured employers in the state. And assessments could be reduced by lowering premiums through the use of high deductibles.) As costs rose during the late 1980s, more employers ended up in the residual market, residual market losses grew, and rising fees assessed on insurers drove up the price of premiums they charged 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 (1990-1995).

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

Declining workers' compensation benefits and costs in the mid-1990s combined with a vibrant economy and high financial market returns enabled insurance companies to earn more from invested premiums. This led to very high profits by historical standards in the workers' compensation insurance industry and to fierce underwriting competition. 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 deductions 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 since the mid-1990s.

Table 8

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

State	Total	Private Carriers[a]	State Funds	Self-Insurance[b]	Medical Benefits	Percent Medical
Alabama	$ 596,233	$ 320,786	-	$ 275,447	$ 309,392	51.9
Alaska	137,630	108,604	-	29,026	73,456	53.4
Arizona	427,841	191,455	$ 174,825	61,561	149,956	35.0[c]
Arkansas	165,854	110,673	-	55,182	71,317	43.0[d]
California	7,856,442	4,611,639	1,002,435	2,242,368	3,506,531	44.6
Colorado	702,458	330,465	181,449	190,543	348,110	49.6[c]
Connecticut	722,156	553,612	-	168,544	196,079	27.2[c]
Delaware	105,436	78,243	-	27,193	45,337	43.0[d]
District of Columbia	82,011	64,157	-	17,853	35,265	43.0[d]
Florida	2,079,830	1,668,092	-	411,738	1,277,633	61.4
Georgia	816,249	450,288	-	365,961	487,804	59.8
Hawaii	211,138	144,706	5,223	61,209	86,574	40.9
Idaho	230,218	141,392	77,754	11,072	111,303	48.3
Illinois	1,719,617	1,353,213	-	366,405	828,341	48.2[c]
Indiana	522,237	391,347	-	130,890	343,188	65.7[c]
Iowa	283,983	236,098	-	47,885	159,420	56.1[c]
Kansas	326,196	236,753	-	89,443	113,239	34.7
Kentucky	430,953	260,222	20,420	150,310	229,300	53.2
Louisiana	428,808	207,532	101,602	119,674	184,387	43.0[d]
Maine	249,674	106,619	48,183	94,872	93,731	37.7
Maryland	1,169,386	905,032	158,165	106,188	493,481	42.2
Massachusetts	633,840	515,852	-	117,988	202,341	31.9
Michigan	1,392,806	760,306	-	632,500	413,859	29.7
Minnesota	744,600	479,400	88,100	177,100	315,700	42.4
Mississippi	253,532	162,808	-	90,724	132,971	52.4
Missouri	592,993	506,218	43,357	43,418	363,761	59.5
Montana	145,306	53,222	60,962	31,121	62,482	43.0[d]
Nebraska	173,149	131,579	-	41,570	86,079	49.7

Nevada	362,971	4,649	273,386	84,935	125,871	34.7
New Hampshire	170,876	134,339	-	36,537	88,787	52.0[c]
New Jersey	987,378	937,022	-	50,356	424,573	43.0[d]
New Mexico	117,168	60,348	12,036	44,784	65,857	56.2
New York	2,782,474	1,314,422	836,453	631,599	835,726	30.0
North Carolina	710,100	534,710	-	175,390	327,739	46.2[c]
North Dakota	77,236	428	76,808	-	36,201	46.9
Ohio	2,018,923	18,104	1,571,004	429,815	803,675	39.8
Oklahoma	465,231	261,595	105,621	98,015	221,583	47.6[c]
Oregon	398,965	202,220	145,285	51,460	190,422	47.7
Pennsylvania	2,441,255	1,692,089	176,004	573,162	867,097	35.5
Rhode Island	152,861	98,356	43,409	11,096	35,306	23.1
South Carolina	511,735	358,012	37,100	116,623	247,866	48.4[c]
South Dakota	80,331	69,408	-	10,923	38,915	48.4
Tennessee	514,242	404,946	-	109,296	264,953	51.5[c]
Texas	1,677,824	1,353,079	185,305	139,441	721,464	43.0[d]
Utah	219,338	133,718	67,987	17,633	152,456	69.5
Vermont	103,928	78,652	-	25,276	51,214	49.3[c]
Virginia	581,357	441,457	-	139,900	214,004	36.8
Washington	1,418,255	20,873	1,117,017	280,365	475,492	33.5
West Virginia	665,403	3,894	552,302	109,207	176,139	26.5
Wisconsin	652,281	609,039	-	43,242	342,874	52.6[c]
Wyoming	71,151	1,432	69,719	-	45,068	63.3
Non-federal total	40,381,861	23,813,108	7,231,914	9,336,839	17,474,320	43.3
Federal	2,989,551				568,406	19.0
Civilian employee	2,008,909				492,835	24.5
Black Lung	980,642				75,571	7.7
TOTAL	43,371,412				18,042,726	41.6

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

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

c Imputed based on regression analysis using data from states where the percentage was known. The independent variables used in the regression were the percent of private carrier incurred losses that is attributed to medical benefits, the percent of the market insured by private carriers, and the presence of a state fund.

d See Appendix E. The percentage of benefits for medical care was estimated to be the weighted average of the percentages in the states reporting such a percentage.

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.

Medical Payments

The total share of state workers' compensation benefits that were for medical care rose from 40.3 percent in 1998 (Table C3) to 43.3 percent in 1999 (Table 8), an increase of 3.0 percentage points. The remaining state benefits — 56.7 percent of the total in 1999 — were cash payments to disabled workers or to the surviving families of deceased workers. The two federally administered programs — for federal employees under the FECA and for coal miners under the Black Lung program — allocated a larger share to cash benefits and a smaller share for medical care than the state workers' compensation programs. Medical benefits were just under one-fourth of total payments for federal employees, and were about 8 percent of total payments under the Black Lung program. One reason for the small share for medical benefits in the Black Lung program is that the major share of benefits — over 55 percent — are survivor benefits to the widow(er)s and children of deceased coal miners. Medical benefits are paid only for disabled coal miners, not for their dependents or survivors.

Among various state programs, the share of benefits for medical care varies widely. In 1999 the share of benefit spending for medical care ranged from lows of less than 30 percent – reported for Michigan, Rhode Island, and West Virginia – to highs of more than 60 percent reported for Florida, 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:

- The industry mix in each state, which influences the types of illnesses and injuries that occur and thus the level of medical costs;
- Different compensability laws in each state, which determine which illnesses and injuries are covered and for what time period;
- Different levels of earnings replacement provided on the cash benefit side for each state, which, all else equal, means states with more generous cash benefits have a lower share of benefits used for medical care;
- Interstate differences in medical costs and medical practices, including the use of managed care, which can lead to different levels of medical expenditures in different states for the same types of illnesses and injuries.

As a result, the share of benefits accounted for by medical benefits is not, in and of itself, an informative measure of a state's workers' compensation performance. Changes in that share over time, however, can indicate trends within the workers' compensation system that are worth investigating.

Compounding the problem of using the share of all benefits accounted for by medical benefits as a measure of workers' compensation performance, is that some states were not able to report the portion of their total benefits that were for medical care. In those cases, medical benefits were imputed based on information from the NCCI and from other states. These cases are footnoted on Table 8. Further information about the methods for imputing medical benefits is in Appendix E.

The share of benefits for medical care increased steadily during the 1980s and into the early 1990s (Table 9). Some analysts believe that part of the rise in medical benefits was due to cost shifting between regular health insurance and workers' compensation. An incentive to shift costs existed because medical care not associated with workers' compensation was experiencing a rise in managed care during this period. Employees might have preferred workers' compensation medical care because it was typically fee-for-service and has both no deductibles and more choices about the treating physician. Health care providers also had an incentive to put cases in the workers' compensation system because they would not have to operate within the restrictions of managed care plans.

In the 1990s, partially as a response to escalating costs, workers' compensation programs began adopting managed health care. This change in the system of medical care delivery is often credited for at least a portion of the decrease in medical benefits during the mid-1990s. The rising share of benefits for medical care in 1999 may be partly due to adjustments made by providers to counterbalance the cost saving measures introduced by managed care. A number of studies of the impact of managed care on the growth of health care costs suggest that cost savings from the introduction of managed are a one-time event and do not lead to a permanent reduction in cost growth (Chernew, et. al., 1998).

Table 9

State Workers' Compensation Benefits Paid by Type[a], 1960-1999 (in thousands)

Year	Total	Cash	Medical	Percent Medical
1960	$ 1,295	$ 860	$ 435	33.6
1961	1,374	914	460	33.5
1962	1,489	994	495	33.2
1963	1,582	1,057	525	33.2
1964	1,707	1,142	565	33.1
1965	1,814	1,214	600	33.1
1966	2,000	1,320	680	34.0
1967	2,189	1,439	750	34.3
1968	2,376	1,546	830	34.9
1969	2,634	1,714	920	34.9
1970	2,921	1,871	1,050	35.9
1971	3,184	2,054	1,130	35.5
1972	3,507	2,257	1,250	35.6
1973	4,058	2,578	1,480	36.5
1974	4,826	3,066	1,760	36.5
1975	5,641	3,611	2,030	36.0
1976	6,603	4,223	2,380	36.0
1977	7,663	4,983	2,680	35.0
1978	8,773	5,793	2,980	34.0
1979	10,315	6,795	3,520	34.1
1980	11,879	7,932	3,947	33.2
1981	13,319	8,888	4,431	33.3
1982	14,740	9,682	5,058	34.3
1983	15,884	10,203	5,681	35.8
1984	18,044	11,620	6,424	35.6
1985	20,614	13,116	7,498	36.4
1986	23,031	14,389	8,642	37.5
1987	25,773	15,861	9,912	38.5
1988	29,234	17,715	11,519	39.4
1989	32,837	19,538	13,299	40.5
1990	36,804	21,737	15,067	40.9
1991	40,778	24,063	16,715	41.0
1992	43,264	25,134	18,130	41.9
1993	41,569	24,160	17,409	41.9
1994	43,391	26,307	17,084	39.4
1995	42,289	25,658	16,631	39.3
1996	40,682	24,222	16,460	40.5
1997	40,044	24,438	15,606	39.0
1998	41,276	24,968	16,307	39.5
1999	42,391	24,424	17,967	42.4

a Data include federal employees but not the Black Lung Program.
Source: National Academy of Social Insurance estimates and Nelson, 1992.

Changes in State Benefits

On a national level, total benefits were 2.5 percent higher in 1999 than in 1998. Focusing only on the national growth figure, however, conceals a great deal of variation among the states. Table 10 shows annual changes in state benefit payments in 1996-1999. In some cases estimation methods changed from one year to the next because states were not able to provide consistent information. In these cases estimates were based on data provided by A.M. Best and on information from other states. Cases in which estimating methods changed from one year to the next are footnoted on Table 10.

Eighteen states showed a decline in benefits in 1999, while benefits rose between 1998 and 1999 in 32 states and the District of Columbia. In most jurisdictions, the change was modest. Twenty-seven states experienced an increase or decrease in benefit payments of less than 5.0 percentage points. Nine jurisdictions had an increase of 8.0 percentage points or more: the District of Columbia, Indiana, Mississippi, Nevada, New York, South Dakota, Texas, Vermont, and Washington.

On the other hand, four states had a decrease of 8.0 or more percentage points: Delaware, Hawaii, Minnesota, and Oklahoma.

Benefits vary within a state from year to year as a function of many factors, including:

- Changes in workers' compensation statutes which affect coverage or levels of benefits;
- Court rulings or changes in administrative procedures;
- Changes in the mix of occupations or industries, because jobs differ in their rates of injury and illness;
- Fluctuations in employment, because more people working means more people at risk of a job related illness or injury;
- Changes in wage rates upon which benefit levels are linked;
- Demographic changes, because different age cohorts have different illness or injury rates;
- Developments in the health care system that influence the cost of medical care;
- Changes in reporting procedures; and
- Fluctuations in the number and severity of injuries and illnesses for other reasons (for example, in a small state one large industrial accident in a particular year can show up as a noticeable increase in statewide benefit payments).

Because of the myriad of reasons behind changes in benefits — including reporting changes — caution should be used in interpreting any single year-to-year change in a particular state. Also, as noted, the estimation method may have changed from one year to the next.

State Benefits Relative to Wages and Employment

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 level in the state.

The benefits standardized as a percent of coverage wages are useful to shed light on changes within states over time. For example, some states showed increases in total benefit payments (Table 10), but benefits relative to wages in the state declined between 1997 and 1999 (Table 11). For example:

- In California total benefits grew by 11.1 percent, while benefits relative to wages declined by 7.1 percent;
- In Maryland aggregate benefits grew by 8.0 percent, while benefits relative to wages declined by 6.3 percent;
- In Michigan aggregate benefits rose by 4.5 percent, while benefits relative to wages they declined by 8.5 percent;
- In New York total benefits rose by 6.3 percent, while benefits relative to wages fell by 7.7 percent;
- In Washington benefits rose by 14.9 percent, but benefits relative to wages they declined by 6.7 percent; and

While benefit payments that are standardized relative to wages in a state provide useful perspective for looking at changes within states over time, these data can be misleading and should not be interpreted to provide useful comparisons between states. In particular, comparisons across states do not necessarily reflect the relative adequacy or inadequacy of benefits that injured workers actually receive in different states. A state with a relatively high payment per covered worker may in fact be paying relatively low benefits to injured workers; conversely, a state with relatively low benefits paid per covered worker may pay relatively high benefits. Similarly, these figures do not accurately portray the comparative cost to employers of the workers' compensation program in one state versus another. Some of the reasons for the lack of utility of these data for cross state comparisons and the caveats on the use of these data are set out below.

Caveats on assessing benefit adequacy

An appropriate study of adequacy would include an examination of the amount of benefits disabled workers actually receive, and how the benefits compare to the wages that the workers actually lost because of their injuries or occupational diseases. Such data are not available on a consistent basis across states, primarily because most states have no information on the earnings losses due to workplace injuries or diseases. We do have data on benefits per worker and benefits relative to aggregate wages, but those measures could be high or low in a given state for a number of reasons unrelated to the adequacy of benefits that injured workers actually receive.

First, a state with more workers in high-risk industries – such as manufacturing 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 work force or total covered wages.

Fourth, benefits actually paid in the year (which are the data reported here) will be influenced by injuries that occurred in prior years. A state with a disproportionately large number of injured workers who are being compensated for permanent disabilities that occurred in the past would appear to pay above average benefits, when, in fact, the actual benefits for recently injured workers may not be above average. Alternatively, a state with a long period of future benefit payments may appear to be below average on the basis of the current year's payments when in fact the ultimate benefits required to be paid for recent injuries may be above average.

Fifth, variation in state wages can lead to cross-state differences in benefits per covered worker. Wages in a state are influenced by the mix of industries and occupations in that state. Because the cash component of benefits paid is linked to wages, states with higher wages will tend to pay higher benefits, all else equal. To some extent, this is controlled for when using benefits relative to covered payroll. 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 payroll.

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 both who is working, what they are earning, and the distribution of the type of injuries or illness occurring. Moreover, bad economic times could affect the number of injuries that get reported.

Table 10

Workers' Compensation Benefits by State, 1996-1999 (in thousands)

State	1996	1997	1998	1999	Percent Change		
					1996-1997	1997-1998	1998-1999
Alabama	$ 525,073	$ 530,230	$ 615,316	$ 596,233	1.0	16.0	-3.1
Alaska	121,597	130,045	128,576	137,630	6.9	-1.1	7.0
Arizona	458,593	427,885	417,673	427,841	-6.7[a]	-2.4	2.4
Arkansas	160,328	157,128	163,733	165,854	-2.0[a]	4.2	1.3
California	6,829,656	7,073,544	7,374,486	7,856,442	3.6[a]	4.3	6.5
Colorado	679,270	674,035	656,894	702,458	-.8[a]	-2.5	6.9
Connecticut	672,241	731,830	711,130	722,156	8.9	-2.8	1.6
Delaware	121,154	120,719	118,511	105,436	-.4	-1.8	-11.0
District of Columbia	89,945	81,696	75,800	82,011	-9.2[a]	-7.2	8.2
Florida	2,706,603	2,318,086	2,207,984	2,079,830	-14.4	-4.7	-5.8[a]
Georgia	821,952	713,041	807,582	816,249	-13.3	13.3	1.1[a]
Hawaii	288,495	254,995	233,491	211,138	-11.6	-8.4	-9.6
Idaho	189,575	212,563	237,444	230,218	12.1[a]	11.7	-3.0[a]
Illinois	1,643,487	1,576,695	1,687,070	1,719,617	-4.1	7.0	1.9
Indiana	409,901	437,797	482,029	522,237	6.8	10.1	8.3
Iowa	260,628	273,028	292,002	283,983	4.8	6.9[a]	-2.7[a]
Kansas	269,507	312,698	318,352	326,196	16.0[a]	1.8	2.5
Kentucky	506,771	380,417	410,003	430,953	-24.9[a]	7.8[a]	5.1
Louisiana	557,131	419,777	428,441	428,808	-24.7[a]	2.1[a]	0.1
Maine	314,116	271,307	246,145	249,674	-13.6	-9.3	1.4
Maryland	1,037,957	1,082,280	1,127,128	1,169,386	4.3	4.1	3.7
Massachusetts	700,375	653,327	641,409	633,840	-6.7[a]	-1.8	-1.2
Michigan	1,346,409	1,332,222	1,366,963	1,392,806	-1.1	2.6	1.9
Minnesota	739,500	738,100	732,300	744,600	-0.2	-0.8	1.7
Mississippi	224,341	231,340	234,700	253,532	3.1	1.5	8.0
Missouri	618,911	527,053	589,232	592,993	-14.8[a]	11.8	0.6[a]
Montana	149,540	167,812	170,715	145,306	12.2	1.7[a]	-14.9[a]
Nebraska	198,923	184,673	181,816	173,149	-7.2[a]	-1.5	-4.8[a]
Nevada	382,873	341,203	334,659	362,971	-10.9[a]	-1.9	8.5
New Hampshire	188,262	155,397	163,885	170,876	-17.5	5.5	4.3[a]

New Jersey	930,724	923,460	954,696	987,378	-.8[a]	3.4	3.4
New Mexico	151,299	119,893	116,819	117,168	-20.8	-2.6	0.3
New York	2,558,704	2,618,320	2,556,658	2,782,474	2.3	-2.4	8.8
North Carolina	500,506	618,426	765,817	710,100	23.6	23.8	-7.3
North Dakota	66,819	76,617	81,403	77,236	14.7[a]	6.2	-5.1
Ohio	2,146,314	2,030,046	2,068,878	2,018,923	-5.4	1.9	-2.4
Oklahoma	645,329	547,355	520,181	465,231	-15.2	-5.0	-10.6[a]
Oregon	445,505	417,222	432,825	398,965	-6.3	3.7	-7.8
Pennsylvania	2,533,788	2,471,021	2,418,072	2,441,255	-2.5	-2.1	1.0
Rhode Island	135,520	138,211	145,252	152,861	2.0[a]	5.1[a]	5.2
South Carolina	371,724	459,377	483,606	511,735	23.6	5.3	5.8
South Dakota	82,063	73,862	72,722	80,331	-10.0	-1.5	10.5
Tennessee	432,422	432,662	517,846	514,242	0.1	19.7	-0.7
Texas	1,259,647	1,377,393	1,488,896	1,677,824	9.3	8.1	12.7[a]
Utah	224,146	192,381	220,247	219,338	-14.2[a]	14.5	-0.4
Vermont	74,271	87,488	95,056	103,928	17.8[a]	8.7	9.3[a]
Virginia	560,309	534,350	591,068	581,357	-4.6	10.6[a]	-1.6[a]
Washington	1,192,926	1,234,495	1,309,371	1,418,255	3.5	6.1	8.3
West Virginia	523,803	616,790	629,480	665,403	17.8	2.1	5.7
Wisconsin	647,520	594,463	621,973	652,281	-8.2[a]	4.6	4.9[a]
Wyoming	73,592	68,068	74,469	71,151	-7.5	9.4	-4.5
Non-federal total	38,770,045	38,142,823	39,320,803	40,381,861	-1.6	3.1	2.7
Federal[b]	3,065,904	3,003,751	2,990,737	2,989,551	-2.0	-0.4	0.0
Civilian employee	1,911,682	1,900,953	1,955,287	2,008,909	-0.6	2.9	2.7
Black Lung	1,154,222	1,102,798	1,035,450	980,642	-4.5	-6.1	-5.3
TOTAL	41,835,949	41,146,574	42,311,540	43,371,412	-1.6	2.8	2.5

a 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. For more detail on state by state methodologies, see, *Sources and Methods: Documentation for Workers' Compensation: Benefits, Coverage, and Costs, 1999 New Estimates and 1996-1998 Revisions* section of the Academy's website at www.nasi.org.

b Includes payments to federal civilian employees and their dependents under the Federal Employees' Compensation Act and benefits paid by the Department of Labor and the Social Security Administration for the Black Lung program. Payments under the Longshore and Harbor Workers' Compensation Act are not included because data from A.M. Best include these in state level data.

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 11

State Workers' Compensation Benefits as a Percent of Covered Wages, by State, 1997-1999

				Percent Change		
	1997	1998	1999	1997-1998	1998-1999	1997-1999
Alabama	1.25	1.37	1.26	10.0	-7.8	1.4
Alaska	1.64	1.56	1.64	-5.2	5.4	-0.1
Arizona	0.81	0.71	0.67	-12.4[a]	-5.2	-16.9
Arkansas	0.68	0.66	0.63	-2.3[a]	-4.2	-6.4
California	1.60	1.53	1.49	-4.4[a]	-2.9	-7.1
Colorado	1.20	1.04	1.01	-13.0[a]	-2.9	-15.6
Connecticut	1.20	1.09	1.03	-9.2	-4.7	-13.5
Delaware	1.02	0.92	0.77	-9.8	-16.6	-24.8
District of Columbia	0.47	0.41	0.40	-13.4[a]	-1.6	-14.8
Florida	1.40	1.21	1.11	-13.6	-8.2	-20.7[a]
Georgia	0.74	0.77	0.71	2.9	-7.0	-4.3[a]
Hawaii	1.84	1.64	1.43	-10.7	-12.6	-21.9
Idaho	1.80	1.88	1.69	4.3[a]	-10.2	-6.3[a]
Illinois	0.87	0.87	0.83	-.5	-3.8	-4.2
Indiana	0.53	0.55	0.62	2.3	13.1	15.8
Iowa	0.83	0.82	0.75	-.8	-7.8[a]	-8.6[a]
Kansas	1.02	0.96	0.93	-5.8[a]	-3.2	-8.9
Kentucky	0.94	0.94	0.93	.9[a]	-1.1[a]	-0.2
Louisiana	0.93	0.89	0.88	-4.7[a]	-1.3[a]	-6.0
Maine	2.09	1.77	1.68	-15.0	-5.2	-19.4
Maryland	1.67	1.62	1.57	-3.0	-3.3	-6.3
Massachusetts	0.62	0.56	0.51	-9.6[a]	-9.3	-18.1
Michigan	0.98	0.94	0.90	-4.9	-3.8	-8.5
Minnesota	1.02	0.93	0.89	-9.0	-4.9	-13.5
Mississippi	1.04	0.98	1.02	-5.5	3.3	-2.4
Missouri	0.82	0.86	0.82	5.3[a]	-4.6	-0.4[a]
Montana	2.30	2.20	1.78	-4.4	-18.8[a]	-22.4[a]
Nebraska	0.95	0.87	0.78	-8.0[a]	-10.3	-17.5[a]

Nevada	1.39	1.24	1.13	-10.7[a]	-8.4	-18.2
New Hampshire	0.97	0.94	0.92	-3.4[a]	-2.4	-5.7[a]
New Jersey	0.70	0.67	0.65	-3.6	-3.0	-6.5
New Mexico	0.81	0.75	0.72	-7.9	-3.5	-11.1
New York	0.89	0.80	0.82	-9.8	2.4	-7.7
North Carolina	0.67	0.77	0.66	14.3	-13.3	-0.9
North Dakota	1.24	1.24	1.12	0.0[a]	-9.6	-9.6
Ohio	1.35	1.30	1.21	-4.2	-7.0	-10.9
Oklahoma	1.76	1.55	1.34	-11.8	-13.7	-23.9[a]
Oregon	1.02	1.00	0.87	-2.1	-13.4	-15.3
Pennsylvania	1.60	1.47	1.40	-8.3	-4.7	-12.6
Rhode Island	1.38	1.36	1.35	-1.9[a]	-0.3[a]	-2.2
South Carolina	1.17	1.14	1.14	-2.4	-0.3	2.8
South Dakota	1.07	0.98	1.01	-8.4	2.7	-5.9
Tennessee	0.68	0.77	0.72	12.2	-6.1	5.3
Texas	0.71	0.70	0.74	-2.2	5.4	3.1[a]
Utah	0.81	0.87	0.81	6.1[a]	-6.6	-0.8
Vermont	1.20	1.21	1.34	1.0[a]	10.8	11.9[a]
Virginia	0.64	0.64	0.58	1.1	-9.5[a]	-8.4[a]
Washington	1.66	1.58	1.55	-4.8	-1.9	-6.7
West Virginia	3.93	3.86	3.96	-1.7	2.5	0.8
Wisconsin	0.88	0.86	0.85	-1.9[a]	-1.1	-3.0[a]
Wyoming	1.41	1.46	1.32	3.7	-9.9	-6.6
TOTAL	1.15	1.09	1.05	-4.8	-3.9	-8.5

a 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. For more detail on state by state methodologies, see, *Sources and Methods: Documentation for Workers' Compensation: Benefits, Coverage, and Costs, 1999 New Estimates and 1996-1998 Revisions* section of the Academy's website at www.nasi.org.

Source: National Academy of Social Insurance estimates based on Tables 4 and 10.

Eighth, variations among states in both the price of medical care services and the cost of the health care delivery system will have an impact on the amount of medical benefits paid.

Finally, in-migration or out-migration in a state will affect benefits per covered worker. For example, a state that is paying a large number of permanently disabled workers from past years would have rising benefits relative to its total work force if it experienced substantial out-migration, but could have declining benefits per worker if it experienced substantial in-migration. Yet the benefits actually received by permanently injured workers in that state may not have changed.

Caveats on assessing employer costs

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. 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 remain in the same 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. For example, a state that tightened that 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 permanently disabled in the past under the old rules.

Third, as shown in Table 12, the employers' costs of workers' compensation nationally exceed the benefits paid to workers because of factors such as administrative costs and profits (or losses) of private carriers. The relationship of employers' costs relative to workers' benefits varies among states because of various factors, such as the extent of competition in the workers' compensation insurance market.

In brief, state-level benefits paid per worker or relative to total wages in the state are a way to standardize aggregate benefit payments between large and small states. However, much more refined data and analyses are needed to assess the adequacy of benefits that individual workers receive, or the costs that particular employers would incur in different states.

Factors Influencing Differences in Benefits Paid in Different States

Industrial and occupational mix – Injury rates and the types of injuries and illnesses that occur are heavily influenced by the types of jobs in a state.

Wage rates – Benefits are linked to wage rates which vary across states based not only on labor market conditions but other factors influencing the cost of living.

State economic conditions – The number of workers, how much they are working, and the economy they face affect who is at risk for injuries and illnesses and the likelihood of these conditions being reported.

State differences in medical care – Differences in the price of medical care services and the nature of the health care delivery system can have an impact on medical benefits.

Policy parameters – Each state has its own workers' compensation statutes, case law, and administrative procedures that affect both compensability and the amount of benefits paid to successful claimants.

Employer Costs

Employer costs for workers' compensation in 1999 were $53.3 billion, which was 0.9 percent higher than in 1998. This was the second year in a row that costs increased in nominal terms. When measured per $100 of covered payroll, however, employer costs declined between 1998 and 1999 from $1.37 to $1.29 (Table 13).

Total costs to employers who purchase insurance from private carriers and state funds consist of premium payments plus the payments made under deductible provisions. For self-insured employers, the costs include benefit payments and administrative costs. Because self-insured employers often do not separately record administrative costs for workers' compensation, their administrative costs must be estimated. They are assumed to be the same share of benefits as administrative costs for other insurers. This percentage, which amounts to 11 percent of paid benefits, 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). This ratio is based on direct loss adjustment expenses and a portion of their expense for taxes, licenses, and fees.

For federal employees, employer costs are benefits paid plus administrative costs (U.S. Department of Labor, 2000b). For the Black Lung program, employer costs are the revenues from the excise tax on coal.

According to these estimates, the cost of employers insuring through private carriers was $30.2 billion in 1999, or approximately 56.7 percent of total costs. Self-insurers accounted for 19.4 percent of total employer costs; state funds represented 18.9 percent of costs, and federal programs 5.0 percent.

Trends in Benefit and Cost Ratios

Table 13 shows the trend during the 1990s in benefits paid and employer costs per covered worker and per $100 of covered payroll. Benefits per $100 of covered payroll declined for the seventh consecutive

Table 12

Employer Costs for Workers' Compensation by Type of Insurer, 1987-1999 (in millions)

	Total	Private Carriers	State Funds	Self-Insured	Federal Programs	Percent Change in Total
1987	$ 38,095	$ 25,448	$ 5,515	$ 5,404	$ 1,728	
1988	43,284	28,538	6,660	6,175	1,911	13.6
1989	47,955	31,853	7,231	6,915	1,956	10.8
1990	53,123	35,054	8,003	7,910	2,156	10.8
1991	55,216	35,713	8,698	8,677	2,128	3.9
1992	57,394	34,539	9,608	10,794	2,454	3.9
1993	60,820	35,596	10,902	11,791	2,530	6.0
1994	60,475	33,997	11,235	12,795	2,490	-0.6
1995	57,054	31,554	10,512	12,467	2,556	-5.7
1996	55,293	30,453	10,190	12,049	2,601	-3.1
1997	52,479	29,450	9,486	10,961	2,582	-5.1
1998	52,825	30,100	9,828	10,237	2,660	0.7
1999	53,314	30,213	10,064	10,364	2,672	0.9

Source: National Academy of Social Insurance estimates. 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 U.S. Department of Labor and the Social Security Administration. Self-insured costs are based on information from the National Association of Insurance Commissioners.

Table 13

Workers' Compensation Benefit and Cost Ratios, 1989-1999

Year	Costs per Covered Employee	Costs per $100 of Payroll	Benefits per Covered Employee	Benefits per $100 of Payroll	Benefits per $1 in Cost
1989	$ 462	$ 2.04	$ 330	$ 1.46	$ .72
1990	504	2.18	362	1.57	0.72
1991	532	2.16	407	1.65	0.76
1992	550	2.13	438	1.69	0.80
1993	573	2.17	427	1.62	0.75
1994	553	2.05	408	1.51	0.74
1995	506	1.83	385	1.39	0.76
1996	482	1.67	365	1.26	0.76
1997	446	1.47	350	1.15	0.78
1998	437	1.37	350	1.09	0.80
1999	430	1.29	350	1.05	0.81

Source: National Academy of Social Insurance estimates based on Tables 2, 5 and 12.

year in 1999 to $1.05 from the $1.09 per $100 of covered payroll recorded in 1998. The 1999 level is about 38 percent lower than the 1992 peak year, when benefits were $1.69 per $100 of covered payroll. Benefits per covered worker were $350 in 1999, about the same as recorded in 1998, but still nearly 20 percent below the 1992 peak level of $438 per covered worker.

Employer costs per $100 of covered payroll declined slightly in 1999 to $1.29 from $1.37 in 1998. The 1999 costs per $100 of covered payroll remained about 41 percent below their peak level of $2.17 per $100 of covered payroll in 1993.

The ratio of total benefits paid to total employer costs in 1999 was 81 percent, almost unchanged from the ratio in 1998. As stated earlier in this report, the difference between employer costs and benefits paid is composed of administrative costs and insurance carrier profits or losses.

Work Injuries, Occupational Illness and Fatalities

While national data are not available on the number of people receiving workers' compensation benefits, the Bureau of Labor Statistics (BLS) collects information about work-related injuries and illnesses that occur in private sector workplaces. The Survey of Occupational Injuries and Illnesses is a joint federal/state program in which employer reports are collected from a sample of about 165,000 private industry establishments and processed by state agencies in cooperation with the BLS. The annual survey classifies three degrees of severity of workplace injuries or newly-diagnosed illnesses: (1) those requiring recuperation away from work beyond the day the incident occurred, or "days away from work" cases; (2) those involving "restricted work activity only," which means that, while the worker did not miss work, he or she was not able to perform all normal job tasks for some period of time; and (3) other less severe cases that do not involve either restricted activity or lost work days.

Trend in Total Injury Rates

The number of injuries and illnesses for all levels of severity combined was 5.7 million in 1999, a drop from 5.9 million in 1998 (Table 14). The *incidence rate* for these conditions measures the number of new occurrences per 100 full-time workers during the year. The incidence rate for all levels of severity-combined, was 6.3 cases per 100 workers in 1999.

Table 14

Private Industry Occupational Injury and Illness: Number of Reported Cases and Incidence Rates, 1987-1999

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

a The incidence rate is the number of cases per 100 full-time workers.
b Data for these years exclude fatal work-related injuries and illnesses.

Source: U.S. Department of Labor, 2000d.

The rate has declined steadily since 1992, when it was 8.9 cases per 100 workers.

The incidence of injuries and illnesses is influenced by the industrial mix of the workforce because workers in different industries have widely different injury rates. For example, in 1999 the occupational injury and illness rates per 100 workers in various manufacturing industries were 13.7 in transportation equipment, 13.0 in lumber and wood products, and 12.9 in primary metals. On the other hand, in service and sales industries, examples of injury rates per 100 workers were 6.1 for auto repair, services, and parking, 2.9 for educational services and 1.0 for legal services (U.S. Department of Labor, 2000d).

Declining overall injury rates could result from declining injury rates within industries, or from a shift in jobs toward industries with lower injury rates (such as from manufacturing to service jobs, for example). An analysis of the trend since 1991 shows that by far the predominant influence is the drop in injury rates within industries (Table 15). From 1991 to 1999, the injury rate per 100 full-time workers fell from 7.93 to 6.28 for cases where the industry classification was known. If the industrial mix of jobs had remained constant since 1991, then the overall injury rate would have declined from 7.93 to 6.32 per 100 workers, or almost as much as the actual decline. On the other hand, if the only change since 1991 had been the shift in jobs among industries, then the overall injury rate would have dropped very little — from 7.93 to 7.77 per 100 workers. The adjusted injury rates shown in Table 15, therefore suggest that the drop in the overall injury rate is due mainly to declining injury rates reported within industries.

It is also possible that some of the decline in injury rates is an indirect result of tighter eligibility stan-

Table 15

Illness and Injury Incidence Rate per 100 Full-Time Workers, Controlling for Industry Mix, 1991 and 1999

Actual injury rates:	
1991	7.93
1999	6.28
Hypothetical injury rates in 1999, if the only change since 1991 was in —	
industrial mix of jobs	7.77
injury rates within industries	6.32

Source: National Academy of Social Insurance calculations using data from U.S. Department of Labor, 2000d.

dards for workers' compensation. Fewer cases being reported to the workers' compensation system could result in fewer injuries reported to the Department of Labor.

Severity of Injuries

In considering the kinds of workplace injuries that might involve workers' compensation cash benefits, perhaps the best proxy in the BLS data would be the cases that involved days away from work. They numbered 1.7 million in 1999 and have declined in every year since 1993. The incidence rate for these more severe injuries also declined, from 3.0 per 100 workers in 1992 to 1.9 per 100 workers in 1999. One study finds that the long-term decline in injuries that involve days away from work has been accompanied by an increase in restricted activity days. The author suggests that both increased job safety and faster return to work of injured workers may account for that trend (Ruser, 1999).

The types of conditions that involved days away from work in 1998 were, in order of frequency: sprains and strains; bruises or contusions; cuts and lacerations; fractures; multiple traumatic injuries; burns from heat; carpal tunnel syndrome; tendonitis; chemical burns; and amputations. The median duration of time away from work beyond the day of injury was 5 days. In about 30 percent of cases with lost work days, the worker missed 1-2 days of work, while in about 25 percent of cases the worker missed more than 20 days of work (U.S. Department of Labor, 2000e).

In considering how the number of occupational injuries and illnesses reported to the BLS might compare with cases that involve workers' compensation cash benefit payments, it is useful to recognize that most workers' compensation programs have a waiting period – typically 3-7 days of work loss — before cash benefits will be paid. In 23 states and the District of Columbia, the waiting period is 3 days. In 23 other states it is 7 days, and for the remaining 6 states the waiting period is 4-6 days. In some states, if lost work time is of long duration – say, at least 14 to 21 days – the worker is subsequently paid for the waiting period. Of the 1.7 million cases in 1999 in which workers missed work, about 30 percent would not have met a 3 day waiting period and about 50 percent would not have met a 6-day waiting period for workers' compensation cash benefits (U.S. Department of Labor, 2001), although their medical expenses could have been financed by workers' compensation. These data suggest that, if BLS estimates of occupational injuries and illnesses that involve lost work days are a proxy for workers' compensation cases, then a significant portion would be "medical only" cases because the lost-work time was shorter than the waiting period for workers' compensation cash benefits.

Finally, if the BLS survey data are considered a proxy for workers' compensation cases, it is useful to note categories of workers who are not represented in the survey. Excluded from the survey are employees of small farms (with fewer than 11 employees) and all public sector employees. Local, state and federal government employees account for about 15 percent of wage and salary workers in the United States in 1999 — about 13 percent work for state and local governments and 2 percent are federal employees (U.S. Department of Labor, 2000g).

Fatalities

The number of fatal occupational injuries in 1999 remained relatively unchanged from 1998, declining from 6,026 to 6,023, about 3 percent below the 1997 level of 6,238, and the lowest count since the Census of Fatal Occupational Injuries was first conducted by the Bureau of Labor Statistics in 1992

(Table 16). Unlike the Survey of Occupational Injuries, the census of fatalities includes public employees and the self-employed, as well as private sector employees. It is the most complete count of fatal work injuries available because it uses diverse state and federal sources to identify, verify, and profile fatal work injuries. However, these fatalities include only deaths caused by injuries and not deaths caused by long-term occupational diseases.

Transportation incidents continued as the leading cause of on-the-job fatalities during 1999, accounting for 2,614 deaths, or 43.4 percent of the total. Violent acts – homicides, suicides, and animal attacks – were the second leading cause of on-the-job deaths, accounting for 14.8 percent of all fatalities. The third most common cause of on-the-job deaths were falls, which caused 717 deaths in 1999 (U.S. Department of Labor, 2000f).

Types of Disabilities Paid by Workers' Compensation

The duration and amount of workers' compensation benefits vary depending on the severity of the worker's disability. Most workers' compensation cases do not lead to lost work time greater than the waiting period for cash wage-replacement benefits. In these cases, only medical benefits are paid. These "medical only" cases are quite common. Because they involve relatively minor injuries, however, these cases represent a small share of benefit payments, according to data provided by the NCCI. These data, which include only privately insured employers in 38 states and are for policy years spanning 1995-1997, show that medical only cases accounted for 76 percent of workers' compensation cases, but only 6.2 percent of all benefits paid (NCCI, 2000). Therefore, the cases that involved cash wage-replacement benefits accounted for 24 percent of cases and 94 percent of benefits paid (for cash and medical care combined).

Cash wage replacement benefits are categorized according to the duration and severity of the worker's disability. When workers' lost time exceeds the waiting period, they receive temporary total disability benefits. In most cases they recover and return to work and benefits end. In some cases, they return to work prior to the date they reach maximum medical improvement and thus have reduced responsibilities and an accompanying lower salary. In those cases, they receive temporary partial disability benefits. Temporary disabilities are the most common type of cases that involve cash wage-replacement benefits. They account for 72 percent of such cases, and 25 percent of benefits paid (Figure 3).

After the date of maximum medical improvement, if a disability is severe enough, the worker receives permanent total disability benefits (PTD). In some states certain injuries are presumed to be permanently and totally disabling, for example the loss of two eyes or two arms. In these cases PTD benefits are paid automatically and in full. In some states, workers can receive PTD benefits if an illness or injury is deemed significant enough to preclude any gainful employment. In some states, these determinations are made taking into consideration geographical, educational, and economic factors. An injured person might be able to do some sort of work, but given his or her education, experience, and the opportunities where he or she lives, no employment maybe possible. Very few workers' compensation cases are found to have permanent total disabilities. Even when combined with fatalities, permanent total disabilities account for less than 1 percent of all cases that involve wage-replacement benefits, but together they accounted for 13 percent of benefit spending in such cases – about 9 percent for PTD and 3 percent for fatalities.

The most difficult and contentious category of benefits is permanent partial disability benefits. These

Table 16

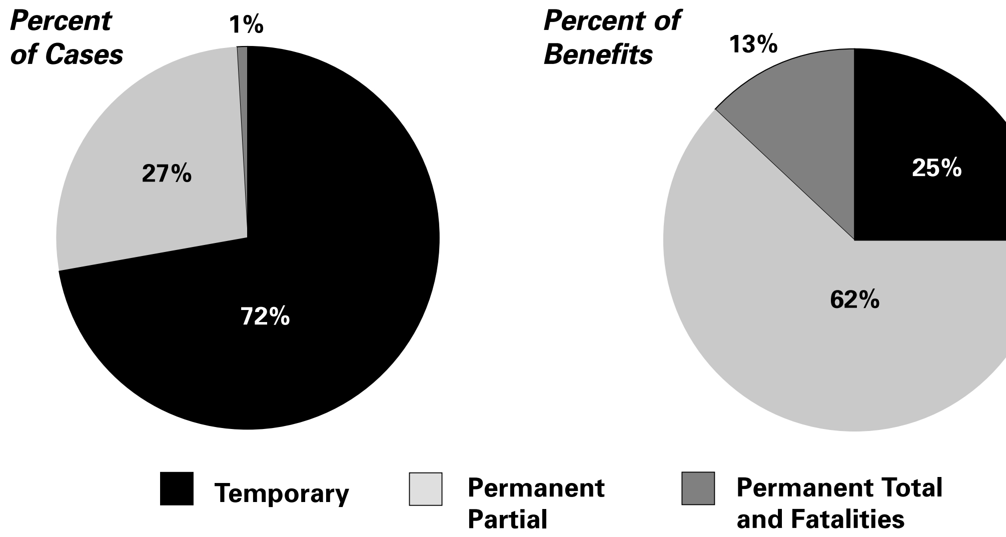
Number of Fatal Occupational Injuries, 1992-1999

Year	Number of Injuries
1992	6,217
1993	6,331
1994	6,632
1995	6,275
1996	6,112
1997	6,238
1998	6,026
1999	6,023

Source: U.S. Department of Labor, 2000f.

Figure 3

Types of Disabilities in Workers' Compensation Cases with Cash Benefits, 1995-1997



Source: National Council on Compensation Insurance, 2000.

benefits are paid to workers with consequences of their injuries or disease that continue after the date of maximum medical improvement. In these instances, the disability is considered permanent but not severe enough to preclude work. The system for determining benefits in these cases is very complex and varies significantly across jurisdictions. Some states provide benefits based on an impairment rating scheme. The level of impairment, often expressed as a percent of total disability, is used to determine the benefit amount. Some states provide benefits based on the loss of earning capacity. They use impairment ratings with modifications based on vocational factors, such as the workers' education, job experience, and age. Other states use a system that attempts to compensate workers for actual lost wages. Permanent partial disabilities account for 27 percent of cases that involve any cash payments and for the major share of benefit spending in such cases, 62 percent.

Comparing Workers' Compensation with Other Disability Benefit Programs

Workers' compensation programs are often discussed in isolation from other disability programs, even though some people are simultaneously recipients of benefits from more than one program. Workers' compensation payments are considerably larger than other employment-based disability benefits except for Social Security Disability Insurance and Medicare.

Other Disability Benefits

Sick leave is the most common form of wage-replacement for short-term absences from work due to illness or injury. According to the U.S. Department of Labor, about half of full-time workers employed by small private firms and 56 percent of those employed by medium and large firms are covered by formal sick leave policies. Benefits typically pay 100 percent of wages for a few weeks (U.S. Department of Labor, 1998 and U.S. Department of Labor, 1999a).

In five states, short-term disability insurance is mandated by the state governments through Temporary Disability Insurance (TDI) programs. These states – California, Hawaii, New Jersey, New York, and Rhode Island – administer these programs through a state fund or private insurance. These programs restrict eligibility for benefits if the person receives workers' compensation. The state programs generally pay benefits that replace half the worker's lost earnings, subject to minimum and maximum weekly benefits. Most programs pay benefits for up to 26 weeks, although California pays for up to 52 weeks. These programs paid $2.9 billion in benefits in 1997 (Table 17). About 21.8 million workers – about 17 percent of workers covered by unemployment insurance – are covered under these state TDI programs, and about half of those workers reside in California.

Workers in other states may have short-term disability insurance (STDI) that is provided and financed, at least in part, by employers. Benefits usually last for up to 26 weeks and typically replace about half of the worker's prior earnings, though some pay as much as 70 percent. Taking TDI, sick leave, and private STDI together, about 70 percent of private sector workers have some coverage for short-term disability. They include 26 percent who have only sick leave, 20 percent who have only TDI or STDI, and 24 percent who have both (Mashaw and Reno, 1996a, p. 100). Thus, these data suggest that about 30 percent of private sector workers do not have any formal provisions through their employers for wage replacement during temporary absence from work due to sickness or disability, other than workers' compensation.

Table 17

Disability Benefit Expenditures by Public Programs (in billions)

Social Security Disability Insurance (DI), 1999 [a]	$ 51.3
Disabled workers	46.5
Dependents	4.8
Medicare for DI beneficiaries, 1999 [a]	27.1
Workers' Compensation, 1999	43.4
Cash benefits	25.3
Medical and hospital	18.0
State Temporary Disability Insurance, 1997	2.9

a Includes benefits for disabled workers under age 65. At age 65 disabled worker benefits shift to retirement benefits.

Sources: Workers' compensation amounts are National Academy of Social Insurance estimates. Data on Social Security Disability Insurance and Temporary Disability Insurance are from Social Security Administration, 2000. Medicare data are from the Health Care Financing Adminstration's Office of Financial and Human Resources website at www.hcfa.gov.

Private, employment-based long-term disability insurance (LTDI) that is financed, at least partially, by employers covers over 31 percent of full-time workers employed by private sector establishments. Coverage rates are higher in medium and large establishments (40 percent) compared to small establishments (22 percent) with fewer than 100 workers. Such coverage is most common among professionals. For example, among full-time workers in medium and large private establishments, 58 percent of professionals, 51 percent of clerical and sales workers, and only 28 percent of blue-collar and service workers had LTDI in 1998 (U. S. Department of Labor, 1998 and U.S. Department of Labor 1999a).

LTDI benefits are usually paid after a waiting period of three to six months, or after STDI benefits are exhausted. LTDI is generally designed to replace 60 percent of earnings, although replacement rates of 50 percent and 66 percent are also common. Almost all LTDI is coordinated with Social Security disability insurance (DI), such that LTDI benefits are reduced dollar for dollar by DI benefits. For example, if DI paid a benefit replacing 40 percent of the worker's prior earnings, LTDI would pay the balance to achieve a 60 percent replacement. LTDI is also sold in individual policies, typically to high earning professionals. Such individual policies are not included in these data.

Social Security Disability Insurance

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

While DI and workers' compensation are the nation's two largest work-based disability benefit programs, the focuses of the two programs are quite different. DI is paid only to workers who experience severe, long-term impairments that preclude any gainful work. By law, it is 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. DI also has a five-month waiting period after the onset of disability before benefits begin.

Many DI beneficiaries have impairments associated with aging. The prevalence of DI benefit receipt rises sharply at older ages, from less than 1 percent of the youngest insured workers to about 15 percent of insured workers aged 60-64 (Reno and Eichner, 2000). Relatively few DI beneficiaries return to work. Typically, people leave the DI benefit rolls because they die or they reach age 65 and shift to Social Security retirement benefits. Only about 1.5 percent leave because they recover or return to work (Mashaw and Reno, 1996a).

Eligibility for workers' compensation is narrower than eligibility for DI in that it covers only injuries or diseases that are caused on the job. But coverage under workers' compensation programs has greater depth, in that it includes the full range of severity of work-related conditions from relatively minor, temporary conditions to career ending injuries or death.

Workers' compensation payments were $25.3 billion for wage replacement and $18.0 billion for medical care in 1999. DI paid $51.3 billion in wage replacement benefits to disabled workers and their dependents and Medicare paid $27.1 billion for medical and hospital care to those workers. Thus, aggregate workers' compensation cash payments were about half of the size of DI payments, while workers' compensation medical benefits were about two-thirds of the size of Medicare reimbursements for disabled workers receiving DI.

The smaller relative size of medical benefits available through Medicare is due, at least in part, to the fact that Medicare is available to DI beneficiaries only after a two-year waiting period. Also, the Medicare benefits package is less comprehensive than in workers' compensation programs because it does not cover prescription medications and it has beneficiary cost sharing in the form of deductibles, co-payments for covered services, and premium payments.

Coordination between workers' compensation and disability insurance

Some people with severe, long-term disabilities stemming from an occupational illness or injury may become eligible for both workers' compensation and DI. In that case, however, benefits from one of the two programs are capped so as to avoid excessive payments relative to the workers' past earnings. The Social Security amendments of 1965 required that Social Security disability benefits be capped, so that the combined total of workers' compensation and DI benefits would not exceed 80 percent of the workers' prior earnings.[2] States, however, were allowed to establish reverse offset laws, whereby workers' compensation payments were capped instead of reducing the DI benefits. The option of enacting such reverse offset laws was eliminated in the Budget Reconciliation Act of 1981, but the sixteen states that already had such laws were allowed to keep them.[3]

As of March 2000 about 6.57 million disabled workers and their dependents received DI benefits (Table 18). About 481,000 of these individuals (or 7.3 percent), had some connection to workers' compensation. They include about 118,000 people who have their DI benefits capped under the workers' compen-

2 The current cap remains 80 percent of the workers' average indexed earnings before disability. However, in the relatively few cases where DI 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.

3 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 18

Social Security Disability Insurance Beneficiaries with Workers' Compensation Involvement, March 2000

Type of Case	Number	Percent
Total disability insurance (DI) beneficiaries	6,570,180	100.0
Total with some connection to workers' compensation	480,668	7.3
Receiving workers' compensation — total	360,843	5.5
Resides in reverse offset state	41,693	0.6
DI benefits subject to workers' compensation offset	317,874	4.8
DI reduced due to offset cap	117,713	1.8
DI not affected by cap	200,161	3.0
Pending[a]	119,825	1.8

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

Source: Social Security Administration, 2001a.

sation offset. Another 200,000 DI beneficiaries received workers' compensation, but the combined benefits were not high enough to be affected by the cap. An additional 42,000 people received workers' compensation but resided in reverse offset states, where any benefit reduction would affect workers' compensation, rather than DI benefits. Finally, about 120,000 DI beneficiaries indicated to SSA that their disabilities were job-related, but their status with regard to workers' compensation was undecided or unknown.

Long term trend in disability insurance and workers' compensation

Incidence data show the number of people entering the DI benefit rolls relative to the size of the insured population. The incidence rate – the number of persons entering the benefit rolls per 1,000 insured workers – fluctuated widely over the last 25 years: it ranged from an all-time high of 7.2 in 1975, to an all-time low of 3.3 in 1982, then leveled off and rose slightly to between 3.7 and 4.0 in the last half of the 1980s (Mashaw and Reno, 1996b). It rose again in the early 1990s, peaked in 1992 at 5.4 and declined slightly since then (Social Security Administration, 2001b). The incidence rate in 2000 was 4.7. The sharp shifts in the 1970s and early 1980s reflect changes in Social Security law and administrative policy, as well as the effect of economic conditions. Other things being equal, the number of severely disabled workers who apply and qualify for DI benefits tends to rise during economic downturns.

The effect of changes in DI incidence rates (and past changes in DI policy) on total program benefit costs relative to payroll is illustrated in Figure 4. It shows aggregate DI benefit payments as a percent of total payroll subject to Social Security taxes. Benefit payments grew rapidly in the early 1970s (due to higher incidence and legislated benefit increases), then declined through the late 1980s, as various policy changes that limited DI benefits and tightened eligibility criteria took effect. From 1990 to 1996 DI benefits again rose as benefit claims and allowances increased, particularly during the recession of 1990-1991. In 1997 and 1998, DI benefits declined slightly as a percent of payroll, from 1.48 in 1996 to 1.43 in 1998. From 1998 through 2000, DI benefits have remained steady at 1.43 percent of payroll (SSA, 2001b).

Figure 4 also illustrates the long-term trend in aggregate workers' compensation payments as a percent of payroll covered under that program. By these measures, workers' compensation benefits were less than DI benefits during the 1970s, but grew steadily throughout the 1970s and surpassed DI in the mid

1980s. When DI benefit costs flattened out during the mid-1980s, workers' compensation payments continued to grow at a rapid rate. When workers' compensation payments declined from 1992 to 1996, DI benefit as a share of payroll continued to inch upward. In 1997 and 1998, both programs show a decline in benefits as a percent of payroll. While the two programs serve somewhat different populations, the opposite trends in workers' compensation and Social Security disability benefits during many years since the mid-1970s raise the question of whether retrenchments in one program increase demands placed on the other, and vice versa. The substitutability of DI 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, 2001b).

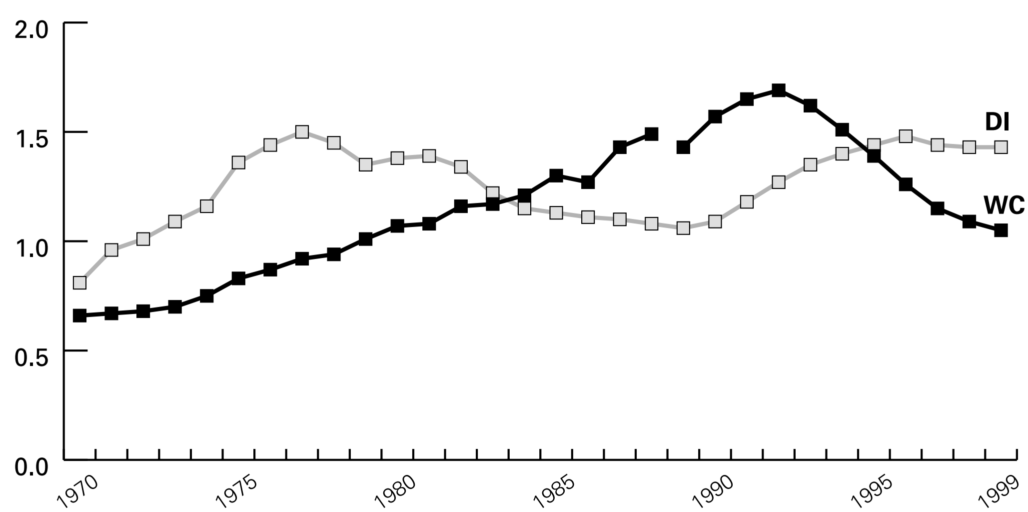
Incurred Losses Data

The data presented thus far in this report involve benefits measured as the amounts paid to recipients in a calendar year regardless of the year in which the workers' injuries occurred. This measure, called calendar year paid benefits, is the standard measure of all benefits paid by the government or the private sector (Table 19). A different measure of workers' compensation benefits is accident year incurred losses, which measures benefits incurred for injuries that occurred in a particular year, regardless of the year in which the benefits are paid. (The terms losses and benefits are used interchangeably because benefits to the workers are losses to the insurer.) Incurred losses include not only losses paid to date but also liabilities for future benefits. This means that accident year incurred losses in 1999 equal payments in 1999 to all workers injured in 1999 plus an estimate of all future benefits these particular recipients will receive. Both measures, calendar year paid benefits and accident year incurred losses reveal important information.

Rate making agencies, such as state rating bureaus or the National Council on Compensation Insurance, which provides advisory rate making and statistical services in 33 states, rely primarily on accident year (or policy year) estimates of ultimate benefits rather than calendar year paid benefits (see Thomason, Schmidle, and Burton, Appendix B, 2001 for explication of these concepts). When an employer purchases coverage for a particular policy year, the premiums cover benefits for all injuries and illnesses that occur during that time. Those injuries, however, will result not just in payments made that year but in future years, as well. Total benefits paid in any one year are made to workers who were injured in differ-

Figure 4

Social Security Disability Insurance and Workers' Compensation Benefits as a Percent of Wages, 1970-1999



a The methodology for estimating workers' compensation coverage changed in 1986 which created a one time downward shift in the series.

Source: National Academy of Social Insurance and Social Security Administration, 2001b.

ent years, maybe a long time ago when statutory benefits were much different. Workers paid in a given year may have been covered under different policies. For that reason, accident year incurred losses are considered more sensitive at picking up changes in the trend of benefits owed to newly injured workers and in capturing responses to recent changes in policy or insurance providers. Thus, for example, if a state reduced the benefit level applied to new injuries, then the expectation would be that benefit payments would decrease. The policy change will show up immediately in accident year incurred losses, but its influence on calendar year paid benefits will be diluted because that measure will include payments made to cases that began before the new benefit levels were adopted.

One problem with using accident year incurred losses is that it takes many years before the data for any particular year are complete. Estimates are generated for the stream of future benefits, but these estimates need to be updated annually. NCCI updates accident year incurred losses for 16 years before the data for a particular year are considered final. The size of the revisions, of course, tends to lessen over time. According to the 2000 edition of *NCCI's Annual Statistical Bulletin*, the first revision of accident year incurred losses in 1993 (made in 1995 and referred to as the second report, the initial estimate being the first report) increased the estimate of those losses by 24.1 percent. In 1996, the estimate for accident year incurred losses in 1993 was further revised upwards by 6.3 percent. The following year, the revision was 3.0 percent higher still. The long time frame for revisions complicates the use of accident year incurred losses as an indicator of responses to recent developments by adding a degree of uncertainty. The average adjustment from the third report to the ultimate payout is less than 10 percent.

Another problem with accident year incurred losses is that data for self-insurers and some state funds are not typically reported in this form. Consequently, the figures shown in Table 19 are primarily for private carrier losses.

Table 19

Comparison of Percent Change in Accident-Year Incurred Losses (Selected States) with Percent Change in Calendar-Year Benefits Paid (All States), 1994 - 1999

	Accident year incurred losses[a]		Calendar year benefits paid
Year	Billions of dollars	Percent change[b]	Percent change[c]
1994	$ 9.9	n.a.	-1.6
1995	8.8	-11.1	-2.7
1996	9.2	4.5	-3.5
1997	10.1	9.8	-1.6
1998	11.2	10.9	2.8
1999	11.6	3.6	2.5
Cumulative percent change 1994 to 1999		17.2	-2.7

a These data are for states reported in the Annual Statistical Supplement of the National Council on Compesation Insurance. They include Alabama, Alaska, Arizona, Arkansas, Colorado, Connecticut, District of Columbia, Florida, Georgia, Hawaii, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Michigan, Mississippi, Missouri, Montana, Nebraska, New Hampshire, New Mexico, North Carolina, Oklahoma, Oregon, Rhode Island, South Carolina, South Dakota, Tennessee, Utah, Vermont, Virginia, and Wisconsin.

b As of December 31, 1999. As noted in the text, they will be revised in subsequent years.

c See Table 5. Note these are for benefits in all states.

Source: National Council on Compensation Insurance, 1999.

As discussed in last year's report, *Workers' Compensation: Benefits, Coverage, and Costs, 1997-98, New Estimates*, accident year incurred losses are considered more sensitive at picking up changes in the trend of benefits paid and also in capturing responses to recent changes in policy or insurance providers. However, that report also notes problems with using this measure of benefits, namely it is subject to many revisions, it is not available for self-insurers and some state funds, and it is not directly comparable to data on other social insurance programs.

Table 19 displays the annual percent change in calendar year paid benefits and accident year incurred losses. The data on incurred losses pick up the turnaround in the trend in the 1990s for benefit payments earlier than the calendar year paid data. Calendar year paid benefits did not increase until 1998, and then only 2.8 percent. Accident year incurred losses started increasing in 1996.[4]

Reasons for the Trend in Workers' Compensation Benefits and Costs in the 1990s

Because controlled studies of private initiatives, combined with a cataloguing of changes in laws, regulations, and administrative procedures, are not currently available, the Academy's Study Panel does not fully understand the causes of the decline in workers' compensation benefits in the 1990s and their recent turnaround.

The Study Panel believes, nevertheless, that at least several likely factors are behind the decline in the 1990s, many of which occurred in response to the rising costs of workers' compensation programs in the 1980s and early 1990s. These factors are: fewer accidents, improvements in the operation of workers' compensation programs, the active management of medical treatment to reduce the length of disability, and a tightening of eligibility for workers' compensation benefits (Burton and Spieler, 2001).

4 As noted in Table 18, the accident year incurred data is based only on a subset of states and so the percentage change is not directly comparable to the precentage change for calendar year paid data as reported in Table 5.

Appendix A
Methdology for Coverage Estimates

The estimate of the covered workforce in the United States was constructed by aggregating individual state estimates. The starting point for each state estimate was the number of workers covered by unemployment insurance (UI) who were not federal employees. These figures were then adjusted based on differences in UI and workers' compensation coverage laws across states. The following adjustments were made to the totals of UI coverage:

- **Subtraction of workers employed by small employers in states where small employers are not required to provide workers' compensation coverage.**[5] Fourteen states have exemptions for private sector non-agricultural employers who operate small firms, ranging from sizes of under three to under five. Census data provided information for each state on the number of workers employed in firms with fewer than five employees. National data from the Social Security Administration on the distribution of workers by firm size was used to adjust those numbers for states with numerical exemptions that were less than five.

- **Subtraction of agricultural workers for whom coverage was not mandatory**. We assumed that all agricultural workers in a state who were not mandated by law to receive coverage were not covered. In some states, that was all agricultural workers. In other states, coverage depended on the number of farm workers, their hours worked and/or the amount paid by their employers. Using the *Census of Agriculture-State Data*, adjustments were made for each state whose workers' compensation coverage rules differed from their UI coverage rules.

- **Subtraction of state and local government employees for whom coverage was not mandatory**. In contrast to agricultural workers, we assumed that workers for whom coverage is not mandatory are covered. However, some states exempt certain occupations (e.g., police officers and fire fighters, which are sometimes covered by other programs) or functions (e.g., higher education), and we assumed their workers were not covered. Estimates of the effect of exclusions of state and local government workers were based on data from the latest Census of Governments. The estimates of the percentage of workers covered by the workers' compensation program using the Census of Government data was then multiplied by the number of state and local government workers covered by the UI program to estimate the number workers to be subtracted from UI coverage to obtain workers' compensation coverage.[6]

The only state treated differently was Texas because it is the only state where coverage is elective. Employers in that state can choose to purchase workers' compensation insurance coverage or not. If they do not, then they are not protected from tort suit liability for occupational injuries and illnesses in the same way as covered employers are protected. Coverage in Texas was based on a 1995 survey of employers conducted by the Texas Workers Compensation Research Center and data from BLS. Coverage for Texas was estimated to be about 80 percent of the workforce.

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5 The unemployment insurance program does not have exemptions for small employers.

6 Texas Workers' Compensation Center (1995), *The Research Review*, "Employer Participation in the Workers' Compensation System," April

Appendix B
Data Availability

Attempts were made to contact agencies and rating bureaus in every state to request information. Some agencies and rating bureaus were able to provide annual reports; others replied to direct requests for data. Table B1 displays what information was received from each state.

Table B1

Workers' Compensation Data Provided by States for 1999[a] Shaded areas correspond with provided data

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

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

N/A: Not applicable.

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

Note 2: Computed from information provided on premiums.

Note 3: Based on data for closed cases.

Note 4: Based on data on the percent of claims filed by self-insurers.

Note 5: Computed by adding information provided by the state agency to figures from A.M. Best.

Note 6: Based on the ratio of 1998 private carrier benefits to 1999 private carrier benefits.

Appendix C
Revised Data for 1996-1998

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 C1

Revised Workers' Compensation Benefits by Type of Insurer and Medical Benefits, by State, 1996 (in thousands)

State	Total	Private Carriers[a]	State Funds	Self-Insured[b]	Percent Medical
Alabama	$ 525,073	$ 249,912	-	$ 275,161	55.4
Alaska	121,597	95,917	-	25,680	51.6
Arizona	458,593	183,082	$ 207,712	67,800	45.8[c]
Arkansas	160,328	114,009	-	46,319	29.2
California	6,829,656	3,641,478	1,020,389	2,167,789	42.2
Colorado	679,270	249,918	309,223	120,130	36.6[c]
Connecticut	672,241	418,864	-	253,377	42.5[c]
Delaware	121,154	75,961	-	45,193	40.9[d]
D.C.	89,945	74,260	-	15,685	35.3
Florida	2,706,603	1,272,966	-	1,433,637	58.8
Georgia	821,952	434,690	-	387,262	44.5[c]
Hawaii	288,495	214,580	-	73,915	37.6
Idaho	189,575	115,509	61,941	12,125	44.7
Illinois	1,643,487	1,247,092	-	396,395	39.0[c]
Indiana	409,901	355,923	-	53,978	51.0[c]
Iowa	260,628	221,453	-	39,175	41.4[c]
Kansas	269,507	184,801	-	84,706	47.1[c]
Kentucky	506,771	344,373	10,088	152,310	64.5
Louisiana	557,131	218,177	92,515	246,439	53.4
Maine	314,116	193,387	-	120,729	31.5
Maryland	1,037,957	747,845	195,897	94,215	46.0
Massachusetts	700,375	533,125	-	167,250	26.9
Michigan	1,346,409	679,216	-	667,193	30.3
Minnesota	739,500	459,100	114,700	165,700	39.1
Mississippi	224,341	124,787	-	99,554	55.6
Missouri	618,911	369,050	30,930	218,931	42.7[c]
Montana	149,540	43,664	83,639	22,238	42.3
Nebraska	198,923	155,531	-	43,392	57.9
Nevada	382,873	979	289,193	92,701	33.6
New Hampshire	188,262	147,570	-	40,692	43.7[c]
New Jersey	930,724	844,118	-	86,606	57.0
New Mexico	151,299	66,598	15,247	69,454	53.7
New York	2,558,704	1,062,164	922,921	573,619	33.7
North Carolina	500,506	337,403	-	163,103	38.8
North Dakota	66,819	19	66,800	-	44.4
Ohio	2,146,314	13,940	1,696,316	436,058	34.3
Oklahoma	645,329	227,610	226,611	191,108	40.6[c]
Oregon	445,505	218,555	149,765	77,185	44.3
Pennsylvania	2,533,788	1,657,816	264,293	611,679	31.1
Rhode Island	135,520	61,619	37,292	36,609	24.3
South Carolina	371,724	224,915	34,500	112,309	40.4[c]
South Dakota	82,063	68,540	-	13,523	50.1
Tennessee	432,422	388,714	-	43,708	42.4[c]
Texas	1,259,647	851,827	258,247	149,573	40.9[d]
Utah	224,146	123,062	61,420	39,664	46.9[c]
Vermont	74,271	68,984	-	5,287	43.1
Virginia	560,309	431,045	-	129,264	27.6
Washington	1,192,926	14,214	958,204	220,508	32.8
West Virginia	523,803	5,551	423,727	94,525	26.9
Wisconsin	647,520	555,572	-	91,948	46.9[c]
Wyoming	73,592	2,283	71,309	-	58.8
Total non-federal	38,770,045	20,391,766	7,602,879	10,775,401	41.2
Federal	3,065,904				18.6
Civilian employee	1,911,682				24.9
Black Lung	1,154,222				8.2
Total	41,835,949				39.6

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

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

c Imputed based on regression analysis using data from states where the percentage was known. The independent variables used in the regression were the percent of private carrier incurred losses that is attributed to medical benefits, the percent of the market insured private carriers, and the presence of a state fund.

d For these states, the data used for the imputation procedure were unavailable, so the percentage of benefits for medical care was estimated to be the weighted average of the percentages in the states reporting such a percentage.

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

Table C2

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

State	Total	Private Carriers[a]	State Funds	Self-Insured[b]	Percent Medical
Alabama	$ 530,230	$ 265,486	-	$ 264,744	52.2
Alaska	130,045	95,991	-	34,054	46.2
Arizona	427,885	168,790	$ 187,681	71,414	51.1[c]
Arkansas	157,128	109,041	-	48,087	52.2[c]
California	7,073,544	3,880,762	892,926	2,299,857	42.2
Colorado	674,035	268,288	311,278	94,469	41.5
Connecticut	731,830	578,273	-	153,556	33.0[c]
Delaware	120,719	70,587	-	50,133	39.1[d]
D.C.	81,696	72,683	-	9,013	34.9[c]
Florida	2,318,086	1,303,640	-	1,014,446	58.4
Georgia	713,041	393,353	-	319,688	40.5[c]
Hawaii	254,995	191,106	80	63,809	39.5
Idaho	212,563	128,281	68,173	16,109	38.9[c]
Illinois	1,576,695	1,225,093	-	351,602	31.3[c]
Indiana	437,797	353,062	-	84,735	55.5[c]
Iowa	273,028	227,861	-	45,167	57.1[c]
Kansas	312,698	213,537	-	99,161	31.2
Kentucky	380,417	236,390	21,813	122,214	62.6
Louisiana	419,777	194,706	92,670	132,401	41.0[c]
Maine	271,307	122,501	44,591	104,214	33.0
Maryland	1,082,280	820,297	171,478	90,505	43.3
Massachusetts	653,327	502,180	-	151,147	28.5
Michigan	1,332,222	688,948	-	643,275	28.8
Minnesota	738,100	464,900	105,000	168,200	40.8
Mississippi	231,340	130,058	-	101,282	55.5
Missouri	527,053	342,598	40,713	143,742	37.7[c]
Montana	167,812	46,919	91,925	28,968	43.9
Nebraska	184,673	137,173	-	47,500	58.1
Nevada	341,203	1,510	257,235	82,459	33.4
New Hampshire	155,397	114,397	-	41,000	42.0[c]
New Jersey	923,460	854,819	-	68,641	39.1[d]
New Mexico	119,893	56,248	13,185	50,460	55.9
New York	2,618,320	1,167,535	856,447	594,338	33.3
North Carolina	618,426	428,570	-	189,856	36.7
North Dakota	76,617	250	76,367	-	43.5
Ohio	2,030,046	18,330	1,575,658	436,058	35.9
Oklahoma	547,355	232,773	205,461	109,120	37.3[c]
Oregon	417,222	208,179	144,492	64,551	46.1
Pennsylvania	2,471,021	1,625,886	239,538	605,597	32.2
Rhode Island	138,211	91,691	40,285	6,235	34.4[c]
South Carolina	459,377	309,676	38,660	111,041	29.0
South Dakota	73,862	62,033	-	11,828	54.1
Tennessee	432,662	334,878	-	97,784	39.5[c]
Texas	1,377,393	1,063,960	193,761	119,673	39.2[d]
Utah	192,381	112,746	58,260	21,376	67.5
Vermont	87,488	69,028	-	18,460	43.2
Virginia	534,350	422,119	-	112,231	33.5
Washington	1,234,495	12,032	986,285	236,178	31.3
West Virginia	616,790	2,729	509,115	104,946	29.3
Wisconsin	594,463	555,054	-	39,409	46.0[c]
Wyoming	68,068	1,310	66,758	-	61.9
Total non-federal	38,142,823	20,978,257	7,289,833	9,874,733	39.7
Federal	3,003,751				18.2
Civilian employee	1,900,953				23.7
Black Lung	1,102,798				8.6
Total	41,146,574				38.2

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

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

c Imputed based on regression analysis using data from states where the percentage was known. The independent variables used in the regression were the percent of private carrier incurred losses that is attributed to medical benefits, the percent of market insured private carriers, and the presence of a state fund.

d For these states, the data used for the imputation procedure were unavailable, so the percentage of benefits for medical care was estimated to be the weighted average of the percentages in the states reporting such a percentage.

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 C3

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

State	Total	Private Carriers[a]	State Funds	Self-Insured[b]	Percent Medical
Alabama	$ 615,316	$ 354,986	-	$ 260,329	47.4
Alaska	128,576	92,311	-	36,265	50.0
Arizona	417,673	173,878	$ 175,330	68,465	44.3[c]
Arkansas	163,733	113,624	-	50,108	47.0[c]
California	7,374,486	4,235,017	923,153	2,216,316	43.1
Colorado	656,894	294,616	270,211	92,067	39.2
Connecticut	711,130	557,233	-	153,897	29.8[c]
Delaware	118,511	80,942	-	37,569	39.4[d]
D.C.	75,800	67,438	-	8,362	25.0[c]
Florida	2,207,984	1,784,949	-	423,035	58.5
Georgia	807,582	445,507	-	362,075	38.2[c]
Hawaii	233,491	171,635	166	61,690	38.5
Idaho	237,444	143,033	76,416	17,995	42.0[c]
Illinois	1,687,070	1,310,855	-	376,215	29.5[c]
Indiana	482,029	388,733	-	93,296	56.9[c]
Iowa	292,002	243,701	-	48,302	34.0[c]
Kansas	318,352	227,042	-	91,310	34.6
Kentucky	410,003	256,331	21,149	132,523	56.7
Louisiana	428,441	217,337	104,045	107,059	43.7[c]
Maine	246,145	110,674	48,833	86,637	40.9
Maryland	1,127,128	869,158	159,397	98,574	40.4
Massachusetts	641,409	496,997	-	144,412	32.1
Michigan	1,366,963	726,779	-	640,184	28.3
Minnesota	732,300	465,900	94,600	171,800	41.8
Mississippi	234,700	149,920	-	84,780	56.1
Missouri	589,232	383,700	44,833	160,700	38.1[c]
Montana	170,715	48,944	95,947	25,823	47.0
Nebraska	181,816	144,011	-	37,805	44.3
Nevada	334,659	1,407	252,375	80,877	35.1[d]
New Hampshire	163,885	126,885	-	37,000	46.3[c]
New Jersey	954,696	883,733	-	70,963	39.4[d]
New Mexico	116,819	60,435	12,714	43,670	59.5
New York	2,556,658	1,125,494	850,823	580,341	33.3
North Carolina	765,817	530,712	-	235,105	35.4[c]
North Dakota	81,403	249	81,155	-	46.0
Ohio	2,068,878	19,780	1,616,286	432,812	39.4
Oklahoma	520,181	267,409	149,069	103,703	35.8[c]
Oregon	432,825	223,881	145,135	63,810	48.0
Pennsylvania	2,418,072	1,646,492	201,653	569,927	34.5
Rhode Island	145,252	102,232	41,053	1,968	33.1[c]
South Carolina	483,606	327,891	42,510	113,205	30.3
South Dakota	72,722	60,320	-	12,403	54.5
Tennessee	517,846	400,809	-	117,036	45.9[c]
Texas	1,488,896	1,211,453	167,664	109,779	39.4[d]
Utah	220,247	133,445	62,331	24,472	67.2
Vermont	95,056	74,999	-	20,057	39.7
Virginia	591,068	466,916	-	124,153	48.7[c]
Washington	1,309,371	15,708	1,042,955	250,709	33.5
West Virginia	629,480	2,401	525,751	101,329	28.5
Wisconsin	621,973	580,740	-	41,233	48.2[c]
Wyoming	74,469	2,181	72,288	-	63.6
Total non-federal	39,320,803	22,820,821	7,277,840	9,222,142	40.3
Federal	2,990,737				18.7
Civilian employee	1,955,287				24.4
Black Lung	1,035,450				7.9
Total	42,311,540				38.7

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

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

c Imputed based on regression analysis using data from states where the percentage was known. The independent variables used in the regression were the percent of private carrier incurred losses that is attributed to medical benefits, the percent of market insured private carriers, and the presence of a state fund.

d For these states, the data used for the imputation procedure were unavailable, so the percentage of benefits for medical care was estimated to be the weighted average of the percentages in the states reporting such a percentage.

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

Appendix D
Self-Insurer Benefits Estimation

This report uses a methodology that incorporates recent 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 each state, using the procedure in Appendix A.

(2) Obtain data on covered payroll that is insured by private carriers and state funds in each state. This information is available for most states from the National Council of Compensation Insurance (NCCI).

(3) Estimate the percent of covered payroll that is self-insured in each state; that is [(1)-(2)]/(1).

(4) Determine the relationship between the percent of payroll that is self-insured, in (3), and the percent of benefits that are self-insured. Using the subset of states with recent data on self-insured benefits, the percentage of benefits that are self-insured was regressed on the percent of payroll that is the self-insured (3). Regression results for 1996-1999 are reported in table D1.

5) Use these regression results to impute the percentage of benefits provided by self-insurers in states that did not report this information. Use this percentage to estimate the dollar amount of self-insured benefits in those states.

Table D1

Self-Insurer Regression Results, 1996-99

Variable	1996	1997	1998	1999
Intercept	-0.14	-0.26	-0.02	-0.75
	-0.59	*-1.06*	*-.09*	*2.57*
PSI	1.34	1.62	0.50	*-3.11*
	1.07	*1.30*	*0.41*	*2.06*
PSI squared	-0.53	-0.49	0.35	4.48
	-0.34	*-0.32*	*0.24*	*2.37*
R-squared	0.63	0.71	0.55	0.56
n	21	22	22	24

PSI = Payroll Self-Insurance Estimate
t- statistics in italics

Appendix E
Medical Benefits Estimation

Some states are able to provide a breakdown between medical and cash benefits. When they can, we use their figures to calculate the percent of benefits paid accounted for by medical benefits. We refer to this in the appendix as PMED. For states not being able to provide a breakdown of their workers' compensation benefits between cash and medical, a value for PMED had to be imputed. The following methodology was used:

(1) For a subset of these states, we also have information from NCCI on the percent of incurred losses that went for medical benefits. We call this PAYI. Of course this does not include information on self-insurers.

(2) We run an OLS regression using the sample of states for which we have both PMED and PAYI. PMED is the dependent variable. The independent variables are PAYI and PAYI interacted with the percent of benefits paid by self-insurers and the percent of benefits paid by private carriers (percent of benefits paid by state funds being the excluded group). The reason for this is that the breakdown between medical and cash might be different for different types of insurance arrangements.

(3) For states where we don't have PMED or PAYI, we used the weighted average of the percentages from states providing information on medical benefits.

Table E1

Regression Results for Percent Medical Imputation, 1997-1999

Dependent Variable: PMED Independent Variables	1997	1998	1999
Intercept	-0.19	-0.24	0.32
	-1.49	*-2.00*	*2.18*
PAYI	1.17	1.09	0.29
	-3.36	*5.18*	*0.60*
PAYI * Percent of benefits paid by self-insurers	0.21	0.23	-0.05
	0.58	*0.70*	*-1.00*
PAYI * Percent of benefits paid by private carriers	-0.09	0.12	0.09
	-0.33	*2.21*	*0.22*
R-squared	0.56	0.69	0.13
n	23	18	16

t-statistics in italics

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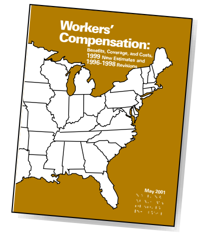
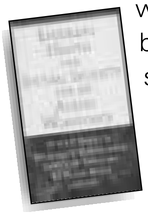


Ensuring Health and Income Security for an Aging Workforce

Peter P. Budetti, Richard V. Burkhauser, Janice M. Gregory, and *H. Allan Hunt*, Editors.

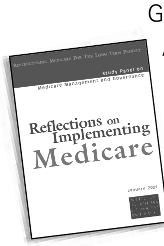


During the next two decades, the number of older workers in the U.S. will nearly double. This bulge, soon to be a conspicuous aspect of the aging baby boom generation, will require a transformation in the way public and private programs are designed to support these individuals at work and in retirement.

This volume presents a group of forward-looking papers commissioned by the National Academy of Social Insurance and presented in January 2000. The papers explore implications of an aging workforce for a number of social programs in the coming decades, and point to the critical policy issues we must face when growing numbers of older workers begin to strain the capacity of those programs. Available from the W.E. Upjohn Institute. Call (616) 343-4330.

January 2001, 521 pages, $28

Reflections on Implementing Medicare: Second Edition



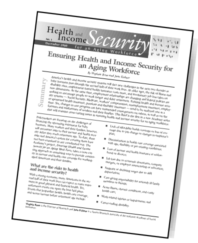
Released by the Study Panel on Medicare Management and Governance as part of the Academy's project on Restructuring Medicare for the Long Term.

This report provides historical reflections on Medicare's earliest days. Part I of the report is the 1992 dialogue among Bob Ball, Art Hess, and the National Academy of Social Insurance Study Panel on Implementing Health Reform. Part II is a report by Bob Ball to his staff at the Social Security Administration in November 1965 reporting on the implementation of the 1965 Medicare legislation. Part III is a chart presentation that Bob Ball made to President Johnson's Cabinet in 1966. This edition includes an introduction that provides historical context for readers less familiar with the players and events leading up to the implementation of Medicare.

January 2001, 62 pages, $15.00

Ensuring Health and Income Security for an Aging Workforce

Virginia Reno and *June Eichner*



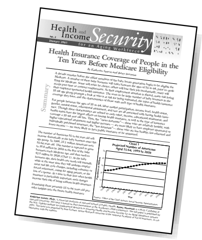
This Brief is the first in an Academy series that will examine cross-cutting issues in ensuring health and income security for an aging workforce. At older ages, the risk of illness and disability rises, employment-based health insurance costs more, and involuntary job loss takes on new dimensions. At the same time, employment relationships are changing and federal policies are seeking to encourage people to work longer and delay retirement. Existing health and income security systems – Social Security, Medicare, workers' compensation, unemployment insurance, employer-sponsored health insurance, pensions and disability insurance – tend to be analyzed one at a time. Yet, changes in one program can have unintended consequences on others.

December 2000, Brief No. 1

New Series of Academy Briefs on Cross-cutting Issues in Ensuring Health and Income Security for an Aging Workforce

Health Insurance Coverage of People in the Ten Years Before Medicare Eligibility

Katherine Swartz and *Betsey Stevenson*



A decade remains before baby boomers begin to become eligible for Medicare at age 65. This Brief examines the types of health insurance 55-64 year olds today have and identifies the characteristics of those with each type of coverage and of the uninsured.

January 2001, Brief No. 2

Workers' Compensation and Older Workers

John F. Burton, Jr. and *Emily Spieler*

After rising sharply in the 1980s, workers' compensation costs and benefits declined during the 1990s. The recent decline may reflect, in part, a decline in the availability and adequacy of these benefits. Workers in the second half of their work lives are particularly likely to be affected by these changes. Although workers' compensation continues to compensate workers for acute short-term injuries, the availability of benefits for permanent disabilities associated with aging appears to be declining in many states. This trend is likely to shift benefit costs to other social and private insurance. To the extent that other programs do not replace earnings lost due to permanent disability, these costs are shifted to workers and their families.

April 2001, Brief No. 3

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