

## TRANSACTIONS OF SOCIETY OF ACTUARIES 1971 REPORTS

### III. GROUP LONG-TERM DISABILITY INSURANCE

**T**HIS report extends the "Analysis of Rates of Disablement" section to include plans with a twelve-month elimination period. Additionally, for plans with a six-month elimination period, rates of disablement have been separately developed for experience units insuring fewer than 5,000 lives. The "Analysis of Rates of Termination" section has also been extended to include a table of illustrative disabled life annuity values.

The experience included in this report is predominantly that of employer-employee groups located in the United States and largely for plans which appear not to have been the result of bargaining. Groups which a contributing company considers atypical or classifies as substandard because of industry hazards are excluded. 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 gross monthly benefits be integrated with some or all of any social security benefits 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 wishes to point out that this study is still in the course of development and that the experience covers a period of favorable economic conditions and generally high employment; hence the results presented here should be viewed only as early indications of expected rates of disablement or termination. Since a considerable volume of exposures could not be coded with respect to certain characteristics which may influence the level of rate of disablement or termination, the experience may not be representative of any particular group or plan. The Committee recommends that care be used in the interpretation of the results and in their application on other than a broad basis.

#### CONTRIBUTING COMPANIES

Thirteen companies have contributed experience for the investigation covered in this report. The results are the composite experience of variations in company practices and in the underlying administration and claim procedures, as well as of variations in experience among groups.

Aetna Life & Casualty Company  
Bankers Life & 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 York Life Insurance Company  
 Provident Life & Accident Insurance Company  
 Prudential Insurance Company of America  
 Sun Life Assurance Company of Canada

#### ANALYSIS OF RATES OF DISABLEMENT

Table 1 is based on the experience of all size groups for plans with a six-month elimination period. Crude rates of disablement based on number of lives are shown by sex and age group for the period 1965-69. Table 1A shows the experience of nonjumbo size units only, defined as groups insuring less than 5,000 lives. Experience of the calendar year of issue is excluded from both tables. Somewhat over one-half of the exposure contributed could not be separated by sex. The first part of each of these two tables summarizes the experience for male, female, and sex-unknown exposure combined. The experience for which exposure was sex-coded is presented in the bottom two sections of each table. There was considerable variation in experience among contributing companies, even after adjustment for differences in distributions of exposure by age group.

Tables 2 and 3 are similar to Table 1 but are based on the experience of plans with a three-month and a twelve-month elimination period, respectively.

Attention is called to the small number of claims underlying the disablement rate for some of the sex-age cells, especially for the three- and twelve-month plans.

The experience is based largely on a "his own occupation" definition of disability at the time benefits commence. For plans with either a three- or a six-month elimination period, however, about 6 per cent of the experience is based on an "any occupation" definition for the full period of disability. For twelve-month plans, approximately 20 per cent of the experience uses the "any occupation" definition.

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.

For the six-month plans, accidents accounted for approximately 9

TABLE 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 1965-69  
 ALL EXPERIENCE UNITS COMBINED

Attained Age	Life Years Exposed	Number of Claims	Rate of Disablement per 1,000 Lives
All Experience: Males, Females, and Sex Unknown			
Under 40.....	953,742	774	0.81
40-44.....	291,160	574	1.97
45-49.....	256,488	862	3.36
50-54.....	198,314	1,138	5.74
55-59.....	146,441	1,451	9.91
60-64.....	91,214	1,444	15.83
All ages.....	1,937,359	6,243	3.22
Male Experience Only			
Under 40.....	315,989	196	0.62
40-44.....	100,959	157	1.56
45-49.....	86,790	259	2.98
50-54.....	66,824	361	5.40
55-59.....	50,680	458	9.04
60-64.....	30,638	510	16.65
All ages.....	651,880	1,941	2.98
Female Experience Only			
Under 40.....	87,223	76	0.87
40-44.....	24,132	78	3.23
45-49.....	23,039	111	4.82
50-54.....	17,824	120	6.73
55-59.....	13,409	106	7.91
60-64.....	7,287	113	15.51
All ages.....	172,914	604	3.49

TABLE 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 1965-69  
 NONJUMBO EXPERIENCE UNITS ONLY

Attained Age	Life Years Exposed	Number of Claims	Rate of Dis- ablement per 1,000 Lives
All Experience. Males, Females, and Sex Unknown			
Under 40.....	528,914	390	0.74
40-44.....	160,813	269	1.67
45-49.....	142,995	401	2.80
50-54.....	115,217	547	4.75
55-59.....	89,368	720	8.06
60-64.....	56,036	754	13.46
All ages.....	1,093,343	3,081	2.82
Male Experience Only			
Under 40.....	174,630	111	0.64
40-44.....	52,685	74	1.40
45-49.....	45,621	115	2.52
50-54.....	36,955	177	4.79
55-59.....	28,936	227	7.84
60-64.....	17,588	259	14.73
All ages.....	356,415	963	2.70
Female Experience Only			
Under 40.....	52,303	45	0.86
40-44.....	12,600	35	2.78
45-49.....	12,309	51	4.14
50-54.....	10,458	52	4.97
55-59.....	8,333	47	5.64
60-64.....	5,097	62	12.16
All ages.....	101,100	292	2.89

per cent of the claims coded for a known cause of disablement. The corresponding figures for the three-month and twelve-month plans were 12 per cent and 5 per cent, respectively.

Table 1B analyzes by underlying calendar year of experience the Table 1 crude rates of disablement for all ages and for males, females, and sex-unknown exposures combined. The variation in the over-all disablement rate from one year to the next over the last five years would appear to be

TABLE 1B  
GROUP LONG-TERM DISABILITY INSURANCE  
ANALYSIS OF RATES OF DISABLEMENT  
BY CALENDAR YEAR OF INCURRAL  
(Six-Month Elimination Period; Calendar Year of Issue Excluded; All Ages;  
Males, Females, and Sex Unknown Combined)  
Calendar Years of Experience 1962-69  
ALL EXPERIENCE UNITS COMBINED

CALENDAR YEAR OF INCURRAL	NUMBER OF EX- PERIENCE UNITS	LIFE YEARS EXPOSED	NUMBER OF CLAIMS			RATE OF DISABLE- MENT PER 1,000 LIVES	RATIO OF ACTUAL CLAIMS TO TAB- ULAR CLAIMS*
			Acci- dent	Sick- ness	Total (Incl. Unknown)		
1962-64 . . . . .	281	188,071	26	385	556	2.95	114%
1965 . . . . .	364	173,215	55	467	537	3.10	119%
1966 . . . . .	554	262,309	58	702	787	3.00	120
1967 . . . . .	772	413,054	108	1,133	1,311	3.17	120
1968 . . . . .	1,035	525,919	144	1,532	1,759	3.34	121
1969 . . . . .	1,192	562,862	180	1,631	1,849	3.28	115
1965-69 . . . . .	3,917	1,937,359	545	5,465	6,243	3.22	119%

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

the result of differences in distributions of exposed to risk by age group and, in the case of the most recent calendar year, some inherent under-reporting of claims incurred in such year but still unreported as of the date that compiling companies prepare their submissions to the study. In retrospect, the claims reported for 1968 and included in last year's report were about 5 per cent understated as a consequence of this reporting lag. This might be an approximation of the extent to which claims incurred in 1969 are underreported in this report.

Table 1B also shows ratios of actual claims to tabular claims. Tabular claims for each year were derived by applying to the actual exposures for each age group the corresponding age-disablement rates based on the experience of nonjumbo size groups for males, females, and sex unknown

combined from Table 1A. The tabulars adjust for age only. No adjustment is made for the different proportions of males and females, if any, or for any other factors which might influence disablement rates.

Table 1C subdivides the Table 1 experience 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 50 per cent of the total number of units. This explains the large number of units (over 65 per cent of the total) which experienced no claims. This table also includes a dispersion analysis of ratios of actual claims to tabular claims. As in Table 1B, the tabulars adjust only for age. Because the experience is not adjusted for sex or for other characteristics which might have a measurable impact on the rate of disablement, such as differences among 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 salary, hourly, and bargained wages, the extent of employer financial participation, the type of industry, the relationship to take-home pay of the amount of benefit payable under the plan, and so on, the results should be interpreted with some caution.

Table 4 shows exposures, claims, and rates of disablement by size group for plans with either a three- or a twelve-month elimination period. Tabulars used in this table are based on the experience of all size groups combined. However, since no jumbo groups are included in the experience of the three-month plans, the tabulars for plans with a three-month elimination period are in fact those for nonjumbo groups.

#### ANALYSIS OF RATES OF TERMINATION

Table D-1 shows, for plans with a six-month elimination period, crude rates of termination from death or recovery based on number of lives, by sex and age groups, for the period 1962-69. Annual rates of termination were not calculated for any experience cell for which there were fewer than ten terminations. Because of the small number of terminations at the later durations, the experience has been truncated at the end of five years of 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 13,306 claims exposed to termination, 6,243 of which originated from the 1965-69 and 556 from the 1962-64 active lives experience (all experience units combined), with the balance from experience units which were not included in the study of rates of disablement. The actual number of claims which terminated by death or recovery is shown in Table D-1A. Ratios of the actual terminations to the number of terminations that would have been produced by

TABLE 1C

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 1965-69  
 ALL EXPERIENCE UNITS COMBINED

SIZE OF UNIT	NUMBER OF EXPERIENCE UNITS	LIFE YEARS EXPOSED	NUMBER OF CLAIMS	RATE OF DISABLEMENT PER 1,000 LIVES	AVERAGE A/T RATIO*	NUMBER OF EXPERIENCE UNITS BY RATIO OF ACTUAL TO TABULAR CLAIMS*							
						0%	1-50%	50-75%	75-100%	100-150%	150-200%	200-500%	500% or More
Under 25 lives...	269	4,269	14	3.28	103%	260	0	0	0	0	0	0	9
25-49.....	776	28,083	70	2.49	77	714	0	0	0	0	0	0	62
50-99.....	993	68,956	182	2.64	87	839	0	0	0	0	0	89	65
100-249.....	913	143,442	373	2.60	90	648	0	0	2	27	61	138	37
250-499.....	419	145,203	390	2.69	87	215	2	28	29	54	29	57	5
500-999.....	226	163,738	499	3.05	107	57	25	26	24	31	25	35	3
1,000-2,499.....	181	294,108	865	2.94	109	17	27	29	21	43	22	20	2
2,500-4,999.....	70	245,544	688	2.80	106	2	15	10	12	18	11	1	1
Under 5,000.	3,847	1,093,343	3,081	2.82	100%	2,752	69	93	88	173	148	340	184
5,000 or more...	70	844,016	3,162	3.75	145%	1	7	7	10	22	12	11	0
Total.....	3,917	1,937,359	6,243	3.22	119%	2,753	76	100	98	195	160	351	184

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

TABLE 2  
 GROUP LONG-TERM DISABILITY INSURANCE  
 CRUDE RATES OF DISABLEMENT  
 PER 1,000 LIVES EXPOSED  
 (Three-Month Elimination Period; Calendar  
 Year of Issue Excluded)  
 Calendar Years of Experience 1965-69  
 ALL EXPERIENCE UNITS COMBINED

Attained Age	Life Years Exposed	Number of Claims	Rate of Disablement per 1,000 Lives
All Experience: Males, Females, and Sex Unknown			
Under 40.....	157,933	288	1.82
40-44.....	48,238	152	3.15
45-49.....	43,556	249	5.72
50-54.....	35,391	282	7.97
55-59.....	28,410	360	12.67
60-64.....	17,779	336	18.90
All ages.....	331,307	1,667	5.03
Male Experience Only			
Under 40.....	75,874	140	1.85
40-44.....	25,124	73	2.91
45-49.....	22,188	218	5.77
50-54.....	17,558	145	8.26
55-59.....	13,742	179	13.03
60-64.....	8,583	165	19.22
All ages.....	163,069	830	5.09
Female Experience Only			
Under 40.....	22,647	64	2.83
40-44.....	5,445	27	4.96
45-49.....	5,461	31	5.68
50-54.....	4,677	41	8.77
55-59.....	3,988	38	9.53
60-64.....	2,338	34	14.54
All ages.....	44,556	235	5.27



TABLE 3  
 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 1965-69  
 ALL EXPERIENCE UNITS COMBINED

Attained Age	Life Years Exposed	Number of Claims	Rate of Disablement per 1,000 Lives
All Experience: Males, Females, and Sex Unknown			
Under 40 .....	51,572	30	0.58
40-44 .....	21,688	18	0.83
45-49 .....	19,712	39	1.98
50-54 .....	18,302	60	3.28
55-59 .....	14,973	88	5.88
60-64 .....	8,963	86	9.60
All ages .....	135,210	321	2.37
Male Experience Only			
Under 40 .....	22,197	7	0.32
40-44 .....	8,213	4	0.49
45-49 .....	6,787	3	0.44
50-54 .....	6,171	14	2.27
55-59 .....	4,888	31	6.34
60-64 .....	3,148	31	9.85
All ages .....	51,404	90	1.75
Female Experience Only			
Under 40 .....	6,620	7	1.06
40-44 .....	1,975	3	1.52
45-49 .....	2,440	8	3.28
50-54 .....	2,591	8	3.09
55-59 .....	2,644	14	5.30
60-64 .....	1,476	9	6.10
All ages .....	17,746	49	2.76

TABLE 4  
 GROUP LONG-TERM DISABILITY INSURANCE  
 ANALYSIS OF RATES OF DISABLEMENT BY SIZE OF EXPERIENCE UNIT EXPOSED  
 (Calendar Year of Issue Excluded; All Ages; Males, Females, and Sex Unknown Combined)  
 Calendar Years of Experience 1965-69  
 ALL EXPERIENCE UNITS COMBINED

SIZE OF UNIT	THREE-MONTH ELIMINATION PERIOD PLANS					TWELVE-MONTH ELIMINATION PERIOD PLANS				
	Number of Experience Units	Life Years Exposed	Number of Claims	Rate of Disablement per 1,000 Lives	Ratio of Actual Claims to Tabular Claims*	Number of Experience Units	Life Years Exposed	Number of Claims	Rate of Disablement per 1,000 Lives	Ratio of Actual Claims to Tabular Claims†
Under 25 lives	191	2,728	20	7.33	140%	17	243	1	4.12	157%
25-49	581	20,982	93	4.43	89	39	1,330	5	3.76	151
50-99	522	36,143	161	4.45	90	47	3,260	10	3.07	140
100-249	311	45,584	191	4.19	90	49	7,789	15	1.93	92
250-499	145	49,872	240	4.81	102	32	10,818	26	2.40	117
500-999	60	41,738	188	4.50	95	26	20,813	51	2.45	116
1,000-2,499	40	62,995	451	7.16	133	25	35,648	66	1.85	71
2,500-4,999	20	71,265	323	4.53	84	11	34,336	67	1.95	94
Under 5,000	1,870	331,307	1,667	5.03	100%	246	114,237	241	2.11	88%
5,000 or more						3	20,973	80	3.81	165%
Total	1,870	331,307	1,667	5.03	100%	249	135,210	321	2.37	100%

\* Tabular claims were calculated by applying to the actual age group exposures the crude rates of disablement shown in Table 2 for males, females, and sex unknown combined.

† Tabular claims were calculated by applying to the actual age group exposures the crude rates of disablement shown in Table 3 for males, females, and sex unknown combined.

**TABLE D-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 1962-69)

DURATION OF DISABLEMENT	AGE AT DISABLEMENT					
	Under 30	30-39	Under 40	40-49	50-59	60-64
Male and Female Combined						
7th month.....	78.4	55.8	63.1	36.7	27.3	19.5
8th month.....	81.8	70.3	74.0	53.3	31.3	20.7
9th month.....	78.5	70.5	73.0	51.9	27.4	19.2
10th month.....	67.1	53.5	57.8	45.4	25.1	16.7
11th month.....	56.3	51.1	52.7	42.7	22.4	17.3
12th month.....	61.3	55.4	57.2	42.8	18.0	16.8
1st year (last 6 months).....	355.5	307.8	323.3	243.8	142.2	105.3
13th month.....	54.8	52.4	53.2	37.9	18.7	13.3
14th month.....	65.0	36.5	45.3	33.5	20.8	11.5
15th month.....	59.8	27.3	37.2	30.6	17.3	12.7
16th month.....	28.5*	28.8	28.8	25.3	14.1	14.5
17th month.....	39.7	24.5	28.9	20.8	13.0	12.8
18th month.....	50.3	17.8	27.1	19.4	16.3	11.6
19th month.....	38.5	18.7	24.2	20.5	15.9	11.6
20th month.....	31.4*	14.1*	18.8	20.7	14.3	11.7
21st month.....	26.3*	15.3	18.3	21.6	16.1	11.4
22d month.....	32.3	21.7	24.5	18.8	13.1	9.4
23d month.....	33.6*	18.1	22.2	12.6	7.4	10.0
24th month.....	22.6*	23.9	23.6	12.9	5.2	8.9
2d year.....	389.8	261.8	300.9	242.8	159.4	131.0
3d year.....	293.1	241.1	254.4	167.3	115.0	126.2
4th year.....	†	130.4	120.2	107.3	89.3	57.9
5th year.....	†	†	†	†	76.7	†
Male Only						
1st year (last 6 months).....	394.2	325.5	347.8	238.4	136.9	104.5
2d year.....	393.9	267.5	305.2	229.3	160.9	126.7
3d year.....	267.9	223.4	233.1	156.2	111.1	116.4
4th year.....	†	†	†	98.5	90.8	62.5
5th year.....	†	†	†	†	76.1	†
Female Only						
1st year (last 6 months).....	285.3	277.2	280.3	253.6	160.5	109.2
2d year.....	284.3	253.3	294.9	267.1	154.7	154.9
3d year.....	330.0	269.9	286.7	188.1	128.9	182.0
4th year.....	†	204.7	205.7	123.7	83.7	†
5th year.....	†	†	†	†	†	†

\* Involves fewer than five terminations.

† Involves fewer than ten terminations.

application of termination rates from the 1964 Commissioners Disability Table to the Table D-1 exposures are presented in Table D-1B. Table D-1C compares illustrative values of a monthly benefit of \$1 payable for maximum periods of sixty months with such values payable to age 65, calculated on two alternate bases, each discounted at 3 per cent interest. One basis was Table D-1 crude termination rates for the first four years, regardless of the actual number of terminations in each duration-age cell, and 1964 Commissioners Disability Table rates thereafter. Reference to Table D-1A indicates that there was only one cell, namely, the fourth year of disablement for ages under 30, which had fewer than ten terminations. The other basis uses termination rates from the Commissioners Disability Table throughout.

TABLE D-1A  
GROUP LONG-TERM DISABILITY INSURANCE  
NUMBER OF CLAIMS TERMINATED BY DEATH OR RECOVERY  
(Six-Month Elimination Period; Calendar Years of Experience 1962-69)

DURATION OF DISABLEMENT	AGE AT DISABLEMENT					
	Under 30	30-39	Under 40	40-49	50-59	60-64
Male and Female Combined						
1st year (last 6 months).....	163	297	460	626	673	259
2d year.....	80	122	202	332	471	182
3d year.....	26	61	87	120	200	81
4th year.....	3	17	20	46	82	15
5th year.....	0	4	4	8	37	7
Male Only						
1st year (last 6 months).....	114	198	312	396	499	218
2d year.....	47	75	122	198	371	150
3d year.....	13	33	46	73	151	64
4th year.....	0	7	7	27	64	14
5th year.....	0	3	3	7	28	6
Female Only						
1st year (last 6 months).....	49	99	148	230	174	41
2d year.....	33	47	80	134	100	32
3d year.....	13	28	41	47	49	17
4th year.....	3	10	13	19	18	1
5th year.....	0	1	1	1	9	1

For plans with a six-month elimination period, the Committee separately analyzed the termination rates for only those claims which were included in the rates of disablement study and found no significant difference from the results shown in Table D-1.

Tables D-2, D-2A, and D-2B analyze the experience of terminations from plans with a three-month elimination period and are similar in form and content to the corresponding tables of the D-1 series, except that experience has been truncated at four years. The number of claims exposed to termination was 5,235, of which 1,667 and 34 were included in 1965-69 and 1962-64 portions of the active lives study, respectively. Termination rates for the first year of disablement cover the nine months immediately following the elimination period. Although the volume of

TABLE D-1B  
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 1962-69)

DURATION OF DISABLEMENT	ALL AGES OF DIS- ABLE- MENT COM- BINED	AGE AT DISABLEMENT					
		Under 30	30-39	Under 40	40-49	50-59	60-64
Male and female com- bined:							
1st year (last 6 months)	44%	66%	60%	62%	53%	37%	31%
2d year	98	125	95	105	104	91	95
3d year	99	127	123	124	102	86	105
4th year	81	†	92	81	91	84	54
5th year	68	†	†	†	†	85	†
Male only:							
1st year (last 6 months)	43	73	63	66	51	36	31
2d year	96	127	97	107	98	92	92
3d year	92	116	114	114	95	83	97
4th year	77	†	†	†	83	85	58
5th year	72	†	†	†	†	84	†
Female only:							
1st year (last 6 months)	48	53	54	53	55	42	32
2d year	103	124	92	103	114	89	113
3d year	117	143	137	139	114	96	151
4th year	95	†	144	138	105	78	†
5th year	58	†	†	†	†	†	†

\* As published by the Health Insurance Association of America, Table B1, Volume III.

† Involves fewer than ten terminations.

**TABLE D-1C**  
**GROUP LONG-TERM DISABILITY INSURANCE**  
**ILLUSTRATIVE VALUES OF A MONTHLY BENEFIT OF \$1 PAYABLE FOR**  
**VARIOUS BENEFIT PERIODS, DISCOUNTED AT 3 PER CENT INTEREST**  
**(Six-Month Elimination Period; Males and Females Combined)**

AGE AT DISABLEMENT	VALUE AS OF END OF ELIMINATION PERIOD			VALUE AS OF END OF TWELFTH MONTH OF DISABLEMENT		
	Based on Table D-1 Rates of Termination*	Based on 1964 CDT	Ratio to 1964 CDT	Based on Table D-1 Rates of Termination*	Based on 1964 CDT	Ratio to 1964 CDT
Benefit Payable for a Maximum of 60 Months but Not beyond Age 65 with First Payment Due at the End of the Elimination Period						
25.5 .....	\$20.84	\$16.59	126%	\$25.34	\$28.46	89%
35.5 .....	25.75	18.44	140	30.49	30.86	99
45.5 .....	29.94	21.71	138	33.20	33.50	99
55.5 .....	37.57	26.85	140	37.97	36.68	104
62.5 .....	19.61	14.91	132	15.86	15.77	101
Benefit Payable to Age 65 with First Payment Due at the End of the Elimination Period						
25.5 .....	\$41.09	\$32.62	126%	\$57.23	\$63.86	90%
35.5 .....	54.19	38.72	140	72.18	73.53	98
45.5 .....	59.74	42.86	139	73.19	73.56	99
55.5 .....	54.53	38.40	142	58.04	55.60	104
62.5 .....	19.61	14.91	132	15.86	15.77	101

\* Annuity values are based on the crude, ungraduated termination rates from Table D-1 for the first four years and on the 1964 Commissioners Disability Table rates thereafter.

TABLE D-2  
 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 1962-69)

DURATION OF DISABLEMENT	AGE AT DISABLEMENT					
	Under 30	30-39	Under 40	40-49	50-59	60-64
Male and Female Combined						
4th month.....	123.5	99.4	106.8	103.6	83.1	47.3
5th month.....	159.0	138.1	144.3	114.2	87.3	68.9
6th month.....	170.0	140.6	149.2	107.2	77.0	57.9
7th month.....	141.8	107.0	116.8	102.1	66.9	46.6
8th month.....	116.1	75.4	86.4	101.8	49.8	41.8
9th month.....	115.9	69.3	81.6	75.0	36.4	22.0
10th month.....	111.2	66.6	78.0	54.6	35.3	20.2
11th month.....	92.9	70.4	75.9	47.1	34.5	21.6
12th month.....	67.7*	75.0	73.3	43.0	27.3	11.9
1st year (last 9 months).....	691.6	588.6	619.5	544.0	402.1	292.8
13th month.....	84.5	73.1	75.9	45.3	24.3	13.6
14th month.....	81.2*	53.5	60.1	36.8	20.3	15.0
15th month.....	43.6*	38.3	39.5	32.4	18.4	13.9
16th month.....	34.9*	51.4	47.8	36.8	21.2	12.6*
17th month.....	64.8*	48.4	52.5	33.9	17.5	6.1*
18th month.....	52.6*	28.7*	34.4*	25.8	14.5	6.5*
19th month.....	0.0*	18.1*	14.0*	22.8	12.8	9.5*
20th month.....	30.3*	24.7*	26.3	26.9	11.2	8.8*
21st month.....	66.0*	31.8*	40.1	16.5*	16.3	6.1*
22d month.....	74.2*	34.3*	43.7	12.5	15.2	8.3*
23d month.....	60.2*	30.5*	37.4*	12.8*	8.3*	9.1
24th month.....	21.7*	32.9*	30.7*	12.0*	5.2*	18.2*
2d year.....	469.7	379.0	402.3	273.3	170.4	129.5
3d year.....	†	224.5	209.9	172.7	117.4	135.6
4th year.....	†	†	†	102.2	74.8	†
Male Only						
1st year (last 9 months).....	684.1	601.1	627.9	545.0	393.1	306.9
2d year.....	420.9	417.0	418.8	284.8	162.7	152.0
3d year.....	†	†	†	194.2	113.8	153.6
4th year.....	†	†	†	†	68.4	†
Female Only						
1st year (last 9 months).....	698.8	567.1	604.6	541.9	426.0	242.1
2d year.....	547.7	329.8	378.7	250.6	192.2	†
3d year.....	†	†	†	141.0	128.8	†
4th year.....	†	†	†	†	†	†

\* Involves fewer than five terminations.

† Involves fewer than ten terminations.

TABLE D-2A  
 GROUP LONG-TERM DISABILITY INSURANCE  
 NUMBER OF CLAIMS TERMINATED BY DEATH OR RECOVERY  
 (Three-Month Elimination Period; Calendar Years of Experience 1962-69)

DURATION OF DISABLEMENT	AGE AT DISABLEMENT					
	Under 30	30-39	Under 40	40-49	50-59	60-64
	Male and Female Combined					
1st year (last 9 months) . . . . .	167	332	499	669	719	261
2d year . . . . .	23	57	80	110	131	52
3d year . . . . .	3	11	14	33	57	25
4th year . . . . .	1	2	3	10	22	4
	Male Only					
1st year (last 9 months) . . . . .	106	204	310	438	513	214
2d year . . . . .	13	35	48	74	95	46
3d year . . . . .	3	6	9	22	42	20
4th year . . . . .	0	1	1	7	16	2
	Female Only					
1st year (last 9 months) . . . . .	61	128	189	231	206	47
2d year . . . . .	10	22	32	36	36	6
3d year . . . . .	0	5	5	11	15	5
4th year . . . . .	1	1	2	3	6	2



claims completing two years of disability is rather limited, there appears to be some indication that much of the effect of selection under the plans with the shorter three-month elimination period has largely disappeared after the second year, at least at the higher ages.

TABLE D-2B

GROUP LONG-TERM DISABILITY INSURANCE  
RATIOS OF ACTUAL CLAIMS TERMINATED BY DEATH OR  
RECOVERY TO NUMBERS OF TERMINATIONS EXPECTED FROM THE  
1964 COMMISSIONERS DISABILITY TABLE\*  
(Three-Month Elimination Period; Calendar Years of Experience 1962-69)

DURATION OF DISABLEMENT	ALL AGES OF DIS- ABLE- MENT COM- BINED	AGE AT DISABLEMENT					
		Under 30	30-39	Under 40	40-49	50-59	60-64
Male and female com- bined:							
1st year (last 9 months)	58%	78%	67%	70%	65%	54%	44%
2d year	110	151	137	142	117	98	94
3d year	98	†	114	103	105	88	113
4th year	71	†	†	†	86	70	†
Male only:							
1st year (last 9 months)	57	77	68	71	65	52	46
2d year	112	135	151	147	122	93	111
3d year	103	†	†	†	118	85	128
4th year	68	†	†	†	†	64	†
Female only:							
1st year (last 9 months)	60	79	64	69	64	57	37
2d year	107	176	119	134	107	110	†
3d year	86	†	†	†	86	96	†
4th year	76	†	†	†	†	†	†

\* As published by the Health Insurance Association of America, Table B1, Volume III.

† Involves fewer than ten terminations.

For both the six- and the three-month elimination period plans, the low first-year ratios in Tables D-1B and D-2B, respectively, 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 Commissioners Disability Table. Ratios of Table D-1C disabled life annuity values as of the end of the twelfth month of disablement seem to confirm this, at least for plans with a six-month elimination period.