

# Workmen's Compensation Under Scrutiny

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*This article looks at recent coverage, cost, and earnings-replacement trends in workmen's compensation in light of the recommendations of the National Commission on State Workmen's Compensation Laws. The many recent coverage extensions are not reflected in the latest data, which show that 84 percent of the civilian wage and salary labor force have the protection of the program. Mainly through "flexible" maximum weekly benefit provisions, 21 jurisdictions in 1973 paid the average injured worker the full statutory wage-replacement rate; in 1969, only 5 areas did so. Nationwide, the average worker without dependents could expect in 1973 to have 57 percent of his weekly wage restored in case of wage loss from work injury; the proportion was 53 percent in 1969.*

*Because of rising benefit levels, program costs have been mounting. Private carriers report that the ratio of benefit payments to earned premiums has also gone up. State funds continue to pay out more of their premiums in benefits than do private carriers, as their expenses absorb a relatively smaller share of premiums.*

THE PRESIDENTIALLY APPOINTED National Commission on State Workmen's Compensation Laws in July 1972 concluded that the protection furnished by the 50 State-administered programs is, in general, "neither adequate nor equitable." The Commission offered several guidelines for States to follow in reshaping their programs and suggested that the States be given an opportunity to comply with the Commission recommendations before enactment of any Federal mandatory standards.<sup>1</sup>

As a result of the Commission's deliberations and recommendations, the tempo of change in State workmen's compensation legislation has been increasing. This is a good time, therefore, to look once again at the key statistics available for evaluating the progress of workmen's compensation programs.

The Social Security Administration first began assembling such data in 1942, when it devised methods to estimate the amount of benefit pay-

ments made under each of the State and Federal programs, by type of insurer. During the following decade, a methodology was established for estimating coverage and payrolls of State programs and for obtaining State and national cost estimates. In the 1950's, emphasis was placed on developing measures of the scope and adequacy of workmen's compensation benefits and on measuring interstate variations.

Key indicators that have been developed include the proportions of the potential labor force covered, the percentage of wage loss compensated in temporary total disability cases, the relation of benefits and premium costs to payrolls, and the proportion of premiums that goes for benefits and expenses. These yardsticks appear either in the annual series published in the BULLETIN or in the more comprehensive articles that appear at 4-year intervals.<sup>2</sup>

Workmen's compensation already had a long history by the time the Social Security Administration began to collect nationwide figures for its statistical series on the program. The first effective workmen's compensation law was enacted in 1908, when Congress adopted a program for certain Federal civilian employees engaged in hazardous work. Similar laws were enacted in 10 States in 1911; by 1920 all but six States had such laws. Today, every State has a workmen's compensation program. In addition, three Federal workmen's compensation programs cover Federal Government employees, private employees in the District of Columbia, and longshoremen and harbor workers throughout the country.

There is also a temporary Federal program for coal miners suffering from pneumoconiosis or "black lung" disease. Under this program, enacted December 30, 1969, monthly cash benefits are payable to a miner disabled by black lung disease and to his dependents or survivors.

The workmen's compensation statistics compiled for this article can measure only part of the impact of the National Commission's activi-

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<sup>1</sup> *The Report of the National Commission on State Workmen's Compensation Laws*, July 1972, 151 pages.

<sup>2</sup> See Alfred M. Skolnik and Daniel N. Price, "Another Look at Workmen's Compensation," *Social Security Bulletin*, October 1970, for list of earlier articles in the series.

ties that began in 1971. To some degree, this is the result of the time lag involved in assembling operating statistics from more than 50 jurisdictions. Most of the data presented here are for the period before 1973 and thus reflect only part of the recent ferment at the State level. The article, however, does note the State statutory changes in coverage and benefit provisions since 1972.

The paucity of nationwide data and difficulty of securing comparable data from different jurisdictions further limit available statistics. Each State has its own workmen's compensation law for providing cash benefits and medical care to the victims of work-connected injuries. These laws differ materially in the scope of coverage, benefit provisions, administrative procedures, and—most important—the insurance mechanism used to underwrite the risk of work injury.

Six States require an employer to carry insurance with an "exclusive" State insurance fund (or, in three of the six, to self-insure). Except in these States, most employers purchase a workmen's compensation policy from a private insurance carrier or self-insure by providing proof of financial ability to carry the industrial risk. In 12 States, an employer also has a choice of insuring with a State insurance fund that is "competitive" with private insurance carriers.

Most States are therefore not engaged in directly operating an insurance program—that is, setting rates, collecting premiums, paying benefits, or the like—and thus are not in a position, financially or administratively, to gather the type of data that are the normal byproducts of such other social insurance systems as old-age, survivors, disability, and health insurance (OASDHI), and unemployment insurance. Less than a third of the States, for example, collect any data on the number of covered workers or the amount of covered payrolls under workmen's compensation. Almost half the States fail to publish such basic data as the amount of benefits paid, by type of insurance or by type of benefit. Practically no State has any data on the number of persons currently receiving workmen's compensation benefits.

This problem of collecting meaningful nationwide data was one of the areas cited for reform by the National Commission. The Commission recommended a uniform system of reporting that would enhance "one virtue of the Federal sys-

tem, namely that States can be laboratories of experiment and learn from one another."

## COVERAGE

The Social Security Administration estimates of coverage under workmen's compensation programs are based on the number of workers covered in an average month. These estimates are thus much smaller than the count of different workers covered at any time during the year. In addition, the estimates include only employees of firms that actually carry insurance or submit proof of ability to self-insure. This measure of coverage has merit since it is comparable with that used for other social insurance programs and excludes employees who have no assurance that benefits will be paid without court action.

Basically, these estimates are derived from a covered payroll figure built up for each State. These figures are converted into estimates of the number of workers covered in an average month by using the relationships between total payrolls and average monthly employment under the various State unemployment insurance programs.<sup>3</sup> In about a half score States, where the unemployment insurance and workmen's compensation laws differ significantly in their coverage of small firms, adjustments are made to allow for the likelihood that small firms have a lower computed average wage per employee than large establishments.

Coverage estimates are confined to specific benchmark years. The latest full calendar year for which private carrier payroll estimates could be computed for all States is 1969. This time lag is inevitable because data are for policy-year experience that extends into succeeding calendar years and cannot be fully evaluated until 2 or 3 years after the end of the policy year.

These benchmark-year data are the basis for estimating coverage in intervening and succeeding years. The 1972 estimates of the average monthly number of covered workers in each State are projections from the 1969 data, based on the percentage change in average monthly employment covered under unemployment insurance pro-

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<sup>3</sup> For a detailed description of the methodology and sources of data, see the *Bulletin*, July 1950, pages 4-5; August 1958, pages 4-6; and October 1970, page 5.

grams and adjusted where necessary for changes in the coverage provisions of the laws.

Each State total also includes estimates of workers covered by the Longshoremen's and Harbor Workers' Compensation Act, practically all of whom are insured by private carriers. The number of Federal workers covered under the Federal Employees' Compensation Act is estimated separately and not distributed among the States. The estimates exclude railroad workers in interstate commerce and seamen in the United States merchant marine, who are covered by statutory provisions for employer liability rather than by a workmen's compensation law.

### National and State Estimates

New benchmark data for the year 1969 show that 58.5-59.1 million workers were covered in an average month under State and Federal workmen's compensation programs. When projected to 1972, the coverage estimates are 61.9-62.3 million, comprising 84.4 percent of the 73.6 million civilian employed wage and salary workers in the United States (table 1). These estimates are about a half-million higher than those published as preliminary estimates in the January 1974 BULLETIN.

Historically, the proportion of the employed labor force covered by workmen's compensation showed little variation between 1953 and 1965—hovering at 80-81 percent. Since 1965 the coverage ratio has climbed to 84 percent. Some of the increase is artificially induced as a result of the Bureau of Labor Statistics 1967 redefinition of the labor force to exclude those aged 14 and 15. Part of the increase reflects the shift of workers from noncovered employment (such as farm and domestic work and railroading) to covered industries. Farm and domestic workers, for example, comprised 3 percent of the labor force in 1965 and less than 2 percent in 1972. Offsetting this shrinkage to some extent has been a substantial growth of employment in State and local government, a sector with spotty workmen's compensation coverage.

The factor that has played the biggest role in the increased rate of protection is statutory extension of coverage. From 1965 through 1972, six States (Florida, Georgia, Iowa, Nebraska, Oregon, and South Dakota) put into effect pro-

TABLE 1.—Estimated number of workers covered in an average month and total annual payroll in covered employment, selected years, 1940-72<sup>1</sup>

Year	Workers covered in an average month		Total payroll in covered employment	
	Number (in millions)	Percent of employed wage and salary workers <sup>2</sup>	Amount (in billions)	Percent of civilian wage and salary disbursements <sup>3</sup>
1940.....	24 2-25 0	70 8	\$35-36	72 1
1946.....	32 2-33 2	76 8	79-81	76 8
1948.....	35 6-36 3	77 0	104-106	79 7
1949.....	34 9-35 7	76 9	102-104	79 1
1950.....	36 5-37 2	77 2	112-115	80 1
1951.....	38 3-39 0	78 4	130-133	81 2
1952.....	39 1-39 7	78 9	140-143	81 0
1953.....	40 4-41 0	80 0	152-155	81 7
1954.....	39 5-40 0	79 7	152-154	82 0
1955.....	41 2-41 6	80 0	167-169	83 4
1956.....	42 8-43 1	80 2	181-182	83 2
1957.....	43 2-43 4	80 5	189-191	83 0
1958.....	42 4-42 6	80 2	191-193	83 4
1959.....	43 9-44 1	80 3	208-210	83 8
1960.....	44 8-45 0	80 4	219-221	84 3
1961.....	44 9-45 1	80 3	226-227	84 5
1962.....	46 1-46 3	80 4	240-242	84 5
1963.....	47 2-47 4	80 5	253-255	84 6
1964.....	48 6-48 9	80 8	271-273	84 5
1965.....	50 5-50 9	81 5	291-293	84 2
1966.....	53 5-53 8	83 1	320-322	84 5
1967.....	54 0-55 1	83 1	341-343	84 1
1968.....	56 7-56 9	83 8	375-377	84 1
1969.....	58 8-59 1	84 6	413-415	84 4
1970.....	59 0-59 3	83 9	436-438	83 6
1971.....	59 2-59 5	83 6	462-465	83 6
1972.....	61 9-62 3	84 4	513-515	84 7

<sup>1</sup> Before 1959, excludes Alaska and Hawaii

<sup>2</sup> Midpoints of range used in computing percentages. Starting with 1967, employed wage and salary workers exclude those aged 14 and 15 (as well as younger workers) and includes certain workers previously classified as self-employed.

Source: Employed wage and salary workers from *Current Population Survey*, Bureau of Labor Statistics. Wage and salary disbursements from Bureau of Economic Analysis, Department of Commerce.

visions for compulsory rather than elective coverage, bringing to 34 the total number of jurisdictions with compulsory coverage. Twelve States reduced their exemptions for size of firm, with six States (Colorado, Connecticut, Massachusetts, Michigan, New Hampshire, and Wisconsin) joining 24 other jurisdictions in completely eliminating numerical exemptions.

Nine States (Colorado, Illinois, Maine, Maryland, Michigan, New Hampshire, Oregon, Pennsylvania, and Washington) extended some coverage to farm workers, bringing the total to 25. A number of States extended coverage to certain State and local government employees and Washington eliminated the limiting of coverage to workers engaged in extra hazardous occupations.

The upward trend in the proportion of the labor force covered against the risk of work injury can be expected to continue as States attempt to comply with the recommendations of the National Commission on State Workmen's Compensation

**Laws.** The Commission recommended that coverage should be compulsory rather than elective; no occupational groups should be excluded from the laws; and the laws should cover all employers with one or more employees.

Since the end of 1972, six more States (Alabama, Kentucky, Montana, New Mexico, Tennessee, and Vermont) have shifted from elective to compulsory coverage, and seven States (Arizona, Florida, Kentucky, Maine, Ohio, Texas, and Vermont) have removed all numerical size-of-firm exemptions. Two others (Georgia and Virginia) have reduced their exemptions. Iowa, Montana, and Virginia extended coverage to some or all agricultural workers.

Table 1 also presents estimates of the total wage and salary payroll in employments covered by State and Federal workmen's compensation laws. The benchmark estimate for 1969 was \$413-415 billion—which, when projected to 1972, equals \$513-515 billion or 84.7 percent of the \$607 billion in civilian wages and salaries. The 1972 payroll estimate was about \$15 billion more than the preliminary estimate shown in the January 1974 BULLETIN article.

### State Variations

The benchmark coverage figures for each of the States and projections for 1972 are presented in table 2. Few jurisdictions in 1972 offered what might be called complete protection to all employees with work-connected injuries. Under 18 State laws coverage was elective for most private employments. The remaining laws were compulsory and required every employer within the scope of the law to comply with the provisions and pay the compensation specified. Some laws were partly compulsory and partly elective.

Twenty-two States exempted from coverage those employers with less than a specified number of employees. The range in 1972 was from fewer than two employees in two States to fewer than 10 employees in one State. The most common exemption was for employers with less than three employees.

Even in the 30 jurisdictions with no numerical exemptions, there were restrictions on the type of employment covered, with exemptions such as agricultural employment, domestic work, and casual labor. Only 10 of the 30 jurisdictions

TABLE 2—Estimated average monthly number of wage and salary workers covered by workmen's compensation, 1969 and 1972

[In thousands]

State	1969	1972
Total.....	58,784-59,084	61,936-62,300
Alabama.....	680	795
Alaska.....	82	74-78
Arizona.....	385	485
Arkansas.....	385	470
California.....	6,300-6,500	6,600-6,800
Colorado.....	550	670
Connecticut.....	975	1,000
Delaware.....	164	175
District of Columbia.....	300	295
Florida.....	1,600-1,700	2,000-2,100
Georgia.....	990	1,130
Hawaii.....	235	265
Idaho.....	152	176
Illinois.....	3,910	3,940
Indiana.....	1,410	1,410
Iowa.....	775	885
Kansas.....	450	465
Kentucky.....	625	675
Louisiana.....	775	820
Maine.....	245	245
Maryland.....	935	1,030
Massachusetts.....	1,720	1,750
Michigan.....	2,690	2,670
Minnesota.....	1,040	1,050
Mississippi.....	355	425
Missouri.....	1,150	1,180
Montana.....	131	144
Nebraska.....	365	430-440
Nevada.....	170	198
New Hampshire.....	215	230
New Jersey.....	2,125	2,240
New Mexico.....	173	205
New York.....	6,210	6,075
North Carolina.....	1,340	1,495
North Dakota.....	95	107
Ohio.....	3,340	3,390
Oklahoma.....	425	455
Oregon.....	660	720
Pennsylvania.....	3,800	3,900
Rhode Island.....	260	270
South Carolina.....	565	680
South Dakota.....	119	140
Tennessee.....	350	945
Texas.....	2,280	2,480
Utah.....	265	310
Vermont.....	120	125
Virginia.....	1,150	1,225
Washington.....	700	925-975
West Virginia.....	465	505
Wisconsin.....	1,310	1,350
Wyoming.....	65	72
Federal employees <sup>1</sup> .....	2,758	2,650

<sup>1</sup> Excludes employment outside the United States.

covered agricultural workers in substantially the same way as other workers; 10 others provided some coverage of farm workers.<sup>4</sup> Only eight of the 30 jurisdictions included domestic labor of any type. Many laws exempted employees of non-profit, charitable, or religious institutions. A few States restricted coverage to workers in hazardous occupations, variously defined.

<sup>4</sup> For a discussion of the problems of farmworker coverage, see Carl J. Schramm, "Workmen's Compensation and Farm Workers in the United States," *Supplemental Studies for the National Commission on State Workmen's Compensation Laws*, volume I, 1973, pages 137-159.

For State and local government employees, too, coverage differs markedly among jurisdictions. Some laws specify no exclusions or exclude only such groups as elected or appointed officials. Others limit coverage to employees of specified political subdivisions or to employees engaged in hazardous occupations. In still others, coverage is at the option of the State, city, or political subdivision.

Because of these differences, the number of workers actually covered by workmen's compensation as a percentage of the total employed wage-and-salary labor force shows considerable variation from State to State, ranging from 60 percent to about 95 percent.

Chart 1 shows the actual workmen's compensation coverage in the States as a percentage of potential coverage. The potential coverage figure is based on 1972 State data from the Bureau of Labor Statistics for nonagricultural wage and salary workers and on data from the Department of Agriculture for farm workers. Estimates of domestic employment are based on the 1970 Decennial Census. These data have been modified to exclude Federal employees (who have a separate system) and interstate railroad workers (who are subject to Federal jurisdiction and therefore ineligible for State coverage).

In 1972 the workmen's compensation laws of 11 States covered less than 70 percent of the workers who potentially could be protected by the program. These were predominantly rural States located in the Southern and Central portion of the country and had 15 percent of the Nation's potential coverage. Even when agricultural employment is excluded from the measurement of potential coverage, all but two of the States have less than a 70-percent coverage ratio. Nine of the 11 States had laws that either provided for elective coverage or numerical size-of-firm exemption of some type. In the other two (North Dakota and Wyoming), coverage was limited to specified hazardous employments.

Twenty-one States with 28 percent of the Nation's potential coverage had between 70 percent and 85 percent of their potential labor force covered. The major portion of this category was made up of the remaining Southern States and New England.

These States are a mixed group. Nine of the 21 States had elective laws; 11 of them had

exemptions for small firms; six had both. Of the 12 States with compulsory laws, five did not cover local government employees except on a voluntary basis. Five of the 12 States, however, had compulsory laws that covered both workers in small firms and all State and local government employees.

The largest number of workers was employed in the 18 States and the District of Columbia where 85 percent or more of the potential labor force was covered. Fifty-seven percent of the Nation's potential coverage, including the Federal system for civilian employees, was in this category. As might be expected, almost all the large industrial States of the Middle Atlantic and Great Lakes regions plus the Pacific Coast States were in this high-coverage ratio group.

Seventeen of the 20 jurisdictions (including the Federal Government) in this category had compulsory laws, and only three of the 17 had numerical size-of-firm restrictions. All three States with elective laws covered workers in small firms and required mandatory coverage of State and local government employees.

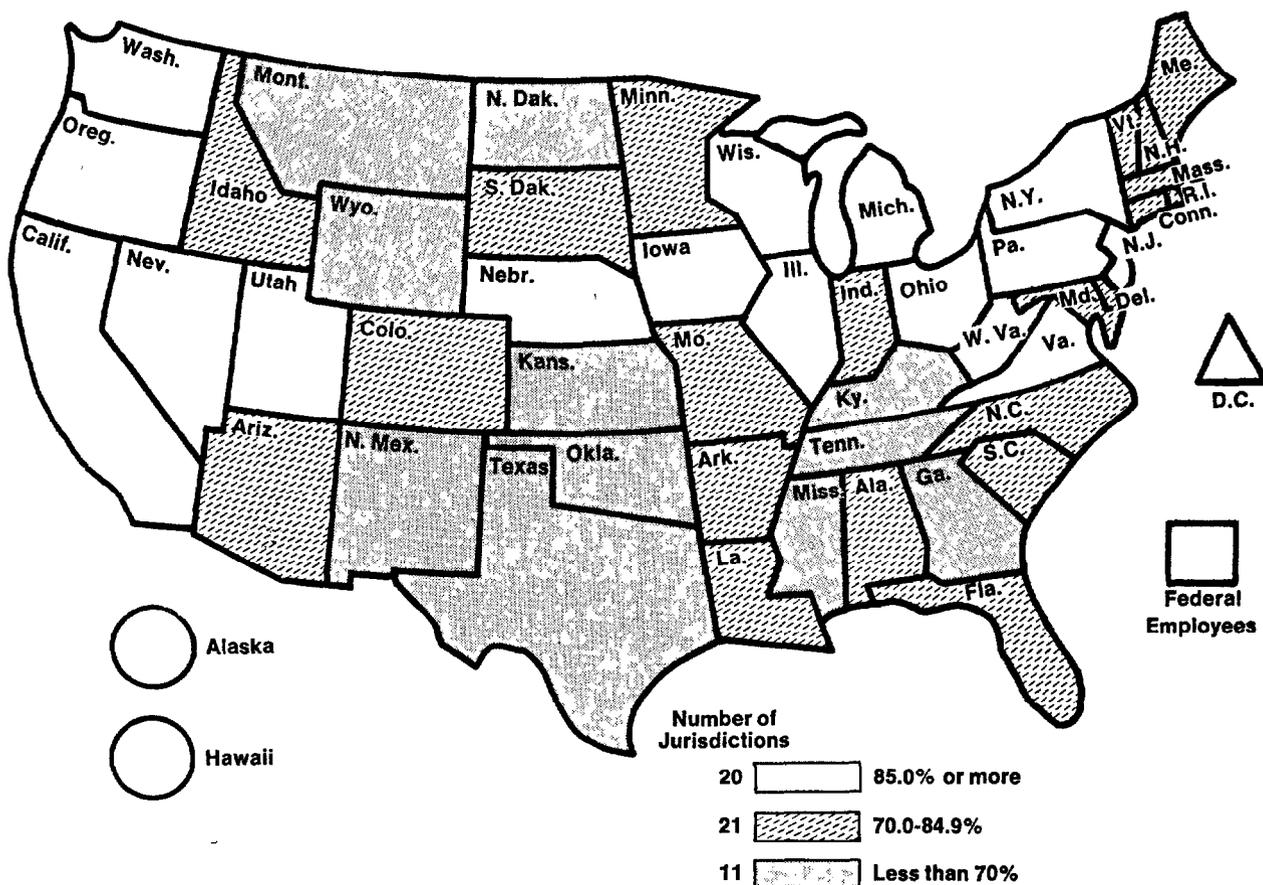
A comparison with 1968 coverage ratios shown in the previous 4-year article reveals appreciable improvements among the States as the result of statutory changes. The number of States with less than 70 percent coverage was 15 (with 18 percent of potential coverage) in 1968, compared with 11 States and 15 percent of potential coverage in 1972. In the same period, the number of jurisdictions with 85 percent or more coverage increased from 15 in 1968 to 20 in 1972; 57 percent of the potential labor force was in this category in 1972 and 53 percent 4 years earlier.

## BENEFITS

The benefits provided under workmen's compensation laws include periodic cash payments, lump-sum payments, and medical services to the worker during a period of disability, as well as death and funeral benefits for the worker's survivors. These benefits totaled \$4.0 billion in 1972, more than \$2.5 billion above the benefit level of 1962. The rate of growth for this decade (171 percent) was almost twice the 90-percent increase in benefits over the previous 10 years.

The advent of a new program, the Federal

CHART 1.—Actual coverage as a percent of potential coverage, by jurisdiction, 1972



“black lung” benefits program, was a major factor in the growth in benefits in the last decade. Under the Federal Coal Mine Health and Safety Act of 1969 cash benefits are paid to miners and to their dependents and survivors for disability and death due to pneumoconiosis (“black lung” disease). Amendments in 1972 liberalized the conditions for benefit payments and extended the program through 1981. As the following tabulation shows, payments were first made in 1970 and reached \$1,045 million by 1973. These benefits can be expected to decline gradually as the backlog of new claims under the 1972 amendments

Year	Black lung benefits (in millions)		
	Total	Disability	Survivor
1970.....	\$110	\$77	\$33
1971.....	379	232	147
1972.....	654	330	224
1973.....	1,045	660	395

is processed and as the number of new claimants does not equal the number of current beneficiaries who are removed from the rolls at death.

The black lung benefits are included in table 3 as part of State and Federal fund disbursements. As a result, by 1972, these disbursements represented almost 34 percent of all benefits paid instead of the usual 22-26 percent of the total. Excluding the black lung program reveals a stable pattern of benefits paid by each type of insurance through 1972: 63 percent for private carriers, 23 percent for State and Federal funds, and 14 percent for self-insurers.

Almost 31 percent of the workmen’s compensation benefits paid in 1972 were for medical and hospitalization costs (table 4). This is a small drop from the one-third of the total that medical payments have been for most years of this series. The black lung benefits program, paying only cash benefits through 1972, accounts for the de-

TABLE 3.—Benefit payments by type of insurance, 1939-72<sup>1</sup>

[Amounts in thousands]

Year	Total		Type of insurance					
			Insurance losses paid by private insurance carriers <sup>2</sup>		State and Federal fund disbursements <sup>3</sup>		Self-insurance payments <sup>4</sup>	
	Amount	Per cent	Amount	Per cent	Amount	Per cent	Amount	Per cent
1939.....	\$234,723	100 0	\$122,183	52 0	\$68,404	29 2	\$44,067	18 8
1940.....	255,653	100 0	134,663	52 7	72,528	28 4	48,472	18 9
1941.....	290,812	100 0	159,823	55 0	77,408	26 6	53,581	18 4
1942.....	328,069	100 0	190,299	57 9	81,247	24 7	57,183	17 4
1943.....	353,035	100 0	213,123	60 4	80,574	22 8	59,338	16 8
1944.....	385,236	100 0	236,655	61 4	85,990	22 3	62,591	16 3
1945.....	408,374	100 0	252,570	61 9	91,255	22 3	64,549	15 8
1946.....	434,232	100 0	269,799	62 1	90,053	22 1	68,380	15 8
1947.....	485,794	100 0	301,833	62 1	110,303	22 7	73,658	15 2
1948.....	533,684	100 0	334,699	62 7	120,989	22 7	77,896	14 6
1949.....	566,295	100 0	353,140	62 4	131,734	23 3	81,421	14 4
1950.....	614,702	100 0	381,329	62 0	148,693	24 2	84,680	13 8
1951.....	709,047	100 0	444,416	62 7	170,445	24 0	94,186	13 3
1952.....	784,956	100 0	490,958	62 5	193,107	24 6	100,891	12 9
1953.....	841,126	100 0	524,176	62 3	210,337	25 0	108,613	12 7
1954.....	876,216	100 0	540,497	61 7	225,473	25 7	110,246	12 6
1955.....	915,865	100 0	562,515	61 4	238,445	25 9	114,705	12 5
1956.....	1,002,007	100 0	618,109	61 7	259,074	25 9	124,824	12 4
1957.....	1,062,171	100 0	660,903	62 2	271,406	25 6	129,862	12 2
1958.....	1,111,599	100 0	694,402	62 5	284,780	25 6	132,417	11 9
1959.....	1,209,808	100 0	752,580	62 2	315,990	26 1	141,238	11 7
1960.....	1,294,945	100 0	809,921	62 5	324,580	25 1	160,444	12 4
1961.....	1,374,176	100 0	850,872	61 9	347,433	25 3	175,871	12 8
1962.....	1,488,816	100 0	923,989	62 1	370,722	24 9	194,105	13 0
1963.....	1,582,459	100 0	987,580	62 4	388,242	24 5	206,637	13 1
1964.....	1,707,189	100 0	1,069,577	62 7	411,876	24 1	225,736	13 2
1965.....	1,813,807	100 0	1,124,013	62 0	445,382	24 5	244,412	13 5
1966.....	2,000,316	100 0	1,239,130	61 9	486,167	24 3	275,029	13 8
1967.....	2,189,294	100 0	1,362,988	62 3	523,683	23 9	302,673	13 8
1968.....	2,375,988	100 0	1,481,606	62 4	556,340	23 4	338,042	14 2
1969.....	2,633,917	100 0	1,640,964	62 3	606,675	23 0	386,278	14 7
1970.....	3,030,803	100 0	1,843,284	60 8	754,892	24 9	432,447	14 3
1971.....	3,563,084	100 0	2,004,534	56 3	1,098,440	30 8	460,110	12 9
1972.....	4,028,881	100 0	2,178,618	54 1	1,361,602	33 6	498,301	12 4

<sup>1</sup> Before 1959, excludes Alaska and Hawaii.

<sup>2</sup> Net cash and medical benefits paid by private insurance carriers under standard workmen's compensation policies. Data from the *Spectator (Insurance by States... of Casualty Lines)*, from published and unpublished reports of State insurance commissions, and from A. M. Best Co.

<sup>3</sup> Net cash and medical benefits paid by competitive and exclusive State funds and the Federal systems, including "black lung" benefits. Includes payment of supplemental pensions from general funds. Compiled from State reports (published and unpublished), and from the *Spectator, Argus Casualty and Surety Chart* or other insurance publications. Data for fiscal years for some funds.

<sup>4</sup> Cash and medical benefits paid by self-insurers, plus the value of medical benefits paid by employers carrying workmen's compensation policies that do not include the standard medical coverage. Estimated from available State data.

cline. In fact, with black lung benefits excluded, medical costs were slightly under 36 percent of 1972 payments, about the same level as that maintained since the late 1960's. Most cash benefits are for disability (about 58 percent of all benefits in 1972), with only 11 percent for payments to survivors. If the black lung share is left out, the survivor portion of workmen's compensation benefits is reduced to 7 percent.

Data in table 5 show the number of compensable cases and incurred cash-benefit losses by severity of injury. These figures from the National Council on Compensation Insurance relate primarily to private commercial business written in

44 States (some competitive State fund figures are also included). Most of the trends in the proportion of cases and losses noted in the 1960's continued through 1970. Temporary total disability and death cases and benefits, for example, declined in relation to the number of cases and benefits for other disabilities.

The main difference to be noted between 1966 and 1970 is that the proportion of incurred losses (benefits) attributable to major partial disability rose 10 percentage points in 1970 to 34 percent of all benefits, at the same time that benefits for minor partial disability decreased almost seven percentage points to 31 percent. For the first time the amounts paid for major partial disability benefits exceeded those paid for any other type of disability—indicating perhaps a new pattern in workmen's compensation programs. For a number of years, one criticism of the program has been that in some States excessive benefits are awarded for minor injuries, especially

TABLE 4.—Benefit payments by type, 1939-72<sup>1</sup>

[In millions]

Year	Total	Type of benefit			
		Medical and hospitalization payments	Compensation payments		
			Total	Disability	Survivor
1939.....	\$235	\$85	\$150	\$120	\$30
1940.....	256	95	161	129	32
1941.....	291	100	191	157	34
1942.....	329	108	221	185	36
1943.....	353	112	241	203	38
1944.....	385	120	265	225	40
1945.....	408	125	283	241	42
1946.....	434	140	294	250	44
1947.....	486	160	326	280	48
1948.....	534	175	359	309	50
1949.....	566	185	381	329	52
1950.....	615	200	415	360	55
1951.....	709	233	476	416	60
1952.....	785	260	525	460	65
1953.....	841	280	561	491	70
1954.....	876	308	568	498	70
1955.....	916	325	591	521	70
1956.....	1,002	350	652	577	75
1957.....	1,062	360	702	617	85
1958.....	1,112	375	737	647	90
1959.....	1,210	410	800	700	100
1960.....	1,295	435	860	755	105
1961.....	1,374	460	914	804	110
1962.....	1,489	495	994	879	115
1963.....	1,582	525	1,057	932	125
1964.....	1,707	565	1,142	1,007	135
1965.....	1,814	600	1,214	1,074	140
1966.....	2,000	680	1,320	1,170	150
1967.....	2,189	750	1,439	1,284	155
1968.....	2,375	830	1,546	1,381	165
1969.....	2,634	920	1,714	1,529	185
1970.....	3,031	1,050	1,981	1,751	230
1971.....	3,563	1,130	2,433	2,068	365
1972.....	4,029	1,230	2,799	2,339	460

<sup>1</sup> Before 1959, excludes Alaska and Hawaii.

Source: Estimated by Social Security Administration on the basis of unpublished policy year data from the National Council on Compensation Insurance.

TABLE 5.—Percentage distribution of compensable cases and of aggregate cash benefits (incurred loss), and average benefit, by disability classification, selected policy years, 1939–70<sup>1</sup>

Disability classification	Compensable cases <sup>2</sup>				Cash benefit payments				Average benefit per compensable case			
	1939	1954	1966	1970	1939	1954	1966	1970	1939	1954	1966	1970
Number (in thousands).....	365 0	632 1	843 0	896 3								
Amount (in millions).....					\$84 0	\$393 5	\$886 5	\$1,263 1				
Total percent.....	100 0	100 0	100 0	100 0	100 0	100 0	100 0	100 0				
Death.....	1.0	.8	.7	.6	16 2	11.5	11.1	10 6	\$3,873	\$9,207	\$15,869	\$23,077
Disability:												
Permanent total <sup>3</sup> .....	.1	1	1	.1	3 9	2 0	2 1	2 8	0,415	16,758	28,128	28,914
Major permanent <sup>4</sup> .....	1 8	2 6	3 2	5 3	22 3	20.7	23 9	33 9	2,792	5,010	7,832	9,070
Minor permanent <sup>5</sup> .....	12 1	23 2	24 1	22 6	26 2	36 8	38 1	31 4	500	986	1,659	1,961
Temporary total.....	85 0	73 3	71 8	71 4	31 4	29 1	24 9	21 2	85	247	364	418

<sup>1</sup> Excludes cases receiving medical benefits only. Data for individual policy years not strictly comparable because of shift in States included and in definition of policy year.

<sup>2</sup> For permanent injury cases includes, in addition to compensation for loss of earning power, payments to those cases during periods of temporary disability. For temporary disability cases, includes only those closed cases known not to have involved any permanent injury and the open cases in

which, in the carrier's judgment, the disability will be temporary only.

<sup>3</sup> Disability rate at 75–100 percent of total

<sup>4</sup> Disability with severity equal to approximately 25–75 percent of total.

<sup>5</sup> Disability with severity equal to less than approximately 25 percent of total.

Source: Unpublished data from the National Council on Compensation Insurance.

those of a contestable nature, at the expense of adequate compensation for more serious disabilities.

As in the past, the average benefit per case from 1966 to 1970 increased at a more rapid rate for death cases (45 percent) than for others (3–18 percent). Liberalized provisions for duration of benefits in several States during the mid-1960's are, in part, accountable for this substantial increase in average death benefits.

### Temporary Total Disability Benefits

One measure of the effectiveness of a workmen's compensation law is the extent to which it replaces wages lost as the result of disabilities incurred while the worker was employed. The intent of most of the laws is to replace from three-fifths to two-thirds of a worker's weekly wage during total disability after a waiting period of varying lengths.

More than 7 out of 10 beneficiaries are disabled for fairly short periods—that is, for temporary total disability. As of December 1973, in all but nine States, the statutory objective was to replace 65 percent or more of the weekly wage of a worker temporarily and totally disabled while at work; in one of the nine States the proportion was above 65 percent for workers with qualified dependents.<sup>6</sup> In about two-thirds of the States the wage-replacement rate was exactly

<sup>6</sup> References to statutory benefit provisions are based primarily on unpublished data from the Employment Standards Administration, Department of Labor.

66 $\frac{2}{3}$  percent. No State had a benefit replacing less than 55 percent of wages. In contrast, only half the States in 1940 had formulas providing for benefits of at least 65 percent of the weekly wage. At that time, one-third of the State formulas provided for 55 percent or less.

The improvement in benefit formulas has not occurred evenly over the years. Five States, for example, raised their benefit percentages between 1960 and 1969, but 13 States have done so from 1970 through 1973. Like the rapid growth in coverage, the recent spurt in benefit formula improvements is associated with State efforts to meet recommended standards set by the National Commission on State Workmen's Compensation Laws. That Commission concluded that the statutory percentage should be no less than a two-thirds replacement rate.

The application of weekly maximum dollar limits may, however, result in lower benefit-wage ratios than those contained in the law, particularly in periods of rising wages. The Commission therefore recommended that each State adopt a "flexible" maximum weekly benefit that would automatically adjust to changes in the statewide average weekly wage. An initial maximum equivalent to 100 percent of the statewide wage by 1975 was suggested. At this level a worker whose wage was 50 percent above the statewide average would receive a benefit at the statutory wage-replacement rate of 66 $\frac{2}{3}$  percent.

An increasing number of the 52 jurisdictions have adopted "flexible" maximums (21 in effect as of December 1973) but not many at the 100 percent recommended by the Commission. As a

result, maximum benefits in most States at present are not high enough to allow the statutory percentages to be effective for most workers.

The figures below show the trend since 1940 in the extent to which a worker with average earnings (as shown by unemployment insurance data) could receive a weekly benefit at the statutory wage-replacement rate.

Year	Number of jurisdictions	Percent of covered workers
1940	46	98
1953	5	4
1957	7	9
1961	7	17
1965	5	7
1969	5	17
1973	21	48

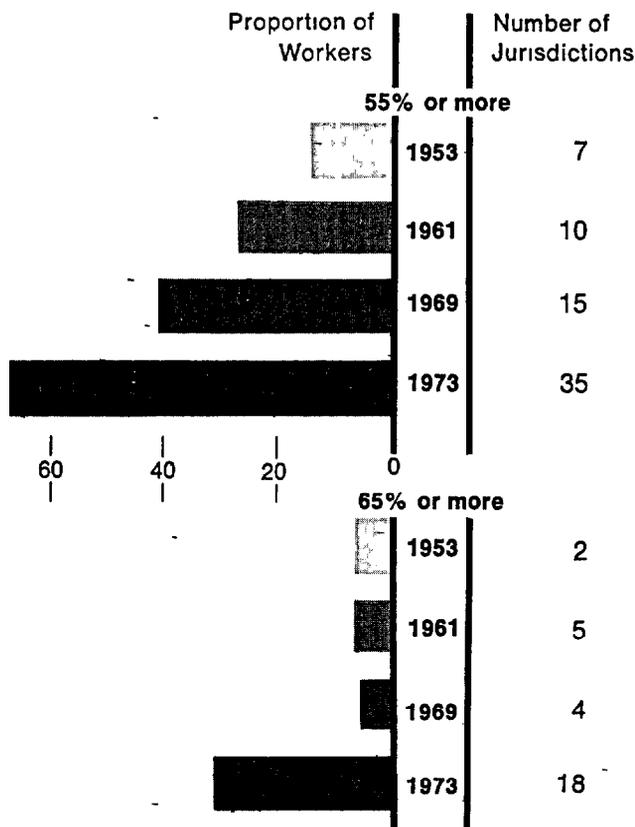
During the 1950's and 1960's, the lag in enacting statutory increases in the ceiling on the weekly benefit amount thwarted considerably the objective of providing benefits equal to the statutory proportion of the wage loss. In the last few years, a notable improvement has taken place.

Estimates have been made of the actual proportion of injured workers whose benefit was kept below the statutory wage-replacement rate by the operation of a weekly dollar maximum, on the basis of National Council of Compensation Insurance data on the average weekly wage of workers with compensable injuries.<sup>6</sup> The 1970 data revealed that in more than 3 out of 5 States at least 65 percent of the workers who were eligible for temporary total disability benefits received a benefit at a lower wage-replacement rate than that specified in the statutory benefit formula.

The actual proportion of wage loss replaced varies among the States (depending on the benefit formula in the law and prevalent wage levels) and within a State from one period to another (depending on the timing of statutory changes). Some insight into trends is gained from calculating, for a worker with the average weekly wage in each State, an effective benefit rate based on the ratio of benefits payable to wages.

Chart 2 shows for benchmark years 1953-73 the proportion of workers and number of juris-

CHART 2.—Proportion of covered workers and number of jurisdictions in which the ratio of the weekly temporary total disability benefit to average wage was at least 55 percent or 65 percent or more, for a worker with an average weekly wage in the preceding year, for 1953, 1961, 1969, and 1973<sup>1</sup>



<sup>1</sup> Benefits are those payable to worker without qualified dependents. Data for 1953 exclude Alaska and Hawaii.

dictions where workers at the average wage received benefits equal to at least 55 percent or 65 percent of their wage. Starting with 1953, gradually more States had temporarily disabled workers at the average wage entitled to a benefit replacing 55 percent or more of wages. A major shift upward was apparent by 1973. It is evident, however, that relatively few States allowed a benefit of at least 65 percent of his wage to an injured worker with average earnings. Even by 1973 only 18 jurisdictions, with about 31 percent of the work force covered by workmen's compensation, permitted a worker earning the average 1972 wage to receive 65 percent or more in wage replacement, though 43 jurisdictions had a statutory percentage at least that high.

The lefthand panel of chart 3 shows for each State the relationship between the average weekly wage and the weekly benefit payable to a tem-

<sup>6</sup> Daniel N. Price, "Three Aspects of the Relationship of Workmen's Compensation to Other Public Income Maintenance Programs," *Supplemental Studies for the National Commission . . .*, volume 1, 1973, pages 338-349.

porarily and totally disabled worker with average 1972 wages under the provisions in effect in December 1973. For the Nation as a whole, a weekly benefit for a worker (without dependents) at the average wage was \$89 or 57 percent of the nationwide average weekly wage. (The national average is weighted by the proportion of covered employment in each State.) In 1969 the corresponding benefit as a proportion of wages was 53 percent; it was 50 percent in both 1961 and 1965.

The typical benefit shown in this chart has improved considerably since 1965, and yet at the end of 1973 there were 13 States, with one-fifth of the covered work force, that still provided benefits of less than 50 percent of the average State wage. Geographical concentrations are observable in the ranking of States, with States in the Far West and Atlantic Coast areas clustering at the higher end. Conversely, most of the Southern States and the Great Plains States tend to have benefits as a percentage of workers' wages that are below the national average.

Benefits rose at a faster pace between 1969 and 1973 than in earlier periods, but three fewer States were providing dependents' allowances. Fourteen jurisdictions now pay dependents' allowances to workers whose earnings are at the State average weekly wage. Nationally the typical worker's average weekly benefit, including maximum dependents' allowance, was \$93 in December 1973—60 percent of the average wage. In 1969 the ratio was 57 percent. As of December 1973, average-wage workers with dependents had 69 percent of their wages replaced in States with dependents' allowances, but only 58 percent in the States not providing such allowances. Single workers had about the same wage-replacement rate, regardless of which category of States they were in, as the figures below show.

Type of benefit	As percent of wages in Jurisdictions (weighted by coverage)	
	With dependents' allowance (14)	Without dependents' allowance (38)
For a single worker.....	57	58
With maximum number of dependents....	69	58

In measuring the extent of overall wage loss replaced by benefits, it is important to consider

the effect of waiting periods, particularly for temporary total disability cases where the period of wage loss is typically short. According to Bureau of Labor Statistics surveys, work-related injury and illness in 1972 resulted in an average of 14 days of work lost per disabled worker in the private nonfarm sector (the equivalent perhaps of 18 calendar days).

All State programs have an elapsed waiting period after the injury date before cash benefits are payable, ranging from 2 to 7 days. In the past these provisions have been relatively stable with only three changes recorded in the 1960's, for example. But from the end of 1969 through 1973, waiting periods were reduced from 7 to 3 days in seven States and to 5 days in one State (although the effective date was 1974 in two instances). Twenty-two jurisdictions, with one-third of all covered workers, now meet the recommended maximum 3-day waiting period proposed by the National Commission on State Workmen's Compensation Laws.

In all States, workers whose disability lasts beyond a specified time are paid retroactively for the waiting period. The retroactive pay provision can take effect in as little as 5 days in three States but is more than 6 weeks in two States. During the period 1969-73, 13 States, with almost one-fourth of all covered employment, liberalized their retroactive-pay provisions—a much faster pace than in the immediately preceding decade. And yet it is interesting to note from the following tabulation that as of

Benefit payable for waiting period if disability lasts—	Number of jurisdictions	Percent of covered employment
2 weeks.....	22	28
More than 2-3 weeks.....	14	27
More than 3-4 weeks.....	4	16
More than 4-6 weeks.....	10	22
More than 6 weeks.....	2	8
No retroactive provision.....	0	0

December 1973 about three-fifths of the States still do not meet the recommendation of the National Commission that a period of not more than 14 days be required to qualify for retroactive benefits.

The effects of waiting-period and retroactive-pay provisions, as of December 1973, are readily seen on the righthand side of chart 3. The benefit-

wage ratio is computed for a worker disabled for exactly 3 weeks. For each State, total benefits payable for the first 3 weeks of temporary total disability are related to the wage loss of a worker (with and without dependents) receiving the average 1972 weekly wage in his jurisdiction.

For 35 States and the District of Columbia, the benefit-wage ratio is the same for 3 weeks of disability as for 1 week of full benefits, because of retroactive-pay provisions that come into play within 3 weeks. For the other 16 jurisdictions, the difference between the lefthand and righthand side of the chart is greatest in those areas (13) where a 7-day waiting period and a retroactive-pay period exceeding 21 days are in effect. These 13 jurisdictions account for more than 40 percent of the workers under workmen's compensation laws and thus influence heavily the United States averages.

For the Nation as a whole the proportion of wage loss replaced during the first 3 weeks of disability for a single worker, weighted by coverage, equaled less than 46 percent in December 1973. When the dependents' allowances payable in 14 jurisdictions are taken into consideration, the national average replacement rate in 1973 for a disability lasting 3 weeks rises to 52 percent (for a worker with the maximum number of dependents qualified for benefits). Thirteen of the 52 jurisdictions paid benefits (excluding dependents' allowance) for 3 weeks of disability at a rate equal to two-thirds of the worker's wage.

The continued improvement in wage replacement provided by rising benefit amounts and liberalizations of waiting-period and retroactive-pay provisions is evident from the benefit/wage ratio for single workers with 3 weeks' disability from 1961 on:

<i>Year</i>	<i>Percent</i>
1961 -----	37.3
1965 -----	40.6
1969 -----	43.7
1973 -----	45.6

Another measure of the benefit-wage relationship takes into account the impact of withholding taxes on workers' earnings. Since, to prevent weakening of his incentive to return to work, workmen's compensation benefits are intended to replace only part of the worker's wages, it is de-

sirable to consider the relationship between benefits and "take-home" wages as well as benefit-gross wage ratios. A well-accepted and readily available estimation of a worker's take-home pay is the total minus the amounts withheld for Federal income tax and for social security contributions. State and local income taxes also affect take-home pay. Forty-one States, including 18 of the 20 largest (by employment), levied income taxes in 1972, primarily through payroll deductions. Despite their growing importance, these taxes are not applied to the estimates discussed here because of the widely different rate structures and lack of applicability to workers in some States.

For a worker without dependents and who earns the nationwide average weekly wage of \$155.79 in 1972, the Social Security Administration estimates that take-home pay would be \$127.36. The workmen's compensation benefit nationally for such a worker (before considering waiting-period provisions, duration limitations, and other restrictions on benefits) would be \$88.64 or about 70 percent of his net or take-home pay. The corresponding ratios for workers with a wife and two children would be 75 percent in jurisdictions providing dependents' allowances but 66 percent in areas without dependents' allowances.

As might be expected from the gross benefit-wage relationship, benefit/take-home pay ratios in 1973 were higher than those of previous years. The weekly benefit, for example, as a percent of take-home pay nationally for a single worker was 62 percent in 1961, 66 percent in 1969, and 70 percent in 1973. These ratios are considerably above those based on gross wages (57 percent in 1973, for example). It should be noted, however, that net wages, although approximating the cash amount a worker has at his disposal, do not allow for the value of any lost fringe benefits when a worker is disabled.

For the Nation as a whole, the following summary figures reveal the extent to which the statutory benefit/wage ratio for a single worker in temporary total disability cases is affected by limits on weekly benefits and waiting-period requirements. It appears obvious, from the percentages that follow, despite the improvement in the wage-replacement picture the average worker is being compensated for less than half his total wage loss.

<i>With benefit award based on—</i>	<i>Benefit as percent of gross wages</i>
Statutory percentage -----	65
Average weekly wage -----	57
Average weekly wage for disability lasting 3 weeks -----	46

### Death and Permanent Disability Benefits

Only about 3 out of 10 workmen's compensation cases in which cash benefits are paid involve permanent disability or death. Yet, because of their long-range nature, benefits paid for permanent disabilities and death in recent years have been roughly four-fifths of the total amount paid for workmen's compensation. Along with the improvements in other areas, permanent disability and death benefits also were liberalized in the 1970's. In most States the weekly benefit amount for permanent disability and death is the same as for temporary disability. Except for the diminished effect of waiting-period provisions on longer duration benefits, the analysis presented above for temporary benefits applies fairly well to the protection provided by weekly benefits in more serious cases.

The statutory maximums relating to total amount and duration of benefits, however, represent an additional dimension of restriction upon permanent disability and death benefits. As of December 1973, permanent total disability benefits for life and the duration of disability were not paid in 13 States (with 19 percent of the coverage) located for the most part in the southern and southeastern part of the country. This situation is an improvement from 1969 when 19 States restricted benefits. In the States where permanent total disability benefits are limited as to duration, amount, or both, again as of December 1973, the periods ranged from 330 weeks to 550 weeks, and the monetary limitations from \$21,000 to \$40,000.

States tend to be even more restrictive in the total benefits they allow for survivorship. Nineteen jurisdictions, with about one-fourth of the workers covered under workmen's compensation, still paid survivor benefits for limited duration (or paid only a lump sum) as of 1973. The number was 27 in 1969. Eleven States with almost one-third of the Nation's covered workers limited the total dollar amount payable. Thus a minority

of workers are in jurisdictions where death benefits are provided to the widow or dependent widower<sup>7</sup> for life or until remarriage and to children until grown. Where benefits are limited, the maximum duration is usually 10 years or less and the monetary maximums for widows with the maximum number of dependent children range from \$16,000 to \$45,000.

In evaluating the adequacy of long-term compensation for permanent disability or death, it should be noted that a worker's wages ordinarily rise as time passes because of inflationary pressures, increases in industrial productivity, and the greater experience, skill, and seniority he has acquired. Particularly for a young worker who becomes disabled, the benefit under workmen's compensation tends to move farther and farther from adequacy in relation to the higher earnings he might have received.

In 1973, only 12 jurisdictions increased the benefits payable to permanently disabled workers already on the rolls. In most cases these were one-time adjustments, requiring additional legislation for future increases.

A recent study has attempted to measure the long-term replacement achieved by the workmen's compensation benefit formulas for various types of disability.<sup>8</sup> Aggregate benefits payable to an individual as of January 1972 and the wage loss incurred following onset of disability were compiled on a present-value basis—by discounting the value of benefits and wage loss in the future and by taking into account the effects of taxes, survivor rates, and expected earnings increases.

The study provides estimates for a 35-year-old worker at the State average wage who is a married craftsman with two children. For him, workmen's compensation benefits for permanent total disability came to less than 40 percent of the present value of earnings loss in 30 States and exceeded 60 percent in just 5 States.

The computed replacement rates were similar for death benefits, with the present value of benefits in jurisdictions falling below 40 percent of the present value of wage loss and reaching 60

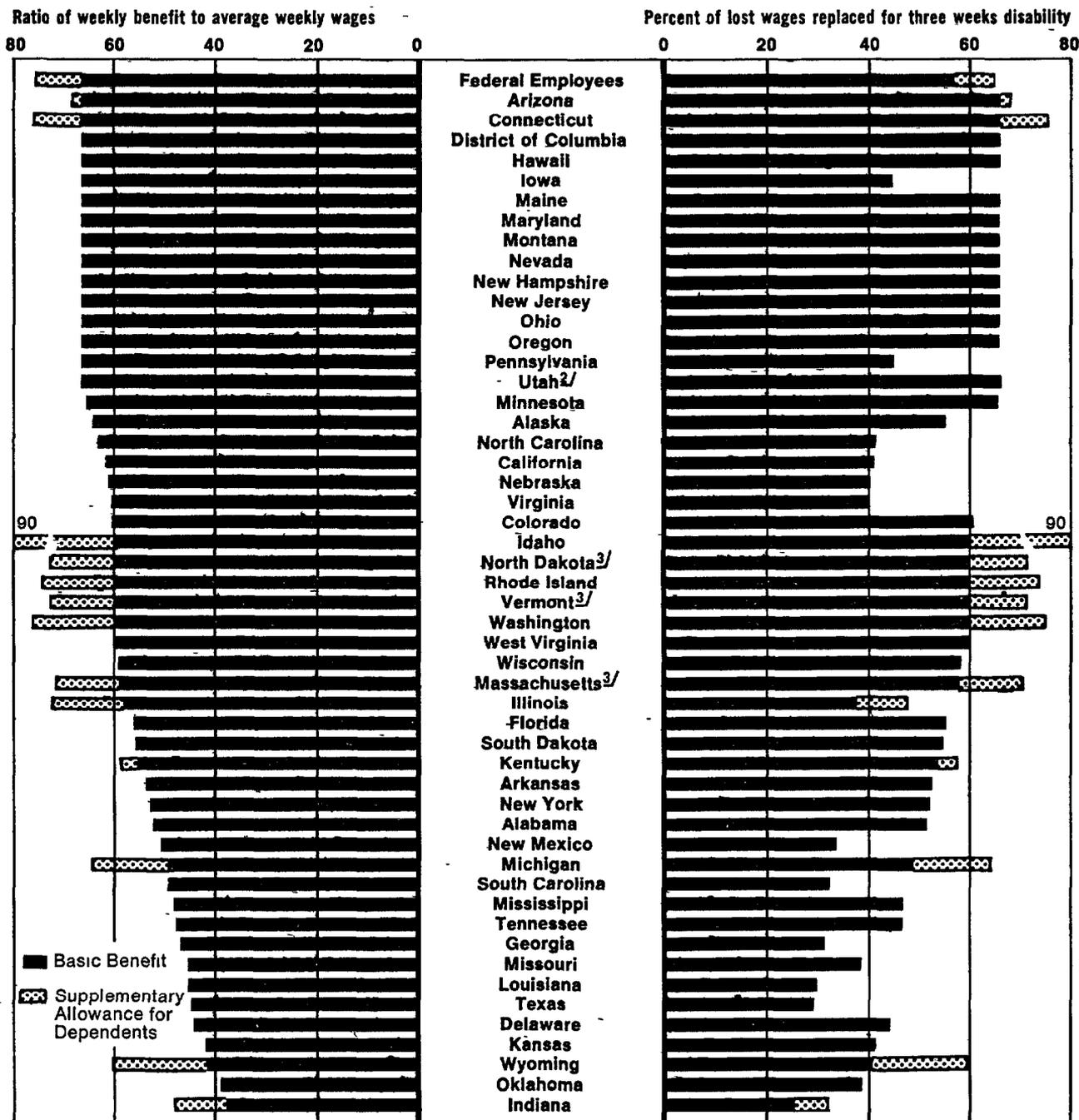
<sup>7</sup> In a few jurisdictions, a presumption of dependency applies to widowers as well as widows.

<sup>8</sup> Monroe Berkowitz, "Workmen's Compensation Income Benefits: Their Adequacy and Equity," *Supplemental Studies for the National Commission . . .*, volume I, 1973, pages 189-274.

percent or more in only four jurisdictions. For permanent partial disabilities—the most controversial and the most difficult risk to measure—

the study showed that the present value of benefits as a proportion of present loss for hypothetical workers with 50-percent disability ranged from

CHART 3.—Measures of interstate variation: Weekly benefit payable for temporary total disability as percent of average weekly wage, 1972, and percent of lost wages replaced for worker with 1972 average weekly wage for temporary total disability lasting 3 weeks, December 1973



<sup>1</sup> Maximum weekly benefit for worker with and without eligible dependents under laws paying dependents' allowances; average wage for workers covered by unemployment insurance program or the wage used by a State for determining its maximum

weekly benefit where different  
<sup>2</sup> Dependent's allowance provided, but maximum same for workers earning average wage whether or not he has dependents.  
<sup>3</sup> Assumes 3 dependents

13 percent to 29 percent in the 29 jurisdictions for which comparisons could be made.

### Other Aspects of Benefit Protection

Workers in need of medical care as a result of work-related disability had complete protection under December 1973 statutes in all but five States (with 5 percent of covered employment) where medical care benefits may be limited to a specified dollar maximum or time period. Six States limit medical benefits for occupational diseases.

Despite the widespread statutory provisions for full medical care, questions have been raised as to the quality of the services provided (especially in comparison with services provided for the general population), the extent to which injured workers are restored to their full physical functions, and the extent to which workers are able to take advantage of vocational rehabilitation facilities.<sup>9</sup> As of 1973, approximately one-third of the States still had no specific provisions for rehabilitation facilities or benefits.<sup>10</sup> Like the other benefit provisions discussed, provisions for rehabilitation have improved over the years. In 1961, 29 States were without such provisions.

There is also some evidence that many workers are losing out on their benefit rights because many public regulatory agencies fail to actively supervise the program and the claims process in particular. The 1970 New Jersey *Annual Report* of the Division of Workmen's Compensation shows how active regulation can lead to increased benefits to workers. The report describes the impact of a review program, begun in 1958, of voluntary settlements made by carriers and employers that resulted in an upward adjustment of 29 percent of the cash awards reviewed in that year. By 1970 the review process still produced increases in 9 percent of the cases—by an average of \$741 per case. Other areas causing concern are the promptness of payments, the equitability of

<sup>9</sup> For fuller discussion of these questions, see Louise B. Russell and Carl J. Schramm, "Three Issues in Compensation Medical Care" (pages 271-353) and Larry Kiser, "The Demand for Rehabilitation in Workmen's Compensation" (pages 363-382), *Supplemental Studies for the National Commission . . .*, volume II, 1973.

<sup>10</sup> Chamber of Commerce of the United States, *The Analysis of Workmen's Compensation Laws*, 1974.

settlements, and the legal costs incurred by workers in pursuing their claims to a successful conclusion.<sup>11</sup>

Attention has also been called to the need for considering the wage loss and medical bills of employees excluded from the protection of workmen's compensation—those without coverage for their type of employment or for the type of injury or disease experienced. Six States still have less than full coverage for disability from occupational diseases.

It is clear that much the larger share of the cost of industrial accidents falls on the worker and his family or on public programs other than workmen's compensation. At the same time, the economic relief provided by employee-benefit plans to some injured workers must be acknowledged. These plans increasingly are being used to supplement the statutory workmen's compensation benefits or pay cash sickness and medical care benefits in cases not covered by workmen's compensation.<sup>12</sup> Even more significant, perhaps, are the benefits payable under the Social Security Act (in addition to workmen's compensation) for injuries resulting in long-term disability or death. For a totally disabled worker, the social security benefit in combination with the workmen's compensation benefit may equal a maximum of 80 percent of his average monthly earnings (as defined in the Act) before he became disabled.

### Benefits in Relation to Payroll

Yearly changes in payroll amounts are an aggregate statistic representing a composite of changes in wage levels and employment. Relating total benefit payments to covered payrolls year by year may thus give some indication of the extent to which benefits have kept pace with: (1) the increasing number of workers covered by workmen's compensation, (2) the rise in wage rates on which cash benefits are based, and (3)

<sup>11</sup> For a study evaluating some of these factors, see Sam B. Barton, *The Use of Workmen's Compensation Statistics as a Measure of Underwriter Performance*, North Texas State University, 1969.

<sup>12</sup> See Donald R. Simpson and Mark S. White, Jr., "Employer Supplementation of State-Required Workmen's Compensation," *Supplemental Studies for the National Commission . . .*, volume I, 1973, pages 289-307.

indirectly, the growing costs of hospitalization and medical benefits.

Table 6 shows that benefits as a percent of payroll started rising in the 1970's after remaining at the same level for most of the 1960's. The rise from 0.62 to 0.67 percent in the rate from 1969 to 1972 is similar in magnitude to that which occurred in the late 1950's and early 1960's.

In determining the extent to which increases in benefit/payroll ratios reflect real improvements in benefits (that is, beyond keeping pace with rising wage levels), the effect of changing work-injury incidence rates must be included. The benefit part of the benefit/payroll ratio is affected by patterns in accident experience as well as statutory changes in benefits and economic changes.

The Bureau of Labor Statistics (BLS) has gathered data on work-injury rates for many years. As noted in table 6, a major new development in injury statistics began with the 1971 data. Under the Occupational Safety and Health Act of 1970, BLS replaced voluntary reporting with a comprehensive mandatory sample survey of nonfarm establishments to ascertain the extent of occupational injury. Systematic data, with uniform standards for record-keeping, are being compiled for the entire private nonfarm sector as well as for specific industries.

The lack of comparability between new and old data has made trend analysis difficult. Nevertheless, the rising injury incidence rates in the latter half of the 1960's for manufacturing may indicate that only part of the recent increase in benefit outlays can be attributed to liberalized laws that outstripped economic changes.

The relationship of benefits to payroll may be seen for individual States in chart 4. In 1972, aggregate benefits as a proportion of current payroll ranged from 0.35 percent in Iowa to 1.31 percent in Arizona. There has been some upward movement in the ratio since 1968 as shown by the fact that four fewer States had ratios of less than 0.50 percent in 1972 than in 1968 and four more States had ratios of at least 0.90 percent. The States west of the Mississippi River tend to have higher ratios than those in the east, with a high-ratio group of contiguous States evident from Washington along the Pacific Coast to the southernmost tier of States through Louisiana.

Benefits as a percent of payroll tend to be stable or move fairly slowly. As seen in the

following tabulation, the number of States experiencing benefit-payroll ratios of 0.70 percent or more has remained between 18 and 24 since 1956. Twenty of the 24 States with benefit-payroll

Year	Number of jurisdictions with benefit/payroll ratios—	
	Below 0.70 percent	0.70 percent or more
1956 <sup>1</sup> .....	32	18
1960.....	31	21
1964.....	28	24
1968.....	31	21
1972.....	28	24

<sup>1</sup> Excludes Alaska and Hawaii

ratios of at least 0.70 percent in 1972 had ratios of at least this same level in 1968. The ratio for 1956 was within 0.1 percentage point of the corresponding 1972 value in 27 of the 50 jurisdictions that could be compared—further evidence of the long-term stability of this measure.

## COST

The total cost of workmen's compensation to employers<sup>13</sup> is made up of several components. In addition to benefit costs (commonly termed "pure premium"), there are the overhead costs (known as "expense loading") of insuring the risk. These costs are reflected in the premium (manual) rates or their "equivalent" that employers pay to insure or self-insure the risk of work injury. These overhead costs include expenses for policy-writing, ratemaking, payroll audit, claims investigation and adjustment, safety inspection, legal services, and general administration. In self-insurance, some of these overhead expenses are eliminated or reduced. In insurance provided by commercial carriers there are additional charges, such as acquisition costs (commissions and brokerage fees), taxes and licenses, and allowances for underwriting profit and gain.

As might be expected, the dollar cost of workmen's compensation in the aggregate has been rising by leaps and bounds almost tripling since 1960 (table 7). In terms of payroll, the relative rise in cost has not been as spectacular, but it has

<sup>13</sup> Except in a few States that require minimal employee contributions—primarily toward the cost of medical care—or that pay supplemental pensions from general revenues, workmen's compensation benefits are entirely employer-financed.

**TABLE 6.—Aggregate benefits as percent of payroll in covered employment and occupational disability incidence rates in manufacturing and in nonfarm private industry, selected years, 1940-72**

Year	Benefits as percent of payroll	Manufacturing average number of—		Nonfarm private industry, average number of—	
		Lost workday cases <sup>1</sup>	Lost workdays per lost workday case	Lost workday cases <sup>1</sup>	Lost workdays per lost workday case
1940.....	.72	15 3	(?)	(?)	(?)
1945.....	.54	19 9	(?)	(?)	(?)
1946.....	.51	17 2	(?)	(?)	(?)
1949.....	.55	14 5	(?)	(?)	(?)
1950.....	.54	14 7	(?)	(?)	(?)
1951.....	.54	15 5	(?)	(?)	(?)
1952.....	.55	14 3	(?)	(?)	(?)
1953.....	.55	13 4	(?)	(?)	(?)
1954.....	.57	11 5	(?)	(?)	(?)
1955.....	.55	12 1	(?)	(?)	(?)
1956.....	.55	12 0	(?)	(?)	(?)
1957.....	.56	11 4	(?)	(?)	(?)
1958.....	.56	11 4	(?)	(?)	(?)
1959.....	.58	12 4	(?)	(?)	(?)
1960.....	.59	12 0	(?)	(?)	(?)
1961.....	.61	11 8	(?)	(?)	(?)
1962.....	.62	11 9	(?)	(?)	(?)
1963.....	.62	11 9	(?)	(?)	(?)
1964.....	.63	12 3	(?)	(?)	(?)
1965.....	.61	12 8	(?)	(?)	(?)
1966.....	.61	13 6	(?)	(?)	(?)
1967.....	.63	14 0	(?)	(?)	(?)
1968.....	.62	14 0	(?)	(?)	(?)
1969.....	.62	14 8	(?)	(?)	(?)
1970.....	.66	15 2	(?)	(?)	(?)
1971.....	.68	4 3	4 13	4 3.7	4 13
1972.....	.67	4 2	15	3 3	14

<sup>1</sup> Per 100 full-time workers, beginning 1971. Data for 1940-70 are the average number of disabling work injuries per million employee-hours worked.  
<sup>2</sup> Not available. Before 1971, series for manufacturing related days lost to hours worked among all workers.  
<sup>3</sup> Beginning 1968, series based on revised Standard Industrial Classification Manual. Comparable 1958 figure under earlier series was 10 8.  
<sup>4</sup> Data for July-December.  
 Source: Work-injury rates from published and unpublished data of the Bureau of Labor Statistics.

been consistently upward. From the low of 89-92 cents per \$100 of payroll that prevailed in the late 1950's, the cost reached 1.00 percent of payroll in covered employment in 1964-65, 1.07 percent in 1967-68, and 1.12 percent in the past 3 years. The most recent rates, however, are still below the 1.19 percent rate of 1940, reflecting to some degree the failure of benefit maximums to keep pace with the rapidly rising wages of the post-war period.

The wide differences that exist among individual employers are, of course, hidden by these overall cost ratios. The major factors in the differences are the employer's industrial classification and the hazards of the industry as modified by experience rating. In industries characterized by clerical operations, insurance rates may be less than 0.1 percent of payroll; in very hazardous occupations they may be as high as 20.0 percent or more.

Costs vary not only from one industry to an-

other but also from one State to another, as might be anticipated from the State differences noted in aggregate benefit-payroll ratios. Policy-year data for 1970 from the National Council on Compensation Insurance show that earned premiums as a proportion of insured payrolls ranged from 0.6 percent in Pennsylvania to 3.0 percent in Louisiana; the national average was about 1.3 percent. Almost two-fifths of the States, with a little over one-fourth of the insured payroll, had rates of 0.8-1.1 percent, and only 3 had rates lower than 0.8 percent. One-third of the States—with about two-fifths of total payroll—had rates of 1.6 percent or more including six with rates of 2.0 percent or more. The distribution of States is similar to that reported for policy years 1962 and 1966 except that a few less States had rates of 1.6 percent or more in each of the earlier periods.

It should be emphasized that the variation in these ratios, like that for benefits to payrolls, is due to a multiplicity of factors, none of them easily separable. Two major factors are, of course, the differences in State statutory benefit provisions and in State-by-State industrial composition. A National Commission study<sup>14</sup> has attempted to adjust for industry differences and thus allow a measure of interstate variation that reflects more closely differences in statutory benefit provisions. The study showed that the average cost of 45 occupational classifications for 1972, weighted by national payroll distribution, ranged (among the 42 States examined) from 0.385 in Indiana to 1.491 in Oregon.

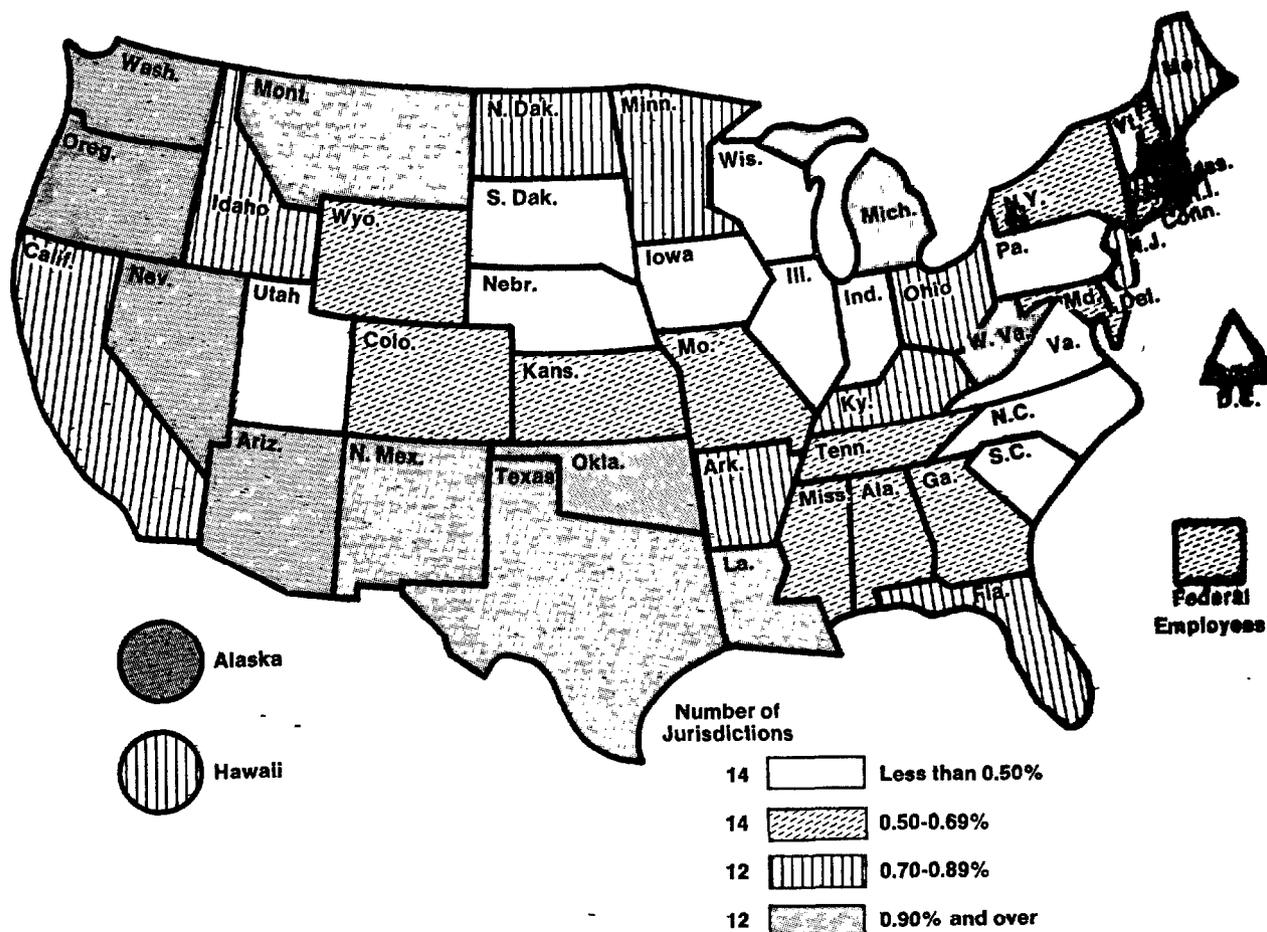
Interstate cost differences also are affected by expense-loading variations. These, in turn, are influenced by premium tax rates, population density, and the extent to which premiums are used to meet acquisition costs and other administrative expenses, under the various methods by which the compensation liability is incurred.

### Loss and Expenses Ratios

When benefits paid, as shown in table 4, are compared with the premium costs in table 7, a

<sup>14</sup> Nancy L. Watkins and John F. Burton, Jr., "Employers' Costs of Workmen's Compensation," *Supplemental Studies for the National Commission* . . . , volume II, 1973, page 235.

CHART 4.—Total benefits as a percent of payrolls in covered employment, by jurisdiction, 1972



rough indication of the proportion of the premium dollar that reaches the injured worker is obtained. In 1972, for every \$1 spent by employers to insure or self-insure their work-injury risks, 60 cents was paid for medical and cash benefits. This ratio has hovered at 59-61 percent since 1970 after dropping from 65 percent in 1959 to 58 percent in 1969.<sup>15</sup>

The ratio of benefits paid during the year to insurance costs for the same year—termed the “loss ratio” by the industry—is subject to considerable misinterpretation. In the first place, the overall ratio conceals sharply varying ratios that result from differences in the insurance mechanisms. Thus, for self-insurers and for the Federal

employees’ system, the ratio is 90-95 percent because the cost is figured on the basis of payments during the year plus administrative expenses. For participating (dividend-paying) carriers—primarily mutual companies—and for some State funds, the ratio is lower than it would be if dividends could be taken into account. That is, the cost to employers insured by these carriers is overstated to the extent that part of their premiums may later be returned in the form of dividends.

For all private carriers and State funds, moreover, a loss ratio based on losses (benefits) paid during the year is lower than one based on losses (benefits) incurred. This difference is especially great when insured payrolls are rising rapidly. The large amounts of premium income that must be set aside to cover liabilities for future payments may be considerably higher than the

<sup>15</sup> Beginning in 1970, these ratios have been calculated after excluding the publicly financed benefits from table 4 data—black lung benefits and pension supplements financed through general revenue.

TABLE 7.— Estimated costs of workmen's compensation to employers as percent of payroll in covered employment, selected years, 1940-72

Year	Amount <sup>1</sup> (in millions)	Percent of payroll
1940	\$421	1 19
1946	726	.91
1948	1,013	.96
1949	1,009	.98
1950	1,013	.89
1951	1,185	.90
1952	1,333	.94
1953	1,483	.97
1954	1,499	.98
1955	1,532	.91
1956	1,666	.92
1957	1,784	.91
1958	1,746	.91
1959	1,869	.89
1960	2,055	.93
1961	2,156	.95
1962	2,323	.96
1963	2,510	.99
1964	2,713	1 00
1965	2,908	1 00
1966	3,279	1 02
1967	3,655	1 07
1968	4,034	1 07
1969	4,460	1 08
1970	4,894	1 12
1971	5,193	1 12
1972	6,764	1 12

<sup>1</sup> Premiums written by private carriers and State funds and benefits paid by self-insurers increased by 5-10 percent to allow for administrative costs. Also includes benefit payments and administrative costs of Federal system. Where necessary, fiscal-year data converted to calendar-year data. Before 1959, excludes Alaska and Hawaii.

amount paid during the year in cases continued from earlier years when wages and compensation rates were lower.

### Private Carriers

The extent of the difference in the loss ratios computed by two methods is shown in table 8. Relating losses paid to direct premiums written produces an average loss ratio of 52.9 percent for private carriers for 1950-72. The loss ratio is 63.7 percent when losses incurred are related to premiums earned.<sup>16</sup> The largest yearly differences between the two ratios are registered when the upward trend in business and payrolls is most pronounced. During the early 1950's and the period since 1966, annual differences of more than 10 percentage points prevailed. When economic growth slackened in the late 1950's and much of the early 1960's, the differences were considerably below 10 percentage points. The difference between the ratios in 1972 was almost 18 percentage points, the largest spread beginning with 1950.

<sup>16</sup> Premiums earned differ from premiums written in that adjustment is made for the unexpired portion of policies at the end of the calculation period.

The bulk of workmen's compensation private insurance policies are sold through stock or mutual companies. Table 9 summarizes the experience of these companies in underwriting workmen's compensation.

Comparing the ratios of benefits and expense to premiums must be made with caution, since the mode of operation of stock and mutual companies is different. Nonparticipating stock companies, for example, distribute profits among their stockholders, but the bulk of the profits of mutual companies is returned to policyholders as dividends—in essence the difference between the anticipated and actual cost of insurance. Recent data on the amount of dividends returned to policyholders have been published by the National Council on Compensation Insurance in its *Insurance Expense Exhibit*. These dividends as a percentage of earned premiums, by type of company, were:

Calendar year	Stock	Mutual
1971	5.6	18.8
1972	5.3	18.4

If the data in table 9 were adjusted to allow for dividends, the loss ratios for 1972 would be increased by 3.9 percentage points for stock companies and by 10.5 points for mutual companies. Similarly, expense ratios—the ratios of expenses to premiums—would be higher by 1.7 points for stock companies and by 4.1 points for the mutuals. These adjustments make the loss and expense ratio experience of stock and mutual companies very similar.

Even without adjustments for dividends, the average loss ratios of mutual and stock companies for the period 1969-72 are not far apart. Stock companies earned \$9.6 billion in premiums and they paid to claimants, or reserved for future payments, \$6.4 billion—for a loss ratio of 66.5 percent. Mutual companies earned \$3.9 billion in premiums and incurred losses of \$2.6 billion, for a ratio of 65.1 percent. In line with the pattern revealed in table 8, these loss ratios are somewhat higher than those registered in previous years.

Stock companies have generally found the workmen's compensation line less profitable than mutual companies have. During 1969-72, stock

TABLE 8.—Comparative ratios of benefits to premiums, private carriers, 1950-72<sup>1</sup>

(Amounts in millions)

Year	Direct premiums written in relation to losses (benefits) paid <sup>2</sup>			Premiums earned in relation to losses (benefits) incurred <sup>3</sup>		
	Direct premiums written <sup>4</sup>	Direct losses paid	Loss ratio	Premiums earned <sup>4</sup>	Losses incurred	Loss ratio
<b>Total..</b>	<b>\$43,812 2</b>	<b>\$23,186 9</b>	<b>52 9</b>	<b>\$41,388 7</b>	<b>\$26,331 7</b>	<b>63 7</b>
1950.....	721 5	381 3	52 8	696 6	427 7	61 4
1951.....	844 5	444 4	52 6	789 9	518 5	65 6
1952.....	956 3	491 0	51 3	903 7	371 9	63 3
1953.....	1,074 1	524 2	48 8	1,010 6	605 4	59 9
1954.....	1,067 3	540 5	50 6	1,010 8	561 4	55 5
1955.....	1,078 4	582 5	52 6	1,027 9	594 3	57 8
1956.....	1,152 8	618 1	53 6	1,103 4	649 3	58 8
1957.....	1,234 1	660 9	53 6	1,173 5	706 7	60 2
1958.....	1,235 0	694 4	56 2	1,193 9	746 6	62 5
1959.....	1,322 5	752 6	56 9	1,271 4	821 7	64 6
1960.....	1,452 3	809 9	55 8	1,367 9	874 2	63 9
1961.....	1,530 9	850 9	55 6	1,434 0	930 8	64 9
1962.....	1,651 1	924 0	56 0	1,562 6	982 1	62 8
1963.....	1,782 3	987 6	55 4	1,671 3	1,071 7	64 1
1964.....	1,924 8	1,069 6	55 6	1,827 8	1,153 4	63 1
1965.....	2,074 4	1,124 0	54 2	1,966 6	1,236 4	62 9
1966.....	2,366 4	1,239 1	52 4	2,229 4	1,412 8	63 4
1967.....	2,640 2	1,362 9	51 6	2,500 4	1,584 7	63 4
1968.....	2,940 0	1,481 6	50 4	2,796 9	1,727 2	61 8
1969.....	3,255 0	1,641 0	50 4	3,089 9	1,930 3	62 5
1970.....	3,578 4	1,843 3	51 5	3,356 5	2,124 3	63 3
1971.....	3,749 3	2,004 5	53 5	3,516 3	2,396 3	68 1
1972.....	4,180 6	2,178 6	52 1	3,887 4	2,704 0	69 6

<sup>1</sup> Before 1959, excludes Alaska and Hawaii

<sup>2</sup> Data for 1950-58 from *Spectator Insurance by States of Fire, Marine, Casualty, Surety and Miscellaneous Lines*, annual issues. Data for 1959-66 compiled from published and unpublished reports of the State insurance commissions. Beginning 1967, data from A. M. Best Co.

<sup>3</sup> From National Council on Compensation Insurance, *Insurance Expense Exhibit (Countrywide)*, annual issues.

<sup>4</sup> Excludes premium discounts and retrospective adjustments but not dividends.

companies earned an underwriting profit of 3.5 percent of premiums and mutual companies averaged a gain of 9.6 percent from underwriting. These averages are lower than those for the immediately preceding 4 years because of the 1971 and 1972 experience, which showed a dramatic drop in net gain ratios.

What represents profitability in the workmen's compensation field can be presented through different measures. The preceding data on underwriting gains, for example, do not include investment income. According to the *Insurance Expense Exhibit*, net investment income was 4.7 percent of premiums earned by stock companies in 1972 and 6.4 percent of mutual company premiums. If these amounts are added to premium income, mutual companies show a net gain from 1972 operations of 11.2 percent and stock companies, 3.7 percent. If, on the other hand, dividends to policyholders are subtracted before determining profitability, both the stock and mutual companies report a net loss in 1972 of 1.4 percent. The latter

result obviously reflects the greater policyholder dividends paid by the mutuals.

A study by the National Commission covering a longer period, 1961-70, and taking into account both dividends payable and investment income, realized and unrealized capital gains, and other income shows the mutual and stock companies in a different relative position.<sup>17</sup> Under these terms, the ratio of before-tax profits to earned premiums (after deduction of dividends) becomes 10.8 percent for stock companies—1.83 times as large as the mutual profit rate of 5.8 percent. The study found that mutual insurers rely upon investment income to a much greater extent than do stock insurers and that stock companies realize a greater profit from capital gains. In any event, both the *Insurance Expense Exhibit* and the National

<sup>17</sup> See Bernard L. Webb, W. Ray Bagwell, and Bruce A. Palmer, "The Profitability of Workmen's Compensation Insurance," *Supplemental Studies for the National Commission . . .*, volume III, pages 216-454.

TABLE 9.—Countrywide workmen's compensation experience of stock and mutual companies, 1939-72

(Amounts in thousands)

Year	Premiums earned	Losses (benefits) incurred	Loss ratio	Expenses incurred	Expense ratio	Net gain ratio <sup>1</sup>
<b>Stock companies<sup>2</sup></b>						
1939-47, total <sup>3</sup> .....	\$1,934,554	\$1,110,676	57 4	\$733,512	37 9	4.7
1948-56, total <sup>3</sup> .....	3,920,104	2,318,171	59 1	1,403,189	35 8	5 1
1957-64, total <sup>3</sup> .....	6,131,817	3,924,643	64 0	2,119,200	34 6	1 5
1965-68, total <sup>3</sup> .....	6,217,537	3,936,791	63 3	1,648,892	31 3	5 4
1969-72, total.....	9,576,112	6,367,446	66 8	2,872,614	30 0	3 5
1969.....	2,068,226	1,299,447	62 8	619,701	30 0	7 2
1970.....	2,291,249	1,449,672	63 3	682,192	29 8	6 9
1971.....	2,454,414	1,675,246	68 3	727,870	29 7	2 0
1972.....	2,762,223	1,942,681	70 3	842,851	30 5	- 5
<b>Mutual companies<sup>2</sup></b>						
1939-47, total <sup>3</sup> .....	\$1,200,334	\$684,948	57 1	\$273,267	22 8	20 1
1948-56, total <sup>3</sup> .....	2,614,500	1,535,125	58 6	626,992	24 0	17 4
1957-64, total <sup>3</sup> .....	3,421,181	2,140,766	62 6	891,391	26 1	11 3
1965-68, total <sup>3</sup> .....	2,979,624	1,846,522	62 0	759,943	25 5	12 5
1969-72, total.....	3,926,109	2,556,717	65 1	991,898	25 3	9 6
1969.....	940,320	579,225	61 6	232,968	24 8	13 6
1970.....	979,212	617,910	63 1	235,238	24 0	12 9
1971.....	976,915	660,577	67 6	249,892	25 6	6 8
1972.....	1,029,662	699,005	67 9	273,800	26 6	5 5

<sup>1</sup> Net gain ratio represents ratio before dividends to stockholders and policyholders and investment income

<sup>2</sup> Annual figures previously published in the articles on workmen's compensation that appeared in the *Social Security Bulletin*, March 1954, August 1958, October 1966, and October 1970.

<sup>3</sup> All figures disregard dividends to policyholders, which if taken into consideration result in higher loss ratios and expense ratios.

Source. Data for 1939-64 compiled from Annual Reports of the New York State Insurance Department and from the Annual Casualty-Surety Editions of the *Eastern Underwriter* and refer to countrywide business of private carriers operating in the State of New York (representing about 80 percent of all business underwritten for United States employers by insurance companies). Data for 1965-72 are from annual issues of National Council on Compensation Insurance, *Insurance Expense Exhibit (Countrywide)* and refer to countrywide business of all private carriers operating in the United States.

Commission data show wide fluctuations in underwriting gain ratios and profit ratios over time.

Over the years the gap between expense ratios of stock and mutual companies has narrowed. During 1939-47, the expense ratio for stock companies averaged 37.9 percent and has been dropping ever since. Conversely, the expense ratio for mutual companies averaged 22.8 percent in 1939-47 and higher ratios have been registered since then. The difference would be less if dividends were taken into account.

Acquisition cost differences have also narrowed. For nonparticipating stock companies, acquisition and field supervision costs dropped from 17.4 percent of premiums earned in 1950 to 12.4 percent in 1972, at the same time that those of mutual companies remained about 7 percent of earned premiums (table 10).

### State Funds

For competitive and exclusive State funds the ratios of benefits to premiums or contributions are considerably higher than they are for the private carriers. Table 11 shows that, for 1950-72, benefits paid amounted to 70.7 percent of the premiums written for the 18 State funds—19 percentage points greater than the corresponding ratio for private carriers shown in table 8. This difference, although it ranged from 11 percentage points in 1956 to 22 points in 1962, has fluctuated narrowly between 17 and 19 points throughout most of the years.

The loss ratios shown in table 11 are not strictly comparable, however, with those reported for private carriers in table 8. First, the premium income of State funds is more likely than that of private carriers to reflect anticipatory dividends or advance discounts on the manual rates charged standard risks. For private carriers, especially mutual companies, the difference between the anticipated and the actual cost of insurance is usually reflected in ex post facto dividends returnable to policyholders—an item not taken into account in table 8. Second, the premium charges of some State funds do not always cover allowances for certain items included in the premium charges of private carriers—maintenance of certain reserves, for example, administrative and legal services financed through public appro-

TABLE 10.—Administrative expenses incurred as percent of net premiums earned, by category of expense and by major type of private carrier, selected years, 1950-72

Year	Expenses incurred as percent of net premiums earned <sup>1</sup>						
	Total	Investigation and adjustment of claims	Acquisition, field supervision, and collection expenses <sup>2</sup>	Taxes, licenses, and fees	Safety inspection and engineering	Payroll audit	Other <sup>3</sup>
Nonparticipating stock companies							
1950.....	40 9	10 3	17 4	3 8	1 6	2 7	5 1
1955.....	36 5	8 7	15 8	3 5	1 4	2 3	4 8
1960.....	36 9	9 4	15 4	3 6	1 2	1 9	5 4
1965.....	34 6	8 9	14 5	3 7	1 1	1 4	5 0
1966.....	33 2	8 7	14 0	3 6	1 0	1 3	4 7
1967.....	32 9	8 6	13 7	3 7	1 0	1 2	4 7
1968.....	31 4	8 2	12 7	3 7	9	1 1	4 7
1969.....	31 4	8 5	12 5	3 7	1 0	1 1	4 6
1970.....	30 9	8 5	12 0	3 8	1 0	1 0	4 6
1971.....	30 8	8 4	11 8	4 0	8	8	5 0
1972.....	32 3	8 8	12 4	4 2	(*)	(*)	6 9
Participating stock companies							
1950.....	28 6	8 2	11 5	2 4	1 1	1 1	4 3
1955.....	28 3	7 9	11 9	2 3	1 0	.9	4 3
1960.....	26 8	8 3	11 0	2 3	7	.6	3 9
1965.....	25 1	8 1	9 9	2 3	.7	.6	3 5
1966.....	25 0	8 1	9 6	2 6	.6	.5	3 4
1967.....	25 1	8 0	9 4	2 5	.7	.6	3 9
1968.....	24 1	7 6	8 2	2 7	7	.5	4 3
1969.....	24 1	7 5	8 4	2 7	7	.5	4 3
1970.....	25 2	8 7	8 4	2 8	.6	.6	4 1
1971.....	25 4	8 7	8 6	2 9	6	6	4 0
1972.....	25 8	8 4	8 6	3 5	(*)	(*)	5 3
Mutual companies							
1950.....	25 0	8 0	7 4	3 1	2 3	1.2	3 0
1955.....	25 0	7 7	7 5	2 8	2 3	1.1	3 6
1960.....	25 6	8 3	7 4	3 0	2 2	1.0	3 7
1965.....	26 6	8 9	7 4	3 5	2 1	1.0	3 7
1966.....	25 5	8 5	7 2	3 5	1 9	.9	3 4
1967.....	25 4	8 5	7 2	3 6	1 8	.9	3 3
1968.....	24 8	8 0	7 0	3 6	1 8	1.0	3 4
1969.....	24 8	8 2	6 8	3 9	1 7	.9	3 3
1970.....	24 0	8 1	6 4	3 6	1 8	.9	3 2
1971.....	25 6	8 8	6 4	4 0	1 8	1 0	3 6
1972.....	26 6	9 0	6 9	4 3	(*)	(*)	6 4

<sup>1</sup> Net premiums earned excludes premium discounts and retrospective adjustments but not dividends

<sup>2</sup> Includes commission and brokerage expenses

<sup>3</sup> Includes general administration and rating bureau expenses, 1972 data include safety inspection and payroll audit costs

<sup>4</sup> Included in "other"

Source: National Council on Compensation Insurance, *Insurance Expense Exhibit (Countrywide)*, annual issues.

priations or provided by other government departments, and taxes and other special assessments. Third, benefit outlays for the State funds reflect the fact that the States generally insure an undue proportion of the high-hazard undesirable risks, since private carriers are reluctant to insure many of them. These factors combine to increase the loss ratio for State funds.

Since competitive State funds spend a very small proportion of premiums for business-getting

TABLE 11.—Benefit payments and administrative expenses in relation to premiums written, 18 State funds, 1950-72<sup>1</sup>

[Amounts in millions]

Year	Premiums written <sup>2</sup>	Benefits paid <sup>3</sup>		Administrative expenses <sup>4</sup>	
		Amount	Percent of premiums	Amount	Percent of premiums
1950-63, total.....	\$4,222.3	\$3,053.2	72.3	\$388.4	9.2
1950.....	172.1	126.7	73.6	16.5	9.6
1951.....	204.9	140.9	68.3	18.6	9.1
1952.....	228.6	158.3	69.2	20.4	8.9
1953.....	250.1	170.4	68.1	21.9	8.8
1954.....	265.9	183.2	68.9	24.1	9.1
1955.....	279.6	192.6	68.9	24.4	8.7
1956.....	324.3	207.5	64.6	26.0	8.0
1957.....	300.8	216.7	72.0	26.3	8.7
1958.....	302.4	225.9	74.7	29.6	9.8
1959.....	328.4	247.6	75.4	31.2	9.5
1960.....	366.9	266.0	72.5	33.6	9.2
1961.....	370.7	287.0	77.4	36.0	9.7
1962.....	394.8	307.8	78.0	38.4	9.7
1963.....	432.8	320.6	74.1	41.4	9.6
1964-72, total.....	5,676.2	3,941.6	69.4	703.1	12.4
1964.....	469.8	337.4	71.8	67.9	12.3
1965.....	493.9	351.3	71.1	61.3	12.4
1966.....	531.9	374.2	70.4	66.0	12.4
1967.....	591.8	394.6	66.7	68.9	11.6
1968.....	621.7	415.4	66.8	76.4	12.3
1969.....	664.2	450.2	67.8	81.5	12.3
1970.....	698.9	487.1	69.7	87.8	12.6
1971.....	766.4	539.2	70.4	96.5	12.6
1972.....	837.6	592.2	70.7	106.8	12.8

<sup>1</sup> For some States, fiscal-year data converted to calendar-year data

<sup>2</sup> Disregards dividends to policyholders but allows for premium discounts

<sup>3</sup> Excludes payment of supplemental pensions from general revenues

<sup>4</sup> Excludes loss-adjustment expenses for certain competitive State funds before 1964. Includes administrative expenses financed through appropriations from general revenue, generally not separable

Sources: *Spectator, Insurance by States*, annual issues, *Argus Casualty and Surety Chart*, annual issues; and State reports

and exclusive State funds spend practically nothing, the lower expense ratios of State funds are to be expected. The expense ratios for State funds have been very stable, with the value in any year deviating from the 12.4-percent average for 1964 to 1972 by less than one percentage point. The jump in the levels from the 9.2 percent average rate that characterized the period 1950-63 is primarily due to inclusion of new information on loss-adjustment expenses of some competitive State funds.

The expense ratios of competitive funds are considerably higher than those of exclusive funds. For the period 1964-72, exclusive funds devoted, on the average, 6.3 percent of premiums to expenses and competitive funds 17.2 percent. These ratios do not vary significantly from year to year. Several factors account for the difference between exclusive and competitive State funds. Not only do competitive fund expenses reflect the presence of selling costs and assessments paid to State workmen's compensation regulatory agencies, but there is some evidence that proportion-

ately more of the competitive funds than of the exclusive funds offer safety programs and other related services that add to their costs.<sup>18</sup>

Comparison of the expense ratios of State funds and private carriers must, like comparison of their loss ratios, be made carefully. In their expense loading, private carriers include certain charges, noted above, that not all State funds are required to meet out of their premium income—taxes, for example, and those administrative expenses absorbed by other government departments. In addition, private carriers generally provide special consultative services in the fields of accident prevention, rehabilitation, payroll auditing, program planning, and merit rating that may be inadequately furnished by State funds.

The magnitude of such services is indicated by the data in table 10. Taxes, licenses, and fees, for example, generally take 2-4 percent of premiums; inspection and safety engineering, 1-2 percent; and payroll auditing, 1-2 percent. Some State funds, however, would have a lower expense ratio than indicated if the premium volume were adjusted to include the amounts from general revenues for operations.

### State Administrative Costs

Expenditures of State administrative agencies for supervising the operations of the insurance carriers and in exercising adjudicative and enforcement powers to ensure compliance with the law represent another item in the total cost of workmen's compensation. For fiscal year 1972, these administrative costs totaled \$65.1 million for the District of Columbia and the 40 States with available data (table 12).

Not all of this amount, however, represents a cost in addition to that paid by employers, as shown in table 7. In 22 States, expenses totaling \$42.2 million were financed in fiscal year 1972 through assessments against the insurance mediums and were already reflected in the premium charges of carriers to employers. Only where administrative expenses were financed through appropriations from the general treasury (18 States and the District of Columbia) did such

<sup>18</sup> C. Arthur Williams, Jr., *Insurance Arrangements Under Workmen's Compensation*, Department of Labor (Bulletin No. 317), 1969.

TABLE 12.—Administrative costs of State agencies by method of financing, 1950-72<sup>1</sup>

[Amounts in millions]

Fiscal year	Total administrative costs	Financed through legislative appropriations		Financed through assessments on carriers	
		Amount	Percent	Amount	Percent
1950	\$12 4	\$4 6	37	\$7 8	63
1951	12 9	4 8	37	8 1	63
1952	14 1	5 1	36	9 0	64
1953	15 5	5 3	34	10 2	66
1954	16 1	5 6	35	10 5	65
1955	16 7	5 8	35	10 9	65
1956	17 3	6 0	35	11 3	65
1957	19 1	6 5	34	12 6	66
1958	21 1	7 4	35	13 7	65
1959	23 3	7 7	33	15 6	67
1960	23 9	8 1	34	15 8	66
1961	24 9	8 7	35	16 2	65
1962	26 3	9 3	35	17 0	65
1963	28 8	10 6	37	18 2	63
1964	30 1	10 8	36	19 3	64
1965	32 3	12 1	37	20 3	63
1966	35 6	13 3	37	22 3	63
1967	40 4	15 2	38	25 2	62
1968	43 6	16 0	37	27 6	63
1969	49 1	18 8	39	30 3	62
1970	53 9	20 0	37	33 9	63
1971	58 5	20 4	35	38 1	65
1972	65 1	22 9	35	42 2	65

<sup>1</sup> Includes the District of Columbia. Excludes the States with exclusive funds (7 States through 1965, 6 States thereafter), where the task of administering the law is generally merged with that of providing insurance protection. Also excludes the Federal system, 4 States where the laws are court-administered, and before 1960, Alaska and Hawaii. Relates to expenditures of State administrative bodies in supervising the operations of insurance carriers and in exercising adjudicative and enforcement powers.

Source: Compiled from State budget, finance, and treasury documents and annual reports of State administrative agencies.

expenses (\$22.9 million) represent a cost of workmen's compensation additional to the premium charges. In recent years, the proportion of administrative expenditures met through the two methods of financing has remained relatively constant.

State administrators prefer to have workmen's compensation costs financed through assessments rather than legislative appropriations. This method provides funds on a regular and predictable basis with less need to compete with other State agencies for public funds. As indicated by the following figures, State workmen's compensation agencies financed through assessments are apt to have more money available to administer the program in relation to benefits paid: Administrative expenses as percent of benefits paid in 1972 equaled 3.2 percent in the States financed through assessments and 1.6 percent in the other States.

## SUMMARY

The single most notable advance in workmen's compensation protection in the 1970's has been

the advent of the Federal "black lung" benefits program for coal miners and their survivors. About 300,000 beneficiaries received monthly black lung benefits at the end of 1972, and \$554 million black lung payments were made during 1972.

If black lung benefits are subtracted from the \$4,029 million paid in workmen's compensation benefits during 1972, the remaining \$3,475 million continues to be distributed as it has been for a number of years. Private carriers accounted for 63 percent of benefits paid in 1972, State funds 23 percent, and self-insurers 14 percent. Medical benefits accounted for more than one-third of the total paid, a slight increase over the ratio prevailing in earlier years.

In the past few years, statutory improvements in State coverage and benefit provisions have been widespread—the result, in part, of the attention focused on workmen's compensation by the National Commission on State Workmen's Compensation Laws.

Since 1965, in the area of coverage, 12 States shifted from elective to compulsory protection and 13 States removed all numerical size-of-firm exemptions. About a dozen States also extended some coverage to farm workers. Most of these extensions have not yet been fully reflected in the available data. Only limited changes in the proportion of the labor force covered by workmen's compensation, therefore, were registered up to 1972, when the ratio nationally was about 84 percent and the number of workers covered was about 62 million. Nevertheless, an appreciable number of States recorded increases in coverage ratios between 1968 and 1972. The number of jurisdictions with coverage of 85 percent or more rose from 15 to 20, and the number with less than 70 percent coverage dropped from 15 to 11 during this period.

In the area of wage-replacement protection, from 1969 to 1973 the statutory proportion of weekly wage to be replaced during temporary total disability was raised by 13 jurisdictions. A total of 43 had formulas providing a wage-replacement rate of at least 65 percent. Mainly through the adoption of "flexible" maximum weekly benefit provisions, by the end of 1973, 21 jurisdictions (in contrast with five at the end of 1969) had weekly maximums high enough to permit a worker with average wages to receive the wage-replacement rate called for in the statu-

tory formula. Nationwide, an average worker without dependents could expect to receive a weekly benefit equal to 57 percent of the nationwide average weekly wage. This proportion is an improvement over the 53 percent calculated for 1969, but the 1973 ratio is still far below the statutory rate of two-thirds specified in most States. In 13 States the average worker would receive less than 50 percent of the average State wage, and in 10 States the average worker would receive 50–60 percent.

These ratios are considerably lower when the effects of waiting-period requirements are taken into consideration. Nationwide, a single worker disabled for 3 weeks at the end of 1973 would have 46 percent of his lost wages replaced with the waiting-period provisions taken into account. This ratio, however, does represent an improvement over the 44 percent calculated for 1969. By 1973, 15 States had either reduced the period that must elapse after the injury date before benefits begin or had shortened the required disability duration before benefits may be paid retroactively for the waiting period.

Benefits for permanent disability and death, on the average, provide even lower rates of wage replacement than those for temporary disability because of limitations on duration or aggregate dollar amount of benefits commonly found in the laws. Nevertheless, benefit improvements have taken place. The number of jurisdictions that pay

permanent total disability benefits for life or the duration of disability has grown from 33 in 1969 to 39 in 1973. Similarly, the number of States that limit the duration of death benefits to widows dropped from 27 in 1969 to 19 in 1973.

The costs of providing workmen's compensation, as a percent of payroll, have risen since 1959, reflecting benefit improvements among other factors. In 1972, employers paid \$1.12 in premiums for every \$100 in payroll, 5 cents more than in 1968, and 23 cents more than in 1959 when costs began rising.

For private carriers, the loss ratio—benefits incurred as percent of earned premiums—was 70 percent in 1972, a reversal of the slowly declining trend of the 1960's when the ratio dropped to 62 percent in 1968. In terms of cash outflow, however, the upturn in the ratio of losses paid to premiums written was not pronounced. This ratio has also been rising for State insurance funds since 1969. The loss ratio for private carriers therefore continued to be lower than that for State funds (about 17–18 percentage points), although adjustment for differences in the method of calculation would reduce the gap. The proportion of premiums that go for administrative expenses—the expense ratio—is still an important element accounting for the difference. During 1969–72, expense ratios averaged 30 percent for stock companies, 25 percent for mutual companies, and less than 13 percent for State funds.