

Income-Loss Protection Against Short-Term Sickness: 1948-57

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Cash sickness benefits paid under public and private auspices in the United States amounted to an estimated \$1.9 billion in 1957 and replaced 26 percent of the estimated \$7.5 billion lost in current income by sick or disabled workers. This ratio may be compared with the 16 percent estimated for 1948, when the Social Security Administration began its annual series on income-loss protection from short-term sickness. The methodology and sources used in making these estimates, as well as the detailed findings, are presented below.

THE year 1957 saw no interruption in the steady growth, both in dollar amounts and as a percentage of lost earnings, of the public and private protection that workers in the United States had against the risk of income loss due to short-term sickness. The estimated benefits of \$1,926 million paid out through government and nongovernment disability insurance and formal paid sick-leave plans were \$150 million higher than the amount estimated for 1956 and replaced almost 26 percent of the actual and potential income loss, compared with 25 percent in 1956. Excluded from these figures are unknown amounts of informal sick-leave benefits paid to workers at the employer's discretion.

This year's article contains the same basic information as the earlier articles,¹ but some of the tabular data have been regrouped to facilitate analysis. In addition, a table has been introduced that deals with the extent of group protection provided wage and salary workers. As in earlier years, data for some items have been revised as existing procedures were refined and new sources of data became available. Some of the changes, especially for the early years, result from the revised data prepared by the National Income Division of the Department of Commerce on wage and salary disbursements and proprietors' income, which are basic to the estimates on income

loss and the value of paid sick leave.

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

For workers covered by temporary disability insurance laws, the medium used for providing protection depends on the particular statute. In California and New Jersey, benefits may be paid through publicly operated funds or through the types of private arrangements mentioned above (except individual insurance). The compulsory benefits for workers in Rhode Island and railroad workers are paid exclusively through publicly operated funds, though private plans may be used to supplement the government-paid benefits. In New York

State, though employers are permitted to insure with a publicly operated carrier (the State Insurance Fund), the overwhelming majority of employees are protected through private arrangements. In 1957, private plans were effective for about 44 percent of the covered workers in California, 62 percent in New Jersey, and more than 95 percent in New York.

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

For some self-employed persons, especially business proprietors and farmers, temporary incapacity may not result in a serious stoppage of income. For others, however, whose income is dependent on personal services rendered, the need for formal protection may be just as great as that of wage and salary workers. The provisions used for replacing income lost by the self-employed because of short-term disability are necessarily different from the group provisions available to wage and salary workers. The existing protection for this group is generally confined to individual accident and sickness insurance or fraternal policies.

Measuring Income Loss

Income loss arising from inability to work may be considered in the light of (1) the origin of the disability—whether it results from circumstances connected with the job (occupational) or off the job (nonoccupational) and (2) the duration of the disability—whether it is of a temporary nature, with early recovery probable, or of an extended, long-term nature, likely to persist indefinitely.

In this series, the definition of income loss is restricted to that attributed to nonoccupational illness and injury. Occupational injuries are generally covered by workmen's com-

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¹ For previous articles in this series dealing exclusively with protection against income loss from sickness, see the *Bulletin* for January of 1956, 1957, and 1958.

pensation laws, and the compensation paid for such injuries in relation to wage loss is summarized in other articles in the BULLETIN.² The estimate of income loss used here is further restricted to the loss of current earning power during the first 6 months of a disability. It thus encompasses practically all the time lost because of short-term or temporary disability and part of the loss (the first 6 months) attributed to long-term disability. Excluded from the estimate is the loss of future earnings arising from extended or permanent disability.

A significant statistical development in the last year has been the release of preliminary data from the United States National Health Survey on the amount of worktime missed by employed persons (including the self-employed) because of illness or injury.³ The data for the last 6 months of 1957, expressed as an annual rate and with time lost because of occupational injuries excluded, show that workers lost, on the average, more than 9 workdays a year. This rate, which was based on data gathered during a period when the Asian influenza was at epidemic levels, is higher than the annual rate of 8 days estimated from data for first 6 months of 1958.

In earlier articles in this series the annual averages used for time lost from work due to nonoccupational short-term sickness have been 7 days for employed and self-employed persons in private industry and 8 days for government employees, for whom sick-leave plans are more prevalent. These averages are still being used, since complete calendar-year data for 1957 are not available from the National Health Survey. Moreover, it was thought advisable that certain conceptual problems involved in deriving work-loss rates be clarified before making use of the survey data.

² See Alfred M. Skolnik, "Trends in Workmen's Compensation: Coverage, Benefits, and Costs," *Social Security Bulletin*, August 1958.

³ Public Health Service, *Health Statistics from the U.S. National Health Survey, Preliminary Report on Disability, United States, July-September 1957*, Series B-4, June 1958, and *Selected Survey Topics, United States, July 1957-June 1958*, Series B-5, November 1958.

Nevertheless, the preliminary results from the survey suggest that the averages used in recent years may understate the amount of worktime lost and consequently the income lost by workers during periods of illness.

Estimates of income loss (actual and potential) incurred by the major components of the labor force for the years 1948-57 are presented in table 1. In 1957 an estimated \$7.5 billion in income was lost—\$6.4 billion by wage and salary workers and \$1.2 billion by the self-employed. The loss to wage and salary workers represented 84 percent of the Nation's total income loss due to short-term sickness in 1957 and 77 percent of the estimated \$4.7 billion income loss in 1948.

As a reflection of the increasing numerical importance of Federal, State, and local government employees, their estimated wage loss of \$930 million in 1957 accounted for almost 15 percent of the loss of all wage and salary workers, in comparison with 12 percent in 1948. The ag-

gregate wage loss of State and local employees more than doubled from the end of 1948 to 1957, and that of Federal employees nearly doubled.

Wage and salary workers in private employment had an estimated wage loss of \$5,435 million in 1957—an increase of 70 percent from the 1948 estimate of \$3,196 million. Almost 28 percent of the 1957 wage loss, or \$1,512 million, was incurred by workers covered by the five temporary disability insurance laws. This proportion has remained rather constant since 1951, when New York's law—the last to be enacted—became fully effective. In 1948, when only three were in effect—those of Rhode Island and California and that covering railroad workers—the wage loss incurred represented 12 percent of the loss of private wage and salary workers.

Protection Against Income Loss

Information is given in tables 2-6 on various forms of protection against

Table 1.—Estimated income loss from nonoccupational short-term sickness¹ by type of employment, 1948-57

[In millions]

| Year | Total | Wage and salary workers | | | | | Self-employed persons ⁷ |
|------|---------|-------------------------|-------------------------------------------------------------|--------------------|----------------------|------------------------------|------------------------------------|
| | | Total | In private employment ² | | In public employment | | |
| | | | Covered by temporary disability insurance laws ³ | Other ⁴ | Federal ⁵ | State and local ⁶ | |
| 1948 | \$4,748 | \$3,645 | \$387 | \$2,809 | \$174 | \$275 | \$1,103 |
| 1949 | 4,595 | 3,618 | 490 | 2,634 | 190 | 304 | 977 |
| 1950 | 4,964 | 3,933 | 704 | 2,703 | 201 | 325 | 1,031 |
| 1951 | 5,673 | 4,511 | 1,050 | 2,846 | 259 | 356 | 1,162 |
| 1952 | 6,012 | 4,853 | 1,129 | 3,040 | 291 | 393 | 1,159 |
| 1953 | 6,341 | 5,223 | 1,213 | 3,293 | 290 | 427 | 1,118 |
| 1954 | 6,299 | 5,189 | 1,219 | 3,224 | 280 | 466 | 1,110 |
| 1955 | 6,758 | 5,601 | 1,293 | 3,509 | 297 | 502 | 1,157 |
| 1956 | 7,226 | 6,061 | 1,427 | 3,768 | 313 | 553 | 1,165 |
| 1957 | 7,545 | 6,365 | 1,512 | 3,923 | 323 | 607 | 1,180 |

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

² Average annual earnings per wage worker in private employment from table VI-15 in *U.S. Income and Output: A Supplement to the Survey of Current Business* (Department of Commerce), 1958, divided by 255 (estimated workdays in year) and multiplied by 7 (estimated average workdays lost per year due to short-term sickness). Result multiplied by number of full-time equivalent employees in private industry (from above source, table VI-13).

³ Average annual wages of workers covered by temporary disability insurance laws in Rhode Island, California, New Jersey, and New York and in the railroad industry, divided by 255 and multiplied by 7 and then multiplied by the mean employment each year.

⁴ Represents the difference between total loss for all wage workers in private employment and for

those covered by temporary disability insurance laws.

⁵ Average annual earnings per Federal employee (excluding members of the Armed Forces and United States citizens employed abroad) from Department of Commerce data (see footnote 2), divided by 260 (scheduled workdays in year) and multiplied by 8 (estimated average workdays lost per year due to short-term sickness). Result multiplied by number of full-time equivalent Federal employees in the continental United States.

⁶ Average annual earnings per State and local employee from Department of Commerce data (see footnote 2), divided by 255 (estimated workdays in year) and multiplied by 8 (estimated average workdays lost per year due to short-term sickness). Result multiplied by the number of full-time equivalent State and local employees.

⁷ See footnote 2 for method and source.

income loss caused by nonoccupational disability. They include private arrangements through insurance companies or self-insured cash sickness programs, private-plan coverage required by law, publicly operated funds, and paid sick-leave programs. All involve formal arrangements for protection against income loss. Although some employers make informal arrangements for continuation of salary, there is no basis for estimating either the amounts actually paid or the number of workers who have assurance that they will receive such payments. This article considers only formal arrangements designed to offer specified amounts of protection against income loss resulting from short-term disability.

Private Insurance

Only the operations of private insurance carriers and private plans other than those providing sick leave are shown in table 2. Such insurance may be voluntarily provided by employers or purchased by employees, it may result from collective bargaining for fringe benefits, or it may be written in compliance with State laws in California, New Jersey, and New York. The table shows separately the insurance written under voluntary arrangements and that written under public provisions.

This year the premiums and benefits paid under fraternal insurance are reported under individual insurance and not under "other" plans, as in the past. The latter category is restricted to nonprofit plans that apply exclusively to wage and salary workers—such as the plans of union and union-management trust funds, trade unions, mutual benefit associations, and—in the States with compulsory laws—self-insured employer-administered plans.

Premiums for private insurance providing for cash replacement of lost income amounted to \$1,318 million in 1957, about 135 percent higher than the 1948 total of \$559 million. The \$136-million increase in premium income registered for 1957 was the greatest since 1953.

Benefit payments for 1957, unlike premium income, showed a drop in the rate of increase. The \$850 million expended in 1957 under private

insurance exceeded the \$781 million reported for 1956 by only 8.8 percent, compared with gains of 9.6 percent and 16.4 percent recorded in 1955 and 1956. Since 1948, nevertheless, benefit payments have climbed 196 percent, outstripping the rise in premium volume for the same period.

The fact that benefit payments have increased at a faster rate than premium income in the last decade reflects the increasingly important role that group accident and sickness insurance has come to play in furnishing wage-replacement income during disability. (This type of insurance has higher loss ratios and lower expense ratios than other types of insurance.) In 1948, group insurance contracts, whether under voluntary or public auspices, accounted for 43 percent of the benefit payments and individual insurance for 49 percent. By 1957, group insurance was paying 59 percent of total benefits, and individual insurance

payments had dropped to 36 percent. Benefits under self-insured and other private plans amounted to 8 percent in 1948 and to 5 percent in 1957.

Benefits paid by commercial insurance companies under the public provisions of California, New Jersey, and New York amounted to \$151 million in 1957 and equaled 30 percent of all group disability benefits (\$505 million) paid by insurance companies nationally in 1957. In 1953, shortly after New York's compulsory law went fully into effect, the percentage was as high as 35. Since that year group insurance benefits paid under voluntary provisions have risen by 58 percent, while those paid under public provisions have increased 27 percent.

Public Provisions

The total amount of protection under the temporary disability insurance laws, according to the type of insurance arrangements, is shown

Table 2.—Premiums and benefit payments for private insurance against income loss, 1948-57

[In millions]

| Year | Type of private insurance | | | | | | | |
|---------------------------------|---------------------------|----------------------------|--------------------|-------------------------|--------------------|-------------------------|--------------------|--------------------|
| | Total | Under voluntary provisions | | | | Under public provisions | | |
| | | Total | Group ¹ | Individual ¹ | Other ² | Total | Group ¹ | Other ³ |
| Insurance premiums ⁴ | | | | | | | | |
| 1948..... | \$558.8 | \$545.7 | \$162.1 | \$350.0 | \$33.6 | \$13.1 | \$12.8 | \$0.3 |
| 1949..... | 603.3 | 564.6 | 177.6 | 355.0 | 32.0 | 38.7 | 32.1 | 6.6 |
| 1950..... | 678.9 | 603.1 | 219.3 | 360.0 | 23.8 | 75.8 | 64.6 | 11.2 |
| 1951..... | 784.9 | 641.1 | 249.6 | 366.0 | 25.5 | 143.8 | 122.7 | 21.1 |
| 1952..... | 854.0 | 698.2 | 266.2 | 405.4 | 26.6 | 155.8 | 132.8 | 23.0 |
| 1953..... | 1,004.7 | 818.0 | 299.2 | 494.8 | 24.0 | 186.7 | 158.5 | 28.2 |
| 1954..... | 1,052.4 | 874.2 | 319.0 | 534.2 | 21.0 | 178.2 | 150.9 | 27.3 |
| 1955..... | 1,106.5 | 927.8 | 363.2 | 547.8 | 16.8 | 178.7 | 151.3 | 27.4 |
| 1956..... | 1,182.4 | 1,004.5 | 400.9 | 586.0 | 17.6 | 177.9 | 151.1 | 26.8 |
| 1957..... | 1,317.8 | 1,098.9 | 434.5 | 646.0 | 18.4 | 218.9 | 185.5 | 33.4 |
| Benefit payments | | | | | | | | |
| 1948..... | 286.7 | 277.4 | 114.9 | 141.0 | 21.5 | 9.3 | 9.1 | 0.2 |
| 1949..... | 321.8 | 294.7 | 124.5 | 150.0 | 20.2 | 27.1 | 22.5 | 4.6 |
| 1950..... | 379.2 | 325.0 | 156.8 | 153.0 | 15.2 | 54.2 | 46.2 | 8.0 |
| 1951..... | 485.2 | 371.9 | 196.8 | 157.0 | 18.1 | 113.3 | 96.7 | 16.6 |
| 1952..... | 542.7 | 414.9 | 218.2 | 177.0 | 19.7 | 127.8 | 108.9 | 18.9 |
| 1953..... | 589.2 | 449.4 | 224.3 | 209.0 | 16.1 | 139.8 | 118.7 | 21.1 |
| 1954..... | 612.3 | 480.3 | 236.2 | 230.0 | 14.1 | 132.0 | 111.8 | 20.2 |
| 1955..... | 671.3 | 536.2 | 274.6 | 250.0 | 11.6 | 135.1 | 114.4 | 20.7 |
| 1956..... | 781.2 | 630.0 | 340.6 | 276.0 | 13.4 | 151.2 | 128.4 | 22.8 |
| 1957..... | 849.6 | 671.4 | 354.0 | 304.0 | 13.4 | 178.2 | 151.0 | 27.2 |

¹ Premiums earned and losses incurred as reported by the Health Insurance Council for the continental United States, by type of insurance benefit, adjusted to include accidental death and dismemberment provisions in individual policies that insure against income loss to offset understatement arising from omitting current short-term income-loss insurance in automobile, resident liability, life, and other policies. For 1956 and 1957, dividends deducted from earned premiums (2-3 percent for group; 1 percent for

individual.)

² Union-management trust fund, trade-union, and mutual benefit association plans.

³ Self-insured operations and some union and union-management plans under California, New Jersey, and New York laws.

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

in table 3. To the extent that the protection is provided through commercial insurance companies or other private arrangements, the data overlap those in table 2.

In 1948, only three of the public programs were in operation, and during that year benefits totaled \$66 million. Three years later, all five laws were fully effective, and payments amounted to \$174 million, of which \$113 million or 65 percent was made available through private group insurance contracts or self-insurance. During the next 4 years, benefit payments from publicly operated funds expanded at a faster rate than those provided through private facilities; in 1955, benefits paid under private plans represented only 55 percent of the total payments of \$245 million. Since then, the proportion of benefits underwritten by private plans has gone up to 58 percent (1957).

The proportion of private-plan benefits under these laws that have been underwritten by commercial insurance companies has leveled off since 1951. Of the \$113 million paid in benefits during that year through

Table 3.—Benefit payments under temporary disability insurance laws provided through private plans and through publicly operated funds, 1948-57¹

[In millions]

| Year | Total | Type of insurance arrangement | | |
|------|--------|-------------------------------|-----------------------------|--------------------------------------|
| | | Private plans ² | | Publicly operated funds ⁴ |
| | | Group insurance | Self-insurance ³ | |
| 1948 | \$66.4 | \$9.1 | \$0.2 | \$57.1 |
| 1949 | 89.2 | 22.5 | 4.6 | 62.1 |
| 1950 | 117.4 | 46.2 | 8.0 | 63.2 |
| 1951 | 174.2 | 96.7 | 16.6 | 60.9 |
| 1952 | 202.3 | 108.9 | 18.9 | 74.5 |
| 1953 | 230.2 | 118.7 | 21.1 | 90.4 |
| 1954 | 235.1 | 111.8 | 20.2 | 103.1 |
| 1955 | 244.5 | 114.4 | 20.7 | 109.4 |
| 1956 | 265.0 | 128.4 | 22.8 | 113.8 |
| 1957 | 305.4 | 151.0 | 27.2 | 127.2 |

¹ 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.

² Under the laws of California, New Jersey, and New York.

³ Employers may self-insure by observing certain stipulations of the law. Includes some union plans whose provisions come under the law.

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

Table 4.—Estimated value of formal paid sick leave in private industry and in Federal, State, and local government employment, 1948-57

[In millions]

| Year | Total | Workers in private industry ¹ | | | Government workers | | |
|------|-------|------------------------------------------|----------------------------------------------------|-------------------------------------------------------------|--------------------|----------------------|------------------------------|
| | | Total | Not covered by temporary disability insurance laws | Covered by temporary disability insurance laws ² | Total | Federal ³ | State and local ⁴ |
| | | | | | | | |
| 1949 | 463 | 163 | 147 | 16 | 300 | 173 | 127 |
| 1950 | 493 | 178 | 155 | 23 | 315 | 172 | 143 |
| 1951 | 589 | 199 | 165 | 34 | 390 | 221 | 169 |
| 1952 | 668 | 215 | 178 | 36 | 453 | 254 | 199 |
| 1953 | 713 | 231 | 193 | 38 | 482 | 262 | 220 |
| 1954 | 741 | 241 | 201 | 40 | 500 | 269 | 231 |
| 1955 | 813 | 268 | 224 | 44 | 545 | 289 | 256 |
| 1956 | 881 | 291 | 242 | 49 | 590 | 280 | 310 |
| 1957 | 949 | 323 | 269 | 54 | 626 | 290 | 336 |

¹ Sum of estimated value of formal paid sick leave for employees with (a) sick leave but no other group protection and (b) sick leave supplemental to group insurance or other forms of group protection, including publicly operated funds. Under each category, number of employees was adapted from Health Insurance Council, *Annual Survey of Accident and Health Coverage in the United States 1948-1954*, 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 coverages 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* (Department of Commerce), 1958, by 255 (estimated workdays in a year).

² 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.

³ 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 continental United States by their mean earnings, as reported in *Pay Structure of the Federal Civil Service, Annual Reports* (Federal Employment Statistics Office, U.S. Civil Service Commission). Practically all full-time employees are covered by paid sick-leave provisions.

⁴ Number of full-time employees on State and local government payrolls from *State Distribution of Public Employment, and Summary of Public Employment, Annual Reports* (Bureau of Census). Assumes that the number of State and local employees covered by sick-leave plans has increased gradually from 65 percent of the total number employed in 1948 to 81 percent in 1957 and that workers covered by such plans received on the average paid sick leave ranging from 5.2 days in 1948 to 5.8 days in 1957. Daily wages obtained by dividing average annual earnings per full-time State and local employee as reported in Department of Commerce data (see footnote 1), by 255 (estimated workdays in a year).

private auspices, \$97 million (85 percent) was paid through group accident and sickness insurance policies and the balance from self-insured employer, union, union-management, and mutual benefit plans. In 1957, group insurance policies still accounted for 85 percent of the \$178 million paid in benefits under private plans.

Paid Sick Leave

Estimates of the amount of income replaced through formal paid sick-leave benefits in private industry and in government are given in table 4. The estimates include the value of sick-leave benefits paid as a supplement to group insurance, publicly operated plans, or other types of group protection.

Two common characteristics of paid sick-leave plans are that benefits are paid in full (for all or part

of the illness) with no waiting period and that benefit costs are met directly from the current operating funds of the employer without any prepaid contributions or insurance premiums. Paid sick-leave plans in public employment can be easily identified because almost all of them meet this description.

The identification problem is much more difficult in private employment because of the wide variation that exists in the formal arrangements made by employers to continue the wages of disabled workers. The plans may provide full pay with or without a waiting period, partial pay with or without a waiting period, or a combination of these two. In addition, the benefit provisions and the duration of benefits may vary according to the employee's years of service.

When the benefits are for less than

full pay and a waiting-period is required, these arrangements are sometimes termed self-insured rather than paid sick-leave plans. No attempt is made in table 4 to distinguish between the two types of plan. When the self-insured benefits are, however, financed through prepaid contributions of some sort to union or union-management trust funds, trade union plans, or mutual benefit associations, they are excluded from the sick-leave estimates and included under private insurance in table 2. The sick-leave estimates also exclude payments under self-insured plans when they are made in compliance with statutory provisions as shown in table 3.

As in previous years, the Division of Program Research has been concerned with the need for refining and improving the estimates of sick-leave protection of wage and salary workers in private employment. Considerable time and effort were spent this year in investigating one source of data that offered promise of furnishing usable benchmark and trend data on the number of workers covered by formal sick-leave plans in private industry. For many years the Bureau of Labor Statistics, in its community wage surveys, has been gathering information on the proportion of plant and office workers in specified major labor-market areas who work in establishments that provide certain fringe benefits, including sickness and accident insurance and formal paid sick leave.

For the 17 major labor market areas included in the 1955-56 survey,⁴ the Division derived gross sick-leave coverage ratios by type of employment (manufacturing and non-manufacturing) and by type of plan (exclusive and supplemental). Factors were applied to these ratios to adjust for exclusions because of eligibility or length-of-service requirements, for omission of rural labor-market areas, and for omission of small establishments. The adjusted ratios were then applied to nationwide employment figures in manufacturing and nonmanufacturing industries, after correcting for the

⁴ Department of Labor, Bureau of Labor Statistics, *Wages and Related Benefits, 17 Labor Markets, 1955-56, Bulletin No. 1188, 1956.*

industries not within the scope of the Bureau of Labor Statistics survey, to get an estimate of the number of wage and salary workers covered by exclusive and supplemental sick-leave plans in the Nation. A final adjustment was needed for the areas covered by temporary disability insurance laws to exclude the self-insured, employer-administered plans meeting the statutory requirements.

The 1956 estimate thus derived of the number of private wage and salary workers covered by formal sick-leave arrangements was 2.4 million for exclusive plans and 2.7 million for supplemental plans. With these estimates as a benchmark, trend estimates for earlier and succeeding years were projected by using Bureau of Labor Statistics survey data of other years. These trend estimates were then combined with estimates for earlier years, which had been based on methods outlined by the Health Insurance Council in its *Annual Surveys of Accident and Health Coverage in the United States*. It should be recognized, however, that the final estimates may contain a considerable margin of error because of the many assumptions that had to be made in obtaining nationwide projections.

In the revised series, the estimated value of sick leave paid in 1957 under both exclusive and supplemental plans in private industry is \$323 million, more than double the \$157 million estimated for 1948. The rate of

increase has been most rapid in the past 3 years—averaging more than 11 percent a year. Almost half the expansion, however, is attributable to rising wage and salary levels, to which the value of paid sick leave is closely allied; average annual earnings in private industry advanced 15 percent from 1954 to 1957.

No major changes affecting the sick-leave estimates for Federal, State, and local government employees were made for 1957. In the preceding article in the series, the annual estimates were revised to give recognition to the growth and liberalization of provisions for these employees since 1948. One minor revision has been made in this year's estimates—the exclusion for Federal employees of days of sick leave that were attributable to occupational injuries.

The amount of paid sick leave granted State and local government employees more than tripled from 1948 to 1957, increasing from \$108 million to \$336 million. During the same period, the value of sick leave attributed to Federal employees almost doubled, rising from \$148 million to \$290 million.

For all government employees the value of sick leave in 1957 is estimated at \$628 million—almost twice the amount (\$323 million) for workers in private industry. By contrast, in 1948 governmental sick-leave payments were roughly 1½ times the total paid by private employers.

Of the estimated \$949 million paid in formal sick leave to workers in public and private employment in 1957, about \$798 million was in the form of exclusive protection under plans that did not supplement any other group protection, including publicly operated plans (table 5). Almost four-fifths of this exclusive protection was attributable to sick-leave plans for government workers, few of whom rely upon group disability insurance to meet their wage-loss problems arising from ill health.

In private industry, on the other hand, the rapid growth of private group insurance has resulted in entitlement of an increasing number of workers to both sick leave and disability insurance benefits. In 1948, exclusive sick-leave plans accounted for three-fourths of the estimated

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,¹ 1948-57

| [Amounts in millions] | | | |
|-----------------------|-------------|-------------------------------------------|----------------------------------------------|
| Year | Income loss | Value of sick leave under exclusive plans | Ratio (percent) of sick leave to income loss |
| 1948..... | \$578 | \$375 | 64.9 |
| 1949..... | 614 | 416 | 67.8 |
| 1950..... | 649 | 433 | 66.7 |
| 1951..... | 739 | 508 | 68.7 |
| 1952..... | 823 | 577 | 70.1 |
| 1953..... | 866 | 612 | 70.7 |
| 1954..... | 896 | 634 | 70.8 |
| 1955..... | 976 | 691 | 70.8 |
| 1956..... | 1,048 | 743 | 70.9 |
| 1957..... | 1,132 | 798 | 70.5 |

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

\$157 million paid out in sick leave by private employers; by 1957, the amount of sick leave paid as exclusive protection was an estimated \$173 million, or only 54 percent of all private sick-leave payments.

Table 5 shows the extent of protection afforded workers covered by exclusive sick-leave provisions. In 1957 these workers had approximately 71 percent of their potential income loss met through sick leave. The ratio was lower in the early years of the series but has varied little since 1952. If it were possible to take into account the additional protection provided by individual insurance policies purchased as a supplement to sick leave, the amount of uncompensated income loss would be even lower.

Summary of Protection Provided

Since employee-benefit plans and compulsory temporary disability insurance laws have special pertinence for wage and salary workers, the summary benefit data usually presented in table 6 were rearranged this year to show separately the group protection provided wage and salary workers against income loss due to nonoccupational illness. Benefits paid under individually purchased disability insurance policies are listed separately since they cannot be divided into those going to the self-employed and those that augment the group protection available to wage and salary workers.

The dollar value of all forms of protection rose from \$757 million in 1948 to \$1,926 million in 1957. About 52 percent of the 1957 estimate constituted group protection for wage and salary workers in private industry, 33 percent was sick leave granted government employees, and 15 percent was in the form of benefits purchased through individual insurance. For employees in private industry, private cash sickness insurance and self-insurance showed the greatest expansion among group measures. Benefits under such arrangements almost quadrupled from 1948 to 1957, while under the publicly operated cash sickness funds and the sick-leave plans benefits little more than doubled. Since 1953, however, all three forms of protection have ex-

Table 6.—Benefits provided as protection against income loss, summary data, 1948-57

[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 ¹ | Publicly operated cash sickness funds | | |
| 1948..... | \$756.8 | \$141.0 | \$615.8 | \$359.8 | \$145.7 | \$57.1 | \$157.0 | \$256.0 |
| 1949..... | 846.9 | 150.0 | 696.9 | 396.9 | 171.8 | 62.1 | 163.0 | 300.0 |
| 1950..... | 935.4 | 153.0 | 782.4 | 467.4 | 226.2 | 63.2 | 178.0 | 315.0 |
| 1951..... | 1,135.1 | 157.0 | 978.1 | 588.1 | 328.2 | 60.9 | 199.0 | 390.0 |
| 1952..... | 1,285.2 | 177.0 | 1,108.2 | 655.2 | 365.7 | 74.5 | 215.0 | 453.0 |
| 1953..... | 1,392.6 | 209.0 | 1,183.6 | 701.6 | 380.2 | 90.4 | 231.0 | 482.0 |
| 1954..... | 1,456.4 | 230.0 | 1,226.4 | 726.4 | 382.3 | 103.1 | 241.0 | 500.0 |
| 1955..... | 1,593.7 | 250.0 | 1,343.7 | 798.7 | 421.3 | 109.4 | 268.0 | 545.0 |
| 1956..... | 1,776.0 | 276.0 | 1,500.0 | 910.0 | 505.2 | 113.8 | 291.0 | 590.0 |
| 1957..... | 1,925.8 | 304.0 | 1,621.8 | 995.8 | 545.6 | 127.2 | 323.0 | 626.0 |

¹ Includes a small but undetermined amount of group disability insurance paid to government workers and to self-employed persons through farm, trade, or professional associations.

panded at about the same rate.

In 1957 the income-replacement protection provided the Nation's public and private workers was almost equally divided between sick-leave benefits (\$949 million) and disability insurance benefits (\$977 million). In 1948, sick leave supplied the major source of protection—about 55 per-

Measuring the Extent of Protection

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 in table 7. It is thus possible to measure the effective growth in economic security against the risk of income loss from illness, without needing to take into account labor-force growth and any adjustments in benefits to take care of rising earning levels.

Total income loss increased 59 percent from 1948 to 1957, but the protection provided showed a 154-percent rise. As a result the proportion of lost earnings covered by cash sickness benefits (including sick leave) advanced from 15.9 percent in 1948 to 25.5 percent in 1957, or approximately 1.1 percent a year. Despite this growth, the amount of income loss not replaced by insurance or formal sick leave continued to rise during the period under review—from \$3,991 million to \$5,619 million.

The rise of \$169 million in 1957, however, was the smallest recorded since 1954, when there was an actual drop in uncompensated income loss.

The amounts specified as uncompensated income loss do not necessarily represent the actual income loss incurred by disabled individuals. During sickness an individual may have certain work-connected expenses—such as carfare, meals, and clothing—reduced or eliminated. His income taxes and social security contributions are also less when his in-

Table 7.—Extent of protection against income loss, 1948-57

[Amounts in millions]

| Year | Income loss and protection provided | | | Income loss not protected | Net cost of providing insurance ³ |
|-----------|-------------------------------------|----------------------------------|-------------------------------|---------------------------|----------------------------------------------|
| | Income loss ¹ | Protection provided ² | Protection as percent of loss | | |
| 1948..... | \$4,748 | \$757 | 15.9 | \$3,991 | \$277 |
| 1949..... | 4,695 | 847 | 18.4 | 3,748 | 287 |
| 1950..... | 4,964 | 935 | 18.8 | 4,029 | 305 |
| 1951..... | 5,673 | 1,135 | 20.0 | 4,538 | 307 |
| 1952..... | 6,012 | 1,285 | 21.4 | 4,727 | 319 |
| 1953..... | 6,341 | 1,393 | 22.0 | 4,948 | 424 |
| 1954..... | 6,289 | 1,456 | 23.1 | 4,843 | 448 |
| 1955..... | 6,758 | 1,594 | 23.6 | 5,164 | 444 |
| 1956..... | 7,226 | 1,776 | 24.6 | 5,450 | 410 |
| 1957..... | 7,545 | 1,926 | 25.5 | 5,619 | 478 |

¹ From table 1.

² Total benefits, including sick leave.

³ 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.

come is discontinued. On the other hand, the worker may encounter medical expenses for his illness that, unless met by other than out-of-pocket expenditures — by prepaid health insurance, for example—may be greater than any reduction in expenses or taxes.

Table 7 also shows the secondary cost of operating the mechanism for providing cash disability insurance. The net cost of providing insurance, which rose by 73 percent from 1948 to 1957, represents the difference between the insurance losses incurred and premiums earned (table 2), plus the public cost of administering the temporary disability insurance programs (not shown elsewhere). For the years before 1956, net costs are slightly overstated because insurance premiums included an unknown amount of dividends returnable to policyholders.

This year, data are presented for the first time on the extent of protection provided wage and salary workers through their employment (table 8). For all public and private wage and salary workers, cash benefits under group accident and sickness insurance, publicly operated funds, formal paid sick-leave plans, and self-insurance totaled \$1.6 billion in 1957 and represented 26 percent of their estimated wage loss of \$6.4 billion.

For wage and salary workers in

private industry, the percentage of income loss replaced by group protection was 18 percent in 1957, in contrast to 11 percent in 1948. Workers covered by compulsory temporary disability insurance laws, though incurring 28 percent of the total wage loss, received 36 percent of the cash sickness benefits paid to private employees in 1957. This relationship has shown little change since 1951, when the latest compulsory law went fully into effect. Workers covered by the laws at that time accounted for 27 percent of the wage loss and 35 percent of the benefits paid.

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

Sick-leave plans, in contrast to insurance plans, generally provide for

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

Persons covered by sick-leave plans that supplement insurance benefits pose a different problem. For these persons, it may be assumed that sick-leave provisions are used almost exclusively to provide protection against the portion of the income loss due to sickness not considered insurable or compensable under prevailing insurance provisions—that is, the first few days of sickness and that part of lost earnings in excess of two-thirds of regular wages. Consequently, it is not believed that estimates of potentially insurable and compensable income losses will be distorted if they include the income loss of persons with supplementary sick-leave plans (although their sick-leave payments are excluded from the benefit data).

Table 9 compares the dollar value of disability insurance benefits (exclusive of sick-leave payments) with the estimates of income loss due to short-term sickness that might be or are usually indemnified by insurance plans or policies. From 1948 to 1957, insurance benefits advanced from \$344 million to \$977 million, or 184 percent. In the same period, the income loss of persons without exclusive sick leave rose 52 percent—from \$4.2 billion to \$6.4 billion.

With the first 3 days of sickness excluded from the measure of income loss (by omitting 30 percent of the total), insurance was meeting 21.8 percent of the loss in 1957. This proportion may be looked on as a reasonable measure of the protection currently being provided in relation to a potentially insurable income loss, since some insurance is now being written that requires only a 3-day waiting period. If the first 7 days of

Table 8.—Group protection provided in relation to wage and salary loss, 1948-57

[Amounts in millions]

| Year | All wage and salary workers | | | Wage and salary workers in private industry | | | | | | | | |
|-----------|-----------------------------|---------------------|------------------------|---------------------------------------------|---------------------|------------------------|------------------------------------------------|---------------------|----------------------------------------------------|-------------|---------------------|------------------------|
| | Protection provided | | | 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..... | \$3,645 | \$616 | 16.9 | \$3,196 | \$360 | 11.3 | \$387 | \$78 | 20.2 | \$2,809 | \$282 | 10.0 |
| 1949..... | 3,618 | 697 | 19.3 | 3,124 | 397 | 12.7 | 490 | 105 | 21.4 | 2,634 | 292 | 11.1 |
| 1950..... | 3,933 | 782 | 19.9 | 3,407 | 467 | 13.7 | 704 | 140 | 19.9 | 2,703 | 327 | 12.1 |
| 1951..... | 4,511 | 978 | 21.7 | 3,896 | 588 | 15.1 | 1,050 | 208 | 19.8 | 2,846 | 380 | 13.4 |
| 1952..... | 4,853 | 1,108 | 22.8 | 4,169 | 655 | 15.7 | 1,129 | 238 | 21.1 | 3,040 | 417 | 13.7 |
| 1953..... | 5,223 | 1,184 | 22.7 | 4,506 | 702 | 15.6 | 1,213 | 268 | 22.1 | 3,293 | 434 | 13.2 |
| 1954..... | 5,189 | 1,226 | 23.6 | 4,443 | 726 | 16.3 | 1,219 | 275 | 22.6 | 3,224 | 451 | 14.0 |
| 1955..... | 5,601 | 1,344 | 24.0 | 4,802 | 799 | 16.6 | 1,293 | 289 | 22.4 | 3,509 | 510 | 14.5 |
| 1956..... | 6,061 | 1,500 | 24.7 | 5,195 | 910 | 17.5 | 1,427 | 314 | 22.0 | 3,768 | 596 | 15.8 |
| 1957..... | 6,365 | 1,622 | 25.5 | 5,435 | 996 | 18.3 | 1,512 | 359 | 23.7 | 3,923 | 637 | 16.2 |

income loss, equivalent to 45 percent of the total income loss, are excluded, it is found that insurance met 27.7 percent of this amount in 1957, in contrast to 15.0 percent in 1948.⁵

Another type of adjustment was also made in table 9 to obtain the ratio of existing protection to potentially compensable income loss—that portion of the potentially insurable loss that might be compensated according to a reasonable insurance standard. In this article, two-thirds of the wage loss for the period of disability after the waiting period is assumed to be a reasonable standard, even though some policies may compensate for less.

Insurance in 1957 was meeting 32.6 percent of this theoretical benchmark

⁵ There is a slight degree of overstatement when the insurance benefits are compared with this concept of income loss, to the extent that some insurance benefits begin with the fourth day in the case of illness and with the first day in the case of accidents.

Table 9.—Insurance benefits as percent of estimated potentially insurable and compensable income loss¹ for workers without exclusive formal sick leave, 1948-57

[Amounts in millions]

| Year | Amount of insurance benefits ² | As percent of— | | | |
|-----------|-------------------------------------------|-------------------------------------------------|--------------------------------------------------|-------------------------------------------------|--------------------------------------------------|
| | | Income loss excluding first 3 days ³ | Two-thirds of income loss excluding first 3 days | Income loss excluding first 7 days ⁴ | Two-thirds of income loss excluding first 7 days |
| 1948..... | \$344 | 11.8 | 17.7 | 15.0 | 22.5 |
| 1949..... | 384 | 13.8 | 20.7 | 17.5 | 26.3 |
| 1950..... | 442 | 14.6 | 22.0 | 18.6 | 27.9 |
| 1951..... | 546 | 15.8 | 23.7 | 20.1 | 30.2 |
| 1952..... | 617 | 17.0 | 25.5 | 21.6 | 32.4 |
| 1953..... | 680 | 17.7 | 26.6 | 22.6 | 33.9 |
| 1954..... | 715 | 18.9 | 28.4 | 24.1 | 36.1 |
| 1955..... | 781 | 19.3 | 28.9 | 24.6 | 36.8 |
| 1956..... | 895 | 20.7 | 31.0 | 26.3 | 39.5 |
| 1957..... | 977 | 21.8 | 32.6 | 27.7 | 41.6 |

¹ The portion of income loss that may be considered insurable or compensable under prevailing insurance practices.

² Excludes sick-leave payments.

³ 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).

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

(with the first 3 days excluded), almost twice the proportion in 1948. When the benchmark excludes the first 7 days of sickness, the proportion of the potentially compensable in-

come loss replaced by insurance in 1957 becomes 41.6 percent; it had increased at an average rate of more than two percentage points a year from the 1948 level of 22.5 percent.

Recent Publications*

Social Security Administration

CHILDREN'S BUREAU. *Maternal and Child Health Services, 1956*, by Theodore Pritzker and Thomas H. Smith. (Statistical Series No. 49.) Washington: The Bureau, 1958. 30 pp. Processed. Limited free distribution; apply to the Children's Bureau, Social Security Administration, Washington 25, D. C.

DIVISION OF THE ACTUARY. *Summary of the Old-Age, Survivors, and Disability Insurance System (And Major Changes Made by 1958 Amendments)*. Washington: The Division, Aug. 1958. 8 pp. Processed. Limited free distribution; apply to the Division of the Actuary, Social Security Administration, Washington 25, D. C.

MYERS, ROBERT J. *Long-Range Cost Estimates for Old-Age, Survivors, and Disability Insurance under 1956*

* Prepared in the Library, Department of Health, Education, and Welfare. Orders for items listed should be directed to publishers and booksellers; Federal publications for which prices are listed should be ordered from the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.

Amendments. (Actuarial Study No. 48.) Washington: Division of the Actuary, Aug. 1958. 51 pp. Processed. Limited free distribution; apply to the Division of the Actuary, Social Security Administration, Washington 25, D. C.

General

NATIONAL MANPOWER COUNCIL. *Work in the Lives of Married Women. Proceedings of a Conference on Womanpower Held October 20-25, 1957, at Arden House, Harriman Campus of Columbia University*. New York: Columbia University Press, 1958. 220 pp. \$4.75.

Includes Education for Reentry into the Labor Force, by Esther Lloyd-Jones; Utilizing "Older" Women Workers, by Howard S. Kaltenborn; Maternal Employment and Children, by Katherine Brownell Oettinger; Effects Upon Children of Their Mother's Outside Employment, by Eleanor E. Maccoby; and The Children of Working Mothers: A Psychiatrist's View, by Leo Bartemeier.

U. S. DEPARTMENT OF LABOR. BUREAU OF LABOR STATISTICS. *Paid Vacation Provisions in Major Union Contracts, 1957*. (Bulletin No.

1233.) Washington: U. S. Govt. Print. Off., 1958. 34 pp. 30 cents.

U. S. DEPARTMENT OF LABOR. WOMEN'S BUREAU. *1958 Handbook on Women Workers*. (Bulletin No. 266.) Washington: U. S. Govt. Print. Off., 1958. 153 pp. 45 cents.

Basic information on women's employment and occupations; age and marital status; earnings and income; educational status; and State laws affecting their employment.

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Retirement and Old Age

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Recent developments, with a list of State agencies for the aging.

DAVIES, KENNETH. "Welfare of the Aged in Norway." *Social Service* (Continued on page 25)