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MONETARY VALUES FOR ORDINARY DISABILITY BENEFITS, BASED ON PERIOD 2 OF THE 1952 INTERCOMPANY STUDY OF THE SOCIETY'S COMMITTEE, WITH 2½% INTEREST

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THE Committee on Disability and Double Indemnity presented in 1952 the results of an intercompany study of the experience under certain ordinary disability benefits between the 1930 and 1950 anniversaries. Monetary values based on the new data have been prepared for the primary purpose of furnishing material which can be used to test reserves for disability benefits (active and disabled lives) in comparison with the reserves based on tables currently in use.

The monetary values for each of the Benefits 1 to 5, inclusive, described in the 1952 Reports are based on the Period 2 graduated rates of disablement—first two policy years excluded—and the 1930–1950 graduated termination rates, combined with the Commissioners 1941 Standard Ordinary (CSO) Mortality Table and 2½% interest.

While Period 2 rates of disablement (between 1935 and 1939 anniversaries) are not exactly midway between those for Period 1 (1930–1935) which are high, and Period 4 (1946–1950) which are low, they are believed to represent a reasonable approach to the problem of attempting to use what might be considered an average or "long-term" level of disability rates, particularly because rates of disability or disablement tend to reflect directly any changes in the economic cycle especially with respect to employment. (In this connection, the period 1946–1950 was one of the most favorable in the nation's economic history and the period 1930–1935, one of the poorest.) Another reason for basing the monetary values on the Period 2 rates of disablement was the statement in the Report that this was the only period with sufficient data for every benefit. Finally, it might be mentioned that because of the same considerations the New York Life's recently adopted premium rates for the waiver of premium benefit are based on the rates of disablement of Period 2.

There may be various points of view as to what would be suitable rates of disablement and termination, depending upon a company's experience and the individual actuary's judgment. However, it is felt that Period 2 rates of disablement and 1930–1950 termination rates represent a reason-

able and appropriate starting point for the calculation of monetary values to be used in testing current reserves.

BENEFITS

As a matter of convenience the benefits studied in the Report are restated below. References to the benefits will be made by means of the indicated code numbers.

Benefit 1.—The "total and permanent" clause, under which the probable permanence of the disability had to be established on the merits of each case; the benefit covered waiver of premiums plus a monthly life income during continuance of total permanent disability of $10 per thousand of life insurance. Issued chiefly from about 1918 to early in 1930. (The data for claim rates on this benefit contained a 3 months waiting period which was a necessary but not a sufficient condition for establishing permanence, with retroactive income benefits and nonretroactive waiver benefits. However, the monetary values herein are based on nonretroactive income and waiver benefits. This matter is referred to in the section on Premium Formulas below.)

Benefit 2.—The 90-day "presumptive" clause under which it was a matter of contract that permanence would be presumed where total disability which had continued for at least 90 days still existed; the benefit covered waiver of premiums plus a monthly income of $10 per thousand of life insurance; no monthly income benefits for first three months (except where disability was adjudged permanent without reference to the presumptive clause). Issued chiefly from 1921 to 1930. (The monetary values are based on nonretroactive income and waiver benefits.)

Benefit 3.—90-day presumptive clause providing monthly income of $10 per thousand of life insurance and waiver of premiums, as in the case of Benefit 2, but with income benefits retroactive to cover the first three months. Issued chiefly from 1925 to early in 1930. (The monetary values are based on retroactive income and waiver benefits.)

Benefit 4.—120-day waiting period clause, under which total and permanent disability was defined as total disability which had lasted 120 days; providing monthly income of $10 per thousand of life insurance combined with waiver of premiums; no income benefits for the first four months. Issued in 1930, 1931, and a few months in 1932. (The monetary values are based on nonretroactive income benefits but retroactive waiver benefits.)

Benefit 5.—6 months waiting period clause, providing waiver of premiums only; issued only when applied for, subject to a specific extra pre-

mium. (The similar benefit which is automatically included by some companies in all policies issued was not studied in the Report.) Issued after 1931. (The monetary values are based on retroactive waiver benefits.)

RATES OF DISABLEMENT

The rates of disablement used were for males and females combined. The Report stated that distinction by sex was not practical because in most cases the exposure to disability was obtained from records maintained for valuation purposes which made no separation by sex.

The Period 2 graduated rates of disablement for each of the Benefits 1 to 5, inclusive, were shown in the Report for attained ages 18 to 59 inclusive. Because of the sparseness of the data at the youngest ages covered by the experience, it was evident that no rates could be developed therefrom for the purpose of extension to the younger ages. However, in the interest of making the monetary values as complete as possible without serious inaccuracy, it was decided to extend the rates of disablement for Benefits 1 to 4 back to age 15 (the earliest age at which these benefits were generally issued) by arbitrarily using the rates at age 18 for ages below 18.

Since Benefit 5 is currently being issued by various companies below age 15, it was thought advisable to adopt rates of disablement at least down to age 10. The rates of disablement shown in the Report decreased as the age decreased. At attained age 18, the youngest age for which a rate was given, the rate of disablement under Benefit 5 was .61 per thousand. For attained age 17 the Committee actually obtained a graduated rate of .52 per thousand but this rate was not published. Below this age the data available in the study were not sufficient to produce reliable results, and there were no other statistics at young ages which were deemed acceptable for this purpose. Because of these facts, and also because the rates of disablement at the young ages are relatively small so that any changes in these rates would have only a minor effect on the net premiums, it was considered reasonable to use the rate of disablement of .52 per thousand for attained ages 10 to 17 inclusive under Benefit 5.

Rates of disablement are based on the date of disablement, *i.e.*, the date upon which the life actually became totally disabled provided the life continued disabled during the waiting period. The use of a date of disablement with its distinct advantages is discussed on page 74 of the Report.

Applying the continuous function $\bar{D}_x$ to the rates of disablement made it unnecessary to first calculate probabilities of disablement r_x from the absolute rates of disablement r'_x given in the Report, before proceeding to the computation of commutation columns. To illustrate, making the as-

sumption heretofore followed in the preparation of commutation columns for disability benefits that l_x values can be used, instead of l'^{a}_{x}, to obtain the exposure to disability, and applying the continuous function $\bar{D}_x$ to the rates of disablement r'_x, values of C^r_x emerged directly as may be seen below.

$$\begin{aligned}\bar{D}_x \cdot r'_x &= v^{1/2}\left(1 - \tfrac{1}{2} q_x\right) \cdot D_x \cdot \frac{r_x}{1 - \frac{1}{2} q_x} \\ &= v^{1/2} \cdot D_x \cdot r_x \\ &= C^r_x .\end{aligned}$$

DISABLED LIFE ANNUITIES

Tables of disabled life annuity values were prepared for each of the five benefits based on the 1930–1950 graduated termination rates and $2\frac{1}{2}\%$ interest. The termination rates were for males and females combined. For convenience, the continuous form of disability annuity was calculated for both income and waiver benefits although it was recognized that traditionally this form is used only for the waiver benefit, a monthly disability annuity being used for the income benefit or the income and waiver benefit combined. However, net premiums and reserves may be obtained for the income benefit from the commutation columns given herein by appropriate adjustment in the applicable formula therefor.

The termination rates used were those published in the Report, which had a select period of 15 years. The rates, monthly for the first and second years and annually thereafter during the select periods for each benefit, were available only in quinary age groups according to the insurance age at the policy anniversary preceding the date of disablement. Since the age at disablement was on the average $\frac{1}{2}$ year higher than the age at the preceding policy anniversary, these rates were assumed to apply to an age $\frac{1}{2}$ year older than the central age of each quinary age group. Hence there were in effect available select graduated termination rates for quinquennial ages at disablement, $17\frac{1}{2}$, $22\frac{1}{2}$, etc. Because it was thought desirable to obtain tables of disabled life annuities for all ages an interpolation was made. It was found easier and more expedient to base the interpolation on the termination rates rather than first compute disability annuities at quinquennial ages and then interpolate for the values at other ages and periods. The interpolation was made by means of the Karup-King third difference interpolation formula employing the electronic calculator (I.B.M. 604).

Under the central age assumption mentioned above, the earliest age at

disablement for which termination rates were available for each benefit was $17\frac{1}{2}$. These rates were extended back by extrapolation to age $15\frac{1}{2}$ for Benefits 1 to 4, inclusive, and to age $10\frac{1}{2}$ for Benefit 5 (in a few cases there would have been anomalies in results if some slight adjustments had not been made). The disability annuities were then computed from these rates.

It will be noted that the above method of extending the termination rates to the younger ages differed from the arbitrary method used with respect to rates of disablement. It was felt that the more precise treatment accorded termination rates was warranted because of the fact that the disability annuities produced therefrom were the direct basis for disabled life reserves.

For Benefit 1 the disability annuities were based on the Benefit 1 termination rates given in the Report, *i.e.*, monthly rates for the first two years of disability and annual rates thereafter.

For each of Benefits 2 and 3 the disability annuities were derived from the monthly termination rates applicable to the respective benefit for disability year 1, the combined monthly rates for disability year 2, and the combined annual rates thereafter. In this connection the Report stated that the termination data for Benefits 2 and 3 were merged after the first disability year because preliminary graduations indicated that the termination rates for these benefits were very similar thereafter.

For Benefit 4 the disability annuities were derived from the Benefit 4 monthly termination rates for disability year 1 and the termination rates (monthly and annual) for Benefits 2 and 3 combined for all later disability years. Here again the Report indicated that the termination rates for this benefit after the first year were not greatly different from those for Benefits 2 and 3 combined and hence were not published.

For Benefit 5 the disability annuities were based on the Benefit 5 monthly termination rates for the first two years and the annual termination rates for the balance of the select period of 15 years; thereafter the termination rates for Benefits 2 and 3 combined were used because no tables of ultimate termination rates were prepared for this benefit on account of lack of data.

It should be pointed out that, as emphasized in the Report, the termination rates for Benefit 5 are very largely based on the experience of the 1940's which included perhaps abnormally high rates. As a matter of fact this word of caution also applies to the ultimate experience for termination rates of all the Benefits. Because of this it may be that in the calculation of gross premiums under Benefit 5, any net premiums based on these new data may require an additional margin.

Disabled life annuities were computed on the continuous basis since the extensive tables of termination rates available for the first time facilitated the calculation of this more practical form. Furthermore, the employment of electronic equipment to obtain both the disabled life commutation columns and the annuities made it just as convenient to compute continuous annuities as monthly annuities.

It may be well to mention that disabled life annuities calculated from termination rates based on the date of disablement instead of the date of disability took on a different form from that heretofore used.

The disabled life annuity formula for an n-payment policy for, say, a waiver benefit with a six months waiting period and no provision for retroactive benefits was as follows:

$$\bar{a}^{i}_{[x+1/2]+1/2:\overline{u-x-1}} = \frac{1}{D^{i}_{[x+1/2]+1/2}}\left\{\tfrac{1}{12}\left(\tfrac{1}{2}D^{i}_{[x+1/2]+6/12} + D^{i}_{[x+1/2]+7/12} + \ldots + D^{i}_{[x+1/2]+23/12} + \tfrac{1}{2}D^{i}_{[x+1/2]+2}\right) + D^{i}_{[x+1/2]+2}\cdot \bar{a}^{i}_{[x+1/2]+2:\overline{u-x-2\ 1/2}|}\right\}$$

$$= \frac{1}{D^{i}_{[x+1/2]+1/2}}\left\{\tfrac{1}{12}\left(\tfrac{1}{2}D^{i}_{[x+1/2]+6/12} + D^{i}_{[x+1/2]+7/12} + \ldots + D^{i}_{[x+1/2]+23/12} + \tfrac{1}{2}D^{i}_{[x+1/2]+2}\right) + \left(\tfrac{1}{2}D^{i}_{[x+1/2]+2} + D^{i}_{[x+1/2]+3} + \ldots + D^{i}_{[x+1/2]+u-x-1}\right)\right\}$$

where x = the age at policy anniversary preceding disablement,
u = issue age plus premium-paying period, and
$u \leqq y$, the limiting age of the coverage.

In the foregoing formula the value of $\bar{a}^{i}_{[x+1/2]+2:\overline{u-x-2\ 1/2}|}$ has been taken as equal to

$$\bar{a}^{i}_{[x+1/2]+2:\overline{u-x-3}|} + \frac{D^{i}_{[x+1/2]+u-x-1}}{D^{i}_{[x+1/2]+2}}\cdot \bar{a}^{i}_{[x+1/2]+u-x-1:\overline{1/2}|}$$

$$= a^{i}_{[x+1/2]+2:\overline{u-x-3}|} + \frac{1}{2}\left(1 - \frac{D^{i}_{[x+1/2]+u-x-1}}{D^{i}_{[x+1/2]+2}}\right) + \frac{1}{2}\frac{D^{i}_{[x+1/2]+u-x-1}}{D^{i}_{[x+1/2]+2}}$$

$$= a^{i}_{[x+1/2]+2:\overline{u-x-3}|} + \tfrac{1}{2}$$

on the assumption that $\bar{a}^{i}_{[x+1/2]+u-x-1:\overline{1/2}|}$ is equal to $\frac{1}{2}$. This represents only a slight overstatement.

Similar formulas were used for determining the disability annuities for other waiting periods, thus producing disabled life annuities which in the case of the above example, but for a 3 months waiting period, were expressed as $\bar{a}^{i}_{[x+1/2]+3/12:\overline{u-x-9/12}|}$. In preparing commutation columns involving these annuities it was necessary to discount the annuity value back to the beginning of the waiting period. This will be seen from the notation shown below. It should be noted that in discounting the annuity values interest only was involved, since those disabled have survived the waiting period to qualify for the benefit.

NOTATION

In the preparation of commutation columns for each benefit the notation used herein is similar to that employed by Mr. Phillips in *TASA* XXXIII, 8, except that the continuous form of disabled life annuity is used instead of the monthly form and the disabled life annuities in the functions involving these values are discounted back to the beginning of the waiting period.

$C^{r}_{x} = \bar{D}_{x} \cdot r'_{x}$ (see section on Rates of Disablement)

$M^{r}_{x} = \sum_{x}^{\omega} C^{r}_{x}$

${}_{y}M^{r}_{x} = \sum_{x}^{y-1} C^{r}_{x}$ (coverage to age y)

${}^{u}\bar{C}^{r}_{x} = C^{r}_{x} \cdot v^{m/12} \cdot \bar{a}^{i}_{[x+1/2]+m/12:\overline{u-x-(6+m)/12}|}$ (where m represents the number of months of waiting period)

${}^{u}\bar{M}^{r}_{x} = \sum_{x}^{u-1} {}^{u}\bar{C}^{r}_{x}$

${}^{y}\bar{M}^{r}_{x} = \sum_{x}^{y-1} {}^{u}\bar{C}^{r}_{x}$ (if u is greater than y, the limiting age of coverage)

${}^{\omega}\bar{C}^{r}_{x} = C^{r}_{x} \cdot v^{m/12} \cdot \bar{a}^{i}_{[x+1/2]+m/12}$ (where m represents the number of months of waiting period)

${}^{\omega}\bar{M}^{r}_{x} = \sum_{x}^{\omega} {}^{\omega}\bar{C}^{r}_{x}$

${}^{\omega}_{y}\bar{M}^{r}_{x} = \sum_{x}^{y-1} {}^{\omega}\bar{C}^{r}_{x}$ (coverage to age y)

NET PREMIUMS

Tables of net premiums were prepared for each of the Benefits 1 to 5, inclusive. It was found more convenient by means of the electronic equipment to calculate net premiums for all ages rather than for quinquennial ages only and interpolate.

To provide the exact disability benefit of the various types, the formulas for disability net premiums required only minor adjustments in view of the fact that the rates of disablement and the termination rates were based on the type of disability provision contained in each benefit. For example, where the waiver benefit was taken as retroactive in the calculation of monetary values, as in the case of Benefits 3, 4 and 5, the formula for the net premium for such benefit under an Ordinary Life policy for waiver of $100 of annual premium was

$$\frac{100\left\{{}_{y}^{\omega}\bar{M}_x^r + \frac{m}{12}v^{m/12}\cdot{}_{y}M_x^r\right\}}{N_x - N_y}$$

where m is the number of months of waiting period, and y the limiting age of the coverage, the values of N_x being based on the CSO $2\frac{1}{2}\%$ Table. The factor $m/12 \cdot v^{m/12}$ makes provision for the retroactive payment and is taken as $\frac{1}{4}v^{1/4}$, $\frac{1}{3}v^{1/3}$ or $\frac{1}{2}v^{1/2}$, depending upon whether a 3 months, 4 months or 6 months waiting period is involved.

The formulas for the income benefit also included an adjustment. Since disabled life annuities were prepared on the continuous basis, an adjustment was made to change these values when used for an income benefit from the continuous to the monthly form. Also, where the income benefit was retroactive—for example, in the case of Benefit 3—an adjustment was made similar to that in the formulas for the waiver benefit. To illustrate, the premiums under Benefit 3 for a retroactive income benefit providing for the payment of $30 per thousand of life insurance at the end of the waiting period of m months, and thereafter a payment of $10 at the end of each month for life during disablement, were computed by the following formula:

$$\frac{120\left\{{}_{y}^{\omega}\bar{M}_x^r + \left(\frac{1}{24} + \frac{m-1}{12}\right)v^{m/12}\cdot{}_{y}M_x^r\right\}}{N_x - N_y}$$

where the disability commutation functions were based on those computed for Benefit 3 and m was, of course, equal to 3. The term

$$\frac{120\left(\frac{1}{24}\right)v^{m/12}\cdot{}_{y}M_x^r}{N_x - N_y}$$

makes the necessary adjustment to convert from the continuous to the monthly form of disabled life annuity and the term

$$\frac{120\left(\frac{m-1}{12}\right)v^{m/12}\cdot{}_{y}\mathrm{M}_{x}^{r}}{\mathrm{N}_{x}-\mathrm{N}_{y}}$$

makes provision for retroactive income benefits on the basis of completed months of disability.

PREMIUM FORMULAS

For Waiver Benefits

The net premium formulas for waiver of $100 of annual premium were as follows:

Benefits 1 and 2 (nonretroactive waiver benefits)

Ordinary Life

$$\frac{100\ {}^{\omega}_{y}\bar{\mathrm{M}}_{x}^{r}}{\mathrm{N}_{x}-\mathrm{N}_{y}}$$

n-year period

$x+n=u<y$ $\qquad \dfrac{100\ {}^{u}\bar{\mathrm{M}}_{x}^{r}}{\mathrm{N}_{x}-\mathrm{N}_{u}}$

$x+n=u\gtreqless y$ $\qquad \dfrac{100\ {}^{u}_{y}\bar{\mathrm{M}}_{x}^{r}}{\mathrm{N}_{x}-\mathrm{N}_{y}}$

Benefits 3, 4 and 5 (retroactive waiver benefits) where *m* is the number of months of waiting period.

Ordinary Life

$$\frac{100\left\{{}^{\omega}_{y}\bar{\mathrm{M}}_{x}^{r}+\frac{m}{12}v^{m/12}\cdot{}_{y}\mathrm{M}_{x}^{r}\right\}}{\mathrm{N}_{x}-\mathrm{N}_{y}}$$

n-year period

$x+n=u<y$ $\qquad \dfrac{100\left\{{}^{u}\bar{\mathrm{M}}_{x}^{r}+\frac{m}{12}v^{m/12}\cdot{}_{u}\mathrm{M}_{x}^{r}\right\}}{\mathrm{N}_{x}-\mathrm{N}_{u}}$

$x+n=u\gtreqless y$ $\qquad \dfrac{100\left\{{}^{u}_{y}\bar{\mathrm{M}}_{x}^{r}+\frac{m}{12}v^{m/12}\cdot{}_{y}\mathrm{M}_{x}^{r}\right\}}{\mathrm{N}_{x}-\mathrm{N}_{y}}$

For Income Benefits

The net premium formulas for income benefits of $10 per month were as follows:

Benefits 1, 2 and 4 (nonretroactive income benefits) where m is the number of months of waiting period.

For $10 monthly income for life:

Ordinary Life and n-payment life,

$$x + n = u \gtreqless y \qquad \frac{120\{{}^{\omega}_{y}\bar{M}^{r}_{x} + \frac{1}{24}v^{m/12} \cdot {}_{y}M^{r}_{x}\}}{N_x - N_y}$$

n-payment life

$$x + n = u < y \qquad \frac{120\{{}^{\omega}_{y}\bar{M}^{r}_{x} + \frac{1}{24}v^{m/12} \cdot {}_{y}M^{r}_{x}\}}{N_x - N_u}$$

For $10 monthly income for the balance of n years

n-payment n-year endowment

$$x + n = u < y \qquad \frac{120\{{}^{u}\bar{M}^{r}_{x} + \frac{1}{24}v^{m/12} \cdot {}_{u}M^{r}_{x}\}}{N_x - N_u}$$

$$x + n = u \gtreqless y \qquad \frac{120\{{}^{u}_{y}\bar{M}^{r}_{x} + \frac{1}{24}v^{m/12} \cdot {}_{y}M^{r}_{x}\}}{N_x - N_y}$$

For Benefit 3, which provided for retroactive income benefits, the above formulas for income benefits were modified to include in the numerator the term $120[(m-1)/12]v^{m/12} \cdot {}_{y}M^{r}_{x}$ as has already been explained in the section on Net Premiums. In the case of an n-year endowment where $u < y$, the ${}_{y}M^{r}_{x}$ term would be replaced by ${}_{u}M^{r}_{x}$.

With regard to Benefit 1, it should be noted that some of the companies issued this benefit with the provision for retroactive income payments. As was mentioned in the section on Benefits, the data for claim rates on this benefit were based on such experience. However, no adjustment was made in the above formula for this fact—that is, the income benefit was treated as nonretroactive.

In applying the foregoing formulas y, the limiting age of the coverage, was taken as 60.

Electronic equipment was used in the calculation of net premiums as in the other calculations.

ACTIVE AND DISABLED LIFE RESERVES

Tables of active life reserves have not been included in this paper. From the complete tables of net premiums for all ages and periods given herein for each of Benefits 1 to 5 inclusive, however, active life reserves may be readily obtained by the usual method of taking the difference between such net premiums for the benefit involved at the attained age and the age at issue and applying the proper temporary annuity value on the CSO $2\frac{1}{2}\%$ Table.

Select and ultimate tables of disabled life annuities were prepared on two bases because of the fact that companies do not follow a uniform practice in the classification of claims in force for valuation purposes. One basis is for use where claims are maintained by date of disablement and the other where claims are classified by date of disability. Mean disabled life annuity values on both bases are given herein.

The disabled life mean reserve factors have been tabulated according to age $x + \frac{1}{2}$ at both date of disablement and date of disability. Age $x + \frac{1}{2}$ was used instead of age x because valuation data are generally in denary age groups at a given duration of disability and years to run. Hence the central age of such age group is not integral.

With regard to duration, the disabled life annuity values have been obtained by year of disability measured (1) from the beginning of the waiting period for use in connection with the valuation of claims by date of disablement, and (2) from the end of the waiting period for claims classified by date of disability. The values on basis (1) were obtained directly from the termination rates as given in the Report. The values on basis (2), however, required a double interpolation by age and duration to give effect to the different period of time.

The disabled life mean reserve values were prepared directly from the continuous form of disabled life annuity. In the case of mean reserve factors measured from the date of disablement, for use in connection with claims classified by date of disablement, the values were obtained by means of the general formula $\bar{a}^{i}_{[x+1/2]+t+1/2:\overline{n-t-1/2}|}$. Mean reserve factors for use in connection with claims classified by date of disability were derived by employing the general formula $\bar{a}^{i}_{[x+1/2-m/12]+t+1/2+m/12:\overline{n-t-1/2}}$ where m represents the number of months of waiting period.

The following table shows for sample ages whole life disabled life annuities based on the new data for Benefit 3 compared with those based on Class 3 of the 1926 Study. The new values are given at the beginning of the year by year of disability measured from the date of disablement except

for the first year of disability where no attempt was made to discount these values back to the beginning of the waiting period. The Class 3 values have not been adjusted one-quarter year to date of disablement since this modification makes only a minor change in the values.

WHOLE LIFE DISABLED LIFE ANNUITIES

VALUE OF $1 PER ANNUM PAYABLE MONTHLY AT BEGINNING OF EACH MONTH
2½% Interest

AGE	1ST YEAR OF DISABILITY			5TH YEAR OF DISABILITY		
	1926 Study Class 3	1952 Study Benefit 3	Ratio of (2) to (1)	1926 Study Class 3	1952 Study Benefit 3	Ratio of (2) to (1)
	(1)	(2)	(3)	(1)	(2)	(3)
15½	1.221	2.515	206%	10.039	7.925	79%
25½	2.704	2.898	107	8.274	9.472	114
35½	3.431	3.599	105	10.475	10.502	100
45½	3.917	4.367	111	10.571	10.205	97
55½	3.688	5.211	141	8.537	8.691	102
	10TH YEAR OF DISABILITY			15TH YEAR OF DISABILITY		
	1926 Study Class 3	1952 Study Benefit 3	Ratio of (2) to (1)	1926 Study Class 3	1952 Study Benefit 3	Ratio of (2) to (1)
	(1)	(2)	(3)	(1)	(2)	(3)
15½	17.969	10.371	57%	16.959	11.198	66%
25½	15.364	11.228	73	14.836	11.602	78
35½	13.287	11.438	86	11.799	11.286	96
45½	10.055	10.383	103	8.793	9.621	109
55½	7.633	8.303	108	6.713	7.309	109

As previously stated, the rates of disablement and termination rates given in the Report are for males and females combined. All the monetary values have been based on these combined rates. If it is desired in the course of various tests to make a distinction for females, particularly for the income benefit where the variations by sex were greatest, the Report has given on pages 79 and 84 a summary of its results on females in regard to both rates of disablement and termination rates which may be used as a guide for this purpose. It should, perhaps, be stated that if any upward revision is made in the monetary values for benefits to females there should also be a compensating downward revision for the corresponding benefits to males, since the basic data combined rates by sex.

SUMMARY OF TABLES

1 (*a*) to (*i*) inclusive ..... BENEFIT 1
2 (*a*) to (*i*) inclusive ..... BENEFIT 2
3 (*a*) to (*i*) inclusive ..... BENEFIT 3
4 (*a*) to (*i*) inclusive ..... BENEFIT 4
5 (*a*) to (*e*) inclusive and (*h*) and (*i*) .. BENEFIT 5

where the lettered tables contain the following:

(*a*) Disabled Life Annuities—
$$\bar{a}^{i}_{\lfloor x+1/2\rfloor+m/12:\overline{u-x-(6+m)/12}\rceil}$$
(*b*) Rates of Disablement and Commutation Columns—
$$r'_x,\ C^r_x,\ {}_{60}M^r_x,\ {}^{\omega}\bar{C}^r_x,\ {}^{\omega}\bar{M}^r_x$$
(*c*) Commutation Columns—${}^{u}\bar{C}^r_x$
(*d*) Commutation Columns—${}^{u}_{v}\bar{M}^r_x$
(*e*) Net Annual Premiums for Waiver of $100 Annual Premium
(*f*) Net Annual Premiums for $10 Monthly Income for Life
(*g*) Net Annual Premiums for $10 Monthly Income to Age u
(*h*) Disabled Life Reserves for claims by date of disablement
(*i*) Disabled Life Reserves for claims by date of disability

The tables shown herein, with the exception of those giving the commutation columns, *i.e.*, lettered tables *b*, *c*, and *d*, have been condensed in order to save space.

TABLE 1*a*

BENEFIT 1

1952 INTERCOMPANY STUDY, 1930–1950 TERMINATION RATES WITH 2½% INTEREST

$$\bar{a}^{i}_{\lfloor x+1/2\rfloor+1/4:\overline{u-x-3/4}\rceil}$$

(x = age at policy anniversary preceding disablement)

x	$u=40$	45	50	55	60	65	85	100
15	4.937	5.109	5.230	5.316	5.377	5.418	5.471	5.473
25	5.305	5.947	6.399	6.719	6.945	7.098	7.298	7.303
35	2.822	4.595	5.757	6.574	7.150	7.542	8.052	8.064
45			2.801	4.654	5.850	6.655	7.701	7.726
55					2.910	4.826	7.079	7.132

TABLE 1*b*

BENEFIT 1

1952 INTERCOMPANY STUDY, PERIOD 2, r'_x AND CSO TABLE WITH 2½% INTEREST RATES OF DISABLEMENT AND COMMUTATION COLUMNS

x	r'_x	C^r_x	${}_{60}M^r_x$	$\omega\overline{C}^r_x$	$\omega\overline{M}^r_x$
15	.00144	944.029	57316.368	5134.873	414944.690
16	.00144	919.005	56372.339	5196.956	409809.817
17	.00144	894.600	55453.334	5246.550	404612.861
18	.00144	870.795	54558.734	5282.621	399366.311
19	.00144	847.572	53687.939	5311.055	394083.690
20	.00144	824.916	52840.367	5324.854	388772.635
21	.00144	802.808	52015.451	5328.954	383447.781
22	.00144	781.231	51212.643	5318.498	378118.827
23	.00144	760.168	50431.412	5298.251	372800.329
24	.00144	739.607	49671.244	5267.404	367502.078
25	.00144	719.529	48931.637	5222.383	362234.674
26	.00144	699.920	48212.108	5171.187	357012.291
27	.00144	680.766	47512.188	5108.825	351841.104
28	.00144	662.050	46831.422	5042.070	346732.279
29	.00144	643.755	46169.372	4967.353	341690.209
30	.00145	630.215	45525.617	4917.372	336722.856
31	.00147	621.052	44895.402	4890.313	331805.484
32	.00152	624.118	44274.350	4952.292	326915.171
33	.00159	634.376	43650.232	5060.799	321962.879
34	.00169	655.043	43015.856	5243.251	316902.080
35	.00183	688.914	42360.813	5521.211	311658.829
36	.00201	734.733	41671.899	5891.342	306137.618
37	.00222	787.741	40937.166	6310.900	300246.276
38	.00247	850.538	40149.425	6801.316	293935.376
39	.00275	918.655	39298.887	7328.659	287134.060
40	.00304	984.824	38380.232	7825.210	279805.401
41	.00335	1052.022	37395.408	8316.289	271980.191
42	.00367	1116.748	36343.386	8775.782	263663.902
43	.00400	1178.846	35226.638	9202.847	254888.120
44	.00433	1235.300	34047.792	9566.223	245685.273
45	.00468	1291.746	32812.492	9918.608	236119.050
46	.00507	1353.086	31520.746	10298.164	226200.442
47	.00552	1423.501	30167.660	10744.958	215902.278
48	.00605	1506.489	28744.159	11280.040	205157.320
49	.00668	1604.876	27237.670	11913.048	193877.280
50	.00743	1720.836	25632.794	12664.372	181964.232
51	.00831	1853.692	23911.958	13531.576	169299.860
52	.00935	2006.773	22058.266	14537.349	155768.284
53	.01057	2180.401	20051.493	15682.456	141230.935
54	.01199	2374.309	17871.092	16942.624	125548.479
55	.01365	2591.462	15496.783	18368.566	108605.855
56	.01556	2828.147	12905.321	19922.539	90237.289
57	.01776	3085.654	10077.174	21623.048	70314.750
58	.02024	3355.828	6991.520	23412.936	48691.702
59	.02302	3635.692	3635.692	25278.766	25278.766

TABLE 1*c*

BENEFIT 1

1952 INTERCOMPANY STUDY, PERIOD 2, r'_x AND CSO TABLE WITH 2½% INTEREST

${}^{u}\bar{C}_x^r$

x	$u=20$	25	30	35	40
15	2481.589	3509.877	4050.291	4398.371	4631.987
16	2085.176	3343.771	3964.848	4360.328	4626.113
17	1590.591	3140.284	3854.227	4301.442	4601.067
18	959.769	2895.749	3718.778	4221.597	4558.251
19	207.220	2608.777	3559.796	4124.175	4500.708
20		2270.954	3374.457	4004.914	4423.851
21		1874.987	3162.745	3867.261	4330.822
22		1409.208	2924.009	3709.749	4220.635
23		841.616	2655.547	3532.671	4094.000
24		180.824	2355.851	3337.885	3952.391
25			2020.160	3122.846	3793.611
26			1645.820	2890.968	3622.753
27			1223.249	2639.323	3438.359
28			726.406	2369.372	3241.848
29			156.749	2078.687	3033.259
30				1776.292	2830.417
31				1452.959	2630.634
32				1107.815	2461.879
33				685.323	2291.766
34				158.196	2119.044
35					1932.150
36					1699.931
37					1375.543
38					902.785
39					220.946

TABLE 1c—*Continued*

$u\bar{C}_x^r$

x	$u=45$	50	55	60	65
15	4793.361	4906.885	4987.572	5044.804	5083.271
16	4808.782	4938.478	5029.813	5093.747	5138.501
17	4808.226	4954.037	5058.061	5130.967	5179.867
18	4791.054	4955.487	5071.455	5152.806	5209.059
19	4760.996	4943.787	5073.510	5165.327	5227.661
20	4713.254	4917.394	5061.686	5163.346	5233.032
21	4651.565	4877.361	5036.934	5149.434	5226.029
22	4573.131	4821.587	4997.835	5122.063	5205.916
23	4480.811	4752.788	4946.193	5082.181	5175.107
24	4375.047	4672.010	4882.970	5031.451	5132.889
25	4252.706	4575.931	4804.764	4966.376	5075.787
26	4120.116	4470.009	4718.343	4892.942	5012.587
27	3974.884	4352.413	4620.338	4809.102	4937.652
28	3820.867	4227.496	4515.689	4719.004	4857.179
29	3656.417	4092.756	4402.416	4621.225	4769.657
30	3504.356	3974.735	4308.572	4543.449	4703.791
31	3363.286	3871.884	4232.346	4486.645	4660.087
32	3273.202	3832.692	4229.049	4508.173	4698.598
33	3202.167	3821.921	4260.099	4569.661	4780.239
34	3158.710	3854.642	4346.156	4692.494	4928.812
35	3146.077	3941.668	4501.047	4895.419	5163.811
36	3147.940	4071.657	4715.703	5169.894	5479.503
37	3126.092	4206.484	4951.798	5477.119	5834.902
38	3076.061	4351.625	5219.752	5830.907	6247.642
39	2963.601	4475.531	5488.962	6200.190	6684.080
40	2745.430	4530.694	5704.231	6524.434	7082.329
41	2411.034	4527.223	5884.344	6824.292	7464.167
42	1926.743	4443.940	6007.753	7077.673	7806.861
43	1234.857	4270.449	6070.013	7282.610	8106.238
44	294.648	3985.108	6050.096	7412.841	8337.297
45		3595.913	5974.787	7510.207	8543.662
46		3094.290	5857.770	7597.888	8755.726
47		2447.502	5702.821	7694.776	9003.412
48		1570.582	5500.779	7807.992	9299.221
49		382.800	5223.622	7927.145	9641.769
50			4838.286	8046.707	10040.854
51			4283.310	8139.211	10478.911
52			3486.251	8185.112	10963.343
53			2292.668	8134.854	11469.841
54			566.327	7921.503	11958.944
55				7494.746	12429.431
56				6734.538	12814.173
57				5519.995	13063.989
58				3622.001	13067.220
59				870.809	12740.556

TABLE 1c—*Continued*

$\nu\bar{C}_x$

x	$u=70$	75	80	85	100
15	5107.664	5122.676	5130.181	5132.996	5134.873
16	5165.902	5183.256	5191.476	5195.129	5196.956
17	5211.875	5230.546	5240.326	5244.771	5246.550
18	5244.542	5266.178	5276.563	5280.890	5282.621
19	5268.094	5291.680	5303.473	5308.528	5311.055
20	5277.304	5303.538	5317.476	5323.215	5324.854
21	5275.497	5305.018	5320.177	5326.560	5328.954
22	5260.266	5292.876	5309.180	5316.168	5318.498
23	5234.035	5269.543	5287.675	5295.229	5298.251
24	5197.574	5235.797	5255.643	5264.464	5267.404
25	5146.582	5188.773	5210.226	5218.807	5222.383
26	5089.105	5134.320	5157.275	5167.013	5171.187
27	5020.194	5068.907	5094.617	5104.766	5108.825
28	4946.664	4998.644	5026.279	5037.464	5042.070
29	4864.986	4921.928	4950.718	4962.874	4967.353
30	4806.510	4867.265	4899.208	4912.361	4917.372
31	4771.188	4836.614	4871.179	4885.375	4890.313
32	4820.793	4893.365	4930.582	4946.089	4952.292
33	4915.790	4995.860	5036.841	5054.494	5060.799
34	5080.498	5169.686	5215.908	5235.439	5243.251
35	5336.349	5438.366	5491.085	5512.995	5521.211
36	5678.121	5794.954	5856.292	5881.850	5891.342
37	6064.289	6200.513	6270.190	6299.940	6310.900
38	6514.758	6672.830	6753.979	6788.636	6801.316
39	6995.414	7178.927	7273.879	7314.051	7328.659
40	7440.556	7651.969	7761.591	7807.592	7825.210
41	7875.068	8118.680	8244.146	8296.423	8316.289
42	8274.118	8550.477	8693.651	8753.584	8775.782
43	8634.626	8947.440	9109.120	9177.072	9202.847
44	8929.048	9280.169	9460.641	9536.758	9566.223
45	9206.101	9598.943	9801.782	9886.513	9918.608
46	9499.378	9939.114	10167.723	10263.201	10298.164
47	9842.353	10338.927	10596.410	10703.930	10744.958
48	10254.446	10820.394	11112.352	11235.124	11280.040
49	10737.533	11385.103	11720.053	11860.413	11913.048
50	11306.436	12055.524	12442.040	12604.513	12664.372
51	11950.896	12822.297	13271.814	13461.569	13531.576
52	12686.525	13705.675	14234.197	14455.578	14537.349
53	13502.471	14702.980	15322.737	15584.942	15682.456
54	14368.195	15786.373	16520.239	16826.999	16942.624
55	15311.431	16995.817	17866.341	18232.064	18368.566
56	16282.628	18289.498	19323.851	19759.516	19922.539
57	17274.518	19672.650	20908.515	21429.848	21623.048
58	18206.726	21078.312	22555.795	23179.473	23412.936
59	19045.794	22485.672	24256.197	25000.540	25278.766

TABLE 1*d*

BENEFIT 1

1952 INTERCOMPANY STUDY, PERIOD 2, r'_x AND CSO TABLE WITH 2½% INTEREST

$^{u}\bar{M}^{r}_{x}$

($y = u$ or 60, whichever is less)

x	$u=20$	25	30	35	40
15	7324.345	22076.047	39392.933	58140.174	79534.750
16	4842.756	18566.170	35342.642	53741.803	74902.763
17	2757.580	15222.399	31377.794	49381.475	70276.650
18	1166.989	12082.115	27523.567	45080.033	65675.583
19	207.220	9186.366	23804.789	40858.436	61117.332
20		6577.589	20244.993	36734.261	56616.624
21		4306.635	16870.536	32729.347	52192.773
22		2431.648	13707.791	28862.086	47861.951
23		1022.440	10783.782	25152.337	43641.316
24		180.824	8128.235	21619.666	39547.316
25			5772.384	18281.781	35594.925
26			3752.224	15158.935	31801.314
27			2106.404	12267.967	28178.561
28			883.155	9628.644	24740.202
29			156.749	7259.272	21498.354
30				5180.585	18465.095
31				3404.293	15634.678
32				1951.334	13004.044
33				843.519	10542.165
34				158.196	8250.399
35					6131.355
36					4199.205
37					2499.274
38					1123.731
39					220.946

TABLE 1*d*—*Continued*

${}_{y}^{u}\overline{M}_{x}^{r}$

($y = u$ or 60, whichever is less)

x	$u=45$	50	55	60	65
15	107155.421	143709.759	192904.121	263848.060	332713.603
16	102362.060	138802.874	187916.549	258803.256	327630.332
17	97553.278	133864.396	182886.736	253709.509	322491.831
18	92745.052	128910.359	177828.675	248578.542	317311.964
19	87953.998	123954.872	172757.220	243425.736	312102.905
20	83193.002	119011.085	167683.710	238260.409	306875.244
21	78479.748	114093.691	162622.024	233097.063	301642.212
22	73828.183	109216.330	157585.090	227947.629	296416.183
23	69255.052	104394.743	152587.255	222825.566	291210.267
24	64774.241	99641.955	147641.062	217743.385	286035.160
25	60399.194	94969.945	142758.092	212711.934	280902.271
26	56146.488	90394.014	137953.328	207745.558	275826.484
27	52026.372	85924.005	133234.985	202852.616	270813.897
28	48051.488	81571.592	128614.647	198043.514	265876.245
29	44230.621	77344.096	124098.958	193324.510	261019.066
30	40574.204	73251.340	119696.542	188703.285	256249.409
31	37069.848	69276.605	115387.970	184159.836	251545.618
32	33706.562	65404.721	111155.624	179673.191	246885.531
33	30433.360	61572.029	106926.575	175165.018	242186.933
34	27231.193	57750.108	102666.476	170595.357	237406.694
35	24072.483	53895.466	98320.320	165902.863	232477.882
36	20926.406	49953.798	93819.273	161007.444	227314.071
37	17778.466	45882.141	89103.570	155837.550	221834.568
38	14652.374	41675.657	84151.772	150360.431	215999.666
39	11576.313	37324.032	78932.020	144529.524	209752.024
40	8612.712	32848.501	73443.058	138329.334	203067.944
41	5867.282	28317.807	67738.827	131804.900	195985.615
42	3456.248	23790.584	61854.483	124980.608	188521.448
43	1529.505	19346.644	55846.730	117902.935	180714.587
44	294.648	15076.195	49776.717	110620.325	172608.349
45		11091.087	43726.621	103207.484	164271.052
46		7495.174	37751.834	95697.277	155727.390
47		4400.884	31894.064	88099.389	146971.664
48		1953.382	26191.243	80404.613	137968.252
49		382.800	20690.464	72596.621	128669.031
50			15466.842	64669.476	119027.262
51			10628.556	56622.769	108986.408
52			6345.246	48483.558	98507.497
53			2858.995	40298.446	87544.154
54			566.327	32163.592	76074.313
55				24242.089	64115.369
56				16747.343	51685.938
57				10012.805	38871.765
58				4492.810	25807.776
59				870.809	12740.556

TABLE 1*d*—*Continued*

${}^{u}\bar{M}_{x}$

($y = u$ or 60, whichever is less)

x	$u=70$	75	80	85	100
15	372922.841	396088.074	408039.623	413065.756	414944.690
16	367815.177	390965.398	402909.442	407932.760	409809.817
17	362649.275	385782.142	397717.966	402737.631	404612.861
18	357437.400	380551.596	392477.640	397492.860	399366.311
19	352192.858	375285.418	387201.077	392211.970	394083.690
20	346924.764	369993.738	381897.604	386903.442	388772.635
21	341647.460	364690.200	376580.128	381580.227	383447.781
22	336371.963	359385.182	371259.951	376253.667	378118.827
23	331111.697	354092.306	365950.771	370937.499	372800.329
24	325877.662	348822.763	360663.096	365642.270	367502.078
25	320680.088	343586.966	355407.453	360377.806	362234.674
26	315533.506	338398.193	350197.227	355158.999	357012.291
27	310444.401	333263.873	345039.952	349991.986	351841.104
28	305424.207	328194.966	339945.335	344887.220	346732.279
29	300477.543	323196.322	334919.056	339849.756	341690.209
30	295612.557	318274.394	329968.338	334886.882	336722.856
31	290806.047	313407.129	325069.130	329974.521	331805.484
32	286034.859	308570.515	320197.951	325089.146	326915.171
33	281214.066	303677.150	315267.369	320143.057	321962.879
34	276298.276	298681.290	310230.528	315088.563	316902.080
35	271217.778	293511.604	305014.620	309853.124	311658.829
36	265881.429	288073.238	299523.535	304340.129	306137.618
37	260203.308	282278.284	293667.243	298458.279	300246.276
38	254139.019	276077.771	287397.053	292158.339	293935.376
39	247624.261	269404.941	280643.074	285369.703	287134.060
40	240628.847	262226.014	273369.195	278055.652	279805.401
41	233188.291	254574.045	265607.604	270248.060	271980.191
42	225313.223	246455.365	257363.458	261951.637	263663.902
43	217039.105	237904.888	248669.807	253198.053	254888.120
44	208404.479	228957.448	239560.687	244020.981	245685.273
45	199475.431	219677.279	230100.046	234484.223	236119.050
46	190269.330	210078.336	220298.264	224597.710	226200.442
47	180769.952	200139.222	210130.541	214334.509	215902.278
48	170927.599	189800.295	199534.131	203630.579	205157.320
49	160673.153	178979.901	188421.779	192395.455	193877.280
50	149935.620	167594.798	176701.726	180535.042	181964.232
51	138629.184	155539.274	164259.686	167930.529	169299.860
52	126678.288	142716.977	150987.872	154468.960	155768.284
53	113991.763	129011.302	136753.675	140013.382	141230.935
54	100489.292	114308.322	121430.938	124428.440	125548.479
55	86121.097	98521.949	104910.699	107601.441	108605.855
56	70809.666	81526.132	87044.358	89369.377	90237.289
57	54527.038	63236.634	67720.507	69609.861	70314.750
58	37252.520	43563.984	46811.992	48180.013	48691.702
59	19045.794	22485.672	24256.197	25000.540	25278.766

TABLE 1*e*

BENEFIT 1

1952 INTERCOMPANY STUDY, PERIOD 2, r'_x AND CSO TABLE WITH 2½% INTEREST
NET ANNUAL PREMIUMS—WAIVER OF $100 OF ANNUAL PREMIUM
NOT RETROACTIVE

Waiver to Age *u;* Disability Coverage and Premiums to Age *u* or 60, whichever is less

x	$u=40$	45	50	55	60	65	85	100
15	$0.653	$0.780	$0.955	$1.195	$1.549	$1.954	$ 2.426	$ 2.437
25	.566	.771	1.039	1.394	1.912	2.525	3.239	3.255
35	.340	.719	1.156	1.708	2.497	3.499	4.663	4.690
45			.845	1.816	3.131	4.983	7.113	7.163
55					2.726	7.211	12.102	12.214

TABLE 1*f*

BENEFIT 1

1952 INTERCOMPANY STUDY, PERIOD 2, r'_x AND CSO TABLE WITH 2½% INTEREST
NET ANNUAL PREMIUMS FOR $10 MONTHLY INCOME FOR LIFE
NOT RETROACTIVE

Disability Coverage and Premiums to Age *u*

x	$u=40$	45	50	55	60			
15	$ 4.109	$ 3.647	$ 3.329	$ 3.103	$ 2.941			
25	6.956	5.582	4.781	4.270	3.928			
35	20.873	11.232	8.069	6.534	5.660			
45			21.712	11.838	8.645			
55					14.744			

TABLE 1*g*

BENEFIT 1

1952 INTERCOMPANY STUDY, PERIOD 2, r'_x AND CSO TABLE WITH 2½% INTEREST
NET ANNUAL PREMIUMS FOR $10 MONTHLY INCOME TO AGE *u*
NOT RETROACTIVE

Disability Coverage and Premiums to Age *u* or 60, whichever is less

x	$u=40$	45	50	55	60	65	85	100
15	$0.791	$0.945	$1.157	$1.447	$1.876	$2.361	$ 2.928	$ 2.941
25	.688	.936	1.259	1.690	2.316	3.051	3.908	3.928
35	.419	.877	1.405	2.073	3.028	4.230	5.627	5.660
45			1.041	2.216	3.807	6.030	8.586	8.645
55					3.358	8.740	14.608	14.744

TABLE 1*h*

BENEFIT 1

1952 INTERCOMPANY STUDY, 1930-1950 TERMINATION RATES WITH 2½% INTEREST

MEAN RESERVES—DISABLED LIVES

TEMPORARY BENEFIT OF $1 PER ANNUM

YEARS TO RUN FROM LAST POLICY ANNIVERSARY	AGE AT DATE OF DISABLEMENT				
	15½	25½	35½	45½	55½
	1st Year of Disability				
1	$ 0.470	$ 0.476	$ 0.471	$ 0.465	$ 0.470
5	2.670	2.882	2.967	3.019	3.147
10	3.730	4.394	4.765	4.936	5.114
15	4.305	5.331	5.955	6.183	6.265
20	4.678	5.974	6.793	7.021	6.934
25	4.929	6.428	7.383	7.555	7.273
	5th Year of Disability				
1	$ 0.471	$ 0.480	$ 0.484	$ 0.486	$ 0.485
5	2.986	3.357	3.559	3.601	3.524
10	4.747	5.659	6.187	6.232	5.872
15	5.872	7.223	8.027	8.002	7.250
20	6.625	8.322	9.327	9.146	7.975
25	7.143	9.100	10.217	9.830	8.287
	10th Year of Disability				
1	$ 0.485	$ 0.488	$ 0.490	$ 0.489	$ 0.487
5	3.594	3.727	3.803	3.762	3.587
10	6.219	6.608	6.823	6.637	5.994
15	7.975	8.632	8.957	8.494	7.261
20	9.185	10.066	10.418	9.605	7.806
25	10.035	11.079	11.362	10.189	7.982
	15th Year of Disability				
1	$ 0.489	$ 0.491	$ 0.491	$ 0.490	$ 0.487
5	3.749	3.838	3.870	3.776	3.536
10	6.600	6.892	6.963	6.546	5.665
15	8.565	9.056	9.081	8.201	6.583
20	9.944	10.585	10.449	9.071	6.878
25	10.922	11.632	11.267	9.447	6.939

TABLE 1*h*—*Continued*

Years to Run from Last Policy Anniversary	Attained Age					
	30½	40½	50½	60½	70½	80½
	16*th* and Subsequent Years of Disability					
1	$ 0.490	$ 0.491	$ 0.491	$ 0.490	$ 0.486	$ 0.477
5	3.759	3.846	3.871	3.758	3.500	2.948
10	6.633	6.913	6.954	6.479	5.540	3.985
15	8.622	9.087	9.043	8.073	6.377	4.177
20	10.024	10.618	10.376	8.883	6.627	4.193
25	11.017	11.655	11.156	9.215	6.673	

Life Benefit of $1 per Annum

Age at Date of Disablement	Year of Disability				Attained Age	16th and Subs. Years of Dis.
	1	5	10	15		
15½	$ 5.469	$ 8.242	$11.750	$12.728	30½	$12.810
25½	7.329	10.538	12.714	13.053	40½	13.011
35½	8.306	11.425	12.401	11.956	50½	11.773
45½	8.115	10.405	10.540	9.595	60½	9.334
55½	7.463	8.411	8.022	6.946	70½	6.677
					80½	4.193
					90½	2.308

TABLE 1i

BENEFIT 1

1952 INTERCOMPANY STUDY, 1930–1950 TERMINATION RATES WITH 2½% INTEREST

MEAN RESERVES—DISABLED LIVES

TEMPORARY BENEFIT OF $1 PER ANNUM

YEARS TO RUN FROM LAST POLICY ANNIVERSARY	AGE AT DATE OF DISABILITY					
	15½	25½	35½	45½	55½	
	1st Year of Disability					
1	$ 0.471	$ 0.472	$ 0.471	$ 0.470	$ 0.474	
5	2.665	2.876	3.021	3.124	3.232	
10	3.739	4.410	4.884	5.141	5.275	
15	4.328	5.365	6.123	6.460	6.478	
20	4.709	6.021	6.995	7.346	7.176	
25	4.966	6.483	7.609	7.911	7.531	
	5th Year of Disability					
1	$ 0.472	$ 0.480	$ 0.485	$ 0.486	$0.486	
5	3.006	3.373	3.573	3.613	3.531	
10	4.798	5.700	6.224	6.266	5.895	
15	5.944	7.281	8.081	8.053	7.285	
20	6.711	8.392	9.394	9.208	8.016	
25	7.239	9.179	10.292	9.898	8.331	
	10th Year of Disability					
1	$ 0.486	$ 0.488	$ 0.490	$ 0.489	$0.487	
5	3.604	3.732	3.809	3.770	3.595	
10	6.238	6.617	6.834	6.654	6.011	
15	8.000	8.643	8.972	8.517	7.281	
20	9.214	10.078	10.435	9.630	7.829	
25	10.067	11.092	11.381	10.216	8.005	
	15th Year of Disability					
1	$ 0.489	$ 0.491	$ 0.491	$ 0.490	$0.487	
5	3.747	3.836	3.869	3.775	3.534	
10	6.596	6.889	6.961	6.544	5.662	
15	8.559	9.052	9.077	8.198	6.579	
20	9.938	10.579	10.445	9.069	6.874	
25	10.915	11.626	11.263	9.444	6.935	

TABLE 1*i*—*Continued*

Years to Run from Last Policy Anniversary	Attained Age					
	30½	40½	50½	60½	70½	80½
	16th and Subsequent Years of Disability					
1	$ 0.490	$ 0.491	$ 0.491	$ 0.490	$0.486	$ 0.477
5	3.759	3.846	3.871	3.758	3.500	2.948
10	6.633	6.913	6.954	6.479	5.540	3.985
15	8.622	9.087	9.043	8.073	6.377	4.177
20	10.024	10.618	10.376	8.883	6.627	4.193
25	11.017	11.655	11.156	9.215	6.673	

LIFE BENEFIT OF $1 PER ANNUM

Age at Date of Disability	Year of Disability				Attained Age	16th and Subs. Years of Dis.
	1	5	10	15		
15½	$ 5.518	$ 8.358	$11.787	$12.720	30½	$12.810
25½	7.402	10.632	12.729	13.046	40½	13.011
35½	8.570	11.511	12.422	11.951	50½	11.773
45½	8.504	10.479	10.568	9.592	60½	9.334
55½	7.729	8.456	8.045	6.942	70½	6.677
					80½	4.193
					90½	2.308

TABLE 2*a*

BENEFIT 2

1952 INTERCOMPANY STUDY, 1930–1950 TERMINATION RATES WITH 2½% INTEREST

$\bar{a}^{\,i}_{[x+1/2]+1/4:\,u-\overline{x-3/4}|}$

(x = age at policy anniversary preceding disablement)

x	$u=40$	45	50	55	60	65	85	100
15	2.565	2.636	2.682	2.713	2.734	2.748	2.766	2.766
25	2.615	2.872	3.041	3.154	3.231	3.281	3.346	3.348
35	1.639	2.484	3.021	3.378	3.618	3.778	3.984	3.989
45			1.850	2.920	3.606	4.056	4.638	4.653
55					2.291	3.713	5.441	5.484

TABLE 2*b*

BENEFIT 2

1952 INTERCOMPANY STUDY, PERIOD 2, r_x' AND CSO TABLE WITH 2½% INTEREST RATES OF DISABLEMENT AND COMMUTATION COLUMNS

x	r_x'	C_x^r	${}_{60}M_x^r$	$\omega\overline{C}_x^r$	$\omega\overline{M}_x^r$
15	.00244	1599.605	91434.246	4397.279	409236.861
16	.00244	1557.203	89834.641	4368.931	404839.582
17	.00244	1515.850	88277.438	4338.780	400470.651
18	.00244	1475.513	86761.588	4306.911	396131.871
19	.00244	1436.164	85286.075	4274.841	391824.960
20	.00244	1397.774	83849.911	4239.753	387550.119
21	.00244	1360.314	82452.137	4204.540	383310.366
22	.00244	1323.752	81091.823	4169.152	379105.826
23	.00244	1288.063	79768.071	4132.279	374936.674
24	.00256	1314.856	78480.008	4296.640	370804.395
25	.00268	1339.124	77165.152	4455.796	366507.755
26	.00280	1360.955	75826.028	4610.942	362051.959
27	.00293	1385.169	74465.073	4778.331	357441.017
28	.00304	1397.661	73079.904	4907.549	352662.686
29	.00315	1408.214	71682.243	5034.174	347755.137
30	.00326	1416.897	70274.029	5156.744	342720.963
31	.00337	1423.773	68857.132	5273.746	337564.219
32	.00349	1433.007	67433.359	5400.521	332290.473
33	.00362	1444.303	66000.352	5536.396	326889.952
34	.00378	1465.125	64556.049	5713.768	321353.556
35	.00396	1490.764	63090.924	5910.063	315639.788
36	.00417	1524.296	61600.160	6141.465	309729.725
37	.00443	1571.934	60075.864	6438.073	303588.260
38	.00472	1625.321	58503.930	6766.571	297150.187
39	.00505	1686.984	56878.609	7137.295	290383.616
40	.00543	1759.076	55191.625	7561.181	283246.321
41	.00585	1837.112	53432.549	8020.766	275685.140
42	.00632	1923.119	51595.437	8522.415	267664.374
43	.00684	2015.827	49672.318	9063.477	259141.959
44	.00740	2111.136	47656.491	9626.285	250078.482
45	.00801	2210.873	45545.355	10223.883	240452.197
46	.00865	2308.520	43334.482	10829.157	230228.314
47	.00934	2408.605	41025.962	11466.216	219399.157
48	.01007	2507.496	38617.357	12121.404	207932.941
49	.01085	2606.723	36109.861	12803.146	195811.537
50	.01169	2707.480	33503.138	13510.597	183008.391
51	.01258	2806.190	30795.658	14240.226	169497.794
52	.01357	2912.504	27989.468	15031.554	155257.568
53	.01473	3038.534	25076.964	15962.843	140226.014
54	.01607	3182.247	22038.430	17021.452	124263.171
55	.01765	3350.865	18856.183	18263.053	107241.719
56	.01951	3546.089	15505.318	19697.123	88978.666
57	.02164	3759.773	11959.229	21310.029	69281.543
58	.02402	3982.559	8199.456	23043.767	47971.514
59	.02670	4216.897	4216.897	24927.747	24927.747

TABLE 2c

BENEFIT 2

1952 INTERCOMPANY STUDY, PERIOD 2, r'_x AND CSO TABLE WITH 2½% INTEREST

${}^{u}\bar{C}_x^r$

x	$u=20$	25	30	35	40
15	2340.128	3182.702	3629.424	3904.453	4077.737
16	2013.454	3007.026	3510.002	3816.431	4011.431
17	1614.991	2811.168	3380.633	3722.613	3939.552
18	1077.828	2597.051	3240.815	3622.087	3864.048
19	305.448	2357.943	3090.161	3514.077	3782.414
20		2090.704	2925.596	3397.915	3693.808
21		1783.211	2747.146	3273.052	3601.573
22		1419.538	2554.905	3140.349	3502.141
23		939.620	2345.209	2998.079	3397.481
24		279.647	2220.192	2985.956	3448.550
25			2046.898	2946.575	3480.259
26			1812.456	2876.936	3492.359
27			1497.789	2786.327	3495.299
28			1023.737	2639.214	3450.425
29			300.903	2454.807	3382.708
30				2224.920	3288.093
31				1937.150	3166.795
32				1575.152	3022.127
33				1067.949	2850.734
34				314.519	2660.309
35					2428.326
36					2142.090
37					1773.165
38					1226.027
39					363.823

TABLE 2c—*Continued*

${}^{u}\bar{C}_x^r$

x	$u=45$	50	55	60	65
15	4190.610	4263.739	4313.022	4346.407	4368.663
16	4136.788	4220.360	4274.526	4311.669	4336.431
17	4079.659	4171.557	4233.324	4274.000	4302.624
18	4019.490	4122.140	4189.596	4236.522	4267.317
19	3955.120	4069.306	4144.955	4196.338	4230.594
20	3885.514	4011.929	4096.668	4152.235	4191.132
21	3812.476	3951.726	4045.010	4108.552	4149.110
22	3736.318	3890.244	3992.861	4062.588	4108.634
23	3656.068	3825.046	3938.978	4014.506	4065.712
24	3746.492	3942.507	4073.183	4160.737	4219.541
25	3822.296	4047.215	4197.605	4300.083	4366.627
26	3884.607	4142.949	4316.080	4432.401	4508.146
27	3945.462	4241.440	4439.677	4573.211	4661.317
28	3962.988	4299.141	4524.168	4675.576	4775.588
29	3963.520	4344.197	4598.915	4769.660	4883.023
30	3945.712	4376.614	4663.882	4858.211	4986.355
31	3909.675	4395.024	4719.062	4938.388	5082.720
32	3863.822	4410.710	4775.302	5021.687	5185.469
33	3803.850	4419.643	4831.607	5110.077	5293.811
34	3749.478	4448.410	4914.365	5228.884	5437.107
35	3680.270	4475.883	5004.811	5360.393	5597.447
36	3599.438	4508.387	5111.323	5517.320	5785.460
37	3515.085	4563.361	5255.443	5720.996	6028.761
38	3395.401	4610.120	5404.857	5941.143	6296.513
39	3234.165	4645.864	5566.319	6184.985	6594.076
40	3015.731	4671.324	5739.505	6458.036	6931.811
41	2705.844	4668.586	5910.134	6742.702	7292.269
42	2261.049	4627.219	6075.972	7039.259	7677.628
43	1570.682	4529.735	6226.632	7344.541	8083.804
44	461.592	4347.354	6340.591	7637.244	8493.287
45		4064.944	6416.020	7923.345	8912.115
46		3631.897	6421.782	8172.343	9314.911
47		3004.196	6353.097	8397.387	9716.361
48		2045.985	6185.305	8572.704	10100.339
49		577.722	5896.390	8694.325	10463.761
50			5462.361	8755.922	10806.325
51			4830.409	8726.531	11113.846
52			3942.418	8617.165	11407.540
53			2645.375	8431.377	11729.035
54			717.925	8115.393	12046.583
55				7629.587	12365.192
56				6868.794	12652.115
57				5675.949	12831.605
58				3783.896	12812.208
59				972.299	12522.547

TABLE 2c—*Continued*

${}^{u}\bar{C}_x^r$

x	$u=70$	75	80	85	100
15	4382.971	4390.920	4395.689	4397.279	4397.279
16	4351.907	4361.193	4365.836	4368.931	4368.931
17	4319.196	4329.741	4335.767	4337.274	4338.780
18	4286.381	4298.112	4303.978	4306.911	4306.911
19	4252.004	4264.850	4270.559	4273.414	4274.841
20	4214.748	4228.640	4235.585	4238.364	4239.753
21	4176.149	4191.020	4200.484	4203.188	4204.540
22	4137.578	4154.681	4163.890	4167.837	4169.152
23	4097.715	4116.917	4127.158	4130.999	4132.279
24	4256.130	4278.345	4290.106	4295.333	4296.640
25	4409.215	4434.502	4447.811	4453.135	4455.796
26	4556.839	4586.595	4601.474	4608.237	4610.942
27	4716.382	4749.422	4767.318	4775.578	4778.331
28	4838.096	4875.601	4896.437	4904.771	4907.549
29	4955.799	4997.786	5020.179	5029.976	5034.174
30	5068.029	5115.907	5141.254	5152.520	5156.744
31	5173.280	5228.466	5256.766	5269.501	5273.746
32	5288.010	5349.250	5382.006	5396.248	5400.521
33	5408.644	5478.979	5514.864	5530.654	5536.396
34	5568.157	5646.787	5689.014	5706.487	5713.768
35	5745.606	5834.501	5881.912	5902.655	5910.063
36	5955.131	6056.630	6109.652	6133.891	6141.465
37	6224.044	6339.651	6402.141	6428.700	6438.073
38	6521.043	6653.499	6724.573	6755.264	6766.571
39	6852.272	7006.520	7088.673	7123.882	7137.295
40	7230.762	7409.084	7503.489	7545.447	7561.181
41	7639.172	7845.488	7955.037	8004.334	8020.766
42	8080.909	8319.819	8447.875	8501.391	8522.415
43	8550.601	8829.076	8977.330	9039.436	9063.477
44	9032.510	9353.526	9525.574	9599.009	9626.285
45	9536.139	9907.477	10105.231	10190.924	10223.883
46	10035.325	10464.362	10693.793	10792.448	10829.157
47	10549.397	11044.910	11308.226	11423.128	11466.216
48	11062.277	11635.451	11939.483	12071.563	12121.404
49	11577.753	12238.377	12593.300	12746.151	12803.146
50	12095.227	12862.110	13268.424	13446.018	13510.597
51	12600.341	13487.217	13958.545	14162.136	14240.226
52	13135.604	14160.285	14707.361	14944.717	15031.554
53	13746.284	14942.139	15582.343	15857.148	15962.843
54	14418.581	15825.966	16575.517	16898.108	17021.452
55	15185.908	16847.699	17736.874	18119.852	18263.053
56	16035.410	18016.048	19069.803	19527.958	19697.123
57	16930.693	19295.983	20558.966	21104.514	21310.029
58	17795.393	20637.273	22149.248	22798.368	23043.767
59	18611.991	22035.994	23850.674	24634.381	24927.747

TABLE 2*d*

BENEFIT 2

1952 INTERCOMPANY STUDY, PERIOD 2, r'_x AND CSO TABLE WITH 2½% INTEREST

$_y^u\bar{M}'_x$

($y = u$ or 60, whichever is less)

x	$u=20$	25	30	35	40
15	7351.849	20468.610	36325.866	55198.561	77541.274
16	5011.721	17285.908	32696.442	51294.108	73463.537
17	2998.267	14278.882	29186.440	47477.677	69452.106
18	1383.276	11467.714	25805.807	43755.064	65512.554
19	305.448	8870.663	22564.992	40132.977	61648.506
20		6512.720	19474.831	36618.900	57866.092
21		4422.016	16549.235	33220.985	54172.284
22		2638.805	13802.089	29947.933	50570.711
23		1219.267	11247.184	26807.584	47068.570
24		279.647	8901.975	23809.505	43671.089
25			6681.783	20823.549	40222.539
26			4634.885	17876.974	36742.280
27			2822.429	15000.038	33249.921
28			1324.640	12213.711	29754.622
29			300.903	9574.497	26304.197
30				7119.690	22921.489
31				4894.770	19633.396
32				2957.620	16466.601
33				1382.468	13444.474
34				314.519	10593.740
35					7933.431
36					5505.105
37					3363.015
38					1589.850
39					363.823

TABLE 2d—*Continued*

$_{y}\bar{M}_{x}^{r}$

($y = u$ or 60, whichever is less)

x	$u=45$	50	55	60	65
15	105509.202	142566.474	192789.455	263055.368	328995.460
16	101318.592	138302.735	188476.433	258708.961	324626.797
17	97181.804	134082.375	184201.907	254397.292	320290.366
18	93102.145	129910.818	179968.583	250123.292	315987.742
19	89082.655	125788.678	175778.987	245886.770	311720.425
20	85127.535	121719.372	171634.032	241690.432	307489.831
21	81242.021	117707.443	167537.364	237538.197	303298.699
22	77429.545	113755.717	163492.354	233429.645	299149.589
23	73693.227	109865.473	159499.493	229367.057	295040.955
24	70037.159	106040.427	155560.515	225352.551	290975.243
25	66290.667	102097.920	151487.332	221191.814	286755.702
26	62468.371	98050.705	147289.727	216891.731	282389.075
27	58583.764	93907.756	142973.647	212459.330	277880.929
28	54638.302	89666.316	138533.970	207886.119	273219.612
29	50675.314	85367.175	134009.802	203210.543	268444.024
30	46711.794	81022.978	129410.887	198440.883	263561.001
31	42766.082	76646.364	124747.005	193582.672	258574.646
32	38856.407	72251.340	120027.943	188644.284	253491.926
33	34992.585	67840.630	115252.641	183622.597	248306.457
34	31188.735	63420.987	110421.034	178512.520	243012.646
35	27439.257	58972.577	105506.669	173283.636	237575.539
36	23758.987	54496.694	100501.858	167923.243	231978.092
37	20159.549	49988.307	95390.535	162405.923	226192.632
38	16644.464	45424.946	90135.092	156684.927	220163.871
39	13249.063	40814.826	84730.235	150743.784	213867.358
40	10014.898	36168.962	79163.916	144558.799	207273.282
41	6999.167	31497.638	73424.411	138100.763	200341.471
42	4293.323	26829.052	67514.277	131358.061	193049.202
43	2032.274	22201.833	61438.305	124318.802	185371.574
44	461.592	17672.098	55211.673	116974.261	177287.770
45		13324.744	48871.082	109337.017	168794.483
46		9259.800	42455.062	101413.672	159882.368
47		5627.903	36033.280	93241.329	150567.457
48		2623.707	29680.183	84843.942	140851.096
49		577.722	23494.878	76271.238	130750.757
50			17598.488	67576.913	120286.996
51			12136.127	58820.991	109480.671
52			7305.718	50094.460	98366.825
53			3363.300	41477.295	86959.285
54			717.925	33045.918	75230.250
55				24930.525	63183.667
56				17300.938	50818.475
57				10432.144	38166.360
58				4756.195	25334.755
59				972.299	12522.547

TABLE 2d—*Continued*

$\bar{M}_x^y$

($y = u$ or 60, whichever is less)

x	$u=70$	75	80	85	100
15	367605.603	390126.799	402120.219	407298.060	409236.861
16	363222.632	385735.879	397724.530	402900.781	404839.582
17	358870.725	381374.686	393358.694	398531.850	400470.651
18	354551.529	377044.945	389022.927	394194.576	396131.871
19	350265.148	372746.833	384718.949	389887.665	391824.960
20	346013.144	368481.983	380448.390	385614.251	387550.119
21	341798.396	364253.343	376212.805	381375.887	383310.366
22	337622.247	360062.323	372012.321	377172.699	379105.826
23	333484.669	355907.642	367848.431	373004.862	374936.674
24	329386.954	351790.725	363721.273	368873.863	370804.395
25	325130.824	347512.380	359431.167	364578.530	366507.755
26	320721.609	343077.878	354983.356	360125.395	362051.959
27	316164.770	338491.283	350381.882	355517.158	357441.017
28	311448.388	333741.861	345614.564	350741.580	352662.686
29	306610.292	328866.260	340718.127	345836.809	347755.137
30	301654.493	323868.474	335697.948	340806.833	342720.963
31	296586.464	318752.567	330556.694	335654.313	337564.219
32	291413.184	313524.101	325299.928	330384.812	332290.473
33	286125.174	308174.851	319917.922	324988.564	326889.952
34	280716.530	302695.872	314403.058	319457.910	321353.556
35	275148.373	297049.085	308714.044	313751.423	315639.788
36	269402.767	291214.584	302832.132	307848.768	309729.725
37	263447.636	285157.954	296722.480	301714.877	303588.260
38	257223.592	278818.303	290320.339	295286.177	297150.187
39	250702.549	272164.804	283595.766	288530.913	290383.616
40	243850.277	265158.284	276507.093	281407.031	283246.321
41	236619.515	257749.200	269003.604	273861.584	275685.140
42	228980.343	249903.712	261048.567	265857.250	267664.374
43	220899.434	241583.893	252600.692	257355.859	259141.959
44	212348.833	232754.817	243623.362	248316.423	250078.482
45	203316.323	223401.291	234097.788	238717.414	240452.197
46	193780.184	213493.814	223992.557	228526.490	230228.314
47	183744.859	203029.452	213298.764	217734.042	219399.157
48	173195.462	191984.542	201990.538	206310.914	207932.941
49	162133.185	180349.091	190051.055	194239.351	195811.537
50	150555.432	168110.714	177457.755	181493.200	183008.391
51	138460.205	155248.604	164189.331	168047.182	169497.794
52	125859.864	141761.387	150230.786	153885.046	155257.568
53	112724.260	127601.102	135523.425	138940.329	140226.014
54	98977.976	112658.963	119941.082	123083.181	124263.171
55	84559.395	96832.997	103365.565	106185.073	107241.719
56	69373.487	79985.298	85628.691	88065.221	88978.666
57	53338.077	61969.250	66558.888	68537.263	69281.543
58	36407.384	42673.267	45999.922	47432.749	47971.514
59	18611.991	22035.994	23850.674	24634.381	24927.747

TABLE 2e

BENEFIT 2

1952 INTERCOMPANY STUDY, PERIOD 2, r'_x AND CSO TABLE WITH 2½% INTEREST
NET ANNUAL PREMIUMS—WAIVER OF $100 OF ANNUAL PREMIUM
NOT RETROACTIVE

Waiver to Age u; Disability Coverage and Premiums to Age u or 60, whichever is less

x	$u=40$	45	50	55	60	65	85	100
15	$0.636	$0.768	$0.948	$1.194	$1.545	$1.932	$ 2.392	$ 2.403
25	.640	.847	1.117	1.480	1.988	2.577	3.277	3.294
35	.440	.819	1.265	1.833	2.608	3.575	4.722	4.750
45			1.015	2.030	3.317	5.121	7.242	7.294
55					2.804	7.106	11.942	12.061

TABLE 2f

BENEFIT 2

1952 INTERCOMPANY STUDY, PERIOD 2, r'_x AND CSO TABLE WITH 2½% INTEREST
NET ANNUAL PREMIUMS FOR $10 MONTHLY INCOME FOR LIFE
NOT RETROACTIVE

Disability Coverage and Premiums to Age u

x	$u=40$	45	50	55	60			
15	$ 4.067	$ 3.609	$ 3.294	$ 3.071	$ 2.910			
25	7.060	5.665	4.852	4.333	3.987			
35	21.195	11.405	8.194	6.635	5.747			
45			22.156	12.081	8.822			
55					14.579			

TABLE 2g

BENEFIT 2

1952 INTERCOMPANY STUDY, PERIOD 2, r'_x AND CSO TABLE WITH 2½% INTEREST
NET ANNUAL PREMIUMS FOR $10 MONTHLY INCOME TO AGE u
NOT RETROACTIVE

Disability Coverage and Premiums to Age u or 60, whichever is less

x	$u=40$	45	50	55	60	65	85	100
15	$0.778	$0.939	$1.156	$1.456	$1.880	$2.345	$ 2.897	$ 2.910
25	.785	1.036	1.364	1.804	2.420	3.127	3.966	3.987
35	.550	1.009	1.550	2.238	3.177	4.338	5.713	5.747
45			1.264	2.491	4.049	6.213	8.759	8.822
55					3.470	8.633	14.436	14.579

TABLE 2*h*

BENEFIT 2*

1952 INTERCOMPANY STUDY, 1930-1950 TERMINATION RATES WITH 2½% INTEREST

MEAN RESERVES—DISABLED LIVES

TEMPORARY BENEFIT OF $1 PER ANNUM

YEARS TO RUN FROM LAST POLICY ANNIVERSARY	AGE AT DATE OF DISABLEMENT				
	15½	25½	35½	45½	55½
	1st Year of Disability				
1	$0.408	$ 0.406	$ 0.407	$ 0.417	$0.441
5	1.793	1.908	2.041	2.265	2.682
10	2.459	2.773	3.118	3.581	4.302
15	2.820	3.292	3.807	4.428	5.268
20	3.042	3.626	4.266	4.983	5.834
25	3.183	3.846	4.576	5.332	6.132
	5th Year of Disability				
1	$0.474	$ 0.479	$ 0.483	$ 0.485	$0.485
5	3.119	3.352	3.530	3.603	3.552
10	4.991	5.605	6.069	6.217	5.965
15	6.130	7.044	7.752	7.934	7.393
20	6.852	7.988	8.888	9.024	8.167
25	7.317	8.617	9.641	9.677	8.510
	10th Year of Disability				
1	$0.485	$ 0.487	$ 0.489	$ 0.489	$0.487
5	3.540	3.655	3.728	3.735	3.602
10	6.006	6.316	6.538	6.523	6.036
15	7.568	8.061	8.434	8.294	7.356
20	8.575	9.225	9.692	9.354	7.941
25	9.236	10.010	10.491	9.928	8.131
	15th Year of Disability				
1	$0.488	$ 0.489	$ 0.490	$ 0.490	$0.487
5	3.668	3.726	3.781	3.736	3.558
10	6.315	6.504	6.675	6.433	5.765
15	8.022	8.357	8.596	8.048	6.743
20	9.141	9.607	9.816	8.923	7.061
25	9.888	10.436	10.546	9.312	7.126

* For 16th and subsequent years of disability same as Benefit 5.

TABLE 2*h*—*Continued*

BENEFIT 2*

LIFE BENEFIT OF $1 PER ANNUM

AGE AT DATE OF DISABLEMENT	YEAR OF DISABILITY				
	1	5	10	15	
15½	$3.444	$ 8.177	$10.437	$11.177	
25½	4.244	9.703	11.234	11.556	
35½	5.046	10.658	11.390	11.188	
45½	5.708	10.250	10.285	9.466	
55½	6.302	8.647	8.174	7.133	

* For 16th and subsequent years of disability same as Benefit 5.

TABLE 2*i*

BENEFIT 2

1952 INTERCOMPANY STUDY, 1930–1950 TERMINATION RATES
WITH 2½% INTEREST

MEAN RESERVES—DISABLED LIVES

TEMPORARY BENEFIT OF $1 PER ANNUM

YEARS TO RUN FROM LAST POLICY ANNIVERSARY	AGE AT DATE OF DISABILITY				
	15½	25½	35½	45½	55½
	1st Year of Disability				
1	$0.425	$ 0.428	$ 0.431	$0.439	$0.456
5	2.026	2.197	2.366	2.585	2.919
10	2.820	3.245	3.673	4.145	4.722
15	3.253	3.877	4.511	5.152	5.801
20	3.520	4.283	5.070	5.812	6.433
25	3.689	4.550	5.446	6.227	6.766
	5th Year of Disability				
1	$0.475	$ 0.480	$ 0.483	$0.486	$0.486
5	3.140	3.373	3.547	3.615	3.561
10	5.039	5.649	6.105	6.248	5.989
15	6.195	7.101	7.800	7.978	7.427
20	6.926	8.054	8.944	9.076	8.206
25	7.398	8.689	9.702	9.734	8.551
	10th Year of Disability				
1	$0.485	$ 0.488	$ 0.489	$0.489	$0.487
5	3.546	3.657	3.730	3.740	3.608
10	6.017	6.319	6.540	6.533	6.046
15	7.581	8.063	8.436	8.306	7.368
20	8.590	9.227	9.694	9.368	7.954
25	9.251	10.012	10.493	9.944	8.144
	15th Year of Disability				
1	$0.488	$ 0.489	$ 0.490	$0.490	$0.487
5	3.665	3.723	3.779	3.735	3.556
10	6.310	6.499	6.671	6.431	5.761
15	8.016	8.351	8.591	8.045	6.739
20	9.134	9.600	9.810	8.920	7.056
25	9.880	10.429	10.540	9.308	7.121

TABLE 2*i*—*Continued*

Years to Run from Last Policy Anniversary	Attained Age					
	30½	40½	50½	60½	70½	80½
	16th and Subsequent Years of Disability					
1	$0.488	$ 0.489	$ 0.490	$0.489	$0.487	$0.477
5	3.676	3.732	3.786	3.723	3.533	2.968
10	6.339	6.524	6.683	6.383	5.658	4.015
15	8.062	8.392	8.591	7.953	6.552	4.209
20	9.195	9.652	9.790	8.778	6.820	4.226
25	9.954	10.482	10.498	9.124	6.870	

LIFE BENEFIT OF $1 PER ANNUM

Age at Date of Disability	Year of Disability				Attained Age	16th and Subs. Years of Dis.
	1	5	10	15		
15½	$4.002	$ 8.269	$10.454	$11.168	30½	$11.242
25½	5.032	9.785	11.236	11.547	40½	11.565
35½	6.018	10.726	11.391	11.181	50½	11.082
45½	6.673	10.311	10.301	9.462	60½	9.249
55½	6.956	8.689	8.187	7.128	70½	6.874
					80½	4.226
					90½	2.308

TABLE 3*a*

BENEFIT 3

1952 INTERCOMPANY STUDY, 1930–1950 TERMINATION RATES WITH 2½% INTEREST

$$\bar{a}^{i}_{[x+1/2]+1/4:\,\overline{u-x-3/4}|}$$

(x = age at policy anniversary preceding disablement)

x	$u=40$	45	50	55	60	65	85	100
15	2.292	2.356	2.397	2.425	2.444	2.456	2.472	2.473
25	2.235	2.453	2.597	2.692	2.757	2.800	2.855	2.856
35	1.470	2.220	2.697	3.014	3.228	3.369	3.552	3.557
45			1.725	2.718	3.354	3.772	4.312	4.325
55					2.163	3.502	5.128	5.169

TABLE 3*b*

BENEFIT 3

1952 INTERCOMPANY STUDY, PERIOD 2, r' AND CSO TABLE WITH 2½% INTEREST RATES OF DISABLEMENT AND COMMUTATION COLUMNS

x	r'_x	C^r_x	${}_{60}M^r_x$	${}^{\omega}\bar{C}^r_x$	${}^{\omega}\bar{M}^r_x$
15	.00366	2399.407	123569.262	5897.217	501102.727
16	.00366	2335.805	121169.855	5773.396	495205.510
17	.00366	2273.775	118834.050	5667.533	489432.114
18	.00366	2213.270	116560.275	5576.110	483764.581
19	.00366	2154.246	114347.005	5495.916	478188.471
20	.00366	2096.661	112192.759	5426.106	472692.555
21	.00368	2051.621	110096.098	5395.181	467266.449
22	.00371	2012.754	108044.477	5384.988	461871.268
23	.00375	1979.605	106031.723	5394.671	456486.280
24	.00380	1951.740	104052.118	5425.422	451091.609
25	.00386	1928.738	102100.378	5474.575	445666.187
26	.00393	1910.197	100171.640	5541.549	440191.612
27	.00401	1895.744	98261.443	5620.202	434650.063
28	.00410	1885.003	96365.699	5710.129	429029.861
29	.00421	1882.090	94480.696	5828.500	423319.732
30	.00433	1881.952	92598.606	5960.869	417491.232
31	.00447	1888.506	90716.654	6116.765	411530.363
32	.00463	1901.095	88828.148	6295.464	405413.598
33	.00480	1915.098	86927.053	6482.681	399118.134
34	.00512	1984.508	85011.955	6865.559	392635.453
35	.00549	2066.741	83027.447	7306.156	385769.894
36	.00590	2156.678	80960.706	7786.994	378463.738
37	.00634	2249.675	78804.028	8297.165	370676.744
38	.00683	2351.894	76554.353	8856.484	362379.579
39	.00734	2451.973	74202.459	9425.863	353523.095
40	.00788	2552.766	71750.486	10011.223	344097.232
41	.00843	2647.326	69197.720	10592.543	334086.009
42	.00899	2735.576	66550.394	11152.276	323493.466
43	.00955	2814.496	63814.818	11683.800	312341.190
44	.01010	2881.416	61000.322	12173.516	300657.390
45	.01066	2942.310	58118.906	12647.178	288483.874
46	.01123	2997.072	55176.596	13108.942	275836.696
47	.01185	3055.885	52179.524	13600.040	262727.754
48	.01255	3125.032	49123.639	14156.236	249127.714
49	.01336	3209.752	45998.607	14798.405	234971.478
50	.01433	3318.921	42788.855	15578.797	220173.073
51	.01548	3453.086	39469.934	16496.831	204594.276
52	.01687	3620.777	36016.848	17611.030	188097.445
53	.01852	3820.343	32396.071	18919.614	170486.415
54	.02045	4049.592	28575.728	20425.200	151566.801
55	.02270	4309.611	24526.136	22139.287	131141.601
56	.02527	4593.013	20216.525	24033.393	109002.314
57	.02817	4894.307	15623.512	26091.499	84968.921
58	.03140	5206.176	10729.205	28287.002	58877.422
59	.03497	5523.029	5523.029	30590.420	30590.420

TABLE 3c

BENEFIT 3

1952 INTERCOMPANY STUDY, PERIOD 2, r'_x AND CSO TABLE WITH 2½% INTEREST

${}^{u}\bar{C}_x^r$

x	$u=20$	25	30	35	40
15	3133.418	4263.738	4864.668	5231.902	5465.597
16	2662.680	3974.288	4640.539	5044.467	5302.146
17	2119.676	3678.925	4420.134	4865.311	5147.783
18	1412.175	3369.862	4201.330	4691.851	5004.201
19	419.634	3044.485	3980.097	4523.908	4866.466
20		2690.132	3752.848	4352.970	4730.131
21		2308.142	3537.656	4206.447	4624.441
22		1856.341	3314.608	4064.746	4528.831
23		1255.215	3077.048	3923.039	4442.439
24		384.066	2822.306	3780.532	4362.451
25			2534.099	3632.465	4284.200
26			2200.293	3472.249	4205.047
27			1786.105	3291.483	4120.476
28			1217.711	3087.366	4024.067
29			375.972	2860.005	3926.194
30				2590.462	3811.814
31				2265.399	3684.323
32				1855.386	3535.058
33				1273.316	3351.732
34				402.348	3212.869
35					3019.412
36					2732.843
37					2305.141
38					1626.844
39					504.435

TABLE 3c—*Continued*

$u\bar{C}_x$

x	$u=45$	50	55	60	65
15	5618.214	5715.984	5782.754	5828.063	5856.678
16	5466.968	5576.075	5650.361	5699.111	5731.611
17	5330.826	5450.594	5531.946	5586.181	5620.078
18	5204.370	5336.348	5424.334	5483.725	5523.319
19	5086.987	5232.575	5331.060	5395.290	5438.110
20	4976.014	5134.380	5242.735	5315.667	5361.509
21	4895.627	5073.020	5191.281	5270.802	5323.816
22	4830.886	5026.922	5158.946	5248.963	5306.974
23	4776.901	4997.252	5142.841	5241.212	5308.105
24	4734.878	4981.224	5144.161	5254.726	5328.436
25	4702.077	4978.106	5160.209	5284.805	5367.230
26	4675.860	4983.408	5188.439	5327.025	5420.049
27	4648.018	4992.804	5224.546	5380.924	5482.664
28	4617.936	5005.730	5266.133	5440.359	5556.510
29	4595.836	5033.534	5327.204	5525.478	5656.413
30	4569.314	5064.962	5394.147	5618.591	5766.351
31	4542.059	5101.371	5476.748	5728.250	5895.293
32	4511.875	5144.823	5569.936	5855.235	6044.175
33	4461.363	5180.815	5660.450	5984.013	6197.184
34	4514.583	5350.836	5908.996	6285.704	6534.213
35	4559.929	5539.697	6190.822	6630.383	6920.000
36	4576.172	5725.037	6483.803	6998.221	7336.879
37	4543.207	5889.176	6776.801	7376.003	7771.745
38	4457.460	6042.231	7080.045	7778.934	8241.743
39	4286.477	6145.819	7356.950	8170.869	8709.420
40	4008.548	6198.028	7608.631	8554.953	9181.606
41	3591.361	6175.037	7811.540	8906.050	9632.215
42	2977.021	6065.511	7957.755	9216.532	10048.467
43	2044.735	5851.690	8036.284	9474.032	10425.071
44	604.237	5512.590	8029.767	9664.930	10744.539
45		5044.250	7947.984	9807.777	11030.094
46		4414.327	7783.155	9900.959	11280.064
47		3580.716	7547.141	9964.656	11528.752
48		2410.101	7233.408	10019.311	11798.934
49		685.850	6829.788	10058.067	12099.666
50			6310.023	10099.995	12465.016
51			5611.050	10120.481	12879.677
52			4638.459	10108.170	13372.004
53			3158.964	10004.652	13907.796
54			885.427	9751.775	14460.639
55				9264.322	14999.378
56				8399.134	15447.104
57				6980.108	15725.917
58				4682.593	15744.896
59				1235.034	15391.268

TABLE 3c—*Continued*

$u\bar{C}_x^r$

x	$u=70$	75	80	85	100
15	5875.755	5887.679	5892.448	5894.833	5897.217
16	5752.504	5764.111	5771.075	5773.396	5773.396
17	5642.676	5656.234	5665.273	5667.533	5667.533
18	5549.714	5562.912	5571.711	5576.110	5576.110
19	5465.942	5483.070	5491.634	5495.916	5495.916
20	5392.766	5411.520	5419.855	5424.022	5426.106
21	5358.479	5378.869	5389.064	5393.142	5395.181
22	5344.981	5366.985	5376.986	5382.988	5384.988
23	5349.420	5373.029	5386.801	5392.704	5394.671
24	5374.989	5402.145	5417.663	5423.482	5425.422
25	5418.986	5449.656	5464.991	5472.658	5474.575
26	5477.002	5513.073	5530.159	5537.752	5541.549
27	5548.607	5588.172	5608.897	5616.434	5620.202
28	5629.573	5672.661	5697.015	5706.382	5710.129
29	5738.715	5787.349	5813.536	5824.759	5828.500
30	5857.999	5914.110	5944.036	5957.128	5960.869
31	6000.398	6064.212	6096.119	6111.134	6116.765
32	6163.206	6235.004	6272.791	6289.796	6295.464
33	6332.319	6414.161	6456.034	6475.067	6482.681
34	6691.997	6784.695	6835.974	6857.670	6865.559
35	7102.808	7213.725	7271.238	7295.886	7306.156
36	7551.219	7679.824	7746.269	7776.277	7786.994
37	8022.158	8169.723	8250.213	8283.750	8297.165
38	8533.920	8709.227	8800.386	8842.460	8856.484
39	9050.583	9252.845	9360.068	9406.368	9425.863
40	9574.849	9810.796	9937.648	9990.927	10011.223
41	10090.015	10361.012	10505.719	10568.864	10592.543
42	10575.902	10885.839	11054.401	11125.088	11152.276
43	11023.667	11381.705	11571.913	11653.031	11683.800
44	11426.095	11829.874	12047.514	12139.152	12173.516
45	11799.159	12258.259	12503.892	12609.163	12647.178
46	12152.802	12668.105	12945.117	13064.262	13108.942
47	12515.803	13101.959	13414.778	13548.409	13600.040
48	12923.234	13587.875	13945.042	14100.332	14156.236
49	13385.236	14147.646	14555.965	14731.415	14798.405
50	13946.041	14826.740	15298.424	15499.633	15578.797
51	14602.458	15628.577	16174.238	16411.035	16496.831
52	15390.759	16589.057	17229.589	17506.673	17611.030
53	16296.003	17712.221	18467.791	18794.318	18919.614
54	17306.081	18992.418	19889.919	20280.312	20425.200
55	18413.000	20426.051	21501.107	21963.680	22139.287
56	19569.070	21979.257	23266.515	23823.415	24033.393
57	20736.029	23630.220	25177.032	25843.426	26091.499
58	21850.376	25332.570	27184.911	27986.902	28287.002
59	22856.363	27049.989	29273.050	30228.143	30590.420

TABLE *3d*

BENEFIT 3

1952 INTERCOMPANY STUDY, PERIOD 2, r_x' AND CSO TABLE WITH $2\frac{1}{2}\%$ INTEREST

${}^{u}\bar{M}_x^r$

(y = *u* or 60, whichever is less)

x	*u* = 20	25	30	35	40
15	9747.583	26825.194	46725.414	69415.652	96818.941
16	6614.165	22561.456	41860.746	64183.750	91353.344
17	3951.485	18587.168	37220.207	59139.283	86051.198
18	1831.809	14908.243	32800.073	54273.972	80903.415
19	419.634	11538.381	28598.743	49582.121	75899.214
20		8493.896	24618.646	45058.213	71032.748
21		5803.764	20865.798	40705.243	66302.617
22		3495.622	17328.142	36498.796	61678.176
23		1639.281	14013.534	32434.050	57149.345
24		384.066	10936.486	28511.011	52706.906
25			8114.180	24730.479	48344.455
26			5580.081	21098.014	44060.255
27			3379.788	17625.765	39855.208
28			1593.683	14334.282	35734.732
29			375.972	11246.916	31710.665
30				8386.911	27784.471
31				5796.449	23972.657
32				3531.050	20288.334
33				1675.664	16753.276
34				402.348	13401.544
35					10188.675
36					7169.263
37					4436.420
38					2131.279
39					504.435

TABLE 3d—*Continued*

${}^{u}\bar{M}_{x}^{y}$

($y = u$ or 60, whichever is less)

x	$u=45$	50	55	60	65
15	132409.739	178640.823	239055.024	323922.065	403861.608
16	126791.525	172924.839	233272.270	318094.002	398004.930
17	121324.557	167348.764	227621.909	312394.891	392273.319
18	115993.731	161898.170	222089.963	306808.710	386653.241
19	110789.361	156561.822	216665.629	301324.985	381129.922
20	105702.374	151329.247	211334.569	295929.695	375691.812
21	100726.360	146194.867	206091.834	290614.028	370330.303
22	95830.733	141121.847	200900.553	285343.226	365006.487
23	90999.847	136094.925	195741.607	280094.263	359699.513
24	86222.946	131097.673	190598.766	274853.051	354391.408
25	81488.068	126116.449	185454.605	269598.325	349062.972
26	76785.991	121138.343	180294.396	264313.520	343695.742
27	72110.131	116154.935	175105.957	258986.495	338275.693
28	67462.113	111162.131	169881.411	253605.571	332793.029
29	62844.177	106156.401	164615.278	248165.212	327236.519
30	58248.341	101122.867	159288.074	242639.734	321580.106
31	53679.027	96057.905	153893.927	237021.143	315813.755
32	49136.968	90956.534	148417.179	231292.893	309918.462
33	44625.093	85811.711	142847.243	225437.658	303874.287
34	40163.730	80630.896	137186.793	219453.645	297677.103
35	35649.147	75280.060	131277.797	213167.941	291142.890
36	31089.218	69740.363	125086.975	206537.558	284222.890
37	26513.046	64015.326	118603.172	199539.337	276886.011
38	21969.839	58126.150	111826.371	192163.334	269114.266
39	17512.379	52083.919	104746.326	184384.400	260872.523
40	13225.902	45938.100	97389.376	176213.531	252163.103
41	9217.354	39740.072	89780.745	167658.578	242981.497
42	5625.993	33565.035	81969.205	158752.528	233349.282
43	2648.972	27499.524	74011.450	149535.996	223300.815
44	604.237	21647.834	65975.166	140061.964	212875.744
45		16135.244	57945.399	130397.034	202131.205
46		11090.994	49997.415	120589.257	191101.111
47		6676.667	42214.260	110688.298	179821.047
48		3095.951	34667.119	100723.642	168292.295
49		685.850	27433.711	90704.331	156493.361
50			20603.923	80646.264	144393.695
51			14293.900	70546.269	131928.679
52			8682.850	60425.788	119049.002
53			4044.391	50317.618	105676.998
54			885.427	40312.966	91769.202
55				30561.191	77308.563
56				21296.869	62309.185
57				12897.735	46862.081
58				5917.627	31136.164
59				1235.034	15391.268

TABLE 3*d*—*Continued*

${}^{u}\bar{M}_x^y$

($y = u$ or 60, whichever is less)

x	$u=70$	75	80	85	100
15	450659.658	477935.161	492474.801	498745.827	501102.727
16	444783.903	472047.482	486582.353	492850.994	495205.510
17	439031.399	466283.371	480811.278	487077.598	489432.114
18	433388.723	460627.137	475146.005	481410.065	483764.581
19	427839.009	455064.225	469574.294	475833.955	478188.471
20	422373.067	449581.155	464082.660	470338.039	472692.555
21	416980.301	444169.635	458662.805	464914.017	467266.449
22	411621.822	438790.766	453273.741	459520.875	461871.268
23	406276.841	433423.781	447896.755	454137.887	456486.280
24	400927.421	428050.752	442509.954	448745.183	451091.609
25	395552.432	422648.607	437092.291	443321.701	445666.187
26	390133.446	417198.951	431627.300	437849.043	440191.612
27	384656.444	411685.878	426097.141	432311.291	434650.063
28	379107.837	406097.706	420488.244	426694.857	429029.861
29	373478.264	400425.045	414791.229	420988.475	423319.732
30	367739.549	394637.696	408977.693	415163.716	417491.232
31	361881.550	388723.586	403033.657	409206.588	411530.363
32	355881.152	382659.374	396937.538	403095.454	405413.598
33	349717.946	376424.370	390664.747	396805.658	399118.134
34	343385.627	370010.209	384208.713	390330.591	392635.453
35	336693.630	363225.514	377372.739	383472.921	385769.894
36	329590.822	356011.789	370101.501	376177.035	378463.738
37	322039.603	348331.965	362355.232	368400.758	370676.744
38	314017.445	340162.242	354105.019	360117.008	362379.579
39	305483.525	331453.015	345304.633	351274.548	353523.095
40	296432.942	322200.170	335944.565	341868.180	344097.232
41	286858.093	312389.374	326006.917	331877.253	334086.009
42	276768.078	302028.362	315501.198	321308.389	323493.466
43	266192.176	291142.523	304446.797	310183.301	312341.190
44	255168.509	279760.818	292874.884	298530.270	300657.390
45	243742.414	267930.944	280827.370	286391.118	288483.874
46	231943.255	255672.685	268323.478	273781.955	275836.696
47	219790.453	243004.580	255378.361	260717.693	262727.754
48	207274.650	229902.621	241963.583	247169.284	249127.714
49	194351.416	216314.746	228018.541	233068.952	234971.478
50	180966.180	202167.100	213462.576	218337.537	220173.073
51	167020.139	187340.360	198164.152	202837.904	204594.276
52	152417.681	171711.783	181989.914	186426.869	188097.445
53	137026.922	155122.726	164760.325	168920.196	170486.415
54	120730.919	137410.505	146292.534	150125.878	151566.801
55	103424.838	118418.087	126402.615	129845.566	131141.601
56	85011.838	97992.036	104901.508	107881.886	109002.314
57	65442.768	76012.779	81634.993	84058.471	84968.921
58	44706.739	52382.559	56457.961	58215.045	58877.422
59	22856.363	27049.989	29273.050	30228.143	30590.420

TABLE 3e

BENEFIT 3

1952 INTERCOMPANY STUDY, PERIOD 2, r_x AND CSO TABLE WITH 2½% INTEREST
NET ANNUAL PREMIUMS—WAIVER OF $100 OF ANNUAL PREMIUM
RETROACTIVE

Waiver to Age *u;* Disability Coverage and Premiums to Age *u* or 60, whichever is less

x	$u=40$	45	50	55	60	65	85	100
15	$0.900	$1.083	$1.321	$1.634	$2.082	$2.552	$ 3.109	$ 3.123
25	.889	1.180	1.541	2.000	2.651	3.365	4.212	4.233
35	.721	1.249	1.830	2.533	3.518	4.692	6.081	6.116
45			1.520	2.754	4.394	6.570	9.126	9.190
55					4.122	9.380	15.289	15.434

TABLE 3f

BENEFIT 3

1952 INTERCOMPANY STUDY, PERIOD 2, r'_x AND CSO TABLE WITH 2½% INTEREST
NET ANNUAL PREMIUMS FOR $10 MONTHLY INCOME FOR LIFE
RETROACTIVE

Disability Coverage and Premiums to Age *u*

x	$u=40$	45	50	55	60			
15	$ 5.186	$ 4.602	$ 4.201	$ 3.916	$ 3.711			
25	8.914	7.154	6.127	5.472	5.034			
35	26.836	14.441	10.375	8.401	7.277			
45			27.476	14.981	10.940			
55					18.384			

TABLE 3g

BENEFIT 3

1952 INTERCOMPANY STUDY, PERIOD 2, r_x AND CSO TABLE WITH 2½% INTEREST
NET ANNUAL PREMIUMS FOR $10 MONTHLY INCOME TO AGE *u*
RETROACTIVE

Disability Coverage and Premiums to Age *u* or 60, whichever is less

x	$u=40$	45	50	55	60	65	85	100
15	$1.059	$1.275	$1.558	$1.930	$2.463	$3.026	$ 3.695	$ 3.711
25	1.043	1.388	1.816	2.362	3.135	3.992	5.009	5.034
35	.834	1.462	2.153	2.990	4.160	5.568	7.236	7.277
45			1.765	3.235	5.185	7.796	10.864	10.940
55					4.810	11.119	18.209	18.384

TABLE 3*h*

BENEFIT 3*

1952 INTERCOMPANY STUDY, 1930–1950 TERMINATION RATES WITH 2½% INTEREST

MEAN RESERVES—DISABLED LIVES

TEMPORARY BENEFIT OF $1 PER ANNUM

YEARS TO RUN FROM LAST POLICY ANNIVERSARY	AGE AT DATE OF DISABLEMENT				
	15½	25½	35½	45½	55½
	1st Year of Disability				
1	$0.416	$0.397	$0.401	$0.414	$0.437
5	1.866	1.856	2.003	2.243	2.659
10	2.564	2.695	3.059	3.547	4.265
15	2.941	3.199	3.735	4.386	5.222
20	3.174	3.524	4.185	4.935	5.784
25	3.322	3.738	4.489	5.281	6.079

LIFE BENEFIT OF $1 PER ANNUM

AGE AT DATE OF DISABLEMENT	YEAR OF DISABILITY				
	1				
15½	$3.595				
25½	4.123				
35½	4.950				
45½	5.653				
55½	6.247				

* For 3d and subsequent years of disability same as Benefit 2.

TABLE 3*i*

BENEFIT 3*

1952 INTERCOMPANY STUDY, 1930–1950 TERMINATION RATES
WITH 2½% INTEREST

MEAN RESERVES—DISABLED LIVES
TEMPORARY BENEFIT OF $1 PER ANNUM

YEARS TO RUN FROM LAST POLICY ANNIVERSARY	AGE AT DATE OF DISABILITY				
	15½	25½	35½	45½	55½
	1st Year of Disability				
1	$0.434	$0.427	$0.430	$0.439	$0.456
5	2.074	2.195	2.364	2.586	2.918
10	2.889	3.241	3.671	4.147	4.722
15	3.332	3.872	4.508	5.154	5.800
20	3.606	4.278	5.066	5.814	6.432
25	3.780	4.545	5.442	6.229	6.764

LIFE BENEFIT OF $1 PER ANNUM

AGE AT DATE OF DISABILITY	YEAR OF DISABILITY				
	1				
15½	$4.100				
25½	5.027				
35½	6.014				
45½	6.676				
55½	6.954				

* For 3d and subsequent years of disability same as Benefit 2.

TABLE 4*a*

BENEFIT 4

1952 INTERCOMPANY STUDY, 1930–1950 TERMINATION RATES
WITH 2½% INTEREST

$\bar{a}^{\,i}_{[x+1/2]+1/3:\,\overline{u-x-5/6}|}$

(x = age at policy anniversary preceding disablement)

x	$u=40$	45	50	55	60	65	85	100
15	3.076	3.164	3.222	3.261	3.287	3.304	3.327	3.327
25	3.048	3.359	3.563	3.700	3.792	3.853	3.932	3.934
35	1.807	2.791	3.416	3.831	4.112	4.297	4.537	4.543
45			1.991	3.199	3.972	4.480	5.137	5.154
55					2.443	4.020	5.936	5.984

TABLE 4*b*

BENEFIT 4

1952 INTERCOMPANY STUDY, PERIOD 2, r'_x AND CSO TABLE WITH 2½% INTEREST RATES OF DISABLEMENT AND COMMUTATION COLUMNS

x	r'_x	C^r_x	${}_{60}M^r_x$	$\omega\overline{C}^r_x$	$\omega\overline{M}^r_x$
15	.00244	1599.605	85120.723	5278.262	426262.526
16	.00244	1557.203	83521.118	5231.012	420984.264
17	.00244	1515.850	81963.915	5182.303	415753.252
18	.00244	1475.513	80448.065	5132.207	410570.949
19	.00244	1436.164	78972.552	5082.231	405438.742
20	.00244	1397.774	77536.388	5028.168	400356.511
21	.00244	1360.314	76138.614	4977.062	395328.343
22	.00244	1323.752	74778.300	4922.066	390351.281
23	.00244	1288.063	73454.548	4867.294	385429.215
24	.00244	1253.222	72166.485	4812.699	380561.921
25	.00244	1219.202	70913.263	4757.024	375749.222
26	.00244	1185.975	69694.061	4697.954	370992.198
27	.00244	1153.520	68508.086	4640.324	366294.244
28	.00244	1121.807	67354.566	4580.619	361653.920
29	.00255	1139.983	66232.759	4722.675	357073.301
30	00268	1164.811	65092.776	4896.005	352350.626
31	.00282	1191.407	63927.965	5078.693	347454.621
32	.00299	1227.705	62736.558	5307.697	342375.928
33	.00316	1260.773	61508.853	5526.936	337068.231
34	.00333	1290.706	60248.080	5737.525	331541.295
35	.00352	1325.124	58957.374	5970.692	325803.770
36	.00371	1356.148	57632.250	6192.527	319833.078
37	.00392	1390.966	56276.102	6437.046	313640.551
38	.00416	1432.486	54885.136	6718.698	307203.505
39	.00444	1483.210	53452.650	7050.752	300484.807
40	.00476	1542.026	51969.440	7425.169	293434.055
41	.00513	1611.006	50427.414	7859.578	286008.886
42	.00556	1691.858	48816.408	8354.712	278149.308
43	.00604	1780.058	47124.550	8896.188	269794.596
44	.00656	1871.494	45344.492	9457.100	260898.408
45	.00713	1967.980	43472.998	10059.825	251441.308
46	.00773	2062.989	41505.018	10670.297	241381.483
47	.00837	2158.461	39442.029	11305.396	230711.186
48	.00903	2248.529	37283.568	11937.715	219405.790
49	.00975	2342.447	35035.039	12612.903	207468.075
50	.01053	2438.817	32692.592	13322.894	194855.172
51	.01160	2587.584	30253.775	14351.158	181532.278
52	.01281	2749.387	27666.191	15491.235	167181.120
53	.01423	2935.393	24916.804	16812.937	151689.885
54	.01583	3134.721	21981.411	18274.849	134876.948
55	.01760	3341.372	18846.690	19830.868	116602.099
56	.01951	3546.089	15505.318	21436.243	96771.231
57	.02164	3759.773	11959.229	23179.178	75334.988
58	.02402	3982.559	8199.456	25054.305	52155.810
59	.02670	4216.897	4216.897	27101.505	27101.505

TABLE 4*c*

BENEFIT 4

1952 INTERCOMPANY STUDY, PERIOD 2, r'_x AND CSO TABLE WITH 2½% INTEREST

${}^{u}\bar{C}_x^r$

x	$u=20$	25	30	35	40
15	2711.317	3763.161	4320.020	4662.703	4880.052
16	2304.301	3538.307	4163.805	4545.281	4786.213
17	1811.626	3292.499	3996.101	4420.067	4687.676
18	1150.247	3023.422	3818.058	4287.815	4584.889
19	219.356	2726.286	3626.502	4147.830	4476.864
20		2395.554	3418.655	3996.749	4359.964
21		2021.046	3197.516	3838.369	4239.070
22		1576.794	2957.966	3670.871	4112.006
23		995.176	2699.368	3491.421	3976.873
24		191.414	2418.779	3301.273	3834.498
25			2112.486	3099.200	3685.666
26			1767.908	2882.996	3527.583
27			1369.445	2654.228	3361.260
28			860.048	2407.690	3185.405
29			174.118	2240.925	3134.129
30				2042.505	3077.621
31				1787.823	3000.186
32				1457.516	2915.033
33				962.837	2783.475
34				195.859	2602.496
35					2374.871
36					2071.349
37					1673.411
38					1101.077
39					225.071

TABLE 4c—*Continued*

${}^{u}\bar{C}_x^r$

x	$u=45$	50	55	60	65
15	5019.664	5111.680	5173.554	5214.802	5241.773
16	4942.202	5044.135	5113.634	5159.967	5189.312
17	4862.073	4974.830	5051.505	5102.621	5137.200
18	4776.596	4903.914	4987.329	5044.402	5082.451
19	4689.098	4828.689	4922.699	4985.372	5026.679
20	4595.638	4749.519	4852.106	4921.422	4967.170
21	4498.109	4668.104	4782.783	4858.336	4909.604
22	4396.905	4583.337	4708.063	4793.402	4848.543
23	4289.862	4495.540	4632.233	4725.491	4786.811
24	4177.552	4403.768	4554.165	4656.087	4723.206
25	4061.730	4308.408	4474.070	4585.317	4659.078
26	3938.095	4208.633	4389.776	4510.930	4592.092
27	3810.877	4106.046	4302.825	4435.536	4523.629
28	3674.954	3997.611	4212.345	4356.985	4453.782
29	3692.664	4058.990	4304.339	4469.412	4577.953
30	3717.636	4136.997	4416.570	4604.878	4729.647
31	3732.804	4211.369	4531.593	4746.652	4889.630
32	3760.075	4310.449	4678.177	4925.358	5089.739
33	3757.566	4386.537	4806.684	5090.533	5278.099
34	3720.046	4438.197	4916.964	5240.836	5453.337
35	3668.105	4489.519	5034.938	5404.245	5647.384
36	3573.750	4509.892	5131.297	5549.602	5826.679
37	3451.669	4522.211	5228.548	5704.497	6020.417
38	3301.809	4532.173	5339.156	5881.880	6241.328
39	3115.688	4539.666	5466.429	6090.155	6503.521
40	2870.658	4531.571	5602.141	6320.952	6795.062
41	2546.893	4508.992	5750.482	6581.338	7130.981
42	2095.810	4460.097	5909.881	6873.047	7510.683
43	1398.250	4358.938	6057.317	7176.623	7914.589
44	285.848	4172.632	6167.996	7465.447	8321.134
45		3886.129	6243.962	7752.740	8744.279
46		3449.688	6248.722	8006.303	9152.107
47		2810.828	6173.975	8224.831	9549.966
48		1837.601	5985.583	8378.478	9910.556
49		362.426	5689.629	8496.111	10268.747
50			5246.434	8550.550	10608.971
51			4704.162	8700.004	11145.758
52			3872.127	8769.550	11692.733
53			2553.237	8751.461	12279.994
54			491.226	8556.037	12843.382
55				8096.058	13322.208
56				7252.097	13646.041
57				5910.392	13815.775
58				3791.917	13757.550
59				673.355	13412.736

TABLE 4c—*Continued*

${}_{u}\bar{C}_{x}$

x	$u=70$	75	80	85	100
15	5259.224	5270.330	5275.089	5278.262	5278.262
16	5209.389	5220.200	5226.378	5229.467	5231.012
17	5158.248	5170.275	5177.792	5180.799	5182.303
18	5105.865	5120.500	5127.817	5130.744	5132.207
19	5052.318	5067.987	5076.533	5080.806	5082.231
20	4996.283	5014.305	5024.009	5026.782	5028.168
21	4941.984	4960.872	4970.316	4975.713	4977.062
22	4883.992	4904.998	4915.501	4920.753	4922.066
23	4825.136	4848.131	4860.907	4866.017	4867.294
24	4765.466	4790.325	4803.998	4810.213	4812.699
25	4705.028	4732.840	4747.351	4754.606	4757.024
26	4642.671	4673.253	4688.544	4695.602	4697.954
27	4579.688	4612.866	4630.027	4638.035	4640.324
28	4513.863	4549.466	4569.493	4577.282	4580.619
29	4646.922	4687.625	4710.238	4719.283	4722.675
30	4809.360	4855.570	4880.986	4891.384	4896.005
31	4979.435	5032.609	5062.150	5073.966	5078.693
32	5193.239	5255.339	5288.215	5301.609	5307.697
33	5396.890	5466.915	5504.428	5520.684	5526.936
34	5589.030	5669.678	5711.922	5729.844	5737.525
35	5801.152	5893.151	5941.779	5962.807	5970.692
36	6000.188	6105.100	6160.247	6184.457	6192.527
37	6219.075	6336.337	6399.797	6427.389	6437.046
38	6468.647	6603.618	6676.076	6707.332	6718.698
39	6763.897	6919.829	7002.208	7037.513	7050.752
40	7096.351	7273.760	7368.582	7409.875	7425.169
41	7477.704	7683.820	7794.068	7842.002	7859.578
42	7913.401	8151.675	8279.203	8334.576	8354.712
43	8382.437	8659.616	8807.915	8871.472	8896.188
44	8861.274	9184.245	9355.011	9429.257	9457.100
45	9370.822	9741.673	9940.762	10026.643	10059.825
46	9874.372	10306.095	10535.256	10633.467	10670.297
47	10384.866	10883.665	11149.120	11262.580	11305.396
48	10873.958	11449.323	11754.847	11886.422	11937.715
49	11383.905	12048.354	12401.487	12554.821	12612.903
50	11903.043	12669.811	13078.592	13257.585	13322.894
51	12670.184	13578.680	14063.724	14271.600	14351.158
52	13503.361	14577.740	15150.379	15398.522	15491.235
53	14440.202	15721.187	16405.350	16702.306	16812.937
54	15436.309	16969.058	17786.732	18141.161	18274.849
55	16434.037	18269.983	19247.607	19671.797	19830.868
56	17388.152	19575.739	20743.390	21246.324	21436.243
57	18338.996	20956.721	22351.350	22951.712	23179.178
58	19259.781	22396.012	24062.876	24781.760	25054.305
59	20133.741	23910.386	25913.723	26775.283	27101.505

TABLE 4*d*

BENEFIT 4

1952 INTERCOMPANY STUDY, PERIOD 2, r'_x AND CSO TABLE WITH 2½% INTEREST

$_{y}\bar{M}'_x$

($y = u$ or 60, whichever is less)

x	$u=20$	25	30	35	40
15	8196.847	23523.659	40900.775	60093.958	82656.738
16	5485.530	19760.498	36580.755	55431.255	77776.686
17	3181.229	16222.191	32416.950	50885.974	72990.473
18	1369.603	12929.692	28420.849	46465.907	68302.797
19	219.356	9906.270	24602.791	42178.092	63717.908
20		7179.984	20976.289	38030.262	59241.044
21		4784.430	17557.634	34033.513	54881.080
22		2763.384	14360.118	30195.144	50642.010
23		1186.590	11402.152	26524.273	46530.004
24		191.414	8702.784	23032.852	42553.131
25			6284.005	19731.579	38718.633
26			4171.519	16632.379	35032.967
27			2403.611	13749.383	31505.384
28			1034.166	11095.155	28144.124
29			174.118	8687.465	24958.719
30				6446.540	21824.590
31				4404.035	18746.969
32				2616.212	15746.783
33				1158.696	12831.750
34				195.859	10048.275
35					7445.779
36					5070.908
37					2999.559
38					1326.148
39					225.071

TABLE 4d—*Continued*

$_{y}\bar{M}_{x}$

($y = u$ or 60, whichever is less)

x	$u=45$	50	55	60	65
15	110422.626	146899.116	196708.656	269386.009	340222.316
16	105402.962	141787.436	191535.102	264171.207	334980.543
17	100460.760	136743.301	186421.468	259011.240	329791.231
18	95598.687	131768.471	181369.963	253908.619	324654.031
19	90822.091	126864.557	176382.634	248864.217	319571.580
20	86132.993	122035.868	171459.935	243878.845	314544.901
21	81537.355	117286.349	166607.829	238957.423	309577.731
22	77039.246	112618.245	161825.046	234099.087	304668.127
23	72642.341	108034.908	157116.983	229305.685	299819.584
24	68352.479	103539.368	152484.750	224580.194	295032.773
25	64174.927	99135.600	147930.585	219924.107	290309.567
26	60113.197	94827.192	143456.515	215338.790	285650.489
27	56175.102	90618.559	139066.739	210827.860	281058.397
28	52364.225	86512.513	134763.914	206392.324	276534.768
29	48689.271	82514.902	130551.569	202035.339	272080.986
30	44996.607	78455.912	126247.230	197565.927	267503.033
31	41278.971	74318.915	121830.660	192961.049	262773.386
32	37546.167	70107.546	117299.067	188214.397	257883.756
33	33786.092	65797.097	112620.890	183289.039	252794.017
34	30028.526	61410.560	107814.206	178198.506	247515.918
35	26308.480	56972.363	102897.242	172957.670	242062.581
36	22640.375	52482.844	97862.304	167553.425	236415.197
37	19066.625	47972.952	92731.007	162003.823	230588.518
38	15614.956	43450.741	87502.459	156299.326	224568.101
39	12313.147	38918.568	82163.303	150417.446	218326.773
40	9197.459	34378.902	76696.874	144327.291	211823.252
41	6326.801	29847.331	71094.733	138006.339	205028.190
42	3779.908	25338.339	65344.251	131425.001	197897.209
43	1684.098	20878.242	59434.370	124551.954	190386.526
44	285.848	16519.304	53377.053	117375.331	182471.937
45		12346.672	47209.057	109909.884	174150.803
46		8460.543	40965.095	102157.144	165406.524
47		5010.855	34716.373	94150.841	156254.417
48		2200.027	28542.398	85926.010	146704.451
49		362.426	22556.815	77547.532	136793.895
50			16867.186	69051.421	126525.148
51			11620.752	60500.871	115916.177
52			6916.590	51800.867	104770.419
53			3044.463	43031.317	93077.686
54			491.226	34279.856	80797.692
55				25723.819	67954.310
56				17627.761	54632.102
57				10375.664	40986.061
58				4465.272	27170.286
59				673.355	13412.736

TABLE 4*d*—*Continued*

${}_{y}\bar{M}_{x}^{r}$

($y = u$ or 60, whichever is less)

x	$u=70$	75	80	85	100
15	381633.886	405769.662	418621.775	424170.514	426262.526
16	376374.662	400499.332	413346.686	418892.252	420984.264
17	371165.273	395279.132	408120.308	413662.785	415753.252
18	366007.025	390108.857	402942.516	408481.986	410570.949
19	360901.160	384988.357	397814.699	403351.242	405438.742
20	355848.842	379920.370	392738.166	398270.436	400356.511
21	350852.559	374906.065	387714.157	393243.654	395328.343
22	345910.575	369945.193	382743.841	388267.941	390351.281
23	341026.583	365040.195	377828.340	383347.188	385429.215
24	336201.447	360192.064	372967.433	378481.171	380561.921
25	331435.981	355401.739	368163.435	373670.958	375749.222
26	326730.953	350668.899	363416.084	368916.352	370992.198
27	322088.282	345995.646	358727.540	364220.750	366294.244
28	317508.594	341382.780	354097.513	359582.715	361653.920
29	312994.731	336833.314	349528.020	355005.433	357073.301
30	308347.809	332145.689	344817.782	350286.150	352350.626
31	303538.449	327290.119	339936.796	345394.766	347454.621
32	298559.014	322257.510	334874.646	340320.800	342375.928
33	293365.775	317002.171	329586.431	335019.191	337068.231
34	287968.885	311535.256	324082.003	329498.507	331541.295
35	282379.855	305865.578	318370.081	323768.663	325803.770
36	276578.703	299972.427	312428.302	317805.856	319833.078
37	270578.515	293867.327	306268.055	311621.399	313640.551
38	264359.440	287530.990	299868.258	305194.010	307203.505
39	257890.793	280927.372	293192.182	298486.678	300484.807
40	251126.896	274007.543	286189.974	291449.165	293434.055
41	244030.545	266733.783	278821.392	284039.290	286008.886
42	236552.841	259049.963	271027.324	276197.288	278149.308
43	228639.440	250898.288	262748.121	267862.712	269794.596
44	220257.003	242238.672	253940.206	258991.240	260898.408
45	211395.729	233054.427	244585.195	249561.983	251441.308
46	202024.907	223312.754	234644.433	239535.340	241381.483
47	192150.535	213006.659	224109.177	228901.873	230711.186
48	181765.669	202122.994	212960.057	217639.293	219405.790
49	170891.711	190673.671	201205.210	205752.871	207468.075
50	159507.806	178625.317	188803.723	193198.050	194855.172
51	147604.763	165955.506	175725.131	179940.465	181532.278
52	134934.579	152376.826	161661.407	165668.865	167181.120
53	121431.218	137799.086	146511.028	150270.343	151689.885
54	106991.016	122077.899	130105.678	133568.037	134876.948
55	91554.707	105108.841	112318.946	115426.876	116602.099
56	75120.670	86838.858	93071.339	95755.079	96771.231
57	57732.518	67263.119	72327.949	74508.755	75334.988
58	39393.522	46306.398	49976.599	51557.043	52155.810
59	20133.741	23910.386	25913.723	26775.283	27101.505

TABLE 4e

BENEFIT 4

1952 INTERCOMPANY STUDY, PERIOD 2, r'_x AND CSO TABLE WITH 2½% INTEREST
NET ANNUAL PREMIUMS—WAIVER OF $100 OF ANNUAL PREMIUM
RETROACTIVE

Waiver to Age u; Disability Coverage and Premiums to Age u or 60, whichever is less

x	$u=40$	45	50	55	60	65	85	100
15	$0.768	$0.904	$1.092	$1.355	$1.747	$2.163	$ 2.656	$ 2.668
25	.716	.935	1.222	1.613	2.187	2.820	3.569	3.588
35	.541	.939	1.409	2.018	2.896	3.936	5.166	5.196
45			1.212	2.299	3.770	5.719	8.007	8.064
55					3.594	8.343	13.682	13.815

TABLE 4f

BENEFIT 4

1952 INTERCOMPANY STUDY, PERIOD 2, r'_x AND CSO TABLE WITH 2½% INTEREST
NET ANNUAL PREMIUMS FOR $10 MONTHLY INCOME FOR LIFE
NOT RETROACTIVE

Disability Coverage and Premiums to Age u

x	$u=40$	45	50	55	60			
15	$ 4.232	$ 3.756	$ 3.428	$ 3.195	$ 3.029			
25	7.231	5.803	4.970	4.439	4.084			
35	21.860	11.763	8.451	6.843	5.928			
45			23.153	12.624	9.219			
55					15.842			

TABLE 4g

BENEFIT 4

1952 INTERCOMPANY STUDY, PERIOD 2, r'_x AND CSO TABLE WITH 2½% INTEREST
NET ANNUAL PREMIUMS FOR $10 MONTHLY INCOME TO AGE u
NOT RETROACTIVE

Disability Coverage and Premiums to Age u or 60, whichever is less

x	$u=40$	45	50	55	60	65	85	100
15	$0.827	$0.980	$1.189	$1.483	$1.923	$2.422	$ 3.014	$ 3.029
25	.754	1.001	1.322	1.759	2.403	3.162	4.061	4.084
35	.515	.966	1.495	2.180	3.167	4.415	5.891	5.928
45			1.170	2.404	4.067	6.405	9.150	9.219
55					3.577	9.276	15.683	15.842

TABLE 4*h*

BENEFIT 4*

1952 INTERCOMPANY STUDY, 1930–1950 TERMINATION RATES WITH 2½% INTEREST

MEAN RESERVES—DISABLED LIVES

TEMPORARY BENEFIT OF $1 PER ANNUM

YEARS TO RUN FROM LAST POLICY ANNIVERSARY	AGE AT DATE OF DISABLEMENT				
	15½	25½	35½	45½	55½
	1st Year of Disability				
1	$0.427	$0.417	$0.414	$0.422	$0.447
5	1.938	1.989	2.093	2.306	2.734
10	2.665	2.893	3.199	3.648	4.388
15	3.058	3.436	3.906	4.512	5.373
20	3.301	3.786	4.378	5.078	5.951
25	3.455	4.016	4.696	5.433	6.255

LIFE BENEFIT OF $1 PER ANNUM

AGE AT DATE OF DISABLEMENT	YEAR OF DISABILITY				
	1				
15½	$3.740				
25½	4.431				
35½	5.179				
45½	5.817				
55½	6.428				

* For 2d and subsequent years of disability same as Benefit 2.

TABLE 4*i*

BENEFIT 4

1952 INTERCOMPANY STUDY, 1930–1950 TERMINATION RATES
WITH 2½% INTEREST

MEAN RESERVES—DISABLED LIVES

TEMPORARY BENEFIT OF $1 PER ANNUM

YEARS TO RUN FROM LAST POLICY ANNIVERSARY	AGE AT DATE OF DISABILITY				
	15½	25½	35½	45½	55½
	1st Year of Disability				
1	$0.438	$ 0.435	$ 0.438	$0.446	$ 0.461
5	2.128	2.283	2.457	2.676	2.980
10	2.979	3.390	3.834	4.310	4.835
15	3.444	4.058	4.718	5.366	5.946
20	3.730	4.487	5.307	6.058	6.597
25	3.912	4.769	5.704	6.493	6.939
	5th Year of Disability				
1	$0.475	$ 0.480	$ 0.484	$0.486	$ 0.486
5	3.148	3.380	3.554	3.619	3.564
10	5.057	5.665	6.118	6.259	5.998
15	6.219	7.123	7.818	7.993	7.438
20	6.954	8.078	8.964	9.094	8.219
25	7.428	8.716	9.725	9.754	8.565
	10th Year of Disability				
1	$0.485	$ 0.488	$ 0.489	$0.489	$ 0.487
5	3.549	3.658	3.730	3.742	3.609
10	6.022	6.320	6.542	6.537	6.050
15	7.587	8.065	8.437	8.311	7.372
20	8.597	9.229	9.696	9.374	7.959
25	9.259	10.014	10.495	9.950	8.149
	15th Year of Disability				
1	$0.488	$ 0.489	$ 0.490	$0.489	$ 0.487
5	3.665	3.723	3.778	3.735	3.555
10	6.309	6.498	6.670	6.430	5.760
15	8.015	8.350	8.590	8.044	6.738
20	9.133	9.599	9.809	8.919	7.055
25	9.879	10.427	10.538	9.307	7.120

TABLE 4*i*—*Continued*

Years to Run from Last Policy Anniversary	Attained Age					
	30½	40½	50½	60½	70½	80½
	16th and Subsequent Years of Disability					
1	$0.488	$ 0.489	$ 0.490	$0.489	$0.487	$0.477
5	3.676	3.732	3.786	3.723	3.533	2.968
10	6.339	6.524	6.683	6.383	5.658	4.015
15	8.062	8.392	8.591	7.953	6.552	4.209
20	9.195	9.652	9.790	8.778	6.820	4.226
25	9.954	10.482	10.498	9.124	6.870	

LIFE BENEFIT OF $1 PER ANNUM

Age at Date of Disability	Year of Disability				Attained Age	16th and Subs. Years of Dis.
	1	5	10	15		
15½	$4.247	$ 8.305	$10.463	$11.166	30½	$11.242
25½	5.280	9.816	11.239	11.546	40½	11.565
35½	6.307	10.751	11.393	11.179	50½	11.082
45½	6.962	10.333	10.307	9.462	60½	9.249
55½	7.135	8.703	8.192	7.128	70½	6.874
					80½	4.226
					90½	2.308

TABLE 5*a*

BENEFIT 5

1952 INTERCOMPANY STUDY, 1930–1950 TERMINATION RATES WITH 2½% INTEREST

$$\bar{a}^{i}_{[x+1/2]+1/2:\,\overline{u-x-1}|}$$

(x = age at policy anniversary preceding disablement)

x	$u=20$	25	30	35	40	45
15	1.927	2.544	2.868	3.067	3.193	3.274
25			1.696	2.234	2.536	2.731
35					1.663	2.310
45						
55						

x	$u=50$	55	60	65	85	100
15	3.328	3.364	3.388	3.404	3.424	3.425
25	2.858	2.944	3.001	3.039	3.089	3.090
35	2.692	2.946	3.116	3.229	3.375	3.379
45	1.877	2.848	3.436	3.818	4.313	4.325
55			2.390	3.904	5.732	5.778

TABLE 5*b*

BENEFIT 5

1952 INTERCOMPANY STUDY, PERIOD 2, r'_x AND CSO TABLE WITH 2½% INTEREST RATES OF DISABLEMENT AND COMMUTATION COLUMNS

x	r'_x	C^r_x	${}_{80}M^r_x$	${}^{\omega}\bar{C}^r_x$	${}^{\omega}\bar{M}^r_x$
10	.00052	389.553	32467.439	1470.218	144554.149
11	.00052	379.314	32077.886	1397.856	143083.931
12	.00052	369.354	31698.572	1331.600	141686.075
13	.00052	359.643	31329.218	1268.171	140354.475
14	.00052	350.161	30969.575	1210.178	139086.304
15	.00052	340.899	30619.414	1153.252	137876.126
16	.00052	331.863	30278.515	1105.967	136722.874
17	.00052	323.050	29946.652	1061.599	135616.907
18	.00061	368.878	29623.602	1196.168	134555.308
19	.00069	406.128	29254.724	1300.111	133359.140
20	.00076	435.372	28848.596	1377.816	132059.029
21	.00082	457.155	28413.224	1431.852	130681.213
22	.00088	477.419	27956.069	1482.116	129249.361
23	.00092	485.663	27478.650	1496.676	127767.245
24	.00096	493.071	26992.987	1510.739	126270.569
25	.00100	499.673	26499.916	1525.045	124759.830
26	.00102	495.776	26000.243	1509.724	123234.785
27	.00105	496.392	25504.467	1513.069	121725.061
28	.00107	491.940	25008.075	1505.331	120211.992
29	.00110	491.757	24516.135	1514.484	118706.661
30	.00112	486.787	24024.378	1512.160	117192.177
31	.00115	485.857	23537.591	1525.586	115680.017
32	.00118	484.512	23051.734	1540.029	114154.431
33	.00121	482.764	22567.222	1556.406	112614.402
34	.00124	480.623	22084.458	1575.616	111057.996
35	.00129	485.628	21603.835	1620.802	109482.380
36	.00134	489.822	21118.207	1666.732	107861.578
37	.00140	496.774	20628.385	1726.205	106194.846
38	.00147	506.191	20131.611	1799.428	104468.641
39	.00155	517.787	19625.420	1886.169	102669.213
40	.00164	531.286	19107.633	1985.194	100783.044
41	.00173	543.283	18576.347	2084.220	98797.850
42	.00184	559.895	18033.064	2204.911	96713.630
43	.00195	574.688	17473.169	2323.334	94508.719
44	.00207	590.548	16898.481	2453.952	92185.385
45	.00221	609.991	16307.933	2605.838	89731.433
46	.00236	629.839	15697.942	2767.150	87125.595
47	.00256	660.174	15068.103	2984.538	84358.445
48	.00279	694.728	14407.929	3233.389	81373.907
49	.00309	742.375	13713.201	3559.273	78140.518
50	.00347	803.675	12970.826	3970.658	74581.245
51	.00395	881.117	12167.151	4484.682	70610.587
52	.00454	974.412	11286.034	5105.829	66125.905
53	.00525	1082.981	10311.622	5841.588	61020.076
54	.00611	1209.927	9228.641	6715.160	55178.488
55	.00712	1351.737	8018.714	7714.502	48463.328
56	.00838	1523.128	6666.977	8934.863	40748.826
57	.00933	1621.011	5143.849	9763.636	31813.963
58	.01035	1716.048	3522.838	10605.559	22050.327
59	.01144	1806.790	1806.790	11444.768	11444.768

TABLE 5c

BENEFIT 5

1952 INTERCOMPANY STUDY, PERIOD 2, r'_x AND CSO TABLE WITH 2½% INTEREST

${}^{u}\bar{C}^{r}_{x}$

x					$u=15$
10					810.332
11					676.261
12					517.318
13					297.683
14					

x	$u=20$	25	30	35	40
10	1094.679	1238.969	1323.619	1375.948	1409.039
11	1002.590	1155.451	1243.871	1298.946	1333.790
12	914.609	1076.225	1169.984	1227.626	1264.108
13	827.331	999.617	1098.371	1158.760	1197.480
14	740.495	927.607	1031.366	1095.005	1135.817
15	648.852	856.606	965.701	1032.708	1075.134
16	549.050	791.943	907.981	978.456	1023.364
17	426.299	728.473	851.960	926.626	974.170
18	294.032	779.713	935.656	1028.566	1087.591
19		795.069	988.421	1099.940	1170.541
20		773.194	1013.151	1143.880	1226.016
21		709.379	1013.721	1163.634	1258.007
22		596.525	1003.953	1176.073	1284.061
23		373.689	960.847	1156.087	1276.013
24			906.833	1131.837	1265.281
25			837.047	1102.573	1251.623
26			729.153	1047.943	1211.500
27			592.774	1000.214	1182.606
28			367.343	937.795	1142.360
29				875.759	1109.877
30				792.862	1065.003
31				696.808	1026.016
32				564.709	980.584
33				353.338	927.454
34					864.001
35					797.690
36					705.882
37					578.509
38					367.985
39					

TABLE 5c—*Continued*

${}^{u}\bar{C}_x^r$

x	$u=45$	50	55	60	65
10	1430.586	1444.438	1454.057	1460.214	1464.446
11	1356.269	1370.881	1380.997	1387.741	1391.862
12	1287.822	1303.509	1313.724	1321.020	1325.398
13	1222.346	1238.687	1249.699	1256.804	1261.777
14	1161.757	1179.050	1190.464	1198.419	1203.261
15	1102.408	1120.591	1132.713	1140.794	1146.181
16	1052.537	1071.549	1084.005	1092.855	1098.428
17	1004.802	1024.904	1038.306	1047.559	1053.622
18	1125.483	1150.624	1167.384	1178.679	1185.966
19	1215.870	1245.956	1266.014	1279.251	1288.478
20	1279.339	1314.602	1337.823	1353.734	1364.055
21	1318.966	1359.153	1385.795	1403.857	1415.597
22	1353.380	1399.121	1429.773	1450.050	1463.725
23	1353.725	1404.573	1438.632	1461.178	1476.529
24	1351.483	1408.465	1445.965	1471.777	1488.336
25	1347.863	1410.543	1452.988	1481.120	1499.874
26	1316.295	1384.852	1430.883	1462.223	1482.790
27	1298.807	1375.294	1425.795	1460.607	1483.161
28	1269.667	1353.729	1409.608	1447.508	1472.289
29	1252.194	1345.453	1407.625	1449.397	1477.569
30	1222.710	1325.604	1394.361	1440.519	1471.291
31	1202.617	1317.312	1394.095	1445.924	1480.476
32	1179.668	1307.924	1393.587	1451.494	1489.301
33	1153.953	1297.005	1392.850	1457.223	1500.139
34	1125.101	1285.558	1392.371	1464.530	1512.002
35	1108.035	1291.269	1413.105	1494.649	1548.851
36	1083.255	1293.229	1431.116	1524.008	1585.452
37	1055.939	1299.315	1456.823	1563.300	1633.467
38	1022.459	1307.948	1489.440	1611.436	1692.432
39	976.839	1316.431	1527.653	1668.809	1761.890
40	912.045	1321.888	1568.529	1732.781	1840.883
41	812.438	1313.638	1601.802	1791.764	1917.333
42	668.054	1301.821	1642.484	1864.247	2010.246
43	421.186	1267.531	1671.120	1928.827	2098.550
44		1211.518	1694.492	1995.476	2192.632
45		1130.904	1715.937	2070.211	2300.368
46		1005.331	1721.381	2140.684	2410.058
47		826.829	1733.862	2239.219	2559.387
48		521.514	1725.801	2340.638	2724.912
49			1707.777	2471.106	2940.397
50			1658.277	2624.349	3205.421
51			1547.402	2795.420	3527.346
52			1316.640	2966.289	3897.947
53			851.475	3112.804	4307.650
54				3207.597	4757.617
55				3191.011	5212.430
56				3025.427	5706.337
57				2425.698	5823.277
58				1442.437	5810.429
59					5628.691

TABLE 5c—*Continued*

$^{u}\bar{C}_{x}^{r}$

x	$u=70$	75	80	85	100
10	1467.139	1468.679	1469.448	1469.833	1470.218
11	1394.859	1396.358	1397.482	1397.856	1397.856
12	1328.317	1330.141	1331.235	1331.600	1331.600
13	1264.974	1266.750	1267.816	1268.171	1268.171
14	1206.719	1208.449	1209.486	1209.832	1210.178
15	1149.548	1151.569	1152.579	1152.916	1153.252
16	1102.033	1104.000	1105.311	1105.639	1105.967
17	1057.451	1059.685	1060.642	1061.280	1061.599
18	1190.702	1193.617	1195.075	1195.803	1196.168
19	1294.094	1297.303	1299.309	1300.111	1300.111
20	1370.506	1374.376	1376.526	1377.386	1377.816
21	1423.273	1427.788	1430.046	1431.401	1431.852
22	1472.685	1477.401	1480.230	1481.645	1482.116
23	1486.123	1491.879	1494.758	1496.197	1496.676
24	1499.051	1505.382	1508.791	1510.252	1510.739
25	1511.719	1519.122	1522.577	1524.551	1525.045
26	1495.522	1503.358	1507.275	1509.234	1509.724
27	1497.379	1506.205	1510.617	1512.579	1513.069
28	1488.324	1497.556	1502.415	1504.845	1505.331
29	1495.055	1505.256	1511.084	1513.513	1514.484
30	1490.523	1502.063	1508.314	1511.198	1512.160
31	1502.071	1514.549	1521.747	1524.626	1525.586
32	1513.707	1528.064	1535.722	1539.071	1540.029
33	1526.842	1543.054	1551.637	1554.975	1556.406
34	1542.385	1559.950	1569.919	1573.717	1575.616
35	1582.908	1603.533	1614.086	1618.883	1620.802
36	1624.157	1647.380	1659.475	1664.797	1666.732
37	1677.628	1704.125	1717.864	1724.242	1726.205
38	1743.430	1773.429	1789.928	1796.428	1799.428
39	1821.216	1855.994	1874.917	1883.100	1886.169
40	1909.627	1950.559	1972.074	1981.520	1985.194
41	1996.752	2043.974	2069.195	2079.927	2084.220
42	2103.154	2157.904	2187.214	2199.933	2204.911
43	2205.833	2269.409	2303.467	2318.225	2323.334
44	2316.876	2390.955	2430.619	2447.535	2453.952
45	2446.174	2532.333	2578.726	2598.608	2605.838
46	2579.894	2681.298	2735.422	2758.440	2767.150
47	2762.181	2882.163	2946.718	2974.105	2984.538
48	2967.142	3111.244	3188.099	3221.037	3233.389
49	3235.170	3410.420	3504.278	3544.608	3559.273
50	3569.782	3786.493	3901.596	3951.606	3970.658
51	3982.516	4254.051	4398.521	4461.183	4484.682
52	4472.533	4814.205	4997.072	5075.993	5105.829
53	5038.249	5472.544	5703.598	5804.149	5841.588
54	5690.976	6244.298	6540.678	6667.357	6715.160
55	6406.054	7113.685	7490.197	7653.086	7714.502
56	7249.892	8160.077	8646.011	8855.128	8934.863
57	7715.802	8822.177	9412.990	9667.569	9763.636
58	8127.482	9466.525	10181.811	10490.299	10605.559
59	8460.883	10075.965	10936.151	11305.568	11444.768

TABLE 5*d*

BENEFIT 5

1952 INTERCOMPANY STUDY, PERIOD 2, r'_x AND CSO TABLE WITH 2½% INTEREST

$\ddot{M}'_x$

($y = u$ or 60, whichever is less)

x					$u=15$
10					2301.594
11					1491.262
12					815.001
13					297.683
14					

x	$u=20$	25	30	35	40
10	6497.937	11802.460	17941.752	24366.093	31191.502
11	5403.258	10563.491	16618.133	22990.145	29782.463
12	4400.668	9408.040	15374.262	21691.199	28448.673
13	3486.059	8331.815	14204.278	20463.573	27184.565
14	2658.728	7332.198	13105.907	19304.813	25987.085
15	1918.233	6404.591	12074.541	18209.808	24851.268
16	1269.381	5547.985	11108.840	17177.100	23776.134
17	720.331	4756.042	10200.859	16198.644	22752.770
18	294.032	4027.569	9348.899	15272.018	21778.600
19		3247.856	8413.243	14243.452	20691.009
20		2452.787	7424.822	13143.512	19520.468
21		1679.593	6411.671	11999.632	18294.452
22		970.214	5397.950	10835.998	17036.445
23		373.689	4393.997	9659.925	15752.384
24			3433.150	8503.838	14476.371
25			2526.317	7372.001	13211.090
26			1689.270	6269.428	11959.467
27			960.117	5221.485	10747.967
28			367.343	4221.271	9565.361
29				3283.476	8423.001
30				2407.717	7313.124
31				1614.855	6248.121
32				918.047	5222.105
33				353.338	4241.521
34					3314.067
35					2450.066
36					1652.376
37					946.494
38					367.985
39					

TABLE 5*d*—*Continued*

$_{y}\bar{M}_{x}$

($y = u$ or 60, whichever is less)

x	$u=45$	50	55	60	65
10	39045.898	48848.543	62884.630	87292.664	113590.556
11	37615.312	47404.105	61430.573	85832.450	112126.110
12	36259.043	46033.224	60049.576	84444.709	110734.248
13	34971.221	44729.715	58735.852	83123.689	109408.850
14	33748.875	43491.028	57486.153	81866.885	108147.073
15	32587.118	42311.978	56295.689	80668.466	106943.812
16	31484.710	41191.387	55162.976	79527.672	105797.631
17	30432.173	40119.838	54078.971	78434.817	104699.203
18	29427.371	39094.934	53040.665	77387.258	103645.581
19	28301.888	37944.310	51873.281	76208.579	102459.615
20	27086.018	36698.354	50607.267	74929.328	101171.137
21	25806.679	35383.752	49269.444	73575.594	99807.082
22	24487.713	34024.599	47883.649	72171.737	98391.485
23	23134.333	32625.478	46453.876	70721.687	96927.760
24	21780.608	31220.905	45015.244	69260.509	95451.231
25	20429.125	29812.440	43569.279	67788.732	93962.895
26	19081.262	28401.897	42116.291	66307.612	92463.021
27	17764.967	27017.045	40685.408	64845.389	90980.231
28	16466.160	25641.751	39259.613	63384.782	89497.070
29	15196.493	24288.022	37850.005	61937.274	88024.781
30	13944.299	22942.569	36442.380	60487.877	86547.212
31	12721.589	21616.965	35048.019	59047.358	85075.921
32	11518.972	20299.653	33653.924	57601.434	83595.445
33	10339.304	18991.729	32260.337	56149.940	82106.144
34	9185.351	17694.724	30867.487	54692.717	80606.005
35	8060.250	16409.166	29475.116	53228.187	79094.003
36	6952.215	15117.897	28062.011	51733.538	77545.152
37	5868.960	13824.668	26630.895	50209.530	75959.700
38	4813.021	12525.353	25174.072	48646.230	74326.233
39	3790.562	11217.405	23684.632	47034.794	72633.801
40	2813.723	9900.974	22156.979	45365.985	70871.911
41	1901.678	8579.086	20588.450	43633.204	69031.028
42	1089.240	7265.448	18986.648	41841.440	67113.695
43	421.186	5963.627	17344.164	39977.193	65103.449
44		4696.096	15673.044	38048.366	63004.899
45		3484.578	13978.552	36052.890	60812.267
46		2353.674	12262.615	33982.679	58511.899
47		1348.343	10541.234	31841.995	56101.841
48		521.514	8807.372	29602.776	53542.454
49			7081.571	27262.138	50817.542
50			5373.794	24791.032	47877.145
51			3715.517	22166.683	44671.724
52			2168.115	19371.263	41144.378
53			851.475	16404.974	37246.431
54				13292.170	32938.781
55				10084.573	28181.164
56				6893.562	22968.734
57				3868.135	17262.397
58				1442.437	11439.120
59					5628.691

TABLE 5*d*—*Continued*

${}^{u}\bar{M}_{x}^{y}$

(y = *u* or 60, whichever is less)

x	*u* = 70	75	80	85	100
10	128457.312	137157.294	141800.748	143801.557	144554.149
11	126990.173	135688.615	140331.300	142331.724	143083.931
12	125595.314	134292.257	138933.818	140933.868	141686.075
13	124266.997	132962.116	137602.583	139602.268	140354.475
14	123002.023	131695.366	136334.767	138334.097	139086.304
15	121795.304	130486.917	135125.281	137124.265	137876.126
16	120645.756	129335.348	133972.702	135971.349	136722.874
17	119543.723	128231.348	132867.391	134865.710	135616.907
18	118486.272	127171.663	131806.749	133804.430	134555.308
19	117295.570	125978.046	130611.674	132608.627	133359.140
20	116001.476	124680.743	129312.365	131308.516	132059.029
21	114630.970	123306.367	127935.839	129931.130	130681.213
22	113207.697	121878.579	126505.793	128499.729	129249.361
23	111735.012	120401.178	125025.563	127018.084	127767.245
24	110248.889	118909.299	123530.805	125521.887	126270.569
25	108749.838	117403.917	122022.014	124011.635	124759.830
26	107238.119	115884.795	120499.437	122487.084	123234.785
27	105742.597	114381.437	118992.162	120977.850	121725.061
28	104245.218	112875.232	117481.545	119465.271	120211.992
29	102756.894	111377.676	115979.130	117960.426	118706.661
30	101261.839	109872.420	114468.046	116446.913	117192.177
31	99771.316	108370.357	112959.732	114935.715	115680.017
32	98269.245	106855.808	111437.985	113411.089	114154.431
33	96755.538	105327.744	109902.263	111872.018	112614.402
34	95228.696	103784.690	108350.626	110317.043	111057.996
35	93686.311	102224.740	106780.707	108743.326	109482.380
36	92103.403	100621.207	105166.621	107124.443	107861.578
37	90479.246	98973.827	103507.146	105459.646	106194.846
38	88801.618	97269.702	101789.282	103735.404	104468.641
39	87058.188	95496.273	99999.354	101938.976	102669.213
40	85236.972	93640.279	98124.437	100055.876	100783.044
41	83327.345	91689.720	96152.363	98074.356	98797.850
42	81330.593	89645.746	94083.168	95994.429	96713.630
43	79227.439	87487.842	91895.954	93794.496	94508.719
44	77021.606	85218.433	89592.487	91476.271	92185.385
45	74704.730	82827.478	87161.868	89028.736	89731.433
46	72258.556	80295.145	84583.142	86430.128	87125.595
47	69678.662	77613.847	81847.720	83671.688	84358.445
48	66916.481	74731.684	78901.002	80697.583	81373.907
49	63949.339	71620.440	75712.903	77476.546	78140.518
50	60714.169	68210.020	72208.625	73931.938	74581.245
51	57144.387	64423.527	68307.029	69980.332	70610.587
52	53161.871	60169.476	63908.508	65519.149	66125.905
53	48689.338	55355.271	58911.436	60443.156	61020.076
54	43651.089	49882.727	53207.838	54639.007	55178.488
55	37960.113	43638.429	46667.160	47971.650	48463.328
56	31554.059	36524.744	39176.963	40318.564	40748.826
57	24304.167	28364.667	30530.952	31463.436	31813.963
58	16588.365	19542.490	21117.962	21795.867	22050.327
59	8460.883	10075.965	10936.151	11305.568	11444.768

TABLE 5*e*

BENEFIT 5

1952 INTERCOMPANY STUDY, PERIOD 2, r'_x AND CSO TABLE WITH 2½% INTEREST
NET ANNUAL PREMIUMS—WAIVER OF $100 OF ANNUAL PREMIUM
RETROACTIVE

Waiver to Age *u;* Disability Coverage and Premiums to Age *u* or 60, whichever is less

x	$u=20$	25	30	35	40	45
15	$0.089	$0.143	$0.185	$0.218	$0.251	$0.289
25			.156	.218	.268	.325
35					.204	.319

x	$u=50$	55	60	65	85	100
15	$0.339	$0.418	$0.563	$0.717	$0.894	$0.898
25	.399	.515	.727	.962	1.232	1.239
35	.444	.629	.962	1.351	1.797	1.808
45	.391	.751	1.338	2.089	2.945	2.966
55			1.580	3.615	5.841	5.896

TABLE 5*h*

BENEFIT 5

1952 INTERCOMPANY STUDY, 1930–1950 TERMINATION RATES WITH 2½% INTEREST

MEAN RESERVES—DISABLED LIVES

TEMPORARY BENEFIT OF $1 PER ANNUM

YEARS TO RUN FROM LAST POLICY ANNIVERSARY	AGE AT DATE OF DISABLEMENT					
	15½	25½	35½	45½	55½	
	1st Year of Disability					
1	$0.450	$ 0.440	$ 0.429	$0.427	$0.445	
5	2.014	1.770	1.748	1.999	2.579	
10	2.584	2.270	2.356	2.918	4.013	
15	2.892	2.559	2.722	3.481	4.863	
20	3.082	2.746	2.965	3.847	5.364	
25	3.203	2.868	3.130	4.077	5.628	
	5th Year of Disability					
1	$0.464	$ 0.466	$ 0.473	$0.480	$0.483	
5	2.863	2.953	3.187	3.403	3.459	
10	4.555	4.808	5.302	5.731	5.782	
15	5.584	5.999	6.695	7.242	7.165	
20	6.236	6.779	7.636	8.202	7.915	
25	6.656	7.300	8.259	8.777	8.247	
	10th Year of Disability					
1	$0.486	$ 0.487	$ 0.488	$0.488	$0.487	
5	3.565	3.668	3.694	3.685	3.618	
10	6.047	6.350	6.465	6.411	6.078	
15	7.619	8.109	8.335	8.141	7.411	
20	8.633	9.282	9.576	9.178	8.002	
25	9.297	10.073	10.363	9.740	8.194	
	15th Year of Disability					
1	$0.488	$ 0.489	$ 0.490	$0.490	$0.487	
5	3.667	3.727	3.781	3.736	3.559	
10	6.313	6.505	6.675	6.432	5.767	
15	8.020	8.358	8.595	8.046	6.745	
20	9.139	9.608	9.815	8.922	7.063	
25	9.885	10.438	10.545	9.310	7.128	

TABLE 5*h*—*Continued*

Years to Run from Last Policy Anniversary	Attained Age					
	30½	40½	50½	60½	70½	80½
	16th and Subsequent Years of Disability					
1	$0.488	$ 0.489	$ 0.490	$0.489	$0.487	$0.477
5	3.676	3.732	3.786	3.723	3.533	2.968
10	6.339	6.524	6.683	6.383	5.658	4.015
15	8.062	8.392	8.591	7.953	6.552	4.209
20	9.195	9.652	9.790	8.778	6.820	4.226
25	9.954	10.482	10.498	9.124	6.870	

LIFE BENEFIT OF $1 PER ANNUM

Age at Date of Disablement	Year of Disability				Attained Age	16th and Subs. Years of Dis.
	1	5	10	15		
15½	$3.425	$7.433	$10.506	$11.174	30½	$11.242
25½	3.090	8.199	11.307	11.558	40½	11.565
35½	3.379	9.101	11.250	11.187	50½	11.082
45½	4.325	9.281	10.088	9.464	60½	9.249
55½	5.778	8.380	8.238	7.136	70½	6.874
					80½	4.226
					90½	2.308

TABLE 5*i*

BENEFIT 5

1952 INTERCOMPANY STUDY, 1930–1950 TERMINATION RATES WITH 2½% INTEREST

MEAN RESERVES—DISABLED LIVES

TEMPORARY BENEFIT OF $1 PER ANNUM

YEARS TO RUN FROM LAST POLICY ANNIVERSARY	AGE AT DATE OF DISABILITY				
	15½	25½	35½	45½	55½
	1st Year of Disability				
1	$0.452	$ 0.431	$ 0.426	$0.438	$0.462
5	2.008	1.848	1.930	2.297	2.859
10	2.656	2.457	2.705	3.465	4.535
15	3.014	2.816	3.179	4.190	5.537
20	3.234	3.048	3.494	4.662	6.127
25	3.374	3.200	3.707	4.959	6.436
	5th Year of Disability				
1	$0.468	$ 0.469	$ 0.476	$0.482	$0.484
5	2.976	3.057	3.261	3.444	3.488
10	4.786	5.034	5.469	5.830	5.852
15	5.886	6.302	6.927	7.386	7.260
20	6.582	7.133	7.910	8.373	8.022
25	7.031	7.687	8.563	8.964	8.361
	10th Year of Disability				
1	$0.486	$ 0.488	$ 0.488	$0.488	$0.487
5	3.568	3.677	3.707	3.702	3.627
10	6.050	6.362	6.492	6.448	6.092
15	7.621	8.123	8.371	8.192	7.428
20	8.634	9.297	9.617	9.236	8.021
25	9.298	10.090	10.409	9.802	8.213
	15th Year of Disability				
1	$0.488	$ 0.489	$ 0.490	$0.489	$0.487
5	3.663	3.723	3.778	3.734	3.555
10	6.306	6.498	6.670	6.429	5.760
15	8.010	8.350	8.589	8.043	6.738
20	9.128	9.599	9.807	8.918	7.055
25	9.873	10.427	10.537	9.306	7.121

TABLE *5i—Continued*

Years to Run from Last Policy Anniversary	Attained Age					
	30½	40½	50½	60½	70½	80½
	16th and Subsequent Years of Disability					
1	$0.488	$ 0.489	$ 0.490	$0.489	$0.487	$0.477
5	3.676	3.732	3.786	3.723	3.533	2.968
10	6.339	6.524	6.683	6.383	5.658	4.015
15	8.062	8.392	8.591	7.953	6.552	4.209
20	9.195	9.652	9.790	8.778	6.820	4.226
25	9.954	10.482	10.498	9.124	6.870	

LIFE BENEFIT OF $1 PER ANNUM

Age at Date of Disability	Year of Disability				Attained Age	16th and Subs. Years of Dis.
	1	5	10	15		
15½	$3.632	$7.861	$10.506	$11.160	30½	$11.242
25½	3.475	8.644	11.325	11.546	40½	11.565
35½	4.030	9.443	11.299	11.178	50½	11.082
45½	5.278	9.484	10.153	9.461	60½	9.249
55½	6.614	8.496	8.257	7.128	70½	6.874
					80½	4.226
					90½	2.308