# Income-Loss Protection Against Short-Term Sickness: 1948-58

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Cash sickness benefits paid under public and private auspices in the United States hit the \$2-billion figure in 1958—the tenth successive year of increases since 1948, when the Social Security Administration began its annual series on income-loss protection from short-term sickness. Data for the 10-year period, along with methodology and sources, are summarized in the following article.

HE proportion of lost earnings covered by cash sickness benefits paid through public and voluntary arrangements in the United States showed one of the largest advances of the decade in 1958. The estimated \$2.064 million paid out through government and nongovernment disability insurance and formal paid-sick-leave plans replaced almost 28 percent of the actual and potential income loss due to short-term sickness, compared with 26 percent in 1957. Excluded from these figures are unknown amounts of informal sick-leave benefits paid to workers at the employer's discretion.

This increased protection was due as much to a slackening rate of increase in the amount of income loss caused by sickness as it was to a growth in benefit payments. As the result of the 1957-58 recession, the estimated value of time lost through illness and injury rose only \$75 million in 1958, in contrast to a rise of \$320 million in the preceding year.1 Benefit payments in 1958 were \$138 million higher than the 1957 estimate; the increase from 1956 to 1957 was \$149 million. A greater-thannormal part of the 1958 benefits represented payments to unemployed sick workers whose theoretical wage loss would not be reflected in the income-loss figures.

## Measuring Income Loss

In this series the estimate of income loss is designed to reflect the loss of current earning power during the first 6 months of a nonoccupational illness or injury. It thus encompasses practically all the time lost because of temporary disability and part of the loss (the first 6 months) attributed to long-term disability. Excluded from the estimate is the loss of amounts that would have been earned in the future had not extended or permanent disability or premature death occurred.

One area of review this year involved the estimates of income loss for the self-employed. In the past it had been assumed, in the absence of morbidity data by class of worker, that self-employed persons experience the same amount of work loss as wage and salary workers in private industry—about 7 days a year.

Actually, self-employed persons are on the average older than wage and salary workers and, because illness rates increase with age, are more likely to lose days from work. In addition, the self-employed work longer hours than the rest of the labor force, and hence their potential worktime loss because of disabling illness is greater.

Work-loss days caused by sickness do not necessarily result, however, in income-loss days for many of the self-employed, especially farm operators and business proprietors. Income from unincorporated enterprises often continues despite the short-term absence of a proprietor from his business. On the other hand, Bureau of the Census studies show

that more than half the individual proprietors in the country had no paid employees in the survey week; unless the work can be postponed or unpaid family workers can pick up the slack during the temporary incapacity of the self-employed person, a decline in income may therefore be felt immediately. Among farm operators, about half reported neither paid hired hands nor unpaid family workers employed in the survey week.

After a careful weighing of these factors, it was concluded that the additional days of sickness incurred by the self-employed because of age composition and longer work hours probably offset the fewer days of sickness that result in earnings loss for the group. Consequently, this article continues to attribute to both the employed and the self-employed in private industry 7 days of earnings lost a year because of nonoccupational sickness.

As one result of this review, however, the estimates of income loss of the self-employed have been adjusted in recognition of the longer workweek of the average self-employed person. Census data show that the self-employed work, on the average, 8-11 hours longer a week than wage and salary workers.3 Instead of attributing 255 workdays a year to the selfemployed (as is done for private wage and salary workers), it seems more realistic to use about 300 workdays a year. Consequently, the imputed daily earnings of the self-employed, which are derived by dividing annual income by workdays, have been reduced for the entire series. The revision in the income-loss estimates for the self-employed in table 1 thus re-

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<sup>&</sup>lt;sup>1</sup> Because of the estimating methods used, year-to-year changes in income loss, as well as the loss to subgroups of the labor force, reflect changes in the number of workers and in average annual earnings rather than any changes in the average amount of time lost because of sickness and disability.

<sup>&</sup>lt;sup>2</sup> See, for example, Bureau of the Census, U. S. Census of Business, 1954, Retail Trade, Vol. I, and Selected Services, Vol. V, and U.S. Census of Agriculture, 1954, Vol. II.

<sup>&</sup>lt;sup>3</sup> Bureau of the Census, Annual Report on the Labor Force, 1958, Series P-50, No. 89, table 22.

flect the reduced earnings loss assigned to each day of sickness.

Another area given a further inspection this year involved the estimates of income loss for State and local government employees. In the past, it had been assumed that these employees lose on the average the same number of days from work as Federal Government employees about 8 days a year. This figure was based on sample surveys of illness experience in certain Federal agencies, coupled with the probability that the greater prevalence of paid-sickleave plans in government employment results in a higher absenteeism rate for government employees than for private employees.

The State and local government category, however, is heavily weighted (perhaps as much as 30 percent) with public school teachers who, because the school term is less than a full year, may be expected to lose, on the average, fewer workdays a year as a result of illness than the year-round government worker. Consequently, the State and local government category going back to 1948 has been assigned a work-loss average of 7.5 days a year—less than that assigned Federal employees but more than that assigned workers in private industry.

With these revisions, total time lost because of short-term nonoccupational sickness for all employed and self-employed persons in the United States is estimated at 435 million days in 1958 or, when converted into economic loss, \$7,451 million in lost earnings (table 1). A rough check on this estimate can be made from the United States National Health Survey which, through its continuous sample household-interview survey, collects data on the aggregate number of work-loss days experienced in the Nation.4

For the calendar year 1958, unpublished data from the National Health Survey show a nationwide estimate of 462.7 million days lost from work by the civilian noninstitutional population aged 17 and over because of occupational or nonoccupational illness or injury. A day was counted as lost from work if the person would have been going to work at a job or business but instead lost the entire workday because of an illness or injury. If the person's regular workday was less than a whole day and his entire workday was lost, it would be counted as a whole day lost. The possible excess of work loss registered under this definition was more than balanced by the exclusion of work loss involving only part of a workday for persons becoming sick or injured during working hours.

To obtain from the survey a measure of worktime lost that is comparable to the one used in this series, workdays lost because of occupational injuries must be subtracted from the totals. The adjustment would reduce the amount of work loss attributable to nonoccupational illness and injury to approximately 425 million days in 1958.

This figure includes some work-loss days resulting from total incapacity of more than 6 months' duration, but the overstatement is probably more than offset by the omission of some workdays lost during the first 6 months of an extended disability. (Under the concept of sickness used in this article, time lost from work during the first 6 months of a longterm disability is counted and that occurring after the first 6 months is excluded.) Because of the sequence and phrasing of the questions in the survey's household schedule, it is likely that many persons with chronic disabilities interpret the question of work loss as relating only to persons still actively in the labor market and thus fail to report worktime lost even during the early stages of a chronic disability. Moreover, for persons in institutions, the survey's totals omit all work-loss days, some of which may be attributable to the first 6 months of a disability.

At the same time it should be noted that, since work-loss days do not nec-

Table 1.—Estimated income loss from nonoccupational short-term sickness 1 by type of employment, 1948-58

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14	ш	millions

			Wage and	salary worke	ers		
			In private en	nployment 2	In public e	mployment	0.14
Year	Total	Total	Covered by temporary disability insurance laws <sup>3</sup>	Other 4	Federal 5	State and local 6	Self- employed persons ?
1948	\$4,566 4,429 4,789 5,477 5,814 6,147 6,104 6,552 7,056 7,376 7,451	\$3,628 3,599 3,913 4,489 4,829 5,197 5,160 5,569 6,336 6,338 6,365	\$391 483 712 1,059 1,132 1,213 1,212 1,299 1,430 1,512 1,522	\$2,805 2.641 2,695 2,837 3,037 3,293 3,231 3,503 3,775 3,933 3,863	\$174 190 201 259 291 290 280 297 313 323 352	\$258 285 305 334 369 401 437 470 518 570 628	\$938 830 876 988 985 950 944 983 1,020 1,038

Short-term or temporary non-work-connected disability (lasting not more than 6 months) and the first 6 months of long-term disability.

2 Annual payrolls of wage and salary workers in private employment from table Vi-2 in U.S. Income and Output: A Supplement to the Survey of Current Business, 1958, and in Survey of Current Business, National Income Number, July 1959 (Department of Commerce), multiplied by 7 (estimated waters are recovered weather than the commerce of the commerce o mated average workdays lost per year due to short-term sickness) and divided by 255 (estimated work-

days in year).

Total annual payrolls of wage and salary workers in industries covered by temporary disability insurance laws in Rhode Island, California. New Jersey, and New York and in the railroad industry, multiplied by 7 and divided by 255.

4 Represents the difference between total loss for

all wage workers in private employment and for

those covered by temporary disability insurance

laws.

<sup>5</sup> Federal civilian payroll in continental United
States from U.S. Civil Service Commission, multiplied by 8 (estimated average workdays lost per year due to short-term sickness) and divided by 260 (scheduled workdays in year).

<sup>6</sup> Annual wage and salary payrolls of State and local government employees from Department of Commerce data (see footnote 2), multiplied by 7.5 (estimated average workdays lost per year due to short-term sickness) and divided by 255 (estimated average workdays lost per year due to short-term sickness) and divided by 255 (estimated workdays).

mated workdays in year).

7 Annual farm and nonfarm proprietors' income from table I-8 in Department of Commerce sources cited in footnote 2, multiplied by 7 (estimated income-loss days per year due to short-term sickness) and divided by 300 (estimated workdays in year).

<sup>4</sup> Public Health Service, Health Statistics from the U.S. National Health Survey, Selected Survey Topics, United States, July 1957-June 1958, Series B-5, November 1958, and Disability Days. United States, July 1957-June 1958, Series B-10, May 1959.

essarily represent income-loss days for many of the self-employed, the survey's totals tend to overstate the number of income-loss days. (The situation of wage and salary workers who have their wages or salaries continued during periods of illness is not parallel, since such paid sick leave is counted as a benefit under the estimates of protection provided against the risk of income loss from sickness.)

In view of these offsetting factors and the sampling error involved in the National Health Survey data, the difference between the 425-million figure and the 435 million used in this article appears reasonable. It should be noted, furthermore, that the Social Security Administration estimate is a cumulative statistic based on the assignment of rounded workdays lost to the various components of the labor force. Without definitive data by class of worker, the

use of other than rounded averages would lend an unwarranted degree of preciseness to the estimates.

# **Protection Against Income Loss**

Various methods are used to provide protection against loss of earnings during periods of short-term sickness. For wage and salary workers in private industry, protection may be obtained through voluntary action by the employer or the employee, or a temporary disability insurance law may make the protection compulsory. The most usual method of providing voluntary protection is through group or individual accident and sickness insurance policies sold by commercial carriers that pay cash amounts during specified periods of disability. Employers may also selfinsure, providing either cash benefits or paid sick leave. Some unions. union-management trust funds, fraternal societies, and mutual benefit

Table 2.—Premiums and benefit payments for private insurance against income loss, 1948-58

[In millions]

		Ur	ider volunt	ary provisio	ns	Under	public prov	isions
Year	Total	Total	Group insur- ance <sup>1</sup>	Individual insur- ance 1	Other <sup>2</sup>	Total	Group insur- ance <sup>1</sup>	Other 3
	······································			Premi	ums 4			
1948 1949 1950 1951 1952 1953 1953 1955 1955 1956 1957 1958	\$555.8 603.3 678.9 784.9 854.0 1,004.7 1,052.4 1,106.5 1,182.4 1,317.8 1,386.0	\$545.7 564.6 603.1 641.1 698.2 818.0 874.2 927.8 1,004.5 1,098.9 1,151.7	\$162.1 177.6 219.3 249.6 266.2 299.2 319.0 363.2 400.9 434.5 431.2	\$350.0 355.0 360.0 366.0 405.4 494.8 534.2 547.8 586.0 646.0 703.0	\$33.6 32.0 23.8 25.5 26.6 24.0 21.0 16.8 17.6 18.4	\$13.1 38.7 75.8 143.8 155.8 186.7 178.2 178.7 177.9 218.9 234.3	\$12.8 32.1 64.6 122.7 132.8 158.5 150.9 151.3 151.1 185.5 197.8	\$0.3 6.6 11.2 21.1 23.0 28.2 27.3 27.4 26.8 33.4 36.5
				Benefit p	ayments			
1948 1949 1950 1951 1952 1953 1954 1955 1956 1956 1957 1958	286.7 321.8 379.2 485.2 542.7 589.2 612.3 671.3 781.2 849.6 883.0	277. 4 294. 7 325. 0 371. 9 414. 9 449. 4 480. 3 536. 2 630. 0 671. 4 699. 3	114.9 124.5 156.8 196.8 218.2 224.3 236.2 274.6 340.6 354.0 337.9	141.0 150.0 153.0 157.0 177.0 209.0 230.0 250.0 276.0 304.0 349.0	21.5 20.2 15.2 18.1 19.7 16.1 14.1 11.6 13.4 13.4	9.3 27.1 54.2 113.3 127.8 139.8 132.0 135.1 151.2 178.2 183.7	9.1 22.5 46.2 96.7 108.9 118.7 111.8 114.4 128.4 151.0 155.1	0. 2 4. 6 8. 0 16. 6 18. 9 21. 1 20. 2 20. 7 22. 8 27. 2

<sup>&</sup>lt;sup>1</sup> Data on premiums earned and losses incurred by commercial companies (including fraternal) as provided by the Health Insurance Council for the continental United States, by type of insurance benefit, adjusted to include accidental death and dismemberment provisions in individual policies that insure against income loss to offset understatement arising from the omission of current short-term income-loss insurance in automobile, resident liability, life, and other policies. For 1956-58, dividends deducted from earned premiums (2-3

percent for group; 1 percent for individual).

<sup>2</sup> Union-management trust fund, trade-union, and mutual benefit association plans.

<sup>3</sup> Self-insured operations and some union and

union-management plans under California, New Jersey, and New York laws.

4 Loss ratios applicable to all group insurance were applied to the benefits under voluntary provisions and under public provisions to obtain the premiums applicable to each.

associations pay cash disability benefits. The methods are not mutually exclusive, since employers often use a paid-sick-leave plan to supplement benefits under insurance plans and workers may, as individuals, purchase insurance policies to supplement the protection provided through their employment.

For workers covered by temporary disability insurance laws, the medium used for providing protection depends on the particular statute. In California and New Jersey, benefits may be paid through publicly operated funds or through the types of private arrangements mentioned above (except individual insurance). The compulsory benefits for workers in Rhode Island and railroad workers are paid exclusively through publicly operated funds, though private plans may supplement the government-paid benefits. In New York State, though employers are permitted to insure with a publicly operated carrier (the State Insurance Fund), the overwhelming majority of employees are protected through private arrangements. In 1958, private plans were effective for about 42 percent of the covered workers in California, 61 percent in New Jersey, and more than 95 percent in New York.

The most common method of providing protection for government workers is through formal sick-leave plans. Almost all Federal civilian full-time employees and probably more than four-fifths of full-time State and local government employees are eligible for sick-leave benefits.

For the self-employed, the provisions used for indemnifying disabling illnesses are necessarily different from the group provisions available to wage and salary workers. The existing protection for this group is generally confined to individual accident and sickness insurance or fraternal policies.

#### Private Insurance

Information is presented in table 2 on insurance protection provided against income loss resulting from short-term disability through private arrangements with nongovernmental agencies. Such insurance may be voluntarily provided by employers or purchased by employees, it may result from collective bargaining for fringe benefits, or it may be written in compliance with State laws in California, New Jersey, and New York. The table shows separately the insurance written under voluntary arrangements and that written under public provisions. Data on paid-sick-leave plans and—in States without compulsory laws — on self-insured employer-administered plans are considered separately in table 4 and excluded from table 2.

Commercial carriers were responsible for more than 95 percent of the premiums and the benefits paid in 1958 under private insurance. The remaining amounts were paid under self-insured and other private plans, such as those sponsored by union and union-management trust funds, trade unions, and mutual benefit associations.

Of the \$1.332 million paid in premiums to commercial carriers for cash disability insurance in 1958, 47 percent went for group insurance and 53 percent for individual insurance. These proportions represent a significant shift from 1948, when individually purchased policies accounted for two-thirds of total premiums paid to commercial companies. Because of the adverse effects of the 1957-58 recesssion on group enrollment, however, individual insurance is now a larger proportion of the total than in 1956, when its share of the business was only 51 percent.

The data on benefit payments also reflect the long-term shift in underwriting from individual to group insurance. The increase since 1948 in benefit payments under group insurance was nearly twice as great as that under individual insurance. Even when private-plan benefits made mandatory by State temporary disability insurance laws are excluded, the rate of increase since 1948 for group insurance (194 percent) still exceeds that of individual insurance (148 percent).

The year 1958 saw a drop in group disability insurance benefits paid by insurance companies nationally — from \$505 million to \$493 million. Group benefits paid under voluntary provisions dropped \$16 million, and those paid under the public provisions of California, New Jersey, and

New York rose \$4 million. The proportion of total group insurance benefits paid under public provisions thus rose from 30 percent in 1957 to 31 percent in 1958.

#### Public Provisions

Table 3 presents information on the total amount of protection provided by the four State temporary disability programs and by the cash sickness provisions of the Railroad Unemployment Insurance Act, according to the type of insurance arrangements. To the extent that the protection is provided through commercial insurance companies or other private arrangements, the data overlap those in table 2.

In 1958, workers covered by the five compulsory laws, altough incurring only 28 percent of the Nation's wage loss in private employment (table 1), received benefits representing 48 percent of all cash sickness benefits (exclusive of sick leave) disbursed as group protection to private wage and salary workers. In 1948, when only three laws were in opera-

Table 3.—Cash benefits under temporary disability insurance laws provided through private plans and through publicly operated funds, 1948-58 1

[In	millions]
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		insurar	Type of ace arrang	gement
Year	Total	Private	plans 2	Publicly
		Group insur- ance	Self- insur- ance <sup>2</sup>	operated funds i
1948	\$66. 4 89. 2 117. 4 174. 2 202. 3 230. 2 235. 1 244. 5 265. 0 305. 4 325. 1	\$9.1 22.5 46.2 96.7 108.9 118.7 111.8 114.4 128.4 151.0 155.1	\$0.2 4.6 8.0 16.6 18.9 21.1 20.2 20.7 22.8 27.2 28.6	\$57.1 62.1 63.2 60.9 74.5 90.4 103.1 109.4 113.8 127.2

<sup>&</sup>lt;sup>1</sup> Programs under the Railroad Unemployment Insurance Act and the laws of Rhode Island, California, New Jersey (beginning 1949), and New York (beginning 1950). Excludes hospital benefits in California and hospital, surgical, and medical benefits in New York.

4 Includes State-operated plans in Rhode Island, California, and New Jersey, the State Insurance Fund and the special fund for the disabled unemployed in New York, and the railroad program.

tion — those of Rhode Island and California and that covering railroad workers—benefits paid under these laws represented 33 percent of the Nation's sickness insurance benefits; the wage loss incurred amounted to 12 percent of the total private wage and salary loss for that year.

Since 1951, when New York's lawthe last to be enacted-became fully effective, the wage loss incurred by covered workers has remained constantly at 27-28 percent, while the cash benefits paid under the laws have ranged from 43 percent to 49 percent of the Nation's total. The benefit ratios, of course, are dependent on such factors as (1) fluctuations in business activity, which influence the rate of growth of accident and sickness insurance in areas not having compulsory laws, and (2) statutory liberalizations in benefit provisions.

Of the \$325 million paid in benefits under the five laws in 1958, 57 percent was made available through private group insurance contracts or self-insurance and the remainder through publicly operated funds. The proportion of benefits underwritten by private plans, though showing little change in the past 3 years, has been as low as 55 percent (1955). In 1951, the first year when all five laws were effective, such benefits equaled 65 percent of the amounts disbursed under the laws.

### Paid Sick Leave

Table 4 presents estimates of the amount of income replaced through formal paid-sick-leave benefits in private industry and in government employment, including the value of sick leave paid as a supplement to group insurance, publicly operated plans, or other types of group protection.

These estimates include benefits paid under self-insured employer-administered plans, since it is difficult to distinguish between these benefits and those paid under sick-leave plans. Where the self-insured benefits are, however, financed through prepaid contributions of some sort to union or union-management trust funds, trade-union plans, or mutual benefit associations, they are excluded from the sick-leave estimates

<sup>&</sup>lt;sup>2</sup> Under the laws of California, New Jersey, and New York. <sup>3</sup> Employers may self-insure by observing certain

stipulations of the law. Includes some union plans whose provisions come under the law.

Includes State-operated plans in Rhode Island,

Table 4.—Estimated value of formal paid sick leave in private industry and in Federal, State, and local government employment, 1948-58

[In millions]

		Workers	in private i	ndustry 1	Government workers			
Year	Total	Total	Not covered by temporary disability insurance laws	Covered by temporary disability insurance laws <sup>2</sup>	Total	Federal 3	State and local 4	
1948	\$413 463 493 589 668 713 741 813 882 949 1,040	\$157 163 178 199 215 231 241 268 291 322 337	\$145 147 154 165 179 193 201 224 242 268 281	\$12 16 24 34 36 38 40 44 49 54	\$256 300 315 390 453 482 500 545 591 627 703	\$148 173 172 221 254 262 252 269 280 290 315	\$100 12' 144 160 199 22( 244 27( 311 337	

1 Sum of estimated value of formal paid sick leave for employees with (a) sick leave but no other group protection and (b) sick leave supplemental to group insurance or other forms of group protection, including publicly operated funds. Under each category, number of employees was adapted from Health Insurance Council, Annual Survey of Accident and Health Coverage in the United States 1948-1964, after reducing estimates of exclusive sick-leave coverage in early years by a third to allow for exclusion of informal sick-leave plans and for conversion of exclusive protection to supplemental protection under temporary disability insurance laws. Later-year estimates based on nationwide projection of formal paid-sick-leave coverage reported for plant and office workers in the community wage surveys of the Bureau of Labor Statistics. Assumes that workers in private industry receive an average of 4 days of paid sick leave a year, excluding other protection, and 3.2 days when they have other group protection. Daily wages obtained by dividing average annual earnings per full-time private employee as reported in table VI-16 in U.S. Income and Output: A Supplement to the Survey of Current Business, 1958, and in Survey of Current Business, National Income Number, July 1959 (Department of Commerce), by 255 (estimated workdays in a vear).

<sup>2</sup> Assumes that some workers entitled to cash benefits under temporary disability insurance laws

and included under private insurance in table 2. The sick-leave estimates also exclude payments under self-insured plans when they are made in compliance with statutory provisions, shown in table 3.

Government sick-leave plans accounted for more than two-thirds of the estimated \$1,040 million paid in sick leave during 1958. The amount of paid sick leave granted State and local government employees was three and one-half times what it had been in 1948, and that granted Federal employees was more than double.

The estimated value of formal sick leave under both exclusive and supplemental plans in private industry also more than doubled during the decade. The recession of 1957–58, with its contraction in the employed wage and salary labor force in private industry, slowed down the rate

have sick leave in addition to their benefits under the laws, but only to the extent needed to bring up to 80 percent the replacement of their potential wage loss.

wage loss,

3 Based on studies showing that Federal employees use pail sick leave of 7.7 days on the average for nonoccupational sickness, equivalent to 3 percent of payroll. Payroll data derived by multiplying number of paid civilian full-time employees as of June 30 in all branches of the Federal Government in the continental United States by their mean earnings, as reported in Pay Structure of the Federal Civil Service, Annual Reports (Federal Employment Statistics Office, U.S. Civil Service Commission). Practically all full-time employees are covered by paid-sick leave provisions.

paid-sick-leave provisions.

Assumes that number of State and local government employees covered by formal sick-leave plans has increased gradually from 65 percent of the total number employed full time in 1948 to 81 percent in 1958 and that workers covered by such plans received on the average paid sick leave ranging from 5.2 days in 1948 to 5.9 days in 1958. Number of full-time employees from State Distribution of Public Employment, Annual Reports (Bureau of the Census). Dally wages obtained by dividing average annual earnings per full-time State and local employee as reported in Department of Commerce data (see footnote 1) by 255 (estimated workdays in

of increase. Nevertheless, the aggregate amount of paid sick leave rose by \$15 million from 1957 to 1958, as wage and salary levels climbed almost 3 percent and the proportion of office and plant workers in establishments with formal sick-leave plans showed a small rise, according to the 1957-58 labor-market area surveys of the Bureau of Labor Statistics.<sup>5</sup>

For most workers in government, sick-leave benefits provide the only source of group protection they have against the risk of wage loss from ill health. In private industry, in contrast, an increasing number of workers receive sick-leave benefits as a supplement to group insurance or other forms of group protection, in-

cluding publicly operated cash sickness plans.

Of the estimated \$337 million paid out in formal sick leave by private employers in 1958, about 55 percent was accounted for by exclusive plans and 45 percent by supplemental plans. In 1948 the proportion paid as exclusive sick leave was an estimated three-fourths.

Total benefits paid under exclusive sick-leave provisions in public and

Table 5.—Estimated value of formal paid sick leave in relation to income loss due to short-term sickness among workers covered by exclusive formal sick-leave plans, 1948-58

[Amounts in millions]

Year	Income loss	Value of sick leave under exclusive plans	Ratio (percent) of sick leave to income loss
1948	\$568	\$375	66.0
1949	602	416	69.1
1950	636	433	68.1
1951	724	508	70.2
1952	806	577	71.6
1953	846	612	72.3
1954	874	634	72.5
1955	951	691	72.7
1956	1,022	744	72.8
1957	1.104	799	72.4
1958	1,213	887	73.1

<sup>1</sup> Sick-leave plans that do not supplement any other form of group protection, including publicly operated plans.

private employment amounted to \$887 million in 1958, of which almost four-fifths was attributable to sickleave plans for government workers. Table 5 shows the extent of protection afforded workers covered by the exclusive plans. In 1958, these workers had approximately 73 percent of their potential income loss met through sick leave. If it were possible to take into account the additional protection provided by individual insurance policies purchased as a supplement to sick leave, the amount of uncompensated income loss would be even lower.

#### Summary of Protection Provided

Data from tables 2, 3, and 4 have been summarized in table 6 to show the total value of all forms of protection against the loss of income incurred because of nonoccupational short-term sickness. Since employeebenefit plans and compulsory tempo-

<sup>&</sup>lt;sup>5</sup> Department of Labor, Bureau of Labor Statistics, Wages and Related Benefits, 19 Labor Markets, 1957-58, Bulletin No. 1224-20, 1959.

rary disability insurance laws have special pertinence for wage and salary workers, the protection provided this group through their place of employment is separated from the protection received by all persons in the labor force through individually purchased disability insurance policies,

The dollar value of all forms of protection has been rising an average of \$130 million a year since 1948, hitting the \$2-billion mark in 1958. Almost half the 1958 amount constituted group protection for wage and salary workers in private industry, one-third was sick leave granted government employees, and the balance was in the form of benefits purchased through individual insurance.

Group benefits provided wage and salary workers in public and private employment rose at a more rapid pace in the first half of the 1948-58 decade (92 percent) than in the second half (45 percent). The opposite was true of benefits under individual insurance, which rose 48 percent in the first 5 years and 67 percent in the second 5-year period.

The contrast between the first half of the decade and the second half is particularly pronounced with respect to the various forms of protection provided employees in private industry. From 1948 to 1953, benefits under private cash sickness insurance and self-insurance expanded 161 per-

cent, contrasted with gains of 58 percent and 47 percent, respectively, under publicly operated funds and sick-leave plans. During the next 5 years, private insurance and self-insurance increased by only 40 percent, while the publicly operated funds and the sick-leave plans advanced 56 percent and 46 percent.

In 1958 the income-replacement protection provided the Nation's public and private workers was almost equally divided between sick-leave benefits (\$1,040 million) and disability insurance benefits (\$1,024 million). In 1948, sick leave supplied about 55 percent of the protection.

# Measuring the Extent of Protection

Table 7 relates the income loss experienced each year because of non-occupational sickness to the dollar value of the various forms of protection against this loss. It is thus possible to measure the effective growth in economic security against the risk of income loss from illness while avoiding the necessity of taking into account labor-force growth and any adjustments in benefits to take care of rising earnings levels.

Measuring the growth of protection in this fashion, however, has certain limitations arising out of the operations of the business cycle. During periods of economic recession, for example, income loss—the bench-

Table 6.—Benefits provided as protection against income loss, summary data, 1948-58

[In	millions	1
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			Group bei	nefits provi	ded as prote	etion agains	t wage and	salary loss
		Benefits		Woi	kers in priv	ate employi	nent	
Year Total t	provided through individual insurance	Total	Total	Private cash sickness insurance and self- insurance	Publicly operated cash sickness funds	Sick leave	Sick leave for gov- ernment employees	
1948 1949 1950 1951 1952 1953 1954 1954 1956 1956 1957 1958	\$756.8 846.9 935.4 1,135.1 1,285.2 1,392.6 1,456.4 1,593.7 1,777.0 1,925.8 2,064.4	\$141.0 150.0 153.0 157.0 177.0 209.0 230.0 250.0 276.0 304.0 349.0	\$615.8 696.9 782.4 978.1 1,108.2 1,183.6 1,226.4 1,343.7 1,501.0 1,621.8 1,715.4	\$359.8 396.9 467.4 588.1 655.2 701.6 726.4 798.7 910.0 994.8 1,012.4	\$145.7 171.8 226.2 328.2 365.7 380.2 382.3 421.3 505.2 545.6 534.0	\$57.1 62.1 63.2 60.9 74.5 90.4 103.1 109.4 113.8 127.2 141.4	\$157.0 163.0 178.0 199.0 215.0 231.0 241.0 268.0 291.0 322.0 337.0	\$256.0 300.0 315.0 390.0 453.0 500.0 545.0 591.0 627.0 703.0

<sup>&</sup>lt;sup>1</sup> Includes a small but undetermined amount of group disability insurance benefits paid to government workers and to self-employed persons through farm, trade, or professional associations.

mark against which benefits are measured — may show a declining rate of increase or even drop absolutely as the result of a contraction in the employed labor force. At the same time, benefits paid out may continue to rise, in part because payments represent obligations previously incurred during periods of high employment. The net effect is generally to produce higher-than-usual jumps in the proportion of lost earnings covered by cash sickness benefits.

This point may be illustrated by the recession years 1949, 1954, and 1958, when the ratio of benefits (including sick leave) to lost income rose by 2.5, 1.2, and 1.6 percentage points, respectively. During the past decade, only the boom years of 1951 and 1952 produced increases of this magnitude.

From the end of 1948 to 1958, benefits as a proportion of lost earnings rose an average of approximately 1.1 percentage points a year, from 16.6 percent to 27.7 percent. Despite this growth, the amount of income loss not replaced by insurance or formal sick leave continued to increase — from \$3,809 million to \$5,387 million. In 1958, as in previous recession years, however, the data reflect an actual drop in uncompensated income loss from the preceding year.

The amounts specified as uncompensated income loss do not necessarily represent the actual income loss incurred by disabled individuals. During sickness an individual may have certain work-connected expenses-such as carfare, meals, and clothing-reduced or eliminated. His income taxes and social security contributions are also less when his income is discontinued. On the other hand, the worker may encounter medical expenses for his illness that, unless met by other than out-ofpocket expenditures — by prepaid health insurance, for example-may be greater than any reduction in expenses or taxes.

Table 7 also shows the secondary cost of operating the mechanism for providing cash disability insurance.

<sup>&</sup>lt;sup>6</sup> In 1958, more than 7 percent of the benefits disbursed under the compulsory disability laws were paid to workers whose sickness began more than 2 weeks after they became unemployed.

The net cost of providing insurance represents the difference between the insurance losses incurred and premiums earned (table 2), plus the public cost of administering the temporary disability insurance programs (not shown elsewhere). The costs of operating sick-leave programs are not known. For the years before 1956, net costs are slightly overstated because insurance premiums included an unknown amount of dividends re-. turnable to policyholders.

Although the net cost of providing the disability insurance portion of the protection advanced about 85 percent from 1948 to 1958, the rate of increase is substantially less than the 198-percent increase in the benefits provided by such insurance (table 9). This development is not surprising, since relative costs of underwriting may be expected to drop as volume increases.

Data on the extent of protection provided wage and salary workers through their place of employment are shown in table 8. For all public and private wage and salary workers, cash payments under group accident and sickness insurance, publicly operated funds, formal paid-sick-leave plans, union and employee plans, and self-insurance equaled 27 percent of the wage loss in 1958, compared with

Table 7.—Extent of protection against income loss, 1948-58

[Amounts in millions]

		ome loss ction pro	In- come	Net cost of	
Year	In- come loss <sup>1</sup>	Pro- tection tion as pro- pro-	loss not pro- tected	pro- viding insur- ance 3	
1948	\$4.566	\$757	16.6	\$3,809	\$277
1949	4,429	847	19.1	3,582	287
1950	4.789	935	19.5	3.854	305
1951	5,477	1,135	20.7	4.342	307
1952	5,814	1,285	22.1	4,529	319
1953	6,147	1,393	22.7	4,754	424
1954	6,104	1,456	23.9	4,648	448
1955	6,552	1,594	24.3	4,958	444
1956	7,056	1,777	25.2	5,279	410
1957	7.376	1,926	26.1	5,450	478
1958	7,451	2,064	27.7	5,387	513

<sup>&</sup>lt;sup>1</sup> From table 1.

Table 8.—Group protection provided in relation to wage and salary loss, 1948-58 [Amounts in millions]

	All wage and salary workers					Wage and salary workers in private industry								
		Prote prov			Total		Covered by temporary disability insurance laws			Not covered by temporary disability insurance laws				
Year	In- come		Per-		Prote prov			Prote prov			Prote prov			
	loss	Amount of incon	cent	In- come loss	Amount	Per- cent of income loss	In- come loss	Amount	Per- cent of income loss	In- come loss	Amount	Per- cent of income loss		
1948 1949 1950 1951 1952 1953 1954 1955 1956 1957 1958	\$3,628 3,599 3,913 4,489 4,829 5,197 5,160 5,569 6,036 6,338 6,365	\$616 697 782 978 1,108 1,184 1,226 1,344 1,501 1,622 1,715	17.0 19.4 20.0 21.8 22.9 22.8 23.8 24.1 24.9 25.6 26.9	\$3,196 3,124 3,407 3,896 4,169 4,506 4,443 4,802 5,205 5,445 5,385	\$360 397 467 588 655 702 726 799 910 995 1,012	11.3 12.7 13.7 15.1 15.7 15.6 16.3 16.6 17.5 18.3 18.8	\$391 483 712 1,059 1,132 1,213 1,212 1,299 1,430 1,512 1,522	\$78 105 141 208 238 268 275 289 314 359 381	21.7 19.8 19.6 21.0 22.1 22.7 22.2	\$2,805 2,641 2,695 2,837 3,037 3,293 3,231 3,503 3,775 3,933 3,863	\$282 292 326 380 417 434 451 510 596 636 631	10.1 11.1 12.1 13.4 13.7 13.2 14.0 14.6 15.8 16.2		

17 percent in 1948. This growth in protection closely paralleled the experience of the entire working population summarized in table 7.

When the government employees are left out of the computations, the picture is somewhat different because of the preponderance in government employment of sick-leave provisions that generally replace a greater proportion of lost income than other types of group plans. In 1958, group benefits for wage and salary workers in private industry amounted to only 19 percent of their estimated wage loss of \$5.4 billion.

For workers covered by the compulsory temporary disability insurance laws, the proportion of wage loss replaced rose from 20 percent in 1948 to 25 percent in 1958, primarily as the result of statutory liberalizations. A larger increase took place during this period for private employees not covered by compulsory laws - from 10 percent to 16 percent - but this growth is attributable more to an expansion in the proportion of workers with protection than to liberalization of benefits. From 1948 to 1958 the proportion of private wage and salary workers in States without compulsory laws who had some sort of formal protection against nonoccupational disability rose from approximately 35 percent to about 50 percent.

In deriving benchmarks against which to assess the effectiveness of insurance in meeting the impact of illness, it is of interest to examine that portion of the residue of lost income that might conceivably be recovered if insurance policies were more widespread and if all benefits were more nearly at the relatively high level of some plans. To discourage malingering, insurance policies ordinarily undertake to compensate for only a part of the weekly wage or salary loss and do not cover the first few days or first week of disability (except in the case of an accident). The potentially insurable and potentially compensable income loss of the Nation is therefore somewhat less than the total income loss so far considered.

Sick-leave plans, in contrast to insurance plans, generally provide for 100-percent continuance of pay from the first day of sickness. Consequently, a large portion of the potential income loss represented by wage continuation under sick-leave plans falls outside the bounds of what might be considered insurable or compensable under current insurance practices. Hypothetical figures that can meaningfully relate existing insurance benefits to the Nation's potentially insurable and compensable income loss must therefore exclude the income loss of persons covered by

<sup>&</sup>lt;sup>2</sup> Total benefits, including sick leave.

Includes retention costs (for contingency reserves, taxes, commissions, acquisition, claims settlement, and underwriting gains) of private insurance companies (from table 2) and administrative expenses for publicly operated plans and for supervision of the operation of private plans. Excludes costs of operating sick-leave plans, not available.

Table 9.—Insurance benefits as percent of estimated potentially insurable and compensable income loss 1 for workers without exclusive formal sick leave,

[Amounts in millions]

•			As perc	ent of—	
Year	Amount of insurance benefits <sup>2</sup>	Income loss excluding first 3 days 3	Two-thirds of income loss excluding first 3 days	Income loss excluding first 7 days 4	Two-thirds of income loss excluding first 7 days
1948	\$344	12.3	18.4	15.6	23.5
	384	14.3	21.5	18.2	27.4
	442	15.2	22.8	19.4	29.0
	546	16.4	24.6	20.9	31.3
	617	17.6	26.4	22.4	33.6
	680	18.3	27.5	23.3	35.0
	715	19.5	29.3	24.9	37.3
1955	781	19.9	29.9	25.3	38.0
1956	895	21.2	31.8	27.0	40.5
1967	977	22.3	33.4	28.3	42.5
1958	1,024	23.4	35.2	29.8	44.8

<sup>&</sup>lt;sup>1</sup> The portion of income loss that may be considered insurable or compensable under prevailing insurance practices.

<sup>2</sup> Excludes sick-leave payments.

exclusive sick-leave plans (as well as their sick-leave payments).

Persons covered by sick-leave plans that supplement insurance benefits. however, are not excluded. The sickleave provisions do not to any appreciable extent give protection against that portion of the income loss due to sickness considered insurable and compensable under prevailing insurance provisions. It is therefore not believed that including the income loss and insurance benefits (but not, of course, sick-leave payments) of persons with supplementary sick-leave plans would distort the indexes of protection developed in table 9.

table 1), after exclusion of income loss of workers covered by exclusive sick-leave plans (from table 5). 4 Based on 55 percent of total income loss (from table 1), after exclusion of income loss of workers covered by exclusive sick-leave plans (from table 5).

The total income loss of persons without exclusive sick leave rose from \$4.0 billion in 1948 to \$6.2 billion in 1958. When these amounts are reduced (by omitting 30 percent of the total) to allow for a 3-day uncompensated waiting period, the total potentially insurable income loss becomes \$2.8 billion for 1948 and \$4.4 billion for 1958. The totals would be further reduced to \$2.2 billion and \$3.4 billion if adjusted for a 7-day uncompensated waiting period (equivalent to 45 percent of the total income loss).

With these estimates of potentially insurable income loss as benchmarks. reasonable measures of the growth in protection being provided by existing disability insurance plans or policies can be derived (table 9). In 1958. insurance was meeting 23.4 percent of the income loss, excluding the first 3 days of sickness, and 29.8 percent of the income loss, excluding the first 7 days of sickness?—almost twice the comparable proportions for 1948.

Another benchmark for measuring protection is the potentially compensable income loss—that portion of the potentially insurable loss that might be compensated according to a reasonable insurance standard. In this article, two-thirds of the wage loss for the period of disability after the waiting period is assumed to be a reasonable standard, even though some policies may compensate for

Insurance in 1958 was meeting 35,2 percent of this theoretical benchmark (with the first 3 days excluded), compared with 18.4 percent in 1948. When the benchmark excludes the first 7 days of sickness, the proportion of the potentially compensable income loss replaced by insurance in 1958 becomes 44.8 percent: it had increased at an average rate of more than two percentage points a year from the 1948 level of 23.5 percent.

<sup>\*</sup> Based on 70 percent of total income loss (from

There is a slight degree of overstatement when the insurance benefits are compared with this concept of income loss, to the extent that some insurance benefits begin with the fourth day in the case of illness and with the first day in the case of accidents.