

# Income-Loss Protection Against Short-Term Sickness, 1948-60

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*Insurance and various other forms of protection against income loss resulting from short-term sickness in the United States experienced a steady growth from 1948 to 1959. The year 1960, however, saw this growth arrested as cash sickness benefits paid under public and private auspices represented a smaller proportion of lost earnings than in 1959. This and other developments are discussed in the following article.*

FOR THE first time since the Social Security Administration began its annual survey of private and public cash-sickness plans,<sup>1</sup> there has been a drop in the extent to which workers in the United States have formal protection against the risk of short-term, nonoccupational sickness. Benefits paid out through government and nongovernment disability insurance and formal paid-sick-leave plans amounted to 27.7 percent of lost earnings in 1960, compared with 28.4 percent in 1959. These data exclude unknown amounts of informal sick-leave benefits paid to workers at the employer's discretion.

The decreased protection in 1960 is attributable to the fact that benefit payments did not increase at the same pace as the amount of estimated income loss caused by short-term sickness. Data from the United States National Health Survey indicate that the average amount of sickness incurred per person increased by about 7 percent from 1959 to 1960. This fact, coupled with the growth in the employed labor force and the rise in wage levels, resulted in an increase of \$891 million in the estimated value of time lost through illness and injury in 1960, in contrast to a rise of \$285 million in the preceding year. At the same time the increase in benefit payments for 1960, though comparing favorably with those of earlier years, was only \$191 million—most of it

attributable to the growth in the aggregate amount of formal sick leave granted to public and private employees.

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 voluntary method 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 self-insure, providing either cash benefits or paid sick leave. Some unions, union-management trust funds, fraternal societies, and mutual benefit associations pay cash disability benefits. These 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.

Protection for workers covered by temporary disability insurance laws is provided in several ways, depending on the particular statute. 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 California and New Jersey, benefits may be paid through publicly operated funds or through the types of private arrangements mentioned earlier (except individual insurance). In 1960, private plans were effective for about 33 percent of the covered workers in California and 60 percent in New Jersey. These proportions have been dropping steadily—in California since 1951, when private plans accounted for 52 percent of the coverage, and in New Jersey since 1952, when coverage under such plans represented 72 percent of the total.

Employers in New York State are permitted to insure with a publicly operated carrier (the State Insurance Fund). Protection for about 96

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<sup>1</sup> For previous articles in this series dealing exclusively with protection against income loss from sickness, see the January issue of the BULLETIN, 1956-61.

percent of the employees, however, is obtained through private arrangements.

Most government workers are protected 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.

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

To appraise the extent to which these voluntary and public measures are furnishing protection against the risk of income loss due to sickness, the Social Security Administration relates estimates of benefit payments to estimates of income loss. This technique—based on the dollar value of the insurance protection—has several advantages over a method that attempts to assess the protection in terms of the number covered.

First, it provides a basis for measuring the quality of the wage-loss protection, without the difficulties inherent in attempting to evaluate the type and precise scope of benefits provided under hundreds of widely different insurance arrangements.

Second, it avoids the problem of correcting for multiple policyholding, determining unduplicated counts of the number of persons with wage-loss protection for each year, and interpreting these counts in relation to the wide variety of insurance policies and sick-leave plans in effect.

Third, it measures year-to-year trends in protection, without having to adjust for labor-force changes and changes in benefit provisions.

## MEASURING INCOME LOSS

The income-loss estimate used in this series 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. The estimate also includes loss of income that is potential as well as actual—that is, income that might be lost if it were not for a sick-leave plan that continues

TABLE 1.—Estimated income loss from nonoccupational short-term sickness,<sup>1</sup> by type of employment, 1948–60<sup>2</sup>

(In millions)

Year	Total	Wage and salary workers					Self-employed persons <sup>3</sup>
		Total	In private employment <sup>3</sup>		In public employment		
			Covered by temporary disability insurance laws <sup>4</sup>	Other <sup>5</sup>	Federal <sup>6</sup>	State and local <sup>7</sup>	
1948.....	\$4,566	\$3,628	\$391	\$2,805	\$174	\$258	\$938
1949.....	4,429	3,599	483	2,641	190	285	830
1950.....	4,789	3,913	712	2,695	201	305	876
1951.....	5,477	4,489	1,059	2,837	259	334	988
1952.....	5,814	4,829	1,132	3,037	291	369	985
1953.....	6,147	5,197	1,213	3,293	290	401	950
1954.....	6,104	5,160	1,212	3,231	280	437	944
1955.....	6,552	5,569	1,299	3,503	297	470	983
1956.....	7,056	6,036	1,430	3,775	313	518	1,020
1957.....	7,376	6,339	1,512	3,934	323	570	1,037
1958.....	7,451	6,376	1,607	3,879	352	628	1,075
1959 <sup>8</sup> .....	7,736	6,687	1,580	4,095	356	656	1,049
1960 <sup>8</sup> .....	8,627	7,469	1,775	4,529	403	762	1,158

<sup>1</sup> Short-term or temporary non-work-connected disability (lasting not more than 6 months) and the first 6 months of long-term disability.

<sup>2</sup> Beginning 1960, data include Alaska and Hawaii.

<sup>3</sup> 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 1961* (Department of Commerce), multiplied by 7 (estimated average workdays lost per year due to short-term sickness) and divided by 255 (estimated workdays in year).

<sup>4</sup> 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.

<sup>5</sup> Represents the difference between total loss for all wage workers in private employment and for those covered by temporary disability insurance laws.

<sup>6</sup> Federal civilian payroll in 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 280 (scheduled workdays in year).

<sup>7</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 workdays in year).

<sup>8</sup> 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>9</sup> Computed as for earlier years, then adjusted to reflect changes in sickness experience (average number of disability days) in 1959 and 1960, as reported in the National Health Survey.

wages and salaries during periods of illness. Payments under such plans are counted in this series as benefits and are used to offset the potential wage loss.

Through 1958, for the various components of the labor force, estimates of income loss were based on the assumption of a fixed or constant amount of average time lost from work each year because of sickness. Starting with 1959, it has been possible to use data on disability days from the National Health Survey in adjusting the income losses to reflect the actual annual variations in sickness rates. With 1958 as the benchmark year, equal to an index of 100, the applicable sickness rate (or index) was computed for 1959 at 97 and for 1960 at 103.

These adjustment factors were then applied across the board to the estimates of income loss derived through the regular methods for the various components of the labor force (see footnotes to table 1). The National Health Survey is currently collecting data on disability and work-loss days according to class of worker. When these data become available, it will be possible to further refine the income-loss estimates to allow for differences in sickness experience among types of employment.

Since 1948 the amount of earnings lost (actual and potential) through illness and injury of short-term duration has increased 89 percent to an estimated record high of \$8.6 billion in 1960. The most substantial rise—170 percent—was recorded for Federal, State, and local government employees. Wage and salary workers in private industry, as a group, had a 97-percent increase in their earnings loss; the self-employed showed only a 23-percent increase.

The 1960 increase in income loss—\$891 million—was the largest recorded for any year in the period under review. The percentage rise of 11.5 percent was the greatest since 1951, when an expanding labor force and a rising wage level, generated by the Korean conflict, resulted in an increase of 14.4 percent.

Wage and salary workers covered by the five temporary disability insurance laws incurred 28 percent of the Nation's wage loss in private employment in 1960. This proportion has remained rather constant since 1951—the first full year that all five laws were in effect.

## PROTECTION AGAINST INCOME LOSS

Tables 2, 3, and 4 present data on three major sources of income protection against the risk of temporary disability. These are (1) private arrangements through insurance companies or self-insured cash sickness programs; (2) protection provided through publicly operated funds or private plans under compulsory temporary disability insurance statutes; and (3) paid-sick-leave programs. Tables 2 and 3 overlap to the extent that data on private plans written in compliance with State laws are included in both tables. Data on self-insured, unfunded, employer-administered plans in those States that do not have compulsory laws are included in table 4 but not in table 2.

## Private Insurance

Table 2 shows separately the private insurance written under voluntary arrangements and under the provisions of the public laws. The voluntary protection available from insurance companies and fraternal societies is sold either on a group or individual basis. Group insurance is confined almost exclusively to employee groups, and individual insurance is sold to all classes of workers. The other type of voluntary protection included in table 2 consists of the self-insured benefits financed through prepaid arrangements by union or union-management trust funds, trade-union plans, or mutual benefit associations. The private insurance under public provisions relates only to the benefits provided employees by plans that are

TABLE 2.—Premiums and benefit payments for private insurance against income loss, 1948-60<sup>1</sup>

(In millions)

Year	Total	Under voluntary provisions				Under public provisions		
		Total	Group insurance <sup>2</sup>	Individual insurance <sup>2</sup>	Self-insurance <sup>3</sup>	Total	Group insurance <sup>2</sup>	Self-insurance <sup>4</sup>
Premiums <sup>5</sup>								
1948...	\$558.9	\$545.8	\$162.2	\$350.0	\$33.6	\$13.1	\$12.7	\$0.4
1949...	603.6	564.8	177.8	355.0	32.0	38.8	31.9	6.9
1950...	679.4	603.5	219.7	360.0	23.8	75.9	64.2	11.7
1951...	785.8	642.0	250.6	366.0	25.5	143.8	121.8	22.0
1952...	855.1	699.3	267.3	405.4	26.6	155.8	131.7	24.1
1953...	1,006.0	819.5	300.7	494.8	24.0	186.5	157.0	29.5
1954...	1,053.7	875.6	320.4	534.2	21.0	178.1	149.5	28.6
1955...	1,107.9	929.1	364.5	547.8	16.8	178.8	150.0	28.8
1956...	1,183.8	1,006.0	402.4	586.0	17.6	177.8	149.6	28.2
1957...	1,319.5	1,100.7	436.3	646.0	18.4	218.8	181.7	35.1
1958...	1,389.6	1,155.2	434.7	703.0	17.5	234.4	194.3	40.1
1959...	1,496.1	1,260.6	470.1	773.0	17.5	235.5	194.9	40.6
1960...	1,532.2	1,287.7	503.9	765.0	18.8	244.5	199.1	45.4
Benefit payments								
1948...	\$286.8	\$277.5	\$115.0	\$141.0	\$21.5	\$9.3	\$9.0	\$0.3
1949...	322.0	294.9	124.7	150.0	20.2	27.1	22.3	4.8
1950...	379.6	325.3	157.1	153.0	15.2	54.3	45.9	8.4
1951...	485.9	372.6	197.5	157.0	18.1	113.3	96.0	17.3
1952...	543.6	415.8	219.1	177.0	19.7	127.8	108.0	19.8
1953...	590.2	450.5	225.4	209.0	16.1	139.7	117.6	22.1
1954...	613.3	481.3	237.2	230.0	14.1	132.0	110.8	21.2
1955...	672.4	537.2	275.6	250.0	11.6	135.2	113.4	21.8
1956...	782.4	631.2	341.8	276.0	13.4	151.2	127.2	24.0
1957...	851.0	672.9	355.5	304.0	13.4	178.1	149.5	28.6
1958...	885.8	702.1	340.7	349.0	12.4	183.7	152.3	31.4
1959...	964.3	774.7	378.1	384.0	12.6	189.6	156.9	32.7
1960...	1,005.4	807.6	407.9	386.0	13.7	197.8	161.1	36.7

<sup>1</sup> Beginning 1960, data include Alaska and Hawaii.

<sup>2</sup> Data on premiums earned and losses incurred by commercial companies (including fraternal) as provided by the Health Insurance Association of America for the 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 1956-60, dividends deducted from earned premiums (2-3 percent for group; 1 percent for individual).

<sup>3</sup> Union-management trust fund, trade-union, and mutual benefit association plans.

<sup>4</sup> Company, union, and union-management plans under California, New Jersey, and New York laws.

<sup>5</sup> 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.

written in compliance with the compulsory disability laws in California, New Jersey, and New York.

Premiums for private disability insurance went up only \$36 million in 1960—the smallest gain since the series began. Benefit payments for 1960 showed a similar slackening in the rate of growth, although they passed the \$1-billion mark. The relative increase of 4.3 percent was the third lowest in the series, but the gain in terms of dollars was greater than those in the recession years of 1949, 1954, and 1958.

The entire 1960 increase shown for income-loss indemnification in the area of commercial insurance took place in the group business. Earned premiums under individual policies dropped \$8 million in 1960, while those under group policies increased \$38 million. The distribution between individual and group business varies from year to year and is closely related to changes produced by the business cycle in the size of the wage and salary employed labor force. Nevertheless, over the long run, there has been a significant shift in underwriting from individual to group insurance. In 1948, individually purchased policies accounted for two-thirds of total premiums paid to commercial carriers. By 1960 this proportion had dropped to 52 percent.

The data on benefit payments also reflect the

TABLE 3.—Cash benefits under temporary disability insurance laws provided through private plans and through publicly operated funds, 1948–60<sup>1</sup>

Year	Total	Type of insurance arrangement		
		Private plans <sup>2</sup>		Publicly operated funds <sup>4</sup>
		Group insurance	Self-insurance <sup>3</sup>	
1948	\$66.4	\$9.0	\$0.3	\$57.1
1949	89.2	22.3	4.8	62.1
1950	117.4	45.9	8.4	63.1
1951	174.2	98.0	17.3	60.9
1952	202.3	108.0	19.8	74.5
1953	230.2	117.6	22.1	90.5
1954	235.1	110.8	21.2	103.1
1955	244.6	113.4	21.8	109.4
1956	265.0	127.2	24.0	113.8
1957	305.3	149.5	28.6	127.2
1958	325.1	152.3	31.4	141.4
1959	353.2	156.9	32.7	163.6
1960	370.1	161.1	36.7	172.3

<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.

<sup>2</sup> Under the laws of California, New Jersey, and New York. Employers may self-insure by observing certain stipulations of the law. Includes some union plans whose provisions come under the law.

<sup>4</sup> 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.

long-term shift from individual to group insurance. The increase since 1948 in benefit payments under group insurance was more than twice 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 (255 percent) still exceeds that for individual insurance (174 percent).

The shift from individual to group insurance has also affected the net cost of providing insurance. Group insurance has higher benefit ratios and lower retention ratios than insurance sold on an individual basis. In 1960, for example, benefit expenditures equaled 81 percent of income under group insurance policies and 50 percent under individual insurance policies. The sums retained by the insurance companies to cover the costs of the program—selling and administrative expenses, premium taxes, addition to reserves, and underwriting gains—thus amounted to 19 percent of premium income for group business and 50 percent for individual policy business. As group insurance increasingly accounts for a larger share of the insurance volume, so a larger share of the total premium dollar is being returned to the insured in the form of benefits. In 1960 this proportion was 65 percent, compared with 51 percent in 1948.

Of the \$569 million paid out nationally in group disability benefits by commercial insurance companies in 1960, 28 percent was expended under the public provisions of California, New Jersey, and New York. The percentage had been as high as 34 in 1953. Since that year group insurance benefits paid under voluntary provisions have expanded at twice the rate of the payments made under public provisions and since 1958 at 3 $\frac{1}{3}$  times that rate. This development, of course, is influenced by the greater growth potential for group insurance in the States without compulsory laws.

### Public Provisions

Table 3 shows the total amount of protection provided by the four State temporary disability insurance programs and by the cash sickness provisions of the Railroad Unemployment Insurance Act, according to the type of insurance arrangement. The California, Rhode Island, and railroad

programs went into effect before the series began in 1948. The New Jersey law became effective January 1, 1949, and the New York act, July 1, 1950. Thus, the data for the first 3 years of the series are not strictly comparable with the data for the period beginning 1951, when all five laws were fully in effect.

The proportion of compulsory benefits underwritten by private plans continued to decline in 1960 and reached a new low of 53 percent. This proportion was as high as 65 percent in 1951, and it was 57 percent as recently as 1958. Since then, there has been a significant shift in coverage from private plans to State-operated plans in California and New Jersey, with a corresponding rise in government-paid benefits.

Of the \$198 million paid in 1960 by private plans under the compulsory laws, \$161 million (81 percent) was disbursed through group accident and sickness insurance policies and the balance from self-insured employer, union, union-management, and mutual benefit plans. In 1951, group insurance policies accounted for 85 percent of the \$113 million paid in benefits through private auspices.

The amounts disbursed by publicly operated funds rose from \$61 million in 1951 to \$172 million in 1960, or 183 percent. The corresponding increase for group insurance was 68 percent, and for self-insurance it was 112 percent.

In 1960, workers covered by the disability insurance laws, although they incurred only 28 percent of the Nation's wage loss in private employment, received 47 percent of all cash-sickness benefits (excluding sick leave) disbursed as group protection to private wage and salary workers. These percentages were the same as in 1959. Since 1951 the cash benefits paid under the laws have ranged from a low of 43 percent in 1956 to a high of 49 percent in 1953. During this period the wage loss incurred by covered workers has remained constant at 27-28 percent of the total private wage and salary loss.

### 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. The value of sick leave paid as a supplement to group insurance, publicly operated

plans, or other types of group protection is included in the estimates. Sick leave paid informally by employers at their discretion is excluded.

The aggregate amount of sick-leave payments advanced an estimated \$141 million in 1960—the largest increase in the 13 years. Percentagewise, the increase was the largest since 1952. A major factor contributing to the 1960 rise was the increase in morbidity rates (estimated at 7 percent), which

TABLE 4.—Estimated value of formal paid sick leave in private industry and in Federal, State, and local government employment, 1948-60<sup>1</sup>

[In millions]

Year	Total	Workers in private industry <sup>2</sup>			Government workers		
		Total	Not covered by temporary disability insurance laws	Covered by temporary disability insurance laws <sup>3</sup>	Total	Federal <sup>4</sup>	State and local <sup>5</sup>
1948.....	\$413	\$157	\$145	\$12	\$256	\$148	\$108
1949.....	463	163	147	16	300	173	127
1950.....	493	178	154	24	315	172	143
1951.....	589	199	165	34	390	221	169
1952.....	668	215	179	36	453	254	199
1953.....	713	231	193	38	482	262	220
1954.....	741	241	201	40	500	252	248
1955.....	813	268	224	44	545	269	276
1956.....	882	291	242	49	591	280	311
1957.....	949	322	268	54	627	290	337
1958.....	1,039	336	281	55	703	315	388
1959 <sup>6</sup> .....	1,068	348	292	56	720	315	405
1960 <sup>6</sup> .....	1,209	388	323	65	821	348	473

<sup>1</sup> Beginning 1960, data include Alaska and Hawaii.

<sup>2</sup> 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 1948-1954*, 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-15 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 1961* (Department of Commerce), by 255 (estimated workdays in a year).

<sup>3</sup> Assumes that some workers entitled to cash benefits under temporary disability insurance laws 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.

<sup>4</sup> Based on studies showing that Federal employees use paid 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 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.

<sup>5</sup> 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 82 percent in 1960 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 1960. Number of full-time employees from *State Distribution of Public Employment, Annual Reports* (Bureau of the Census). Daily wages obtained by dividing average annual earnings per full-time State and local employee as reported in Department of Commerce data (see footnote 2) by 255 (estimated workdays in a year).

<sup>6</sup> Computed as for earlier years, then adjusted to reflect changes in sickness experience (average number of disability days) in 1959 and 1960 as reported in the National Health Survey.

had the effect of increasing the estimated number of days of sick leave used per covered person. In addition, there was a 3-percent rise in wage and salary levels, to which the value of paid sick leave is closely allied, and a growth of 1-2 percent in the number of full-time employees (and thus, presumably, in the number of workers covered by sick-leave plans).

Of the \$1,209 million paid out in sick leave in 1960, an estimated \$821 million or 68 percent was granted to Federal, State, and local government employees and the balance to workers in private employment. In 1948, government sick-leave plans accounted for 62 percent of the estimated \$413 million paid in sick leave. Leading the rise in the government sector were the State and local government plans; their sick-leave payments in 1960 were almost 4½ times the amount in 1948—mainly because of the broadening of coverage. During the same period the value of sick leave paid by the Federal Government little more than doubled.

For most government workers, sick-leave benefits provide the only source of group protection 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, including publicly operated cash-sickness plans.

In 1948, plans providing exclusive sick-leave protection accounted for three-fourths of the estimated \$157 million paid out in sick leave by private employers. By 1951 the proportion had

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, 1948-60

[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.....	1,200	880	73.3
1959.....	1,233	901	73.1
1960.....	1,416	1,026	72.5

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

TABLE 6.—Benefits provided as protection against income loss, summary data, 1948-60

[In millions]

Year	Total	Benefits provided through individual insurance	Group benefits provided as protection against wage and salary loss					Sick leave for government employees
			Total	Workers in private employment			Sick leave	
				Total	Private cash sickness insurance and self-insurance <sup>1</sup>	Publicly operated cash sickness funds		
1948....	\$756.9	\$141.0	\$615.9	\$359.9	\$145.8	\$87.1	\$157.0	\$256.0
1949....	847.1	150.0	697.1	397.1	172.0	62.1	163.0	300.0
1950....	935.7	153.0	782.7	467.7	226.6	63.1	178.0	315.0
1951....	1,135.8	157.0	978.8	588.8	328.9	60.9	199.0	390.0
1952....	1,286.1	177.0	1,109.1	656.1	366.6	74.5	215.0	453.0
1953....	1,393.7	209.0	1,184.7	702.7	381.2	90.5	231.0	482.0
1954....	1,457.4	230.0	1,227.4	727.4	383.3	103.1	241.0	500.0
1955....	1,594.8	250.0	1,344.8	799.8	422.4	109.4	268.0	545.0
1956....	1,778.2	276.0	1,502.2	911.2	506.4	113.8	291.0	591.0
1957....	1,927.2	304.0	1,623.2	996.2	547.0	127.2	322.0	627.0
1958....	2,066.2	349.0	1,717.2	1,014.2	536.8	141.4	336.0	703.0
1959....	2,195.9	384.0	1,811.9	1,091.9	580.3	163.6	348.0	720.0
1960....	2,386.7	386.0	2,000.7	1,179.7	619.4	172.3	388.0	821.0

<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.

dropped to 59 percent, as the rapid expansion of group disability insurance resulted in the entitlement of a growing number of workers to dual benefits. Since then, exclusive plans have registered further declines, and in 1960 they accounted for only 53 percent of the estimated \$388 million granted in formal sick leave.

Total benefits paid under exclusive sick-leave provisions in public and private employment passed the \$1-billion mark in 1960 (table 5). These payments met an estimated 73 percent of the potential wage loss of workers covered by the exclusive plans. Four-fifths of this protection was attributable to sick-leave plans for government employees. The ratio has been gradually rising since 1948, when government workers received 68 percent of the payments made under exclusive sick-leave plans.

### 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 actual or potential loss of income because of nonoccupational short-term sickness. Since employee-benefit plans and compulsory temporary disability insurance laws have special pertinence for wage and salary

workers, the protection provided this group through their place of employment is shown separately from the protection received by all persons in the labor force through individually purchased accident and sickness insurance policies.

The dollar value of all forms of protection was estimated at \$2,387 million in 1960—\$191 million or 8.7 percent more than in the preceding year. Except for 1951, this was the greatest annual gain for the series. The percentage growth was the greatest since 1956.

The income-replacement protection provided the Nation's public and private workers in 1960 was almost equally divided between sick-leave benefits (\$1,209 million) and disability insurance benefits (\$1,178 million). This pattern has prevailed more or less for the past half dozen years, with first disability insurance and then sick leave supplying a slightly larger share of protection.

Group protection for wage and salary workers in private industry made up half the 1960 amount, sick leave granted government employees made up a third, and benefits purchased through individual insurance the balance. This pattern of protection has shown only random fluctuations during the years under review.

Developments in the various forms of protection provided employees in private industry can be divided into two periods. From 1948 to 1952, private cash-sickness insurance and self-insurance plans enjoyed the greatest growth, increasing their share of the Nation's benefits paid to employees in private employment from 41 percent to 56 percent. During this period, benefits under publicly operated funds dropped from 16 percent to 11 percent of the total, and sick-leave payments fell from 44 percent to 33 percent. Since 1952 the trend has been slowly reversing. By 1960, private insurance and self-insurance plans accounted for 53 percent of the benefits received in private employment and the publicly operated plans for 15 percent. The sick-leave plans were still paying one-third of the total.

## MEASURING THE EXTENT OF PROTECTION

In table 7 the income loss experienced each year because of nonoccupational sickness is related to the dollar value of the various forms of protection against this loss. This dollar relationship

thus provides a measure of the effective growth in economic security against the risk of income loss from illness since the data automatically take into account labor-force expansion and any adjustments in benefits made to take care of rising earnings levels.

For each year from the end of 1948 to 1959, benefits (including sick leave) increased as a proportion of lost earnings at an average rate of approximately 1.1 percentage points. The year 1960, however, saw a break in the pattern, as the ratio of benefits to lost earnings dropped  $\frac{7}{10}$  of 1 percentage point from the 1959 record high of 28.4 percent. The 1960 proportion of lost income covered by cash-sickness benefits—27.7 percent—was the same as the 1958 ratio, which was the second highest recorded for the 13-year period.

TABLE 7.—Extent of protection against income loss, 1948–60  
(Amounts in millions)

Year	Income loss and protection provided			Income loss not protected	Net cost of providing insurance <sup>3</sup>
	Income loss <sup>1</sup>	Protection provided <sup>2</sup>	Protection as percent of loss		
1948.....	\$4,566	\$757	16.6	\$3,809	\$277
1949.....	4,429	847	19.1	3,582	287
1950.....	4,789	936	19.5	3,853	306
1951.....	5,477	1,136	20.7	4,341	307
1952.....	5,814	1,286	22.1	4,528	319
1953.....	6,147	1,394	22.7	4,753	424
1954.....	6,104	1,457	23.9	4,647	448
1955.....	6,552	1,595	24.3	4,957	444
1956.....	7,056	1,778	25.2	5,278	410
1957.....	7,376	1,927	26.1	5,449	478
1958.....	7,451	2,066	27.7	5,385	514
1959.....	7,736	2,196	28.4	5,540	543
1960.....	8,627	2,387	27.7	6,240	538

<sup>1</sup> From table 1.

<sup>2</sup> Total benefits, including sick leave (from table 6).

<sup>3</sup> 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.

The 1960 drop in protection is due primarily to a greater-than-average increase in the estimated income loss, rather than to a decline in the absolute or relative growth of benefit payments. Even if the income-loss estimates (and correspondingly the estimates of sick-leave payments) had not been increased to reflect the actual variation in sickness rates from 1959 to 1960, there would still have been a slight dip ( $\frac{4}{10}$  of 1 percentage point) in the ratio of benefits to lost earnings.

As a consequence of the drop in protection, the amount of income loss not replaced by insurance or formal sick leave rose \$700 million in 1960 to a new high of \$6,240 million. This is the largest

dollar increase for the series and, except for 1951, the greatest percentage increase.

The amounts specified as uncompensated income loss do not necessarily represent the actual income loss incurred by disabled individuals. During sickness, certain work-connected expenses (such as carfare, meals, and clothing), income taxes, and old-age, survivors, and disability insurance contributions are reduced if not eliminated. On the other hand, the worker may be faced with medical expenses for his illness that, unless met 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. The net cost of providing insurance fluctuates from year to year because of a combination of factors. First, as already mentioned, the distribution of business between individual and group policies affects the aggregate amount and proportion of the premium retained by the carriers as payment for their services. Second, since the net cost of providing insurance in the private sector is considered to be the difference between insurance losses incurred (benefit payments) and the premiums earned, it follows that any variation in loss ratios (relation of benefits to income) directly affects retention ratios and the amounts making up net costs.

The higher loss ratios in 1960 and the greater proportion of insurance business written under group policies together had the effect of reducing net costs \$5 million or 1 percent. As recently

as 1957, in contrast, there was a record increase of 17 percent, and the rise in 1958 was 8 percent. The primary reason for the 1957 boost was a decline in the loss ratio registered for group insurance. The 1958 rise resulted chiefly from an increase in the proportion of the business written under individual contracts.

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 1960. This ratio differs little from those for the 2 preceding years.

For wage and salary workers in private industry, the percentage of income loss replaced by group protection was 19 percent in 1960—again little change from that of 1958 and 1959. This ratio is lower than that for all private and public wage earners because of the exclusion of government employees. The latter generally are covered by sick-leave plans that replace a greater proportion of lost income than do other types of group protection.

For workers covered by the compulsory temporary disability insurance laws, the proportion of wage loss replaced in 1960 was 25 percent, compared with 17 percent for the remainder of the private wage and salary labor force. This difference results largely from the inclusion in the

TABLE 8.—Group protection provided in relation to wage and salary loss, 1948–60

[Amounts in millions]

Year	All wage and salary workers			Wage and salary workers in private industry								
				Total			Covered by temporary disability insurance laws			Not covered by temporary disability insurance laws		
	Income loss	Protection provided		Income loss	Protection provided		Income loss	Protection provided		Income loss	Protection provided	
		Amount	Percent of income loss		Amount	Percent of income loss		Amount	Percent of income loss		Amount	Percent of income loss
1948.....	\$3,628	\$616	17.0	\$3,196	\$360	11.3	\$391	\$78	19.9	\$2,805	\$282	10.1
1949.....	3,599	697	19.4	3,124	397	12.7	483	105	21.7	2,641	292	11.1
1950.....	3,913	783	20.0	3,407	468	13.7	712	141	19.8	2,695	327	12.1
1951.....	4,489	979	21.8	3,896	589	15.1	1,059	208	19.6	2,837	381	13.4
1952.....	4,829	1,109	23.0	4,169	656	15.7	1,132	238	21.0	3,037	418	13.8
1953.....	5,197	1,185	22.8	4,506	703	15.6	1,213	268	22.2	3,293	435	13.2
1954.....	5,160	1,227	23.8	4,443	727	16.4	1,212	275	22.7	3,231	452	14.0
1955.....	5,569	1,345	24.2	4,802	800	16.7	1,299	289	22.2	3,503	511	14.6
1956.....	6,036	1,502	24.9	5,205	911	17.5	1,430	314	22.0	3,775	597	15.8
1957.....	6,339	1,623	25.6	5,446	996	18.3	1,512	359	23.7	3,934	637	16.2
1958.....	6,376	1,717	26.9	5,396	1,014	18.8	1,507	380	25.2	3,889	634	16.3
1959.....	6,687	1,812	27.1	5,675	1,092	19.2	1,580	409	25.9	4,095	683	16.7
1960.....	7,469	2,001	26.8	6,304	1,180	18.7	1,775	435	24.5	4,529	745	16.5



latter group of wage earners who have no type of formal protection against the hazard of short-term illness. At the end of 1960, only slightly more than half—perhaps 52 percent—of the private wage and salary workers in States without compulsory laws had some sort of formal protection against nonoccupational disability.

The hypothetical income loss that conceivably might be covered by prevailing insurance provisions is taken into consideration in table 9. To discourage malingering, insurance policies ordinarily undertake to compensate for only a part of the weekly wage or salary loss and cover the first few days or first week of disability only when the disability results from an accident. The amount of income loss potentially insurable and compensable under the common forms of disability insurance is therefore somewhat less than the actual or total income loss that is considered in table 7.

To adjust the income loss for the first 3 days of uncompensated sickness, the total income loss is reduced 30 percent; for the first 7 days, the reduction factor is 45 percent. The income loss of persons with exclusive sick leave (shown in table 5) is omitted from the computations, to avoid inflating the benchmark base with income loss that is already covered by sick leave.<sup>2</sup>

For 1960 this adjustment leads to estimates of the potentially insurable income loss of \$5.0 billion (with a 3-day waiting period) and \$4.0 billion (with a 7-day waiting period); comparable estimates for 1948 are \$2.8 billion and \$2.2 billion. During this period, the amounts paid out in insurance benefits advanced from \$344 million to \$1,178 million. Relating aggregate insurance benefits to potentially insurable income loss yields indexes of the effectiveness of insurance in meeting the impact of illness.

In 1960, these indexes showed a drop for the first time in the series, despite the continued growth of insurance benefits. With the first 7 days of sickness excluded, only 29.7 percent of the

<sup>2</sup> The income loss of persons covered by sick-leave plans that supplement insurance benefits is not excluded, since such sick-leave provisions do not to any appreciable extent give protection against that portion of the income loss due to sickness considered insurable under prevailing insurance provisions.

TABLE 9.—Insurance benefits as percent of estimated potentially insurable and compensable income loss<sup>1</sup> for workers without exclusive formal sick leave, 1948–60

[Amounts in millions]

Year	Amount of insurance benefits <sup>2</sup>	As percent of—			
		Income loss, excluding first 3 days <sup>3</sup>	Two-thirds of income loss, excluding first 3 days	Income loss, excluding first 7 days <sup>4</sup>	Two-thirds of income loss, excluding first 7 days
1948.....	\$344	12.3	18.4	15.6	23.5
1949.....	384	14.3	21.5	18.2	27.4
1950.....	443	15.2	22.9	19.4	29.1
1951.....	547	16.4	24.7	20.9	31.4
1952.....	618	17.6	26.4	22.4	33.7
1953.....	681	18.4	27.5	23.4	35.0
1954.....	716	19.6	29.3	24.9	37.4
1955.....	782	19.9	29.9	25.4	38.1
1956.....	896	21.2	31.8	27.0	40.5
1957.....	978	22.3	33.4	28.3	42.5
1958.....	1,027	23.5	35.2	29.9	44.8
1959.....	1,128	24.8	37.2	31.5	47.3
1960.....	1,178	23.3	35.0	29.7	44.6

<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.

<sup>3</sup> Based on 70 percent of total income loss (from table 1), after exclusion of income loss of workers covered by exclusive sick-leave plans (from table 5).

<sup>4</sup> 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).

income loss<sup>3</sup> was replaced by insurance benefits in 1960, compared with 31.5 percent in 1959. The corresponding proportions when the first 3 days of sickness are excluded were 23.3 percent in 1960 and 24.8 percent in 1959.

Similar drops are registered in the indexes when a benchmark measuring potentially compensable income loss is used. This benchmark is computed as two-thirds of the potentially insurable income loss—a reasonable estimate of that portion of the wage loss that might be indemnified under current insurance practice after the uncompensated waiting period is met. Some policies, of course, may compensate for less.

Insurance in 1960 was meeting 35.0 percent of this theoretical benchmark (with the first 3 days of income loss disregarded) or 2.2 percentage points less than in 1959. When the benchmark excludes the first 7 days of sickness, the proportion of the potentially compensable income loss replaced by insurance in 1960 becomes 44.6 percent, compared with 47.3 percent in 1959.

<sup>3</sup> A slight overstatement results 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.