
Notes and Brief Reports

Workers' Compensation: Coverage, Payments, and Costs, 1977 *

Payments to beneficiaries and costs to employers under workers' compensation programs in the United States rose substantially from 1976 to 1977. The proportion of workers protected—the other major basic indicator for the programs—remained about the same. As the workers' compensation system grows, it continues to be of significant interest to administrators of the social security program because payments are made under both programs to disabled workers and to the survivors of workers. The gaps and overlaps in coverage as well as the benefits and costs under both programs are vital considerations in the effective implementation of the social security program.

The Social Security Administration estimates that 72.1 million workers were covered under workers' compensation programs during an average month in 1977. This total represents nearly nine-tenths of all the wage and salary workers in that year—the same proportion as in 1976.

An estimated \$8,576 million in workers' compensation benefits was paid in 1977—\$7,056 million through State programs and \$1,520 million through the Federal programs. Cash and medical payments under these programs increased from 1976 to 1977 by almost \$1 billion, or 13 percent. This annual increase was somewhat smaller than the rise a year earlier, but it still ranks among the larger increases in the past 30 years.

Premiums paid in 1977 rose by 27 percent—about double the pace of growth in benefits—producing a sharp upward adjustment of costs as a percentage of covered payrolls. The \$14,038 million in premiums paid by employers in 1977 reflects not only the growth in benefits during the year but expected future growth as well. As a result, the ratio of benefits paid (excluding those from general revenues) to premiums written declined in 1977 to 54 percent from 59 percent a year earlier.

Coverage

The 72 million workers covered by workers' compensation programs in an average month in 1977 represent a 3.6-percent increase over the 1976 level. For the second year

in a row the number of workers covered under these programs grew by about 2.5 million, following a comparable rise in wage and salary employment. Thus, that many more workers were eligible to obtain benefits if they were injured on the job.

Because few legislative extensions of coverage occurred in 1977, however, the proportion of workers covered in relation to the total wage and salary work force remained stable—87.8 percent, compared with 87.7 percent in 1976. In contrast, the coverage rate had climbed several percentage points earlier in the decade (from 83.9 percent in 1970) when a considerable number of new coverage provisions were enacted. As of January 1979, groups still excluded from statutory protection to some degree were employees in small firms (13 States), farm workers (36 States), domestic workers (27 States), and State and local government employees (21 States). In addition, statutory restrictions in most jurisdictions excluded the services of persons in casual employment, often defined in the law as sporadic work not related to the main activity of the establishment.

The payroll of workers covered under workers' compensation programs was approximately \$825 billion in 1977. The 9.9-percent rise in covered payroll from 1976 to 1977 was related to the effects of rising wages as well as to the growth in the number of covered workers. Covered payroll accounted for 85.9 percent of the wages of all wage workers—a proportion slightly below the 1976 level.

Benefits

In 1977, the value of cash payments and medical services provided under workers' compensation programs rose by \$980 million to \$8,576 million. The latter figure represents a 13-percent rise from the total for the previous year. The major cause of this growth was the inflationary push on wages and prices, which is reflected in higher weekly cash benefits and medical care costs. Average wages in employment covered under the unemployment insurance program¹ rose 8 percent in 1977, a rate somewhat higher than that for the previous 2 years and much higher than the 3–6 percent annual increases in the 1960's. The medical component of the Consumer Price Index of the Bureau of Labor Statistics rose in 1977 by almost 10 percent to 202.4—again, a considerably higher rate of change than that for the 1960's.

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¹ This figure is the closest available measure for estimating the wages covered under workers' compensation programs.

Since 1973, Federal "black lung" payments to coal miners and their survivors have leveled off or even decreased slightly. Annual increases in benefits under regular workers' compensation programs have therefore been greater than is indicated by the aggregates, which include black lung payments. The following tabulation shows that, with the black

[Amounts in millions]

Type of payment	1977	1976	Percentage change
Total	\$8,576	\$7,597	12.9
Regular	7,608	6,616	15.0
Black lung	968	981	-1.3
Medical and hospitalization	¹ 2,740	¹ 2,380	15.1
Compensation	5,836	5,217	11.9
Regular	4,870	4,239	14.9
Black lung	966	978	-1.2
Disability	4,956	4,402	12.6
Regular	4,375	3,809	14.9
Black lung	571	593	-3.7
Survivor	880	815	8.0
Regular	495	430	15.1
Black lung	395	385	2.6

¹ Includes \$2.6 million in 1976 and \$2.1 million in 1977 paid for medical services under the black lung program.

lung program excluded, the increase in benefits from 1976 to 1977 was 15 percent for regular workers' compensation programs.

Early in 1977, major black lung legislation was enacted that may result in a renewed growth in the claims load and in aggregate benefits paid.² Previously disallowed claims are being reviewed and new claims will be filed under liberalized eligibility requirements and definitions. Aside from the possible spurt in claims activity arising from these changes, the black lung program can be expected to be stable in the future and to gradually account for a smaller proportion of total workers' compensation payments reported each year. Thus, in 1977 the \$968 million paid through the black lung program was 11 percent of the total, but in 1973 (the peak year for black lung payments) the \$1,045 million in benefits accounted for 21 percent of the total.

With black lung payments excluded, the shares of regular benefits devoted to medical and cash benefits and to disability and survivor benefits continued their long-range stability in 1977. The \$4,870 million in cash benefits paid under regular workers' compensation programs amounted to 64 percent of the total (\$7,608 million). The remainder, \$2,738 million, covered the costs of medical care and hospitalization. The same proportionate division of benefits was reported in 1976. In 1977, as in previous years, about 57 percent of workers' compensation benefits were payments for disability. Almost 7 percent went to the survivors of workers who died from job-related causes.

The distribution of benefits in 1977 according to type of

insurance is about the same as in recent years if the black lung program is left out. Private insurers accounted for 61 percent of the benefits, government funds for 23 percent, and self-insurers for 16 percent. Because black lung payments represented such a large part of the total in 1977, benefits paid through private insurers were reduced to 54 percent of all workers' compensation payments, including black lung payments.

State Benefit Patterns

Benefits paid in 1976 and 1977 by each State according to type of insurer are shown in the accompanying table. In all but one State and two Federal program categories, the amount of benefits rose during the period. It rose substantially (by at least 10 percent) in all but six of the jurisdictions with increases. The growth in the past few years to the levels shown has been possible only because of improvements in statutory benefit provisions.

Statutory maximum weekly benefit amounts for temporary total disability rose in 46 jurisdictions in 1977, allowing higher benefit awards at the higher wage levels. Most such increases in the maximums were attained through the automatic provisions of existing laws. These "flexible maximum" provisions call for increases linked to rises in wages, generally those covered by the State unemployment insurance law. In addition, weekly maximums rose in seven States through new amendments to the law. On the average, State maximum weekly benefit amounts for temporary total disability (weighted by covered employment) rose 9 percent from 1976 to 1977.

A number of States also amended their workers' compensation laws in ways that slow the growth in benefit-payment levels. A few States placed limitations on the period for which permanent total disability benefits could be received. Additionally, three states exempted household and casual employees previously covered.

Perhaps most noteworthy was the step taken in seven States to achieve better coordination between benefit payments under workers' compensation programs and the benefits received from other benefit programs—such as unemployment insurance, private disability insurance, private pensions, and old-age, survivors, and disability insurance. These States have established offsets of these benefits against the workers' compensation amount, generally with respect to payments for permanent total disability and/or for survivors. At the end of 1977, 13 States had a provision offsetting some other program benefits against workers' compensation.

Benefits paid in 1977 ranged from \$7 million in South Dakota to \$1,128 million in California. The 10 States with the largest workers' compensation losses³ paid \$4,411 million or 58 percent of the national total when black lung

²For a description of these laws, see "Black Lung Amendments of 1977," *Social Security Bulletin*, August 1978, pages 26-27.

³California, Florida, Illinois, Michigan, New Jersey, New York, Ohio, Pennsylvania, Texas, and Washington.

payments are excluded. The States paying the largest amount of compensation tend to be the same from year to year and annually account for a similar share of the national total. The top 10 States were the same in 1977 as they were in 1970 except that Massachusetts was included in the earlier year instead of Washington. The share of total benefits paid to persons in the top 10 States in 1970 was 62 percent.

As the tabulation below reveals, there was a greater

Percentage change in benefits from preceding year	Number of States ¹			Percentage distribution of covered workers ¹		
	1977	1976	1971	1977	1976	1971
Total	52	52	52	100.0	100.0	100.0
Decrease	1	0	0	5.2	0	0
Increase:						
Less than 5.0	0	1	9	0	.1	29.1
5.0-9.9	6	8	18	16.3	16.9	25.5
10.0-14.9	9	10	17	18.3	23.6	35.1
15.0-19.9	14	9	3	32.5	11.7	4.5
20.0 or more	22	24	5	27.7	47.8	5.8

¹ Includes the program for civilian employees of the Federal Government and the District of Columbia.

concentration of workers in States with benefit increases of at least 20 percent from 1975 to 1976 than from 1976 to 1977 (48 percent, compared with 28 percent). This pattern is similar to that for annual average increases in benefits for the two years—17 percent in 1976 and 15 percent in 1977. More striking, however, is the contrast between the distributions of States and workers in those two years and the distribution in 1971. Benefit payments increased 15 percent or more from 1970 to 1971 in just eight States protecting only 10 percent of the workers covered nationally. In contrast, from 1975 to 1976 and from 1976 to 1977 benefits rose by at least that proportion in 33 and 36 States, respectively, which accounted for 60 percent of all covered workers in those years. From 1970 to 1971, benefit levels were not affected by the high rate of inflation that characterized the later periods. Also, the trend of statutory benefit liberalizations of the early 1970's was just beginning in the earlier period.

The growth of workers' compensation benefits varied considerably according to geographic location. Benefit payments in the East North Central States—Illinois, Indiana, Michigan, Ohio, and Wisconsin—rose by only 11 percent in 1977, while those in the East South Central

Estimates of workers' compensation payments, by State and type of insurance, 1977 and 1976¹

[In thousands]

State	1977				1976				Percentage change in total payments from 1976 to 1977
	Total	Insurance losses paid by private insurance carriers ²	State and Federal fund disbursements ³	Self-insurance payments ⁴	Total	Insurance losses paid by private insurance carriers ²	State Federal fund disbursements ³	Self-insurance payments ⁴	
Total	\$8,576,195	\$4,628,695	\$2,734,933	\$1,212,567	\$7,596,614	\$3,975,784	\$2,589,447	\$1,031,383	12.9
Alabama	72,032	52,032	.....	20,000	58,824	42,024	.....	16,800	22.5
Alaska	51,550	48,150	.....	3,400	34,267	32,027	.....	2,240	50.4
Arizona	79,620	41,809	34,011	3,800	73,125	38,261	31,364	3,500	8.9
Arkansas	48,436	40,736	.....	7,700	42,506	35,806	.....	6,700	14.0
California	1,128,327	658,426	194,901	275,000	954,798	557,880	176,918	220,000	18.2
Colorado	60,788	23,988	31,300	5,500	51,709	21,219	25,990	4,500	17.6
Connecticut	78,399	70,799	.....	7,600	68,237	62,487	.....	5,750	14.9
Delaware	13,405	10,705	.....	2,700	11,235	8,995	.....	2,240	19.3
District of Columbia	45,120	40,090	.....	5,030	36,768	32,918	.....	3,850	22.7
Florida	301,415	265,315	.....	36,100	278,284	244,964	.....	33,320	8.3
Georgia	109,421	93,521	.....	15,900	93,698	80,088	.....	13,610	16.8
Hawaii	34,410	25,610	.....	8,800	29,023	21,523	.....	7,500	18.6
Idaho	26,844	18,707	4,837	3,300	23,453	16,567	3,986	2,900	14.5
Illinois	394,973	331,973	.....	63,000	305,636	256,636	.....	7,700	22.4
Indiana	76,051	64,051	.....	12,000	65,071	54,821	.....	10,250	16.7
Iowa	56,479	47,479	.....	9,000	46,158	38,458	.....	4,455	16.0
Kansas	47,181	42,011	.....	5,170	40,671	36,216	.....	4,455	16.0
Kentucky	92,106	80,106	.....	12,000	75,591	65,731	.....	9,860	21.8
Louisiana	160,878	139,878	.....	21,000	138,014	120,014	.....	18,000	16.6
Maine	33,435	28,935	.....	4,500	25,074	21,774	.....	3,300	33.3
Maryland	106,166	83,742	7,024	15,400	88,767	69,484	6,383	12,900	19.6
Massachusetts	176,207	164,207	.....	12,000	153,701	143,201	.....	10,500	14.6
Michigan	434,685	252,569	14,116	168,000	390,729	222,754	16,975	151,000	11.2
Minnesota	135,168	115,668	.....	19,500	107,978	92,278	.....	15,700	25.2
Mississippi	42,215	32,705	.....	9,510	30,085	27,175	.....	2,910	40.3
Missouri	78,751	68,351	.....	10,400	71,817	62,342	.....	9,475	9.7
Montana	23,824	10,192	5,103	3,306	19,386	7,778	5,960	2,648	22.9
Nebraska	23,287	20,987	.....	2,300	21,589	19,439	.....	2,150	7.9
Nevada	37,703	78	37,035	590	31,635	163	30,972	500	19.2
New Hampshire	26,335	24,635	.....	1,700	20,909	19,539	.....	1,370	26.0

See footnotes at end of table.

Estimates of workers' compensation payments, by State and type of insurance, 1977 and 1976¹—Continued

State	1977				1976				Percentage change in total payments from 1976 to 1977
	Total	Insurance losses paid by private insurance carriers ²	State and Federal fund disbursements ³	Self-insurance payments ⁴	Total	Insurance losses paid by private insurance carriers ²	State Federal fund disbursements ³	Self-insurance payments ⁴	
New Jersey	245,287	219,987		25,300	216,246	196,766		19,480	13.4
New Mexico	29,490	26,790		2,700	24,572	21,672		2,900	20.0
New York	475,710	291,303	119,107	65,300	452,565	282,226	108,324	62,015	5.1
North Carolina	72,556	63,356		9,200	62,040	54,190		7,850	17.0
North Dakota	11,633	73	11,560		9,495	106	9,389		22.5
Ohio	440,305	998	317,307	122,000	472,577	939	340,638	131,000	-6.8
Oklahoma	72,050	53,100	10,150	8,800	66,705	51,159	7,406	8,140	8.0
Oregon	195,426	59,483	115,043	20,900	164,781	50,776	99,005	15,000	18.6
Pennsylvania	342,034	232,049	47,985	62,000	278,250	188,819	40,073	49,358	22.9
Rhode Island	27,756	26,256		1,500	23,082	21,842		1,240	20.2
South Carolina	46,117	39,417		6,700	37,695	32,215		5,480	22.3
South Dakota	7,193	6,293		900	6,436	5,596		840	11.8
Tennessee	83,898	76,298		7,600	73,459	66,779		6,680	12.8
Texas	449,489	449,489			400,058	400,058			12.4
Utah	24,977	6,277	14,500	4,200	19,730	5,067	11,373	3,290	26.6
Vermont	8,878	8,178		700	6,846	6,296		550	29.7
Virginia	100,336	79,036		21,300	80,414	63,314		17,100	24.8
Washington	198,584	7,786	160,589	30,209	180,345	5,959	149,415	24,971	10.1
West Virginia	108,956	105	77,299	31,552	87,638	131	59,996	27,511	24.3
Wisconsin	112,375	84,875		27,500	82,504	69,154		13,350	36.2
Wyoming	8,050	91	7,959		4,461	158	4,303		80.5
Federal work-injury programs:									
Civilian employees ⁶	543,356		543,356		465,981		465,981		16.6
"Black lung" benefits ⁷	967,833		967,833		980,817		980,817		-1.3
Other ⁸	8,695		8,695		11,179		11,179		-22.2

¹ Data for 1977 preliminary. Calendar-year figures, except that data for Montana and West Virginia, for Federal civilian employees and "other" Federal workers' compensation, and for State fund disbursements in Maryland, Nevada, North Dakota, Utah, Washington, and Wyoming represent fiscal years ended in 1976 and 1977. Includes benefit payments under the Longshoremen's and Harbor Workers' Compensation Act and Defense Bases Compensation Act for the States in which such payments are made.

² Net cash and medical benefits paid during the calendar year by private insurance carriers under standard workers' compensation policies. Data primarily from A.M. Best Company, a national data-collecting agency for private insurance.

³ Net cash and medical benefits paid by State funds compiled from State reports (published and unpublished); estimated for some States.

⁴ Cash and medical benefits paid by self-insurers, plus the value of medical benefits

paid by employers carrying workers' compensation policies that do not include the standard medical coverage. Estimated from available State data.

⁵ Includes payment of supplemental pensions from general funds.

⁶ Payments to civilian Federal employees (including emergency relief workers) and their dependents under the Federal Employees' Compensation Act.

⁷ Includes \$17,550,000 in 1976 and \$23,548,000 in 1977 paid by U.S. Department of Labor.

⁸ Primarily payments made to dependents of reservists who died while on duty in the Armed Forces, to individuals under the War Hazards Act, War Claims Acts, and Civilian War Benefits Act, and to cases involving personnel of the Civil Air Patrol and Reserve Officers Training Corps, maritime war risks, and law-enforcement officers under P.L. 90-921.

States—Alabama, Kentucky, Mississippi, and Tennessee—rose 22 percent. The low rate of increase in the East North Central States resulted largely from a 7-percent decline in benefit payments in Ohio.

A notable change occurred in New England. For the previous 3 years, the rise in benefits was well below the national average. In 1977 the average increase for those States—Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont—was 18 percent, three percentage points above the national average.

Cost Relationships

For employers, the estimated cost of workers' compensation programs in 1977 was \$14,038 million. This figure excludes benefit costs financed through general revenues (those under the Federal black lung benefits program and State supplemental benefits paid in Montana, Ohio, and

Pennsylvania). The distribution of total costs by source of funds was as follows:

Source of funds	Amount (in millions)
Total	\$14,038
Private carriers	9,920
State funds	2,226
Federal employee compensation program (including administrative expenses)	589
Self-insurance (including administrative expenses)	1,213

The self-insurance costs include benefits plus a 5-10 percent allowance for administrative costs.

Total premium costs were \$3 billion higher in 1977 than in 1976. That amount represents a considerably larger annual increase than was recorded in 1976, which in turn was twice the size of any previous increase. In relative terms, costs grew 27 percent in 1977, by far the largest annual

increase since the series began in the 1940's. Previously, the highest rate of growth in costs had been 17 percent in 1951.

The significance of the cost of workers' compensation may be highlighted by relating this cost to total payroll covered by the program. In this respect, premiums were estimated at \$1.71 per \$100 of payroll in 1977. As would be expected from the large increase in costs from 1976 to 1977 and the fact that covered payrolls rose 10 percent in that period, the 1977 cost-payroll ratio was 24 cents above the level for a year earlier. The \$1.71 figure was 16 percent higher than the 1976 cost-payroll ratio and represented the largest annual rate of increase since the series began. Throughout most of the years from 1940 through the early 1970's, the workers' compensation program cost employers roughly 1 percent of payroll. Now the cost is moving toward 2 percent.

Benefit payments as a percent of payroll also rose during 1977. With the exclusion of black lung benefits and the small amount of State benefits funded from general revenues, the \$7,557 million paid in medical and cash benefits amounted to 92 cents for every \$100 of covered payroll in 1977, compared with 88 cents in 1976. The 1977 benefit-payroll ratio, which continued to reflect the improvements in benefit formulas enacted earlier in the decade, was the highest since the series began.

Benefits can also be related to costs in measuring the effectiveness of workers' compensation payments that provide income-maintenance protection for disabled workers. The loss ratio, or ratio of benefits to premiums written, has since 1950 fluctuated within a few percentage points of 60 percent for all types of insurance combined. From 1976 to 1977, however, the rate fell from 59 percent to 54 percent, the largest annual change in the series. This drop reflects the effect of a rise in insurance costs in anticipation of quickly growing loss levels in the next few years that will reflect inflationary pressures on wages and the automatic rises in statutory benefit maximums.

A similar reduction was recorded in the loss ratios for private carriers alone, which fell from 51 percent in 1976 to 47 percent in 1977. This ratio, compiled from data on benefits paid and premiums written, can also be expressed in terms of benefit losses incurred and premiums earned. The latter measure takes into account liability from future claims as well as current payments and can be expected to be higher than the direct-cost ratio. The loss ratio based on incurred losses is a significant measure because it is commonly used by insurance organizations in evaluating and revising their premium rates. For 1977, this ratio was 78 percent, only 1 percent less than in 1976. Interestingly, in the aftermath of higher benefit liabilities incurred from statutory benefit liberalizations, the incurred-loss ratio has gone up in the 1970's, having been stable at 62-65 percent throughout the 1960's.

In 1977 the loss ratio for State funds, available here only on a benefits-paid basis, was 53 percent, a dramatic decline from the 1976 level of 69 percent. Like the ratios for private

carriers, State-fund loss ratios declined primarily because of large increases in premiums written, which anticipated rapidly rising losses. Before 1977 the loss ratio for State funds had varied between 65 percent and 78 percent. Loss ratios for private carriers, and to some extent those for State funds, do not take into account dividends to employers that reduce the net premiums paid. An approximation of dividends paid is available from the 1978 **Insurance Expense Exhibit** of the National Council of Compensation Insurance, which indicates that dividends amounted to 5 percent of premiums earned in 1977 for all of the companies reporting.

Book Review

Indexation of Pensions and Other Benefits

By Robert J. Myers
147 pp. Homewood, Ill.: Richard D. Irwin, Inc., 1978. \$10

A much-needed and most welcome book has been added to the current literature on pensions. Robert J. Myers, the author, is the former Chief Actuary, Social Security Administration, and currently Professor of Actuarial Science, Temple University, and actuarial and pension consultant to many public and private organizations and Congressional committees. The book is **Indexation of Pensions and Other Benefits**.

Early in 1979, the President's Commission on Pension Policy was established to examine public and private pension systems in an effort to develop a national retirement policy. One question that the group most assuredly will address is how to prevent the erosion of pensions in a period of inflation.

The Myers book is a response to that question. It represents approaches to protecting the purchasing power of pensions so that retired workers will be provided continued security in old age. He examines in depth the procedures developed to escalate various types of cash benefit payment in both the public and private sector. The first three chapters lay the groundwork for understanding indexing by giving the basic facts.

Valid arguments that have been made for and against indexing are detailed. An excellent review is made of the debate that occurred in the United States before the social security program went from ad hoc increases to automatic-adjustments procedures. The argument of uncertain cost against indexing of private pensions is even answered by the author based on his actuarial background. A new note is heard, however, when the author discusses the circumstances in which indexing for the retired population would not be equitable.

In chapters 4-10, the author presents a history of various