Compendium on Workmen's Compensation

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Chapter 8

Income Replacement Benefits: I

AMOUNT OF BENEFIT PAYMENTS

Total cash and medical payments under workmen's compensation programs in the United States reached \$234.7 million in 1939.¹ Since then, this amount has increased as the labor force grew, as benefits increased, and as an increasing proportion of the labor force was covered. Benefits passed \$1 billion in 1956 and in 1966 topped \$2 billion. Throughout these years, approximately one-third of the total benefits have been for hospitalization and other medical services; the balance for compensating the wage loss of occuptionally injured or killed workers. In the long term, the proportion of the benefit dollar paid to survivors of workers killed on the job has dropped.

In 1970, total benefits reached \$2,927 million. The medical and hospitalization portion for the first time topped \$1 billion, still approximately one-third of the total. Survivor benefits in 1970 amounted to \$205 million, approximately 7 percent of the total payments and about 11 percent of the cash compensation.

The estimated amount of workmen's compensation payments by individual States varied from \$2.2 million in Wyoming to almost \$422 million in California. The variables affecting payments among States include: the proportion of covered employees: the size and nature of the labor force; injury frequency and severity rates; benefit provisions in State laws; and methods and administration of workmen's compensation.

The lowest ranking States, Wyoming, South Dakota, Vermont, North Dakota, and Delaware, together accounted for \$19 million in workmen's compensation payments or less than 1 percent of the total payments in 1970, less than 30 other States paid individually. Of the five States which rank the highest in payments, California accounted for \$421.5 million, followed by New York, Ohio, Michigan, and Texas in that order.

These five paid more than \$1,220 million in benefits, 42 percent of the total in 1970. They covered about 19.8 million workers in 1968 or about 35 percent of the estimated total coverage for the United States.

What Kinds of Benefits

Excluding cases receiving medical benefits only, workmen's compensation pays four separate types of benefits, (1) permanent total disability, (2) permanent partial disability, (3) temporary total disability and (4) death. According to the National Council on Compensation Insurance data, the number of death cases were less than 1 percent of total cases for the policy year 1966. For policy year 1968, death cases were 0.7 percent of the total number of compensable cases, excluding cases paid only medical benefits. The average incurred loss per compensable death case tends to be large, \$15,-869 in policy year 1966 and \$17,127 for the 1968 policy year.²

The most serious injuries short of death cause permanent total disability. The exact definition of permanent disability differs from State to State but, in general, persons so classified participate in the labor force on no more than a minimal basis. Approximately one-tenth of one percent of all cases are classified as permanent total. The average loss incurred, larger than in the death cases, was \$28,128 in 1966 and \$30,337 in the 1968 policy year.

Most injured workers, if they receive cash benefits at all, receive temporary total disability benefits, if disabled longer than the waiting period in their particular jurisdiction. These waiting periods range from two to seven days. Most States have a waiting period of seven days. If a disability lasts for longer than a specified number of days, typically, 14 to 28, workers are paid retroactively for the waiting period.

Approximately 72 percent of all cases are classified as temporary disability only: i.e., those who receive temporary disability payments without benefits for permanent injuries. The average payment tends to be low because of the short period of disability and because nothing may be paid for the waiting period. In policy year 1966, the average loss was \$364 per case and in 1968, \$383.

About 25 percent of the cases are classified as permanent partial disability. These benefits are paid to workers left with a permanent disability which is not totally incapacitating but which presumably affects their future earnings. A certain number are paid according to a statutory schedule for the loss or the loss of use of an extremity or other portion of the body. The others fall into the "unscheduled" category, including injury to the back or nervous system.

For insurance purposes, it is customary to divide permanent partial cases into major and minor permanent disability. Major disability has a severity equal to 25 to 75 percent of total; more than 75 percent is considered total; less than 25 percent, minor. The average benefit for major permanent disability in 1966 was \$7,832 and \$8,334 in 1968. The minor benefit averaged \$1,659 in 1966 and \$1,773 in 1968, although the differences among States were considerable.

Forty-four States and the District of Columbia reported to the National Council on Compensation Insurance 212,076 cases of minor permanent disabilities for policy year 1968. Out of this total New York, New Jersey, Illinois, and California accounted for 113,566 cases, 54 percent. New Jersey with about 4 percent of the covered workers accounted for almost 14 percent of minor permanent partial disabilities.

There is no Federal involvement in workmen's compensation except for the Federal Government's own employees and its participation in the administration of the program for the District of Columbia and for the longshoremen and harbor workers. Each State is free to set its own level of benefits, to administer the program in its own way, and to cover workers, injuries, and diseases in its own fashion.

TEMPORARY TOTAL DISABILITY BENEFITS

A worker injured in an industrial accident under conditions which make him eligible for workmen's compensation benefits receives temporary total disability benefits provided the disability lasts longer than the waiting period stipulated in his State's law. Typically, the benefit is computed as a percentage of the worker's wages and will be paid while he is absent from work because of the injury. A small minority do not return to the same job and receive temporary total disability payment only until their recovery can go no further. Certain jurisdictions, as will be noted, specify the maximum number of weeks or the maximum number of dollars the worker may receive benefits for temporary total disability.

Definition of Wages

Workmen's compensation benefits are wage related. The basic theory is that an injured employee, having given up his rights to sue at common law, is given certain indemnity based upon his wage loss with no need to prove fault but without allowance for pain and suffering. In order to preserve incentives to return to work, only a part of wage loss is redeemed. The percentage varies from State to State, but usually is about 66.7.

The exact definition of what constitutes wages for purposes of computing the compensation benefit varies with many State laws. For the most part, it is the employee's actual wage, but in some it is his average weekly earnings for a period, perhaps the preceding six months. Also, certain statutes provide that if the method of computation does not ascertain fairly the earnings of the employee, then the weekly wage can be based upon average earnings of an average employee of the same or similar employment.

Gratuities, the value of board and lodging, and other materials or services received in kind rather than cash are a source of uncertainty in the calculation of wages. In some States, wages are defined as a money payment for services rendered, including the reasonable value of board, rent, housing, or other advantages received from the employer and gratuities received whether from the employer or others. In other jurisdictions, some fixed amount may be added for the value of board and lodgings where no specific valuation is fixed at the time of hiring.

Statutory Percentage of Wage Replaced

The two-thirds replacement ratio in workmen's compensation applies in approximately one-half of the jurisdictions with more than one-half of the covered employment. The statutory percentages range from a low of 60 percent in 10 States to a high of 90 percent in 2 States (table 8.1).

TABLE 8.1.—STATUTORY PERCENTAGE OF WAGES REPLACED: TEMPORARY TOTAL DISABILITY, JANUARY 1972 (INCLUDING DEPENDENTS' ALLOWANCE)

Percentage	Number of jurisdictions	Percentage of covered employment	
60	10	15.2	
6134	1	10.9	
65	6	5.6	
6635	27	51.7	
70	1	2.3	
75	2	6.8	
80	1	6.8	
90	2	.6	
Total 1	50	99. 9	

¹ Includes 48 States (New Hampshire omitted since it has a sliding scale and North Dakota because it has a flat benefit), District of Columbia, and Federal Employees Compensation Act.

Source: U.S. Department of Labor and National Commission on State Workmen's Compensation Laws. Covered employee data pertain to (1970).

Waiting Periods

The laws of all States provide for a waiting period before a worker becomes eligible to collect temporary total disability income benefits. As shown in table 8.2, the periods vary. One State, Hawaii, requires only a 2-day waiting period. Sixteen jurisdictions have a 3-day waiting period. The bulk of the States, 29 out of the 52 jurisdictions, with about two-thirds of covered employees, have a 7-day period.

The waiting period serves the same function as the deductible provisions in an insurance contract. The theory is that small losses occasioned by a few days absence can best be absorbed by the employee. Administrative costs are smaller if the workmen's compensation agencies and the insurance carriers do not have to process the vast bulk of cases in which disability lasts only a relatively few days. Approximately 45 percent of cases of temporary total disability do not extend beyond 7 days.

Two factors are obviously balanced out here. The longer the waiting period, the less the administrative inconvenience and expense. On the other hand, the longer the period, the more the cost of these short-term disabilities is imposed upon the workers. Approximately 15 to 25 percent of the disabilities do not extend beyond 3 days. The term of the waiting period is arbitrary. However, it is useful to think of the total benefits in relation to resources available. If a State increases benefits for short-term disabilities by reducing the waiting period, then such funds obviously cannot be allocated elsewhere. The question is whether these funds could best be used in this fashion or for other uses, such as an increase in maximum benefits.

Table 8.2.-WAITING PERIODS FOR TEMPORARY TOTAL DISABILITY

Number of days	Number of jurisdictions	Percentage of employees covered	
2	1	0.4	
3	16	20.2	
5	6	5.1	
7	29	74. 3	
Total	1 52	100.0	

¹ Includes 50 States, District of Columbia, Federal Employees Compensation Act. In addition, Puerto Rico and the Longshoreman's and Harbor Workers' Act provide a 3-day waiting period. Virgin Islands has no waiting period.

Source: U.S. Chamber of Commerce. Workmen Compensation Laws, 1972, and unpublished data of the U.S. Department of Labor Employment Standards Administration. Covered employee data pertain to 1968 and are estimated from 1965 benchmark data. See Alfred M. Skolnik and Daniel N. Price, "Another Look at the Workmen's Compensation." Social Security Bulletin, October 1970, p. 7.

A different rationale for not paying during the waiting period is not that these funds are best used elsewhere but that short periods of income loss can be met out of the worker's resources.

If the disability extends for more than a stipulated number of days, then presumably the disability is serious enough to draw upon the resources of the program. Consequently, as shown in table 8.3, all jurisdictions provide for retroactive payments if the disability continues for periods indicated. Although a number of jurisdictions will pay for the waiting period when disability extends less than 2 weeks, most pay either at a 2-week or 3-week period. In two jurisdictions, the disability must last at least 40 days before compensation is paid for the waiting period.

In six jurisdictions, the retroactive period and the waiting period are identical, or practically so. In North Dakota, Oklahoma, and Nevada, the waiting period is 5 days and the retroactive period is also 5 days. In New Hampshire, New Jersey, and Montana, the waiting period is 7 days and the retroactive period is also 7 days.

This system creates a "notch" problem. An employee who is out for, say, 6 days, may elect to stay out a seventh day if this 1 additional day of absence entitles him to collect for the first 7 days.

Table 8.3.—RETROACTIVE PERIODS FOR TEMPORARY TOTAL DISABILITY

Number of days	Number of jurisdictions	Number of days	Number of jurisdictions
5	3	21	2
6	1	22	5
7	5	28	3
8	1	29	11
9	1	42	2
10	2	43	2
11	1	49	1
14	8	_	
15	6	Total	1 54

¹ Includes 49 States, District of Columbia, Federal Employees, Longshoremen's and Harbor Workers, Guam, and Puerto Rico. Iowa is excluded.

Source: U.S. Chamber of Commerce. Workmen's Compensation Laws, 1972, and unpublished data of the U.S. Department of Labor Employment Standards Administration.

Iowa appears to have a means of removing this incentive to add a notch to the disability. Iowa does not pay compensation retroactively for its 7day waiting period. Instead, if the disability lasts into a fourth, fifth, and sixth week, whatever compensation the employee is entitled to is increased by one-third for the 3 weeks. After 42 days, the employee once again receives the normal rate. Thus, for an employee who is disabled for 42 days, the bonus is equivalent to retroactive compensation for the 1-week waiting period.

Maximum Weekly Benefit

Table 8.4 shows the number of jurisdictions paying a single worker the maximum weekly benefits specified. The range is considerable. The lowest paying jurisdiction in the continental United States is Mississippi with a maximum weekly benefit of \$40 as of January 1, 1972. By contrast, in Arizona the maximum is \$150 a week, nearly four times that in Mississippi. Alaska, Arizona, Table 8.4.—MAXIMUM WEEKLY WORKMEN'S COMPENSATION'S BENEFITS FOR TEMPORARY TOTAL DISABILITY (SINGLE WORKER) JAN. 1, 1972

Weekly benefit	Number of jurisdictions	Percentage of covered workers	
\$40 to \$44	1	0.6	
\$45 to \$49	4	5.7	
\$50 to \$54	4	3.2	
\$55 to \$59	9	10.5	
\$60 to \$64	10	15.7	
65 to \$69	1	. 2	
\$70 to \$74	5	3.4	
75 to \$79	5	4.7	
80 to \$84	3	11.8	
85 to \$89	3	18.3	
90 to \$94	2	2.7	
\$95 to \$99	2	12.3	
\$100 to \$109	2	3.7	
\$110 to \$120	2	1.6	
\$120 and above	3	5.6	
Total	1 56	100.0	

¹ Includes benefit data for 50 States, Puerto Rico, Guam, Virgin Islands, District of Columbia, Longshoremen and Federal Employees Compensation Act.

Source: U.S. Chamber of Commerce, Workmen Compensation Laws, 1972, and unpublished data of the U.S. Department of Labor Employment Standards Administration. Covered employee data pertain to 1968 and are estimated from 1965 benchmark data. See Alfred M. Skolnik and Daniel N. Price, "Another Look at the Workmen's Compensation." Social Security Bulletin, October 1970, p. 7.

Hawaii, New Jersey, the Virgin Islands, and the program for Federal civilian employees each pay more than \$100 a week in a maximum benefit. The top maximum benefit is paid under the Federal Employees Compensation Act. Fixed at 75 percent of the highest pay for a GS Grade 15 Civil Service employee, the maximum as of January 1, 1972, for the Federal Employees Compensation Act was more than \$454 per week. Nine jurisdictions are in the \$55–59 category; 10 are in the \$60–64 category; but otherwise, they scatter widely. The median State pays \$64.50.

On a nonweighted basis, the average maximum weekly benefit is \$78.70 for 56 jurisdictions. The standard deviation is \$55.05. The average maximum weekly benefit, weighted according to the number of covered workers in 1968 amounts to \$95.08 based upon 52 jurisdictions (omitting longshoremen, Guam, Puerto Rico, and Virgin Islands) with a standard deviation of \$58.66. These averages are influenced heavily by the high FECA maximum, noted above. Without FECA, the weighted average is \$76.57 and the nonweighted is \$72.09.

Flexible Weekly Maximums

Maximum weekly benefits are usually a fixed amount but in 14 jurisdictions they are set as a

116

percentage of the State's average weekly wage, as calculated annually. The 14 jurisdictions with flexible maximums are:

Connecticut	New Jersey
Idaho	North Dakota
Iowa	Rhode Island
Kentucky	Vermont
Maine	Washington
Maryland	West Virginia
Michigan	Federal employees

Connecticut has as its maximum 66% percent of its average production wage determined annually by the Labor Commissioner. Iowa, Maine, and New Jersey use unemployment insurance data to compute the average weekly wage. The Federal Employees Compensation Act bases its maximum on 75 percent of the pay of specified grade levels in the Federal civil service. Michigan annually adjusts its maximum benefit on the basis of a \$1 increase or decrease for each \$1.50 increase or decrease in the State's average weekly wage. In Maryland, prior to July 1, 1972, the flexible maximum did not come into play until after the first 42 days of temporary total disability.

Minimum Weekly Benefits

Out of 56 jurisdictions for which information is available, one, Nevada, has no minimum benefits specified for temporary total disability. Each of the other jurisdictions specifies a floor below which benefits may not fall. These jurisdictions can be divided into two categories:

First, in 24 jurisdictions, if the actual wage which the employee receives is less than the statutory minimum, the employee receives his actual wage. The minimum benefit becomes a floor only for those employees whose actual wage before disability was larger than the minimum. In one jurisdiction, Massachusetts, the minimum is \$20 a week or the employee's average wage if it is less, but the law also provides that nothing less than \$10 a week should be paid provided the normal working hours of the employee were 15 or more.

Second, in 28 jurisdictions, a flat minimum each week is specified, presumably regardless of the wages that the employee earned.

Table 8.5 shows the number of jurisdictions paying a specified weekly minimum with the two categories of jurisdictions shown separately. In the first panel are the 24 jurisdictions where the miniTABLE 8.5.-MINIMUM WEEKLY WORKMEN'S COMPENSATION BENEFITS FOR TEMPORARY TOTAL DISABILITY

Weekly minimum	Number of jurisdictions
States Which Pay Specified Minimum or Actual Wages If	Less
\$0 to \$9	
\$10 to \$19	1
\$20 to \$29	
\$30 to \$39	
\$40 to \$49	
\$50 to \$59	
Total	2
States Which Pay Specified Minimum Regardless of Actua	l Wages
\$0 to \$9	
\$10 to \$19	1

\$0 to \$9	2
\$10 to \$19	11
\$20 to \$29	7
\$30 to \$39	4
\$40 to \$49	3
\$50 to \$59	1
 Total	28

Source: U.S. Chamber of Commerce. Workmen Compensation Laws, 1972, and unpublished data of the U.S. Department of Labor Employment Standards Administration. Covered employee data pertain to 1968 and are estimated from 1965 benchmark data See Alfred M. Skolnik and Daniel N. Price, "Another Look at the Workmen's Compensation." Social Security Bulletin, October 1970, p. 7.

mums will not obtain if the employee's wage is less, and in the second panel are the 28 jurisdictions which specify the minimum regardless of the employee's actual wages. In this second category, which comes closest to the ordinary meaning of a minimum, only one jurisdiction pays in the \$50-\$59 category. At the other end of the scale, two jurisdictions pay minimums less than \$10 a week. In the modal category are 11 jurisdictions which pay weekly minimums between \$10 and \$19 per week.

Duration of Benefits

Table 8.6 shows the number of jurisdictions specifying the various maximum duration periods for temporary total disability. Two States, California and West Virginia, have duration limits between 200 and 249 weeks. At the other end of the scale, most jurisdictions, some 25 out of the 53 reporting, will pay benefits for the duration of temporary total disability.

In Illinois (not included in these tabulations), the payments will be for the duration of disability until the equivalent of a death benefit is paid, except in specific injury cases where it is limited to Table 8.6.-DURATION LIMITS FOR TEMPORARY TOTAL DISABILITY BENEFITS

Number of weeks	Number of jurisdictio ns	
200 to 249	2	
250 to 299	C	
300 to 349	9	
350 to 399	2	
400 to 449	9	
450 to 499	2	
500 to 549	4	
For duration of disability	25	
Total	1 53	

¹ Includes 49 States, District of Columbia, Puerto Rico, Federal Employees Compensation Act and Longshoremen. Illinois is excluded.

Source: U.S. Chamber of Commerce. Workmen Compensation Laws, 1972, anda unpublished data of the U.S. Department of Labor, Employment Standards Administration.

64 weeks. Illinois will pay a death benefit to a widow during the period of her widowhood and while her children remain in minor dependency status, subject to a monetary maximum. Several other exceptions can be noted.

Kentucky which has a maximum period of 425 weeks, specifies that if total disability begins after a period of partial disability, the period of partial disability is to be deducted from the specified period of duration of temporary total benefits. Somewhat the same situation prevails in Nebraska. In North Carolina if permanent total disability results from injury to the brain or spinal cord or the loss of mental capacity caused by an injury to the brain, temporary total disability benefits continue without limit.

In addition to the limits on duration, some jurisdictions limit the total dollar amount that can be paid for temporary total disability. The dollar ceiling may be accompanied by a time ceiling or even by a provision which provides for payments for the duration of disability. For example, Alabama which specifies a 300-week maximum also has a \$16,500 total maximum. Alaska, on the other hand, which authorizes payments for the duration of disability has a \$20,000 maximum. Illinois, as mentioned above, permits payments until the equivalent of the death benefit is paid, a maximum which ranges from \$21,600 to \$30,250, according to the number of dependents.

The dollar ceilings as stated in the law are as low as \$10,500 in Ohio and as high as \$35,100 in Hawaii. Out of 54 jurisdictions tabulated here, the 50 States, Puerto Rico, District of Columbia, the Federal employees, and Longshoremen and Harbor Workers Act, dollar ceilings are specified in 20.

In considering duration of payments, it ought to be noted that approximately three-fourths of temporary total disability cases do not extend beyond 21 days. Hence, a duration limit which runs to even 200 weeks includes the overwhelming majority of temporary total disability cases.

The so-called model law ³ developed in 1965 by the Council of State Governments speaks only of total disability and partial disability, and abandons the concepts of temporary total, permanent total, and permanent partial. It contains no limits of time or dollars on benefits. The theory is that if the employee continues to be totally disabled, benefits are to be paid as long as the disability continues, which may be for life. The model law makes no distinction between temporary and permanent total disability. Although State laws contain this distinction, total disability which persists as long as the duration limits specified is probably to be considered seriously for a permanent disability award.

Adequacy of Benefits

Wage loss tests.—Typically, a disabled worker will not receive as much as the statutory percentage of his wage loss. Several factors interfere.

First, nothing may be paid in the waiting period. As indicated above, most States do not pay for benefits from the first day of absence from work unless the disability extends for a specified period.

Second, the maximum weekly benefit limits the amount that may be paid. On the other hand, in certain jurisdictions, a minimum benefit will be paid regardless of the wage earned by employees.

Third, a few may lose benefits because of the limits on duration or total dollars.

The workmen's compensation injury tables and standard wage distribution tables prepared by actuaries permit an evaluation of the adequacy of payments in the States.⁴

For purposes of standardization, it can be assumed from data in the workmen's compensation injury table (exhibit F5), that there were 1,578,486 days or 225,498 weeks of temporary total disability for cases expected to last 1 day or more. The lowest benefits paid in Mississippi have a maximum of \$40 per week. The average weekly wage in Mississippi, as derived from data from the Unemployment Insurance Service, is \$109. The statutory compensation rate is 66% percent. Multiplying the assumed total weeks of disability by the average weekly wage in Mississippi of \$109 gives the total wage loss of \$24,579,282.

The effects of waiting periods must be considered next. Mississippi has a low waiting period of 5 days and an early retroactive period of 14 days. According to the same compensation injury table, there are 1,287,948 days of temporary total disability for cases which last 6 days or more. In addition, there will be 28,282 cases where the disability exceeds 13 days and the retroactive feature becomes effective. Since there is a 5-day waiting period, five times 28,282 or 141,400 days must be added to the 1,287,948 days of disability in cases lasting 6 days or more. The total, adding the two figures together is 1,429,358, or 204,194 weeks.

The minimum benefit paid in Mississippi is \$10 a week and the maximum weekly compensation cannot exceed \$40 per week. The so-called effective weekly wage for minimum benefits is \$15. Anybody making \$15 a week will receive the statutory two-thirds in benefits; however, anybody making less than \$15 a week would still receive the \$10 per week.

The effective weekly wage for maximum benefits is \$60. Anybody earning up to \$60 a week can receive their two-thirds of his wage as benefit. If he receives more than \$60 a week in wages, he will receive less than two-thirds as a benefit under the \$40 weekly maximum. It is possible to take into account the effects of both the minimum and the maximum by the limit factor calculations detailed in appendix A. One minus the limit factor of .5390 represents the reduction due to the maximum and minimum limits from compensation benefits which would be paid in the absence of the limits.

Two-thirds of the average weekly wage in Mississippi would result in a compensation benefit of \$72.70. Multiplying this \$72.70 figure by the limit factor yields \$39.17 for the average weekly benefit. Multiplying this sum by 204.194 weeks gives the total benefits to be paid of \$7,998,278. This figure contrasts with the approximately \$25½ million in wage loss cited above.

Benefits are 32.54 percent of the assumed wage loss in Mississippi. After taking into account waiting periods, retroactive periods, minimums and maximums in the Mississippi law, the effective compensation is less than one-third of wage loss for temporary total disability rather than the statutory 66% percent.

Appendix B shows the percentage of wage loss replaced in almost all jurisdictions. The method used is essentially that described, except that computer programing simplified some of the calculations. The information is summarized in table 8.7 which shows the number of jurisdictions replacing a particular percentage of wage loss for temporary total disability. Each of the two jurisdictions in the lowest category replaces less than 29 percent of the wage loss. One of these jurisdictions is Louisiana which combines a low weekly maximum of \$49 per week in a State where the average weekly wage is \$136 per week with a waiting period of 7 days. These initial 7 days are not paid for until 42 days have elapsed. The other jurisdiction in this low category is Texas which has a maximum of \$49 per week and an average weekly wage of \$134.

Table 8.7.—PERCENT OF WAGE LOSS REPLACED IN TEMPORARY TOTAL DISABILITY CASES

Percent of loss replaced	Number of Jurisdictions
25 to 29	
30 to 34	
35 to 39	1
40 to 44	
45 to 49	
50 to 54	
55 to 59	
50 to 64	
- Total	1 5.

¹ Includes the 50 States, District of Columbia, Puerto Rico, Federal Employees Compensation Act and Longshoremen's Act.

Source: Derived from calculations shown in Apps. A and B.

Mississippi has a lower maximum weekly benefit but also a lower average wage. Since its percent of wage loss compensated when all factors are taken into account is 33 percent, it fits into the next highest category on table 8.8 with three other jurisdictions.

Hawaii is in the highest category, replacing 60 percent of wage loss. Hawaii combines a maximum of \$112.50 with an average weekly wage of \$132. Arizona, Nevada, New Hampshire, North Dakota, and Washington rank relatively high in replace-

Table 8.8.—STATE WORKMEN'S COMPENSATION MAXIMUM WEEKLY BENEFITS FOR TEMPORARY TOTAL DISABILITY FOR A SINGLE WORKER FOR JAN. 1, 1972, AS A PERCENTAGE OF THE AVERAGE WEEKLY WAGE FOR 1971

Jurisdiction	Maximum weekly benefit ¹	Average weekly wage ²	Benefit/ average weekly wage ratio (percent)	Statutory compensa- tion rate (percent)	Effective wage rate ³
Alabama*	\$55.00	\$122	45	55	\$100.00
Alaska		206	62	65	195.38
Arizona 4 *	150.00	142	106	65	234.31
Arkansas	49.00	107	46	65	75.38
California	87.50	156	56	65	134. 62
Colorado	64.75	141	46	663/3	97.13
Connecticut*	95.00	150	63	663/3	157.50
Delaware	75.00	150	50	663/5	112.50
Florida	56.00	130	43	60	93. 33
Georgia	50.00	126	40	60	83. 33
Hawaii	112.50	132	85	66%	168.75
Idaho \$ *	70.80	119	66	60	118.00
Illinois 6 *	88.50	160	55	65	136.15
Indiana*	60.00	148	41	60	115.00
owa	64.00	131	49	663/5	96.00
Kansas	56.00	128	44	60	93. 33
Kentucky	60.00	130	46	663/3	90.00
Louisiana	49.00	136	36	65	75.38
Maine	78.00	116	67	663%	117.00
Maryland 7	55.00	135	41	663%	82.50
Massachusetts*	77.00	140	55	663%	142.50
Michigan*	84.00	170	49	663/3	151.50
Minnesota	80.00	141	57	662/8	120.00
Mississippi	40.00	109	37	663%	60.00
Missouri	70.00	144	49	663%	105.00
Montana*	60.00	119	51	50	120.00
Nebraska *	62.00	123	50	663%	93.00
Nevada*	75.00	149	50	65	115.38
New Hampshire 9	92.00	123	75	*67-100	135.00
New Jersey	101.00	155	65	6635	151.50
New Mexico	57.00	120	48	60	95.00
New York	95.00	162	59	663%	142.50
North Carolina	56.00	116	48	60	93. 33
North Dakota*	64.00	118	54	80	92.50
Dhio 10	84.00	154	54	6635	126.00
Oklahoma	60.00	129	46	663%	90.00
Dregon	85.00	137	62	6635	127.50
Pennsylvania	60.00	141	42	6635	90. 80
Rhode Island*	74.96	126	59	663	130.44
South Carolina	50.00	114	44	60	83. 33
South Dakota	56.00	108	52	6635	84.00
Tennessee	55.00	123	45	65	84.62
Texas	49.00	134	36	60	81.67
Jtah*	54.00	120	45	60	115.00
/ermont*	72.00	136	56	6635	108.00
/irginia	62.00	122	51	60	103.33
Washington*	113.19	145	79	60	165.10
Vest Virginia	77.55	146	53	663%	116.33
Visconsin	90.00	141	64	70	128.57
Wyoming*	54.92	119	46	6635	110.42
merican Samoa					
District of Columbia	70.00	154	45	6635	105.00
Guam	56.00				
Puerto Rico	45.00	85	53	5415	82. 50
Frust Territory of the Pacific Islands:					
Virgin Islands Federal Employees					
Compensation Act	454.66				
ongshoremen's					

¹ Benefits data derived from individual State statutes and various sources, including unpublished data of U.S. Department of Labor, Employment Standards Administration. ³ From preliminary average weekly wage data as computed by the Unemployment Insurance Service, U.S. Department of Labor for 1st 2 quarters of 1971.

Table 8.8-SUMMARY BENEFIT/AVERAGE WAGE RATIO

Ratio (percent)	Number of jurisdictions		Ratio (percent)	Number of jurisdictions
35 to 39	. 3	70 to	74	0
40 to 44	- 7	75 to	79	2
45 to 49	- 14	80 to	84	0
50 to 54	. 11	85 to	above	2
55 to 59	- 6			
60 to 64	- 4	1.1	Total	52
65 to 69				

ment ratios. They fit into the 55 to 59 percent category with ratios slightly more than 56 percent. Nevada and North Dakota score relatively high on this measure because they have a 5-day waiting period with retroactivity after 5 days. If the minimum and maximums in the law were taken into account but not the waiting periods, i.e. the limit factors alone, Arizona would score highest among the States although the FECA scores highest in both the limit factor and percentage of loss replaced.

If all factors are considered, the median State falls into the category of 40 to 44 percent of wage loss replaced by workmen's compensation benefits for temporary and total disability.

Benefit/average weekly wage ratio.—Another method of evaluating adequacy is by the so-called benefit/average weekly wage ratio, which is the maximum weekly benefit divided by the average weekly wage in that jurisdiction and expressed in percentage terms. In Alabama with a maximum weekly benefit of \$55 and an average weekly wage of \$122 the benefit/average weekly wage ratio is 45 percent. The worker making the average weekly wage in Alabama could receive 45 percent of his wage in benefits, which is less than the statutory compensation rate of 55 percent. The data for individual States are shown in table 8.8. The last column in table 8.8 shows the effective wage rate

 Arizona compensation rate is 65 percent of wages plus \$2.30 for total dependents.
Idaho: After 52 weeks the benefit level is reduced to a maximum of 60 percent of the current average weekly wage.

Illinois: After 64 weeks the maximum benefit for a family of 4 decreases to \$78.
7 Maryland: After 42 days the maximum benefit increases to \$91.

Nebraska: After 300 weeks the maximum benefit is reduced to \$47.

• New Hampshire statutes do not list a statutory compensation rate, but rather a schedule. If the average weekly wage is at least \$30 but less than \$35, the weekly compensation rate is \$30 or 10 percent of wages at the minimum. The weekly wage figures increase by \$5 as the weekly compensation rate increases by \$3. At the maximum, an average weekly wage of \$135 or over, the weekly compensation rate is \$92 or 68 percent. ¹⁰ Ohio: After 12 weeks the maximum benefit is reduced to \$77.

*These States pay dependents' benefits.

³ Effective wage computed by dividing the maximum weekly benefit by the statutory compensation rate.

which is the same as the effective weekly wage for maximum benefits alluded to in the limit factor calculations. It is the maximum weekly compensation benefit divided by the statutory compensation rate. In Alabama, it is \$100. Anyone making up to that wage would receive the 55 percent statutory compensation rate. In Arizona, the effective wage rate is \$234.31; thus, the worker making the average weekly wage in Arizona easily qualifies for the statutory compensation rate.

As a rough approximation to the percentage of wage replaced, this benefit/average weekly wage ratio serves a purpose but it does not take into account the effect of the waiting periods or the retroactive period, and of course, it pertains only to workers making the average weekly wage. There is no attempt to deal with the distribution of workers above or below the average weekly wage in the jurisdiction. Further in States where the maximum benefit is attained by workers above the State average wage, the benefit/average weekly wage ratio has no significance with respect to wage replacement.

As shown in the summary of table 8.8, 10 jurisdictions have a benefit/average wage ratio of less than 44 percent; 25 jurisdictions fall into the 45 to 54 percent category. Seven out of the 52 jurisdictions have a ratio of 65 percent or more.

Wage loss test-maximum weekly benefits and average weekly spendable earnings.-Thus far, comparisons have been based upon the average weekly wage in the jurisdiction for a single worker. It is possible to compare benefits with the average weekly spendable earnings. (See appendix C) Instead of a single worker, consider a worker with a wife and two children. The taxes are less and in some cases the benefits are greater, thus making the comparisons more favorable. Sixteen jurisdictions-Alabama, Arizona, Connecticut, Idaho, Illinois, Indiana, Massachusetts, Michigan, Montana, Nevada, North Dakota, Rhode Island, Utah, Vermont, Washington, and Wyoming-vary their benefits in accordance with the number of dependents in the family. Average weekly spendable earnings are defined as average weekly earnings after deductions for Federal income tax and Social Security taxes. In these calculations, no account is taken of occupational expenses or fringe benefits lost.

Ten out of 52 jurisdictions have benefit/spendable earnings ratios of 15 percent or less. Fifteen jurisdictions have benefit/spendable earnings ratios between 51 percent and 59 percent. Ten out of 52 have ratios between 60 and 69 percent and 17 have ratios of 70 percent or more.

In this highest category are Alaska, Arizona, Connecticut, Hawaii, Idaho, Illinois, Maine, Massachusetts, Montana, Nevada, New Hampshire, New Jersey, North Dakota, Oregon, Rhode Island, Washington, and Wisconsin.⁵

Benefits and wages over the years.—This section contrasts the average weekly wage and the maximum weekly benefits paid in workmen's compensation going back several years. In 1940, most jurisdictions were above the 662/3 percent mark. The average worker received the statutory replacement percentage in the event of injury. Alabama's maximum benefit/average weekly wage ratio was 95 percent and in only four of the 49 jurisdictions for which data for 1940 are available would a single worker making the average wage be prevented from receiving at least 60 percent of his wages if he were injured. No jurisdiction in 1940 paid a maximum benefit less than 50 percent of the average weekly wage. Thirty-six paid maximum weekly benefits of two-thirds or more of the average weekly wage.

With the war, wages began to rise and benefit levels never caught up. Maximum benefits increased but did not keep pace with wages. The number of jurisdictions paying the average worker above two-thirds of the average weekly wage of the preceding year fell. In 1946 only one jurisdiction paid as much as 662% percent; in 1956 and 1966 only two jurisdictions were in that category.

At the other end of the scale, in 1940 no State paid maximum benefits below 50 percent of the average weekly wage in that State. By 1946, however, as many as 25 states did and in 1966 as many as 36. Since that time the number has declined, but about two-fifths of the States remain with maximum benefits less than 50 percent of the average weekly wage. In 1972 the number of States in that category for a single worker's benefits was 22.

Actually maximums have changed over the years; generally they have moved faster than the level of the consumer price index. The maximum real benefits awarded for temporary total disability to a family of four, that is the nominal benefits adjusted by the consumer price index, has increased. In 1940, the average real benefit was \$43.84 in 1967 dollars. Although there was a drop in 1946, by 1956 the average benefit in "real dollars" was above 1940's benefit. For 1962 and 1972 the real benefit out-paced the change in prices, but not the change in wages.⁶

Comparisons of workmen's compensation benefits with the poverty level.—For 1971, the poverty level was \$79.56 per week (for 1968, \$68.37 per week) for a nonfarm family of four.⁷ This sum can be contrasted with the maximum weekly compensation benefit for a family of four paid in each of the jurisdictions. In 1968, 39 out of the 52 jurisdiction paid a maximum weekly cash benefit for temporary total disability below the poverty level. The situation improved in 1972 but the maximum benefits in 33 out of 52 jurisdictions still fell below the poverty level even after much legislative activity in 1969 and 1970 when all but 12 jurisdictions liberalized benefits for disability.

Comparison of maximum weekly compensation benefits with AFDC benefits.-In general the maximum weekly compensation benefits for temporary total disability are larger than the amounts that families could receive from the public assistance programs. If one contrasts the largest weekly amount paid in each of the States in the Aid to Families with Dependent Children (AFDC) program with maximum weekly benefits in workmen's compensation, welfare maximums exceed temporary total maximums in four States. In 10 other States, the benefits exceed the welfare limit by only 20 percent or less, but in the remaining States workmen's compensation beneficiaries did receive substantially more than their counterparts among welfare recipients.8

Workmen's compensation maximum weekly benefits and Social Security DI benefits.—In 1972, the maximum family benefit under the Social Security Disability Insurance Program could amount to \$111.39 per week, but lesser amounts are much more probable. Assume an individual age 35 with a spouse and two dependent children under age 18, who becomes permanently and totally disabled on January 1, 1972. His earnings for Social Security purposes are at most \$7,800 per year for the years 1968 to 1971, \$6,600 in 1966 and 1967, and \$4,800 in 1964 and 1965. The average monthly earnings are, therefore, \$562.50. His primary insurance amount is \$244.20, which is the amount he would receive each month if he were single. His spouse is entitled to 50 percent of that amount, since she has a child under age 18 in her care. Each of the children would also be entitled to benefits, except that maximum family benefit is reached at \$439.60 per month or \$101.45 per week.

An individual age 25 with two years of credited earnings, or a person age 24 or less with one and one half years of credited earnings, could qualify for the maximum of \$111.39 per week.

In any event, even the lower \$101.45 maximum exceeds the usual amounts paid under workmen's compensation. Six States (Alaska, Arizona, Connecticut, Hawaii, Nevada, and Washington) pay temporary total disability benefits amounts greater than the \$101.45 maximum benefit under DI for a husband and wife with two children. Four of these States pay weekly benefits exceeding the maximum of \$111.39 per week.⁹

Michigan and New Jersey pay benefits equal to the DI benefits but all other jurisdictions pay a maximum weekly benefit below the assumed Social Security maximums.

Comparisons with unemployment insurance.—Traditionally unemployment insurance has an objective of replacing not 662% percent of lost wages but one-half of lost wages.¹⁰ It is possible, however, to contrast the maximum workmen's compensation benefits and the maximum unemployment insurance benefits. Thirtyone jurisdictions out of 52 pay workmen's compensation benefits greater than the unemployment insurance benefits. In nine, the benefits are the same, whereas in 11, for one reason or another, the workmen's compensation maximums are below the unemployment insurance maximums.

PERMANENT TOTAL DISABILITY BENEFITS

Definition

Permanent and total disability benefits are paid to a worker after a judgment that his occupational impairment has left him in such a position that his continued tenure in the labor market is not feasible. The definition of exactly what constitutes permanent and total disability varies. In most jurisdictions, if an employee is left with impairments such as total blindness or the loss of two major members, the presumption is that he is permanently and totally disabled. In other instances in those jurisdictions which stress the evaluation of physical impairment, a judgment of permanent and total disability is based upon a medical evaluation which finds that he is unable to perform the duties either of his previous job or possibly the duties of any job for which he was reasonably fitted. In wage-loss jurisdictions, emphasis is placed, not so much on the physical impairment per se but rather on the de facto inability to perform reasonably available work.

Statutory Wage Replacement

As with temporary disability, permanent total disability benefits are based upon a percentage of the worker's wages. For the most part, these percentages are similar to those specified for temporary total disability. There are differences in some States. In Oregon, total disability payments are based on 55 percent of the wages with a maximum of \$50 a week plus \$2.50 per week for each dependent not to exceed 5. The minimum is \$40 per week or 90 percent of wages, whichever is less. Temporary disability in Oregon is based on 662/3 percent of wages with a maximum of \$85, but no less than either 90 percent of wages or \$50 a week, whichever amount is lesser. Similarly in Wyoming, there is a difference between the permanent and the temporary total payments.

With the exception of Oregon, Wyoming, and Nevada, however, the percentage of wages specified as a replacement ratio is the same for the two types of benefits.

Maximum Weekly Benefit

In a dozen States, the maximum weekly compensation benefit in the case of permanent total disability differs from that which is specified for temporary total disability. For the most part the maximum specified in the permanent cases are lower, perhaps because of the longer-term pensionlike commitments; however, there are exceptions. Until July 1, 1972 Maryland paid a maximum of \$55 per week for the first 42 days of temporary total disability. After 42 days, the worker received 66% percent of the wages but not to exceed 66% percent of the State's average weekly wage. As of January 1, 1972, this meant an effective maximum of \$91 per week after the first 42 days of temporary total disability. Consistently, Maryland specified that the higher maximum is to prevail in the case of permanent total disability.

In Alaska, the maximum specified for temporary total disability is \$127 per week, but for permanent total disability this is reduced to \$82.55 per week, a policy more typical than Maryland's. In Arizona, the maximum for both permanent and temporary total disability is \$150 but \$2.30 added for dependents in temporary disability is not authorized in permanent disability.

In California, where a \$87.50 maximum is provided for temporary total disability, the effective maximum for permanent total disability is \$52.50 per week for 400 weeks and thereafter a life pension of \$48.46 per week.

In Illinois, the maximum weekly payments for temporary total disability range from \$88.50 to \$109 per week, according to the number of dependents for 64 weeks. After that period, the maximum runs from \$71 to \$85, exactly the maximum specified for permanent total disability. Iowa's maximums are based upon a precentage of the State's average weekly wage. For temporary total disability, Iowa will pay up to 50 percent of the State's average weekly wage, but for permanent total, only 46 percent. This effectively reduces the maximum from \$64 per week in temporary total to \$59 per week in the permanent total cases.

Missouri will pay up to \$70 per week as a maximum for temporary total disability but only \$60 per week for permanent total. After 300 weeks of payment in the permanent total cases, this maximum is reduced to 50 percent of earnings rather than the 662/3 specified, with a maximum not of \$60 per week but \$50.

Montana, which will pay a temporary disability maximum of \$60-80 per week, according to the number of dependents, will pay \$37-60 for permanent total disability.

New York's maximum for permanent total is \$80 per week as contrasted to its \$95 limit in temporary total.

In Ohio, in temporary total, the payment will be \$84 for the first 12 weeks and thereafter \$77, the maximum for permanent total disability.

In Oregon, the maximum for temporary total is \$85 a week but it varies with dependents in permanent total cases ranging from \$50 a week to \$62.50.

In Puerto Rico, the maximum for the temporary total is \$45 in contrast to the \$28.85 per week maximum which prevails for permanent total disability.

The 14 jurisdictions which have flexible maximums for temporary total disability retain this flexibility for permanent total disability.

Although, for the most part, maximum weekly benefits are the same for temporary and permanent total disability, in the States cited they do differ, usually to the disadvantage of the permanently disabled. Only two States favor the permanently disabled. It is difficult to rationalize the differences.

Minimum Benefits

In general, minimum benefits payable for permanent total disability are the same as for temporary total disability. But with the maximum limits, there are exceptions.

In Arizona there are no specified sums for dependents' allowances in permanent cases.

California, which pays a higher maximum for temporary total than for permanent total, also pays a higher minimum. Its minimum payment in permanent total is \$20 a week for 400 weeks and thereafter a life pension of \$18.46 per week, in contrast with the minimum of \$25 for temporary total.

Massachusetts has a variable minimum for temporary total. As noted above, it provides for \$20 or the average wage if less, but not less than \$10 if the normal working hours are 15 or more. For permanent total, however, the \$20 minimum is paid without qualifications.

Montana pays a minimum of \$34.50 a week for permanent versus \$45 a week for the temporary.

New York sets a minimum for permanent total at \$20 a week or actual wage if less in contrast to \$30 a week or actual wage if less for temporary total disability.

Ohio, to the contrary, although its maximum for permanent total is less than its maximum for temporary total, sets a minimum for permanent total higher than for temporary total: \$49 per week, or average wage if less, for permanent total, but \$35 a week or actual wage if less for temporary. This minimum payment also is without reference to a provision in the Ohio law that supplemental payments may be made from the Disabled Workmen's Relief Fund.

Puerto Rico, like Ohio, sets a minimum for permanent total higher than for temporary total, although its maximums are in the reverse relationship. Its minimum for permanent total is \$1.54 more per week than for temporary total.

Oregon is in the usual pattern with minimums for permanent total \$10 less than for temporary.

Wyoming has a lower minimum and maximum for permanent total than for temporary.

In general, the minimum payments per week in the case of permanent total disability follow the pattern for temporary total disability, with the exceptions noted. Where exceptions occur, they usually follow the maximum payments, aside from Ohio and Puerto Rico.

Duration of Benefits

Thirty-eight jurisdictions specify that a worker can receive permanent total disability benefits for life or for the duration of the disability. except for qualifications in four of these jurisdictions. Indiana provides that payments may be made for 500 weeks or a maxium of \$30,000; thereafter payments for an indefinite period come from a special fund. Similarly, Rhode Island provides for payments from its second injury fund after 500 weeks or after \$32,500 has been paid. Maryland, which specifies that the payments may be made for the duration of disability, also has a total maximum of \$45,000. In North Carolina, the benefits run for 400 weeks, or in certain cases, 500 weeks for two injuries in the same employment. In certain other types of injuries, which by and large are the presumed scheduled permanent total disabilities, benefits during the life of the injured employee can be paid without regard to the 400 week maximum or a \$20,000 maximum which also is in North Carolina's laws.

Seven States have limits of 500 to 599 weeks. Six have limits of 400 to 499 weeks. Vermont has a limit of 330 weeks. Of those States which limit duration, South Dakota has the most generous limit: 30 years.

Tennessee has a 550 week limit but after 400 weeks the maximum is reduced to \$15 per week. Tennessee also has a total maximum of \$22,000.

124

Wage Loss Tests

Adequacy of benefits.—As noted above, wage loss in temporary total disability may be evaluated by taking into account waiting periods, retroactive periods, and the minimum and the maximum benefit levels allowable. A particular pattern of temporary total disabilities was assumed, based upon an accident injury table. In the event of permanent total disability, we assume that the disabled person will not be able to participate in the labor force in any meaningful way for the duration of his useful working life. Consequently, replacement of his wage loss depends upon the age at which he becomes disabled, the wages he would have received, and the benefits due him.

In calculating a continuing wage loss such as a worker experiences in permanent disability, an important factor is that wages normally increase through the working career because the economy becomes more productive, the worker gains skill and expericence, and the value of the dollar declines. Fringe benefits, changes in the types of insurance protection that the family would require, and changes in the amount of work that the person can do around the home may also affect the net loss.

For illustrative purposes, assume a 35-year-old craftsman with a wife and two dependent children, age 9 and 12, whose wage at the time of disability was \$8,590 per year. Assuming further an earnings age profile for a person with a high school education in this occupation, a 3 percent increase in productivity each year, and a discount rate of 6 percent (an estimate of the yield in government securities), the present value of the wage loss suffered amounts to \$151,687 after Federal and State income taxes are deducted.¹¹

Insofar as workmen's compensation benefits are concerned, dependents' benefits where paid are considered as well as the duration of the benefits. Where benefits are paid for life, it is assumed arbitrarily that the man would not receive payments after age 65. On the other hand, no deduction is made for social security taxes that would have been paid and it is assumed that at age 65 the worker would receive retirement benefits, albeit at a reduced rate.

In this comparison of the present value of workmen's compensation benefits with this assumed wage loss, Connecticut would pay between 60 and 80 percent of the assumed wage loss. Twelve jurisdictions would pay 40 to 59 percent; 21 would pay from 20 to 39 percent; and 18 out of 52 jurisdictions for which data are available would pay below 20 percent or one-fifth of this assumed wage loss.

If the worker has a wife but no children, the loss figures are slightly less because of the different impact of taxes. The present value of the loss would be \$149,978. In such a comparison, 17 jurisdictions will pay 20 percent of the loss or less. Twenty-four will pay 20 to 40 percent; another 10 between 40 and 60 percent; and only Connecticut will pay more than 60 percent.

For many States, the assumption of a uniform wage in excess of \$8,000 is too high for the average worker. Instead, assume a 35-year-old worker who becomes permanently and totally disabled with a wife and two children, aged 12 and 9, earning the average weekly wage in the jurisdiction. The fringe benefits that are allocated to the worker are not considered in this calculation. In this comparison, Connecticut, Idaho, Maine, and West Virginia pay workmen's compensation benefits between 60 and 80 percent of the wage loss. Seventeen States pay between 40 and 60 percent; and, even in this comparison, 16 of the jurisdictions pay less than 20 percent of the loss.

Wage loss comparisons taking into account Social Security DI benefits.—If the worker is covered under Social Security, he will be eligible for disability insurance benefits if he is unable to engage in any substantial gainful activity because of a condition expected to last for at least 12 months. (Social Security's definition of permanent and total disability differs from the usual definition under workmen's compensation.)

Assume that worker is fully insured and that he has earned the maximum amount allowable each year. His primary insurance amount is estimated at \$244 per month. His wife and dependent children are each eligible for a benefit calculated at 50 percent of the primary insurance amount limited by a family maximum of \$440 a month. The wife is entitled to receive benefits only while at least one of the children is a dependent. At the end of 9 years, for this assumed family, both children are over 18 and only the worker is eligible for benefits. He receives this DI benefit until age 64, when he is switched to retirement benefits. No adjustments are allowed for possible increases in benefit levels. If Social Security alone were considered, the family could receive his primary insurance amount of \$244 a month.

(In addition at age 62 the disabled wife is eligible for an actuarially reduced benefit of \$92 with the actuarial reduction diminished if she begins to draw benefits at age 63-64, or a full benefit of \$122 beginning at age 65).

Social Security, however, cannot be considered alone because of the so-called offset provisions. Under the current law, the worker is limited to a combined Social Security and State workmen's compensation benefits of not more than 80 percent of his average current earnings.

Colorado is the only State that calls for a reduction in State payments for workmen's compensation because of entitlement to Social Security benefits. However, beneficiaries from Colorado are still subject to the offset as a result of a recent court decision that defines the lowering of the benefit as a delay in benefits received rather than a reduction in amount. Minnesota provides for an offset but only after \$25,000 has been paid in workmen's compensation.

Taking all factors into account, some 31 States pay the \$8,590 workers less than 60 percent of the loss and some 21 States pay between 60-80 percent.

For a worker without children, 14 out of 52 jurisdictions will pay between 20 and 39 percent of the loss; 20 jurisdictions will pay from 40 to 59 percent; and 18 will pay 60 to 79 percent.

For the worker making only the average wage in the jurisdiction, with a wife and two children, 12 jurisdictions pay less than 50 percent of the loss but the balance pay 50 percent or more, with four paying 70 to 80 percent.

If the worker earning the average wage in his jurisdiction has a wife but no children, the effect is about the same. One State will pay between 80 and 100 percent of the loss, 27, from 60 to 80 percent; and 23 from 40 to 60 percent.

Comparisons with the poverty level.—The comparison of benefits and poverty levels cited above for temporary total disability resemble those for permanent total disability, since permanent total disability maximum weekly benefits are similar to the temporary total disability maximum benefits. Arizona's maximum weekly benefit in 1968 was more than twice the assumed poverty threshold. Connecticut's was 25 percent above. In Hawaii, the 1968 benefit was 65 percent above the poverty level. Massachusetts, Michigan, New Jersey, and Wisconsin were all comfortably above, with the District of Columbia and Maryland's benefits approximately meeting the poverty threshold. All other jurisdictions fell below the defined poverty level.

As of January 1, 1972, 16 of the 50 States paid maximum weekly benefits for a family of four equal to or greater than the national poverty figure: 34 were below.

Benefit/average weekly wage comparisons.— What percentage of his wage would the average worker, if permanently and totally disabled, receive in a jurisdiction if awarded the maximum benefit allowable? Again, the percentage is close to that for temporary total.

In nine jurisdictions, the average worker could receive two-thirds of his wages or more as a benefit. If the comparison deals not with the two-thirds standard but with the actual percentage replacement rate specified in each of the State laws, in 10 of 52 jurisdictions, the worker making the average wage would be able to secure as a benefit the same percentage of his wage as specified in the statute.

It is possible also to compare the maximum weekly benefit with the average weekly spendable earnings for a family of four. These are the takehome pay figures where the average weekly earnings have been reduced by Social Security taxes and Federal income taxes. No consideration is given to loss of fringe benefits or to continuing rises in wages.

In this comparison, 15 States replace two-thirds of the average worker's spendable earnings. In 13 States, replacement ratios are less than 50 percent.

SUMMARY

The percentage of wages replaced for disabled workers are generally lower than the percentage prescribed by statute, in part because of the waiting and the retroactive periods. States differ also in the minimum weekly benefits and, most important, for purposes of contrasting the statutory replacement rate with the percentage of wage loss, in the maximum weekly benefit. Temporary total disability weekly maximums were compared also with the amounts paid under the poverty program, the public assistance program, disability insurance, and unemployment insurance in each of the several States.

The comparisons for the permanently totally disabled were similar except that in addition to the minimum and maximums paid on a weekly basis, aggregate or duration maximums must be taken into consideration. Waiting periods, however, have no effect on the amount recovered for the permanently disabled.

The adequacy of benefits was evaluated for an assumed lifetime wage loss. In addition, the benefits paid for permanent total disability, which for the most part are the same as those for temporary total disability, were contrasted with the poverty level. The maximum benefits that could be recovered by an average worker in a jurisdiction also were assessed as a percentage of average wage and spendable earnings.

References for Chapter 8

- Alfred M. Skolnik and Daniel N. Price, "Another Look at Workmen's Compensation," Social Security Bulletin, October 1970, is the most recent full dress review of the workmen's compensation programs prepared by Skolnik and his associates. The latest data for 1970 are in the January 1971 Social Security Bulletin.
- 2. The data on the percentage distribution of compensable cases and incurred losses for the years 1939, 1954, 1966 are to be found in Alfred M. Skolnik and Daniel N. Price, "Another Look at Workmen's Compensation", op. cit., Table 5, page 10. The data for what we refer to as policy year 1968 are from the National Council on Compensation Insurance, "Country Wide Workmen's Compensation Experience", July, 1971. Actual data range over several policy years depending upon the reporting of the jurisdiction.

- 3. Workmen's Compensation and Rehabilitation Law. Chicago: Council of State Governments, 1965.
- 4. These tables are to be found in Barney Fratello, Workmen's Compensation Injury Table and Standard Wage Distribution Table. Proceedings of the Casualty Actuarial Society, Volume XLII. As an example of the use that can be made of these actuarial materials for evaluation of the laws, see: Arthur H. Reede, Adequacy of Workmen's Compensation (Cambridge, Massachusetts; Harvard University Press, 1947). Reede did not have the benefit of the Fratello tables, but used essentially the method therein described to evaluate the adequacy of certain of the laws.
- 5. The detailed tabulations showing the data for each state can be found in Monroe Berkowitz, "Workmen's Compensation Income Benefits: Their Adequacy and Equity", A supplemental study prepared for the National Commission on State Workmen's Compensation Laws. This will be cited hereafter as "Supplemental Study Income Benefits". The data on the contrast between maximum weekly benefits and average weekly spendable earnings are to be found at Table 11.
- 6. The supporting data are to be found in "Supplemental Study Income Benefits". Table 4.
- 7. An explanation of the poverty index together with an analysis of some of its criticisms can be found in the President's Commission on Income Maintenance Programs, background papers page 28.
- 8. These comparisons are anlyzed by Peter Barth in "Some Measures of the Adequacy of Workmen's Compensation", Industrial Relations Research Association Series, Proceedings of the 24th Annual Meeting, December 1971, pp. 332–341.
- 9. The supporting data to be found in "Supplemental Study, Income Benefits". Table 7.
- Lenard P. Adams, Public Attitudes Towards Unemployment Insurance, Washington, D.C., W. E. Upjohn Institute for Employment Research, December 1971, pp. 3 and 4.
- 11. The supporting data are found in "Supplemental Study Income Benefits," Chapter IV, where comparisons are made based on other age and wage assumptions.

Appendix A

LIMIT FACTOR CALCULATIONS

The calculations for chapter 8 are taken from the Fratello, "Workmen's Compensation Injury Table and Standard Wage Distribution Table," which have been reprinted from the "Proceedings of the Casualty Actuarial Society" volume XLII. The limit factor calculations are those shown in exhibit VII at page 189 of the reprint. As an illustration and using for reference the same line numbers as in exhibit VII, consider Mississippi. Lines 3, 4, and 5 are filled in from data from the Mississippi statute. Line 9 is the average weekly wage. Lines 6, 7, 10, 11, 12, and 13 are calculated from the supplied data. Lines 14, 15, 17, and 18 are taken from the Workmen's Compensation Wage Distribution Table, which shows the ratio to the average wage assumed. One column of the table shows the percentage of workers receiving not more than the average wage percentage and the other is a summation of wages as an index number. Thus, line 14 is an index number representing the total wages received by all employees receiving a weekly wage equal to or less than the effective weekly wage for minimum benefits which in our case example in Mississippi is \$15. Line 15 represents the total wages received by all employees receiving a weekly wage equal to or less than the maximum effective weekly wage as shown on

line 7, or \$60. Lines 20 and 21 are the effective wage incomes of employees receiving the minimum, weekly compensation in one case, and the maximum in the other case. The sum of line 16, 20, and 21 represent the effective wages of all employees related to the index 10,000 representing total actual wages. The final line, 22, is the limit factor which reflects the reduction due to the limits from those compensation benefits which would be applicable in the absence of such limits.

EXAMPLE OF LIMIT FACTOR CALCULATION

Mississ	ippi:	
(1)	Class of injury	Temporary total
(3)	Nominal percent of compensation	6633
	Minimum weekly compensation	\$10.00
(5)	Maximum weekly compensation	\$40.00
(6)	Effective weekly wage for minimum benefits (4) ÷ (3)	\$15.00
(7)	Effective weekly wage for maximum benefits (5) ÷(3)	\$60.00
(9)	Average weekly wage	\$109.00
(10)	Ratio to average (minimum) percent (6)÷(9)	14
(11)	Ratio to average (maximum) percent (7)÷(9)	55
(12)	Line (10) adjusted to nearest 5 percent	15
(13)	Line (11) adjusted to nearest 5 percent	55
(14)	(B) for (12) from table	2
(15)	(B) 'or (13) from table	382
(16)	Difference (15)-(14)	380
(17)	(A) for (12) from table	0.25
	(A) for (13) from table	9.05
(19)	Difference 100.00-(18)	90.95
(20)	Product (10)×(17)	3.5
(21)	Product (11)×(19)	5002
(22)	Limit factor ((16)+(20)+(21)]÷10,000	0. 5386
Note.	-Shown as 6.5390 in app. B owing to rounding in computer	program.

Jurisdiction	Percent of statutory replacement	Minimum weekly benefit	Maximum weekly benefit	Average weekly wage	Waiting period	Retroactive period	Limit factor	Percent of loss replaced
Alabama 1	55	\$15.00	\$55.00	\$122	3	29	0.7514	38. 4
Alaska	65	25.00	127.00	206	3	29	.8242	48. 64
Arizona 1	65	30.00	150.00	142	7	15	. 9801	56.94
Arkansas	65	10.00	49.00	107	7	14	. 6692	38. 5
California	613/4	25.00	87.50	156	7	29	. 8039	41. 0
Colorado	663%	13.00	64.75	141	7	22	. 6570	37.0
Connecticut ¹	663%	20,00	95.00	150	3	7	. 8250	55. 5
Delaware	6635	25.00	75.00	150	3	7	. 7037	45.0
Florida	60	12.00	56.00	130	7	22	. 6797	34. 4
Georgia	60	15.00	50,00	126	7	28	. 6352	31.6
lawaii	6636	18.00	112.50	132	2	8	. 9339	60.1
	60	53. 55	107.10	119	5	15	. 0140	54.6
daho ¹	65	31, 50	88.50	160	7	22	. 7714	45.2
Ilinois 1			60,00	148	7	29	. 6472	34. 8
ndiana 1	60	21.00	64,00	148	7	None	. 6909	35.0
owa	6635	18.00	56.00	131	7	21	. 6880	35. 1
Kansas	60	7.00			7	15	. 6609	38.6
Kentucky	6635	27.00	60.00	130				28.4
Louisiana	65	12.50	49.00	136	7	42	. 5425	
Maine	663%	18.00	78.00	116	7	15	. 8520	49.7
Maryland	6635	25.00	91.00	135	3	29	. 8534	51.6
Massachusetts 1	663%	20.00	77.00	140	5	6	. 7549	54.8
Michigan 1	663	27.00	84.00	170	7	14	. 6972	44. 3
Minnesota	663%	17.50	80.00	141	3	10	. 7705	45.8
Mississippi	6635	10.00	40.00	109	5	14	. 5390	32. 5
Missouri	663	16.00	70.00	144	3	29	. 6881	41.6
Montana 1	50	45.00	60.00	119	7	21	. 9001	42.7
Vebraska	663%	40.00	62.00	123	7	42	. 7144	38. 3
Nevada ¹	65	None	75.00	149	5	5	. 7207	56. 5
New Hampshire		30.00	92.00	123	7	7	. 8957	56.4
New Jersey	6635	15.00	101.00	155	7	7	. 8380	52.8
New Mexico	60	28.50	57.00	120	7	29	.7354	36.4
New York	663%	30.00	95.00	162	7	15	. 7882	46.0
North Carolina	60	20.00	56.00	116	7	29	. 7419	36.8
North Dakota 1		64.00	64.00	118	5	5	. 6568	56.1
Ohio	6635	35.00	84.00	154	7	21	.7517	42.6
Oklahoma	6635	20.00	60.00	129	5	5	. 6643	42.9
Dregon	6634	50.00	85.00	137	3	14	. 8264	51.4
Pennsylvania	663%	35.00	60.00	141	7	43	. 6162	33. 0
Rhode Island 1	6635	30.00	74.96	126	3	15	. 7965	53.1
South Carolina	60	5.00	50.00	114	7	29	. 6892	34. 1
South Dakota	6634	27.00	56.00	108	7	28	. 7254	40.1
	65	15.60	55.00	123	7	14	. 6564	37.8
Tennessee	60	12.00	49.00	134	7	28	. 5913	29.4
Texas	60	29.00	54.00	120	3	22	. 7064	45.0
Utah 1		33.00	65.00	130	7	14	. 7057	43.7
Vermont ¹	663%		62.00	130	7	43	. 7681	37.0
Virginia	60	14.00			3	14	. 9452	56, 8
Washington 1	60	43.19	113.19	145 146	3	14	. 7378	45. 9
West Virginia	6635	35.00	77.55				. 8055	53. 1
Wisconsin	70	21.00	90.00	141	3	11		48.9
Wyoming 1	6635	43.38	54.92	119	3	9	. 6708	
District of Columbia	6635	18.00	70.00	154	3	29	. 6516	39.4
Puerto Rico	6635	10.00	45.00	85	3	10	. 7341	46.3
Federal Employees Compensa-								
tion Act	663%	70.63	454.66	193	3	22	1.0115	61.7
Longshoremen's	6635	18.00	70.00	144	3	29	. 6882	41.6

Appendix B

Table 8.9.-TEMPORARY TOTAL DISABILITY WAGE LOSS CALCULATIONS

¹ These States pay dependents' benefits either by increasing the statutory percentage, the minimum and maximum weekly benefits or by adding a sum to the weekly benefits. These changes and additions are not shown but the limit factor and the percent of loss replaced takes dependent benefits into account.

Note.—Source derived by using method in Fratello, "Workmen's Compensation Injury Table and Standard Wage Distribution Table," reprinted from the Proceedings of the Casualty Actuarial Society, vol. XLII. Percent of loss replaced is calculated according to method explained in text. It takes into account both the limit factor (i.e., minimum and maximum benefits) and the effect of the waiting period.

130

Appendix C

SPENDABLE EARNINGS

Spendable earnings are discussed in chapter 8 of the COMPENDIUM ON WORKMEN'S COMPENSATION and in "The Report of the National Commission on State Workmen's Compensation Laws." In the report, see especially chapter 1, pp. 36–37 for a general background, and chapter 2, pp. 54–57 and recommendations R3.1, R3.6, R3.13, and R3.20, for applications of the spendable earnings concept. This appendix provides a brief review of the rationale for the use of the spendable earnings concept and a few suggestions which should help make the Commission's recommendations operational.

Gross average weekly earnings as used in the report and the Compendium are the average weekly total wages for all workers covered by the unemployment insurance program as reported in the "Handbook of Unemployment Insurance Financial Data, 1938-70." This source of earnings information was used because the data are available on an individual State basis, provide a broad coverage of the labor force, and are available for an extended time period. "Total wages" represents all wages, including cash bonuses, the cash value of meals and lodgings when supplied, and tips and other gratuities. Employer contributions for social insurance and for private programs such as pension plans are not included. As shown in column one of table 8.10 (the same as table 3.2 of the report) gross average weekly earnings for all U.S. workers covered by the unemployment insurance program have increased from \$27.02 in 1940 to \$141.09 in 1970.

Workmen's compensation benefits are now calculated as a proportion of gross average weekly earnings. (The exact definition of weekly earnings or wages varies from State-to-State, but in all States is more closely related to gross average weekly earnings than to spendable weekly earnings.) The report recommends that benefits should be calculated as a proportion of spendable average weekly earnings, which is less than gross average weekly earnings by the amount of Federal income and social security taxes. Historically, gross and spendable earnings did not differ by a significant amount, but in recent years spendable earnings for a worker with average earnings and three dependents have been about 14 percent less than gross earnings (see table 8.10).

Table 8.10.-RELATION BETWEEN GROSS AND SPENDABLE WEEKLY EARNINGS, 1940-70

Year	Gross average 1	Spendable average ²	Spendable as percent of gross
1940	\$27.02	\$26.76	99.0
1946	46.69	45.55	97.6
1956	81.15	74.16	91. 4
1966	114, 51	101.17	88.4
1970	141.09	121.70	86.3

¹ Gross average weekly wages for all workers covered by the unemployment insurance program, U.S. average, from "Handbook of Unemployment Insurance Financial Data, 1938–70."

² Spendable average weekly earnings for a married worker and 3 dependents. Spendable earnings reflect deductions for Federal income and social security taxes. Formulas are presented in U.S. Department of Labor, Bureau of Labor Statistics, "Employment and Earnings," February 1972, pp. 13–17.

The relationship between gross earnings and spendable earnings is complicated because the social security tax is regressive (constituting a higher proportion of gross earnings for a lowwage worker than for a high-wage worker), while the Federal income tax is progressive (constituting a higher proportion of gross earnings for a high-wage worker than for a low-wage worker) and inversely related to the number of the worker's dependents. Table 8.11 presents the formulas appropriate for 1972 which relate gross earnings to spendable earnings for different family sizes.

Table 8.12 (the same as table 3.3 of the report) provides some examples of the relationship between gross earnings and spendable earnings for families with different levels of gross earnings and different numbers of dependents. For example, a family with gross average weekly earnings

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1	.О	4

Table 8.11.—SPENDABLE AVERAGE WEEKLY EARNINGS FORMULAS, 1972

Worker with	no dependents	Married worker with 3 dependents			
Gross average weekly earnings	Formula (X=gross average weekly earnings)	Gross average weekly earnings	Formula (X=gross average weekly earnings)		
0 - 39.42	0.948 ×	0 - 82.69	0.948 ×		
39.43-49.04	.808 ×+ 5.52	82.70-101.92	.808 ×+11.58		
49.05- 58.65	.798 ×+ 6.01	101.93-121.15	.798 ×+12.60		
58.66- 68.27	.788 ×+ 6.59	121.16-140.38	.788 ×+13.80		
68.28-77.88	.778 ×+ 7.28	140. 39-159. 62	.778 ×+15.21		
77.89-116.35	.758 ×+ 8.84	159.63-166.67	.758 ×+18.41		
116. 36-154. 81	.738 ×+11.16	166.68-173.01	.7865×+13.66		
154.82-166.67	.708 ×+15.80	173.02-248.87	.8385×+ 4.66		
166. 68-173. 08	.744 ×+ 9.80	248.88-256.40	.813 ×+11.00		
173.09-197.96	.796 ×+ .80	256. 41-326. 92	.78 ×+19.46		
197.97-243.21	.7875×+ 2.49				
243. 22-256. 40	.7705×+ 6.63				
256. 41-283. 65	.73 ×+17.01				

Source: Paul A. Armknecht, Jr., "Changes in the Spendable Earnings Series: The Effect of the 1971 Revenue Act and Social Security Tax Changes," Employment and Earnings (vol. 18, No. 8) February 1972, pp. 13–17.

of \$150 would have spendable earnings of \$121.86 if the worker had no dependents and spendable earnings of \$131.91 if the worker had three dependents. The examples indicate that spendable earnings are a higher proportion of gross earnings for low-wage workers and for families with more dependents.

The typical workmen's compensation statute provides benefits that are a certain percentage, usually 66.67 percent, of gross earnings. Column (5) of table 8.12 indicates the level of benefits that families of various income levels would receive with such a statute. The report indicates two deficiencies of this benefit scheme. First, as the level of gross earnings increases in column (2), the benefits shown in column (5) come closer and closer to the spendable weekly earnings shown in columns (3) and (4). It is possible that high-wage workers would receive so much in benefits compared to their spendable earnings that their incentive for rehabilitation might be weakened. A second deficiency is that the appropriate measure of loss to a family from a work-related disability is net of taxes, and a benefit tied to gross earnings does not properly reflect the differences in net loss for families with differing dependency statuses.

A benefit system which relates benefits to spendable earnings would assure that high-wage workers do not lose an incentive to return to work and that families of various sizes receive benefits commensurate with the families' income losses. A system is illustrated in columns (6) and (7) of table 8.12 which represents the recommendation of the Table 8.12.—WORKMEN'S COMPENSATION BENEFITS AS A PERCENTAGE OF SPENDABLE EARNINGS COMPARED WITH BENEFITS AS A PERCENTAGE OF WAGES

Gross average weekly wage			e average irnings 1	Workmen's compensation benefits		
Percent of U.S. average (\$150) (1)	Amount (2)	None (3)	3 (4)	66.7 percent of gross average weekly wage (5)	80 percent of average spendable weekly earnings-Depend- ents	
					None (6)	3 (7)
66.67	100	84.64	92.38	66.67	67.71	73.90
100	150	121.86	131.91	100	97.49	105.53
133.33	200	159.99	172.36	133. 33	127.99	137.89
166.67	250	199.26	214.25	166.67	159.41	171.40
200	300	235.68	253.46	200	188.54	202.77

¹ Calculated by 1972 formula cited in table 8.11. Table assumes U.S. average weekly wage for 1972 is \$150, which is an estimate by the staff of the National Commission on State Workmen's Compensation Laws.

National Commission on State Workmen's Compensation Laws. This system makes benefits 80 percent of spendable earnings. The 80 percent figure was chosen because for an average size family (four persons) earning the U.S. average wage (estimated to be \$150 per week in 1972), the benefit would be \$105.53. In contrast, a benefit of 662/3 percent of the gross weekly wage would be \$100. The National Commission felt the extra \$5.53 was an appropriate adjustment reflecting the increasing importance of supplements since the 662/3 percent allowance was first developed. Since supplements (such as employer contributions for pension plans) are not included in the gross or spendable average weekly earnings figures, an adjustment to compensate for their omission is appropriate.

A more thorough rationale for the use of spendable earnings as a basis for benefits is provided in the report. Because the approach is relatively novel for workmen's compensation, a few additional comments of a practical nature may be useful. (1) The only wage data that must be obtained for each claim is the worker's gross average weekly earnings (or the equivalent measure of weekly earnings used in the State's workmen's compensation statute), which is data that already must be collected for virtually every workmen's compensation claim. (2) The number of dependents must be determined for each claim. This information must already be collected in many workmen's compensation claims, including claims in those States which provide benefits which vary by number of dependents. Most States, for example, vary the amount of death benefits depending on the number of dependents. (3) After the gross average weekly earnings and number of dependents are determined, spendable earnings are calculated by use of the appropriate formula such as the formulas in table 8.11. Information on each worker's actual tax payments would not be used, because attempts to take account of matters such as each worker's actual itemized deductions would greatly complicate the administration of the benefit scheme. (4) The formulas to convert gross average weekly earnings into spendable average weekly earnings are published annually by the U.S. Department of Labor. A few months lag between their publication

and an annual revision in the State benefit system may be necessary for administrative purposes. (5) The Department of Labor formulas consider deductions for Federal income and social security taxes. These formulas were the basis of the recommendation of the National Commission that benefits should be at least 80 percent of spendable earnings. If different formulas are used (e.g., formulas which consider deductions for State income taxes), then the percentage will have to be greater than 80 percent in order for the average size family earning the average wage to receive somewhat more under the spendable earnings approach than would be received if benefits were 66% percent of gross earnings.