

# New Benchmarks in Workmen's Compensation

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WORKMEN'S compensation, which is designed to compensate occupationally injured workers and their families for wage loss and medical expenses, regardless of fault or blame, is the oldest form of social insurance in the United States. 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 by 10 States in 1911; by 1920, all but six States had such laws. Today every State operates a workmen's compensation program. In addition, there are Federal workmen's compensation programs covering not only Federal Government employees, but also private employees in the District of Columbia and longshoremen and harbor workers.

Despite its earlier beginnings, statistics for workmen's compensation are not as complete or as highly developed as those for other social insurance programs. Even today about a score of States fail to publish such basic data as the amount of benefits paid, by type of insurer or by type of benefit, and about 35 States have no data on the number of covered workers or the amount of covered payrolls. The problem of collecting nationwide data is further complicated by the fact that the State workmen's compensation laws differ materially in the scope of coverage, benefit provisions, administrative and legal provisions, and, most importantly, the insurance mechanism used to underwrite the risk.

Most States require subject employers either to carry insurance against work accidents with private insurance companies that are approved by the State insurance department or to give proof of ability to carry their own risk (self-insurance). Seven States, however, require insurance with an "exclusive" State fund (in two of the seven, the employer may instead self-insure), and 11 have a State fund that is "competitive" with private insurance carriers. Federal employees are protected through a federally financed and operated system.

The Division of Program Research, recognizing the need for information on the experience and op-

erations of the workmen's compensation programs, devised methods in 1942 for estimating the amount of benefits paid under each of the Federal and State laws<sup>1</sup> and began publishing annual estimates (in 1961 and 1962, in the January BULLETIN). The Division developed a methodology for estimating coverage in 1950<sup>2</sup> and cost estimates and further measures of the scope and adequacy of the program in 1954.<sup>3</sup> In 1958 many of these benchmarks were further refined and consolidated in continuous series going back to 1948 or 1950.<sup>4</sup> The present article brings up to date the various benchmarks used in evaluating the program and places special emphasis on methods of measuring interstate variations in the adequacy of benefits.

## COVERAGE

The measure of coverage under the workmen's compensation programs developed by the Division of Program Research is comparable with that used for other social insurance programs. This measure is in terms of the number of workers in covered employment in a specific period, such as an average month in the year.

The basic method employed in deriving these estimates consists of building up a covered workmen's compensation payroll figure for each State. These figures are then 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>5</sup>

The primary source of payroll data is the National Council on Compensation Insurance, to which such data are reported for ratemaking purposes by

<sup>1</sup> Michalina M. Libman, "Workmen's Compensation Benefits in the United States, 1939 and 1940," *Social Security Bulletin*, January 1942.

<sup>2</sup> Dorothy McCamman, "Workmen's Compensation: Coverage, Premiums, and Payments," *Social Security Bulletin*, July 1950.

<sup>3</sup> Dorothy McCamman and Alfred M. Skolnik, "Workmen's Compensation: Measures of Accomplishment," *Social Security Bulletin*, March 1954.

<sup>4</sup> Alfred M. Skolnik, "Trends in Workmen's Compensation: Coverage, Benefits, and Costs," *Social Security Bulletin*, August 1958.

<sup>5</sup> For a detailed description of the methodology, see the *Bulletin*, July 1950, pages 4-5, and August 1958, pages 4-6.

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eight competitive State funds and by private insurance companies in 41 States and the District of Columbia. These payroll data, which are compiled for policy years, are converted into calendar-year data and then supplemented by estimates of payrolls for self-insurers and for other State funds obtained from State administrative agencies and various other sources.

The estimates have been made only for specific benchmark years—1940, 1946, 1953, and 1957. The year 1957 is the latest full calendar year for which private carrier payroll estimates could be computed for all States. This time lag is inevitable since the data obtained are based on 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. The benchmark data are useful, however, in providing a basis for estimating coverage in the intervening and succeeding years. For each State the estimated average monthly number of covered workers in 1957 was projected to 1960, on the basis of the percentage change in average monthly employment covered under unemployment insurance programs, with adjustments where necessary for changes in coverage provisions of the laws.

The private carrier payroll estimates for 1957 are more refined than those for previous benchmark years because of new procedures developed in estimating total payrolls in those States where the insurance is limited to part of the payroll. In many jurisdictions, the earnings of individual workers above \$100 a week are not reported for premium computation purposes. In a few States there is no limitation or the limit has been raised to \$300 a week, which for all practical purposes means no limit.

The National Council on Compensation Insurance generously agreed to compute an adjustment factor for each State with a \$100 limitation. When the reported payroll is divided by this factor, a payroll estimate on an unlimited basis is produced. Factors were furnished for all the States for which the Council compiles data except Arizona, New York, and Texas. For these States the Division of Program Research estimated the adjustment factors on the basis of Council data for States of similar industrial composition and geographic location.

It should be emphasized that workmen's compensation coverage estimates produced by this method include only employees of firms that actually carry insurance or that submit the required financial

proof of ability to self-insure.<sup>6</sup> In practically every State, additional employers are "subject" to the law but reject its provisions (if the law is elective) or fail to carry the necessary insurance or qualify as self-insurers (if it is compulsory). When such employers are excluded from the estimates, the coverage figures produced represent only employees who have assurance that benefits will be paid without having to initiate court action—an important attribute of workmen's compensation legislation.

The estimates include, however, those employers who voluntarily come under a State workmen's compensation law by taking out insurance or qualifying as a self-insurer. 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 American merchant marine, who are covered by statutory provisions for employer liability rather than by a workmen's compensation law.

### National and State Estimates

The new benchmark data for 1957 produced national estimates of 43.2–43.4 million workers covered in an average month under State and Federal workmen's compensation programs. The payroll in employment covered by these programs is estimated at \$189–\$191 billion for the calendar year 1957.

These estimates differ somewhat from the original estimates for 1957, which were based on projections from 1953 benchmark data.<sup>7</sup> The coverage estimates are approximately 1 million higher than the original and the payroll estimates about \$4.5 billion greater. In light of the new benchmark data, the entire series back to 1954 has been revised upward (table 1).

Projecting from the 1957 data yields an estimate of 43.9–44.1 million workers covered by workmen's compensation programs in an average month in

<sup>6</sup> Employees of self-insured State and local political subdivisions are included in the estimates whether or not the employing unit submits financial proof of ability to self-insure, since in many States financial solvency of the employing unit is assumed and proof is not required by law.

<sup>7</sup> *Social Security Bulletin*, December 1958, page 17.

TABLE 1.—Estimated number of workers covered in an average month and total annual payroll in covered employment, 1940, 1946, and 1948-60<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>2</sup>
1940.....	24.2-25.0	70.8	\$35-36	72.1
1946.....	32.2-33.2	76.8	79-81	76.9
1948.....	35.6-36.3	77.0	104-106	80.0
1949.....	34.9-35.7	76.9	102-104	79.2
1950.....	36.5-37.2	77.2	112-115	80.2
1951.....	38.3-39.0	78.4	130-133	81.2
1952.....	39.1-39.7	78.9	140-143	81.1
1953.....	40.4-41.0	80.0	152-155	81.8
1954.....	39.5-40.0	79.7	152-154	82.1
1955.....	41.2-41.6	80.0	167-169	83.5
1956.....	42.8-43.1	80.2	181-182	83.3
1957.....	43.2-43.4	80.5	189-191	83.0
1958.....	41.7-42.0	79.0	188-190	82.2
1959.....	43.2-43.4	79.0	205-206	82.7
1960.....	43.9-44.1	78.8	214-216	82.2

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

<sup>2</sup> Midpoints of range used in computing percentages.

Source: Labor-force data from *Current Population Survey*, Bureau of Labor Statistics; wage and salary disbursements from Office of Business Economics, Department of Commerce.

1960, with a payroll of \$214-\$216 billion for the year. Thus the programs covered about four-fifths of the 55.8 million civilian wage and salary workers in the United States and slightly more than four-fifths of the \$261.4 billion in civilian wages and salaries.

These proportions have changed little since 1953. The slight year-to-year fluctuations are not deemed significant in view of the method used in preparing the estimates. Any drop in the proportion of workers covered, however, would not be surprising since those segments of the labor force least likely to be covered by statutory workmen's compensation programs—State and local government employees, domestic workers, and agricultural workers—have recently been expanding at a faster pace than the labor force in general.

Table 2 presents the 1957 benchmark coverage figures for each State and the projections for 1960. The individual State estimates for 1957 were submitted to the State administrative agencies for review and any suggestions taken into account.

The method of estimating has been refined considerably since individual State figures were first published in August 1958. These estimates are still not uniformly good, however, particularly with respect to the number included for coverage by self-insured firms. Where there is a lack of reasonable certainty concerning a single coverage figure, a range is used to embrace the probable situation.

TABLE 2.—Estimated average monthly number of wage and salary workers covered by workmen's compensation, 1957 and 1960

States	[In thousands]	
	1957	1960
Total.....	43,173-43,398	43,901-44,136
Alabama.....	460	460
Alaska.....		33
Arizona.....	210	255
Arkansas.....	215	235
California.....	4,150	4,435
Colorado.....	330	380
Connecticut.....	715	695
Delaware.....	115	115
District of Columbia.....	223	233
Florida.....	875	1,005
Georgia.....	615	645
Hawaii.....		170-180
Idaho.....	125	130
Illinois.....	3,130	3,065
Indiana.....	1,065	1,055
Iowa.....	470	500
Kansas.....	350	350
Kentucky.....	515	515
Louisiana.....	555	555
Maine.....	180	180
Maryland.....	620	620
Massachusetts.....	1,415	1,430
Michigan.....	1,980	1,865
Minnesota.....	760	785
Mississippi.....	230	250
Missouri.....	870	885
Montana.....	125	123
Nebraska.....	230	250
Nevada.....	60	70
New Hampshire.....	139	145
New Jersey.....	1,665	1,695
New Mexico.....	125	140
New York.....	5,100-5,200	5,050-5,150
North Carolina.....	840	905
North Dakota.....	85	90
Ohio.....	2,775	2,655
Oklahoma.....	290	295
Oregon.....	300	320
Pennsylvania.....	3,400	3,250
Rhode Island.....	215	215
South Carolina.....	345	370
South Dakota.....	90	90
Tennessee.....	535	560
Texas.....	1,480-1,580	1,515-1,615
Utah.....	185	205
Vermont.....	77	77
Virginia.....	745	785
Washington.....	520	530
West Virginia.....	400	365
Wisconsin.....	1,015-1,040	1,045-1,070
Wyoming.....	52	60
Federal employees <sup>1</sup> .....	2,217	2,270

<sup>1</sup> Excludes employment outside the United States and, for 1957, Alaska and Hawaii.

### State Variations

State laws differ considerably in their coverage provisions. As a result, the number of workers actually covered by workmen's compensation as a percent of the total employed wage and salary labor force also varies considerably from State to State. Some laws are compulsory; every employer within the scope of the law must accept the provisions and pay the compensation specified. Other laws are elective, but if the employer chooses not to comply with the provisions he loses the customary common law defenses. Some laws are part compulsory and part elective.

State laws also differ in the type of employment they are designed to protect. None cover all employment. The most usual exemptions are domestic service, agricultural employment, and casual labor. Many laws exempt employees of nonprofit, charitable, and religious institutions. Some States cover only workers in hazardous occupations.

Twenty-eight States exempt from coverage employers having less than a specified number of employees—most commonly less than three. The range is from fewer than two employees in three States to fewer than 15 in one State.

The coverage of State and local government employees also differs markedly from one jurisdiction to another. 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 entirely optional with the State, or with the city or other political subdivision.

Chart 1 shows the actual workmen's compensation coverage in the various States as a percentage of potential coverage. Potential coverage is based

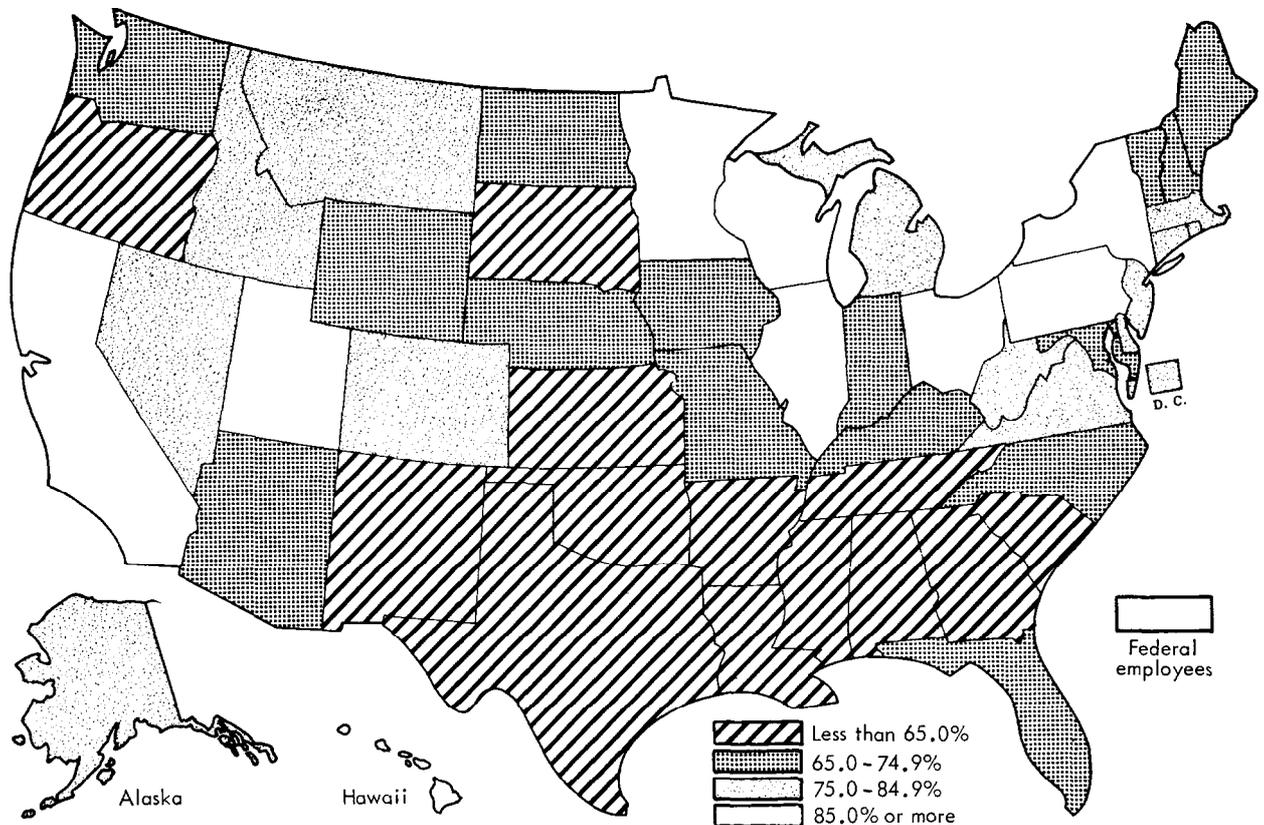
on State data from the 1960 Decennial Census on all wage and salary employees, modified to exclude Federal employees (who have their own separate system) and interstate railroad workers (who are subject to Federal jurisdiction and therefore ineligible for State coverage).

Of the 13 States with ratios of actual to potential coverage of less than 65.0 percent, all but two were located in the South Central and Southeastern regions of the United States. Predominantly rural States, they contained about 18 percent of the Nation's potential coverage. Even if potential coverage were confined to nonagricultural workers, the ratios in these States would be among the lowest in the country. All these States either have elective laws (10) or exempt small employers (10).

In 15 States that also accounted for about 18 percent of the potential coverage, the ratio was 65.0–74.9 percent. These States were scattered throughout the Nation, with some concentration in the Great Plains and New England regions. Most of them have elective laws (nine) or numerical exemptions (eight).

Thirteen States and the District of Columbia,

CHART 1.—Actual coverage as a percent of potential coverage, by jurisdiction, 1960



with 19 percent of the potential coverage, had a ratio of actual to potential coverage of 75.0-84.9 percent. These States were concentrated in the Rocky Mountain area and along the Atlantic seaboard. Only four of the laws are elective, but eight exempt small employers.

The remaining jurisdictions, those with ratios of 85.0 percent or more, accounted for 45 percent of the potential coverage although they include only nine State programs and the system for Federal employees. Most of the large industrial States of the Midwest, Middle Atlantic, and West Coast regions are in this group. Only one law is elective, and it has no numerical exemptions. Six laws provide some coverage for agricultural workers.

## BENEFITS

The benefits provided under workmen's compensation laws include periodic cash payments to the worker during a period of disability, death and funeral benefits to the worker's family, and hospital and medical care services. These benefits amounted to nearly \$1.3 billion in 1960, about five and one-half times what they were in 1939—the first benchmark year of the benefit series (table 3).

Private carriers accounted for 63 percent of all benefits in 1960, State funds (including the Federal workmen's compensation system) for 25 percent, and self-insurers for 12 percent. This distribution represents a considerable change from 1939, when private carrier payments amounted to 52 percent of the total and State fund and self-insurance payments to 29 percent and 19 percent, respectively. In recent years, State funds have shown little percentage change, while private carrier payments have been inching up and self-insurance payments have been dropping off.

About one-third of the \$1,294 million paid in benefits in 1960 went for hospitalization and other medical costs, and two-thirds for compensating the wage loss of injured or deceased workers (table 4). These proportions have remained rather constant since the end of World War II. Over the years, however, cash benefits paid to the survivors of workers killed on the job have declined—from about one-eighth of all benefits in 1939 to one-twelfth in 1960.

Policy-year data for 41 States and the District of Columbia, reported to the National Council on Compensation Insurance for rate-making purposes, show some changes from 1939 to 1958 in the dis-

TABLE 3.—Benefit payments by type of insurance, 1939-60<sup>1</sup>

Year	[Amounts in thousands]							
	Total		Type of insurance					
	Amount	Per cent	Insurance losses paid by private insurance carriers <sup>2</sup>		State fund disbursements <sup>3</sup>		Self-insurance payments <sup>4</sup>	
Amount			Per cent	Amount	Per cent	Amount	Per cent	
1939.....	\$234,723	100.0	\$122,183	52.0	\$68,464	29.2	\$44,076	18.8
1940.....	255,653	100.0	134,653	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.....	328,669	100.0	190,239	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	96,053	22.1	68,380	15.8
1947.....	485,794	100.0	301,833	62.1	110,303	22.7	73,658	15.2
1948.....	533,643	100.0	334,699	62.7	121,048	22.7	77,896	14.6
1949.....	566,270	100.0	353,140	62.3	131,709	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	106,613	12.7
1954.....	876,216	100.0	540,497	61.7	225,473	25.7	110,246	12.6
1955.....	915,665	100.0	562,515	61.4	238,445	26.1	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	284,790	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.....	1,294,422	100.0	817,967	63.2	324,204	25.0	152,251	11.8

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

<sup>2</sup> Net cash and medical benefits paid during the calendar year by private insurance carriers under standard workmen's compensation policies. Data from the *Spectator (Premiums and Losses by States of Casualty, Surety and Miscellaneous Lines for 1939-49; Insurance by States of Fire, Marine, Casualty, Surety and Miscellaneous Lines for 1950-58)* and from published and unpublished reports of State insurance commissions for 1959-60.

<sup>3</sup> Net cash and medical benefits paid by competitive and exclusive State funds and the Federal systems. Compiled from State reports (published and unpublished) and from *Spectator* 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.

tribution of compensable cases and incurred losses by severity of injury (table 5). The data relate to private carrier business but include some competitive State funds. Partial disability cases classified as "minor permanent" accounted for 12 percent of all compensable cases and 26 percent of incurred losses in 1939; by 1958, the proportions had risen to 25 percent and 39 percent. These increases were accompanied by a drop in the proportion of cases and losses attributable to death and temporary total disability.

Despite the relative decline in death and temporary disability cases, the average loss incurred has increased much more rapidly for such cases than for minor permanent disability cases. The average loss incurred for a death case was three times as great in 1958 as in 1939, and for a temporary disability case it was more than 3½ times as great. In contrast, the loss incurred for an average case of minor permanent disability in 1958 was less than 2½ times that in 1939.

TABLE 4.—Benefit payments by type, 1939–60<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	46
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	75
1956.....	1,002	350	652	577	85
1957.....	1,062	360	702	617	90
1958.....	1,112	375	737	647	90
1959.....	1,210	410	800	700	100
1960.....	1,294	435	859	754	105

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

### Proportion of Wage Loss Compensated

Under workmen's compensation laws, the worker receives only a part of the wages lost as a result of disabilities incurred while employed. The actual portion of wage loss replaced varies among the States and is generally determined by the benefit formula in the law.

The statutory percentage of the average weekly wage used to compute the weekly benefit for temporary total disability—by far the most common type of injury—is one measure of the proportion of wage loss met.

A study of workmen's compensation legislation as of October 1961 shows that the intent of most of

the laws, protecting almost 95 percent of the covered workers, is to replace from three-fifths to two-thirds of a worker's weekly wage during total disability.<sup>8</sup> Only five States, with fewer than 3 percent of the covered workers, specify a percentage maximum that is less than 60 percent of wages. Two States have maximums of more than two-thirds of weekly wages. In six States and the program for Federal employees the statutory percentage is higher for injured workers with dependents. When these higher rates are included, only one State (with less than 1 percent of covered employment) has a maximum of less than 60 percent of wages; five States and the Federal program (with 16 percent of covered jobs) have maximums higher than two-thirds.

To a large extent, however, the weekly dollar maximums determine the effectiveness of the statutory percentage in compensating for lost wages. In a period of rising wages, these maximums assume increasing importance as they operate to keep workers from receiving the full statutory percentage. In 1939, for example, half the laws provided a maximum of less than \$20 a week and \$25 was the highest amount payable. These maximums were nevertheless high enough, in virtually every State, to permit a worker with the average weekly wage (according to unemployment insurance data) to receive under workmen's compensation the proportion of his wage loss specified in the statute.

By 1961, despite legislative increases in the maximum dollar amount of weekly benefits, this was the situation in only a few States. All but 11 States had

<sup>8</sup> Department of Labor, Bureau of Labor Standards, *Supplement to State Workmen's Compensation Laws, Bulletin 161*, December 1961.

TABLE 5.—Percentage distribution of cases and incurred losses, and average incurred loss, by injury classification, policy years 1939, 1946, 1954, and 1958<sup>1</sup>

Classification	Percentage distribution								Average incurred loss per case			
	Cases				Incurred losses <sup>2</sup>							
	1939	1946	1954 <sup>3</sup>	1958 <sup>3</sup>	1939	1946	1954 <sup>3</sup>	1958 <sup>3</sup>	1939	1946	1954 <sup>3</sup>	1958 <sup>3</sup>
All compensable cases.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	-----	-----	-----	-----
Death.....	1.0	.7	.8	.8	16.2	11.5	11.5	12.2	\$3,873	\$5,691	\$9,207	\$11,620
Injury:												
Permanent total.....	.1	.1	.1	.1	3.9	3.0	2.0	2.0	9,415	12,033	16,758	20,172
Major permanent.....	1.8	2.1	2.6	2.4	22.3	21.7	20.7	18.8	2,792	3,500	5,010	6,085
Minor permanent.....	12.1	12.8	23.2	24.9	26.2	27.7	36.8	38.5	500	720	986	1,202
Temporary total.....	85.0	84.4	73.3	71.8	31.4	36.1	29.1	28.5	85	143	247	309

<sup>1</sup> Excludes cases receiving medical benefits only.

<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 open cases in which, in the judgment of the carrier, the disability will be temporary only.

<sup>3</sup> Policy-year data for 1954 and 1958 not strictly comparable with those of 1939 and 1946. (Most States no longer use a uniform policy year commencing Jan. 1.)

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

at least doubled their maximums since 1939; in 14 the increases amounted to more than 150 percent. As of October 1961, three-fourths of the laws provided maximum weekly benefits (including allowances for dependents) of more than \$35, with 15 providing \$55 or more.

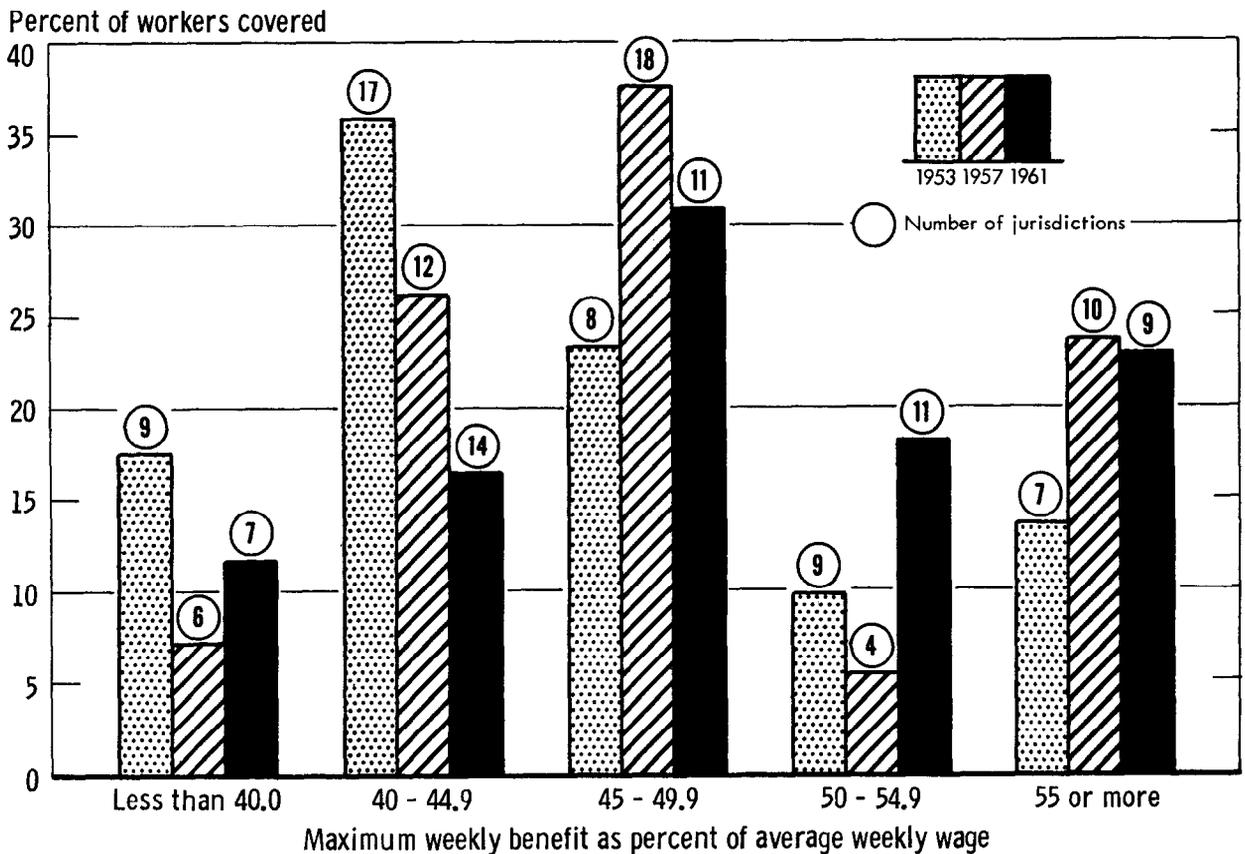
During the same period, weekly wages rose 257 percent for the average worker covered by unemployment insurance. Consequently, in 1961 only seven programs (including the system for Federal employees), with 17 percent of the covered workers, had weekly maximums that were high enough to permit the statutory percentage to be effective for workers with average wages (though not for many workers with higher-than-average wages). Two of them were the programs of Alaska and Hawaii, included for the first time. Another program—that of Connecticut—provides for a flexible maximum amount that is recomputed annually at 55 percent of the State's "average production wage," although

the statutory percentage in the law is 60 percent. The situation since 1953, however, has improved, as shown in chart 2.

With the maximums effective in mid-1953, a worker receiving the average wage for 1952 would have been paid a benefit amounting to less than 45 percent of his wage under 26 State programs with more than half of all covered employment. By 1961 the number had declined to 21 States having only 28 percent of total coverage. In 1953, 16 laws covering 23 percent of the workers had an effective benefit rate of 50 percent or more, compared with 20 laws<sup>9</sup> covering 41 percent of the workers in 1961. From 1957 to 1961 the effective benefit rates rose in a substantial number of States from 45.0–49.9 percent of the preceding year's average wage to 50.0–54.9 percent.

<sup>9</sup> Alaska and Hawaii, with effective benefit rates of 55.0 percent or more in 1961, were not included in 1953 or 1957 data.

CHART 2.—Distribution of covered workers and of jurisdictions by ratio of maximum weekly benefits payable<sup>1</sup> for temporary total disability to weekly wages, for a worker with average weekly wage in preceding year, 1953, 1957, and 1961<sup>2</sup>



<sup>1</sup> Benefits payable for worker without qualified dependents.

<sup>2</sup> Excludes Alaska and Hawaii in 1953 and 1957.

The left hand side of chart 3 shows for each State the actual proportion of weekly wages that a worker in receipt of the average 1960 wage would have received in benefits during a period of temporary total disability under the statutory percentages and maximums effective in October 1961.

Nationally, the weekly rate of compensation, weighted by coverage, for a single worker with average wages was estimated for 1961 at \$46.56 or 49.9 percent of the nationwide average weekly wage. Four years earlier—in 1957—the percentage was 48.0.

In the 37 programs<sup>10</sup> that do not have dependents' allowances, the proportion of the average wage replaced for a single worker in 1961 was 50.1 percent. In the 15 jurisdictions with dependents' allowances the proportion was 49.2 percent. For a worker with the maximum number of qualified dependents, however, the rate of compensation in these jurisdictions was \$63.51 or 64.7 percent of the average weekly wage.

The percentage of actual "take-home" pay replaced by the average benefit was greater than those shown, however, because workmen's compensation benefits are not subject to Federal income or social security taxes. A worker with no dependents, earning the average weekly wage of \$93.34 in 1960, had weekly take-home pay of \$75.40 after deductions of \$15.17 for Federal income taxes (assuming the standard deduction) and \$2.77 for contributions for old-age, survivors, and disability insurance. During periods of total disability, therefore, the \$46.56 he received in weekly compensation benefits replaced 62 percent of his take-home pay. A married man with two dependent children had a higher take-home pay, of which only 56 percent was offset in the States without dependents' allowances and 67 percent in the 15 jurisdictions with them.

The relation of maximum weekly benefits to average weekly wages tells only part of the story of the proportion of overall wage loss replaced under workmen's compensation laws. In temporary disability cases, an important factor is the waiting period that must elapse after the injury date before benefits are payable.

As of October 1961, all jurisdictions but Oregon require a waiting period; 34 States with 82 percent of covered employment have a 7-day waiting period

<sup>10</sup> Alabama's program, which provides for a statutory percentage that is higher for a worker with dependents, is included here because its maximum is the same for the worker with average wages whether or not he has dependents.

and the remaining jurisdictions, 2–5 days. All but three States, however, provide that if the disability continues for a specified period of time the payment of benefits is retroactive to the date of injury. About 1 out of 6 covered workers is employed in the 18 States requiring less than 22 days for the retroactive provisions to become effective. Three-fifths of the workers are in the 25 States requiring at least 28 days—some of them as long as 6 weeks. The situation has improved since the beginning of the decade when a dozen State laws had no retroactive provisions.

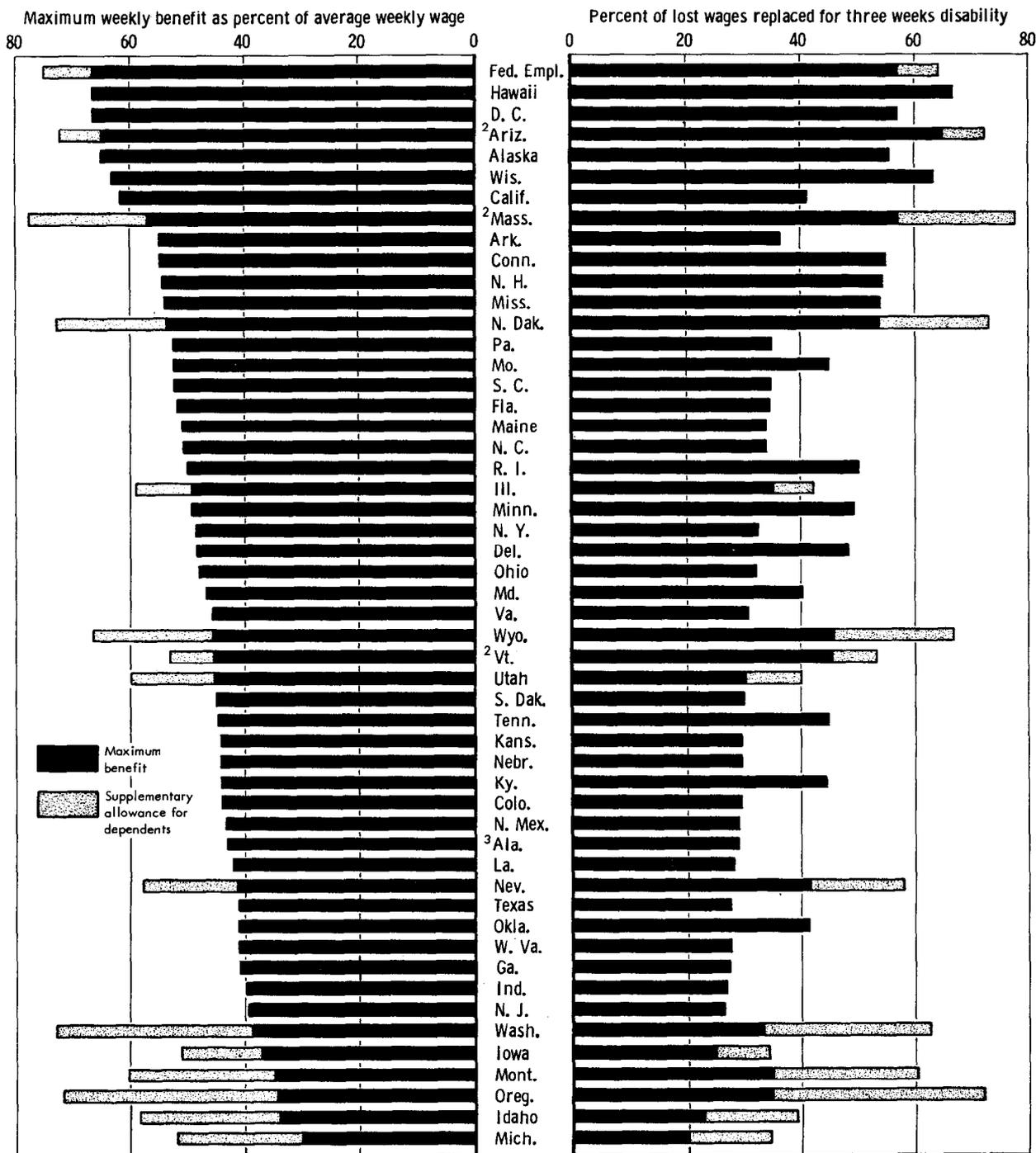
The effect of waiting-period provisions, as of October 1961, on wage-loss replacement is shown in chart 3 on the right. For each State, total benefits payable for the first 3 weeks of temporary total disability are related to the wage loss of a worker (with and without dependents) receiving the average 1960 weekly wage in his jurisdiction. A 3-week period of disability was selected, since it is close to the average duration of temporary total disability cases in manufacturing industries—19 calendar days, according to the latest data (1958) from the Bureau of Labor Statistics.

For the Nation as a whole the proportion of wage loss replaced during the first 3 weeks of disability, when weighted by coverage, equals 37.3 percent for the single worker with average wages. The proportion is even smaller for workers with higher-than-average wages. At the same time, workers with longer periods of disability would have a somewhat greater proportion of their overall wage loss replaced because of the provisions for retroactive payment of benefits. The waiting-period factor also becomes less important in calculating the wage-replacement ratio with each week of disability. In 37 States and the District of Columbia, however, there are monetary or time limits that may prevent payment of benefits throughout the entire period of the temporary disability.

From the available data, it appears likely that workmen's compensation is leaving unmet, on the average, more than three-fifths of the total wage loss in temporary disability cases. For work injuries that result in death or permanent disability, the proportion of the wage loss compensated is even less, partly because the compensation is more likely to be subject to statutory maximums on duration of benefits or on aggregate payments.

Only 20 jurisdictions, with 42 percent of the coverage, provide death benefits to the widow for life or until remarriage and to children until grown, and

CHART 3.—Measures of interstate variation: Maximum weekly benefit payable for temporary total disability as percent of average weekly wage, 1960, and percent of lost wages replaced for worker with 1960 average weekly wage for temporary total disability lasting 3 weeks, October 1961<sup>1</sup>



<sup>1</sup> Maximum weekly benefit for worker with and without eligible dependents under workmen's compensation laws paying dependents' allowances; average wage for workers covered by State unemployment insurance program (for Connecticut, "average production" wage is used).

<sup>2</sup> Assumes 3 dependents.

<sup>3</sup> Maximum same for worker earning average wage whether or not he has dependents, but compensation for worker with dependents is based on higher proportion of wages.

nine of them, with 20 percent of covered employment, limit the total amount payable. These provisions represent some liberalization since 1957, when 17 laws provided death benefits of unrestricted duration. The 1961 list, however, includes Alaska and Hawaii, which were not in the 1957 listing.

Under the laws in effect in October 1961, 29 jurisdictions, with 77 percent of covered employment, pay permanent total disability benefits for life or the duration of the disability. These figures represent no change since 1957, except for the addition of Alaska and Hawaii. Five of the 29 jurisdictions reduce the weekly benefit amount after a specified number of weeks, varying from 260 to 400.

Several studies indicate that the program is less effective in compensating for injuries that are permanent or result in death than those of shorter duration. One of the most recent is Earl F. Cheit's study of the impact of industrial accidents on disabled workers or their survivors in California.<sup>11</sup> Cheit developed new and extensive formulas for measuring economic losses due to occupational death and permanent disability, taking into consideration such factors as working-life expectancy, future earnings and their present net value, taxes, loss of fringe benefits, and changes in the pattern of family consumption expenditures. Measures of benefit adequacy were obtained by relating the cash benefit payable under workmen's compensation to these economic losses.

Applying this method to a sample of widows of California workers, Cheit found that for the median case death benefits replaced only 10.1 percent of the net economic loss for workers killed in 1952 and 12.2 percent for workers killed in 1956. A similar computation made for a sample of workers injured in 1953 who suffered permanent wage loss revealed that permanent disability benefits restored 10 percent of the wage loss for the median worker rated 20-69 percent disabled and 36 percent for the median worker rated 70-100 percent disabled.

Cheit extended this method to the Nation by constructing an "average" benefit payable in a "representative case" in each State, using specified wage, age, and dependency assumptions and then relating this benefit to the estimated net economic loss due to occupational death and permanent disability in each State. The results of this analysis

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<sup>11</sup> Earl F. Cheit, *Injury and Recovery in the Course of Employment*, John Wiley & Sons, Inc., 1961.

for 1958 show that 35 States replaced less than 20 percent of the economic loss in death cases. Five States and the District of Columbia replaced more than 40 percent. In permanent disability cases, 24 States offset less than 20 percent of the loss; seven jurisdictions offset more than 40 percent.

Monroe Berkowitz, in his study of New Jersey experience, also devised a method for ranking the States according to weekly amounts and aggregate benefits paid in death cases, making certain uniform assumptions about a hypothetical worker's wage, the number and age of his dependents, and his life expectancy.<sup>12</sup> State-to-State variations are striking, primarily because of the statutory limitations. Total benefits payable ranged from \$8,600 in Mississippi to \$63,790 in Hawaii under the laws in effect in 1957.

For workers and their families receiving cash indemnity awards for permanent disability and for death, actual benefits in recent years have been significantly lower than was originally intended because of rising wages and prices. Only six jurisdictions—the Federal system, Michigan, and four exclusive-fund States (Nevada, Ohio, Oregon, and Washington)—provide for augmenting the lifetime awards of persons living in the present on benefit levels of the past.

The unmet wage loss is not, of course, a measure of the overall cost of industrial injury that the worker must meet. If he lives in a State that has time or money restrictions on the medical benefits furnished, his costs may include a part of the medical or hospitalization expenses. As of October 1961, there were 14 such States, with 13 percent of the covered workers.

In addition, the worker may have to pay his own legal fees to have his claim brought to a successful conclusion. These fees may range up to a third of the cash compensation awarded, although in some States the financial burden of paying fees can be shifted to the employers or carriers under specified conditions.<sup>13</sup> Cheit reports that in his sample of California injured workers the attorney's fee in the median case with legal representation amounted to 6.3 percent of the award.

Finally, consideration should be given to the wage

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<sup>12</sup> Monroe Berkowitz, *Workmen's Compensation: The New Jersey Experience*, Rutgers University Press, 1960, page 56.

<sup>13</sup> Department of Labor, Bureau of Labor Standards, *Attorneys' Fees in Workmen's Compensation* (Bulletin No. 220), September 1960.

loss and medical bills of employees who find themselves excluded from the protection of the workmen's compensation program because of the type of employment or type of injury or disease experienced. There are still 20 States, with slightly less than one-fifth of the covered employment, that have less than full coverage of occupational diseases; two of these States have none. This situation, however, has improved; 10 years earlier about half the States were in this category.

It is thus clear that much the larger share of the cost of industrial accidents falls on the worker and his family or on public assistance or private charity—far from the original intent of workmen's compensation. At the same time, recognition should be given to the economic relief that some injured workers receive through employee-benefit plans that are increasingly 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. Even more significant in the case of injuries that result in death or permanent disability may be the benefits payable, in addition to workmen's compensation, under old-age, survivors, and disability insurance.<sup>14</sup>

Cheit in his study of occupational death cases in 1956 found that, when all death-related benefits from old-age, survivors, and disability insurance, retirement funds, life insurance, and court judgments were added to workmen's compensation benefits, about one-third of the economic loss was replaced in the median case, instead of 12 percent. Survivor benefits under old-age, survivors, and disability insurance were payable in slightly less than half the cases and offset 22 percent of the economic loss in the median case receiving such benefits. Nineteen percent of the cases received no death-related benefits other than workmen's compensation.

### Relation to Payroll

Another rough measure of the interstate variation in workmen's compensation benefits is the relation of the payroll in covered employment to aggregate cash indemnity and medical benefits. These proportions vary widely without any discernible economic or geographic patterns, as shown by the

<sup>14</sup> For a discussion of the types of supplemental benefits that may be payable in case of injury or death on the job in one State, see Monroe Berkowitz, *op. cit.*, pages 57-64.

following distribution of the jurisdictions by the percent of covered payroll their aggregate benefits represented in 1960.

<i>Less than 0.40</i>	<i>0.60-0.69 (Continued)</i>
Delaware	New York
District of Columbia	South Carolina
Pennsylvania	South Dakota
Utah	Tennessee
Federal	<i>0.70-0.79</i>
<i>0.40-0.49</i>	Maryland
Alabama	Massachusetts
Georgia	North Dakota
Illinois	Ohio
Indiana	<i>0.80-0.89</i>
Iowa	Florida
Maine	Idaho
Michigan	Kansas
Nebraska	Rhode Island
North Carolina	West Virginia
Virginia	<i>0.90-1.00</i>
Wisconsin	Arizona
<i>0.50-0.59</i>	Arkansas
Colorado	Mississippi
Connecticut	Washington
Kentucky	<i>More than 1.00</i>
Missouri	Alaska
Vermont	Louisiana
Wyoming	Montana
<i>0.60-0.69</i>	Nevada
California	New Mexico
Hawaii	Oklahoma
Minnesota	Oregon
New Hampshire	Texas
New Jersey	

Aggregate benefit payments amounted to less than ½ of 1 percent of covered payroll in 16 jurisdictions (with almost two-fifths of the covered workers). Only in eight States with 7 percent of covered employment did benefit payments absorb as much as 1 percent of payroll.

Many factors other than benefit provisions may bring about these variations: (1) the frequency and severity of work injuries as affected by the hazardous nature of a State's industries, by the age, sex, and occupational composition of the labor force, and by the effectiveness of safety and rehabilitation programs; (2) the level and distribution of wages and the size of the group at risk; (3) the methods used to underwrite the risk; (4) the regional differences in cost of medical care and (5) the administrative and legal procedures and policies used in evaluating, adjudicating, and policing claims.

Comparing the data above with chart 3 shows little correlation between the statutory provisions for compensating temporary total disability and the aggregate amounts expended for all types of benefits as a percent of payroll. States with relatively

liberal benefit provisions are among those expending the lowest proportion of payroll for benefits, and vice versa.

For example, of the 17 jurisdictions making up the third with the highest wage-replacement ratio (maximum weekly benefits, including dependents' allowances, as a percentage of the average weekly wage), only seven were also in the top third with respect to benefits as a percentage of payroll. Five of the 17 jurisdictions actually fell into the bottom third in terms of benefit-payroll ratios. Similarly, of the 17 jurisdictions with the lowest wage-replacement ratio, five were in the category with lowest benefit-payroll ratio and six in the category with the highest.

The correlation is only slightly greater when the wage-replacement ratio is considered in terms of the percentage of wages replaced for the first 3 weeks of temporary disability. The correlation might be different, of course, if other benefits, such as medical services and cash indemnity payments in permanent disability and death cases, were taken into consideration.

The relationship throughout the years of aggregate benefit payments to payrolls covered by workmen's compensation gives some indication of the extent to which benefits have kept pace with the increase in the number of workers covered by the programs, with the rise in wage rates on which cash benefits are based, and indirectly with the increasing costs of hospitalization and medical benefits. Table 6 shows that, after dipping to a postwar low of 0.51 percent in 1948, the ratio of benefits to payroll has gradually risen to a postwar high of 0.60 percent in 1960.

Any assumptions concerning the relative effectiveness of workmen's compensation benefit payments must also take into consideration changes in the frequency and severity of work injuries. The number of work injuries per million employee-hours worked in manufacturing reached a high of 15.5 in 1951 and then gradually dropped to lows of 10.9 in 1958 and 11.3 in 1960. The severity-of-injury rates showed some decline in the first half of the period 1950-60, though since 1955 they have been on the rise.

In view of the general improvement in accident experience, the steady increase during the 1950's in the ratio of benefit payments to covered payroll seems to lend further weight to the conclusion that statutory liberalizations in the benefit structure have been keeping up with recent economic develop-

TABLE 6.—Aggregate benefits as percent of payroll in covered employment and rates of injury frequency and injury severity in manufacturing, 1940, 1946, and 1948-60

Year	Benefits as percent of payroll	Injury-frequency rates <sup>1</sup>	Injury-severity rates <sup>2</sup>
1940.....	0.72	15.3	1.6
1946.....	.54	19.9	1.6
1948.....	.51	17.2	1.5
1949.....	.55	14.5	1.4
1950.....	.54	14.7	1.2
1951.....	.54	15.5	1.3
1952.....	.55	14.3	1.3
1953.....	.55	13.4	1.2
1954.....	.57	11.5	1.0
1955.....	.55	12.1	637
1956.....	.55	12.0	712
1957.....	.56	11.4	764
1958.....	.59	10.9	783
1959.....	.59	11.9	(8)
1960.....	.60	11.3	(8)

<sup>1</sup> Average number of disabling work injuries per million employee-hours worked.

<sup>2</sup> For years before 1955, average number of days lost for each 1,000 employee-hours worked. In 1955 the basis of computation was changed to average number of days lost per million hours, and different and more exact time charges were used in evaluating permanent impairments. Severity rates for years after 1954 are therefore not comparable with those of earlier years.

<sup>3</sup> Not available.

Source: Work-injury rates from published and unpublished data of Bureau of Labor Statistics.

ments and, in some benefit areas, have represented real advances.<sup>15</sup>

## COSTS

The total cost of workmen's compensation to employers<sup>16</sup> is made up of several elements. In addition to benefit costs (commonly termed "pure premium"), there are the overhead costs (known as "expense loading") of insuring the risk, which are reflected in the premium (manual) rates or their "equivalent" that employers pay to insure or self-insure the risk of work injury. Included in the overhead are the expenses of policywriting, rate-making, payroll auditing, claims investigation and adjustment, safety inspection, legal and medical services, and general administration. In self-insurance, some of these overhead expenses are eliminated or reduced, but 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.

<sup>15</sup> For a detailed analysis of the extent to which statutory liberalizations have produced real gains in one State's overall benefit structure, see Stefan A. Riesenfeld, "Efficacy and Costs of Workmen's Compensation," *California Law Review*, October 1961.

<sup>16</sup> Except in a few Western States that require employee contributions—primarily toward the cost of medical care—workmen's compensation is entirely employer-financed.

Annual costs for employers in the aggregate have not exceeded 1 percent of payroll in covered employment since the end of World War II (table 7). Before the war, costs were as high as 1.2 percent. In the postwar years, employers spent 89–98 cents per \$100 of covered payroll to insure or self-insure their risks. The costs since 1954 have leveled off at 91–92 cents per \$100, except for a small upturn in 1960.

These cost estimates are fairly consistent with estimates obtained through other sources. The Bureau of Labor Statistics, for example, in its sample survey of employer expenditures for selected fringe benefits reported that such expenditures in 1959 for workmen's compensation averaged 0.8 percent of gross payroll and 0.9 percent of straight-time payroll for production workers in manufacturing industries.<sup>17</sup> The Chamber of Commerce of the United States in its 1959 sample survey of fringe benefits reported workmen's compensation costs incurred by employers equal to 0.9 percent of gross payroll in manufacturing industries and 0.5 percent in non-manufacturing industries, for an overall ratio of 0.7 percent.<sup>18</sup>

The last figure gives an inkling of the extent to which overall cost ratios conceal the wide differences that exist among individual employers. The major factors in these differences are the employer's industrial classification and the hazards of that industry, as modified by experience rating. The premium rate an employer pays, compared with the premium rate for the same industrial classification in another State, also reflects the level of benefits provided in his jurisdiction. His costs are also influenced by the method he uses to insure his compensation liability—through a commercial carrier, through an exclusive or competitive State fund, or through carrying his own risk—and the proportion of his premium assigned to acquisition costs and costs for services and general administration.

Industry differences in costs may be noted in the BLS and Chamber of Commerce studies. The former shows a range among manufacturing industries from 0.4 percent of gross payroll in the tobacco, ordnance, and printing industries to 2.4 percent in

<sup>17</sup> Bureau of Labor Statistics, *Employer Expenditures for Selected Supplementary Remuneration Practices for Production Workers in Manufacturing Industries, 1959* (Bulletin No. 1308), 1962, table 20. Straight-time payroll is the gross payroll less premium pay for overtime and for work on weekends, paid holidays, and late shifts.

<sup>18</sup> Chamber of Commerce of the United States, *Fringe Benefits 1959*, table 15.

the lumber and wood products industry. The Chamber study reports a range from 0.1–0.2 percent for banks, finance, and insurance companies—industries characterized primarily by clerical operations—to 2.0 percent for a miscellaneous group that includes the hazardous industries of mining and construction.

Variations of almost equal dimensions exist among the States in average premium rates. Data made available by the National Council on Compensation Insurance for the policy year 1958 show that earned premiums as a percentage of insured payroll ranged from 0.7 percent in Maine and Virginia to 2.5 percent in New Mexico.<sup>19</sup> About half of the States, with the same proportion of the insured payroll, had rates of 0.8–1.1 percent, and only two had rates less than 0.8 percent. The rates were 1.4 percent or more in a third of the jurisdictions, including three with rates of 2.0 percent or more. These rates are slightly lower than those computed for the policy year 1954, when the range was from 0.7 percent to 3.0 percent of payroll and almost two-fifths of the States had rates of 1.4 percent or more, including five with rates of 2.0 percent or more.

### Loss and Expense Ratios

When benefits paid (table 4) are compared with premium costs (table 7), a rough indication is obtained of the proportion of the premium dollar that

<sup>19</sup> These data relate primarily to private-carrier experience but include data for a few competitive State funds that cannot be segregated.

TABLE 7.—Estimated costs of workmen's compensation to employers as percent of payroll in covered employment, 1940, 1946, and 1948–60<sup>1</sup>

Year	Amount (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.....	1,734	.91
1958.....	1,746	.92
1959.....	1,869	.91
1960.....	2,018	.94

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

reaches the injured worker. In 1960, 64 cents was paid out in medical and cash benefits for every dollar spent by employers to insure their workers. This is next to the highest proportion computed for the years included in the two tables. The highest rate of return was 65 percent in 1959; the lowest was 53 percent in 1948. There has been a decided upward trend since 1953.

The loss ratio—the ratio of benefits paid during the year to insurance costs for the same year—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 the system for Federal employees, 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 for 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 paid during the year is lower than one based on losses incurred. This difference is especially great in a period 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 amounts paid during the year in cases continued from earlier years when wages and compensation rates were lower.

Table 8 shows the extent of the difference in the loss ratios computed by the two methods. Relating losses paid to direct premiums written produces an average loss ratio of 53.6 percent for private carriers for 1950–60. The loss ratio is 61.3 percent when losses incurred are related to premiums earned. Since 1953 the yearly difference has narrowed to 5–8 percentage points, with the greatest spread in the economic recovery years 1957 and 1959.

For the competitive and exclusive State funds the loss ratios are considerably higher than they are for the private carriers. Table 9 shows that, for 1950–60, the amount of the benefits paid was 70.6 percent of the premiums written for the 18 State funds—17 percentage points greater than the corresponding ratio for private carriers.

The loss ratios shown in this table are not strictly

TABLE 8.—Comparative loss ratios, private carriers, 1950–60<sup>1</sup>

[Amounts in millions]

Year	Direct writings related to direct losses paid <sup>2</sup>			Earned premiums related to incurred losses <sup>3</sup>		
	Direct writings <sup>4</sup>	Direct losses paid	Loss ratio	Earned premiums <sup>4</sup>	Incurred losses	Loss ratio
Total.....	\$12,109.5	\$6,487.9	53.6	\$11,549.6	\$7,077.7	61.3
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	571.9	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	562.5	52.2	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.....	1,423.0	818.0	57.5	1,367.9	874.2	63.9

<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. 1959 and 1960 data compiled from published and unpublished reports of State insurance commissions.

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

<sup>4</sup> Disregards dividends to policyholders but allows for premium discounts and retrospective rating.

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.<sup>20</sup> Second, the premium charges of some State funds, especially exclusive funds, do not or need not include allowances for certain items included in the premium charges of private carriers—maintenance of adequate reserves, for example, administrative and legal services financed through public appropriations 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, many of which cannot get insurance from private carriers. These three factors combine to increase the loss ratio for State funds.

<sup>20</sup> Precise data on the amount of dividends returned to policyholders are hard to obtain. For companies issuing workmen's compensation policies on a participating basis, it is estimated that dividends amount to about 15 percent of premium income. If these dividends were related to the premium income of all carriers, the dividend rate would be about 7 percent. If the data in table 8 were adjusted to allow for dividends, the loss ratios would be increased by about 4–5 percentage points.

The data on State funds and private carriers show that benefit payments as a percentage of premiums have been rising in the past decade. The rise has been more consistent in the private-carrier series than in the State fund series, but the overall trend is unmistakable. From lows registered in the early 1950's, the ratios climbed to new heights in 1959 or 1960.

Competitive State funds spend a very small portion of premiums for business-getting, and exclusive State funds spend practically nothing. As a result, the expense ratios of these funds are lower than those of private carriers. For the years 1950-60, administrative costs (excluding loss adjustment expenses for certain competitive funds) of all State funds averaged 9.0 percent of premiums written (table 9). Exclusive funds devoted, on the average, 6.5 percent of premiums to expenses, and competitive funds 11.4 percent.

In contrast, during this period the ratio of expenses incurred to net premiums earned for nonparticipating stock companies, participating stock companies, and mutual companies averaged approximately 37 percent, 28 percent, and 25 percent, respectively.<sup>21</sup> The difference in expense ratios between the nonparticipating and participating carriers would be less if allowance were made for policyholders' dividends. With a dividend rate of 15 percent of premiums, for example, the expense ratio for mutual companies would be recomputed at about 29 percent and for participating stock companies at about 33 percent.

The importance of acquisition costs in the expense loading of private carriers may be noted from the following Council data. During 1950-60, acquisition and field supervision costs averaged about 16 percent of premiums earned for nonparticipating stock companies and about 7 percent (before dividends) for mutual companies.

When the expense ratios of State funds and private carriers are compared, certain differences in the insurers' mode of operation must be taken into account. Private carriers include in their expense loading 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

<sup>21</sup> National Council on Compensation Insurance, *Insurance Expense Exhibit (Countrywide)*, annual issues.

TABLE 9.—Benefit payments and administrative expenses in relation to premiums written, 18 State funds, 1950-60<sup>1</sup>

[Amounts in millions]					
Year	Pre- miums writ- ten <sup>2</sup>	Benef- fits paid	Benef- fits as per- cent of pre- miums	Ad- minis- trative ex- penses <sup>3</sup>	Ex- penses as per- cent of pre- miums
Total.....	\$3,025.2	\$2,137.0	70.6	\$272.4	9.0
1950.....	172.1	126.7	73.6	16.5	9.6
1951.....	204.9	140.9	68.8	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.....	255.9	183.2	68.9	24.1	9.1
1955.....	279.6	192.6	68.9	24.4	8.7
1956.....	324.3	209.5	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.....	368.1	265.2	72.0	33.4	9.1

<sup>1</sup> For 9 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 loss adjustment expenses for certain competitive State funds estimated at 6-9 percent of premiums. Includes administrative expenses financed through appropriations from general revenue.

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

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.

In 1960, for example, nonparticipating stock companies devoted 12.1 percent of the 36.9 percent of premiums allocated for expense loading to these items—3.6 percent for taxes, licenses, and fees, 1.2 percent for inspection and safety engineering, 1.8 percent for payroll auditing, and 5.5 percent for merit rating and other underwriting services. Mutual companies spent 9.9 percent (out of their 25.6-percent expense loading) for these items—3.0 percent for taxes, licenses, and fees, 2.2 percent for safety inspection, 1.0 percent for payroll auditing, and 3.7 percent for merit rating and other underwriting services. 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

Consideration must also be given to the amounts spent by State commissions, departments, and agencies in administering the workmen's compensation laws and supervising the operations of the insurance medium—the private carrier, the self-insurer, and/or the State fund. Although the amounts are relatively small—only \$23.9 million in the fiscal year 1959-60 for the District of Columbia and the 39 States for which data are available (table

TABLE 10.—Administrative costs of State agencies by method of financing, 1950-60<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.....	\$12.5	\$4.6	37	\$7.9	63
1951.....	12.9	4.6	36	8.3	64
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

<sup>1</sup> Includes the District of Columbia. Excludes the 7 States with exclusive funds and the Federal system, where the task of administering the law is generally merged with that of providing insurance protection. Also excludes the 4 States where the laws are court-administered, and, before 1960, Alaska and Hawaii.

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

10)—the effect on the quality of services rendered is considerable.

These costs do not represent an additional cost of workmen's compensation in half the jurisdictions, where they are financed through assessments against the insurance mediums and included in the premium charges of carriers to employers. In the other half, the administrative expenses are financed through appropriations from the general treasury.

Although State administrators prefer to have workmen's compensation costs financed through assessments rather than legislative appropriations, only one State—Montana—made the switch during the past decade. The proportion met through assessments, however, has been slowly increasing and in 1959-60 amounted to two-thirds.

## SUMMARY

Of the many measures that are available for analyzing the efficacy of workmen's compensation laws, those of most interest to students of social insurance relate to the adequacy of benefits. The rapid rise of wage and price levels during the war and immediate postwar periods, unaccompanied by corresponding benefit changes, led to a marked deterioration in the effectiveness of the laws in providing adequate wage-loss protection against work-connected accidents. Since the early 1950's, statutory liberalizations in waiting-period provisions and increases in the maximum level and duration of cash indemnity benefits have reversed the trend. These improvements, however, have not yet re-

stored the relationship between wage levels and benefits existing before World War II. Even if the value of medical benefits were counted, the evidence today is that the average worker is still meeting out of his own resources the larger share of the cost of work injuries.

With the improvements in the laws, aggregate benefits as a percent of covered payroll have risen steadily since the early 1950's. Nevertheless, the annual cost of workmen's compensation to employers during this period showed no increase, remaining at less than 1 percent of payroll. As a result, the proportion of the premium dollar finding its way back in benefits to the injured worker or his dependents has been rising. For private carriers, benefits paid as percent of premiums written jumped from 49-50 percent in the early 1950's to 57-58 percent at the end of the decade. State funds, which pay out a considerably higher proportion of their premium income in benefits, experienced the same upward trend.

In relative terms, many aspects of the program show little change. The proportion of the labor force covered by workmen's compensation has remained at 77-80 percent since the end of the war, although the number of workers covered in an average month has increased by more than 10 million. The proportions of benefits underwritten by private carriers (63 percent), State funds (25 percent), and self-insurers (12 percent) are only slightly different from what they were a decade earlier, though a trend away from self-insurance is discernible. The distribution of the benefit dollar between cash payments and medical services—2 to 1—has stayed the same, although the trend in cash payments is toward an increasing share paid for permanent partial disabilities and a decreasing share for death cases.

Other aspects of workmen's compensation are not considered here either because they do not lend themselves to statistical measurement or relatively little information is available. They include the provision, quality, and supervision of medical care; the adequacy of rehabilitation facilities, personnel, and procedures; the promptness of payments and the equitability of settlements; the program's effect on incentives for rehabilitation; and the enforcement of administrative and legal provisions. These areas are particularly suitable for research at the local and State levels. The additional funds now available through government research and demonstration programs should encourage such studies.