



## Cash Benefits for Short-Term Sickness: Thirty-five Years of Data, 1948-83

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In 1983, income loss due to short-term non-work-related disability and for the first 6 months of long-term disability was \$45.6 billion. During the same year, insurance benefits and sick-leave payments

made to replace such lost income totaled \$16.4 billion, or 36 percent of the loss. This degree of protection against income loss from short-term sickness has been about the same since 1970. The number of workers protected by formal plans providing cash benefits for sickness in 1983 rose to 59 million, or almost two-thirds of all wage and salary workers, a reflection of the economic upswing during that year.

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The Social Security Administration (SSA) has had a long-standing interest in the amount of earnings lost by workers when they are temporarily disabled or sick and in the amount and types of available benefit protection for them. The SSA has conducted studies of short-term sickness programs as part of its ongoing effort to keep abreast of current methods of providing economic security for various risks to workers' earnings. The application of this research to the social security program has been seen over the years. For example, information about income loss and the benefits available to workers during periods of sickness is relevant in policy considerations about the appropriate length of the waiting period for benefit eligibility under SSA's disability insurance program. Keeping track of the amount of income loss and benefit amounts paid by existing income replacement programs is particularly important with respect to short-term disability because income protection is provided through a variety of statutory and voluntary programs and different types of benefits.

Annually since 1948, SSA has provided estimates of income loss and benefits resulting from short-term disability. These estimates have been published in a series of articles describing the types of short-term disability protection available and the benefit experience and trends under such formal plans available through a worker's employment. This article provides estimates through 1983 and includes revisions from 1980 based on newly available data, primarily for the private insurance sector.

## Measuring Income Loss

### Concepts

The estimates of income loss used in this series are designed to reflect the loss of current earnings during the first 6 months of a nonoccupational illness or injury, including income lost during the first 6 months of a long-term disability. The term income loss, as used in this article, refers to the value of potential as well as actual income. It includes, for example, earnings that would have been lost had they not been replaced under a sick-leave plan that provided for the continued payment of wages and salaries during periods of illness or for another type of arrangement. Payments under such plans are counted as benefits that offset the worker's potential wage loss.

Employing this concept, SSA has estimated that wage and salary workers in private industry lost an average of 7.0 workdays a year; Federal Government workers lost 8.0 days; State and local employees, 7.0 days; and the self-employed, 7.0 days. These averages have been modified annually, starting with 1959, to reflect trends in morbidity rates as reported in the Health Interview Survey (HIS) of the Public Health

Service. Using the HIS data on restricted activity, bed rest, and lost workdays for currently employed workers, SSA compiles an annual sickness index. The index starts at 100 with 1958 as the base year. For 1983, the index was 96, about the same level as in the previous 2 years. The method for computing work-loss days is discussed in the appendix on page 17.

### Trends

As a result of sickness, wage and salary and self-employed workers in 1983 had a total income loss of \$45.6 billion (table 1). Most of this income loss (94 percent) was incurred by wage and salary workers, with the remaining 6 percent incurred by self-employed workers, whose loss was \$2.8 billion. The self-employed have been responsible for an ever-diminishing proportion of all income shares, and hence of income loss from sickness, since this series began in 1948. In that year, their estimated income loss was 21 percent of the total. The other most prominent long-term trend in relative shares of income loss is seen in the pattern of increasing wage loss among State and local government employees—from less than 6 percent in 1948 to more than 12 percent in 1983. This pattern reflects both the increasing number of workers in this sector and rising wage levels.

The amount of income loss due to sickness rose 7 percent from 1982 to 1983. Although the rate of growth of such income loss was not unusually large, it nevertheless was more than twice the annual rise from 1981 to 1982 (3 percent). The main factor explaining the different experience in 1982 and 1983 was the employment pattern. The number of employed workers<sup>1</sup> dropped more than 2 percent in 1982 as the economy declined, then rose slightly (less than 1/2 percent) in 1983. The smallest increase in 1983 (4 percent) was in the Federal employee sector, a result of the modest growth in Federal payrolls.

The largest annual increase from 1982 to 1983 (15 percent) was in the self-employed sector. A 9-percent decrease in the previous year offset that increase so that the net change for the 1980-83 period was a 5-percent increase.

## Protection Against Income Loss

Protection against loss of earnings for periods of nonoccupational disability is provided in a number of ways. For private wage and salary workers, the most common method is group or individual insurance policies that are sold by commercial insurance companies and that pay cash benefit amounts during specified

<sup>1</sup> As reported for full-time equivalent employees by the United States Department of Commerce.

**Table 1.—Estimated income loss from nonoccupational short-term sickness,<sup>1</sup> by type of employment, 1948-83<sup>2</sup>**

(Amounts in millions)

Year	Wage and salary workers in—						Self-employed <sup>8</sup>
	Total	Private employment <sup>3</sup>		Public employment			
		Total	Covered by temporary disability insurance laws <sup>4</sup>	Voluntary sector <sup>5</sup>	Federal <sup>6</sup>	State and local <sup>7</sup>	
1948.....	\$4,582	\$3,632	\$391	\$2,809	\$174	\$258	\$950
1949.....	4,445	3,602	483	2,644	190	285	843
1950.....	4,816	3,921	712	2,703	201	305	895
1951.....	5,494	4,495	1,059	2,843	259	334	999
1952.....	5,834	4,832	1,132	3,040	291	369	1,002
1953.....	6,163	5,199	1,213	3,295	290	401	964
1954.....	6,114	5,162	1,212	3,233	280	437	952
1955.....	6,565	5,574	1,299	3,508	297	470	991
1956.....	7,052	6,035	1,430	3,774	313	518	1,017
1957.....	7,386	6,336	1,512	3,931	323	570	1,050
1958.....	7,477	6,371	1,507	3,884	352	628	1,106
1959.....	7,749	6,680	1,580	4,090	356	654	1,069
1960.....	8,591	7,462	1,773	4,526	403	760	1,129
1961.....	8,664	7,527	1,770	4,524	420	813	1,137
1962.....	9,653	8,426	1,983	5,051	467	925	1,227
1963.....	10,213	8,956	2,084	5,359	504	1,009	1,257
1964.....	10,296	9,065	2,085	5,435	506	1,039	1,231
1965.....	11,333	9,971	2,244	6,017	548	1,162	1,362
1966.....	12,268	10,833	2,403	6,553	597	1,275	1,435
1967.....	12,844	11,401	2,529	6,928	632	1,312	1,437
1968.....	14,585	13,032	2,852	7,904	698	1,578	1,553
1969.....	15,307	13,747	3,025	8,334	757	1,631	1,560
1970.....	16,757	15,161	3,201	9,147	841	1,912	1,596
1971.....	17,146	15,550	3,273	9,321	897	2,059	1,596
1972.....	19,507	17,641	3,653	10,649	961	2,378	1,866
1973.....	21,059	18,881	3,881	11,441	1,026	2,533	2,178
1974.....	21,804	19,852	4,026	12,059	1,118	2,649	1,952
1975.....	23,595	21,565	4,270	13,036	1,213	3,045	2,030
1976.....	26,447	24,320	4,771	14,884	1,301	3,364	2,127
1977.....	28,225	25,933	5,242	15,813	1,395	3,483	2,290
1978.....	32,811	30,052	5,892	18,695	1,523	3,942	2,759
1979.....	36,072	33,021	6,576	20,640	1,621	4,184	3,051
1980.....	38,529	35,844	7,324	22,173	1,774	4,573	2,685
1981.....	41,278	38,586	7,904	23,952	1,885	4,845	2,692
1982.....	42,558	40,097	8,312	24,606	2,019	5,160	2,461
1983.....	45,615	42,784	8,975	26,104	2,097	5,608	2,831

<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. Beginning 1959, data adjusted to reflect changes in sickness experience (average number of disability days), as reported in the Health Interview Survey of the Public Health Service.

<sup>3</sup> Annual payrolls of wage and salary workers in private employment, multiplied by 7 (estimated average workdays lost per year due to short-term sickness) and divided by 255 (estimated workdays in year). Data for 1948-72 from unpublished advance tables, *Benchmark Revision of National Income and Product Accounts* (Department of Commerce). Comparable data since 1972 from *Survey of Current Business*, National Income Issue, published annually.

<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, New York, and Hawaii and in the railroad industry, multiplied by 7 and divided by 255.

<sup>5</sup> 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 Office of Personnel Management, multiplied by 8 (estimated average workdays lost per year due to short-term sickness) and divided by 260 (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 3) multiplied by estimated average workdays lost per year due to short-term sickness (for 1948-66, 7.5 days; for 1967, 7.35 days; for 1968, 7.2 days; and for 1969 to date, 7.0 days) and divided by 255 (estimated workdays in year).

<sup>8</sup> Annual farm and nonfarm proprietors' income from Department of Commerce data (see footnote 3), multiplied by 7 (estimated income-loss days per year due to short-term sickness) and divided by 300 (estimated workdays in year).

periods of disability. Employers may also self-insure, providing either cash benefits or paid sick leave. Some unions, union-management welfare funds, fraternal societies, and mutual benefit associations also pay cash benefits during periods of disability. These methods are not mutually exclusive; employers often use a paid sick-leave plan to supplement benefits under insurance plans, and workers may, as individuals, pur-

chase insurance policies to supplement the protection provided through their jobs.

Insured protection may result from voluntary action by the employer or the employee or from a compulsory temporary disability insurance (TDI) law, as is the case in California, New Jersey, New York, Puerto Rico, Hawaii, Rhode Island, and the Federal program for railroad employees. In the first four jurisdictions,

the protection required by law may be provided by publicly operated funds or through private insurance. All subject employers in Hawaii provide protection through private means. Under the Rhode Island legislation and the Federal program for railroad employees, all the protection required by law comes from publicly operated funds, though private plans may supplement the government-paid benefits.

Of the 92 million private and public wage and salary workers in December 1983, 59 million (almost two-thirds) were formally protected, through their place of employment, against the loss of earnings from short-term nonoccupational disability. These workers include employees covered under the statutory programs in five States, Puerto Rico, and the railroad industry, as well as those with protection under voluntary plans.

### Voluntary Protection

The protection available to workers not under the statutory programs is provided primarily through labor-management contracts or employer-initiated fringe benefit programs. As in previous years, such protection was afforded to almost half of the private industry workers not covered under TDI laws (table 2).

The two major forms of such protection are insurance (including administrative-services-only plans and self-insurance) and sick leave. Voluntary insurance plans, excluding private insurance in jurisdictions with mandatory protection, covered an estimated 17 million workers in 1983. These plans, like the statutory TDI programs, generally provide one-half to two-thirds wage replacement after a waiting period of 3-7 days. The duration of benefits may vary with the length of work experience or, more commonly among the voluntary plans, may be for some fixed number of weeks for all workers under the plan, with the maximum ranging from 13 weeks to 26 weeks or longer.

In contrast, sick leave—the other major means of maintaining a worker's wage that would otherwise be lost because of illness or accident—is commonly paid as full replacement of earnings for a maximum of 5-15 days per year without a waiting period. Unused sick leave in such plans can be accumulated for use in the future. Another type of sick-leave plan pays for the equivalent of considerably more days per year but does not allow cumulation of unused days to future years. In a sample of medium- and large-size firms in 1983, the average number of available days for plans not providing accumulation was 35 days for a worker with 5 years of service.<sup>2</sup>

About 21 million workers in private industry and in government were under sick-leave plans rather than

**Table 2.—Degree of income-loss protection against short-term sickness for all employed wage and salary workers in private industry and for those not under temporary disability insurance laws, selected years, 1954-83**

[Numbers in thousands]

December	Total number <sup>1</sup>	With protection	
		Number <sup>2</sup>	Percent of total
<b>All wage and salary workers</b>			
1954 .....	43,000	25,600	59.5
1956 .....	46,000	27,700	60.2
1958 .....	45,900	26,900	58.6
1960 .....	47,000	28,200	60.0
1962 .....	48,900	29,800	60.9
1964 .....	51,200	28,700	56.1
1966 .....	54,800	30,700	56.0
1968 .....	56,800	33,500	59.0
1970 .....	58,000	35,300	60.9
1971 .....	58,900	35,500	60.3
1972 .....	61,400	36,500	59.4
1973 .....	63,800	38,100	59.7
1974 .....	62,800	36,900	58.8
1975 .....	62,700	36,000	57.4
1976 .....	65,400	38,700	59.2
1977 .....	68,700	40,200	58.5
1978 .....	71,600	42,600	59.5
1979 .....	73,500	42,100	57.3
1980 .....	72,500	42,200	58.2
1981 .....	73,000	41,600	57.0
1982 .....	73,800	43,000	58.3
1983 .....	75,800	45,200	59.6
<b>Wage and salary workers not under temporary disability insurance laws</b>			
1954 .....	31,400	15,000	47.8
1956 .....	34,200	16,400	48.0
1958 .....	33,600	16,000	47.6
1960 .....	34,300	16,800	49.0
1962 .....	35,900	17,400	48.5
1964 .....	38,100	16,000	42.0
1966 .....	41,000	17,000	41.5
1968 .....	42,600	19,300	45.3
1970 .....	43,300	20,600	47.6
1971 .....	44,300	20,900	47.2
1972 .....	46,500	21,600	46.5
1973 .....	47,700	22,000	46.1
1974 .....	47,700	21,800	45.7
1975 .....	48,000	21,300	44.4
1976 .....	50,200	23,500	46.8
1977 .....	52,700	24,200	45.9
1978 .....	54,700	25,700	47.0
1979 .....	56,200	24,800	44.1
1980 .....	55,400	25,100	45.3
1981 .....	55,600	24,200	43.5
1982 .....	56,000	25,200	45.0
1983 .....	58,400	27,800	47.6

<sup>1</sup> In private industry. For areas not under temporary disability insurance (TDI) laws, total excludes railroad workers and is adjusted by ratio of private industry employees on nonagricultural payrolls in States with TDI laws to all such employees. Data from Bureau of Labor Statistics, *Employment and Earnings*. Beginning with 1968, data not strictly comparable with that for earlier years. Labor-force information for 1968 and thereafter excludes those aged 14-15 and includes certain workers previously classified as self-employed.

<sup>2</sup> Estimated number of private-industry workers (1) with group accident and sickness insurance (except group credit insurance); (2) under paid sick-leave plans; (3) under union and mutual association plans, and (4) in State-operated TDI funds. Beginning with 1964, group accident and sickness insurance coverage adjusted to exclude those with long-term benefit policies, which usually do not provide short-term benefits. Estimates of private protection based on data from Health Insurance Association of America and from State administrative agencies.

<sup>2</sup> William J. Wiatrowski, "Employee Income Protection Against Short-Term Disabilities," *Monthly Labor Review*, February 1985.

insurance plans in 1983. Of this total, almost 14 million were government workers and 7 million were in private industry. More than 9 out of 10 government workers have full-pay sick leave with no waiting period. In contrast, sick leave in private industry often is a supplement to coverage in provided insurance plans. The supplement may provide for payments during insurance policy waiting periods or it may add to the amounts paid weekly under the insurance policy. Thus, in addition to the 7 million workers estimated to have exclusive sick-leave plans (plans that are not supplements for another plan), about 12 million workers in private industry were covered by supplemental sick-leave provisions in 1983.

Protection afforded by group credit accident insurance<sup>3</sup> and by informal sick leave or other informal plans through employment is excluded from the number of protected workers counted here. Group credit accident policies are not provided as part of an employment relationship nor are they issued primarily for the benefit of the insured.

Informal sick-leave protection also is excluded here because such arrangements or continuation of pay at the discretion of the employer are rarely specified publicly in advance. It is therefore difficult to estimate either the number of workers who would actually receive payments of this nature when they are sick or the magnitude of such benefits.

Finally, the number of employees and self-employed persons covered by individual insurance policies also is excluded from this series. It would be difficult to eliminate the duplication that results when some persons have more than one policy or hold an individual policy in addition to some form of group protection. Furthermore, individual policies are not necessarily related to participation in the labor force (those that provide flat-rate periodic cash benefits on presentation of proof of hospitalization, for example). Unlike the duplication involved in counting the number of workers with individual policies, the inclusion of benefit amounts paid under individual policies provides meaningful data. These benefit payments, therefore, are included in the tables.

## Statutory Programs

In California, Hawaii, New Jersey, New York, Puerto Rico, and Rhode Island, coverage is provided through a compulsory State TDI law. More than four-fifths of the employees in the five States and Puerto Rico and all railroad workers are protected against income loss by these laws. The protection provided is extended to employees in industrial and commercial

firms. In addition, California, Hawaii, Puerto Rico, and Rhode Island cover all hired farm workers, and New Jersey includes workers on farms with 10 employees or more in 20 weeks or more. Domestic workers and employees of governments and nonprofit organizations are generally not covered.

In Rhode Island and the railroad industry, all benefits are provided from publicly operated disability insurance funds. In California, New Jersey, and Puerto Rico, employers may "contract out" of the public plan by providing an approved private plan, usually one insured by a commercial company or financed on a self-insured basis. The laws in Hawaii and New York require employers to provide sickness protection of a specified value for their employees by establishing a privately insured or self-insured plan or, in the case of New York, by insuring with a State fund that itself has many characteristics of a private carrier. In jurisdictions that allow private plans, union or union-management plans may provide the sickness benefits required by law.

## Replacement of Income Loss

In 1983, individual insurance policies and group plans in private industry and government paid \$16.4 billion to replace income lost during short-term sickness. These benefit payments represented 36 percent of the actual and potential earnings loss in 1983 (table 3). This ratio was two percentage points below that of 1982. Variations in the annual replacement rate have fluctuated within a 35-38-percent range from 1970 to date. This relative stability is in contrast to the period before 1970 during which the coverage of sick-pay plans and the estimated benefit payments grew.

Table 3 also shows the cost of providing insurance under sickness benefit plans. The \$2.3 billion cost of administration of claims, sales costs, profits, and other costs of operating insurance plans in 1983 was \$200 million lower than the net cost in 1982. More notable is the fact that the cost of insurance has been fairly stable for a number of years, an indication of lack of growth in this sector. Growth in recent years in certain forms of insurance plans as administrative-services-only (ASO) policies<sup>4</sup> has been offset by declines in coverage under traditional full-service income replacement insurance.

The benefit replacement rates presented in table 4 are for group protection plans' coverage of private industry workers according to whether or not they are under TDI laws and for government workers. For all wage and salary workers, benefits of \$15.3 billion re-

<sup>3</sup>This type of insurance is issued through a lender or lending agency to cover payment of a loan or installment purchase in case of the disability of the insured.

<sup>4</sup>Under the administrative-services-only policies, an insurance company may contract to receive and process claims and to perform other administrative services while the employer retains responsibility for the cost of the benefits paid.

**Table 3.—Extent of protection against income loss, 1948-83**

[Amounts in millions]

Year	Income loss and protection			Income loss not protected	Net cost of providing insurance <sup>4</sup>
	Income loss <sup>1</sup>	Protection provided <sup>2,3</sup>	Protection as percent of loss		
1948	\$4,582	\$761	16.6	\$3,821	\$277
1949	4,445	848	19.1	3,597	287
1950	4,816	942	19.6	3,874	307
1951	5,494	1,153	21.0	4,341	311
1952	5,834	1,304	22.4	4,530	322
1953	6,163	1,413	22.9	4,750	428
1954	6,114	1,478	24.2	4,636	453
1955	6,565	1,620	24.7	4,945	450
1956	7,052	1,806	25.6	5,246	413
1957	7,386	1,958	26.5	5,428	482
1958	7,477	2,093	28.0	5,384	519
1959	7,749	2,236	28.9	5,513	548
1960	8,591	2,430	28.3	6,161	542
1961	8,664	2,561	29.6	6,103	592
1962	9,653	2,776	28.8	6,877	621
1963	10,213	2,997	29.3	7,216	597
1964	10,296	3,101	30.1	7,195	642
1965	11,333	3,349	29.6	7,984	708
1966	12,268	3,637	29.6	8,631	815
1967	12,844	3,898	30.3	8,956	887
1968	14,585	5,622	31.7	9,963	1,014
1969	15,307	5,104	33.3	10,203	1,214
1970	16,757	5,888	35.1	10,869	1,160
1971	17,146	6,137	35.8	11,009	1,386
1972	19,507	6,874	35.2	12,633	1,556
1973	21,059	7,461	35.4	13,598	1,740
1974	21,804	8,232	37.8	13,572	1,774
1975	23,595	9,002	38.2	14,592	2,232
1976	26,447	9,819	37.1	16,628	2,234
1977	28,225	10,559	37.4	17,666	2,452
1978	32,811	11,751	35.8	21,060	3,459
1979	36,072	13,371	37.1	22,701	2,394
1980	38,529	14,426	37.4	24,103	2,194
1981	41,278	15,113	36.6	26,165	2,241
1982	42,558	16,269	38.2	26,289	2,531
1983	45,615	16,411	36.0	29,204	2,307

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

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

<sup>3</sup> Beginning 1973, includes benefits for the sixth month of disability under the old-age, survivors, and disability insurance program.

<sup>4</sup> Includes retention costs (for contingency reserves, taxes, commissions, acquisition, claims settlement, and underwriting gains) of private insurance companies (from table 7) and administrative expenses for publicly operated plans and for supervision of the operation of private plans. Excludes costs of operating sick-leave plans; data not available.

placed 36 percent of income loss from sickness in 1983. In contrast, the aggregate income-loss replacement rate varied from 23 percent for private workers in jurisdictions without statutory programs to 84 percent for government workers, a composite result of two factors. First, as described above, most government workers have formal plans providing cash sickness benefits whereas less than half of the private industry workers in jurisdictions not covered by TDI laws are in plans provided through labor-management negotiations or as employer-provided fringe benefits. Second, sick leave, especially as provided to government workers, generally provides for full wage replacement whereas insurance plans, applicable primar-

ily in private industry, are intended to replace only a portion of earnings lost each week, after an unreimbursed waiting period.

Each type of protection has advantages and disadvantages. The most significant advantage of the sick-leave benefit is that it assures little or no drop in income for many workers when they are sick because most illnesses last only a few days and such benefits ordinarily consist of full wages. The chief advantage of sickness insurance is that it gives partial but substantial protection over many weeks and so precludes catastrophic income loss in the event of a serious extended illness. Because the two types of plans differ in the kind of protection offered, however, the extent of wage replacement is not necessarily an adequate measure of their comparative advantages.

The other comparison of interest in table 4 is between private industry workers in jurisdictions with TDI laws and other private industry workers. In the areas under mandatory programs, the 28 percent level of income replacement attained during 1983 was somewhat higher than the level of 23 percent in other areas. The higher replacement rate in areas with TDI laws is to be expected because of the difference in the proportion of workers protected in the two types of areas: Most wage and salary workers are protected in the TDI areas and only about half such workers are under income-loss replacement plans elsewhere. But, the difference in income replacement ratios for the two groups may be less than an examination of the data first indicates because the benefit provisions in voluntary plans may provide for payment of higher replacement amounts than the TDI plans as, for example, under sick-leave plans.

Table 5 presents a summary of all benefit payments made in 1983, highlighting payments to different groups under sick-leave plans and insurance plans. Payments through sick-leave plans accounted for 69 percent of the total in 1983. Sick-leave protection in private industry has grown significantly over the years, compared with other forms of protection. For example, sick-leave benefit payments in private industry were 16 percent of all benefits paid in 1960; by 1983, they were 30 percent of all benefit payments. The changing importance of different industries may help to explain this trend. Declines in employment in the steel and automobile manufacturing industries (where insurance plans have been common) and the growth of the computer industry (in which sick leave is a popular type of benefit) may have contributed to the changing relationships seen in table 5.

Private group insurance benefits have become a smaller proportion of the total benefit outlays, especially since 1980. In addition to actual declines that may have occurred in this form of protection, changes in the estimating procedures have also had an impact

on the data. Adjustments have been made in the reported insurance benefit amounts to exclude benefit payments for long-term disability, as that sector has become a larger part of all income replacement insurance. (A discussion of this point is found in the appendix on page 17.)

Insurance benefits paid under individual policies—that is, not part of the benefits provided through the workplace—totaled \$1.2 billion in 1983. This amount represented only 7 percent of all cash sickness benefit payments, continuing a long-term de-

cline dating from the 1960's. Individual insurance accounted for 16 percent of the total in 1960, 12 percent in 1970, and 9 percent in 1980.

In the tabulation that appears in the first column on the next page, the proportion of benefit payments for each of the insurance plans shown in table 5 is given for 1982 and 1983. In private industry and in government, the proportion of benefit payments for sick leave increased from 1982 to 1983. During that same period, a decline is seen in the individual and group insurance sectors.

Table 4.—Group protection of wage and salary workers, in relation to wage and salary loss, 1948–83

[Amounts in millions]

Year	Total			Private industry									Government		
	Total			Total			Covered by temporary disability insurance laws			Not covered by temporary disability insurance laws			Government		
	Income loss	Protection provided		Income loss	Protection provided		Income loss	Protection provided		Income loss	Protection provided		Income loss	Protection provided	
		Amount <sup>1</sup>	Percent of income loss		Amount	Percent of income loss		Amount	Percent of income loss		Amount	Percent of income loss		Amount	Percent of income loss
1948	\$3,632	\$620	17.1	\$3,199	\$361	11.3	\$391	\$79	20.2	\$2,890	\$282	10.1	\$432	\$259	60.0
1949	3,602	698	19.4	3,127	398	12.7	483	105	21.7	2,644	293	11.1	475	300	63.2
1950	3,921	789	20.1	3,415	474	13.9	712	141	19.8	2,703	333	12.3	506	315	62.3
1951	4,495	996	22.2	3,902	606	15.5	1,059	209	19.7	2,843	397	14.0	593	390	65.8
1952	4,832	1,127	23.3	4,172	674	16.2	1,132	239	21.1	3,040	435	14.3	660	453	68.6
1953	5,199	1,204	23.2	4,508	722	16.0	1,213	269	22.2	3,295	453	13.7	691	481	69.6
1954	5,162	1,248	24.2	4,445	747	16.8	1,212	276	22.8	3,233	471	14.6	717	500	69.7
1955	5,574	1,651	24.6	4,807	825	17.2	1,299	290	22.3	3,508	535	15.3	767	545	71.1
1956	6,035	1,528	25.3	5,204	937	18.0	1,430	316	22.1	3,774	621	16.5	831	591	71.1
1957	6,336	1,651	26.1	5,443	1,024	18.8	1,512	360	23.8	3,931	664	16.9	893	626	70.1
1958	6,371	1,740	27.3	5,391	1,044	19.4	1,507	382	25.3	3,884	662	17.0	980	696	71.0
1959	6,680	1,847	27.6	5,670	1,123	19.8	1,530	411	26.0	4,090	712	17.4	1,010	724	71.7
1960	7,462	2,037	27.3	6,299	1,211	19.2	1,773	435	24.5	4,526	776	17.1	1,163	826	71.0
1961	7,527	2,135	28.4	6,294	1,241	19.7	1,770	465	26.3	4,524	776	17.2	1,233	894	72.5
1962	8,426	2,358	28.0	7,034	1,355	19.3	1,983	495	25.0	5,051	860	17.0	1,392	1,003	72.1
1963	8,956	2,550	28.5	7,443	1,445	19.4	2,084	529	25.4	5,359	916	17.1	1,513	1,105	73.0
1964	9,065	2,617	28.9	7,520	1,485	19.7	2,085	537	25.8	5,435	948	17.4	1,545	1,133	73.3
1965	9,971	2,866	28.7	8,261	1,602	19.4	2,244	558	24.9	6,017	1,044	17.4	1,710	1,264	73.9
1966	10,833	3,124	28.8	8,961	1,735	19.4	2,408	581	24.1	6,553	1,154	17.6	1,872	1,389	74.2
1967	11,401	3,371	29.6	9,457	1,834	19.4	2,529	616	24.4	6,928	1,218	17.6	1,944	1,536	79.0
1968	13,032	4,013	30.8	10,756	2,247	20.9	2,852	699	24.5	7,904	1,548	19.6	2,276	1,766	77.6
1969	13,742	4,469	32.5	11,359	2,551	22.5	3,025	799	26.4	8,334	1,752	21.0	2,388	1,918	80.3
1970	15,161	5,194	34.3	12,408	2,953	23.8	3,261	880	27.0	9,147	2,073	22.7	2,753	2,242	81.4
1971	15,550	5,406	34.8	12,594	3,030	24.1	3,273	900	27.5	9,321	2,130	22.9	2,956	2,376	80.4
1972	17,641	6,102	34.6	14,302	3,390	23.7	3,653	969	26.5	10,649	2,421	22.7	3,339	2,712	81.2
1973	18,881	6,666	35.3	15,322	3,650	23.8	3,881	1,066	27.5	11,441	2,584	22.6	3,559	2,906	81.7
1974	19,852	7,351	37.2	16,085	4,144	25.8	4,026	1,154	28.7	12,059	2,990	24.8	3,767	3,107	82.5
1975	21,565	8,030	37.2	17,306	4,328	25.0	4,270	1,239	29.0	13,036	3,089	23.7	4,259	3,542	83.2
1976	24,320	8,938	36.8	19,655	4,900	24.9	4,771	1,348	28.3	14,884	3,552	23.9	4,665	3,868	82.9
1977	25,933	9,606	37.0	21,055	5,282	25.1	5,242	1,432	27.4	15,813	3,847	24.3	4,904	4,144	84.4
1978	30,052	10,541	35.1	24,587	5,782	23.5	5,892	1,580	26.8	18,695	4,202	22.5	5,465	4,579	83.8
1979	33,021	12,049	36.5	27,216	6,987	25.7	6,576	1,763	26.8	20,640	5,224	25.3	5,805	4,892	84.3
1980	35,844	13,146	36.7	29,497	7,633	25.9	7,324	2,010	27.4	22,173	5,623	25.4	6,347	5,338	84.1
1981	38,586	13,822	35.8	31,856	8,011	25.1	7,904	2,307	29.2	23,952	5,704	23.8	6,730	5,641	83.8
1982	40,097	14,674	36.6	32,918	8,498	25.8	8,312	2,457	29.6	24,606	6,041	24.6	7,179	6,026	83.9
1983	42,784	15,259	35.7	35,079	8,614	24.6	8,975	2,553	28.4	26,104	6,061	23.2	7,705	6,490	84.2

<sup>1</sup> Beginning 1973, includes benefits for the sixth month of disability payable under the old-age, survivors, and disability insurance program (not shown separately).

Type of plan	Percentage distribution	
	1982	1983
Total percent	100	100
Individual insurance	10	7
Group benefits	90	93
Private insurance and self-insurance	18	16
Publicly operated	6	6
Private industry sick leave	28	30
Government sick leave	37	40

## Types of Benefits Paid

### Temporary Disability Insurance

The benefit amounts paid to workers under the TDI laws are shown in table 6. The amounts remained

fairly stable—at about \$1.6 billion—in 1982 and 1983. The major portion of these mandatory benefit payments (\$1.0 billion) was made by the publicly funded plans that operate in six of the jurisdictions with TDI laws (Hawaii provides for private plans only). This form of protection became the predominant source of benefits under the TDI programs after 1962. A number of factors influenced the pattern, including the statutory changes in California and New Jersey that made it difficult for private carriers to compete with public funds.

A more recent trend among employers who provide the required protection through private plans has been the switch from insurance to self-insurance. Starting in 1976, self-insurance has provided more benefit pay-

**Table 5.—Benefits provided as protection against income loss, summary data, 1948–83**

[Amounts in millions]

Year	Total <sup>1</sup>	Benefits provided through individual insurance	Group benefits provided as protection against wage and salary loss					Sick leave for government employees
			Total <sup>1</sup>	Workers in private industry			Sick leave	
				Total	Private cash-sickness insurance and self-insurance <sup>2</sup>	Publicly operated cash-sickness funds		
1948	\$761.4	\$141.0	\$620.4	\$361.3	\$145.8	\$57.1	\$158.4	\$259.1
1949	848.2	150.0	698.3	398.3	172.0	62.1	164.2	299.9
1950	941.8	153.0	788.8	473.7	230.8	63.1	179.8	315.1
1951	1,152.9	157.0	995.9	605.8	343.8	60.9	201.1	390.1
1952	1,303.9	177.0	1,126.9	674.1	382.1	74.5	217.5	452.8
1953	1,412.7	209.0	1,203.7	722.4	397.2	90.5	234.7	481.3
1954	1,477.6	230.0	1,247.6	747.3	399.1	103.1	245.1	500.3
1955	1,619.6	250.0	1,369.6	824.9	442.4	109.4	273.1	544.7
1956	1,805.7	278.0	1,527.7	936.9	524.5	113.8	298.6	590.8
1957	1,957.9	307.2	1,650.7	1,024.3	567.2	127.2	329.9	626.4
1958	2,093.2	353.4	1,739.8	1,043.5	555.7	141.4	346.4	696.3
1959	2,236.3	389.6	1,846.7	1,122.9	600.5	163.7	358.7	723.8
1960	2,429.6	392.8	2,036.8	1,210.6	638.4	172.1	400.1	826.2
1961	2,560.7	425.9	2,134.8	1,241.0	625.7	195.2	420.1	893.8
1962	2,776.3	418.5	2,357.8	1,355.0	670.7	212.0	472.3	1,002.8
1963	2,997.3	447.2	2,550.1	1,444.9	675.4	243.9	525.6	1,105.2
1964	3,101.3	483.9	2,617.4	1,484.8	715.7	264.4	504.7	1,132.6
1965	3,349.0	482.6	2,866.4	1,602.3	767.1	269.1	566.1	1,264.1
1966	3,636.8	512.9	3,123.9	1,735.1	843.2	273.2	618.7	1,388.8
1967	3,898.3	527.4	3,370.9	1,834.4	869.3	284.7	680.4	1,536.5
1968	4,622.9	609.1	4,012.8	2,246.9	1,123.7	320.2	803.0	1,765.9
1969	5,104.2	635.4	4,468.8	2,550.7	1,246.7	373.7	930.3	1,918.1
1970	5,888.1	693.7	5,194.4	2,952.5	1,475.9	410.6	1,066.0	2,241.9
1971	6,137.2	730.9	5,406.3	3,030.1	1,489.0	410.9	1,130.2	2,376.2
1972	6,873.8	772.0	6,101.8	3,390.1	1,614.4	412.0	1,363.7	2,711.7
1973	7,460.8	795.0	6,665.8	3,650.3	1,735.8	445.9	1,468.6	2,905.5
1974	8,231.7	851.0	7,380.7	4,143.5	2,024.4	485.3	1,633.8	3,107.2
1975	9,002.5	973.0	8,029.5	4,327.5	2,010.6	538.3	1,778.6	3,542.0
1976	9,819.4	881.0	8,938.4	4,900.4	2,267.3	580.9	2,052.2	3,868.0
1977	10,559.0	940.0	9,619.0	5,284.5	2,344.0	581.8	2,358.7	4,144.5
1978	11,751.0	1,210.0	10,541.0	5,781.7	2,403.1	609.1	2,769.5	4,579.3
1979	13,371.0	1,322.0	12,049.0	6,986.8	3,216.1	699.0	3,071.7	4,892.2
1980	14,425.5	1,280.0	13,145.5	7,633.2	3,270.9	769.6	3,592.7	5,337.3
1981	15,112.7	1,291.0	13,821.7	8,011.3	2,959.4	952.6	4,099.3	5,640.4
1982	16,269.0	1,595.0	14,674.0	8,498.3	2,930.6	986.8	4,580.9	6,025.7
1983	16,411.2	1,152.0	15,259.2	8,614.5	2,707.7	1,007.7	4,899.1	6,489.7

<sup>1</sup> Beginning 1973, includes benefits for the sixth month of disability payable under the old-age, survivors, and disability insurance program (not shown separately).

<sup>2</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.



**Table 6.—Cash benefits under temporary disability insurance laws provided through private plans and through publicly operated funds, 1948–83<sup>1</sup>**

[Amounts in millions]

Year	Total	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	41.7	12.6	63.1
1951	174.2	81.1	32.2	60.9
1952	202.3	92.5	35.2	74.5
1953	230.2	102.0	37.7	90.5
1954	235.1	96.2	35.8	103.1
1955	244.6	97.0	38.2	109.4
1956	265.0	109.7	41.5	113.8
1957	305.3	129.5	48.6	127.2
1958	325.1	132.7	51.0	141.4
1959	353.2	135.2	54.3	163.7
1960	368.2	138.1	58.0	172.1
1961	396.6	141.3	60.1	195.2
1962	416.3	143.7	60.6	212.0
1963	442.2	130.6	67.6	243.9
1964	455.8	123.2	68.2	264.4
1965	466.7	124.8	72.8	269.1
1966	481.6	130.9	77.5	273.2
1967	507.1	139.1	83.3	284.7
1968	571.9	154.0	97.7	320.2
1969	654.9	171.7	109.5	373.7
1970	717.8	183.7	123.5	410.6
1971	721.3	184.0	126.4	410.9
1972	740.5	183.7	144.8	412.0
1973	799.3	193.6	159.9	445.9
1974	866.9	199.7	181.9	485.3
1975	932.3	203.7	190.3	538.3
1976	994.4	200.6	213.0	580.9
1977	1,007.3	203.8	221.7	581.8
1978	1,089.6	231.5	249.0	609.1
1979	1,214.8	242.9	272.9	699.0
1980	1,353.1	261.6	321.9	769.6
1981	1,573.6	271.5	349.5	952.6
1982	1,614.4	267.6	360.0	986.8
1983	1,621.2	261.9	351.5	1,007.7

<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). Data for Hawaii included beginning 1980. Benefits for Puerto Rico (\$9.1 million in 1983) excluded for consistency with wage-loss data in table 1 and elsewhere. Excludes hospital benefits in California, provided through 1979, and hospital, surgical, and medical benefits in New York.

<sup>2</sup> Under the laws of California, Hawaii, 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.

<sup>4</sup> Includes State-operated plans in Rhode Island, California, and New Jersey, the New York State Insurance Fund, the special funds for the disabled unemployed in Hawaii and New York, and the railroad program.

ments than commercial insurance, including virtually all of the few remaining private plans in California. The growing attractiveness of self-insurance as a way of providing statutory cash sickness benefits was part of a broader impetus among employers toward the use of self-insurance for various types of benefits (such as workers' compensation) in the 1970's that has continued to some extent into the 1980's.

The amount of benefits paid is affected by statutory changes such as those mandated for benefit formulas. As seen in the tabulation in the next column, the

maximum weekly benefit amount increased in three States (Hawaii, New Jersey, and Rhode Island) from 1982 to 1983. These increases were mandated by the flexible provisions that automatically increase the maximum amount as wages in covered employment rise. It should be noted that substantial increases were enacted in the maximums of the two largest States (California and New York) in 1983, effective for 1984. In addition, in 1983 the maximum duration of benefits in California was increased from 39 weeks to 52 weeks for the years 1984–86. Also, in June 1983, coverage of domestic workers under the program in New York was extended, effective January 1984, to those individuals employed by a single employer for at least 40 hours per week. (Previously, coverage had applied only if an employer had at least four domestic workers.)

Jurisdiction	Maximum weekly benefit amount in January—		
	1982	1983	1984
California	\$175	\$175	\$224
Hawaii	168	177	187
New Jersey	145	158	170
New York	95	95	135
Puerto Rico <sup>2</sup>	104	104	104
Rhode Island <sup>1</sup>	140	152	162
Railroad <sup>3</sup>	125	125	125

<sup>1</sup> Effective July of previous year.

<sup>2</sup> \$50 for agricultural workers.

<sup>3</sup> Weekly amount assumes 5 days of compensable sickness at statutory daily maximum of \$25.

The income loss in TDI jurisdictions amounted to 26 percent of the national total in private industry. In contrast, benefits paid under TDI provisions were 44 percent of all group insurance payments in private industry. The relationship between insurance benefits in TDI areas and corresponding benefits nationally has varied over the years, depending on changes in statutory coverage and benefit provisions and on the effects of economic conditions on the growth of voluntary insurance in areas without TDI laws. Benefit payments under the TDI laws accounted for as much as 48 percent of all insurance payments for short-term sickness nationally in 1963. They began declining in an irregular manner until 1979 when they were only 31 percent, and they have been increasing since 1979.

### Private Insurance

In 1983, premiums under private insurance totaled \$5.9 billion (table 7). The volume of short-term sick pay insurance business began to decline after reaching its peak in 1978, when premiums reached \$7.0 billion. Growth in private short-term sick pay insurance has halted since that year (except for the unexplained increase in 1982), in part reflecting the less vigorous growth of the economy generally and the changing in-

Table 7.—Premiums and benefit payments for private insurance as protection against income loss, 1948–83<sup>1</sup>

[Amounts in millions]

Year	Total	Under voluntary provisions (not covered by temporary disability insurance laws)				Under public provisions (covered by temporary disability insurance laws)		
		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								
1948	\$558.9	\$545.8	\$162.2	\$350.0	\$33.6	\$13.1	\$12.7	\$10.4
1949	603.6	564.8	177.8	355.0	32.0	38.8	31.9	6.9
1950	685.3	609.4	225.6	360.0	23.8	75.9	58.3	17.6
1951	804.7	660.9	269.4	366.0	25.5	143.8	102.9	40.9
1952	874.0	718.2	286.2	405.4	26.6	155.8	112.8	43.0
1953	1,026.0	839.5	321.5	494.8	23.2	186.5	136.2	50.3
1954	1,074.1	896.0	340.1	534.2	21.7	178.1	129.8	48.3
1955	1,133.9	955.1	386.2	547.8	21.1	178.8	128.3	50.5
1956	1,206.3	1,029.2	418.3	591.2	19.7	177.1	128.5	48.6
1957	1,346.9	1,129.7	453.7	654.4	21.6	217.2	157.9	59.3
1958	1,417.9	1,185.6	449.6	714.6	21.4	232.3	167.8	64.5
1959	1,526.4	1,293.6	484.1	787.8	21.7	232.8	166.1	66.7
1960	1,561.9	1,323.1	516.8	783.0	23.3	238.8	168.2	70.6
1961	1,630.5	1,375.2	516.0	835.9	23.3	255.3	179.1	76.8
1962	1,695.9	1,440.5	556.9	856.5	27.1	255.4	179.6	75.8
1963	1,704.3	1,459.9	560.0	870.0	29.9	244.4	161.0	83.4
1964	1,825.1	1,587.1	620.8	933.0	33.3	238.0	153.2	84.8
1965	1,940.9	1,682.5	710.9	933.1	38.5	258.4	163.0	95.4
1966	2,153.9	1,873.8	810.6	1,018.5	44.7	280.1	175.9	104.2
1967	2,265.8	1,955.2	853.1	1,048.6	53.5	310.6	194.3	116.3
1968	2,727.7	2,385.7	1,131.8	1,198.0	55.9	342.0	209.2	132.8
1969	3,076.7	2,677.3	1,304.5	1,304.5	68.2	399.4	243.9	155.5
1970	3,308.6	2,891.2	1,512.7	1,299.7	78.8	417.4	249.6	167.8
1971	3,583.7	3,140.9	1,597.3	1,454.2	89.4	442.8	262.5	180.3
1972	3,918.7	3,419.4	1,853.8	1,459.0	106.6	499.3	279.2	220.1
1973	4,240.8	3,718.6	1,942.0	1,671.0	105.6	522.2	286.0	236.2
1974	4,618.1	4,101.0	2,119.4	1,871.0	110.6	517.1	270.6	246.5
1975	5,172.3	4,592.1	2,214.2	2,257.0	120.9	580.2	304.8	275.4
1976	5,341.4	4,742.8	2,552.7	2,054.0	136.1	598.6	290.3	308.3
1977	5,690.7	5,029.9	2,833.5	2,044.0	152.4	660.8	316.5	344.3
1978	7,022.3	6,057.4	3,682.1	2,189.0	186.3	964.9	464.9	500.0
1979	6,884.7	6,156.0	3,653.8	2,331.0	171.2	728.7	343.2	385.5
1980	6,687.5	5,925.8	3,329.5	2,422.0	174.3	761.7	341.5	420.2
1981	6,428.4	5,576.6	3,049.6	2,376.0	151.0	851.8	372.4	479.4
1982	6,988.3	6,143.6	2,944.8	3,031.0	167.8	844.7	360.2	484.5
1983	5,894.4	5,009.3	2,582.1	2,279.0	148.2	885.1	377.9	507.2

See footnotes at end of table.

dustrial composition. This trend is especially associated with the voluntary insurance sector. Premiums for voluntary group insurance, for example, have declined each year since 1978, with a decline of 12 percent recorded for 1983.

Insurance benefit payments in the 1980's have declined to an even greater degree than have premiums. From 1980 to 1983, the total of all private insurance benefit payments (including self-insurance) declined 20 percent, while premiums went down 12 percent. Similarly, voluntary group benefit payments were 30 percent less in 1983 than in 1980; during the same period, premiums decreased by 22 percent. And private insurance benefits under TDI rose only 5 percent from 1980 to 1983, during which time premiums increased 16 percent. Consequently, the benefit-cost ratio—that is, the ratio of benefits to premiums—declined from

68 percent in 1980 (the highest ratio in this series) to 62 percent in 1983.

Some of the trends in insurance benefit payments and premium amounts are attributable to changes occurring in recent years in data availability and in methodological refinements in the data base. A discussion of these revisions is found in the appendix on page 17. A notable development in this connection has been the growth of the administrative-services-only (ASO) policy. Unlike the conventional accident and sickness benefit policy for protection against short-term disability, under which the insurance company assumes the risk of payment for benefits due as well as administration of the insurance plans, an ASO policy may provide a contract for the insurance company to perform some or all of the tasks involved in administering the plan, but it usually leaves the re-

**Table 7.—Premiums and benefit payments for private insurance as protection against income loss, 1948-83<sup>1</sup>—Continued**

[Amounts in millions]

Year	Total	Under voluntary provisions (not covered by temporary disability insurance laws)			Under public provisions (covered by temporary disability insurance laws)			
		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>
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 .....	383.8	329.5	161.3	153.0	15.2	54.3	41.7	12.6
1951 .....	500.8	387.5	212.4	157.0	18.1	113.3	81.1	32.2
1952 .....	559.1	431.3	234.6	177.0	19.7	127.8	92.5	35.3
1953 .....	606.2	466.5	241.0	209.0	16.5	139.7	102.0	37.7
1954 .....	629.1	497.1	251.8	230.0	15.3	132.0	96.2	35.2
1955 .....	692.4	557.2	292.0	250.0	15.2	135.2	97.0	38.2
1956 .....	802.5	651.3	357.3	278.0	16.0	151.2	109.7	41.5
1957 .....	874.4	696.3	372.3	307.2	16.8	178.1	129.5	48.6
1958 .....	909.1	725.4	355.9	353.4	16.1	183.7	132.7	51.0
1959 .....	990.1	800.6	394.2	389.6	16.8	189.5	135.2	54.3
1960 .....	1,031.2	835.1	424.1	392.8	18.2	196.1	138.1	58.0
1961 .....	1,051.6	850.2	406.8	425.9	17.5	201.4	141.3	60.1
1962 .....	1,089.2	884.9	445.8	418.5	20.6	204.3	143.7	60.6
1963 .....	1,122.6	924.4	454.2	447.2	23.0	198.2	130.6	67.6
1964 .....	1,199.6	1,008.2	498.9	483.9	25.4	191.4	123.2	68.2
1965 .....	1,249.7	1,052.1	541.6	482.6	27.9	197.6	124.8	72.8
1966 .....	1,356.1	1,147.7	603.2	512.9	31.6	208.4	130.9	77.5
1967 .....	1,396.7	1,174.3	610.5	527.4	36.4	222.4	139.1	83.3
1968 .....	1,732.8	1,481.1	832.9	609.1	39.1	251.7	154.0	97.7
1969 .....	1,882.1	1,600.9	919.9	635.4	45.6	281.2	171.7	109.5
1970 .....	2,169.6	1,862.4	1,113.9	693.4	55.1	307.2	183.7	123.5
1971 .....	2,219.9	1,090.5	1,119.1	730.9	59.5	310.4	184.0	126.4
1972 .....	2,386.4	2,057.9	1,219.3	772.0	66.6	328.5	183.7	144.8
1973 .....	2,530.8	2,177.3	1,314.4	795.0	67.9	353.5	193.6	159.9
1974 .....	2,875.4	2,493.8	1,565.3	851.0	77.5	381.6	199.7	181.9
1975 .....	2,983.6	2,582.7	1,530.4	973.0	79.3	400.9	210.6	190.3
1976 .....	3,148.3	2,734.7	1,764.4	881.0	89.3	413.6	200.6	213.0
1977 .....	3,284.0	2,858.2	1,825.2	940.0	93.3	425.5	203.8	221.7
1978 .....	3,613.1	3,132.6	1,834.5	1,210.0	88.1	480.5	231.5	249.0
1979 .....	4,538.1	4,022.2	2,585.0	1,322.0	115.2	515.9	243.0	272.9
1980 .....	4,550.9	3,967.4	2,550.4	1,280.0	137.0	583.5	261.6	321.9
1981 .....	4,250.4	3,629.4	2,224.5	1,291.0	113.9	621.0	271.5	349.5
1982 .....	4,525.6	3,898.0	2,188.4	1,595.0	114.6	627.6	267.6	360.0
1983 .....	3,639.7	3,046.3	1,790.1	1,152.0	104.2	613.4	261.9	351.5

<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 and administrative-services-only) as provided by the Health Insurance Association of America for the United States, adjusted to include accidental death and dismemberment provisions in individual policies that insure against income loss to offset understatement arising from omission of current short-term income-loss insurance in automobile, resident liability, life, and other policies. Starting with 1956, credit accident and health insurance classified under individual insurance.

Starting with 1983, credit insurance premiums and benefits are from *Statistical Tables from Annual Statements* by the New York Insurance Department. Starting with 1983, accidental death and dismemberment insurance premiums and benefits are estimated.

<sup>3</sup> Company and union-management trust fund, trade-union, and mutual benefit association plans. Excludes unfunded plans (included in table 9).

<sup>4</sup> Company, union, and union-management plans under California, New Jersey, and New York laws, whether or not funded.

sponsibility for the amounts of benefits to be paid with the employer.<sup>5</sup>

As a result of the newly available information on ASO insurance premiums and benefit payments for short-term disability, the data in the tabulation on the next page have been incorporated in table 7. Loss-pre-

<sup>5</sup> Another form of partial self-insurance policy, the minimum premium policy (MPP), has grown in popularity in recent years to protect workers against income loss from disability. But this type of policy is less relevant than ASO plans to the SSA series because the MPP is most often a reinsurance plan for long-term disability protection.

mium ratios for 1980-83 have ranged from 79 percent to 88 percent. As might be expected, these ratios are higher than the ratios for the insurance business as a whole because the ASO business of the insurance companies does not entail the expenses associated with bearing the risk of paying for the benefit losses that are incurred.

Another way of examining the role of private insurance in replacing income loss from short-term disability is to compare the actual amount of insurance benefit payments, excluding sick-leave pay, with the

hypothetical amount of income loss considered potentially insurable. The relationship of cash-sickness benefits to the income they replace is not necessarily expected to be "one-to-one." Insurance benefits, in particular, are usually established as a partial income replacement scheme. To discourage claims abuse, insurance plans ordinarily compensate the worker 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.

Therefore, a few alternative insurance objectives are assumed here as a means of gauging the adequacy of insurance in replacing wages lost during short-term sickness. Some of the more liberal insurance policies are used as guides, but it should be recognized that, in general, insurance policies do not attempt to provide full replacement of income as do many sick leave or pay continuation plans.

As shown in table 8, under the assumed objective of two-thirds wage replacement after a 7-day waiting period, benefits replace 40 percent of the income loss under all public and private insurance plans. The rate has declined substantially since reaching a peak of 53 percent in 1979. With the most liberal hypothetical objective shown in the table—the assumption of complete income replacement after a waiting period of 3

Item	Administrative-services-only business (amounts in millions)			
	1980	1981	1982	1983
Premiums.....	\$795	\$1,036	\$1,071	\$888
Benefits.....	627	843	938	723

**Table 8.—Insurance benefits as percent of hypothetically insurable and compensable income loss<sup>1</sup> for workers without exclusive formal sick leave, 1948–83**

Year	Amount of insurance benefits <sup>2</sup> (in millions)	Percent of income loss—			
		After first 3 days <sup>3</sup>		After first 7 days <sup>4</sup>	
		Total	Two-thirds	Total	Two-thirds
1948.....	\$343	12.2	18.3	15.5	23.3
1949.....	384	14.3	21.4	18.2	27.3
1950.....	447	15.3	22.9	19.5	29.2
1951.....	562	16.8	25.2	21.4	32.1
1952.....	634	18.0	27.0	22.9	34.4
1953.....	697	18.7	28.1	23.9	35.8
1954.....	733	20.0	30.0	25.5	38.2
1955.....	802	20.4	30.6	26.0	39.0
1956.....	917	21.8	32.6	27.7	41.5
1957.....	1,002	22.8	34.2	29.0	43.5
1958.....	1,050	23.9	35.9	30.5	45.7
1959.....	1,154	25.2	37.8	32.1	48.1
1960.....	1,204	23.9	35.8	30.4	45.6
1961.....	1,247	24.9	37.3	31.6	47.4
1962.....	1,301	23.3	34.9	29.6	44.4
1963.....	1,366	23.3	34.9	29.7	44.5
1964.....	1,464	24.7	37.1	31.5	47.2
1965.....	1,519	23.4	35.1	29.8	44.6
1966.....	1,629	23.2	34.8	29.6	44.3
1967.....	1,681	23.1	34.7	29.5	44.1
1968.....	2,053	24.9	37.3	31.7	47.5
1969.....	2,256	26.3	39.4	33.4	50.1
1970.....	2,580	27.7	41.6	35.3	52.9
1971.....	2,631	27.9	41.8	35.5	53.2
1972.....	2,799	26.3	39.4	33.4	50.1
1973.....	3,087	26.8	40.2	34.1	51.2
1974.....	3,491	29.5	44.3	37.6	56.3
1975.....	3,682	29.2	43.7	37.1	55.7
1976.....	3,899	27.4	41.1	34.9	52.3
1977.....	4,056	26.9	40.3	34.2	51.3
1978.....	4,402	25.0	37.4	31.8	47.7
1979.....	5,407	27.8	41.7	35.3	53.0
1980.....	5,496	26.6	39.9	33.8	50.8
1981.....	5,373	24.3	36.4	30.9	46.4
1982.....	5,662	25.2	37.8	32.1	48.2
1983.....	5,022	20.9	31.3	26.6	39.8

<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 10).

<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 10).

days—the replacement value of the insurance benefits in 1983 was 21 percent. This rate also has fallen since 1979. Except for the different fractions of income loss applied, the procedure for estimating the replacement rate was the same throughout table 8 and the historical trend is the same for each hypothetical objective shown. The recent declines probably result from a combination of factors, including the reduced amount of insurance business reported and the changes in the estimating procedures.

## Sick Leave

Sick leave is the second major form of wage protection for a worker who is away from the job because of a temporary disability. Because, as mentioned earlier, sick leave is often a full-replacement benefit without an unreimbursed waiting period, the aggregate amount paid through sick leave is high relative to the amount paid through insurance policies, even though more workers in private industry are protected by insurance plans.

In 1983, \$11.4 billion was paid to workers under formal sick-leave plans (table 9). Payments in private industry were 43 percent of the total, and payments in government constituted the remaining 57 percent. Among private industry workers, \$4.0 billion, or 35 percent of the sick leave total, was paid to workers in States that did not have TDI provisions and \$932 million in States that provided for TDI payments.

Sick-leave payments rose by almost \$800 million in 1983—more than 7 percent above the 1982 total. Although this increase was noteworthy in light of the decline in aggregate payments under insurance plans, the rate of growth of sick-leave benefits in 1983 was slower than it had been in the past several years. Among each of the groups shown in table 9, the percentage increase was less in 1983 than in 1982, except among State and local government workers for whom sick-leave payments increased almost 10 percent in 1983, compared with a 7-percent rise in 1982. Average earnings generally rose less in 1983 than in 1982, producing the reduction in the growth of sick leave for most groups.

The income loss that was protected entirely through sick leave (that is, exclusive sick leave) totaled \$8.6 billion in 1983 and covered about 76 percent of the incurred wage loss (table 10). This proportion grew slowly—from 66 percent in 1948 to 79 percent in 1975—as sick leave coverage was expanded. Since 1975, the extent of protection represented by this ratio has declined slightly.

Exclusive sick leave is more prevalent among government workers than among those in private industry. Though government workers accounted for only 57 percent of all paid sick leave in 1983, 76 percent of

the total paid out in exclusive sick-leave benefits went to these workers. The difference is attributable to the fact that most government workers are covered by exclusive sick-leave programs.

## Appendix: Methodological Developments

### Sickness Index

To estimate the amounts of earnings lost by workers due to short-term disability, SSA compiles an annual index that reflects changes in the incidence of sickness reported in the Health Interview Survey (HIS) of the Public Health Service (PHS). The number of income-loss days compiled from the HIS data has generally been lower than the number used in the SSA series. The HIS concept of workdays lost differs from the SSA concept because the HIS:

- (1) Pertains only to currently employed persons and, therefore, persons whose illness began while they were unemployed would be excluded although they worked during the year, as would persons whose illness began while they were employed but who did not have a job to which they would return.
- (2) Excludes work-loss days among persons in institutions.
- (3) Excludes decedents.
- (4) Excludes work loss of less than half of 1 day.
- (5) Includes occupational disability as well as non-occupational disability.<sup>6</sup>

Because of the differences between the SSA series and the HIS data, the latter have been used as a measure of year-to-year variations rather than as a measure of the aggregate amount of work time or average number of workdays lost. With 1958 as the base year—that is, 1958 = 100—SSA has computed the applicable sickness rate (or index) in each subsequent year. These annual adjustments are then applied to the estimates of income loss derived through the regular methods for the various labor-force components (see table 1). The index for 1983 was 96—an indication of less illness than that in the base year. The sickness index had fallen slowly from 101 in 1978 and varied narrowly around 100 for several years before that time.

In 1982, the HIS was modified in several ways that affect the comparability of current data with corresponding data before 1982. The number of restricted activity days was reduced under the 1982 procedure because individuals not currently employed are no longer asked for this information. Under the new survey methodology, fewer aggregate days of work-loss

<sup>6</sup> See Daniel N. Price, "Cash Benefits for Short-Term Sickness, 1948-72," *Social Security Bulletin*, January 1974.

sickness are reported because data for those aged 18 or older are now reported; previously the responses of those aged 17 or older were included. Other changes, such as the wording of questions and the placement of items on the questionnaire, evidently have decreased

various measures of short-term sickness in the HIS.<sup>7</sup>

<sup>7</sup> See the analysis of the effects of these changes published by the Public Health Service in *Current Estimates from the National Health Interview Survey: United States, 1982*, Vital and Health Statistics Series 10, No. 150, September 1985.

**Table 9.—Estimated value of formal paid sick leave in private industry and in Federal, State, and local government employment, 1948-83<sup>1</sup>**

[Amounts 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.....	\$418	\$158	\$146	\$12	\$259	\$148	\$111
1949.....	464	164	149	16	300	173	127
1950.....	495	180	156	24	315	172	143
1951.....	591	201	166	35	390	221	169
1952.....	670	213	181	37	453	254	199
1953.....	716	235	196	38	482	262	220
1954.....	745	245	205	40	500	252	248
1955.....	818	273	228	45	545	269	276
1956.....	889	299	248	50	591	280	311
1957.....	956	330	275	55	627	290	337
1958.....	1,043	346	290	57	696	315	381
1959.....	1,082	359	301	58	724	315	408
1960.....	1,226	400	334	66	826	348	478
1961.....	1,314	420	352	68	894	376	518
1962.....	1,475	472	394	79	1,003	414	589
1963.....	1,631	526	439	87	1,105	450	655
1964.....	1,637	505	424	81	1,133	445	687
1965.....	1,830	566	575	91	1,264	488	776
1966.....	2,008	619	519	100	1,389	523	866
1967.....	2,217	680	572	109	1,536	574	962
1968.....	2,569	803	676	128	1,766	642	1,124
1969.....	2,848	930	786	144	1,918	712	1,206
1970.....	3,308	1,066	903	163	2,242	810	1,432
1971.....	3,506	1,130	951	179	2,376	863	1,514
1972.....	4,075	1,364	1,135	228	2,712	925	1,787
1973.....	4,374	1,469	1,201	267	2,906	987	1,918
1974.....	4,741	1,634	1,347	287	3,107	1,076	2,031
1975.....	5,321	1,779	1,472	307	3,542	1,168	2,374
1976.....	5,920	2,052	1,698	354	3,868	1,253	2,615
1977.....	6,503	2,359	1,930	429	4,144	1,343	2,802
1978.....	7,349	2,770	2,279	491	4,579	1,466	3,113
1979.....	7,964	3,072	2,523	549	4,892	1,560	3,332
1980.....	8,930	3,593	2,935	657	5,337	1,708	3,630
1981.....	9,740	4,099	3,366	733	5,640	1,814	3,826
1982.....	10,607	4,581	3,738	843	6,026	1,943	4,082
1983.....	11,389	4,899	3,968	932	6,490	2,018	4,471

<sup>1</sup> Beginning 1960, data include Alaska and Hawaii. Data adjusted to reflect changes in sickness experience (average number of disability days), as reported in the Health Interview Survey of the Public Health Service after 1958. Beginning 1967, no adjustment made in Federal worker data.

<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 adopted from Health Insurance Council, *Annual Survey of Accident and Health Coverage in the United States, 1948-54*, after reducing estimates of exclusive sick-leave coverage in early years by one-third to allow for exclusion of informal sick-leave plans and conversion of exclusive protection to supplemental protection under temporary disability insurance (TDI) 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 6.7 in *The National Income and Product Accounts of the United States, 1929-74 Statistical Tables, 1977*, and in the *Survey of Current Business, National Income Issue*, published annually by the Department of Commerce, by 255 (estimated workdays in a year).

ment of Commerce, by 255 (estimated workdays in a year).

<sup>3</sup> Assumes that some workers entitled to cash benefits under TDI 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 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 Report, Office of Personnel Management*. From 1967 to date, payroll obtained from *Federal Civilian Manpower Statistics, Office of Personnel Management*.

<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 96.0 percent currently, and that workers covered by such plans received on the average paid sick leave ranging from 5.2 days in 1948 to 6.3 currently. Number of full-time employees from *Public Employment, Annual Reports (Bureau of the Census)*. Daily wages obtained by dividing average annual earnings per full-time State and local employees as reported in Department of Commerce data (see footnote 2), by 255 (estimated workdays in a year).

**Table 10.**—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,<sup>1</sup> 1948–83

[Amounts in millions]

Year	Income loss	Value of sick leave under exclusive plans	Ratio (percent) of sick leave to income loss
1948 .....	\$569	\$378	66.4
1949 .....	605	417	68.9
1950 .....	639	434	67.9
1951 .....	726	509	70.1
1952 .....	808	578	71.5
1953 .....	850	614	72.2
1954 .....	879	636	72.4
1955 .....	958	694	72.4
1956 .....	1,030	748	72.6
1957 .....	1,113	804	72.2
1958 .....	1,211	879	72.6
1959 .....	1,213	910	75.0
1960 .....	1,394	1,038	74.5
1961 .....	1,495	1,124	75.2
1962 .....	1,667	1,254	75.2
1963 .....	1,841	1,385	75.9
1964 .....	1,845	1,401	75.9
1965 .....	2,057	1,566	76.1
1966 .....	2,252	1,711	76.0
1967 .....	2,257	1,888	76.8
1968 .....	2,811	2,178	77.5
1969 .....	3,033	2,364	77.9
1970 .....	3,448	2,717	78.9
1971 .....	3,642	2,873	78.2
1972 .....	4,235	3,296	77.4
1973 .....	4,605	3,612	78.4
1974 .....	4,907	3,855	78.6
1975 .....	5,559	4,396	79.1
1976 .....	6,112	4,821	78.9
1977 .....	6,693	5,237	78.2
1978 .....	7,614	5,895	77.4
1979 .....	8,262	6,361	77.0
1980 .....	9,003	6,935	77.0
1981 .....	9,703	7,424	76.5
1982 .....	10,500	7,998	76.2
1983 .....	11,244	8,579	76.3

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

The sickness index compiled by SSA has been adjusted to take into account the effect of changes reported in the Public Health Service publication. The "limitation of activity" of the survey respondents, for example, was reported by the PHS at about the same level in 1983 as it had been in 1981, after accounting for the effect of the survey changes in 1982.<sup>8</sup> This correspondence was a factor used in compiling the SSA index for 1982 and 1983. In future years, SSA will continue to prepare its index using the HIS with

reference to the adjustments made for the 1982 survey changes.

## Private Insurance Data

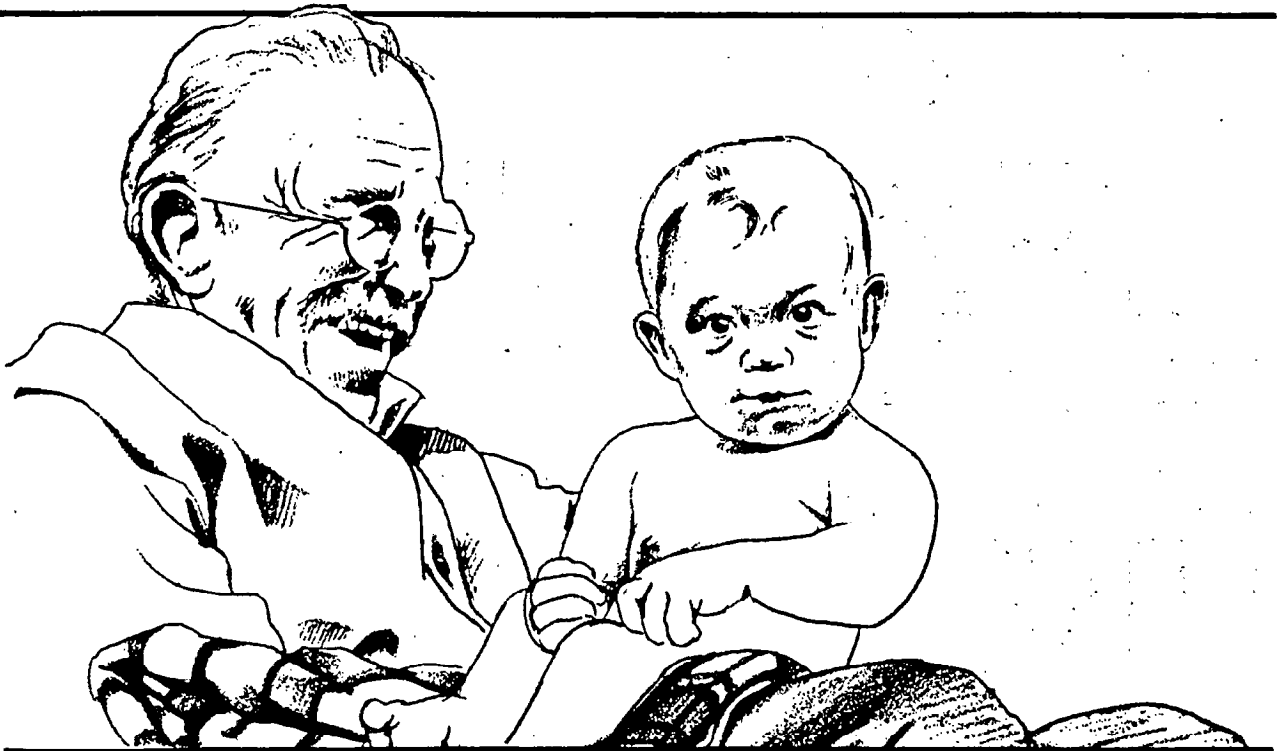
The Health Insurance Association of America made some changes in its survey of health insurance policies starting with 1983. It no longer collects benefit and premium information on group credit insurance nor does it collect data on individual accidental death and dismemberment insurance. These items have been included in SSA's series and are reported here under individual cash sickness insurance policies. For 1983 and future years, group credit insurance benefit and premium information is taken from the **Statistical Tables from Annual Statements**, published by the New York Insurance Department. Most insurance companies doing business in New York provide these and other nationwide insurance data to the New York Insurance Department. Thus, the New York report provides fairly complete information for the United States.

For information on benefits and premiums under individual accidental death and dismemberment insurance, no alternate source is available yet. Until a new source becomes available, SSA will add estimated amounts, projecting from previously reported data. Because in recent years, accidental death and dismemberment has been a small and diminishing part of the individual insurance segment of the series compiled here, it is expected that the projections will not significantly affect the overall estimated totals.

Another change in the data available from the Health Insurance Association of America is the newly available premium and benefit information on ASO insurance for income replacement during short-term sickness. These policies have become a growing share of the income replacement insurance business, in part as a replacement of conventional short-term accident and sickness insurance policies. These data have been incorporated in the SSA series from 1980 forward.

At the same time, another revision has been made that deletes group long-term disability (LTD) insurance premiums and benefits. These latter items originally had been a small part of the total and were not separable from the total. Further, these data served to represent ASO business and short-term benefits and premiums paid under LTD policies. In recent years, LTD business has grown and is being reported separately. Therefore, for years starting with 1980, LTD has been deleted from the voluntary insurance sector. However, to continue to represent benefits and premiums for short-term disability that are attributable to LTD contracts, an incremental adjustment is made to the totals based on the LTD amounts.

<sup>8</sup> Public Health Service, *op. cit.*, page 192.



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