# TRANSACTIONS OF SOCIETY OF ACTUARIES 1978 REPORTS

### II. GROUP LONG-TERM DISABILITY INSURANCE

ATTENTION is directed to the following revisions and additions that have been made in the "Analysis of Rates of Disablement" section of this year's report:

- 1. All tables have been renumbered and grouped according to elimination period.
- 2. Tables II-2 and III-2, which analyze the experience for plans with threemonth and twelve-month elimination periods, respectively, by underlying calendar year of experience, have been added.
- 3. Tables II-3 and III-3, which analyze the experience for plans with three-month and twelve-month elimination periods, respectively, by size of experience unit, have been added.
- 4. Table 10, which analyzes the experience by the presence or absence of a rehabilitation provision in the contract, has been discontinued.

Attention is directed also to the following revisions and additions that have been made in the "Analysis of Rates of Termination" section of this year's report:

- All tables have been renumbered and grouped according to elimination period.
- 2. Tables AA-1, AA-2, and AA-3, which analyze the disabled lives experience on plans with a six-month elimination period over the restricted observation period 1972-76, have been added.
- 3. Tables BB-1, BB-2, and BB-3, which analyze the disabled lives experience on plans with a three-month elimination period over the restricted observation period 1972-76, have been added.
- 4. Tables CC-1, CC-2, and CC-3, which analyze the disabled lives experience on plans with a twelve-month elimination period over the restricted observation period 1972-76, have been added.

As in previous reports, the experience included in this report is predominantly that of employer-employee groups located in the United States and is largely for plans that appear not to have been the result of bargaining. Groups that a contributing company considers atypical have not been included. Plans selected for the study provide occupational as well as nonoccupational coverage, but with benefits integrated with workmen's compensation. Virtually all the cases contributed also provide that the gross monthly benefits be integrated with some or all of any benefits payable under social security and frequently with other benefits payable as a result of the disability. Benefits are payable only on claims incurred prior to age 65 and generally cease at age 65.

The Committee recommends that care be used in the interpretation of the results of this study and in their application on other than a broad basis, since a considerable volume of exposure, shown in the tables, could not be coded with respect to certain characteristics that may influence the level of rate of disablement or termination. In addition, the experience may not be representative of any particular group or plan.

### CONTRIBUTING COMPANIES

The Committee wishes to express its gratitude to the following companies who have contributed experience for this report:

Aetna Life and Casualty Company
Bankers Life Company
Connecticut General Life Insurance Company
Continental Assurance Company
Continental Casualty Company
Equitable Life Assurance Society
John Hancock Mutual Life Insurance Company
Metropolitan Life Insurance Company
New England Mutual Life Insurance Company
New York Life Insurance Company
Provident Life and Accident Insurance Company
Prudential Insurance Company of America
Sun Life Assurance Company of Canada

The results of the study reflect the composite experience of variations in company practices, administration, and claim procedures, as well as variations in the experience among the groups.

#### ANALYSIS OF RATES OF DISABLEMENT

As noted above, we have renumbered the tables and grouped them along with their discussions according to elimination periods.

As in past reports, a column containing the "number of experience units" appears in most of the tables. In the context of this report, an experience unit represents the experience of a single group for one calendar year. Therefore, whenever an experience cell covers more than one calendar year of experience, a group would be included in the count for the total number of separate calendar years for which experience of the group was submitted. Furthermore, where the number of experience units in a cell is relatively small, and no distinction is made by size, the experience for that cell could be substantially influenced by the experience of but a few groups, and as such, may not be representative of all units contained in that cell.

In analyzing the various tables shown in this section of the report, the reader should note that the claim experience shown may be understated due to the lag in the reporting of claims incurred in the latest year of the study. Historically, the lag on plans with a six-month elimination period has been about 5 percent. In particular, the number of claims on plans with a six-month elimination period reported as incurred in 1975 included in the current report increased approximately 5 percent from that shown in last year's report. Consequently, the tabulars, the number of claims, the rates of disablement, and the actual-to-tabular ratios shown in the various tables may be distorted for some age and sex cells.

Claims were reported and included in rates of disablement, even though, because of the existence of social security or other disability income under plans with an offset provision, no benefit may have been payable.

### EXPERIENCE ON PLANS WITH A SIX-MONTH ELIMINATION PERIOD

Table I-1 (Table 1 in previous reports) is based on the experience of all groups regardless of size for plans with a six-month elimination period for the latest five year period, 1972–76. Crude rates of disablement based on the number of lives are shown by sex and age group. The corresponding experience of nonjumbo groups, defined as groups with less than 5,000 lives insured, is displayed in Table I-1A (Table 1A in previous reports). Experience of the calendar year of issue is excluded from both tables and, therefore, from all subsequent tables that analyze the underlying experience. About 14 percent of the exposure contributed could not be separated by sex. The first part of each of these two tables summarizes the combined experience of the male, female and sexunknown exposures. The experience for which exposure was sex-coded is presented in the bottom two sections of each table.

The experience is based largely on a "his own occupation" definition of disability generally during the first two years following disablement. Approximately 2 percent of the experience is based on an "any occupation" definition for the full period of disability.

Table I-2 (Table 1B in prior reports) analyzes by underlying calendar year of experience the crude rates of disablement shown in Tables I-1 and I-1A, respectively, for all ages and for males, females, and sexunknown exposures combined. Some portion of the variation in the overall disablement rate from year to year is the result of changes in the distributions of exposed to risk by age groups. Table I-2 shows that for plans with a six-month elimination period, accidents accounted for

### TABLE I-1

### GROUP LONG-TERM DISABILITY INSURANCE CRUDE RATES OF DISABLEMENT PER 1,000 LIVES EXPOSED

(Six-Month Elimination Period; Calendar Year of Issue Excluded) Calendar Years of Experience 1972-76 ALL EXPERIENCE UNITS COMBINED

Attained Age	Life Years Exposed	Number of Claims	Rate of Disablement per 1,000 Lives
		rience: Males, Fo nd Sex Unknown	emales,
Under 40 40-44 45-49 50-54 55-59 60-64 All ages	1,923,050 441,752 446,961 393,441 299,552 189,225 3,693,981	1,741 909 1,595 2,446 3,189 2,678	0.91 2.06 3.57 6.22 10.65 14.15
All ages		le Experience Or	
Under 40	1,075,615 279,992 279,666 243,894 191,113 120,061 2,190,341	890 492 953 1,556 2,138 1,850 7,879	0.83 1.76 3.41 6.38 11.19 15.41
	Fem	ale Experience (	only
Under 40. 40-44. 45-49. 50-54. 55-59. 60-64.	571,658 95,520 103,486 96,075 68,929 43,833	606 289 421 574 635 479	1.06 3.03 4.07 5.97 9.21 10.93
All ages	979,501	3,004	3.07

### TABLE I-1A

### GROUP LONG-TERM DISABILITY INSURANCE CRUDE RATES OF DISABLEMENT PER 1,000 LIVES EXPOSED

(Six-Month Elimination Period; Calendar

Year of Issue Excluded)
Calendar Years of Experience 1972-76

NONJUMBO EXPERIENCE UNITS ONLY

Attained Age	Life Years Exposed	Number of Claims	Rate of Disablement per 1,000 Lives
		erience: Males, F d Sex Unknown	emales,
Under 40 40-44 45-49 50-54 55-59 60-64	1,326,383 307,407 314,072 282,151 215,863 134,318	1,202 641 1,079 1,654 2,174 1,916	0.91 2.09 3.44 5.86 10.07 14.26
All ages	2,580,194	8,666	3.36
	Ma	le Experience On	ly
Under 40. 40-44. 45-49. 50-54. 55-59. 60-64. All ages.	760,963 195,019 195,073 173,221 134,058 83,409	632 342 626 995 1,414 1,258	0.83 1.75 3.21 5.74 10.55 15.08
	Fema	ale Experience Or	nly
Under 40. 40-44. 45-49. 50-54. 55-59. 60-64.	338,211 58,830 67,810 65,349 48,992 28,910	343 183 266 378 433 354	1.01 3.11 3.92 5.78 8.84 12.24
All ages	608,102	1,957	3.22

approximately 9 percent of the claims coded for a known cause of disablement.

The reader is reminded that the lag in claim reporting tends to understate the claim experience shown in the various tables presented in this report. In particular, if past reporting lag is any indication of the extent of claim underreporting, then the figures in Table I-2 of claims reported

TABLE I-2

# GROUP LONG-TERM DISABILITY INSURANCE ANALYSIS OF RATES OF DISABLEMENT BY CALENDAR YEAR OF INCURRAL

_	Number	_	Ne	MBER OF CI	LAIMS	RATE OF	RATIO OF
Calendar Year of Incurral	OF EX- PERIENCE UNITS	LIFE YEARS Exposed	Acci- dent	Sickness	Total (Incl. Unknown)	DISABLE- MENT PER 1,000 LIVES	CLAIMS TO TABU- LAR CLAIMS*
		A	ll Experie	nce Units (	Combined		
1962–66	1,132 6,045	541,022 2,243,647	78 655	994 6,058	1,341 7,703	2.48 3.43	81% 103
1972. 1973. 1974. 1975.	2,252 2,177 2,160 2,102 2,094	625,137 722,855 717,963 792,223 835,803	196 228 198 202 277	1,887 2,255 2,376 2,185 2,680	2,092 2,489 2,585 2,431 2,961	3.35 3.44 3.60 3.07 3.54	98% 102 106 95 112
1972–76.	10,785	3,693,981	1,101	11,383	12,558	3.40	103%
		No	onjumbo F	xperience (	Jnits Only		I
1962-66 1967-71	1,109 5,971	268,528 1,535,931	28 458	428 3,829	571 4,963	2.13 3.23	66% 94
1972 1973 1974 1975	2,234 2,152 2,141 2,081 2,067	453,951 491,678 537,273 552,619 544,673	149 155 147 145 184	1,267 1,447 1,724 1,565 1,841	1,424 1,606 1,882 1,725 2,029	3.14 3.27 3.50 3.12 3.73	92% 97 104 93 113
1972-76.	10,675	2,580,194	780	7,844	8,666	3.36	100%

<sup>\*</sup> Tabular claims were calculated by applying to the actual age-sex-group exposures the crude rates of disablement shown in Table I-1A for males, females, and sex unknown combined.

as incurred for the most recent calendar year, 1976, may be understated approximately 5 percent.

Table I-2 also shows ratios of actual claims to tabular claims. The tabular claims for each year were obtained by applying the rates of disablement of nonjumbo size groups from Table I-1A by sex category to the actual exposures for each age-sex group (male, female and unknown). The tabulars, therefore, only adjust for age and sex. No adjustments are made for any other factors that might influence the disablement rates, such as size of case, industry, and so on. The reader is reminded that the basis (just described) under which the ratios of actual claims to tabular claims were determined was changed in last year's Reports from that used in previous years.

Table I-3 (Table 1C in previous reports) subdivides the Table I-1 experience for all ages and for male, female and sex-unknown exposures combined, by size of experience unit. Note that experience units of less than 100 lives accounted for over 58 percent of the total number of units. This explains the large number of units (over 71 percent of the total) that experienced no claims. This table indicates that the rate of disablement and the actual-to-tabular ratios tend to increase with the size of the group—a phenomenon that is consistent with the results of prior reports.

Table I-3 also includes a dispersion-type analysis of ratios of actual claims to tabular claims. As in Table I-2, the tabulars adjust only for age and sex. However, because the experience is not adjusted for other characteristics that might have a measurable impact on the rate of disablement, such as differences among the contributing companies in underwriting and claims administration practices, the extent to which employers use the long-term disability plan as an early retirement vehicle, the proportions of salaried and hourly employees, the extent of employer financial participation, the type of industry, the relationship of the amount of benefit payable under the plan to take-home pay, and so on, the reader should use caution in interpreting the results.

To allow for analysis of the relative disablement rates by cause of disability, the contributing companies were requested to code the cause of disability, where available, on the individual claim cards submitted for the study. These data have been analyzed, and the results are summarized in Table I-4 (Table 1D in previous reports). The results are shown for each sex and both sexes combined. The number and percentage distribution by cause of disability of the coded claims is shown for the various age groups. The number of claims in each cell is shown to indicate the relative weights of the results.

TABLE 1-3
GROUP LONG-TERM DISABILITY INSURANCE

### RATES OF DISABLEMENT AND RATIOS OF ACTUAL CLAIMS TO TABULAR CLAIMS BY SIZE OF EXPERIENCE UNIT EXPOSED

(Six-Month Elimination Period; Calendar Year of Issue Excluded; All Ages; Males, Females and Sex Unknown Combined)

Calendar Years of Experience 1972-76

ALL EXPERIENCE UNITS COMBINED

	Corn on Hour	Number of	Life Years	Number	RATE OF DISABLE-	Average A/T	Additional of the state of the			f Experie			) OF	
د	Size of Unit	Experience Units	Exposed	OF Claims	MENT PER 1,000 LIVES	RATIO*	0%	1 - 50%	50- 75%	75- 100%	100- 150%	150- 200%	200- 500%	500% or More
	Under 25 lives. 25-49. 50-99. 100-249. 250-499. 500-99. 1,000-2,499. 2,500-4,999.	1,890 2,049 2,380 2,269 965 526 432 164	24, 602 75, 689 168,015 349,851 334,320 361,152 694,962 571,603	64 239 525 1,271 1,048 1,287 2,245 1,987	2.60 3.16 3.12 3.63 3.13 3.56 3.23 3.48	76% 85 89 106 92 110 100	1,834 1,843 1,936 1,477 430 119 51	0 1 0 0 11 56 85 32	0 0 0 2 84 74 61 19	0 0 0 19 82 59 53 27	0 0 0 119 115 82 80 33	0 0 8 135 78 47 50 21	0 37 276 420 149 84 51 21	56 168 160 97 16 5
	Under 5,000	10,675	2,580,194	8,666	3.36	100%	7,701	185	240	240	429	339	1,038	503
	5,000 or more	110	1,113,787	3,892	3.49	109%	2	13	11	18	33	24	9	0
	Total	10,785	3,693,981	12,558	3.40	103%	7,703	198	251	258	462	363	1,047	503

<sup>\*</sup> Tabular claims were calculated by applying to actual age-sex-group exposures the crude rates of disablement shown in Table I-1A.

TABLE I-4

# GROUP LONG-TERM DISABILITY INSURANCE DISTRIBUTION OF THE NUMBERS OF CLAIMS BY DIAGNOSIS

(Six-Month Elimination Period; Calendar Year of Issue Excluded)
Calendar Years of Experience 1962-76

### ALL EXPERIENCE UNITS COMBINED

_				M	<b>LE</b>							Fem	ALE							To	TAL			_
Diagnosis	Under 30	30–39	40-44	45-49	50-54	55-59	60–64	All Ages	Under 30	30-39	40–44	45-49	50-54	55-59	60-64	All Ages	Under 30	30-39	40-44	45-49	50-54	55-59	60-64	All Ages
Infective and parasitic diseases: Number Percent	5	6	10	9		11	10	65	4	1	0		2	2	4	15	9	7	10				14	80
Number (cancer):	23	60	54	144	"	327	263	1,090	17	43	0 51	101	139	0 146	92	0 589	1 40	103	105	0	358	0	0	1
Percent. Benign and unspecified neo- plasms:	3	5	5	7	7	8	7	7	4	6	8	11	12	12	íĭ	10	4	6	6		9	9	8	1,07
Number Percent Allergic, endocrine-system, meta- bolic, and nutritional dis-	5 1	1	13 1	17 1	17 1	22 1	16 0	99 1	4 1	11 2	11 2	10 1	7 1	14 1	4 0	61 1	9	20 1	24 1	27 1	24 1	36 1	20 0	160
eases: Number Percent. Diseases of the blood and blood-	7 1	23 2	15 1	32 2	51 2	78 2	73 2	279 2	10 2	5 1	6	18 2	18 2	23 2	22	102 2	17 2	28 2	21 1	50 2	69 2	101 2	95 2	38
forming organs: Number Percent Mental, psychoneurotic, and personality disorders:	12 2	14 1	17 2	29 1	39 1	52 1	61 2	224 1	11 2	8 1	12 2	13 1	19 2	2 1 2	13 1	97 2	23 2	22 1	29 2	42 1	58 1	73 1	74 2	32
Number Percent Diseases of the nervous system and sense organs:	43 6	75 6		101 5	119 4	130 3	95 3	625 4	44 10	72 10	60 9	64 7	7.5 7	37 3	28 3	380 6	87 8	147 8	122 7	165 6	194 5	167 3	123	1,00
Number Percent Diseases of the circulatory system:	48 7	111 10	92 9		215 7	270 6	252 7	1,126 7	49 11	57 8	61 9	74 8	84 8	97 8	66 7	488 8	97 9	168 9	153 9	212 7	299 7	367 7	318 7	1,61
Number Percent	25 4	163 15		641 32				5,556 36	17 4	70 10	80 12	160 20	250 23	342 29	280 32	1,199 21	42 4	233 13	387 21	801 29	1,325 33	2,056 38	1,911 40	6,75

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TABLE I-4 Continued

				MA	ALE:							FEX	IALE							To	TAL			
Diagnosis	Under 30	30-39	40–44	45-49	50 - 54	55-59	60–64	All Ages	Under 30	30-30	40-44	45-49	50-54	55-59	60-64	All Ages	Under 30	30-39	40-44	45-49	50-54	55-59	60–64	All Ages
Diseases of the respiratory sys-												•												
Number	13	39 3	36	108	196	372	343 8	1,107	12	31	27	33	40	46	59 7	248 4	25	70 4	63	141	236	418 8	402	1,355
Percent Diseases of the digestive system: Number Percent Diseases of the genitourinary sys-	9	47 4	38 4	61	73 2	121	100	449	19 4	41 6	31 5	35 4	36 3	38 3	24 3	224 4	28 2	88 5	69 4	96	109	159 3	124	673
Number. Percent. Diseases of the genitourinary sys-	19 3	17 1	23 2	24 1	42 1	49 1	42 1	216 1	13	27 4	22 3	18 2	15 1	16 1	13 1	124 2	32 3	44 2	45 3		57 1	65 1	55 1	340 2
tissue: Number Percent Diseases of the bones and organs	10	13 1	10 1	17 1	18 1	25 1	17 0	110	11 2	17 2	6 1	φ !	11	13 1	10	77 1	21 2	30 2	16 1	26 1	29 1	38 1	27 1	187 1
of movement: Number Percent Congenital malformations:	114 17	219 20	161 15	267 14	384 14			2,039 13	76 16	121 19	124 20	173 19	181 16	202 17		1,026 17	190 17		285 17				586 11	3,065 14
Number Percent Senility and ill-defined condi-	1 0	3 0	0 0	0	8	4 0	2 0	20 0	1 0	1 0	1 0	1	3 0	1 0	1 0	9 0	0	4 0	1 0	3	11 0	5 0	3 0	29 0
tions: Number Percent Accidents, poisoning, and vio-	21	29 2	17 2	50 3	62	77 2	64 2	320 2	27 6	37 5	29 5	35 4	50 4	41 3	24 3	243 4	48 4	66 4	46 3	85 3	112 3	118 2	88 2	563 3
lence: Number Percent Undetermined:	275 41	247 21	134 12	168 9	175 6	166 4	106 3	1,271 8	114 26	97 14	63 10	74 8	100	67 6	48 5	563 10	389 33	344 18	197 11			2.33 4	154 3	1,834 8
Number Percent	46 7	86 7	93 9	148 8	217 7	307 7	219 6	1,116	24 5	55 8	59 9	74 8	83 7	98 8	52 6	445 8	70 6	141 8	152 9	222 8	300 7	405 8	271 6	1,561
Total Number Percent	676 100	1,161 100						15,712 100		694 100	643 100	894 100	1.113		889 100	5,890 100	1,129							21,602 100

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The respective experience underlying Tables I-1 and I-1A have been analyzed by employee class, industry, contributory status, and plan provisions with respect to preexisting conditions and indirect integration (whereby the long-term disability benefit may be reduced when the total income from all specified sources, including the long-term disability benefit, exceeds a specified percentage of salary). The respective results are displayed in Tables 5–9 of the "I" series of tables on six-month experience.

In examining Tables 5-9, it should be noted that many of the variables analyzed may be interrelated. This is especially true in Table I-6 where the results shown in the various cells may be influenced heavily by the level of hourly versus salaried employees. The portion of the Table I-5 experience under units with at least a 75 percent salaried employees composition, the majority of whom were not executives (i.e., Code 2), was analyzed further to investigate the effect that such variables as (a) the relationship between the long-term disability benefit (before integration with other income sources) and salary at time of disablement, (b) the plan's integration provision, and (c) the extent to which a disability income is provided under employer-sponsored plans prior to qualification for long-term disability benefits, appear to exert on disablement rates. The several classifications are somewhat broad. The various parameters may not be mutually exclusive. The respective subanalyses are shown in Table I-5A, separately for nonjumbo and for all experience units. It should be noted that the tabulars and the actual-to-tabular ratios are consistent with those in Table I-5 for Employee Code 2.

The portions of the Table I-6 experience under units with "the majority salaried" and "the majority hourly" as defined in Table I-5 were analyzed to investigate the effect which employee class has on the disablement rates by industry classification. The respective subanalyses are shown in Table I-6A, separately for nonjumbo and for all experience units combined. It should be noted that the tabulars and the actual-to-tabular ratios are consistent with those shown in Tables I-5 and I-6. The actual-to-tabular ratio experience shown by industry in Tables I-6 and I-6A have been compared separately for nonjumbo and for all experience units combined. The results are shown in Table I-6B.

Table I-A examines the interrelationships among various parameters whose effect on disablement rates may not be mutually exclusive. The analysis was based on the experience of those nonjumbo units, all employee classes combined, that have plans that provide for the direct integration of the long-term disability benefit with either the total primary and family benefits payable under social security, or with such

TABLE I-5

GROUP LONG-TERM DISABILITY INSURANCE
ANALYSIS OF TABLES I-1 AND I-1A EXPERIENCE BY EMPLOYEE CLASS

			TABLE 1	A Experience—	-Nonjumbo Un	HTS ONLY	r	ABLE 1 EXPERIE	NCE-ALL UNI	ıts
	Employee Code	Employee Class	Number of Experience Units	Life Years Exposed	Number of Claims	Ratio of Actual Claims to Tabular Claims	Number of Experience Units	Life Years Exposed	Number of Claims	Ratio of Actual Claims to Tabular Claims*
1.		At least 75% salaried, majority executive	486	124,917	315	72%	492	167,182	427	78%
2.		At least 75% salaried, majority	5,103	1,373,987	4,167	91	5,183	2,176,193	6,721	96
3.		50-75% salaried	210	42,031	209	144	217	139,369	521	108
7.		At least 50% salaried (exact per- centage unknown)	77	11,499	18	41	77	11,499	18	41
		Subtotal (majority salaried)	5,876	1,552,434	4,709	90%	5,969	2,494,243	7,687	95%
6.		At least 50% hourly (exact percentage unknown)	1,422	318,327	1,224	117%	1,429	412,719	1,577	117%
4.		50–75% hourly	417	142,214	636	125	417	142,214	636	125
5.		At least 75% hourly	323	107, 283	584	151	331	159,471	1,069	153
		Subtotal (majority hourly)	2,162	567,824	2,444	126%	2,177	714,404	3,282	128%
9.		Indeterminate	2,637	459,936	1,513	100%	2,639	485,334	1,589	101%
		Total	10,675	2,580,194	8,666	100%	10,785	3,693,981	12,558	103%

<sup>\*</sup> Tabular claims were calculated by applying to the actual age-sex-group exposures the crude rates of disablement shown in Table I-1A.

### TABLE 1-5A

### GROUP LONG-TERM DISABILITY INSURANCE

### SUPPLEMENTAL ANALYSIS OF TABLE I-5 EXPERIENCE FOR EMPLOYEE CLASS CODE 2

	N	onjumbo Experi	ENCE UNITS OF	NLY	ALL	Experience U	JNITS
	Number of Experience Units	Life Years Exposed	Number of Claims	Ratio of A/T Claims*	Life Years Exposed	Number of Claims	Ratio of A/T Claims*
I. Relation	nship between .	Long-Term Disa	bility Benefit	and Salary			
Ratio of gross benefit (before reduction for integration) to salary: Always less than 50%	103 71	24,715 4,643	43 5	48% 45	45,928 4,643	94	73% 45
Subtotal (less than 50%)	174	29,358	48	47%	50,571	99	71%
50% (exactly or approximately)	1,317	503,944	1,351	79%	771,379	2,254	86%
Always more than 50%, exact % unknown	92 291 2,452 396 14	59,976 30,029 603,865 103,056 4,656	217 72 2,068 298 23	98% 71 103 107 161	102,965 67,286 900,515 203,331 4,656	449 292 2,804 530 23	116% 119 99 105 161
Subtotal (greater than 50%)	3,245	801,582	2,678	102%	1,278,753	4,098	103%
Other, including not determinable	367	39,103	90	66%	75,490	270	104%
Total salaried, nonexecutive	5,103	1,373,987	4,167	91%	2,176,193	6,721	96%

<sup>\*</sup> Tabular claims were calculated by applying to the actual age-sex-group exposures the crude rates of disablement shown in Table I-1A.

TABLE 1-5A—Continued

	N	опјимво Ехреві	ALL	Experience U	NITS		
	Number of Experience Units	Life Years Exposed	Number of Claims	Ratio of A/T Claims*	Life Years Exposed	Number of Claims	Ratio of A/T Claims*
·	II. Analysis	by Plan Integrat	ion Provision		<u>'</u> '		<u> </u>
Other income sources included in plan integration							
provision: Nonintegrated	1,384	281,622	907	104%	805,747	2,547	104%
Social security primary benefit only or in combination with income from other sources	604	254,866	748	82	323,137	980	87
Social security primary and family benefit only or in combination with income from other sources Other integration bases	2,927 188	800,251 37,248	2,397 115	90 86	989,341 57,968	2,952 242	91 119
Total salaried, nonexecutive	5,103	1,373,987	4, 167	91%	2,176,193	6,721	96%
III. Extent to Wh	ich a Disabili	ty Income is Pro	vided during I	Elimination Pe	riod		
Disability income benefit provided during the elimi- nation period;							
Full salary	107	53,405	233	125%	229,461	716	113%
Less than full salary but generally more than 50%	923	252,342	802	93	533,520	1,639	98
Generally less than 50% of salary	228	14,782	48	90	20,770	102	119
None	575 3,270	125,507 927,951	$\frac{354}{2,730}$	91 88	125,507	354	91 92
Noncodable of unknown	3,270	927,931	2,730	08	1,266,935	3,910	92
Total salaried, nonexecutive	5,103	1,373,987	4.167	91%	2,176,193	6,721	96%

<sup>\*</sup> Tabular claims were calculated by applying to the actual age-sex-group exposures the crude rates of disablement shown in Table I-1A.

TABLE I-6

### GROUP LONG-TERM DISABILITY INSURANCE ANALYSIS OF TABLES I-1 AND I-1A EXPERIENCE BY INDUSTRY

			TABLE 1	A Experience	Nonjumbo Un	ITS ONLY	T	ABLE 1 EXPERIE	nce—All Uni	TS
	Industry Code(s)	Industry	Number of Experience Units	Life Years Exposed	Number of Claims	Ratio of Actual Claims to Tabular Claims*	Number of Experience Units	Life Years Exposed	Number of Claims	Ratio of Actual Claims to Tabular Claims*
	09	Agriculture, forestry, and fisheries	42	11,987	36	84%	44	49,803	96	54%
10-1	14	Mining	191	67,483	396	154	192	72,812	420	149
	17	Contract construction	281	79,749	370	124	281	79,749	370	124
		Manufacturing	4,171	1,120,187	3,887	100	4,227	1,564,118	6,120	112
40-4	49	Transportation, communication, electric, gas, and sanitary services	571	175,865	663	115	574	206,548	880	133
50-5	59		1,633	229,841	835	107	1,638	271,586	949	103
	67		1,480	433,271	1,182	91	1,496	699,901	1,680	88
	89	Services	2,049	405,290	1,086	83	2,076	692,943	1,832	79
91-9	94	Government	126	36,265	158	121	126	36,265	158	121
		All other classifiable	70	13,380	30	75	70	13,380	30	75
99.	• • • • • • • • • • • •	Nonclassifiable	61	6,876	23	113	61	6,876	23	113
		Total	10,675	2,580,194	8,666	100%	10,785	3,693,981	12,558	103%

<sup>\*</sup> Tabular claims were calculated by applying to the actual age-sex-group exposures the crude rates of disablement shown in Table I-1A.

TABLE I-6A

### GROUP LONG-TERM DISABILITY INSURANCE SUPPLEMENTAL ANALYSIS OF TABLE I-6 BY INDUSTRY

(Six-Month Elimination Period; Calendar Year of Issue Excluded; All Ages; Males, Females, and Sex Unknown Combined)

Calendar Years of Experience 1972-76

### I. GROUPS CONTAINING A MAJORITY OF HOURLY EMPLOYEES

			Nonjumbo U	JNITS ONLY			ALL U	NITS	
INDUSTRY CODE(S)	Industry	Number of Experience Units	Life Years Exposed	Number of Claims	Ratio of Actual Claims to Tabular Claims*	Number of Experience Units	Life Years Exposed	Number of Claims	Ratio of Actual Claims to Tabular Claims*
01-09	Agriculture, forestry, and fisheries	3	1,155	3	84%	3	1,155	3	84%
10-14		76	33,418	218	161	77	38,747	242	152
15-17		63	20,176	91	142	63	20,176	91	142
19-39	Manufacturing	971	264, 208	1,245	136	975	294,374	1,710	162
40-49	Transportation, communication, electric, gas, and sanitary services	154	69,532	255	112	157	100,215	472	149
50-59		326	60,459	198	100	326	60,459	198	100
60-67	Finance, insurance, and real estate	237	46,198	123	89	237	46,198	123	89
70–89	Services	279	59,352	221	105	286	139,754	353	62
91–94		44	12,249	84	189	44	12,249	84	189
	All other classifiable	9	1,077	6	147	9	1,077	6	147
99	Nonclassifiable	0	0	0	0	0	0	0	0
	Total	2,162	567,824	2,444	126%	2,177	714,404	3,282	128%

<sup>\*</sup> Tabular claims were calculated by applying to the actual age-sex-group exposures the crude rates of disablement shown in Table I-1A.

TABLE I-6A—Continued

II. GROUPS CONTAINING A MAJORITY OF SALARIED EMPLOYEES

			Nонјимво <b>(</b>	JNITS ONLY			ALL I	Units	
INDUSTRY CODE(S)	Industry	Number of Experience Units	Life Years Exposed	Number of Claims	Ratio of Actual Claims to Tabular Claims*	Number of Experience Units	Life Years Exposed	Number of Claims	Ratio of Actual Claims to Tabular Claims*
01-09	Agriculture, forestry, and fisheries	21	9,641	32	93%	22	40,418	49	33%
10-14	Mining	108	32,190	173	146	108	32,190	173	146
15–17		166	25,764	99	99	166	25,764	99	99
19–39		2,466	718,627	2,226	89	2,518	1,132,392	3,994	102
40–49	electric, gas, and sanitary services	316	83,260	342	127	316	83,260	342	127
50-59	Wholesale and retail trade	943	119,392	426	101	948	161,137	540	96
60-67	Finance, insurance, and real estate	704	262,969	660	83	719	511,240	1,125	83
70–89		1,047	272,155	667	77	1,067	479,406	1,281	85
91-94		67	22,484	70	86	67	22,484	70	86
	All other classifiable	37	5,925	14	84	37	5,925	14	84
99	Nonclassifiable	1	27	0	0	1	27	0	0
	Total	5,876	1,552,434	4,709	90%	5,969	2,494,243	7,678	95%

<sup>\*</sup> Tabular claims were calculated by applying to the actual age-sex-group exposures the crude rates of disablement shown in Table I-1A.

TABLE I-6B

### GROUP LONG-TERM DISABILITY INSURANCE COMPARISON OF TABLES I-6 AND I-6A EXPERIENCE BY EMPLOYEE CLASS

### RATIO OF ACTUAL CLAIMS TO TABULAR CLAIMS\*

(Six-Month Elimination Period; Calendar Year of Issue Excluded; All Ages; Males, Females, and Sex Unknown Combined)

CALENDAR YEARS OF EXPERIENCE 1972-76

	)-14		TABLE 12	A Experience	- Nонјимво Uni	ITS ONLY	TABLE 1 EXPERIENCEALL UNITS				
Cor		Industry	All	Majority Salaried	Majority Hourly	Indetermi nate	All	Majority Salaried	Majority Hourly	Indetermi- nate	
			84%	93%	84%	21%	54%	33%	84%	154%	
			154	146	161	123	149	146	152	123	
			124	99	142	134	124	99	142	134	
19-39.			100	89	136	88	112	102	162	88	
40–49		Transportation, communication, electric, gas and sanitary services	115	127	112	84	133	127	149	84	
50-59	<b></b>	Wholesale and retail trade	107	101	100	131	103	96	100	131	
60-67	. <b></b>	Finance, insurance, and real estate	91	83	89	107	88	83	89	104	
70-89		Services	83	77	105	82	79	85	62	82	
91-94		Government	121	86	189	78	121	86	189	82 78 52	
		All other classifiable	75	84	147	52	75	84	147	52	
99	• • • • • •	Nonclassifiable	113	0	0	113	113	0	0	113	
		Total	100%	90%	126%	100%	103%	95%	128%	101%	

<sup>\*</sup> Tabular claims were calculated by applying to the actual age-sex-group exposures the crude rates of disablement shown in Table I-1A.

TABLE 1-7

GROUP LONG-TERM DISABILITY INSURANCE
ANALYSIS OF TABLES I-1 AND I-1A EXPERIENCE BY CONTRIBUTORY STATUS

	TABLE 1	A-Experience-	Nonjumbo Un	IITS ONLY	Table 1 Experience—All Units					
Contributory Status	Number of Experience Units	Life Years Exposed	Number of Claims	Ratio of Actual Claims to Tabular Claims*	Number of Experience Units	Life Years Exposed	Number of Claims	Ratio of Actual Claims to Tabular Claims*		
Employee-pay-all. Employer-pay-all. Contributory, employer, and employee	851 5,542	278,577 979,051	1,091 3,341	112% 103	875 5,572	528,268 1,347,346	1,986 4,187	121% 97		
share cost	3,103 1,179	848,677 473,889	3,067 1,167	106 76	3,145 1,193	1,224,695 593,672	4,709 1,676	112 82		
Total	10,675	2,580,194	8,666	100%	10,785	3,693,981	12,558	103%		

<sup>\*</sup> Tabular claims were calculated by applying to the actual age-sex-group exposures the crude rates of disablement shown in Table I-1A.

TABLE I-8

GROUP LONG-TERM DISABILITY INSURANCE

### ANALYSIS OF TABLES I-1 AND I-1A EXPERIENCE BY PREEXISTING CONDITION PROVISION

		TABLE 1	A-Experience—	Nonjumbo Un	ITS ONLY	Table 1 Experience—All Units					
262	CONTRIBUTORY STATUS	Number of Experience Units	Life Years Exposed	Number of Claims	Ratio of Actual Claims to Tabular Claims*	Number of Experience Units	Life Years Exposed	Number of Claims	Ratio of Actual Claims to Tabular Claims*		
	Preexisting conditions are not covered. Preexisting conditions are covered.	6,761 3,914	927,621 1,652,573	3,220 5,446	104% 98	6,803 3,982	1,385,970 2,308,011	4,759 7,799	101% 104		
	Total	10,675	2,580,194	8,666	100%	10,785	3,693,981	12,558	103%		

<sup>\*</sup> Tabular claims were calculated by applying to the actual age-sex-group exposures the crude rates of disablement shown in Table I-1A.

TABLE I-9

### GROUP LONG-TERM DISABILITY INSURANCE ANALYSIS OF TABLES I-1 AND I-1A EXPERIENCE BY PLAN INDIRECT INTEGRATION PROVISION

	TABLE 1	A Experience—	Nonjumbo Un	Table 1 Experience—All Units					
Contributory Status	Number of Experience Units	Life Years Exposed	Number of Claims	Ratio of Actual Claims to Tabular Claims*	Number of Experience Units	Life Years Exposed	Number of Claims	Ratio of Actual Claims to Tabular Claims*	
No indirect integration	6,920	1,614,220	5,321	98%	6,964	2,047,896	6,609	95%	
Less than 50%	26	16,001	34	62	27	37,214	85	91	
50-59%	260	117,707	335	79	272	255,569	690	92	
60-69%	1,035	321,318	1,125	104	1,073	666,340	2,332	103	
70–79%	2,251	441,868	1,609	109	2,266	617,882	2,600	130	
80-89%	135	44,499	143	111	135	44,499	143	111	
Greater than 89%	16	3,436	13	157	16	3,436	13	157	
Integrated but noncodable	32	21,145	86	161	32	21,145	86	161	
Total	10,675	2,580,194	8,666	100%	10,785	3,693,981	12,558	1039	

<sup>\*</sup> Tabular claims were calculated by applying to the actual age-sex-group exposures the crude rates of disablement shown in Table I-1A.

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### TABLE I-A

# EXPERIENCE UNDER PLANS WHERE LTD BENEFIT IS DIRECTLY INTEGRATED WITH SOCIAL SECURITY PRIMARY AND FAMILY BENEFITS

ONLY OR IN COMBINATION WITH OTHER INCOME SOURCES

(Six-Month Elimination Period; Calendar Year of Issue Excluded; All Ages; Males, Females, and Sex Unknown Combined)

Calendar Years of Experience 1972-76

NONJUMBO -ALL EMPLOYEE CLASSES

Indirect Integration Classification	Relationship between LTD Benefit and Salary	Relationship between Disability Income Provided during Elimination Period and Salary	Number of Experience Units	Life Years Exposed	Number of Claims	Ratio of Actual Claims to Tabular Claims*
None or a nonduplication level less than 60%	50% or less	50% or less Greater than 50%	1,053	361,689 21,648	1,022 41	84% 61
		Subtotal	1,143	383,337	1,063	83%
	Greater than 50%	50% or less Greater than 50%	4,615 457	878,292 138,025	3,007 510	102% 104
		Subtotal	5,072	1,016,317	3,517	103%
	Subtotal		6,215	1,399,654	4,580	97%
Nonduplication level greater than or equal to 60%	50% or less	50% or less Greater than 50%	120 23	42,814 3,280	213 5	145% 44
		Subtotal	143	46,094	218	138%
	Greater than 50%	50% or less Greater than 50%	442 458	62,891 121,213	240 332	113% 85
		Subtotal	900	184,104	572	95%
	Subtotal		1,043	230,198	790	104%
Total			7,258	1,629,852	5,370	98%

<sup>\*</sup> Tabular claims were calculated by applying to actual age-sex-group exposures the crude rates of disablement shown in Table I-1A.

social security benefits plus income from other sources. The parameters selected for study were (a) the disability income provided by employer-sponsored, short-term plans during the elimination period, (b) the proportion of salary represented by the long-term disability benefit (before integration), and (c) the point at which the long-term disability benefit is reduced, if at all, when total income from all sources exceeds a certain percentage of salary (i.e., nonduplication level), or otherwise.

# EXPERIENCE ON PLANS WITH THREE-MONTH AND TWELVE-MONTH ELIMINATION PERIODS

Tables II-1 and III-1 (Tables 2 and 3, respectively, in previous reports) are similar to Table I-1 but are based on the experience of plans with three-month and twelve-month elimination periods, respectively. It should be noted that the number of claims underlying the disablement rate for some of the sex-age cells shown in these tables is relatively small.

As on plans with a six-month elimination period, the experience on plans with three-month and twelve-month elimination periods is based largely on a "his own occupation" definition of disability generally during the first two years following disablement. About 1 percent of the experience on plans with a three-month elimination period and 4 percent of the experience on plans with a twelve-month elimination period is based on an "any occupation" definition for the full period of disability.

The reader is reminded that claims were reported and included in the rates of disablement, even though, as a result of the existence of social security or other disability income under plans with an offset provision, no benefit may have been payable.

Tables II-2 and III-2 are new tables (but similar to Table I-2) that analyze, by underlying calendar year of experience, the crude rates of disablement shown in Tables II-1 and III-1, respectively, for all ages and for males, females and sex-unknown exposures combined. Some portion of the variation in the overall disablement rates from year to year is the result of changes in the distributions of exposed to risk by age groups. These tables further show that accidents account for a small portion of the claims coded for a known cause of disablement—about 14 percent on plans with a three-month elimination period and 8 percent on plans with a twelve-month elimination period. As on plans with a six-month elimination period, the reader is reminded that the lag in claim reporting may tend to understate the claim experience shown in the tables presented in this portion of the report.

Tables II-2 and III-2 also show the ratios of actual claims to tabular

### TABLE II-1

## GROUP LONG-TERM DISABILITY INSURANCE CRUDE RATES OF DISABLEMENT

### (Three-Month Elimination Period; Calendar Year of Issue Excluded) Calendar Years of Experience 1972-76

ALL EXPERIENCE UNITS COMBINED

Attained Age	Life Years Exposed	Number of Claims	Rate of Disablement per 1,000 Lives						
		ience: Males, Fe d Sex Unknown	males,						
Under 40	478,337	913	1.91						
40-44	97,534	408	4.18						
45-49	92,467	584	6.32						
50-54	79,001	710	8.99						
55-59	58,864	877	14.90						
60-64	36,763	766	20.84						
All ages	842,966	4,258	5.05						
-	Male	Experience Onl	У						
Under 40	228,863	417	1.82						
40-44	51,072	192	3.76						
45-49	46.633	270	5.79						
50-54	39,920	339	8.49						
55-59	30,421	502	16.50						
60–64	20,092	457	22.75						
All ages	417,001	2,177	5.22						
	Female Experience Only								
Under 40	109,923	244	2.22						
40-44	17 466	119	6.81						
45-49	17,798	147	8.26						
50-54	16,632	168	10.10						
55-59	12,046	167	13.86						
60-64	6,902	120	17.39						
All ages	180,767	965	5.34						

### TABLE III-1

### GROUP LONG-TERM DISABILITY INSURANCE CRUDE RATES OF DISABLEMENT PER 1,000 LIVES EXPOSED

(Twelve-Month Elimination Period; Calendar Year of Issue Excluded)

Calendar Years of Experience 1972-76

ALL EXPERIENCE UNITS COMBINED

Attained Age	Life Years Exposed	Number of Claims	Rate of Disablement per 1,000 Lives
		ence: Males, Fe Sex Unknown	males,
Under 40 40-44 45-49 50-54 55-59 60-64	155,592 30,801 34,062 31,943 25,631 12,560	99 47 110 176 246 135	0.64 1.53 3.23 5.51 9.60 10.75
All ages	290,589	813	2.80
	Male	Experience Onl	у
Under 40	101,541 20,033 22,642 21,476 17,205 9,234	65 28 74 107 180 115	0.64 1.40 3.27 4.98 10.46 12.45
	Female	Experience On	ly
Under 40 40-44 45-49 50-54 55-59	23,763 5,555 6,837 7,117 6,023 2,204	27 12 27 58 47 8	1.14 2.16 3.95 8.15 7.80 3.63
All ages	51,499	179	3.48

### TABLE II-2

### GROUP LONG-TERM DISABILITY INSURANCE ANALYSIS OF RATES OF DISABLEMENT BY CALENDAR YEAR OF INCURRAL

(Three-Month Elimination Period; Calendar Year of Issue Excluded; All Ages; Males, Females, and Sex Unknown Combined)
Calendar Years of Experience 1962-76

	Number	_	Nu	MBER OF C	RATE OF	RATIO OF					
CALENDAR YEAR OF INCURRAL	OF EX- PERIENCE UNITS	LIFE YEARS Exposed	Acci- dent	Sickness	Total (Incl. Unknown)	DISABLE- MENT PER 1,000 LIVES	CLAIMS TO TABU- LAR CLAIMS*				
	All Experience Units Combined										
1962–66 1967–71	466 3,481	47,353 489,857	25 370	172 2,157	200 2,558	4.22 5.22	77% 96				
1972	1,997 1,395 1,429	175,176 160,028 169,181	159 128 102	755 719 698	916 847 800	5.23 5.29 4.73	99% 103 97				
1975 1976	1,429 1,378 1,113	181,994 156,587	112 93	718 768	834 861	4.58 5.50	94 107				
1972-76	7,312	842,966	594	3,658	4,258	5.05	100%				

<sup>\*</sup>Tabular claims were calculated by apolying to the actual age-sex-group exposures the crude rates of disablement shown in Table II-1 for males, females, and sex unknown combined.

### TABLE III-2

# GROUP LONG-TERM DISABILITY INSURANCE ANALYSIS OF RATES OF DISABLEMENT BY CALENDAR YEAR OF INCURRAL

	Number		Nu	MBER OF C	RATE OF	RATIO OF					
CALENDAR YEAR OF INCURRAL	OF EX- PERIENCE UNITS	LIFE YEARS Exposed	Acci- dent	Sickness	Total (Incl. Unknown)	DISABLE- MENT PER 1,000 LIVES	CLAIMS TO TABU- LAR CLAIMS*				
	All Experience Units Combined										
1962-66 1967-71	80 302	23,653 148,370	0 23	43 245	45 308	1.90 2.08	69% 74				
1972	83	49,252	7	110	118	2.40	96%				
1973		58,882 60,217	13	118 149	132 167	2.24	84 95				
1974 1975	95	56,655	16	196	212	3.74	129				
1976	123	65,583	13	171	184	2.81	97				
1972-76	492	290,589	67	744	813	2.80	100%				

<sup>\*</sup> Tabular claims were calculated by applying to the actual age-sex-group exposures the crude rates of disablement shown in Table III-1 for males, females, and sex unknown combined.

claims. The tabular claims for each year were obtained by applying the rates of disablement of all size groups from Tables II-1 and III-1, respectively, by sex category to the actual exposures for each age-sex group (males, females and sex unknown). These tabulars, therefore, only adjust for age and sex. No adjustments are made, however, for any other factors that might influence disablement rates.

Tables II-3 and III-3 (revised versions of Table 4 shown in previous reports) subdivide the experience shown in Tables II-1 and III-1, respectively, for all ages and for males, females and sex-unknown exposures combined by size of experience unit. Note that experience units of less than 100 lives accounted for over 78 percent of the total number of units on plans with a three-month elimination period and 41 percent on plans with a twelve-month elimination period. This explains the large number of units that experienced no claims. These tables show that the rate of disablement and the actual-to-tabular ratios tend to increase with the size of the group—a phenomenon that is consistent with the results of prior reports.

Tables II-3 and III-3 also include a dispersion-type analysis of ratios of actual claims to tabular claims. As in Tables II-2 and III-2, these tabulars adjust only for age and sex. However, because the experience is not adjusted for other characteristics that might have a measurable impact on the rate of disablement, caution should be used in interpreting the results.

The respective experience shown in Table I-1A, Table II-1, and Table III-1 was examined by contributing company to determine the variances among companies. The findings along with the relative exposure are displayed in Exhibit I in the form of actual-to-tabular ratios. In comparing the differences between the companies, one should be reminded of the caveats noted throughout this report.

### ANALYSIS OF RATES OF TERMINATION

As noted above, we have changed the format of this portion of the report. Specifically, each of the tables has been renumbered and grouped along with its discussion according to the elimination period.

### EXPERIENCE ON PLANS WITH A SIX-MONTH ELIMINATION PERIOD

Table A-1 (Table D-1 in past reports) shows, for plans with a six-month elimination period, the crude rates of termination from death or recovery based on number of lives, by sex and age groups, for the period 1962-76. Because of the small number of terminations at the later durations, the experience has been truncated at the end of eight years of

EXHIBIT I

ANALYSIS OF THE EXPERIENCE OF TABLE I-1A (SIX-MONTH, NONJUMBO),
TABLE II-1 (THREE-MONTH, ALL EXPERIENCE), AND TABLE III-1
(TWELVE-MONTH, ALL EXPERIENCE) BY CONTRIBUTING COMPANY

	TABLE	I-1A	TABLE	II-1	TABLE III-1			
Company	% of Total Exposure	Ratio A/T	% of Total Exposure	Ratio A/T	% of Total Exposure	Ratio A/T		
[	9%	96%	3%	73%	10%	105%		
II	3'0	78	5	79	7	38		
III	8	131	20	110	29	130		
V	8 3	109	11	126	1	68		
V	8	76	11	84	6	32		
/I	1	95	2	101	0	0		
/II	4	105	8	93	2	154		
/III	19	87	10	66	2	68		
X	31	106	0	0	36	105		
<b>C</b>	1	84	1	47	2	8		
ΚΙ	10	100	27	103	1	57		
XII	3	133	2	198	4	95		
<b>All</b>	100%	100%	100%	100%	100%	100%		

disablement. It should be noted that the termination rates for the first year of disablement relate to the six-month period following the end of the elimination period. There were 44,182 claims exposed to termination, of which 12,558 originated from the 1972-76 and 9,044 from the 1962-71 active lives experience (all experience units combined), with the balance from experience units that were not included in the study of rates of disablement. The Committee did a subanalysis of the termination rates of only the claims that were included in the rates of disablement portion of the study. Termination rates for these claims were found to be generally 10 to 15 percent higher than those shown in Table A-1.

The actual number of claims that terminated by death or recovery is shown in Table A-2 (Table D-1A in previous reports). Ratios of the actual terminations to the number of terminations that would have been produced by application of termination rates from the 1964 Commissioner's Disability Table (CDT) to the Table A-1 exposures are presented in Table A-3 (Table D-1B in prior reports). The low first-year ratios shown in Table A-3 would appear to be due to the shorter elimination periods of the individual health insurance experience underlying the first year termination rates of the 1964 CDT.

Table A-4 (Table D-1E in prior reports) further analyzes the claim termination experience by examining, by claim incurral year during the

TABLE II-3

### GROUP LONG-TERM DISABILITY INSURANCE

RATES OF DISABLEMENT AND RATIOS OF ACTUAL CLAIMS TO TABULAR CLAIMS BY SIZE OF EXPERIENCE UNIT EXPOSED

(Three-Month Elimination Period; Calendar Year of Issue Excluded; All Ages; Males, Females and Sex Unknown Combined)

Calendar Years of Experience 1972-76

ALL EXPERIENCE UNITS COMBINED

	Size of Unit Under 25 lives	Number of		Number	RATE OF	Average	Numbi	ER OF EXP	erience U	NITS BY RA	tio of Ac	tual to T	abular C	Laims*
		Experience Units	LIFE YEARS EXPOSED	OF CLAIMS	DISABLE- MENT PER 1,000 LIVES	A/T Ratio*	0%	1- 50%	50- 75%	75- 100%	100- 150%	150- 200%	200- 500%	500% or More
271	Under 25 lives	2,060	25,596	134	5.24	100%	1,951	0	0	0	0	0	8	101
	25–49	1,925	70,235	353	5.03	92	1,627	1	0	0	0	2	154	141
	50–99	1,724	119,102	601	5.05	96	1,280	0	0	1	17	60	292	74
	100-249		142,948	702	4.91	99	534	0	16	37	109	95	149	23
	250-499	316	110,882	545	4.92	98	103	15	43	25	57	35	38	0
	500-999		150,614	792	5.26	104	35	34	31	21	47	25	25	2
	1,000-2,499	80	119,834	612	5.11	110	6	13	13	12	17	9	9	1
	2,500-4,999	17	64,959	242	3.73	79	1	3	5	3	4	1	0	0
	Under 5,000	7,305	804,170	3,981	4.95	99%	5,537	66	108	99	251	227	675	342
	5,000 or more	7	38,796	277	7.14	123%	0	0	2	1	2	1	1	0
	Total	7,312	842,966	4,258	5.05	100%	5,537	66	110	100	253	228	676	342

<sup>\*</sup> Tabular claims were calculated by applying to actual age-sex-group exposures the crude rates of disablement shown in Table II-1.

# TABLE III-3 GROUP LONG-TERM DISABILITY INSURANCE

RATES OF DISABLEMENT AND RATIOS OF ACTUAL CLAIMS TO TABULAR CLAIMS BY SIZE OF EXPERIENCE UNIT EXPOSED (Twelve-Month Elimination Period; Calendar Year of Issue Excluded; All Ages; Males, Females and Sex Unknown Combined)

Calendar Years of Experience 1972-76

ALL EXPERIENCE UNITS COMBINED

Size of Unit	Number of	LIFE YEARS	Number	DISABLE-	Average A/T Ratios*	Number of Experience Units by Ratio of Actual to Tabular Claims*							
	Experience Units	EXPOSED	OF Claims			0%	1 50%	50- 75%	75- 100%	100- 150%	150- 200%	200- 500%	500% or More
Under 25 lives	18	230	1	4.35	144%	17	0	0	0	0	0	0	1
25-49	83	3,108	5	1.61	49	78	0	0	Ü	0	0	0	5
50–99	99	7,024	9	1.28	45	92	0	0	0	0	0	3	4
100-249	122	19,884	47	2.36	71	87	0	0	0	11	8	14	2
250-499	58	21,684	52	2.40	76	28	0	5	7	5	6	7	0
500-999	52	37,913	131	3.46	101	13	7	6	3	11	4	7	1
1,000-2,499	24	32,568	94	2.89	86	2	7	6	2	3	3	1	0
2,500-4,999	26	94,343	278	2.95	107	5	7	2	1	5	2	3	1
Under 5,000	482	216,754	617	2.85	93%	322	21	19	13	35	23	35	14
5,000 or more	10	73,835	196	2.65	133%	0	3	0	1	2	3	1	0
Total	492	290,589	813	2.80	100%	322	24	19	14	37	26	36	14

<sup>\*</sup> Tabular claims were calculated by applying to actual age-sex-group exposures the crude rates of disablement shown in Table III-1.

### TABLE A-1

### GROUP LONG-TERM DISABILITY INSURANCE CRUDE TERMINATION RATES PER 1,000 CLAIMS EXPOSED TO DEATH OR RECOVERY

(Six-Month Elimination Period; Calendar Years of Experience 1962-76)

			AGE AT DI	SABLEMENT		
DURATION OF DISABLEMENT	Under 30	30-39	Under 40	40-49	50-59	60-64
!		Ma	ile and Fem	ale Combi	ned	
7th month. 8th month. 9th month. 10th month. 11th month. 12th month. 13th month. 13th month. 14th month. 15th month. 15th month. 15th month. 15th month. 17th month. 17th month. 12th month. 20th month. 21st month. 22td month. 23d month. 24th month. 24th month. 25th month. 26th month. 27th month. 27th month. 28th month. 29th month. 21st month. 22st month. 23st month. 24st month. 24st month. 24st month. 24st month. 24st month. 25st month. 26st month. 27st month. 28st month	59.2 73.4 74.6 69.2 59.1 58.6 334.9 54.4 50.8 50.7 36.4 31.2 33.7 34.6 31.1 22.7 38.5 361.5 273.1 115.6 74.5 62.0 †98.2 †33.1*	44.1 55.5 54.0 47.0 43.0 44.4 255.6 43.1 35.0 31.0 30.7 31.1 25.9 21.6 17.3 15.3 21.1 22.7 275.8 186.1 106.4 76.3 58.4 77.5	49.3 61.7 61.0 54.5 48.3 49.0 283.2 46.8 40.0 37.2 32.5 31.2 27.5 25.2 22.4 19.9 22.0 23.2 27.3 303.0 211.6 108.8 75.9 59.4 80.4 69.0	35.5 41.2 39.3 34.7 30.8 30.3 194.0 28.7 26.2 23.9 20.5 19.0 15.5 11.7 11.8 11.8 12.1 16.3 196.4 132.1 73.6 53.2 48.7 53.9 54.0	24.1 25.5 23.8 22.2 20.5 17.6 16.2 14.5 13.2 12.1 10.4 12.2 12.1 9.6 9.8 9.2 8.4 9.3 128.7 9.7 68.2 63.6 67.0 60.8 60.4	17.5 18.4 17.8 14.1 11.3 13.0 88.7 10.3 10.3 10.0 9.4 9.4 9.4 9.4 8.2 6.1 6.2 8.3 104.0 88.3 171.3 49.5 83.9 55.5†
			Male	Only	1	,
1st year (last 6 months) 2d year 3d year 4th year 5th year 6th year 7th year 8th year	342.1 370.0 281.9 115.7 66.8† 60.9* 74.7* 0.0*	270.3 283.7 189.9 115.4 77.8 33.0† 95.3 59.7†	294.9 311.1 216.5 115.6 75.1 40.1 90.8 48.4†	186.8 178.5 124.3 75.3 54.4 47.6 57.0 62.2	123.5 124.6 89.8 71.8 68.5 74.3 64.4 61.1	86.3 105.3 81.1 76.6 53.3 77.3 58.3† 21.9*
			Femal	e Only		
1st year (last 6 months) 2d year 3d year 4th year 5th year 6th year 7th year 8th year	323.8 346.7 258.8 114.5 84.9† 63.6* 132.8* 81.6*	231.5 262.7 180.0 91.6 73.6 95.9 46.9* 101.8†	264.5 289.8 203.6 98.1 76.7 87.2 67.5† 97.7†	207.6 231.5 148.7 69.4 50.3 51.2 47.1 36.5†	135.9 141.1 93.9 55.6 46.0 39.8 47.9 57.8	98.5 98.3 87.4 46.5 30.1* 140.0* 33.3* 121.1*

<sup>\*</sup> Involves fewer than five terminations.

<sup>†</sup> Involves fewer than ten terminations.

period 1962-75, the ratio for all ages combined of the actual terminations to the number of terminations that would have been produced by application of the termination rates from the 1964 CDT to the Table A-1 exposures associated with the claims incurred.

Table A-5 (Table D-1C in previous reports) compares the values of a

TABLE A-2

GROUP LONG-TERM DISABILITY INSURANCE
NUMBER OF CLAIMS TERMINATED BY DEATH OR RECOVERY
(Six-Month Elimination Period; Calendar Years of Experience 1962-76)

			AGE AT DIS	SABLEMEN (						
DURATION OF DISABLEMENT	Under 30	30-39	Under 40	40-49	50-59	60-64				
	Male and Female Combined									
1st year (last 6 months) 2d year 3d year 4th year 5th year 6th year 7th year 8th year	29 13 7	883 523 201 73 37 21 15	1498 845 320 102 50 28 22 13	1668 1077 466 187 98 65 50 36	2253 1606 808 448 308 219 108 62	760 580 271 115 33 16 7				
	Male Only									
1st year (last 6 months) 2d year 3d year 4th year 5th year 6th year 7th year 8th year	206 71 18 7 4 3	579 331 124 50 23 7 12 5	956 537 195 68 30 11 15	1050 643 302 134 71 45 37 28	1647 1174 611 368 260 191 89 49	595 478 218 100 29 13 7				
			Female	Only						
1st year (last 6 months) 2d year 3d year 4th year 5th year 6th year 7th year 8th year	116 48 11 6 3	304 192 77 23 14 14 3 7	542 308 125 34 20 17 7	618 434 164 53 27 20 13	606 432 197 80 48 28 19	165 102 53 15 4 3 0				

### TABLE A-3

# GROUP LONG-TERM DISABILITY INSURANCE RATIOS OF ACTUAL CLAIMS TERMINATED BY DEATH OR RECOVERY TO NUMBER OF TERMINATIONS EXPECTED FROM THE 1964 COMMISSIONERS DISABILITY TABLE\*

(Six-Month Elimination Period; Calendar Years of Experience 1962-76)

DURATION OF DISABLEMENT	ALL AGES OF DIS- ABLE-	SOF AGE AT DISABLEMENT S-										
	MENT COM- BINED	Under 30	30-39	Under 40	40-49	50-59	60-64					
			Male and	l Female (	Combined							
1st year (last 6 months) 2d year 3d year 4th year 5th year 6th year 7th year 8th year	37.4% 82.0 75.5 64.7 66.4 77.0 79.7 78.7	62.0% 116.3 118.3 66.6 55.4 56.9† 105.5† 39.7†	49.4% 99.9 94.6 74.8 71.6 68.5 101.4 115.2	53.9% 105.6 102.6 72.4 66.6 65.0 103.0 97.9	41.8% 83.8 80.3 62.1 59.0 65.1 78.4 81.5	33.3% 73.6 67.8 63.8 70.4 82.7 78.0 78.6	26.0% 75.6 68.3 66.7 50.0 89.9 61.1† 35.0†					
				Male Only								
1st year (last 6 months) 2d year 3d year 4th year 5th year 6th year 7th year 8th year	36.1% 78.7 73.2 67.8 70.3 81.2 84.2 78.7	63.3% 119.0 122.2 66.6 49.6† 55.9† 80.2† 0.0†	52.2% 102.8 96.5 81.2 73.0 38.8† 129.9 88.7†	56.1% 108.4 105.0 77.1 66.0 44.1 116.3 68.7†	40.2% 76.2 75.5 63.6 60.3 63.6 82.8 93.8	32.5% 71.3 67.0 67.2 75.8 91.6 82.7 79.6	25.3% 76.6 67.3 71.6 53.8 82.7 64.1† 23.8†					
			F	emale Onl	у							
1st year (last 6 months) 2d year 3d year 4th year 5th year 6th year 7th year 8th year	40.7% 90.2 81.8 55.4 54.4 64.3 66.6 79.5	59.9% 111.5 112.1 65.9 63.1† 58.3† 142.6† 98.0†	44.7% 95.1 91.5 64.5 69.1 112.6 63.9† 151.2†	50 3% 101 0 98 5 65 0 67 1 95 0 86 6† 138 6†	44.7% 98.8 90.3 58.6 55.8 68.4 68.5 55.1†	35.7% 80.7 70.1 52.0 51.0 49.1 61.4 75.3	28.8% 71.5 72.5 43.5 30.4† 149.9† 36.7† 131.6†					

<sup>\*</sup> As published by the Health Insurance Association of America, Table B1, Vol. III. † Involves fewer than ten terminations.

TABLE A-4

### GROUP LONG-TERM DISABILITY INSURANCE RATIOS OF ACTUAL CLAIMS TERMINATED BY DEATH OR RECOVERY TO NUMBER OF TERMINATIONS EXPECTED FROM THE 1964 COMMISSIONERS DISABILITY TABLE\*

(Six-Month Elimination Period; Calendar Years of Experience 1962-76)

### ALL AGES OF DISABLEMENT COMBINED

		Year of Disablement											
	DURATION OF DISABLEMENT	1966 and Prior	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	All Years
						М	ale and Fem	ale Combine	d				
276	1st year (last 6 months) 2d year 3d year 4th year 5th year 6th year 7th year 8th year	43.9% 97.6 93.5 85.0 84.3 99.7 84.0 84.5	48.3% 103.3 88.8 76.3 44.4 71.8 71.4 94.6	43.4% 91.6 83.7 60.8 78.4 78.3 78.5 50.8	38.3% 89.8 73.8 71.9 69.3 69.8 66.9 82.7	37.8% 75.6 75.8 59.9 59.4 67.4 102.0	34.7% 85.0 74.6 53.6 65.4 67.0			72.7	66.4		37.4% 82.0 75.5 64.7 66.4 77.0 79.7 78.7
							Male	Only	···			<u>'                                    </u>	
	1st year (last 6 months) 2d year 3d year 4th year 5th year 6th year 7th year 8th year	41.4% 99.9 87.6 81.4 89.7 110.1 88.9 90.2	47.4% 96.6 78.9 81.5 47.4 73.0 88.6 84.1	43.7% 87.8 79.5 60.5 89.0 76.7 78.5 48.7	36.0% 85.5 74.4 81.2 66.2 71.0 68.0 78.6	37.0% 68.9 73.0 61.2 63.6 70.2 110.6	32.4% 80.0 73.3 57.5 68.6 76.4			69.6	64.1		36.1% 78.7 73.2 67.8 70.3 81.2 84.2 78.7

<sup>\*</sup> As published by the Health Insurance Association of America, Table B1, Vol. III.

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TABLE A-4—Continued

	Year of Disablement											
DURATION OF DISABLEMENT	1966 and Prior	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	All Years
	Female Only											
1st year (last 6 months). 2d year. 3d year. 4th year. 5th year. 6th year. 7th year.	95.6 67.3 66.6	50.7% 119.9 116.8 60.9 36.1† 68.7† 25.1† 120.9	42.6% 101.5 95.0 61.5 49.1† 82.9 78.7† 56.7†	44.1% 100.6 72.3 45.7 77.9 66.0 63.0† 97.5†	40.2% 94.4 84.4 55.5 45.3 57.8 80.0†	41.0% 99.1 78.7 41.6 55.2 34.6†	88.8 77.0 53.5 35.7†	76.7 60.9 36.8	79.5 78.9	71.8		40.79 90.2 81.8 55.4 54.4 64.3 66.6 79.5

<sup>†</sup> Involves fewer than ten terminations.

monthly benefit of \$1 payable for a maximum period of sixty months with the values of a similar benefit payable to age 65. The illustrations are done on two alternate bases, each using a 3 percent interest discount. One basis is the Table A-1 crude termination rates for the first six years, regardless of the actual number of terminations in each duration-age cell, and the 1964 CDT rates thereafter. The other basis uses the termination rates from the 1964 CDT throughout. It should be noted that reports prior to 1977 used the Table A-1 crude termination rates for the first four years and the 1964 CDT rates thereafter. Attention is directed to Exhibit A, which traces for two age groups on a basis consistent with these previous reports the ratios of annuity values based on the Table

TABLE A-5

GROUP LONG-TERM DISABILITY INSURANCE
ILLUSTRATIVE VALUES OF A MONTHLY BENEFIT OF \$1 PAVABLE FOR VARIOUS BENEFIT PERIODS, DISCOUNTED AT 3 PERCENT INTEREST (Six-Month Elimination Period: Males and Females Combined)

		LUE AS OF END IMINATION PER		Value as of End of Tweleth Month of Disablement					
Age at Disablement	Based on Table A-1 Rates of Termi- nation*	Based on 1964 CDT	Ratio to	Based on Table A-1 Rates of Termi- nation*	Based on 1964 CDT	Ratio to 1964 CDT			
		•			ut Not beyond limination Pe	-			
25.5	\$22.41 28.38 34.37 40.32 20.23	\$16.59 18.44 21.71 26.85 14.91	135% 154 158 150 136	\$26.76 31.68 36.56 40.40 16.22	\$28.46 30.86 33.50 36.68 15.77	94% 103 109 110 103			
			able to Age 6 e End of the		-				
25.5	\$46.88 63.55 73.36 59.97 20.23	\$32.62 38.72 42.87 38.40 14.91	144% 164 171 156 136	\$64.09 79.63 85.66 63.23 16.22	\$63.86 73.54 73.57 55.60 15.77	100% 108 116 114 103			

<sup>\*</sup> Annuity values are based on the crude, ungraduated, combined male and female termination rates from Table A-1 for the first six years and on the 1964 Commissioners Disability Table rates thereafter.

A-1 crude termination rates for the first four years and the 1964 CDT thereafter to those based on the 1964 CDT throughout as shown in Table A-5 in the last seven reports for plans providing a monthly benefit to age 65.

Table A-6 (Table D-1D in prior reports) shows male and female disabled life annuity values for a benefit payable to age 65, based upon the male and female claims, respectively, included in Table A-5. There were 31,879 male and 12,303 female claims in this analysis. As was done in Table A-5, illustrative values are shown on two alternate bases. In making any sex comparisons, the reader is reminded that the 1964 CDT is a unisex table.

GROUP LONG-TERM DISABILITY INSURANCE
ILLUSTRATIVE VALUES, UNDER PLANS WITH A SIX-MONTH
ELIMINATION PERIOD. OF A MONTHLY BENEFIT OF \$1.

TABLE A-6

ELIMINATION PERIOD, OF A MONTHLY BENEFIT OF \$1,
DISCOUNTED AT 3 PERCENT INTEREST, PAYABLE TO AGE 65,
WITH FIRST PAYMENT DUE AT THE END OF
ELIMINATION PERIOD

		LUE AS OF END IMINATION PER	•-	VALUE AS OF END OF TWELFTH MONTH OF DISABLEM				
AGE AT DISABLEMENT	Based on Table A-1 Rates of Termi- nation*	Based on 1964 CDT	Ratio to 1964 CDT	Based on Table A-1 Rates of Termi- nation*	Based on 1964 CDT	Ratio to 1964 CDT		
			Male	Only				
25.5. 35.5. 45.5. 55.5. 62.5.	\$45.79 62.00 75.83 60.04 20.26	\$32.62 38.72 42.87 38.40 14.91	140% 160 177 156 136	\$63.15 79.15 87.96 63.09 16.20	\$63.86 73.54 73.57 55.60 15.77	99% 108 120 113 103		
			Femal	e Only				
25.5. 35.5. 45.5. 55.5. 62.5.	\$48.79 66.26 68.68 60.00 20.10	\$32.62 38.72 42.87 38.40 14.91	150% 171 160 156 135	\$65.85 80.57 81.20 63.96 16.30	\$63.86 73.54 73.57 55.60 15.77	103% 110 110 115 103		

<sup>\*</sup> Annuity values are based on the crude, ungraduated, male or female termination rates from Table A-1 for the first six years and on the 1964 Commissioners Disability Table rates thereafter.

#### EXHIBIT A

GROUP LONG-TERM DISABILITY INSURANCE
RATIO OF ANNUITY VALUE PAYABLE TO AGE 65 DISCOUNTED AT 3 PERCENT
BASED ON THE COMBINED TABLE A-1 EXPERIENCE FOR THE FIRST FOUR
YEARS AND ON THE 1964 CDT RATES THEREAFTER TO THE
ANNUITY VALUES PAYABLE TO AGE 65 DISCOUNTED AT
3 PERCENT BASED ON THE 1964 CDT THROUGHOUT

(Six-Month Elimination Period; Males and Females Combined)

	YEARS OF DISABLED LIVES TERMINATION EXPERIENCE										
AGE AT DISABLEMENT	1962- 1969	1962- 1970	1962- 1971	1962- 1972	1962- 1973	1962- 1974	1962- 1975	1962- 1976			
		Ratio B	ased on Va	alues as of	End of F	limination	Period				
<b>45.5</b>	139% 142%	145% 144%	141% 143%	157% 150%	159% 149%	161% 150%	169% 155%	165% 154%			
	Rati	o Based o	n Values a	s of End	of Twelfth	Month o	f Dis <b>ab</b> len	nent			
<b>45</b> .5	99% 104%	101% 105%	99% 104%	108% 109%	108% 108%	110% 110%	114% 112%	112%			

To allow for the analysis of current trends in claim termination experience, Tables AA-1, AA-2, and AA-3 have been developed. These tables are similar to Tables A-1, A-2, and A-3, respectively, except that the observation period is restricted to the most current five years, namely, 1972–76. As in Table A-1, the claim experience shown has been truncated at the end of eight years.

### EXPERIENCE ON PLANS WITH THREE-MONTH AND TWELVE-MONTH ELIMINATION PERIODS

Tables B-1, B-2, B-3, B-4, B-5, B-6, BB-1, BB-2, and BB-3 analyze the experience of terminations for plans with a three-month elimination period and are similar in form and content to the corresponding tables of the series, with two exceptions. The experience shown has been truncated at six years instead of the eight years that was used for the six-month elimination period plans. Also, the crude termination rates from Table B-1 are used for four years (instead of the six years that was used for the six-month elimination period plans), with the 1964 CDT termination rates used thereafter, in calculating one of the two sets of illustrative values in Tables B-5 and B-6. The number of claims exposed

### TABLE AA-1

### GROUP LONG-TERM DISABILITY INSURANCE CRUDE TERMINATION RATES PER 1,000 CLAIMS EXPOSED TO DEATH OR RECOVERY

(Six-Month Elimination Period; Calendar Years of Experience 1972-76)

7			AGE AT DI	Sable <b>M</b> ent		
DURATION OF DISABLEMENT	Under 30	30-39	Under 40	40-49	50-59	60-64
		M	ale and Fem	ale Combi	ned	
7th month. 8th month. 9th month. 10th month. 11th month. 12th month. 13th war (last 6 months). 13th month. 14th month. 15th month. 15th month. 16th month. 17th month. 19th month. 20th month. 21st month. 21st month. 22th month. 23d month. 24th month. 24th month. 25th year. 3d year. 4th year. 5th year. 7th year. 8th year.	49.8 71.4 79.9 72.7 58.2 52.2 328.0 49.8 47.6 50.6 43.5 33.0 30.1 36.9 32.1 24.7† 19.7 36.9 252.0 116.9 74.5 69.7† 104.6† 34.2*	40.7 50.1 47.2 42.8 38.4 39.2 232.2 39.8 36.6 33.5 30.6 21.9 17.3 13.9 18.8 23.0 20.7 272.6 170.7 103.4 72.4 61.7 80.5 63.8†	44.0 57.7 58.8 53.2 45.2 43.6 266.8 43.1 40.1 38.9 34.6 31.6 27.7 26.4 22.3 19.3 20.6 22.0 25.5 300.8 195.0 107.2 73.1 64.2 87.3 57.7	33.7 37.1 35.8 32.0 27.7 27.0 178.3 26.4 25.0 22.4 20.2 18.1 17.0 12.8 10.2 11.3 9.6 11.3 17.1 183.9 14.5 54.6 38.8 51.0 57.4	24.4 23.7 22.3 21.1 19.5 17.2 121.6 15.5 13.6 13.6 13.6 11.8 9.0 10.0 9.6 7.8 8.1 8.1 9.0 117.4 83.9 62.6 60.8 59.8 57.2 61.6	16.2 16.5 16.2 13.7 10.0 11.4 81.1 11.7 9.2 9.0 7.8 7.8 8.6 8.7 7.7 93.5 70.2 37.2 85.6 57.3 32.2*
			Male	Only		
1st year (last 6 months) 2d year 3d year 4th year 5th year 6th year 7th year 8th year	321.3 371.3 255.6 116.4 67.5† 72.3* 82.0* 0.0*	241.1 278.3 169.7 126.6 70.3 41.2† 110.3 69.1†	269.3 307.6 194.8 124.0 69.7 49.5 104.1 55.6†	179.2 165.3 122.1 67.4 55.8 37.9 50.0 66.4	118.8 114.0 85.0 66.5 65.5 64.9 62.5 62.1	76.7 92.8 78.3 75.6 40.4 78.5 60.2† 21.9*
			Female	Only		
1st year (last 6 months) 2d year 3d year 4th year 5th year 6th year 7th year 8th year	337.5 344.1 247.0 117.1† 84.1† 66.2* 135.6* 81.6*	217.7 263.0 172.0 64.4 75.3 93.5 38.7* 60.1*	263.0 289.6 195.0 79.8 77.8 85.4 65.2† 64.5†	176.6 220.8 147.5 57.7 51.6 40.9 53.3 38.6†	129.7 127.5 80.2 49.2 44.1 40.8 38.4 60.0	96.8 93.8 63.2 45.3 21.5* 148.3* 35.7* 121.1*

<sup>\*</sup> Involves fewer than five terminations.

<sup>†</sup> Involves fewer than ten terminations.

to termination was 21,859 of which 4,258 and 2,758 emanated from the 1972-76 and 1962-71 portions, respectively, of the active lives experience, and the balance from experience units that were not included in the study of rates of disablement. Termination rates for the first year of disablement cover the nine months immediately following the elimination period.

TABLE AA-2

GROUP LONG-TERM DISABILITY INSURANCE

NUMBER OF CLAIMS TERMINATED BY DEATH OR RECOVERY

(Six-Month Elimination Period; Calendar Years of Experience 1972-76)

D			Age at Dis	ABLEMENT		
DURATION OF DISABLEMENT	Under 30	30-39	Under 40	40-49	50-59	60-64
		M	ale and Fem	ale Combi	ned	
1st year (last 6 months). 2d year 3d year 4th year 5th year 6th year 7th year 8th year	389 221 82 24 11 7 7	494 350 135 54 27 18 14	883 571 217 78 38 25 21 10	904 650 324 120 81 42 41 35	1350 967 538 316 239 166 92 59	423 342 181 91 21 15 7
			Male	Only		
1st year (last 6 months) 2d year 3d year 4th year 5th year 6th year 7th year	49 15 6 4	318 221 83 42 16 7 12 5	543 361 132 57 22 11 15	599 384 211 89 57 29 28 27	975 701 415 261 201 141 78 46	314 275 152 79 19 12 7
			Female	Only		
1st year (last 6 months) 2d year 3d year 4th year 5th year 6th year 7th year		176 129 52 12 11 11 2 4	340 210 85 21 16 14 6 5	305 266 113 31 24 13 13	375 266 123 55 38 25 14	109 67 29 12 2 3 0

### TABLE AA-3

# GROUP LONG-TERM DISABILITY INSURANCE RATIOS OF ACTUAL CLAIMS TERMINATED BY DEATH OR RECOVERY TO NUMBER OF TERMINATIONS EXPECTED FROM THE 1964 COMMISSIONERS DISABILITY TABLE\*

(Six-Month Elimination Period; Calendar Years of Experience 1972-76)

Duration of Disablement	ALL AGES OF DIS- ABLE-	AGE AT DISABLEMENT										
	MENT COM- BINED	Under 30	30-39	Under 40	40-49	50-59	60-64					
			Male and	l Female	Combined							
1st year (last 6 months) 2d year 3d year 4th year 5th year 6th year 7th year 8th year	35.1% 76.5 70.8 60.0 63.6 69.1 76.5 79.5	60.7% 116.1 109.2 67.4 55.4 64.0† 112.4† 41.0†	44.8% 98.7 86.7 72.8 67.9 72.4 109.6 94.7†	50.7% 104.8 94.4 71.1 64.0 69.9 111.3 81.6	38.4% 78.5 79.1 54.5 60.5 51.9 74.2 86.6	32.0% 67.2 62.7 58.5 67.3 73.7 73.4 80.2	23.8% 67.6 62.7 65.6 37.6 91.6 63.1† 35.0†					
				Male Only	,							
1st year (last 6 months) 2d year 3d year 4th year 5th year 6th year 7th year 8th year	34.0% 73.0 69.7 64.1 67.2 71.9 81.3 81.3	59.5% 119.4 110.7 67.0 50.2† 66.3† 88.1† 0.0†	46.6% 100.8 86.2 89.1 66.0 48.3† 150.3 102.7†	51.2% 107.2 94.4 82.5 61.1 54.3 132.9 78.7†	38.6% 70.6 74.2 56.9 61.9 50.7 72.6 100.2	31.3% 65.2 63.5 62.2 72.5 80.1 80.2 80.8	22.5% 67.5 64.9 70.7 40.8 84.1 66.3† 23.8†					
			F	emale On	ly							
1st year (last 6 months) 2d year 3d year 4th year 5th year 6th year 7th year 8th year	37.9% 85.2 74.0 47.7 53.0 60.7 62.6 75.1	62.5% 110.7 107.0 67.5† 62.6† 60.8† 145.7† 98.0†	42.0% 95.3 87.4 45.3 70.7 109.7 52.7† 89.2†	50.0% 100.9 94.2 52.8 68.0 92.3 83.0† 91.2†	38.0% 94.3 89.6 48.7 57.2 54.6 77.5 58.2†	34.1% 73.0 59.9 46.0 48.8 50.3 49.3 78.1	28.4% 68.3 52.5 42.3 21.7† 158.8† 39.3† 131.6†					

<sup>\*</sup> As published by the Health Insurance Association of America, Table B1, Vol. III.

<sup>†</sup> Involves fewer than ten terminations.

### TABLE B-1

### GROUP LONG-TERM DISABILITY INSURANCE CRUDE TERMINATION RATES PER 1,000 CLAIMS EXPOSED TO DEATH OR RECOVERY

(Three-Month Elimination Period; Calendar Years of Experience 1962-76)

			Age at Di	SABLEMENT		
DURATION OF DISABLEMENT	Under 30	30-39	Under 40	40-49	50-59	60-64
		Ma	ale and Fem	ale Combi	ned	·
4th month 5th month 6th month 7th month 8th month 10th month 11th month 12th month 13th wonth 13th month 14th month 14th month 15th month 24th month 15th month 25th month 26th month 27th month 28th month 29th month 29th month 20th month 20th month 21st month 22d month 23d month 24th month 2d year 3d year 4th year 5th year 6th year	87.4 80.8 74.5 79.4	113.8 127.1 119.6 102.2 78.2 56.2 47.3 53.2 50.6 544.5 44.7 36.4 37.7 39.9 32.0 24.7 11.6† 14.5† 18.8 21.7 21.8 27.4 288.7 197.3 88.7 71.4† 36.4*	117.6 133.4 124.0 108.6 87.8 68.6 60.4 61.2 61.1 579.8 54.4 43.8 44.5 41.0 32.8 28.6 18.7 19.7 25.1 26.6 24.5 26.9 325.4 203.7 81.7 63.2 38.3*	91.6 103.4 92.0 75.9 67.5 57.8 46.2 41.0 37.0 471.1 31.1 26.7 24.2 24.7 23.5 19.5 12.0 13.4 12.8 207.7 141.4 81.9 41.3 34.7†	63.4 69.4 62.8 51.9 40.5 34.4 30.2 24.5 21.3 335.5 19.1 17.0 16.2 16.3 15.8 13.7 11.3 10.2 10.1 9.4 8.5 8.2 145.3 94.6 69.7 65.9 76.3	44.6 50.8 44.8 39.4 34.4 22.0 19.1 18.5 15.8 255.4 14.7 13.3 13.1 11.8 11.1 9.1 6.8 9.1 10.2 6.7† 6.3 6.9† 113.0 102.0 86.8 74.5 54.9*
			Male	Only		
1st year (last 9 months) 2d year 3d year 4th year 5th year 6th year	654.5 371.6 186.9 30.2* 36.7* 41.7*	550.0 311.0 211.0 97.2 125.1† 66.1*	593.2 332.1 204.4 80.3 102.4 60.3*	458.2 206.9 142.8 90.2 42.3 30.2†	318.8 141.9 97.1 74.9 70.9 82.0	258.0 111.5 111.2 77.8 70.5† 0.0*
			Female	e Only		
1st year (last 9 months) 2d year 3d year 4th year 5th year 6th year	596.2 420.1 254.7 105.4* 41.7* 41.7*	536.6 257.2 178.6 76.7† 0.0* 0.0*	561.6 316.5 202.4 83.6† 9.3* 9.3*	491.7 209.2 139.0 65.2 39.0* 43.2*	376.7 154.1 87.2 54.0 51.0 58.8†	246.7 117.4 70.3 113.6 85.2* 262.0*

<sup>\*</sup> Involves fewer than five terminations.

<sup>†</sup> Involves fewer than ten terminations.

TABLE B-2

GROUP LONG-TERM DISABILITY INSURANCE

NUMBER OF CLAIMS TERMINATED BY DEATH OR RECOVERY

(Three-Month Elimination Period; Calendar Years of Experience 1962-76)

D			AGE AT DIS	SABLEMENT		
DURATION OF DISABLEMENT	Under 30	30-39	Under 40	40-49	50-59	60-64
		М	ale and Fem	ale Combi	ned	
1st year (last 9 months) 2d year 3d year 4th year 5th year 6th year	4 2	1195 206 71 17 9 3	2195 351 104 21 11 4	2167 387 162 56 16	2694 591 251 123 75 45	903 197 96 35 12 2
			Male	Only		
1st year (last 9 months) 2d year	77 16 1	699 128 43 11 9	1287 205 59 12 10 4	1299 242 106 40 12 5	1818 427 191 99 61 37	696 149 82 23 9
			Female	Only	<u> </u>	
1st year (last 9 months) 2d year 3d year 4th year 5th year 6th year	68 17 3 1	496 78 28 6 0	908 146 45 9 1	868 145 56 16 4 4	876 164 60 24 14 8	207 48 14 12 3 2

TABLE B-3

# GROUP LONG-TERM DISABILITY INSURANCE RATIOS OF ACTUAL CLAIMS TERMINATED BY DEATH OR RECOVERY TO NUMBER OF TERMINATIONS EXPECTED FROM THE 1964 COMMISSIONERS DISABILITY TABLE\*

(Three-Month Elimination Period; Calendar Years of Experience 1962-76)

DURATION OF DISABLEMENT	ALL Ages of Dis-			Age at Di	Sable <b>m</b> en	r	
	MENT COM- BINED	Under 30	30-39	Under 40	40-49	50-59	60-64
			Male and	l Female (	Combined		
1st year (last 9 months) 2d year 3d year 4th year 5th year 6th year	50.6% 90.2 80.5 66.9 65.9 75.1	70.9% 126.6 94.0 35.0† 28.5† 39.0†	61.9% 104.6 100.2 62.4 67.0† 42.7†	65.7% 113.1 98.6 54.4 55.7 42.4†	56.0% 88.7 85.9 69.2 45.8 46.3†	44.7% 83.1 70.7 65.2 73.0 94.1	38.5% 82.2 84.6 81.1 75.3 58.8†
				Male Only			
1st year (last 9 months). 2d year. 3d year. 4th year. 5th year. 6th year.	48.8% 88.5 82.0 70.2 73.0 79.3	73.7% 119.5 81.0 17.4† 27.3† 38.2†	62.5% 112.6 107.2 68.4 117.4† 77.6†	67.2% 115.4 98.9 53.5 89.9 66.1†	54.5% 88.3 86.8 76.1 46.9 40.4†	42.5% 81.2 72.5 70.0 78.6 101.2	38.9% 81.1 92.3 72.7 71.2† 0.0†
			F	emale Onl	У		
1st year (last 9 months) 2d year 3d year 4th year 5th year 6th year	54.3% 94.0 76.9 58.6 48.1 64.5	67.1% 135.1 110.3 60.7† 31.0† 38.2†	61.0% 93.1 90.8 54.0† 0.0†	63.6% 109.9 98.0 55.8† 8.2† 10.4†	58.4% 89.3 84.5 55.1 43.2† 57.7†	50.2% 88.1 65.1 50.5 56.5 72.5†	37.2% 85.4 58.3 106.1 86.1† 280.5†

<sup>\*</sup> As published by the Health Insurance Association of America, Table B1, Vol. III.

<sup>†</sup> Involves fewer than ten terminations.

TABLE B-4—Group Long-Term Disability Insurance Ratios of Actual Claims Terminated by Death or Recovery to Number of Terminations Expected from the 1964 Commissioners Disability Table\*

(Three-Month Elimination Period; Calendar Years of Experience 1962-76)

ALL AGES OF DISABLEMENT COMBINED

						YEAR OF D	DISABLEMENT					
DURATION OF DISABLEMENT	1966 and Prior	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	All Years
					М	ale and Fen	nale Combin	ed	-			
1st year (last 9 months) 2d year 3d year 4th year 5th year 6th year	60.3% 125.5 109.0 100.7 45.0† 109.3	57.1% 109.2 100.7 102.1 125.8 92.2†	61.6% 105.8 102.2 93.8 72.4 79.3†	56.9% 93.3 107.5 90.1 56.0 107.3	52.0% 103.0 95.2 70.6 75.4 33.5†	54.2% 105.9 85.4 53.6 70.3 44.2†	52.1% 90.2 64.5 53.0 51.0	49.1% 74.4 69.4 46.6	75.9 57.4	80.6		50.6% 90.2 80.5 66.9 65.9 75.1
						Male	Only	<u> </u>		·	· · · · · · · · · · · · · · · · · · ·	
1st year (last 9 months) 2d year 3d year 4th year 5th year 6th year	60.4% 139.9 106.6 95.1 54.6† 107.2	57.8% 96.5 109.0 116.2 158.0 85.7†	61.4% 108.0 110.0 115.0 84.5 93.5†	54.5% 98.8 97.8 96.4 65.4 108.7	49.5% 97.7 92.0 67.3 68.1 42.2†	53.1% 98.2 85.3 57.2 79.8 55.2†	50.1% 90.5 63.5 57.0 34.6†	72.5 76.0 49.3	71.1	73.1		48.8% 88.5 82.0 70.2 73.0 79.3
		· · · ·	•			Femal	e Only	·		·	·	
1st year (last 9 months) 2d year 3d year 4th year 5th year 6th year	60.0% 94.7 113.3 111.3 24.0† 106.4†	55.5% 134.6 81.3† 70.2† 51.4† 105.1†	62.2% 99.8 81.0† 38.6† 44.7† 46.1†	62.9% 77.4 133.7 73.2† 29.1† 100.4†	58.0% 116.7 103.7 79.8 96.1† 8.5†	57.0% 125.5 85.5 43.0† 44.5† 11.3†	56.0% 89.6 66.6 43.9 72.2†	78.3 54.6 39.8†	84.5 48.4	51.3% 94.4		54.3% 94.0 76.9 58.6 48.1 64.5

<sup>\*</sup> As published by the Health Insurance Association of America, Table B1, Vol. III.

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<sup>†</sup> Involves fewer than ten terminations.

TABLE B-5

### GROUP LONG-TERM DISABILITY INSURANCE ILLUSTRATIVE VALUES OF A MONTHLY BENEFIT OF \$1 PAYABLE FOR VARIOUS BENEFIT PERIODS, DISCOUNTED AT 3 PERCENT INTEREST

(Three-Month Elimination Period; Males and Females Combined)

		LUE AS OF END IMINATION PER			LUE AS OF END MONTH OF DIS	
DISABLEMENT T	Based on Table B-1 Rates of Termi- nation*	Based on 1964 CDT	Ratio to 1964 CDT	Based on Table B-1 Rates of Termi- nation*	Based on 1964 CDT	Ratio to 1964 CDT
	!	Payable for a h First Payme			-	• • • • • • • • • • • • • • • • • • • •
25.5. 35.5. 45.5. 55.5. 62.5.	\$14.68 18.98 23.81 31.47 19.16	\$ 5.43 5.95 7.82 12.25 9.67	270% 319 304 257 198	\$25.79 29.79 34.03 37.67 16.05	\$27.50 29.72 32.18 35.19 15.77	94% 100 106 107 102
				5 with First P Elimination F		
25.5. 35.5. 45.5. 55.5. 62.5.	\$28.09 39.35 47.52 46.42 19.16	\$ 9.41 11.09 14.23 17.24 9.67	299% 355 334 269 198	\$62.76 75.50 79.86 60.67 16.05	\$63.86 73.54 73.57 55.60 15.77	98% 103 109 109 102

<sup>\*</sup>Annuity values are based on the crude, ungraduated combined male and female termination rates from Table B-1 for the first four years, and on the 1964 Commissioners Disability Table rates thereafter.

TABLE B-6

# GROUP LONG-TERM DISABILITY INSURANCE ILLUSTRATIVE VALUES, UNDER PLANS WITH A THREE-MONTH ELIMINATION PERIOD, OF A MONTHLY BENEFIT OF \$1, DISCOUNTED AT 3 PERCENT INTEREST, PAYABLE TO AGE 65, WITH FIRST PAYMENT DUE AT THE END OF ELIMINATION PERIOD

VALUE AS OF END OF VALUE AS OF END OF ELIMINATION PERIOD TWELFTH MONTH OF DISABLEMENT AGE AT Based on Based on DISABLEMENT Table B-1 Table B-1 Ratio to Ratio to Based on Based on Rates of Rates of 1964 CDT 1964 CDT 1964 CDT 1964 CDT Termi-Termination\* nation\* Male Only \$28.29 37.30 48.32 47.45 301% 107% 25.5.. \$ 9.41 \$68.57 \$63.86 71.85 79.29 73.54 73.57 35.5.. 11.09 336 98  $14.23 \\ 17.24$ 45.5... 340 108 55.5.. 60.58 55.60 109 275 62.5..... 19,11 9.67 198 16.05 15.77 102 Female Only \$27.70 42.37 \$55.92 80.79 \$63.86 73.54 25.5. \$ 9.41 294% 88% 35.5. 11.09 382 110 73.57 45.5 46.30 14.23 325 80.95 110 43.98 17.24 55.60 15.77 55.5 255 61.01 110 62.5.. 19.35 9.67 200 16.06 102

<sup>\*</sup> Annuity values are based on the crude, ungraduated, male or female termination rates from Table B-1 for the first four years and on the 1964 Commissioners Disability Table rates thereafter.

### TABLE BB-1

### GROUP LONG-TERM DISABILITY INSURANCE CRUDE TERMINATION RATES PER 1,000 CLAIMS EXPOSED TO DEATH OR RECOVERY

(Three-Month Elimination Period; Calendar Years of Experience 1972-76)

	}		AGE AT DI	SABLE MENT		
DURATION OF DISABLEMENT	Under 30	30-39	Under 40	40-49	50-59	60-64
		Ма	ale and Fen	nale Combi	ned	
4th month 5th month 6th month 7th month 8th month 10th month 11th month 12th month 13th month 14th month 14th month 15th month 15th month 15th month 12th month 20th month 21st month 22d month 23d month 24th month 2d year 3d year 4th year 5th year 6th year	126.9 139.6 120.4 112.2 100.1 82.4 73.9 70.8 79.8 616.4 69.8 59.5 65.5 49.3† 33.3† 33.2† 26.3† 27.9† 34.7† 28.4* 24.3* 392.7 205.5 38.9* 26.8*	117.5 125.0 115.0 100.0 74.4 54.8 45.3 48.2 43.1 532.1 32.3 29.1 39.6 41.9 29.1 18.6† 12.9† 18.2† 22.9† 21.3† 23.9 264.1 190.2 75.7 74.8† 39.8*	121.8 131.6 117.5 105.4 85.6 66.4 57.1 57.2 57.4 569.3 46.6 40.2 48.9 44.5 30.5 23.7 17.3 18.0 23.7 26.7 23.6 24.1 312.1 195.2 66.0 63.4 37.3*	91.7 101.1 88.9 67.2 59.1 52.2 42.7 37.8 32.8 448.7 28.5 24.9 22.7 23.4 21.6 18.7 15.9 12.7 11.4 12.1 12.1 12.1 12.5 976.8 42.1 32.2†	60.0 64.1 56.8 46.6 37.4 33.6 29.8 22.4 18.6 314.8 16.3 14.8 15.4 15.6 10.0 9.0 8.6 8.9 139.3 90.3 64.6 64.5 70.4	41.1 45.5 39.7 35.2 31.0 21.7 19.2 17.9 16.7 238.6 15.1 13.0 12.1 9.6 10.6 9.1 5.8 6.5 9.1 6.5 4.1* 100.1 92.9 72.1 72.8 33.1*
			Male	Only		
1st year (last 9 months). 2d year. 3d year. 4th year. 5th year. 6th year.	644.9 372.1 156.6 10.9* 43.0* 41.7*	539.2 273.2 198.0 92.8† 127.0† 69.3*	585.1 309.7 185.7 71.3† 105.5† 63.0*	431.5 189.3 130.5 83.5 41.2 29.3*	295.8 136.5 93.0 69.2 69.3 77.2	238.6 93.2 100.5 64.4 61.0† 0.0*
			Femal	e Only		
1st year (last 9 months) 2d year 3d year 4th year 5th year 6th year	583.5 415.5 260.8 82.8* 0.0* 0.0*	523.0 251.4 179.3 49.9* 0.0* 0.0*	550.0 315.1 206.9 58.2† 0.0* 0.0*	473.3 208.1 118.2 62.4 43.9* 36.2*	359.4 146.5 82.5 50.7 50.2 49.9†	238.3 121.4 66.7 96.7† 109.0*

<sup>\*</sup> Involves fewer than five terminations.

<sup>†</sup> Involves fewer than ten terminations.

TABLE BB-2
GROUP LONG-TERM DISABILITY INSURANCE
NUMBER OF CLAIMS TERMINATED BY DEATH OR RECOVERY

(Three-Month Elimination Period; Calendar Years of Experience 1972-76)

1st year (last 9 months) 2d year 3d year 4th year 5th year 6th year	57 15 2 0	342 58 21 3 0	668 115 36 5 0	612 111 39 12 4	630 128 47 19 11	144 37 10 8 3
			Female	Only		
1st year (last 9 months) 2d year 3d year 4th year 5th year 6th year.	0	456 82 32 9 8 3	881 142 43 9 9	811 165 78 32 10 4	1208 324 147 75 51 29	444 90 58 15 6
			Male	Only		
1st year (last 9 months) 2d year 3d year 4th year 5th year 6th year	1	798 140 53 12 8 3	1549 257 79 14 9	1423 276 117 44 14 7	1838 452 194 94 62 35	588 127 68 23 9
	Under 30	30-39 M	Under 40	40-49	50-59	6064
DURATION OF DISABLEMENT			AGE AT DIS	SABLEMENT		

### TABLE BB-3

# GROUP LONG-TERM DISABILITY INSURANCE RATIOS OF ACTUAL CLAIMS TERMINATED BY DEATH OR RECOVERY TO NUMBER OF TERMINATIONS EXPECTED FROM THE 1964 COMMISSIONERS DISABILITY TABLE\*

(Three-Month Elimination Period; Calendar Years of Experience 1972-76)

DURATION OF DISABLEMENT	ALL Ages of Dis-	AGES OF AGE AT DISABLEMENT DIS-				T				
	MENT COM- BINED	Under 30	30-39	Under 40	40~49	50~59	60~64			
			Male and	l Female (	Combined					
1st year (last 9 months) 2d year 3d year 4th year 5th year 6th year	48.3% 85.4 74.8 60.3 64.9 68.2	69.4% 126.3 89.1 22.4† 20.0† 24.1†	60.5% 95.7 96.7 53.3 70.2† 46.7†	64.4% 108.3 94.2 43.9   56.0†   41.3†	53.3% 83.7 76.5 64.8 46.7 43.0†	42.0% 79.7 67.4 60.4 71.4 86.8	36.0% 72.8 77.1 67.4 73.6† 35.4†			
	Male Only									
1st year (last 9 months) 2d year 3d year 4th year 5th year 6th year	46.0% 81.9 76.2 63.7 70.7 74.5	72.6% 119.7 67.8 6.3† 32.0† 38.2†	61.3% 98.9 100.6 65.3† 119.1† 81.3†	66.2% 107.5 89.6 47.3† 92.6† 69.1†	51.3% 80.8 79.3 70.5 45.6 39.1†	39.4% 78.1 69.4 64.7 76.8 95.2	36.0% 67.8 83.4 60.2 61.6† 0.0†			
			F	emale On	ly					
1st year (last 9 months) 2d year 3d year 4th year 5th year 6th year	52.5% 92.3 71.6 51.8 49.7 51.5	65.7% 133.7 113.0 47.7† 0.0† 0.0†	59.4% 91.1 91.1 35.1† 0.0† 0.0†	62.2% 109.2 99.7 38.7† 0.0† 0.0†	56.2% 88.8 71.8 52.7 48.7† 48.4†	47.9% 83.8 61.6 47.4 55.6 61.5†	35.9% 88.3 55.4 90.3† 110.1† 203.4†			

<sup>\*</sup> As published by the Health Insurance Association of America, Table B1, Vol. III.

<sup>†</sup> Involves fewer than ten terminations.

As on plans with a six-month elimination period, the low first-year ratios shown for plans with a three-month elimination period in Table B-2 would appear to be due to the shorter elimination periods of the individual health insurance experience underlying the first-year termination rates of the 1964 CDT.

For plans with a twelve-month elimination period, the experience of terminations is analyzed in the C and CC series of Tables. These tables are similar in format to the corresponding tables of the B and BB series. The number of claims exposed to termination was 3,653 of which 813 and 353 originated from the 1972-76 and 1962-71 portions, respectively, of the active lives experience, and the balance from experience units that were not included in the study of rates of disablement.

The overall termination rates shown in this report, which include one additional year of experience, are slightly higher (varies by elimination period, plan, age, duration, and sex) than those shown in last year's report. The financial consequences of this change are apparent from a comparison of Tables A-5, B-5, and C-5 values between last year's and this year's report. The variation from one report to the next underscores the need to exercise caution and judgment when using the disabled life annuity values shown in Tables A-5, B-5, and C-5 for actuarial purposes such as reserving.

TABLE C-1

### GROUP LONG-TERM DISABILITY INSURANCE CRUDE TERMINATION RATES PER 1,000 CLAIMS EXPOSED TO DEATH OR RECOVERY

(Twelve-Month Elimination Period; Calendar Years of Experience 1962-76)

	Age at Disablement							
DURATION OF DISABLEMENT	Under 30	30-39	Under 40	40~49	50-59	60-64		
	Male and Female Combined							
13th month 14th month 15th month 16th month 17th month 18th month 19th month 20th month 21st month 22d month 23d month 24th month 2d year 3d year 4th year 5th year 6th year	24.6*	27.8† 41.5† 34.1* 14.2* 15.5* 27.5* 20.2* 16.7* 17.6* 18.6* 24.4* 25.7* 249.9 119.1 89.7* 81.0*	23.2 32.0† 27.5† 18.1* 22.0† 30.5† 23.7* 16.6* 14.5* 15.4* 19.1* 20.0* 233.3 152.9 117.6† 91.0* 92.6*	15.0 18.7 15.0† 13.0† 16.5 19.0† 14.5† 8.8* 11.6† 20.3 17.2* 7.7* 163.7 129.0 117.1 33.2† 32.9*	12.1 15.0 13.5 11.4 12.2 11.6 9.7 7.3† 7.2† 8.3 11.8 14.1 126.4 95.3 74.8 74.0 70.1	15.3 14.9† 13.6† 12.2† 8.5* 4.4* 3.5* 10.6* 12.5† 16.4† 117.6 88.6 61.3† 5.8*		
			Male	Only				
2d year 3d year 4th year 5th year 6th year	182.6 193.6† 233.0* 190.0* 468.3*	285.3 120.8† 108.2* 111.1* 54.8*	248.5 148.2 145.1† 124.5* 140.9*	159.7 120.1 121.5 25.2* 25.2*	128.5 91.9 85.1 75.9 73.3	122.0 91.5 53.0† 6.6* 62.5*		
			Femal	e Only				
2d year 3d year 4th year 5th year 6th year	294.8† 320.5* 0.0* 0.0* 0.0*	105.1* 115.5* 27.8* 0.0* 0.0*	172.0† 168.4† 22.7* 0.0* 0.0*	176.8 170.2 95.3* 83.2* 97.5*	115.3 112.3 20.8* 65.0† 53.0*	87.5† 66.2* 121.1* 0.0* 0.0*		

<sup>\*</sup> Involves fewer than five terminations.

<sup>†</sup> Involves fewer than ten terminations.

TABLE C-2

GROUP LONG-TERM DISABILITY INSURANCE
NUMBER OF CLAIMS TERMINATED BY DEATH OR RECOVERY
(Twelve-Month Elimination Period; Calendar Years of Experience 1962–76)

	Age at Disablement								
DURATION OF DISABLEMENT	Under 30	30-39	Under 40	40-49	50-59	60-64			
		Ma	ile and Fem	ale Combi	ned				
2d year 3d year 4th year 5th year 6th year	17 9 4 1 2	38 10 4 3 1	55 19 8 4 3	89 44 29 5 3	187 87 52 37 23	59 21 9 0			
	Male Only								
2d year 3d year 4th year 5th year 6th year	12 7 4 1 2	35 7 4 3 1	47 14 8 4 3	70 34 25 3 2	157 71 50 32 20	53 19 7 0			
	Female Only								
2d year 3d year 4th year 5th year 6th year	0	3 3 0 0	8 5 0 0	19 10 4 2	30 16 2 5 3	6 2 2 0 0			

TABLE C-3

# GROUP LONG-TERM DISABILITY INSURANCE RATIOS OF ACTUAL CLAIMS TERMINATED BY DEATH OR RECOVERY TO NUMBER OF TERMINATIONS EXPECTED FROM THE 1964 COMMISSIONERS DISABILITY TABLE\*

(Twelve-Month Elimination Period; Calendar Years of Experience 1962-76)

DURATION OF DISABLEMENT	ALL AGES OF DISABLE-	GES OF AGE AT DISABLEMENT									
	COM- BINED	Under 30	30-39	Under 40	40-49	50-59	60-64				
		Male and Female Combined									
2d year. 3d year. 4th year. 5th year. 6th year.	74.5 73.6 75.6 66.9 78.5	65.3 92.5† 108.7† 118.8† 348.5†	90.5 60.5 63.1† 76.0† 41.5†	80.8 73.7 78.2† 81.2† 105.0†	69.9 78.4 98.9 36.8† 44.0†	72.3 71.2 69.9 82.0 86.4	85.5 73.5 57.3† 5.9† 59.5†				
	Male Only										
2d year	75.9 71.0 82.5 67.5 81.2	58.7 83.9† 134.2† 141.3† 429.6†	103.3 61.4† 76.2† 104.2† 64.3†	85.9 71.1 96.3† 110.8† 158.8†	68.1 73.0 102.6 27.9† 33.6†	73.5 68.6 79.6 84.0 90.3	88.8 76.0 49.6† 6.6† 66.9†				
:				Female Only	<i>y</i>						
2d year	67.7 86.0 41.0† 64.2† 63.1†	94.8† 138.9† 0.0† 0.0† 0.0†	38.0† 58.7† 19.5† 0.0†	59.8† 82.7† 15.2† 0.0† 0.0†	75.4 103.4 80.5† 92.2† 130.3†	66.0 83.9 19.4† 72.0† 65.4†	63.6† 54.9† 113.2† 0.0†				

<sup>\*</sup> As published by the Health Insurance Association of America, Table B1, Vol. III. † Involves fewer than ten terminations.

TABLE C-4

### GROUP LONG-TERM DISABILITY INSURANCE RATIOS OF ACTUAL CLAIMS TERMINATED BY DEATH OR RECOVERY TO NUMBER OF TERMINATIONS EXPECTED FROM THE 1964 COMMISSIONERS DISABILITY TABLE\*

(Twelve-Month Elimination Period; Calendar Years of Experience 1962-76)

#### ALL AGES OF DISABLEMENT COMBINED

-	YEAR OF DISABLEMENT											
DURATION OF DISABLEMENT	1966 and Prior	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	All Years
					M	lale and Fem	nale Combin	ed		•	· ·	
2d year	70.4% 103.7 63.8 75.7† 110.3†	75.4% 58.8† 56.5† 90.8† 105.3†	67.2% 54.9 103.9 76.0† 123.1†	60.0% 117.7 82.3 77.7 59.7†	109.2% 104.1 89.3 62.0† 43.6†	92.7% 45.6 58.7 52.3† 34.1†	81.6% 65.4 70.5 37.9†		82.2	40.6%		74.5% 73.6 75.6 66.9 78.5
						Male	Only					
2d year	72.8%† 111.4 68.0† 76.9† 111.7†	70.6% 65.7† 62.7† 83.1† 115.8†	65.1% 44.0† 97.4 72.3† 136.9†	50.4% 99.6 96.5 94.3 61.0†	115.3% 110.3 83.3 73.1† 34.3†	94.8% 50.6 69.8 35.1† 37.2†	85.2% 58.2 79.8 43.3†		76.0	40.6%		75.9% 71.0 82.5 67.5 81.2
						Femal	e Only		<u> </u>	·	·	
2d year	63.0%† 78.7† 51.1† 70.4† 106.1†	109.6%† 0.0† 0.0† 143.5† 0.0†	79.5%† 119.8† 145.2† 105.7† 0.0†	93.9% 191.2 13.8† 0.0† 54.8†	75.0%† 70.3† 122.0† 0.0† 80.8†	82.0%† 17.7† 0.0† 147.4†	99.3† 24.6†	45.0†	99.1			67.7% 86.0 41.0† 64.2† 63.1†

<sup>\*</sup> All published by the Health Insurance Association of America, Table B1, Vol. III.

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<sup>†</sup> Involves fewer than ten terminations.

#### TABLE C-5

### GROUP LONG-TERM DISABILITY INSURANCE ILLUSTRATIVE VALUES OF A MONTHLY BENEFIT OF \$1 PAYABLE FOR VARIOUS BENEFIT PERIODS, DIS-

### COUNTED AT 3 PERCENT INTEREST

(Twelve-Month Elimination Period; Males and Females Combined)

	VALUE AS OF END OF ELIMINATION PERIOD						
AGE AT DISABLEMENT	Based on Table C-1 Rates of Termi- nation*	Based on 1964 CDT	Ratio to 1964 CDT				
	60 Month with Fir	ayable for a Mass but Not beyond the Payment Duthe Elimination	ond Age 65 le at the				
25.5 35.5. 45.5. 55.5.	\$34, 50 36, 88 40, 01 43, 35 16, 08	\$30.28 33.03 36.02 39.53 15.77	114% 112 111 110 102				
	Payme	yable to Age 6: ent Due at the Elimination Pe	End of				
25.5. 35.5. 45.5. 55.5. 62.5.	\$73.50 85.73 82.82 61.75 16.08	\$63.86 73.54 73.57 55.60 15.77	115% 117 113 111 102				

<sup>\*</sup> Annuity values are based on the crude, ungraduated, combined male and female termination rates from Table C-1 for the first four years and on the 1964 Commissioners Disability Table rates thereafter.

TABLE C-6

GROUP LONG-TERM DISABILITY INSURANCE
ILLUSTRATIVE VALUES, UNDER PLANS WITH A TWELVEMONTH ELIMINATION PERIOD, OF A MONTHLY BENEFIT, OF \$1, DISCOUNTED AT 3 PERCENT INTEREST,
PAYABLE TO AGE 65, WITH FIRST PAYMENT DUE AT
THE END OF ELIMINATION PERIOD

	VALUE AS OF END OF ELIMINATION PERIOD						
Age at Disablement	Based on Table C-1 Rates of Termi- nation*	Based on 1964 CDT	Ratio to 1964 CDT				
		Male Only					
25.5. 35.5. 45.5. 55.5.	\$73.77 80.52 83.63 61.36 16.01	\$63.86 73.54 73.57 55.60 15.77	116% 109 114 110 102				
		Female Only					
25.5. 35.5. 45.5. 55.5.	\$ 67.90 107.02 79.67 63.70 16.53	\$63.86 73.54 73.57 55.60 15.77	106% 146 108 115 105				

<sup>\*</sup>Annuity values are based on the crude, ungraduated, male or female termination rates from Table C-1 for the first four years and on the 1964 Commissioners Disability Table rates thereafter.

### TABLE CC-1

### GROUP LONG-TERM DISABILITY INSURANCE CRUDE TERMINATION RATES PER 1,000 CLAIMS EXPOSED TO DEATH OR RECOVERY

(Twelve-Month Elimination Period; Calendar Years of Experience 1972-76)

DURATION OF	AGE AT DISABLEMENT										
DISABLEMENT	Under 30	30-39	Under 40	40-49	50-59	60-64					
		Male and Female Combined									
3th month	12.5*	33.2†	24.2f	15.8	10.3	18.4					
4th month	13.2*	43.8*	30.7†	18.6†	12.0	19.0					
5th month	20.2*	25.3*	23.1*	12.4*	12.8	18.1					
6th month	29.4*	5.3*	15.6*	11.6†	11.9	10.2					
7th month	39.3*	11.2*	23.1*	22.3	11.9	1.8					
8th month	35.1*	22.5*	27.4*	22.7†	11.9	1.9					
9th month	28.2*	16.9*	21.1*	12.8*	10.1†	5.9					
0th month	10.0*	17.4*	14.8*	10.3*	7.5+	8.1					
1st month	0.0*	24.4*	15.6*	12.5*	9.1†	10.8					
2d month	11.4*	26.2*	20.8*	16.7†	9.4†	11.3					
3d month	11.4*	27.8*	21.6*	13.4*	9.8†	7.2					
4th month	11.9*	30.2*	23.3*	6.0*	12.4†	15.9					
d year	201.9	250.4	232.2	161.8	121.8	121.5					
d year	180.8†	115.1†	141.7	96.0	90.6	91.7					
th year	208.5*	87.3* 94.5*	124.3† 78.5*	124.9	73.6	83.8					
th year th year	0.0* 234.4*	0.0*	38.1*	32.0* 37.2*	75.0 61.6	7.9° 55.6°					
tii year	434.4	0.0	36.1	31.2	01.0	33.0					
			Male	Only							
d year	213.5	268.9	246.3	156.5	126.8	130.2					
d year	173.2†	137.81	151.4	104.5	86.6	86.4					
th year	264.3*	104.9*	155.3†	133.2	84.3	70.2					
th year	0.0*	132.0*	110.7*	28.8*	77.8	8.8					
th year	305.6*	0.0*	65.6*	28.7*	66.8	62.5					
			Femal	e Only							
d year	147.2*	166.9*	164.8†	182.7	96.7	53.5					
d vear	247.9*	33.3*	102.7*	51.0*	110.5	120.4					
th vear	0.0*	33.3*	26.3*	85.5*	12.2*	208.1					
th year	0.0*	0.0*	0.0*	54.8*	58.5*	0.0					
th year	0.0*	0.0*	0.0*	97.5*	23.7*	0.0					

<sup>\*</sup> Involves fewer than five terminations.

<sup>†</sup> Involves fewer than ten terminations.

TABLE CC-2

GROUP LONG-TERM DISABILITY INSURANCE
NUMBER OF CLAIMS TERMINATED BY DEATH OR RECOVERY
(Twelve-Month Elimination Period; Calendar Years of Experience 1972–76)

DURATION OF	Age at Disablement										
DISABLEMENT	Under 30	30-39	Under 40	40-49	50-59	60-64					
	Male and Female Combined										
2d year 3d year 4th year 5th year 6th year	14 6 4 0 1	26 7 3 3 0	40 13 7 3 1	57 23 25 4 3	118 56 39 29 17	37 13 9 0 1					
	Male Only										
2d year 3d year 4th year 5th year 6th year	12 5 4 0 1	23 6 3 3 0	35 11 7 3 1	45 21 22 3 2	101 46 38 26 16	35 11 7 0					
		· · · · · · · · · · · · · · · · · · ·	Female	e Only							
2d year3d year4th year5th year6th year6th year	2 1 0 0 0	3 1 0 0 0	5 2 0 0 0	12 2 3 1 1	17 10 1 3 1	2 2 2 0 0					

### TABLE CC-3

# GROUP LONG-TERM DISABILITY INSURANCE RATIOS OF ACTUAL CLAIMS TERMINATED BY DEATH OR RECOVERY TO NUMBER OF TERMINATIONS EXPECTED FROM THE 1964 COMMISSIONERS DISABILITY TABLE\*

(Twelve-Month Elimination Period; Calendar Years of Experience 1972-76)

DURATION OF DISABLEMENT	ALL Ages of Disable- Ment	ES OF AGE OF DISABLEMENT ABLE-								
DISABLEMENT	Com- BINED	Under 30	30-39	Under 40	40-49	50-59	60-64			
		Male and Female Combined								
2d year	73.2 66.7 79.7 65.9 67.4	64.9 78.3† 120.1† 0.0† 215.0†	90.7 58.5† 61.4† 88.6† 0.0†	80.0 68.1 82.3† 70.4† 43.1†	69.1 58.3 105.5 35.5† 49.7†	69.7 67.7 68.8 83.0 75.9	88.4 76.1 78.4† 8.0† 59.5†			
	Male Only									
2d year. 3d year. 4th year 5th year 6th year	75.7 66.4 87.1 68.3 71.2	68.7 75.0† 152.3† 0.0† 280.3†	97.4 70.0† 73.8† 123.8† 0.0†	84.8 72.5 102.6† 99.2† 73.7†	66.8 63.5 112.5 31.9† 38.4†	72.6 64.7 78.9 86.2 82.3	94.7 71.7 65.6† 8.9† 66.9†			
			1	Female Only	y.	1				
2d year	60.6 67.9 39.7† 51.4† 40.9†	47.3† 107.4† 0.0† 0.0† 0.0†	60.4† 16.9† 23.5† 0.0† 0.0†	57.1† 49.9† 17.5† 0.0† 0.0†	78.0 31.0† 72.2† 60.7† 130.3†	55.3 82.5 11.4† 64.8† 29.2†	38.9† 100.0† 194.5† 0.0†			

<sup>\*</sup> As published by the Health Insurance Association of America, Table B1, Vol. III.

<sup>†</sup> Involves fewer than ten terminations.