

**TRANSACTIONS OF SOCIETY OF ACTUARIES
1978 REPORTS**

**IV. EXPERIENCE UNDER CERTAIN ORDINARY WAIVER
OF PREMIUM BENEFITS BETWEEN 1959
AND 1974 ANNIVERSARIES**

PREAMBLE

THIS report of experience under the waiver of premium disability provision is being published in spite of some concern that certain limitations of the contributions may cause the published results to be nonrepresentative of industry experience. The Committee on Ordinary Insurance and Annuities considered not publishing the results of this study because of that concern. However, the Committee now believes that, in spite of the known defects of the study, the overall trends reported are not inconsistent with other measures of similar experience. The results of this study, when properly interpreted, do provide valid information that is based on more recent experience than any other published report. For this reason it was decided to publish the numerical findings along with certain appropriate comments.

It should be noted that this study is based on contributions from only eight companies and that not all of these companies contributed to all exposure periods of the study. Almost 90 percent of the data came from four companies. The distribution by year of issue of the contributions was very different from what would be representative of the industry. The relative volume of contributions by period of exposure, by type of benefit, by size of policy, and by sex of insured differed sharply in some instances from the aggregate exposure in the industry.

The period of study for which data were assembled ended on anniversaries in 1974. Thus, the observed data do not reflect any experience of the mid- and late 1970s. Other sources of information make it clear that disability claim rates for the period just after the closing date of this study were substantially in excess of those for the early 1970s. Accordingly, any summary data derived from the contributions are unlikely to be indicative of more recent experience.

Much of the contributed data contained coding errors and approximations. The disabled lives contribution from one company identified the actual duration since disablement for all terminations within five years, while those terminations more than five years after disablement gave no more information than just that—"more than five years after disablement." This prohibits any reliable analysis of termination experience by duration after the fifth year. Some of the contributions for both active

and disabled lives were identified as being subject to errors of limited magnitude. These errors are probably of very little significance in consideration of broad average results, but they could distort the relative comparisons of various subsets of data.

The analysis of the data produced some results that the Committee felt to be misleading. The changes in claim rates by period appear to be more a reflection of the changing data composition by company than of underlying disablement trends. For example, the ratio of the claim rate for the elective benefit in Period 2 versus Period 1 was higher in the aggregate than it was for any individual contributing company. It was also noted that the relative level of claim rate for the automatic versus the elective benefit appears to be as much a function of the companies and the markets they serve as it is of the nature of the benefits themselves. Finally, the comparison of claim experience by sex depends on a very low volume of female data. One large contributor that sells to a cross section of the market and whose contribution contained a large percentage of female lives was unable to split its data by sex.

While the Committee did graduate some of the raw data obtained in this study, for convenience' sake, it must be recognized that this graduation does not guarantee or imply any particular degree of faith in the underlying raw data. The process of graduation cannot impart reliability to a set of raw numbers that are, or may be, unreliable from the start.

In view of the limitations of this recent study, the Committee feels that the industry should make a concerted effort to assemble records from which a reliable waiver of premium study can be conducted in the near future. In the meantime the following results are reported, with a warning that the trends and rates recorded herein require careful interpretation.

INTRODUCTION

The previous intercompany study of experience under Ordinary disability benefits supplemental to life insurance policies was published in the *TSA, 1952 Reports*. That study covered the experience of 1930-50. The fact that the 1952 study was more than twenty years old, in addition to indications that some companies had suffered a deterioration in their waiver of premium experience, led the Committee on Ordinary Insurance and Annuities to decide in the autumn of 1973 that a new study should be undertaken.

The final instructions to participating companies were distributed with a covering memorandum dated April 7, 1975. (A copy of those instruc-

tions is contained in Appendix III.) Although initially it was expected that fifteen companies would contribute to the study, in the end there were only eight that were able to produce data that could be used. The Committee appreciates the special efforts made by the eight contributing companies. In view of the many special problems that confronted some of the companies, it seems fortunate in retrospect that as many as eight of them were able to contribute. Of these eight companies one contributed only to the Active Lives portion of the study. Another contributed only to the Disabled Lives portion of the study. Six companies contributed to both parts. The following table indicates the relative volume and some characteristics of the exposures submitted by each company.

LIST OF CONTRIBUTORS
TO THE 1959-74 DISABILITY WAIVER OF PREMIUM STUDY

COMPANY	PERCENT OF TOTAL AMOUNT OF ORDINARY LIFE INSURANCE EXPOSED		TYPE OF BENEFIT*	OBSERVATION PERIOD†
	Active Lives Study	Disabled Lives Study		
Metropolitan	40%	40%	A	1, 2, 3
Northwestern Mutual	19	24	E	2, 3
John Hancock	15	18	A, E	2, 3
Massachusetts Mutual	12	5	E	1, 2, 3
Mutual of New York	6	‡	U	3
Penn Mutual	5	4	A, E	2, 3
Sun Life of Canada	3	2	E	1, 2, 3
Aetna	‡	7	E	1, 2, 3

* A = Automatic; E = Elective; U = Unsplit.
 † 1 = 1959-64; 2 = 1964-69; 3 = 1969-74.
 ‡ Did not contribute to this portion of the study.

INDEX OF TABLES

ACTIVE LIVES STUDY

Table Number	Benefit Type: Automatic and Elective	Observation Period	Male and Female	By Attained Age Group?	Policy Years	By (1) Amount of Insurance, (2) Number of Policies, or (3) Amounts of Premiums Waived	Special Features Shown
1A.....	Combined	Each separately	Combined	Yes	All combined	1	Crude disablement rates
1B.....	Automatic	Each separately	Combined	Yes	All combined	1	Crude disablement rates
1C.....	Elective	Each separately	Combined	Yes	All combined	1	Crude disablement rates
2.....	Combined	Period 3	Combined	Attained ages individually	All combined	1	Graduated disablement rates
3A.....	Combined	Combined	Combined	Yes	Separately	1	Crude disablement rates
3B.....	Automatic	Combined	Combined	Yes	Separately	1	Crude disablement rates
3C.....	Elective	Combined	Combined	Yes	Separately	1	Crude disablement rates
4A.....	Combined	Combined	Separately	Yes	All combined	1	Actual/expected ratios based on 1959-74 data
4B.....	Automatic	Combined	Separately	Yes	All combined	1	
4C.....	Elective	Combined	Separately	Yes	All combined	1	
5A.....	Combined	Combined	Combined	Yes	All combined	1	Crude disablement rates by plan of insurance
5B.....	Elective	Combined	Combined	Yes	All combined	1	
6A.....	Combined	Each separately	Combined	Yes	All combined	1	
6B.....	Automatic	Each separately	Combined	Yes	All combined	1	Compares crude disablement rates by period
6C.....	Elective	Each separately	Combined	Yes	All combined	1	

DISABLED LIVES STUDY

Table Number	Mode of Termination: Recovery and Death	Benefit Type: Automatic and Elective	Observation Period	Male and Female	By Attained Age at Disablement Group?	By Year of Disablement Group?	By (1) Amount of Insurance, (2) Number of Policies, or (3) Amounts of Premiums Waived	Special Features Shown
7A.....	Separately	Separately	Each separately	Combined	No	Yes	2	Terminations by number
7B.....	Separately	Separately	Each separately	Combined	No	Yes	1	Terminations by amount
7C.....	Separately	Separately	Each separately	Combined	No	Yes	3	Terminations by premiums waived
8A.....	Combined	Separately	Combined	Combined	Yes	Yes	3	See note 1
8B.....	Recovery	Separately	Combined	Combined	Yes	Yes	3	See note 1
8C.....	Death	Separately	Combined	Combined	Yes	Yes	3	See note 1
9A.....	Combined	Combined	Each separately	Combined	Yes	Yes	3	See note 1
9B.....	Recovery	Combined	Each separately	Combined	Yes	Yes	3	See note 1
9C.....	Death	Combined	Each separately	Combined	Yes	Yes	3	See note 1
10A.....	Combined	Combined	Combined	Separately	Yes	Yes	3	See note 1
10B.....	Recovery	Combined	Combined	Separately	Yes	Yes	3	See note 1
10C.....	Death	Combined	Combined	Separately	Yes	Yes	3	See note 1
11A.....	Combined	Combined	Combined	Combined	Yes	Yes	3	See note 1
11B.....	Recovery	Combined	Combined	Combined	Yes	Yes	3	See note 1
11C.....	Death	Combined	Combined	Combined	Yes	Yes	3	See note 1
12A.....	Combined	Automatic	Each separately	Combined	Yes	Yes	3	See note 2
12B.....	Recovery	Automatic	Each separately	Combined	Yes	Yes	3	See note 2
12C.....	Death	Automatic	Each separately	Combined	Yes	Yes	3	See note 2
13A.....	Combined	Automatic	Combined	Separately	Yes	Yes	3	See note 2
13B.....	Recovery	Automatic	Combined	Separately	Yes	Yes	3	See note 2
13C.....	Death	Automatic	Combined	Separately	Yes	Yes	3	See note 2
14A.....	Combined	Elective	Each separately	Combined	Yes	Yes	3	See note 2
14B.....	Recovery	Elective	Each separately	Combined	Yes	Yes	3	See note 2
14C.....	Death	Elective	Each separately	Combined	Yes	Yes	3	See note 2
15A.....	Combined	Elective	Combined	Separately	Yes	Yes	3	See note 2
15B.....	Recovery	Elective	Combined	Separately	Yes	Yes	3	See note 2
15C.....	Death	Elective	Combined	Separately	Yes	Yes	3	See note 2
16.....	Separately	Separately	Each separately	Combined	No	No	3	See note 1
17.....	Separately	Separately	Combined	Combined	No	No	3	See note 2
18A.....	Combined	Separately	Combined	Combined	Yes	Yes	2	See note 2
18B.....	Recovery	Separately	Combined	Combined	Yes	Yes	2	See note 2
18C.....	Death	Separately	Combined	Combined	Yes	Yes	2	See note 2

Table Number	Mode of Termination: Recovery and Death	Benefit Type: Automatic and Elective	Observation Period	Male and Female	By Attained Age at Disablement Group?	By Year of Disablement Group?	By (1) Amount of Insurance, (2) Number of Policies, or (3) Amounts of Premiums Waived	Special Features Shown
19A.....	Separately and combined	Automatic	Combined	Combined	Yes	First year, by month	3	See note 3
19B.....	Separately and combined	Automatic	Combined	Combined	Yes	2nd year, by month	3	See note 4
19C.....	Separately and combined	Elective	Combined	Combined	Yes	First year, by month	3	See note 3
19D.....	Separately and combined	Elective	Combined	Combined	Yes	2nd year, by month	3	See note 4
19E.....	Separately and combined	Combined	Combined	Combined	Yes	First year, by month	3	See note 3
19F.....	Separately and combined	Combined	Combined	Combined	Yes	2nd year, by month	3	See note 4
20A.....	Separately and combined	Automatic	Combined	Combined	Yes	First year, by month	3	See note 6
20B.....	Separately and combined	Automatic	Combined	Combined	Yes	2nd year, by month	3	See note 6
20C.....	Separately and combined	Elective	Combined	Combined	Yes	First year, by month	3	See note 6
20D.....	Separately and combined	Elective	Combined	Combined	Yes	2nd year, by month	3	See note 6
20E.....	Separately and combined	Combined	Combined	Combined	Yes	First year, by month	3	See note 6
20F.....	Separately and combined	Combined	Combined	Combined	Yes	2nd year, by month	3	See note 6
21A.....	Separately and combined	Automatic	Combined	Combined	Yes	Yes	3	See note 5
21B.....	Separately and combined	Elective	Combined	Combined	Yes	Yes	3	See note 5
21C.....	Separately and combined	Combined	Combined	Combined	Yes	Yes	3	See note 5
22A.....	Separately and combined	Automatic	Combined	Combined	Yes	Yes	3	See note 7
22B.....	Separately and combined	Elective	Combined	Combined	Yes	Yes	3	See note 7
22C.....	Separately and combined	Combined	Combined	Combined	Yes	Yes	3	See note 7

ANALYSIS BY CAUSE OF DISABILITY, FOR ACTIVE LIVES

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Table Number	Benefit Type: Automatic and Elective	Observation Period	Male and Female	By Attained Age Group?	Policy Years	By (1) Amount of Insurance, (2) Number of Policies, or (3) Amounts of Premiums Waived	Special Features Shown
23A.....	Automatic	Period 1	Combined	No	All combined	1	Crude disablement rates for Active Lives, by cause of disablement
23B.....	Automatic	Period 2	Combined	No	All combined	1	
23C.....	Automatic	Period 3	Combined	No	All combined	1	
23D.....	Automatic	Combined	Combined	No	All combined	1	
24A.....	Elective	Period 1	Combined	No	All combined	1	Crude disablement rates for Active Lives, by cause of disablement
24B.....	Elective	Period 2	Combined	No	All combined	1	
24C.....	Elective	Period 3	Combined	No	All combined	1	
24D.....	Elective	Combined	Combined	No	All combined	1	
25A.....	Combined	Period 1	Combined	No	All combined	1	Crude disablement rates for Active Lives, by cause of disablement
25B.....	Combined	Period 2	Combined	No	All combined	1	
25C.....	Combined	Period 3	Combined	No	All combined	1	
25D.....	Combined	Combined	Combined	No	All combined	1	

ANALYSIS BY CAUSE OF DISABILITY, FOR DISABLED LIVES

Table Number	Mode of Termination: Recovery and Death	Benefit Type: Automatic and Elective	Observation Period	Male and Female	By Attained Age at Disablement Group?	By Year of Disablement Group?	By (1) Amount of Insurance, (2) Number of Policies, or (3) Amounts of Premiums Waived	Special Features Shown
26.....	Separately and combined	Separately and combined	Combined	Combined	No	No	3	See note 2
27.....	Separately and combined	Combined	Each separately	Combined	No	No	3	See note 2
28.....	Separately and combined	Automatic	Each separately	Combined	No	No	3	See note 2
29.....	Separately and combined	Elective	Each separately	Combined	No	No	3	See note 2

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APPENDIX I (ACTIVE LIVES STUDY)

Table Number	Benefit Type: Automatic and Elective	Observation Period	Male and Female	By Attained Age Group?	Policy Years	By (1) Amount of Insurance, (2) Number of Policies, or (3) Amounts of Premiums Waived	Special Features Shown
A.....	Combined	Period 3	Combined	Yes	All combined	1	Compares actual claims with expected claims based on graduated 1969-74 rates of disablement shown in Table 2

APPENDIX II (DISABLED LIVES STUDY)

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Table Number	Mode of Termination: Recovery and Death	Benefit Type: Automatic and Elective	Observation Period	Male and Female	By Attained Age at Disablement Group?	By Year of Disablement Group?	By (1) Amount of Insurance, (2) Number of Policies, or (3) Amounts of Premiums Waived	Special Features Shown
B1.....	Separately and combined	Automatic	Combined	Combined	Yes	First year, by month	3	Compares actual terminations with expected terminations based on corresponding graduated termination rates shown in the Table 19 series
B2.....	Separately and combined	Automatic	Combined	Combined	Yes	Second year, by month	3	
B3.....	Separately and combined	Elective	Combined	Combined	Yes	First year, by month	3	
B4.....	Separately and combined	Elective	Combined	Combined	Yes	Second year, by month	3	
B5.....	Separately and combined	Combined	Combined	Combined	Yes	First year, by month	3	
B6.....	Separately and combined	Combined	Combined	Combined	Yes	Second year, by month	3	
C1.....	Separately and combined	Automatic	Combined	Combined	Yes	Yes	3	Compares actual terminations with expected terminations based on corresponding graduated termination rates shown in the Table 21 series
C2.....	Separately and combined	Elective	Combined	Combined	Yes	Yes	3	
C3.....	Separately and combined	Combined	Combined	Combined	Yes	Yes	3	

NOTES TO INDEX OF TABLES

- Shows ratios of crude 1959-74 actual terminations to expected terminations based on the 1930-50 study's graduated Benefit 5 yearly termination rates (by amounts of annual premiums waived) given on page 104 of *TSA, 1952 Reports Number*.
- Shows ratios of crude 1959-74 actual terminations to expected terminations based on one or more sets or subsets of crude termination rates (by amounts of annual premiums waived) from the 1959-74 study.
- Shows graduated 1959-74 monthly termination rates for first year of disability.
- Shows graduated 1959-74 monthly termination rates for second year of disability.
- Shows graduated 1959-74 yearly termination rates for each of the first five years of disability.
- Shows ratios of graduated 1959-74 monthly termination rates to expected terminations based on the 1930-50 study's graduated Benefit 5 monthly termination rates (by amounts of annual premiums waived) given on pages 113-14 of *TSA, 1952 Reports Number*.
- Shows ratios of graduated 1959-74 yearly termination rates to expected terminations based on the 1930-50 study's graduated Benefit 5 yearly termination rates (by amounts of annual premiums waived) given on page 104 of *TSA, 1952 Reports Number*.

SCOPE OF THE STUDY

This study was designed to examine the standard experience (lives substandard for waiver of premium or for life insurance were excluded) under the most common disability benefit issued in connection with Ordinary life insurance policies in recent years, namely, the waiver of premium benefit, six-months presumptive clause, retroactive, with coverage to an age at disablement in the range of 55-65. Elective and automatic coverages were studied separately for both the rate of inception of claims (the Active Lives study) and the rate of termination of claims by death or recovery (the Disabled Lives study).

This is the first intercompany study of experience under the automatic disability waiver of premium benefit that has been sponsored by the Society of Actuaries. Experience with the elective disability waiver of premium benefit (which is also examined in the current study) was also studied in the 1930-50 study (*T.S.A., 1952 Reports*, page 70) where it was called Benefit 5.

The experience covered the years from 1959 to 1974 anniversaries divided into three periods as set forth below. The periods ran between policy anniversaries for the Active Lives study and between anniversaries of dates of disablement for the Disabled Lives study.

- Period 1. Between 1959 and 1964 anniversaries,
2. Between 1964 and 1969 anniversaries,
3. Between 1969 and 1974 anniversaries.

Homogeneity of Data

In any broad intercompany study, a lack of homogeneity may be expected in a number of respects. This waiver of premium investigation is no exception. The responses to the questionnaire that accompanied the instructions, as well as the responses to follow-up interrogations, indicated that major differences existed among the contributing companies with regard to the definition of disability, the characteristics of claims administration, the degree to which the companies were able to comply with the instructions for the study, the characteristics of the data contributed, and the size of the contributions.

With respect to the definition of disability, some companies defined total disability in terms of inability to perform any work. For example, one contributor limited total disability to a state of incapacity that results from bodily injury or disease and that wholly prevents the performing of any work for compensation or profit, or the following of any gainful occupation. Other companies offered more liberal definitions. Often the definitions recognized as a total disability any disability that

prevents the insured from engaging in one's own occupation during the first two years one is disabled. Thereafter the requirement is tightened and total disability is defined as the insured's inability to engage in any occupation for which one is, or becomes, reasonably fitted by education, training, or experience.

Claims administration practices also differed. One company described its claims administration as strict, another as very liberal. The others considered their interpretation and enforcement of waiver of premium provisions to be liberal or somewhere between strict and liberal.

With respect to compliance with the instructions, one company was unable to exclude disabled lives from its exposures in the Active Lives study, and an approximate adjustment was made to correct this defect.

The data from two of the companies had special characteristics that made the interpretation of certain of the overall combined results troublesome. One large contributor only submitted experience for issues of 1960 and thereafter. Thus, care is needed when interpreting the combined experience data involving the observation period, especially period 1. The discussion in the "experience by observation period" section on page 102 in the Active Lives study should be noted before any attempt is made to make use of the trend rates shown in the tables. The Disabled Lives data were not affected too severely by this company's contribution because termination rates are much more dependent on the elapsed time from the date of disablement rather than from the date of issue.

Another large contributor was able to contribute data involving only a three-year select period, although the instructions for the Active Lives contribution called for a fifteen-year select period. For policy years 4 and later, that company's data were coded as ultimate. Accordingly, that company's data were excluded from any tabulations involving ultimate experience but were included for tabulations involving aggregate experience or the select experience of policy years one, two, and three.

Because of the special characteristics of these last two submissions, rates of disablement for the later policy years, especially the ultimate policy years (16 and over), are based on a low volume of exposures and probably are not very reliable.

The list of contributors in the Introduction above indicates that both the Active and the Disabled Lives studies are heavily weighted toward the contributions of three or four companies. It would have been preferable for there to have been a larger number of contributors as well as a more uniform distribution of exposures from the various companies that did contribute.

In summary, the results of this study are based on a combination of heterogeneous data. Therefore they may not be representative of experience of other companies in the same periods and should be used with caution in attempting to predict future experience.

HISTORICAL PERSPECTIVE

The study encompasses a sixteen-calendar-year span of time, from 1959 through 1974. The study has been split into three five-year anniversary-to-anniversary observation periods, not only to study trends in the data, but also to detect and isolate any distortions that may have been caused by the various economic events that occurred during those years. Such events presumably left their imprint on the results of this study.

Our prior disability studies have indicated that the experience under disability benefits is sharply responsive to economic conditions, worsening as the economic conditions worsen, and vice versa. In this connection it should be noted that during observation period 3 (1969-74) of this study the Dow Jones average exceeded 1,000 for the first time in its history (1972), and the United States entered the worst recession (1973-75) since World War II. Canada also experienced an economic slowdown during this period.

The following table of unemployment rates for the United States illustrates the variability of the economic conditions since 1959. Note that the highest rate of any year in the study (6.7 percent in 1961) was almost double the lowest rate (3.5 percent in 1969).

U.S. UNEMPLOYMENT RATES

	1959	5.5%		1969	3.5%
Period 1.....	1960	5.5	Period 3.....	1970	4.9
	1961	6.7		1971	5.9
	1962	5.5		1972	5.6
	1963	5.7		1973	4.9
	1964	5.2		1974	5.6
Period 2.....	1965	4.5	Not in study.....	1975	8.5
	1966	3.8		1976	7.7
	1967	3.8		1977	7.0
	1968	3.6		1978	6.0
	1969	3.5			

In addition, therefore, to the caveats expressed above regarding the heterogeneity of the data, the various economic conditions prevailing during the periods of the study should be considered before one attempts to use the results of the study as a guide to any future experience.

ACTIVE LIVES STUDY

Introduction

The objective of this portion of the study was to obtain, as nearly as possible, rates of disablement experienced by standard lives. Thus the contributing companies were asked to exclude their experience on lives substandard for life insurance or substandard for the waiver of premium benefit.

The rates of disablement shown in this study are generally in terms of the amount of life insurance. However, claim rates by number of policies were also developed for comparison. Rates in terms of the amount of premium waived would also have been interesting. However, since most of the companies were unable to provide these data in the Active Lives study, they were not requested in the final instructions. (It might be advisable to encourage companies to maintain such data for future studies.)

Although the final observation period of the Active Lives study was terminated on the 1974 policy anniversary, each contributing company was asked to submit delayed claims reported after 1974 policy anniversaries up to August 31, 1975, and that were incurred in any one of the three specified experience periods. Each company was also asked to estimate the claims that were incurred in each such period but that would have been submitted after August 31, 1975.

All of the experience of one company was submitted on an age-last-birthday basis. These data were made comparable with the other data contributed, and with the data contributed for the 1930-50 study, by an approximate adjustment that converted them to an age-nearest-birthday basis.

Definitions

The date of disablement was defined in the instructions in the same manner as in the 1930-50 study, that is, the date on which the life actually became totally disabled. This date is the beginning of the "waiting period" for those lives that continue disabled until the end of the waiting period and thereby qualify for the waiver of premium benefit.

The rate of disablement was also defined in the same manner as in the 1930-50 study. Specifically, the rate of disablement r'_x , for a given attained age x , was the annual rate of becoming disabled among active lives aged x at the beginning of the policy year, i.e.,

$$r'_x = i_x / (l_x^{aa} - \frac{1}{2}d_x^{aa}).$$

This formula is shown on page 297 of Jordan's *Life Contingencies*, Second Edition, 1967. The term i_x represents the number of lives that become

disabled between attained ages x and $x + 1$ and remain disabled for at least six months and for whom at least one premium was actually waived.

In practice, the rates of disablement in this study were derived as the ratio of the amounts (or numbers) of admissions to disabled life status, with date of disablement in a particular policy year, to the mean amounts (or mean numbers of policies) of active lives in force over the policy year.

Results

The aggregate exposures and crude rates of disablement (by amount) obtained in the Active Lives study are summarized in quinary age groups by benefit type and by period in Tables 1A, 1B, and 1C. The heaping of the data in Period 3 (1969–74) is readily apparent, as is the general increase in the rates of disablement (in each of the three tables) from one period to the next. Note also that because one company contributing to the Active Lives study did not break down its data by benefit type (automatic or elective), its experience is included only in Table 1A, but not in Table 1B or 1C. Thus Tables 1B and 1C do not sum to Table 1A.

Although one might expect that the elective benefit experience, because it is subject to greater opportunity for antiselection, would be less favorable than the automatic benefit experience, Tables 1B and 1C indicate that quite the reverse was the case for the data considered in this study. The overall actual-to-expected ratios were 113 percent for the automatic benefit and 66 percent for the elective benefit. This finding probably reflects the differences in the markets to which these two benefits were sold, as well as the different underwriting and claim standards among the insuring companies, rather than inherent differences between the two benefits. For example, one contributor limited the automatic benefit to policies with face amounts of \$5,000 or less and offered only the elective benefit for policies exceeding that amount.

The aggregate rates of disablement obtained for automatic and elective coverages combined, over the entire span of observation of this study—from policy anniversaries in 1959 to those in 1974—overall, were lower than those generally used as a minimum standard for the valuation of currently issued active lives waiver of premium benefits, i.e., the Period 2 (1935–39), Benefit 5 rates of disablement from the 1930–50 study (which omit the experience of policy years one and two). The intercompany ratio of actual 1959–74 claims to those expected, on the basis of the rates just described from the 1930–50 study, was about 84 percent. This ratio was a result of 1959–74 experience that varied greatly by company, by observation period, by attained age, by sex, and by type of benefit

(automatic or elective). The range of this ratio by company was 53 to 113 percent. The following table shows that two of the seven Active Lives contributors had ratios in excess of 90 percent while the other five contributors had ratios of less than or equal to 65 percent.

VARIATION BY COMPANY OF THE ACTUAL-
TO-EXPECTED CLAIMS RATIO
EXPECTED CLAIMS BASED UPON
GRADUATED BENEFIT 5, PERIOD 2
RATES OF THE 1930-50 STUDY,
WHICH OMITTED THE EXPERIENCE
OF THE FIRST TWO POLICY YEARS

Company	A/E
A.....	53%
B.....	54
C.....	56
D.....	63
E.....	65
F.....	94
G.....	113
All.....	<hr/> 84%

Table 2 shows this study's graduated intercompany rates of disablement by individual attained age for the combined automatic and elective benefit experience. The graduated rates in Table 2 were derived from the Period 3 (1969-74) experience only, as shown in Table 1A, and are for males and females combined. The ratio of each of these rates to the corresponding graduated rate based on the experience in policy years three and over of Benefit 5 in Period 2 (1935-39) of the 1930-50 study is also shown. Note that the data of the 1930-50 study were based on elective benefits only. Table 2 shows that the combined automatic and elective benefit experience during 1969-74 was less favorable than that from the 1930-50 study for attained ages 18 through 22 and also for attained ages 41 through 51 but was more favorable or unchanged at the other ages.

Analysis by Policy Year

Tables 3A, 3B, and 3C show crude rates of disablement for quinary attained-age groups by policy year (all three Periods combined). In each of the tables, for each policy year separately, one can see a clear tendency for the rate of disablement to increase as the attained age increases. In order to analyze the dependence, if any, of the rate of disablement upon the policy year of experience, a least-squares line with the policy year as the independent variable was fitted to the rates for each quinary age group in each table separately.

In each of Tables 3B (automatic benefit) and 3C (elective benefit), it was found that a linear relationship between the rates and the policy years of experience does not fit the data very well. That is, the sum of the squares of the deviations of each figure from the least-squares line is not significantly smaller than the sum of the squares of the deviations of each figure from the average rate for each age group. In other words, the rate of disablement does not vary linearly by policy year in Tables 3B and 3C. (However, one can also see in Table 3B a tendency for the rates of disablement within each attained-age group to be higher in the middle policy years for which data are shown than in the earlier or later policy years for which data are shown.)

Any findings by policy year must be tempered by the fact, already mentioned in this report, that in the higher policy years, and even for policy years 4 and over in the case of the automatic benefit, the active lives exposures were quite limited and in some cases consisted of only one company's contribution.

Experience by Sex

Sixty percent of the combined amount of insurance exposed was contributed by companies who were able to split their data by sex, while the balance was contributed by companies that were unable to do so. The relative proportion of the sex-specific data under each type of benefit varied greatly, as shown in the following table:

DISTRIBUTION BY SEX OF THE AMOUNT OF INSURANCE EXPOSED
FOR EACH BENEFIT

	Male	Female	Unsplit	Male and Female Combined
Automatic and elective combined . . .	56%	4%	40%	100%
Automatic	7	2	91	100
Elective	95	5	0	100

In order to analyze the sex-specific data, ungraduated claim rates for all sexes combined were computed first for each quinary attained-age group. This was done separately for each of the three benefit categories (i.e. automatic, elective, and combined). These ungraduated claim rates then were applied to the corresponding (i.e., within each benefit category) male and female exposures to provide expected claims by sex for comparison with the actual male and the actual female claims. The results are summarized in Tables 4A, 4B, and 4C.

Table 4A (combined automatic and elective benefit experience) indicates that the overall active lives experience for females was somewhat better than that for males. A review of the tables that show the automatic and the elective benefit experience separately suggests that this was a consequence of mixing female automatic benefit experience that was very favorable relative to the male with female elective benefit experience that was less favorable than male. Overall ratios of actual female claims to those expected on the basis of combined male and female experience are 52 percent for the automatic, 110 percent for the elective, and 93 percent for the combined automatic and elective data. These compare with the corresponding ratio of 108 percent for Benefit 5, Period 4 (1946-50), in the 1930-50 study, which was for the elective benefit only.

The fact that the elective benefit female ratio is more than double the automatic benefit female ratio reflects more than a difference of just benefit type in the female experience. The basis for expected claims in each of the three tables is the combined male and female experience of the particular benefit type. For each benefit type the volume of exposure was weighted heavily in favor of males. As a result, the actual-to-expected ratio for males remained relatively close to 100 percent in each of the three tables. If we use the same basic table to compare the expected claims for the experience data of Tables 4B and 4C, however, quite a different picture emerges as indicated in the following table. Male automatic rates are seen to be about twice as large, on the average, as male elective rates, while for females the differences between automatic and elective rates actually go in the other direction.

OVERALL ACTUAL-TO-EXPECTED RATIOS FOR
 CERTAIN CONTRIBUTORS ONLY
 EXPECTED CLAIMS BASED UPON
 GRADUATED BENEFIT 5,
 PERIOD 2 RATES OF THE 1952 STUDY,
 WHICH WAS FOR MALES AND FEMALES COMBINED

	Male	Female
Automatic.....	128%	55%
Elective.....	65	74

These differences by sex in claims experience are suspect because the composition of the data is such that the observed differences are more likely a function of the contributing companies and the canvassed markets, rather than of the sex of the insured.

Experience by Plan

Some of the contributing companies were able to break down their active lives disability waiver of premium data by plan. Tables 5A and 5B illustrate this experience for combined automatic and elective benefits, and for elective benefits alone, respectively. There was no plan-specific automatic benefit experience for term and endowment insurance plans. Consequently, no table for automatic benefit experience is shown. The differences in the life, term, and endowment data between tables 5A and 5B are entirely a result of experience not subdivided between automatic and elective.

The most interesting feature of these tables is the favorable nature of term experience relative to that of the permanent plans. This is not a result of the distribution of this data by company. Each of the five insurers that was able to break down his contribution by plan shows a significantly better overall experience for term than for permanent plans. This finding may not be statistically significant, however, not only because of the low volume of term exposures but also because it is not known how many of the original (i.e., at the time of disablement) term policyholders converted to a permanent plan *after* becoming disabled and were reported as disabilities under the permanent plan. Another finding is that the life plan disability rates were lower than the endowment plan disability rates at attained ages 15-34 while the opposite was true at attained ages 35-59.

Experience by Observation Period

Tables 6A, 6B, and 6C indicate that the rates of disablement for Period 2 (1964-69) and Period 3 (1969-74) are generally very much in excess of the corresponding values of Period 1 (1959-64). As noted previously, there was considerable variation in rates of disablement experienced by company. An attempt was made to examine the effects of the differing contributions of data by company in each period by considering the data of only those three companies that contributed to all three periods. One of these insurers, however, was the company whose contribution included only issues of 1960 and later, so its data were also excluded for this special analysis. The "company-adjusted" ratios that resulted showed approximately the same deterioration by period as was shown in Tables 6A, 6B, and 6C. Lack of significant amounts of homogeneous data prevents too strict an interpretation of these deteriorations. Some possible explanations of any true deterioration include changing attitudes and increasing awareness of disability benefits on the part of the insureds and more liberal definitions and interpretations of definitions of total disability by insurers.

Finally, it should be remembered that (as can be determined from Tables 1A, 1B, and 1C) only about 7 percent of the exposure for each of the automatic benefit, the elective benefit, and the combined benefit experience comes from Period 1. Thus the relatively favorable experience of that period has very little impact on the 1959-74 data.

Number versus Amount

Five of the seven contributors to the Active Lives study were able to submit data admitted to disability status on the basis of both amount of insurance and number of policies. This information, based on 37,470 policies, was used to derive the following table:

1959-74 CRUDE RATES OF DISABLEMENT
BY NUMBER OF POLICIES AND BY AMOUNT OF INSURANCE
ALL SELECT AND ULTIMATE POLICY YEARS OF EXPERIENCE COMBINED
MALES AND FEMALES COMBINED; CERTAIN CONTRIBUTORS ONLY

ATTAINED AGE	COMBINED AUTOMATIC AND ELECTIVE BENEFITS*			AUTOMATIC BENEFIT†			ELECTIVE BENEFIT		
	Rate‡ by Number (1)	Rate‡ by Amount (2)	(1) as a % of (2) (3)	Rate‡ by Number (4)	Rate‡ by Amount (5)	(4) as a % of (5) (6)	Rate‡ by Number (7)	Rate‡ by Amount (8)	(7) as a % of (8) (9)
15-19	0.32	0.51	63%	0.19	0.33	58%	0.51	0.61	84%
20-24	0.68	0.77	88	0.55	0.72	76	0.72	0.78	92
25-29	0.68	0.68	100	0.74	0.90	82	0.65	0.64	102
30-34	0.79	0.75	105	0.94	1.01	93	0.74	0.69	107
35-39	1.06	0.94	113	1.48	1.58	94	0.90	0.87	103
40-44	1.57	1.38	114	2.23	2.49	90	1.39	1.28	109
45-49	2.40	2.08	115	3.27	3.68	89	2.15	1.96	110
50-54	3.59	3.22	111	4.70	5.71	82	3.28	3.02	110
55-59	5.48	5.33	103	6.41	8.12	79	5.50	5.24	105
15-59	1.58	1.42	111%	1.86	2.01	93%	1.46	1.33	110%

* Including data that were not split by type of benefit.

† Based on data from only two contributors.

‡ Rates shown are on a per thousand basis, i.e., 1,000r.

The format of this study did not allow analysis of disability rates by policy size groups. However, for each of the five companies that provided data both by amount and by number it was possible to determine the average size of their policies (and of those that became claims). It is perhaps significant that the company with the largest average size exposed

had the lowest ratio of actual claims (by amount of insurance) to those expected on the basis of the graduated Benefit 5, Period 2 rates from the 1930-50 study, and the company with the smallest average size had the highest actual-to-expected ratio. Furthermore, if one company whose definition of disability differed from the others is not included, a correlation results: the insurer with the second largest average size exposed had the second lowest A/E ratio, the insurer with the third largest had the third lowest, and so on. This is illustrated in the following table, which is based on the combined automatic and elective benefit male experience only (although the relationship is still preserved when the data for both sexes are combined). It seems that an analysis of disability rates by policy size groups would be a worthwhile addition to future studies.

CORRELATION BETWEEN AVERAGE SIZE OF POLICY EXPOSED
AND THE ACTUAL-TO-EXPECTED RATIOS BY COMPANY
COMBINED AUTOMATIC AND ELECTIVE BENEFIT EXPERIENCE
ALL SELECT AND ULTIMATE POLICY YEARS OF EXPERIENCE
COMBINED BY AMOUNT OF INSURANCE
FOR CERTAIN CONTRIBUTORS ONLY*; FOR MALES ONLY
(Expected Claims Based upon Graduated Benefit 5, Period 2 Rates
of the 1952 Study, Which Omits the Experience of
the First Two Policy Years)

COMPANY	ACTUAL TO EXPECTED RATIO		AVERAGE SIZE OF POLICY EXPOSED	
	Ratio	Rank †	Size	Rank ‡
W.....	53%	1	\$15,896	1
X.....	56	2	10,867	2
Y.....	65	3	10,580	3
Z.....	97	4	7,678	4

NOTE.—Company codes do not correspond to those on page 99.

* One company was excluded because its definition of disability differed from the others. Two others were excluded because they did not code the number of policies.

† Ranked in order of increasing ratios.

‡ Ranked in order of decreasing size.

Experience for Attained Ages below 15 and over 59

Although several companies contributed data for attained ages 0-14 and for attained ages 60-64, this experience was excluded from Table 1A through Table 6C. The ages under 15 were excluded because the low volume of claims at these ages made the results unreliable. The ages over 59 were excluded because the rates of disablement at these ages followed a completely different pattern than the rates at ages just under 60. That

is, the rates at ages over 59 decrease with age while the rates up to age 59 increase with age. This no doubt reflects the progressive reduction in the benefit in the event of disability after age 60. In addition to this, one company that contributed a sizable portion of the exposures for attained ages 60-64 stated that its data were suspect at these ages. Nevertheless, the experience at the extreme ages is of interest and is presented in the table below.

1959-74 EXPERIENCE FOR ATTAINED AGES 0-14 AND 60-64
ALL SELECT AND ULTIMATE POLICY YEARS OF EXPERIENCE COMBINED
MALES AND FEMALES COMBINED

ATTAINED AGE	COMBINED AUTOMATIC AND ELECTIVE BENEFITS*		AUTOMATIC BENEFIT		ELECTIVE BENEFIT	
	Exposure†	Rate‡	Exposure†	Rate‡	Exposure†	Rate‡
Attained Ages 0-14						
0-4.....	\$ 4,691,062	0.08	\$2,324,663	0.00	\$2,022,010	0.14
5-9.....	5,234,221	0.05	2,640,831	0.03	2,361,756	0.06
10-14....	6,477,940	0.08	3,353,272	0.07	2,792,434	0.09
0-14...	\$16,403,223	0.07	\$8,318,766	0.04	\$7,176,200	0.09
Attained Ages 60-64‡						
60.....	\$ 1,319,408	5.74	\$ 743,546	6.04	\$ 177,047	6.74
61.....	1,065,357	4.75	542,922	4.81	129,116	7.04
62.....	686,755	3.67	230,768	4.06	98,243	6.04
63.....	409,638	3.23	5,076	3.41	74,950	4.41
64.....	345,623	2.01	2,741	1.17	37,036	2.95
60-64...	\$ 3,826,786	4.49	\$1,525,053	5.29	\$ 516,397	6.07

* Including data that were not split by type of benefit.

† Amount of life insurance exposed in \$1,000 units.

‡ Amount of insurance becoming disabled per \$1,000 exposed, i.e., 1,000%.

§ Based on data from only 3 contributors.

DISABLED LIVES STUDY

Introduction

The Disabled Lives study traces the claim termination experience of waiver of premium disability claims in force at any time between the claim anniversaries in 1959 and 1974. The contributions to this part of the study include, in general, not only the claims that formed the numerators of the rates of disablement of the Active Lives study, but also the

claims arising prior to 1959 that were in force on the 1959 claim anniversary.

The volume of terminations included in this current study is summarized in Tables 7A, 7B, and 7C. The volume of elective benefit terminations is about the same as the corresponding volume for Benefit 5 in the 1930-50 study (which covered Elective Benefits only), while the volume of automatic benefit terminations is about twice as large as the Benefit 5 volume.

Method of Study

The contributions to the Disabled Lives study consisted of individual claim records from which the compiling company built up the exposures and terminations by a seriatim method. The exposure to both death and recovery was taken as the number or amount in force at the beginning of the disability year (or month) diminished by half of all other withdrawals. (This formula is different from the one used in the Active Lives portion to develop claim rates on page 97. However, both formulas are the same as the ones used in the 1930-50 study.) Such withdrawals were few, and consisted chiefly of matured endowments and expired term plans.

Separate rates of termination by death and by recovery were obtained, the sum of which is the termination rate. For tabulations involving the exact month of termination of disability, the Committee desired to fix the duration at recovery by using the date of actual recovery rather than the date of the last premium waived, since the latter date would be affected by the frequency of premium payment. Three of the seven contributors to this part of the study (whose experience represented 14 percent of the combined Disabled Lives exposure) were unable to follow this definition, so their data were excluded when determining the termination experience by month of termination during the first two years of disability.

For tabulations involving the cause of disability, the codes that were used in the 1930-50 study were used again in this study. Five companies, however, were unable to code their claims in this manner. Instead they used various editions of the two-digit codes of the Committee on Mortality under Ordinary Insurance and Annuities, depending on the calendar year in which the claim was incurred. Since Period 3 (1969-74) of the current study contains by far the heaviest volume of data, the descriptions of the approximately ninety-nine such committee codes found on pages 1 to 4 of the *TSA, 1969 Reports*, and not some prior version, were used to translate *all* committee codes into the sixteen codes used by this study. (For details, please refer to the "Analysis by Cause" section.) As a

result, the cause-of-disability categories used in this study are not mutually exclusive. However, since those 1969 codes do not differ significantly from the most recent prior codes (*TSA, 1960 Reports*, page 63), and since the exposures coded according to any version preceding these two were negligible, we believe that the cause-of-disability classifications used by this study are reasonably accurate and appropriate.

The cause-of-disability data for all claims (excluding, for consistency here, any claims incurred before the 1959 policy anniversary) were used to derive the percentage distributions for each cause (by face amount of insurance) shown in the middle section of Tables 23A through 25D. Then those percentages were each in turn multiplied by the appropriate crude rates of disablement (by amount of insurance) indicated in Tables 1A, 1B, and 1C, to produce the estimated crude rates of disablement by cause shown in the bottom section of Tables 23A through 25D.

After the disabled lives data were tabulated by year of disability, it was noticed that the volume of terminations beyond the fifth year of disability was rather low, especially for recoveries. This paucity of data, combined with the fact that one company was unable to code individual durations for durations exceeding 5, caused us to group the data for the individual years of disability 6-10 into one category and 11-15 into another. The experience for the sixteenth and subsequent years of disability was virtually nonexistent and has been ignored in this study. The methods used to obtain our graduated rates of termination are described in Appendix II.

Scope of Study

The termination experience found in Tables 8 through 11 of this study, broken down in each instance by attained age on the policy anniversary immediately preceding disability and by the disability year, is also subdivided into the following various parameters:

1. Benefit—automatic or elective (Tables 8A, B, C).
2. Observation period in which termination occurred (Tables 9A, B, C).
3. Sex (Tables 10A, B, C).
4. Plan of insurance (Tables 11A, B, C).

The above-mentioned tables use the graduated termination rates for Benefit 5 of the 1930-50 Disabled Lives study as the expected basis.

In order to take a closer look at the experience for the two types of benefits separately, similar tabulations (i.e., by attained age on the policy anniversary preceding disability and by disability year) are also presented for the following combinations of parameters:

1. Automatic benefit—
 - a) By observation period (Tables 12A, B, C),
 - b) By sex (Tables 13A, B, C);
2. Elective benefit—
 - a) By observation period (Tables 14A, B, C),
 - b) By sex (Tables 15A, B, C).

Tables 12 through 15 use the 1959-74 crude experience termination rates as the expected basis; automatic benefit experience rates are used as the basis for Tables 12 and 13, while elective benefit experience rates are used as the basis for Tables 14 and 15. In each of Tables 8A through 15C, the "A" table shows data for total terminations, the "B" table shows data for terminations by recovery, and the "C" table shows data for terminations by death.

Table 16 summarizes the experience for each benefit by observation period relative to the graduated termination rates for Benefit 5 of the 1930-50 Disabled Lives study. The relationship between the termination rates experienced (by amounts of annual premium waived) and the size of the annual premium actually being waived is indicated in Table 17 for each type of benefit. In Table 17 the expected terminations were calculated using the crude (ungraduated) termination rates by amounts of annual premiums (for elective and automatic benefits separately) for all sizes combined. Tables 18A, 18B, and 18C offer a different view of a similar subject, in that the actual number of terminations (broken down by attained age on the policy anniversary preceding disability and by disability year) is compared with the number of terminations that would be expected using the crude rates of termination by amounts of annual premium waived.

Graduated termination rates, by month of termination for the first two years of disability and by year of termination for the first five years of disability, were prepared for each benefit separately and for both benefits combined. These rates then were compared with the corresponding 1930-50 study Benefit 5 graduated termination rates, which were for the elective waiver of premium benefit only. The results appear in the following tables:

1. Monthly rates of termination for the first two years of disability—
 - a) Graduated rates of termination (Tables 19A, B, C, D, E, F),
 - b) Graduated rates compared with the 1930-50 study rates (Tables 20A, B, C, D, E, F);
2. Yearly rates of termination for the first five years of disability—
 - a) Graduated rates (Tables 21A, B, C),

- b) Graduated rates compared with the 1930-50 study rates (Tables 22A, B, C).

Comparisons by Type of Benefit

Table 8A shows that the overall ratio of actual-to-expected terminations (where expected terminations are based on the graduated termination rates for Benefit 5 of the 1930-50 Disabled Lives study) was slightly higher for the automatic benefit than for the elective benefit. Tables 8B and 8C show that, while automatic benefit claims had a much higher ratio of actual-to-expected recoveries than the elective benefit claims, the reverse was true with respect to the ratios of actual-to-expected terminations by death.

Table 16 shows that the overall elective benefit mortality was higher than the automatic benefit mortality during each of the three observation periods. Table 16 also indicates that the trend in the rate of recovery and in the rate of death has apparently been downward over the years for each of the two benefits. This trend is more closely examined in Tables 12 and 14. Note that each of these tables uses a different expected basis: Table 12 uses the crude 1959-74 automatic benefit experience (by amounts of annual premiums waived), Table 14 uses the crude 1959-74 elective benefit experience by (amounts of annual premiums waived), and Table 16 uses the 1930-50 study's graduated termination rates (by amounts of annual premiums waived) for Benefit 5.

Note that, unlike the Active Lives portion of this study, all contributors to the Disabled Lives study were able to split their data by type of benefit.

Comparisons by Observation Period

Tables 9A, 9B, and 9C compare the termination experience during each of the three observation periods with the 1930-50 study's graduated termination rates for Benefit 5. The trend toward lower termination rates previously noted in the "Comparisons by Benefit" section is also evident in these tables. Although the decrease in the termination rates between Periods 1 and 2 may not be significant because of the low volume of data in Period 1, the decrease in these rates between Periods 2 and 3 is sharp and is based on a significant volume of terminations.

Table 27 (experience by cause of disability for each period) also examines the trend of termination rates over time. It is interesting to note that cardiovascular diseases (8-10) and diseases of the skin, bones, and organs of movement (14) had much lower termination rates in Period 3

than in Period 1. In addition, the incidence of disability for these two causes has increased dramatically over that time. Tables 25A and 25C show that the rate of disability for cardiovascular diseases was more than twice as high in Period 3 as in Period 1, while disabilities from diseases of the skin, bones, and organs of movement more than tripled. These two categories constituted 45 percent of the amount of insurance which became disabled in Period 3. The trends in these two causes of disability have had a significant impact on the results of the study.

Comparisons by Sex

Tables 10A, 10B, and 10C compare the terminations by sex in this study to the 1930-50 study's graduated termination rates for Benefit 5. Tables 13A, 13B, and 13C compare the automatic benefit terminations by sex with the crude automatic benefit terminations for males and females combined. Tables 15A, 15B, and 15C do the same thing for the elective benefit. Note that, unlike the Active Lives portion of this study, all contributors to the Disabled Lives study were able to split their data by sex.

These tables indicate that the rates of termination both by recovery and by death are generally lower for females than for males. For the automatic benefit, the volume of female recoveries and deaths is about 75 percent of what would be expected on the basis of male rates. For the elective benefit, the volume of female recoveries is about 86 percent of the volume that would be expected on the basis of male rates, while for deaths it is about 67 percent.

Female terminations constituted about 6 percent of this study's terminations from disability.

Comparisons by Plan of Insurance

Termination experience by plan of insurance is shown in Tables 11A, 11B, and 11C. The total termination rates for life plans are about the same as for endowment plans; the rates of termination by death for endowment plans are somewhat smaller than for life plans, while the rates of termination by recovery are somewhat larger for endowment plans than for life plans.

Great significance should not be ascribed to the relatively high rates of termination for term plans, not only because of the low total volume of exposures and terminations under such plans, but also because it is not known to what extent the recovery rate for term plans was inflated by an understatement of the exposure to recovery. There is no way to determine the number of policies that were term at time of disablement,

were converted to a permanent plan shortly after disablement, and then were reported in the exposures to recovery as permanent plans.

Experience for Attained Ages below 15 and over 59

The Active Lives portion of this study contains a section on experience of the extreme ages (below 15 and over 59). Although it would have been desirable to produce such a table for Disabled Lives experience certain problems with the data prevented us from doing so.

Comparisons by Size of Annual Premium Waived

One of the findings of the 1930-50 study was that the termination rates for disability income benefits tended to decrease as the size of the income benefit increased. That study did *not* show a similar tendency for disability under the waiver of premium benefit.

Table 17 of this study indicates that the 1959-74 experience under the disability waiver of premium benefit was actually the opposite of the 1930-50 experience with disability income benefits. That is, the 1959-74 termination rates tended to increase by small but fairly regular amounts as the size of the annual premium being waived increased.

Tables 18A, 18B, and 18C compare, for each year of disability or attained age group separately, the actual number of terminations with the number of terminations that would be expected if we multiplied the exposures by number of policies by the 1959-74 crude rates of termination (based on amounts of annual premiums waived) for each benefit. It will be noted that most of the resulting ratios are somewhat less than 100 percent, which again suggests that the rates of termination tended to increase as the size of the annual premium being waived increased.

Note that both Tables 17 and 18 develop expected terminations on an age and duration basis, as do all the tables in this study.

ANALYSIS BY CAUSE OF DISABILITY

As mentioned in the method of study section, five of the seven contributors used codes for the cause of disability that differed from those used in this study. Their coded data were translated into the categories used by this study according to the scheme shown in the table on page 112. Note that code 04 in the 1952 study (rheumatism, arthritis, and gout) is not used in this study as a separate category. It is included under code 14 (diseases of the skin, bones, and organs of movement). Syphilis (code 02 in the 1952 study) is not shown here as a separate category because there was an insufficient volume of data. It is included in code 16 (all other causes). The results of our analysis of the incidence of disability by cause are set forth in Tables 23A through 25D.

Cause of Disability Code Used in This Study	Causes of Disability/Death	Committee's Cause of Death Code for Mortality Investigations*
01.....	Pulmonary tuberculosis	01
03.....	Malignant neoplasms	18-33
05.....	Diabetes	37
06.....	Mental disorders including alcoholism and drug addiction	41
07.....	Diseases of the eyes and annexa	47
08-10.....	Cerebrovascular disease, etc., diseases of the heart, other diseases of the circulatory system	49-55
11.....	Diseases of the respiratory system (excluding 01)	56-57, 60-63
12.....	Diseases of the digestive system	64-72
13.....	Nephritis	73
14.....	Diseases of the skin, bones, and organs of movement	79-81
15.....	External violence (except attempted suicide)	88-91, 93-96, 98-99
16.....	All other causes	02-17, 34-36, 38-40, 43-46, 48, 74-78, 82-83, 86-87, 97

* *TSA, 1969 Reports*, p. 1.

Termination experience for each cause of disability was tabulated for the following parameters or combination of parameters:

1. Benefit—automatic or elective (Table 26).
2. All benefits by observation period (Table 27).
3. Automatic benefit by observation period (Table 28).
4. Elective benefit by observation period (Table 29).

Tables 26-29 examine the termination experience for each cause of disability by type of benefit, by observation period, and by observation period for each type of benefit. The right-hand column of Table 26, which reports the experience for all three periods combined, is particularly interesting since it compares the termination rate for each cause with the corresponding termination rate for all causes combined. The basis of expected terminations used in Tables 26-29 are the appropriate termination rates (as indicated in the headings of each table) for all causes combined.

The following four definitions, inspired by the data presented in the right-hand column of Table 26, lead to a convenient four-way method of classifying the various causes of disability according to the relationships found among their various termination rates.

RECOVERY RATE	DEATH RATE	
	Higher than Average	Lower than Average
Higher than average.....	acute	nonserious
Lower than average.....	serious	chronic

Using these definitions, the termination experience by cause in Table 26 is summarized and classified below. The numbers following each cause of disability express the volume (by amounts of annual premiums waived) of recoveries and the volume of deaths (respectively) for that cause expressed as a percentage of the expected volumes based on the rates of recovery and death for all causes combined.

Cause of Disability Code	Classification of Disability	Volume of Recoveries	Volume of Deaths
Serious			
03.....	Malignant neoplasms	38%	536%
11.....	Respiratory (excluding 01)	38	123
13.....	Nephritis	83	252
Nonserious			
01.....	Pulmonary tuberculosis	181%	38%
14.....	Diseases of the skin, bones, and organs of movement	115	23
15.....	External violence	126	20
16.....	All other causes	113	79
Acute			
12.....	Diseases of the digestive system	153%	118%
Chronic			
05.....	Diabetes	70%	85%
06.....	Mental disorders	88	46
07.....	Diseases of the eyes and annexa	52	92
08-10.....	Cardiovascular, etc.	91	74

The last two lines of the preceding table may seem surprising, since disabilities due to cardiovascular diseases appear to be less severe than disabilities due to diseases of the eyes and annexa because the former exhibit a lower mortality ratio and a higher recovery ratio than the latter. These results become less surprising, however, when we realize that this study observes only those disabilities that have survived the six-month waiting period. The picture might have been different if we had used experience that did not have a built-in waiting period. Also, any application of the data in the above table must be tempered with the knowledge that all the figures shown are for years of disability 1-15 combined and not just for the early years of disability.

APPENDIX I

GRADUATION OF THE RATES OF DISABLEMENT

The combined automatic and elective benefit individual age rates of disablement shown in the first column of Table 2 were graduated using a Whittaker-Henderson Type B formula. The individual age crude values of $1,000r_x^i$ (rounded to two places) were smoothed by minimizing third differences, employing weights equal to the exposure in thousand-dollar units of amount of insurance, and a smoothness constant (i.e., the k in the expression $F + kS$) equal to 109 million. Although this number is large in magnitude, it is not very large relative to the size of the exposures that were used as weights. When the smoothness constant is expressed as a multiple of the average amount of exposure for an individual age being graduated, this multiple turns out to be 15.

Table A shows the differences between the actual claims and those that would result by applying the graduated rates to the exposures.

APPENDIX II

GRADUATION OF TERMINATION RATES

Each graduation in the Disabled Lives study was performed by using the Whittaker-Henderson Type B formula, which had been modified to enable the rows and columns of each two-dimensional array to be graduated simultaneously. For the monthly rates third differences were minimized, but for the yearly rates fourth differences were minimized.

In graduating those two-dimensional arrays, each row and column was assigned a smoothness constant that was equal to 100 times the root mean square (rms) average of the differences in that row or column, where the rms average of a set of numbers is defined as the square root of the mean of the squares of those numbers. The actual exposures were used as the weights in each case in the graduation formula.

The monthly rates were graduated first in order to obtain the equivalent annual rates of termination for each of the first two years of disability. Then the equivalent annual rates for the second year, together with the crude yearly

termination rates for years 3-10, were graduated to yield smooth values for years of disability 2-10. The equivalent annual termination rates for the first year of disability (obtained from the graduated monthly rates) were then placed at the top of the corresponding array of graduated rates for years 2-10.

Since the first year of disability had not been graduated together with the other years, the rates for the first year were then adjusted slightly (in most cases by less than 2 percent) so that within each attained age group the ratio between the final graduated rates for the first two years of disability was equal to the ratio between the equivalent annual rates based on the monthly graduated rates for those years.

In the case of the monthly rates, there was a low volume of recoveries and a dearth of deaths at certain age-duration cells. Therefore the crude rates were modified at these cells prior to graduation. This modification consisted of replacing the nonexistent or unreliable crude rates by appropriate percentages of the 1930-50 study's graduated rates (shown on pages 113-14 of the *TSA, 1952 Reports*), where the appropriate percentages to apply to those rates were determined as follows: For each age group the highest duration of disability for which there were at least \$2,000 of premium waived terminated by recovery (\$1,000 for deaths) was located. If we call this the "cutoff" duration, then the crude rates for the cutoff duration and all later durations were replaced by a percentage of the 1930-50 study's graduated rates. This percentage was determined so as to reproduce the crude rate at the cutoff duration. Asterisks in the graduated tables show the locations of all the crude rates that were modified as described above.

Obtaining graduated monthly termination rates for the elective benefit for the 15-19 age group was especially difficult because of virtually nonexistent experience. For this benefit and age group, the rate of termination by death for month 7 was set equal to 2.0 per thousand, an estimate that is in line with the crude rates at the immediately higher ages, and that is equal to 154 percent of the corresponding graduated rate in the 1930-50 study. The crude rates for months 8-24 were then replaced by 154 percent of the corresponding graduated rates from the 1930-50 study (shown on pages 113-14 of the *1952 Reports*). The weights that were assigned in the graduation process to the crude monthly rates were always equal to the corresponding exposures.

The crude yearly rates at durations with low exposures were not adjusted by the same method as was used for the monthly rates. The reason for this was that a constant percentage applied to the corresponding 1930-50 rates was too artificial over the many durations where data were scarce and consequently led to distorted results. However, there was insufficient data at higher durations to permit normal graduation.

Since any adjustment to crude rates would be somewhat artificial, it was decided to graduate the actual crude rates for the first ten years duration only. Since the data were somewhat scarce at durations 6-10, it was further decided to show only graduated rates for durations 1-5 in the tables.

Each set of rates for termination by recovery was graduated separately from, and independently of, the corresponding set of rates for termination by death—and vice versa. Each table of rates of total terminations was then obtained as a final step by summing the appropriate corresponding graduated rates for termination by recovery and termination by death.

Tables B1 through B6 (for the monthly rates of termination) and Tables C1 through C3 (for the yearly rates of termination) indicate the extent of the changes in the crude rates that were introduced by the graduation process.

APPENDIX III

PROPOSED INTERCOMPANY WAIVER OF PREMIUM DISABILITY EXPERIENCE STUDY

The Society of Actuaries Committee on Mortality under Ordinary Insurances and Annuities is intending to conduct an intercompany study of waiver of premium experience in relation to disability benefits attached to life insurance policies. This study is designed to cover the most common such disability benefit issued in recent years, namely, the waiver of premium benefit, six-months presumptive clause, retroactive, with coverage to an age in the range 55-65. The experience for the elective and the automatic coverages under this benefit will be studied separately for the rate of inception of claims (referred to as the Active Lives study) and the rate of termination of claims by death and recovery (referred to as the Disabled Lives study). The results of this study will be the first such data available since the corresponding study published in 1953 covering the experience of a period of years ending with policy anniversaries in 1950.

Since your company has indicated a willingness to participate in providing data for this current study, we are sending you the attached set of instructions for the preparation of data. The entire exposure period for both the Active Lives and Disabled Lives study has been established to cover policy years between anniversaries in 1959 and 1974, broken into three periods of five years each. If you are unable to provide data for all of the fifteen year period, we will appreciate receiving exposures, claims, and terminations for as much of the fifteen-year period as you are able to provide, even to the point of receiving data for less than the full five years of an individually defined period.

The attached material provides the complete instructions for the preparation and submission of the data. The comments which follow are included in these instructions and are repeated here only for your convenience. Your contribution should be submitted to Mr. Morris Eisner, Assistant Actuary, Metropolitan Life Insurance Company, 1 Madison Avenue, New York, New York 10010. The target date is to have all data received in Metropolitan by November 15, 1975. For the purpose of this study, your Company Code Number is _____, which you are asked to use for identification of your data as specified on pages one and four of the coding instructions.

The Committee thanks you for your willingness to participate in this study.

April 7, 1975

GENERAL SCOPE OF INTERCOMPANY STUDY

The proposed intercompany disability experience study is designed to study the most common disability benefit attached to life insurance policies in recent years, namely, the waiver of premium benefit, six-months presumptive clause, retroactive, with coverage to an age in the range 55-65. The elective and automatic coverages under this benefit are to be covered separately and for each we propose to study the rate of inception of claims (referred to as the Active Lives study) and the rate of termination of claims by death or recovery (referred to as the Disabled Lives study).

The experience will be studied for the disability waiver of premium benefit on life insurance policies only (disability benefits on annuity contracts are not to be included) for the following periods, running between policy anniversaries for the Active Lives study and between anniversaries of dates of disability for the Disabled Lives study:

- Period 1. Between 1959 and 1964 anniversaries,
2. Between 1964 and 1969 anniversaries,
3. Between 1969 and 1974 anniversaries.

The following classes of policies should be excluded. If it is not feasible to exclude all these classes, please inform the Committee in the letter of transmittal accompanying your company's contribution of those classes that are included.

1. Policies not subject to the company's usual underwriting standards, such as:
 - a) Group conversions;
 - b) Term conversions and renewals;
 - c) Family policy conversions on dependents;
 - d) Policies issued as a result of exercise of an option under a guaranteed insurability rider;
 - e) Policies issued on a "guaranteed issue" basis (such as certain pension trust business);
 - f) Policies subject to a simplified underwriting or issued up to a mortality limit higher than is customarily used by the company for standard ordinary insurance.
2. Policies substandard for either insurance or disability or both.
3. Policies in force under extended term insurance or reduced paid-up provisions.
4. Policies where the waiver of premium disability benefit was added after issue of the original policy.
5. Experience on wives and children insured under family policies.
6. Joint life policies.
7. Retirement annuities with a waiver of premium benefit.
8. Reinsurance assumed.

Reinsurance ceded should be included.

For the Active Lives study each contributing company is asked to submit records giving exposures on a policy year basis together with corresponding incurred claims. War claims need not be identified. Exposures and claims are to be given by individual age at issue and duration for durations 0-15 and by individual attained age for durations 16 and over. Companies that are not in a position to submit their data in this manner are requested to submit their ex-

perience indicating which durations are on an issue-age basis and which are on an attained-age basis. Exposures and claims are to be by amount of insurance primarily, but provision also has been made for reporting data by number where this is available. Rider amounts are to be excluded from the experience if possible; otherwise, the rider amount should be included in both the exposures and claims. The dividing line between admitted and outstanding claims will be August 31, 1975 (see p. 121, paragraph 1).

For the Disabled Lives study the companies are asked to submit an individual record for each policy admitted to benefit. This study will include not only the claims recorded in the Active Lives study but also claims originating before 1959 that were in force at some time during the defined periods. Companies that are not able to contribute for an entire period as previously defined are requested to contribute for the partial period—reporting earlier claims even though they have not been included in the Active Lives study. Provision is made for studies based on amount of premium waived as well as by number or amount of insurance. Rider amounts should be excluded. However, if rider amounts are included in the records for the Active Lives study, they should also be included in the amounts shown in bytes 28–37. Equivalent level amounts are appropriate for both the amount of life insurance (bytes 28–32) and the amount of premium waived per year (bytes 33–37) for nonlevel cases. For companies that allow a partial waiver of premium benefit the amounts shown in bytes 28–37 should apply to the portion with waiver only. The Committee proposes to undertake the work of deriving exposures and claim termination rates from these individual claim records for all companies combined.

It is not proposed to study the experience of individual companies except to the extent necessary to make homogeneous groupings.

In both the Active and Disabled Lives studies the object is to secure rates for business standard for both disability and life insurance; substandard business is to be excluded. To the extent that it proves practicable we plan to study the relative claim rates and relative persistency of claims for the principal causes of disability; companies that can supply readily the cause of disability on the claim record are requested to do so. Similarly, we propose to study the experience by sex as well as by broad plan groups where separate data are submitted.

You will note that a questionnaire, to be returned when the data are submitted, accompanies the instructions. This questionnaire will serve to advise the Committee as to the nature and extent of each company's contribution.

DEFINITION OF TERMS

1. *Date of disability.*—Where possible use the date of disablement as defined on page 103 of *Actuarial Study No. 5* for both prompt and delayed claims, that is, the date on which the life actually became totally disabled. If this date is not available without undue labor, use the nearest approach to that date which can readily be obtained. In particular, where the date at the end of the waiting period has been recorded, please translate to the date at the beginning of the waiting period.

2. *Age preceding disability.*—The age preceding disability is defined for purposes of this study as the age (nearest or last birthday) at the commencement of the policy year in which the date of disability falls. This age is the same as the insurance age as of the last preceding policy anniversary. The choice between nearest or last birthday basis should be the same as was in effect at the time of issue of that particular policy.
3. *Date of termination of disability.*
 - a) Deaths. Use the date of death.
 - b) Recoveries.
 - i) If possible use the actual date of recovery, that is, the date on which the claimant is presumed, because of medical or other evidence, to have recovered.
 - ii) Otherwise use the date halfway between the effective date of the last premium waived and the effective date of the first premium waiver not made. For instance, in monthly waiver cases the date of recovery might be defined as the middle of the last month for which a premium is waived. (NOTE.—Any definition of the date of recovery that gives the same duration of disability as either i or ii may be used.)
 - c) Compromises. Calculate the hypothetical date as of which the premiums waived under the original provisions would equal the disability benefit actually allowed. Use this date if earlier than 1974 anniversary; otherwise, classify as existing—see section *e* below.
 - d) Expiries and maturities. For claims expiring because no further premiums eligible for waiver are due, use the policy anniversary immediately following the due date of the last premium that was eligible for waiver. However, if this date falls after the anniversary in 1974 of the date of disability, use the 1974 anniversary of the date of disability in accordance with *e* below.
 - e) Existing at end of final observation period. Use the 1974 anniversary of the date of disability

DISABLED LIVES STUDY—GENERAL REMARKS

A record should be submitted for each policy admitted, regardless of its duration, to the waiver of premium disability benefit (six-months presumptive clause, retroactive, with coverage to an age in the range 55–65) for which the company is contributing, except for the following items:

1. Any claim that terminated prior to its claim anniversary in 1959.
2. Any claim for which the date of disability occurs after the policy anniversary in 1974.

With these exceptions, a record should be shown even though the corresponding claim will not be included in the numerators for the Active Lives study.

Control sheets are to be submitted with the taped records as indicated in the questionnaire. These control totals will be useful in controlling the ensuing computer work. They do not guarantee in themselves, however, the accuracy of the contributed material. Each company is expected to apply sufficient

checks against internal records to insure that the claim records contributed do actually represent its experience.

ACTIVE LIVES STUDY—GENERAL REMARKS

Disability claim rates will be determined for the elective benefit and for the automatic benefit of the waiver of premium disability benefit, six-months presumptive clause, retroactive, with coverage to an age in the range 55-65, over each of the following periods:

- Period 1. Between 1959 and 1964 anniversaries,
2. Between 1964 and 1969 anniversaries,
3. Between 1969 and 1974 anniversaries.

The waiver of premium benefit will be studied by issue age and policy duration for durations 0-15 and by attained age for durations 16 and over.

The basic study of disability claim rates will be by amounts of insurance. Companies that can do so conveniently also should furnish these data by number of policies. Separate experience should be submitted for male and female lives. *Companies whose records do not make a distinction by sex are requested to approximate their experience by sex in a manner that is practical and convenient to them.* In making the approximation, we hope that it will be applied separately to exposures and claims in such a manner that it will give recognition to the difference in experience rates between male and female business.

Substandard life and disability insurance should be excluded from this study. Companies whose records do not make a distinction between standard and substandard business are requested to approximate their business that is standard for both disability and life insurance in a manner that is both practical and convenient for them. In making the approximation, we hope that it will be applied separately to exposures and claims in such a manner that it will give recognition to the difference in experience rates between standard and substandard business.

If the exposures are taken from valuation records, then the December 31st inforce may generally be taken as the exposure for the policy year then current. Each company should make any adjustments to these valuation figures that they consider necessary. For example, the lag in reporting terminations, such as under a suspended cancellation system, may necessitate adjustments. Disabled lives are to be excluded from the exposures. Those companies whose exposure records include disabled lives are requested to make an approximate correction to eliminate the disabled lives from their experience. Each company will please inform the Committee through the questionnaire whether their exposures exclude disabled lives.

For plans with premiums and insurance varying in amount by duration, care should be taken that exposures and claims are on a consistent basis as to amount.

We plan to study the experience for all plans of insurance combined and, if it

proves practicable, by plan group as well. Therefore, companies that are in a position to submit their experience by plan groups are requested to do so. If your company is unable to subdivide the data by plan, the combined data should be reported.

The claim data shown in Appendix A (p. 127), bytes 32-46, "should include all claims actually admitted up to August 31, 1975 which were incurred in one of the three specified experience periods, plus an estimate of the claims which were incurred in such periods but which will be admitted after August 31, 1975." This estimate of the outstanding claims will no doubt affect only the claims for the period 1969-74. Each company will be asked to make its own estimate for outstanding claims and to show in the questionnaire the amount of this adjustment. A disability claim is considered to be incurred on the date that will become the date of disability when the claim is admitted or approved.

Compromised claims should be included in the total claims. Do not include as a claim any case admitted after death or recovery where no premium was waived. Where a claim changes in amount after admission, due, for instance, to discovery of a misstatement in age, it is desired to treat it as if it had been originally admitted for the new amount at the correct age, but no adjustment in exposure is necessary.

TRANSMISSION OF RESULTS

Results should be forwarded to Mr. Morris Eisner, Assistant Actuary, Metropolitan Life Insurance Company, 1 Madison Avenue, New York, N.Y. 10010. The data should be transmitted on an IBM magnetic tape completed in accordance with the instructions as shown in Appendix A. Please submit an explanation of where your specifications differ from the standard specifications with your tape. Please submit your data no later than November 15, 1975.

INTERCOMPANY WAIVER OF PREMIUM DISABILITY EXPERIENCE STUDY—QUESTIONNAIRE

(TO BE COMPLETED AND RETURNED WITH SUBMISSION OF CONTRIBUTION)

1. Please state the basis used for determining the date of disability.
2. Please state the definition of total disability regarding occupation and note the exact date of changes in definition (i.e., distinction between "his occupation" clause and "any occupation" clause).
3. Please indicate whether you have excluded Disabled Lives from the Active Lives exposures for the waiver of premium benefit that you are contributing.
4. Please indicate whether you have excluded substandard business.
5. Please indicate whether you have excluded rider amounts.
6. Please indicate whether your contribution includes the following information:
 - a) Elective and/or automatic benefit. (Specify years for each benefit.)
 - b) Cause of disability code on claim records.

- c) Disabled Lives experience for all plans combined or subdivided by plan group.
 - d) Separate Active Lives exposures and claims for females.
 - e) Separate Active Lives exposures and claims by number.
 - f) Active Lives exposures and claims for all plans combined or subdivided by plan group.
 - g) Provision for benefit to age other than 60. (Specify years of issue.)
7. Please indicate how plans with premiums and insurance varying in amounts by duration were treated. Also indicate the approximate percentage of data on this basis.
8. Please furnish a summary of your contribution to the Active Lives study for each type of waiver of premium benefit (elective or automatic) as shown below.

WAIVER OF PREMIUM DISABILITY BENEFIT

PERIOD OF OBSERVATION	ACTIVE LIVES EXPOSURE		CLAIMS INCURRED	
	Number	Amount of Insurance	Number	Amount of Insurance
1. Years 1959-64		\$		\$
2. Years 1964-69				
3. Years 1969-74			*	*
Total		\$		\$

* Includes estimated outstanding at August 31, 1975, Number, Amount \$

9. Please furnish a summary of your contribution to the Disabled Lives study as shown in the tables attached. It should be noted that the totals for the claims included in the numerators for the Active Lives study plus the estimated outstanding claims should check to the corresponding totals in question 8.
10. Please furnish copies of the disability clauses the experience under which is contributed, specifying the periods when such clauses were issued; if there has been any general liberalization of benefits beyond the contract terms, please give particulars and dates.

It would also be helpful if you furnished a general statement which would assist the Committee to characterize your claims administration as being strict (from the point of view of enforcement of policy forms and conditions), liberal, or in-between.

**SUMMARY OF CLAIM RECORDS CONTRIBUTED
AUTOMATIC BENEFIT**

(Name of Company——)

CALENDAR YEAR IN WHICH DATE OF DISABILITY FALLS	CLAIMS INCLUDED IN NUMERATOR FOR ACTIVE LIVES STUDY (Standard* Claims)			CLAIMS NOT INCLUDED IN NUMERATOR FOR ACTIVE LIVES STUDY		
	Number	Amount of Life Insurance	Amount of Premium Waiver	Number	Amount of Life Insurance	Amount of Premium Waiver
19—.....	XXX	XXX	XXX			
19—.....	XXX	XXX	XXX			
19—.....	XXX	XXX	XXX			
19—.....	XXX	XXX	XXX			
1958.....	XXX	XXX	XXX			
1959.....						
1960.....						
1961.....						
1962.....						
1963.....						
1964 (period 1).....						
Total period 1..				XXX	XXX	XXX
1964 (period 2).....						
1965.....						
1966.....						
1967.....						
1968.....						
1969 (period 2).....						
Total period 2..				XXX	XXX	XXX
1969 (period 3).....						
1970.....						
1971.....						
1972.....						
1973.....						
1974.....						
Total period 3..				XXX	XXX	XXX
Grand total..						

* Standard for both disability and life insurance.

**SUMMARY OF CLAIM RECORDS CONTRIBUTED
ELECTIVE BENEFIT**

(Name of Company——)

CALENDAR YEAR IN WHICH DATE OF DISABILITY FALLS	CLAIMS INCLUDED IN NUMERATOR FOR ACTIVE LIVES STUDY (Standard* Claims)			CLAIMS NOT INCLUDED IN NUMERATOR FOR ACTIVE LIVES STUDY		
	Number	Amount of Life Insurance	Amount of Premium Waiver	Number	Amount of Life Insurance	Amount of Premium Waiver
19—	XXX	XXX	XXX			
19—	XXX	XXX	XXX			
19—	XXX	XXX	XXX			
19—	XXX	XXX	XXX			
1958	XXX	XXX	XXX			
1959						
1960						
1961						
1962						
1963						
1964 (period 1)						
Total period 1				XXX	XXX	XXX
1964 (period 2)						
1965						
1966						
1967						
1968						
1969 (period 2)						
Total period 2				XXX	XXX	XXX
1969 (period 3)						
1970						
1971						
1972						
1973						
1974						
Total period 3				XXX	XXX	XXX
Grand total						

* Standard for both disability and life insurance.

Appendix A

DISABLED LIVES STUDY

INSTRUCTIONS FOR COMPLETION OF INDIVIDUAL CLAIM INPUT

Byte	Contents	Instructions
1	Control code	1 = disabled life claim record.
2-3	Company code number	Your company code number is. Right justify (blank-fill on left).
4	Waiver of premium disability benefit	1 = elective benefit; 2 = automatic benefit; 3 = data not subdivided by type.
5	Sex	1 = male; 2 = female; 3 = data not subdivided by sex. Sex is to be indicated on claim records if possible whether or not the Active Life exposure is analyzed by sex.
6-7	Age of insured at issue	Age at issue of policy under which claim is made.
8	Age basis	1 = age nearest birthday (at time of original issue); 2 = age last birthday (at time of original issue).
9-10	Duration to date of disability	Curtate duration in years from date of issue of policy to date of disability. Disability in the first policy year represents curtate duration O. Right justify (blank-fill on left).
11-12	Calendar year of policy anniversary preceding date of disability	Last two digits of year of issue (bytes 15-16) plus curtate duration to date of disability (bytes 9-10).
13-14	Age preceding disability	Age preceding disability defined on page 119. Alternatively, age preceding disability equals age at issue (bytes 6-7) plus curtate duration to date of disability (bytes 9-10).
15-16	Issue year	Last two digits of calendar year of issue of policy under which claim is made.
17	Claim classification	1 = claims that have been included in the Active Lives study; 2 = claims that have not been included in the Active Lives study.
18-19	Calendar year of claim	Last two digits of the calendar year in which date of disability falls. Date of disability defined on page 118.
20-21	Cause of disability	The code is given in "Code for Cause of Disability" table on page 128 in terms of various codes in use. To be furnished by those companies that find it convenient to do so.
22	Mode of termination	1 = death; 2 = recovery; 3 = expiry or maturity; 4 = existing as of 1974 claim anniversary.

DISABLED LIVES STUDY—Continued

Byte	Contents	Instructions
23-24	Duration of disability — Duration under 5 years	Curtate duration from date of disability to date of termination. Curtate duration in months. Right justify (blank-fill on left). (If duration 5 years or more code 99).
25-26	Duration of disability — Duration 5 years and higher	Curtate duration from date of disability to date of termination. Curtate duration in years. Right justify (blank-fill on left). (If duration under 5 years, code 99)
27	Basis of termination of disability	1 = the duration of disability based on the actual date of recovery (date claimant presumed to have recovered according to medical or other evidence); 2 = date of recovery halfway between effective date of last premium waived and the effective date of the first premium not made; 3 = date of death; 4 = expiries and maturities; policy anniversary immediately following the due date of the last premium which was eligible for waiver. If this date falls after anniversary in 1974 of the date of disability use 1974 anniversary date; 5 = existing at end of final observation period; 1974 anniversary of the date of disability; 6 = other.
28-32	Amount of life insurance	Amount (to nearest \$100). Right justify (blank-fill on left).
33-37	Amount of premium waived per annum	Amount (to the nearest \$1). (As shown in company records.) Right justify (blank-fill on left).
38-53	Claim identification number	Number sufficient to identify the record against a particular claim. Right justify (blank-fill on left).
54	Plan code	1 = life plans (with and without term riders); 2 = endowment plans (with and without term riders); 3 = term plans; 4 = other; 5 = unknown; 6 = data not subdivided by plan.
55	Disability coverage	1 = coverage to age 55; 2 = coverage to age 60 (include all Plans whose premium paying period terminates at an age other than 60); 3 = coverage to age 65; 4 = limited coverage to age 65 (e.g., premiums only waived between 65 and 70); 5 = unknown.

ACTIVE LIVES STUDY
INSTRUCTIONS FOR COMPLETION OF EXPOSURE INPUT

Byte	Contents	Instructions
1	Control code	2 = Active Lives study summary record.
2-3	Company code number	Your company code number is. Right justify (blank-fill on left).
4	Waiver of premium disability benefit	1 = elective benefit; 2 = automatic benefit; 3 = data not subdivided by type.
5	Sex	1 = male; 2 = female; 3 = data not subdivided by sex.
6-7	Age--Durations 0-15	Individual age at issue. For durations 16 and over --code 99.
8-9	Age-- durations 16 and over	Individual attained age. For durations under 16--code 99.
10	Age basis	1 = age nearest birthday (at time of original issue); 2 = age last birthday (at time of original issue).
11-12	Exposure duration	Duration will be the duration in years from the date of issue to commencement of the policy year of exposure. The duration is the same as that in bytes 9-10 of the Disabled Lives claim record for policies that become claims during the policy year of exposure.
13	Period of observation	1 = exposures and claims between 1959 and 1964 anniversaries; 2 = exposures and claims between 1964 and 1969 anniversaries; 3 = exposures and claims between 1969 and 1974 anniversaries.
14-23	Exposure (policies)	Number of policies exposed to disability claims. Right justify (blank-fill on left). If number of policies exposed to disability are not available, numeric X in byte 23.
24-31	Exposure (amount of life insurance)	Amount of life insurance exposed to disability claims (to the nearest \$1,000). Right justify (blank-fill on left).
32-38	Disability claims incurred (policies)	Number of policies. Right justify (blank-fill on left).
39-46	Disability claims incurred (amount of life insurance)	Amount (to the nearest \$100). Right justify (blank-fill on left).
47	Plan code	1 = Life plans (with and without term riders); 2 = Endowment plans (with and without term riders); 3 = term plans; 4 = other; 5 = unknown; 6 = data not subdivided by plan.
48	Disability coverage	1 = coverage to age 55; 2 = coverage to age 60 (include all plans whose premium paying period terminates at an age other than 60); 3 = coverage to age 65; 4 = limited coverage to age 65 (e.g., premiums only waived between 65 and 70); 5 = unknown.

CODE FOR CAUSE OF DISABILITY

PROPOSED GROUPINGS		INTERNATIONAL CLASSIFICATION			
Code*	Cause of Disability	1938 (5th Revision)	1950 (6th Revision)	1961 (7th Revision)	1970 (8th Revision)
01...	Pulmonary tuberculosis	13	001-008	001-008	010-012
02...	Syphilis; locomotor ataxia; general paralysis of the insane	30	020-029	020-029	090-097
03...	Malignant neoplasms	45-55	140-205	140-205	140-209
04...	Rheumatism; arthritis; gout	58-60	720-727, 288	720-727, 288	715-718, 274
05...	Diabetes	61	260	260	250
06...	Psychoses, psychoneuroses, other forms of mental alienation	84	300-318	300-318	300-315
07...	Diseases of the eyes and annexa	88	370-389	370-389	360-379
08	Cerebrovascular diseases	83	330-334	330-334	430-438
09	Diseases of the heart	90-95	410-443	410-443	393-398, 410-429
10	Other diseases of the cir- culatory system	96-103	444-447, 450-456, 460-468	444-447, 450-456, 460-468	400-404, 441-448, 450-458
11...	Diseases of the respiratory system (except tubercu- losis)	33, 104-114	490-493, 480-483	490-493, 480-483	470-474, 480-486
12...	Diseases of the digestive system	115-129	530-587	530-587	520-577
13...	Nephritis	130-132	590-594	590-594	580-584
14...	Diseases of the bones and organs of movement (ex- cept tuberculosis, rheu- matism, arthritis, gout)	154-156	730-749	730-749	720-738
15...	External violence (except attempted suicide)	165-198	980-999	980-999	960-999
16...	All other causes	Balance	Balance	Balance	Balance

* Code to be recorded in byte 20-21 of disabled claim record.

Your company's tape specifications are:

1. 9-track IBM Tape;
2. Density of 1600 BPI;
3. OS Standard Label.

Data set names to be used for our information:

1. Use ACTIVELV.ANNMMM (for Active Lives study);
2. Use DISABLEL.ANNMMM (for Disabled Lives study);
where NN = your company number (zero-fill to left);
MMM = reel number (e.g., first reel 001).

Please specify the volume serial number of your tape as well as the language used to write your tape (e.g. FORTRAN, COBOL).

Please specify whether your tape specifications include blank-fill or zero-fill.

TABLE 1A
 AGGREGATE EXPERIENCE FINDINGS OF 1959-74 ACTIVE LIVES STUDY
 AUTOMATIC AND ELECTIVE BENEFITS COMBINED*
 SELECT AND ULTIMATE DATA COMBINED

ATTAINED AGE	PERIOD 1—1959-64†		PERIOD 2—1964-69		PERIOD 3—1969-74	
	Amount of Exposure‡	Crude Disablement Rate per 1,000 by Amount (1,000r ₂)	Amount of Exposure‡	Crude Disablement Rate per 1,000 by Amount (1,000r ₂)	Amount of Exposure‡	Crude Disablement Rate per 1,000 by Amount (1,000r ₂)
15-19.....	\$ 1,978,595	0.52	\$ 6,670,116	0.66	\$ 9,756,999	0.65
20-24.....	4,598,329	0.59	19,688,996	0.74	32,992,798	0.91
25-29.....	5,756,939	0.58	26,529,824	0.70	52,101,498	0.88
30-34.....	6,100,231	0.61	26,545,590	0.82	52,558,165	1.01
35-39.....	5,983,138	0.79	25,989,539	1.11	47,306,466	1.33
40-44.....	4,629,570	0.98	23,713,254	1.62	42,703,531	1.86
45-49.....	2,993,655	1.65	17,468,895	2.25	35,051,239	2.76
50-54.....	1,656,455	2.35	11,209,383	3.44	23,593,359	4.35
55-59.....	702,770	4.21	6,299,624	5.25	14,406,144	6.19
15-59.....	\$34,399,682	0.93	\$164,115,221	1.45	\$310,470,199	1.82
15-59.....	.....	1.10§	.....	1.51§	.....	1.82§

* Includes data that were not split by whether the benefit was automatic or elective.

† The Period 1 data are from only three contributors.

‡ Amount of life insurance in \$1,000 units.

§ Weighted average of the crude rates of disablement shown for this period, using the amount of exposure for the automatic and elective benefits combined shown for Period 3 as weight.

TABLE 1B
 AGGREGATE EXPERIENCE FINDINGS OF 1959-74 ACTIVE LIVES STUDY
 AUTOMATICALLY INCLUDED BENEFIT*
 SELECT AND ULTIMATE DATA COMBINED

ATTAINED AGE	PERIOD 1—1959-64†		PERIOD 2—1964-69		PERIOD 3—1969-74	
	Amount of Exposure‡	Crude Disablement Rate per 1,000 by Amount (1,000r₄)	Amount of Exposure	Crude Disablement Rate per 1,000 by Amount (1,000r₄)	Amount of Exposure‡	Crude Disablement Rate per 1,000 by Amount (1,000r₄)
15-19	\$ 1,754,172	0.54	\$ 4,404,953	0.70	\$ 5,363,469	0.74
20-24	3,579,873	0.58	12,118,447	0.84	16,822,330	0.92
25-29	3,911,748	0.59	14,931,392	0.86	23,797,892	1.07
30-34	3,561,428	0.77	13,568,070	1.07	22,547,168	1.28
35-39	3,025,585	0.94	11,785,712	1.54	19,200,618	1.74
40-44	2,111,564	1.33	9,404,083	2.35	16,157,412	2.63
45-49	1,237,872	2.00	6,148,579	3.17	12,284,294	4.08
50-54	610,991	2.68	3,379,438	5.08	7,673,086	6.82
55-59	255,678	4.66	1,640,698	6.94	4,466,447	8.36
15-59	\$20,048,911	0.95	\$77,381,372	1.67	\$128,312,716	2.26
15-59	.....	1.28§	.....	2.06§	.....	2.51§

* Only three companies submitted experience for the automatically included benefit.

† The Period 1 rates are based on data from only one contributor.

‡ Amount of life insurance in \$1,000 units.

§ Weighted average of the crude rates of disablement for this period, using the exposures for automatic and elective benefits combined as shown for Period 3 of Table 1A as weights.

TABLE 1C
 AGGREGATE EXPERIENCE FINDINGS OF 1959-74 ACTIVE LIVES STUDY
 ELECTIVE BENEFIT ONLY
 SELECT AND ULTIMATE DATA COMBINED

ATTAINED AGE	PERIOD 1—1959-64*		PERIOD 2—1964-69		PERIOD 3—1969-74	
	Amount of Exposure†	Crude Disablement Rate per 1,000 by Amount (1,000r ₁ ‡)	Amount of Exposure†	Crude Disablement Rate per 1,000 by Amount (1,000r ₂ ‡)	Amount of Exposure†	Crude Disablement Rate per 1,000 by Amount (1,000r ₃ ‡)
15-19.....	\$ 224,423	0.39	\$ 2,265,163	0.58	\$ 3,716,494	0.56
20-24.....	1,018,456	0.61	7,570,549	0.60	13,930,224	0.91
25-29.....	1,845,191	0.56	11,598,432	0.48	24,433,948	0.72
30-34.....	2,538,803	0.38	12,977,520	0.55	25,710,975	0.79
35-39.....	2,957,553	0.64	14,203,827	0.76	23,868,623	1.09
40-44.....	2,518,006	0.69	14,309,171	1.13	22,406,718	1.41
45-49.....	1,755,783	1.40	11,320,316	1.75	19,225,114	2.11
50-54.....	1,045,464	2.16	7,829,945	2.73	13,239,531	3.21
55-59.....	447,092	3.95	4,658,926	4.65	7,949,090	5.36
15-59.....	\$14,350,771	0.89	\$86,733,849	1.25	\$154,480,717	1.53
15-59.....	.....	0.93‡	.....	1.15‡	.....	1.46‡

* The Period 1 rates are based on data from only two contributors.

† Amount of life insurance in \$1,000 units.

‡ Weighted average of the crude rates of disablement shown for this period, using the exposures for automatic and elective benefits combined as shown for Period 3 of Table 1A as weights.

TABLE 2
GRADUATED RATES OF DISABLEMENT PER \$1,000 OF INSURANCE—
PERIOD 3 (1969-74) EXPERIENCE ONLY
AUTOMATIC AND ELECTIVE BENEFITS COMBINED; SELECT AND ULTIMATE
EXPERIENCE COMBINED; MALES AND FEMALES COMBINED

Attained Age	Graduated Period 3 Rate from the 1959-74 Study (1,000r ₂) (1)	Graduated Benefit 5, Period 2 Rate from the 1930-50 Study* (2)	(1) as a percent of (2) (3)	Attained Age	Graduated Period 3 Rate from the 1959-74 Study (1,000r ₂) (1)	Graduated Benefit 5, Period 2 Rate from the 1930-50 Study* (2)	(1) as a percent of (2) (3)
18	0.77	0.61	126%	40	1.64	1.64	100%
19	0.84	0.69	122	41	1.74	1.73	101
				42	1.85	1.84	101
20	0.89	0.76	117	43	1.98	1.95	102
21	0.92	0.82	112	44	2.14	2.07	103
22	0.93	0.88	106				
23	0.92	0.92	100	45	2.32	2.21	105
24	0.90	0.96	94	46	2.52	2.36	107
				47	2.74	2.56	107
25	0.88	1.00	88	48	2.99	2.79	107
26	0.87	1.02	85	49	3.29	3.09	106
27	0.87	1.05	83				
28	0.88	1.07	82	50	3.64	3.47	105
29	0.90	1.10	82	51	4.03	3.95	102
				52	4.45	4.54	98
30	0.92	1.12	82	53	4.88	5.25	93
31	0.95	1.15	83	54	5.30	6.11	87
32	0.99	1.18	84				
33	1.04	1.21	86	55	5.69	7.12	80
34	1.10	1.24	89	56	6.03	8.38	72
				57	6.30	9.33	68
35	1.17	1.29	91	58	6.49	10.35	63
36	1.25	1.34	93	59	6.59	11.44	58
37	1.34	1.40	96				
38	1.44	1.47	98	18-59			91%
39	1.54	1.55	99				

* As shown on page 94 of the *TSA, 1952 Reports*. Note that those 1930-50 rates omit the experience of the first two policy years.

TABLE 3A
 CRUDE RATES OF DISABLEMENT PER \$1,000 OF INSURANCE
 BY ATTAINED AGE AND POLICY YEAR
 COMBINED AUTOMATIC AND ELECTIVE BENEFIT EXPERIENCE

POLICY YEAR	ATTAINED AGE								
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59
1.....	0.71	0.75	0.72	0.90	1.15	1.73	2.44	4.44	6.90
2.....	0.78	0.87	0.84	1.00	1.37	1.70	2.85	4.29	5.88
3.....	0.72	0.88	0.83	0.97	1.38	1.86	2.80	4.21	4.64
4.....	0.65	0.96	0.90	0.90	1.32	1.89	2.69	4.60	6.74
5.....	0.43	1.03	0.91	0.98	1.24	2.01	2.79	4.62	7.30
6.....	0.47	0.96	0.86	0.86	1.20	1.84	2.58	4.75	7.29
7.....	0.27	0.70	0.85	0.94	1.23	1.77	2.88	4.58	7.29
8.....	0.21*	0.67	0.63	0.83	1.17	1.61	2.58	4.11	5.75
9.....	0.20*	0.56	0.82	0.87	1.11	1.58	2.49	4.28	6.69
10.....	0.51	0.63	0.74	0.90	1.20	1.58	2.53	4.17	6.89
11.....	0.59*	0.64	0.80	0.84	1.02	1.57	2.33	4.16	6.49
12.....	†	0.75	0.68	0.79	0.95	1.47	2.34	3.21	5.08
13.....	†	0.39*	0.57	0.73	0.89	1.28	2.22	3.50	5.20
14.....	†	†	0.52	0.84	1.21	1.12	1.78	3.40	5.88
15.....	†	0.93*	0.45*	0.61	0.78	1.01	1.75	2.84	4.07
1-5.....	0.71	0.84	0.81	0.95	1.29	1.82	2.70	4.42	6.07
6-10.....	0.33	0.77	0.80	0.88	1.19	1.69	2.62	4.39	6.71
11-15.....	0.40	0.62	0.69	0.79	0.98	1.36	2.14	3.48	5.40
16 and over.....	†	0.82	0.31	0.55	0.64	0.96	1.65	2.70	4.66
All.....	0.64	0.83	0.80	0.92	1.22	1.72	2.54	3.98	5.85

* Based on less than \$100,000 of claims.

† Less than \$50,000 of claims.

TABLE 3B
 CRUDE RATES OF DISABLEMENT PER \$1,000 OF INSURANCE
 BY ATTAINED AGE AND POLICY YEAR
 AUTOMATIC BENEFIT EXPERIENCE*

POLICY YEAR†	ATTAINED AGE								
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59
1.....	0.70	0.72	0.80	1.05	1.34	2.23	3.21	5.62	8.08
2.....	0.86	0.91	1.00	1.25	1.64	2.33	3.65	5.47	7.25
3.....	0.82	0.93	1.04	1.29	1.75	2.44	3.71	5.87	4.64
4.....	0.78	1.06	1.09	1.24	1.80	2.72	3.96	6.41	9.48
5.....	0.61	1.08	1.05	1.28	1.71	2.82	3.72	6.63	10.42
6.....	0.47	1.04	1.05	1.12	1.64	2.51	3.87	6.47	9.52
7.....	‡	0.81	1.03	1.18	1.69	2.53	4.07	6.85	9.32
8.....	‡	0.64	0.81	1.05	1.53	2.32	3.69	6.36	6.12
9.....	‡	0.61	0.94	1.19	1.50	2.29	3.64	6.03	9.07
10.....	‡	0.60	0.85	1.12	1.68	2.20	3.26	6.00	10.56
11.....	‡	0.53§	0.88	1.13	1.54	2.43	3.29	6.80	10.60
12.....	‡	0.34§	0.81	0.99	1.33	2.35	3.59	5.23	6.91
13.....	‡	‡	0.81	0.73	1.10	2.13	3.71	5.53	6.50
14.....	‡	‡	‡	1.31	1.84	1.60	2.99	5.68	‡
15.....	‡	‡	‡	‡	‡	‡	‡	‡	‡
1-5.....	0.77	0.86	0.96	1.20	1.61	2.46	3.61	5.94	7.26
6-10.....	0.32	0.83	0.97	1.13	1.61	2.40	3.74	6.38	8.47
11-15.....	‡	0.46	0.83	1.03	1.42	2.26	3.41	5.91	8.28
16 and over.....	‡	‡	‡	‡	‡	‡	‡	‡	‡
All.....	0.69	0.85	0.96	1.17	1.60	2.44	3.66	6.10	7.85

* Only three companies submitted automatic benefit experience.

† The rates for policy years 4 and later are based on data from two contributors only.

‡ Less than \$50,000 of claims.

§ Based on less than \$100,000 of claims.

TABLE 3C

CRUDE RATES OF DISABLEMENT PER \$1,000 OF INSURANCE
BY ATTAINED AGE AND POLICY YEAR
ELECTIVE BENEFIT EXPERIENCE

POLICY YEAR	ATTAINED AGE								
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59
1.....	0.76	0.79	0.62	0.73	1.00	1.32	1.71	3.08	3.97
2.....	0.63	0.80	0.67	0.74	1.16	1.17	2.19	2.98	3.52
3.....	0.56	0.81	0.62	0.67	1.12	1.42	2.14	2.68	4.83
4.....	0.41	0.77	0.64	0.51	0.85	1.19	1.62	3.00	3.46
5.....	0.21*	0.91	0.72	0.66	0.81	1.31	1.99	2.76	4.11
6.....	0.33*	0.85	0.51	0.56	0.79	1.17	1.49	3.23	5.14
7.....	0.36*	0.50	0.56	0.63	0.78	1.13	1.83	2.43	4.17
8.....	†	0.74	0.36	0.55	0.82	1.00	1.76	2.29	5.19
9.....	†	0.50	0.65	0.55	0.79	1.02	1.64	3.17	5.45
10.....	0.74*	0.75	0.53	0.61	0.77	1.13	2.12	3.21	4.84
11.....	0.73*	0.80*	0.69	0.54	0.61	1.15	1.87	2.90	4.54
12.....	†	0.98*	0.62	0.66	0.69	1.08	1.84	2.33	4.35
13.....	†	†	0.42*	0.73	0.85	0.96	1.75	2.97	4.42
14.....	†	†	0.54*	0.69	1.04	0.97	1.51	3.18	6.18
15.....	†	1.11*	0.55*	0.56	0.70	1.06	1.81	2.82	3.75
1-5.....	0.63	0.80	0.64	0.68	1.02	1.29	1.94	2.90	4.02
6-10.....	0.30	0.69	0.51	0.58	0.79	1.09	1.76	2.87	4.97
11-15.....	0.45	0.70	0.60	0.63	0.76	1.05	1.76	2.84	4.75
16 and over.....	†	0.88	0.24*	0.57	0.64	1.00	1.67	2.70	4.74
All.....	0.56	0.79	0.64	0.69	0.94	1.26	1.94	2.99	5.06

* Based on less than \$100,000 of claims.

† Less than \$50,000 of claims.

TABLE 4A

1959-74 STUDY DISABILITY CLAIMS BY SEX
FOR COMBINED AUTOMATIC AND ELECTIVE BENEFITS*
COMPARED WITH EXPECTED CLAIMS BASED ON
COMBINED AUTOMATIC AND ELECTIVE BENEFIT EXPERIENCE
FOR MALES AND FEMALES COMBINED†
ALL SELECT AND ULTIMATE POLICY YEARS OF EXPERIENCE COMBINED
CERTAIN CONTRIBUTORS ONLY

ATTAINED AGE	AMOUNT OF ACTUAL CLAIMS (IN THOUSANDS)		RATIO OF ACTUAL TO EXPECTED		FEMALE RATIO AS % OF MALE RATIO
	Male	Female	Male	Female	
15-19.....	\$ 3,916	\$ 289	114%	37%	32%
20-24.....	20,287	1,276	107	48	45
25-29.....	28,559	1,622	103	66	64
30-34.....	33,668	2,101	100	96	96
35-39.....	44,970	2,859	99	115	116
40-44.....	57,989	4,095	98	129	132
45-49.....	72,388	4,804	99	118	119
50-54.....	77,424	4,385	100	99	99
55-59.....	78,153	2,958	101	72	71
15-59.....	\$417,353	\$24,389	100%	93%	93%

* Including data that were not split by benefit.

† Excluding data that were not split by sex.

TABLE 4B

1959-74 STUDY DISABILITY CLAIMS BY SEX
FOR AUTOMATICALLY INCLUDED BENEFIT ONLY*
COMPARED WITH EXPECTED CLAIMS BASED ON
AUTOMATICALLY INCLUDED BENEFIT EXPERIENCE
FOR MALES AND FEMALES COMBINED†
ALL SELECT AND ULTIMATE POLICY YEARS OF EXPERIENCE COMBINED
CERTAIN CONTRIBUTORS ONLY

ATTAINED AGE	AMOUNT OF ACTUAL CLAIMS (IN THOUSANDS)		RATIO OF ACTUAL TO EXPECTED		FEMALE RATIO AS % OF MALE RATIO
	Male	Female	Male	Female	
15-19.....	\$ 359	\$ 102	130%	55%	42%
20-24.....	1,711	225	132	35	27
25-29.....	2,810	260	120	35	29
30-34.....	3,250	367	109	57	52
35-39.....	4,891	537	108	61	56
40-44.....	6,599	859	108	63	58
45-49.....	7,107	1,070	112	58	52
50-54.....	6,705	1,135	118	52	44
55-59.....	5,050	809	128	13	34
15-59.....	\$ 38,482	\$ 5,364	115%	52%	45%

* Only two companies submitted automatic benefit experience by sex.

† Excluding data that were not split by sex.

TABLE 4C

1959-74 STUDY DISABILITY CLAIMS BY SEX
FOR ELECTIVE BENEFIT ONLY
COMPARED WITH EXPECTED CLAIMS BASED ON
ELECTIVE BENEFIT EXPERIENCE
FOR MALES AND FEMALES COMBINED
ALL SELECT AND ULTIMATE POLICY YEARS OF EXPERIENCE COMBINED
CERTAIN CONTRIBUTORS ONLY

ATTAINED AGE	AMOUNT OF ACTUAL CLAIMS (IN THOUSANDS)		RATIO OF ACTUAL TO EXPECTED		FEMALE RATIO AS % OF MALE RATIO
	Male	Female	Male	Female	
15-19.....	\$ 3,344	\$ 140	111%	31%	28%
20-24.....	16,949	869	105	53	50
25-29.....	23,139	1,089	102	72	71
30-34.....	26,786	1,489	99	115	116
35-39.....	36,702	1,944	99	132	133
40-44.....	46,798	2,767	98	154	157
45-49.....	59,419	3,330	98	148	151
50-54.....	63,411	2,760	99	119	120
55-59.....	64,425	1,617	100	89	89
15-59.....	\$340,973	\$16,006	100%	110%	110%

NOTE.—Figures may not add up because of rounding.

TABLE 5A
 1959-74 STUDY CRUDE RATES OF DISABLEMENT
 BY PLAN PER \$1,000 OF INSURANCE
 AUTOMATIC AND ELECTIVE BENEFITS COMBINED
 ALL SELECT AND ULTIMATE POLICY YEARS COMBINED
 MALES AND FEMALES COMBINED
 CERTAIN CONTRIBUTORS ONLY

ATTAINED AGE	LIFE		ENDOWMENT		TERM	
	Amount of Exposure*	Crude Disablement Rate per 1,000 by Amount (1,000r $\frac{1}{2}$)	Amount of Exposure*	Crude Disablement Rate per 1,000 by Amount (1,000r $\frac{1}{2}$)	Amount of Exposure*	Crude Disablement Rate per 1,000 by Amount (1,000r $\frac{1}{2}$)
15-19	\$ 4,795,717	0.48	\$ 255,432	0.53	\$ 125,942	0.04
20-24	14,735,203	0.76	1,219,246	0.85	974,980	0.38
25-29	25,706,009	0.62	2,512,779	0.65	2,901,368	0.38
30-34	28,311,484	0.66	3,786,635	0.67	4,322,863	0.53
35-39	28,373,305	0.92	4,871,367	0.82	4,163,830	0.66
40-44	27,415,298	1.20	5,218,280	1.01	3,181,651	0.89
45-49	22,888,515	1.76	4,547,982	1.70	1,877,387	1.16
50-54	16,157,082	2.90	3,204,142	2.69	749,108	1.34
55-59	10,191,293	4.70	1,859,456	4.48	201,859	3.00
15-59	\$178,573,906	1.36	\$27,475,319	1.43	\$18,498,988	0.71
15-59 .....	.....	1.36	.....	1.29†	.....	0.85‡

* Amount of life insurance in \$1,000 units.

† Average of endowment disablement rates weighted by life amounts exposed.

‡ Average of term disablement rates weighted by life amounts exposed.

TABLE 5B

1959-74 STUDY CRUDE RATES OF DISABLEMENT
BY PLAN PER \$1,000 OF INSURANCE
FOR THE ELECTIVE BENEFIT ONLY
ALL SELECT AND ULTIMATE POLICY YEARS COMBINED
MALES AND FEMALES COMBINED
CERTAIN CONTRIBUTORS ONLY

ATTAINED AGE	LIFE		ENDOWMENT		TERM	
	Amount of Exposure*	Crude Disablement Rate per 1,000 by Amount (1,000r _f)	Amount of Exposure*	Crude Disablement Rate per 1,000 by Amount (1,000r _f)	Amount of Exposure*	Crude Disablement Rate per 1,000 by Amount (1,000r _f)
15-19	\$ 4,151,273	0.50	\$ 223,051	0.52	\$ 115,597	0.04
20-24	12,430,034	0.74	1,104,168	0.85	907,519	0.38
25-29	21,697,978	0.60	2,325,550	0.64	2,644,399	0.36
30-34	23,981,758	0.63	3,563,964	0.65	3,854,061	0.41
35-39	21,166,911	0.91	4,634,035	0.80	3,667,136	0.72
40-44	23,448,328	1.17	4,960,139	1.02	2,747,112	0.91
45-49	19,608,838	1.76	4,289,598	1.67	1,604,127	1.14
50-54	13,746,419	2.89	2,979,745	2.67	616,474	1.10
55-59	8,445,610	4.69	1,654,007	4.47	147,116	3.45
15-59	\$151,677,149	1.34	\$25,734,257	1.40	\$16,303,541	0.68
15-59		1.34		1.27†		0.84‡

* Amount of life insurance in \$1,000 units.

† Average of endowment disablement rates weighted by life amounts exposed.

‡ Average of term disablement rates weighted by life amounts exposed.

TABLE 6A

1959-74 STUDY TRENDS IN CRUDE RATES OF DISABLEMENT BY PERIOD
COMBINED AUTOMATIC AND ELECTIVE BENEFIT EXPERIENCE
ALL SELECT AND ULTIMATE POLICY YEARS OF EXPERIENCE COMBINED
MALES AND FEMALES COMBINED

ATTAINED AGE	PERIOD 1	PERIOD 2		PERIOD 3	
	Crude Rate (1,000r _f)	Crude Rate (1,000r _f)	Ratio of Period 2 to Period 1	Crude Rate (1,000r _f)	Ratio of Period 3 to Period 1
15-19	0.52	0.66	127%	0.65	125%
20-24	0.59	0.74	125	0.91	154
25-29	0.58	0.70	121	0.88	152
30-34	0.61	0.82	134	1.01	166
35-39	0.79	1.11	141	1.33	168
40-44	0.98	1.62	165	1.86	190
45-49	1.65	2.25	136	2.76	167
50-54	2.35	3.44	146	4.35	185
55-59	4.21	5.25	125	6.19	147
15-59	0.93	1.45	156%	1.82	196%
15-59	1.10*	1.51*	137%	1.82*	165%

* Age-adjusted rates of disablement from the bottom line of Table 1A.

TABLE 6B

1959-74 STUDY TRENDS IN CRUDE RATES OF DISABILITY BY PERIOD
 AUTOMATICALLY INCLUDED BENEFIT ONLY*
 ALL SELECT AND ULTIMATE POLICY YEARS OF EXPERIENCE COMBINED
 MALES AND FEMALES COMBINED

ATTAINED AGE	PERIOD 1†	PERIOD 2		PERIOD 3	
	Crude Rate (1,000r _x)	Crude Rate (1,000r _x)	Ratio of Period 2 to Period 1	Crude Rate (1,000r _x)	Ratio of Period 3 to Period 1
15-19.....	0.54	0.70	130%	0.74	137%
20-24.....	0.58	0.84	145	0.92	159
25-29.....	0.59	0.86	146	1.07	181
30-34.....	0.77	1.07	139	1.28	166
35-39.....	0.94	1.54	164	1.74	185
40-44.....	1.33	2.35	177	2.63	198
45-49.....	2.00	3.17	159	4.08	204
50-54.....	2.68	5.08	190	6.82	254
55-59.....	4.66	6.94	149	8.36	179
15-59.....	0.95	1.67	176%	2.26	238%
15-59.....	1.28‡	2.06‡	161%	2.51‡	196%

* Only three companies submitted automatic benefit experience.

† Period 1 rates are based on data from only one contributor.

‡ Age-adjusted rate of disablement from the bottom line of Table 1B.

TABLE 6C

1959-74 STUDY TRENDS IN CRUDE RATES OF DISABILITY BY PERIOD
 ELECTIVE BENEFIT EXPERIENCE ONLY
 ALL SELECT AND ULTIMATE POLICY YEARS OF EXPERIENCE COMBINED
 MALES AND FEMALES COMBINED

ATTAINED AGE	PERIOD 1	PERIOD 2		PERIOD 3	
	Crude Rate (1,000r _x)	Crude Rate (1,000r _x)	Ratio of Period 2 to Period 1	Crude Rate (1,000r _x)	Ratio of Period 3 to Period 1
15-19.....	0.39	0.58	149%	0.56	144%
20-24.....	0.61	0.60	98	0.91	149
25-29.....	0.56	0.48	86	0.72	129
30-34.....	0.38	0.55	145	0.79	208
35-39.....	0.64	0.76	119	1.09	170
40-44.....	0.69	1.13	164	1.41	204
45-49.....	1.40	1.75	125	2.11	151
50-54.....	2.16	2.73	126	3.21	149
55-59.....	3.95	4.65	118	5.36	136
15-59.....	0.89	1.25	140%	1.53	172%
15-59.....	0.93*	1.15*	124%	1.46*	157%

* Age-adjusted rate of disablement from the bottom line of Table 1C.

TABLE 7A
ACTUAL TERMINATIONS FROM DISABILITY IN 1959-74 DISABLED LIVES STUDY
BY NUMBER OF POLICIES

DISABILITY YEARS	TERMINATION BY DEATH				TERMINATION BY RECOVERY			
	Period 1	Period 2	Period 3	Total	Period 1	Period 2	Period 3	Total
Elective Benefit								
1-2.....	273	1,434	2,286	3,993	538	3,262	5,780	9,580
3-5.....	151	868	1,224	2,243	89	863	1,599	2,551
6-10.....	115	687	964	1,766	22	154	299	475
11-15.....	35	301	505	841	8	47	39	94
16 and over..	3	298	517	818	0	9	12	21
Total...	577	3,588	5,496	9,661	657	4,335	7,729	12,721
Automatic Benefit								
1-2.....	130	1,164	2,303	3,597	1,277	8,340	12,538	22,155
3-5.....	12	333	1,026	1,371	38	999	2,245	3,282
6-10.....	0	52	437	489	0	25	371	396
11-15.....	0	4	47	51	0	0	3	3
16 and over..	0	0	2	2	0	0	0	0
Total...	142	1,553	3,815	5,510	1,315	9,364	15,157	25,836
Total—Both Benefits								
1-2.....	403	2,598	4,589	7,590	1,815	11,602	18,318	31,735
3-5.....	163	1,201	2,250	3,614	127	1,862	3,844	5,833
6-10.....	115	739	1,401	2,255	22	179	670	871
11-15.....	35	305	552	892	8	47	42	97
16 and over..	3	298	519	820	0	9	12	21
Total...	719	5,141	9,311	15,171	1,972	13,699	22,886	38,557

TABLE 7B—ACTUAL TERMINATIONS FROM DISABILITY IN 1959-74 DISABLED LIVES STUDY
BY AMOUNT OF INSURANCE, IN \$100 UNITS

DISABILITY YEARS	TERMINATION BY DEATH				TERMINATION BY RECOVERY			
	Period 1	Period 2	Period 3	Total	Period 1	Period 2	Period 3	Total
Elective Benefit								
1-2	\$16,089	\$108,661	\$240,405	\$ 365,155	\$ 38,952	\$ 305,602	\$ 726,361	\$1,070,915
3-5	8,366	55,862	108,585	172,813	6,050	64,591	173,106	243,747
6-10	4,540	38,340	65,661	108,541	818	7,888	23,512	32,218
11-15	1,421	15,449	27,457	44,327	295	2,229	2,082	4,606
16 and over	230	16,531	29,451	46,212	0	185	795	980
Total	\$30,646	\$234,843	\$471,559	\$ 737,048	\$ 46,115	\$ 380,495	\$ 925,856	\$1,352,466
Automatic Benefit								
1-2	\$11,778	\$ 88,190	\$181,612	\$ 281,580	\$ 98,799	\$ 624,481	\$1,018,981	\$1,742,261
3-5	1,487	19,775	70,561	91,823	3,185	68,634	158,723	230,542
6-10	0	1,192	25,404	26,596	0	847	25,876	26,723
11-15	0	54	979	1,033	0	0	60	60
16 and over	0	0	39	39	0	0	0	0
Total	\$13,265	\$109,211	\$278,595	\$ 401,071	\$101,984	\$ 693,962	\$1,203,640	\$1,999,586
Total -Both Benefits								
1-2	\$27,867	\$196,851	\$422,017	\$ 646,735	\$137,751	\$ 930,083	\$1,745,342	\$2,813,176
3-5	9,853	75,637	179,146	264,636	9,235	133,225	331,829	474,289
6-10	4,540	39,532	91,065	135,137	818	8,735	49,388	58,941
11-15	1,421	15,503	28,436	45,360	295	2,229	2,142	4,666
16 and over	230	16,531	29,490	46,251	0	185	795	980
Total	\$43,911	\$344,054	\$750,154	\$1,138,119	\$148,099	\$1,074,457	\$2,129,496	\$3,352,052

TABLE 7C—ACTUAL TERMINATIONS FROM DISABILITY IN 1959-74 DISABLED LIVES STUDY*
BY AMOUNTS OF ANNUAL PREMIUMS WAIVED

DISABILITY YEARS	TERMINATION BY DEATH				TERMINATION BY RECOVERY			
	Period 1	Period 2	Period 3	Total	Period 1	Period 2	Period 3	Total
Elective Benefit								
1-2.....	\$ 53,037	\$ 361,150	\$ 613,653	\$1,027,840	\$110,621	\$ 871,234	\$1,499,117	\$2,480,972
3-5.....	31,893	190,821	310,895	533,609	18,864	192,717	355,087	566,668
6-10.....	14,264	136,330	198,544	349,138	3,119	25,335	50,076	78,530
11-15.....	4,326	54,655	86,394	145,375	838	7,761	4,263	12,862
16 and over.....	853	55,246	90,207	146,306	0	541	1,895	2,436
Total.....	\$104,373	\$ 798,202	\$1,299,693	\$2,202,268	\$133,442	\$1,097,588	\$1,910,438	\$3,141,468
Automatic Benefit								
1-2.....	\$ 43,684	\$ 316,666	\$ 637,949	\$ 998,299	\$268,747	\$1,699,651	\$2,829,077	\$4,797,475
3-5.....	5,882	69,670	264,271	339,823	8,398	191,340	423,824	623,562
6-10.....	0	5,105	101,700	106,805	0	2,119	66,468	68,587
11-15.....	0	273	3,981	4,254	0	0	163	163
16 and over.....	0	0	192	192	0	0	0	0
Total.....	\$ 49,566	\$ 391,714	\$1,008,093	\$1,449,373	\$277,145	\$1,893,110	\$3,319,532	\$5,489,787
Total—Both Benefits								
1-2.....	\$ 96,721	\$ 677,816	\$1,251,602	\$2,026,139	\$379,368	\$2,570,885	\$4,328,194	\$7,278,447
3-5.....	37,775	260,491	575,166	873,432	27,262	384,057	778,911	1,190,230
6-10.....	14,264	141,435	300,244	455,943	3,119	27,454	116,544	147,117
11-15.....	4,326	54,928	90,375	149,629	838	7,761	4,426	13,025
16 and over.....	853	55,246	90,399	146,498	0	541	1,895	2,436
Total.....	\$153,939	\$1,189,916	\$2,307,786	\$3,651,641	\$410,587	\$2,990,698	\$5,229,970	\$8,631,255

* Excluding data for one company that did not submit data for amounts of premiums waived.

TABLE 8A
 TOTAL ACTUAL TERMINATIONS FOR EACH BENEFIT*
 COMPARED WITH EXPECTED TERMINATIONS BASED ON GRADUATED
 TERMINATION RATES FOR BENEFIT 5 OF THE 1930-50 DISABLED LIVES STUDY†
 DISABILITY YEARS 1-15 ONLY
 BY AMOUNTS OF ANNUAL PREMIUMS WAIVED

	AUTOMATIC BENEFIT		ELECTIVE BENEFIT		AUTOMATIC AND ELECTIVE BENEFITS COMBINED	
	Actual Terminations	Ratio of Actual to Expected	Actual Terminations	Ratio of Actual to Expected	Actual Terminations	Ratio of Actual to Expected
By Disability Year						
Disability year:						
1.....	\$3,799,006	136%	\$2,134,548	116%	\$ 5,933,554	128%
2.....	1,996,768	95	1,374,264	87	3,371,032	91
3.....	574,432	67	611,729	81	1,186,161	74
4.....	271,713	66	307,484	72	579,197	69
5.....	117,240	56	181,064	69	298,304	63
6-10.....	175,392	66	427,668	79	603,060	75
11-15.....	4,417	37	158,237	93	162,654	89
1-15.....	\$6,938,968	104%	\$5,194,994	93%	\$12,133,962	99%
By Attained Age at Policy Anniversary Preceding Disability						
Attained age:						
15-19.....	\$ 114,525	136%	\$ 31,671	84%	\$ 146,196	120%
20-24.....	457,665	130	168,764	100	626,429	120
25-29.....	515,572	118	221,661	100	737,233	112
30-34.....	608,914	114	271,771	91	880,685	106
35-39.....	813,727	108	452,087	102	1,265,814	106
40-44.....	1,112,503	100	662,375	93	1,774,878	97
45-49.....	1,177,097	97	1,006,316	95	2,183,413	96
50-54.....	1,246,182	100	1,102,394	85	2,348,576	92
55-59.....	892,783	97	1,277,955	96	2,170,738	96
15-59....	\$6,938,968	104%	\$5,194,994	93%	\$12,133,962	99%

* Excluding data for one company that did not submit data for amounts of premiums waived.

† The 1930-50 study's graduated termination rates for Benefit 5 were based on the experience under *delective* waiver of premium benefits only .

TABLE 8B

ACTUAL TERMINATIONS BY RECOVERY FOR EACH BENEFIT*
 COMPARED WITH EXPECTED TERMINATIONS BASED ON GRADUATED
 RATES OF TERMINATION BY RECOVERY FOR BENEFIT 5 OF THE
 1930-50 DISABLED LIVES STUDY†
 DISABILITY YEARS 1-15 ONLY
 BY AMOUNTS OF ANNUAL PREMIUMS WAIVED

	AUTOMATIC BENEFIT		ELECTIVE BENEFIT		AUTOMATIC AND ELECTIVE BENEFITS COMBINED	
	Actual Recoveries	Ratio of Actual to Expected	Actual Recoveries	Ratio of Actual to Expected	Actual Recoveries	Ratio of Actual to Expected
	By Disability Year					
Disability year:						
1.....	\$3,292,310	166%	\$1,573,971	126%	\$4,866,281	151%
2.....	1,505,165	93	907,001	79	2,412,166	88
3.....	395,775	65	365,098	73	760,873	69
4.....	169,530	63	123,057	50	292,587	57
5.....	58,257	47	78,513	60	136,770	53
6-10.....	68,587	54	78,530	40	147,117	46
11-15.....	163	4	12,862	35	13,025	31
1-15.....	\$5,489,787	116%	\$3,139,032	90%	\$8,628,819	105%
	By Attained Age at Policy Anniversary Preceding Disability					
Attained age:						
15-19.....	\$ 108,969	143%	\$ 29,938	88%	\$ 138,907	126%
20-24.....	436,932	138	158,558	105	595,490	127
25-29.....	480,109	125	202,038	104	682,147	118
30-34.....	568,927	125	237,849	94	806,776	114
35-39.....	712,739	115	380,589	106	1,093,328	112
40-44.....	939,808	109	501,130	92	1,440,938	102
45-49.....	892,311	102	656,930	90	1,549,241	97
50-54.....	869,522	115	549,588	75	1,419,110	95
55-59.....	480,470	125	422,412	85	902,882	103
15-59.....	\$5,489,787	116%	\$3,139,032	90%	\$8,628,819	105%

* Excluding data for one company that did not submit data for amounts of premiums waived.

† The 1930-50 study's graduated termination rates for Benefit 5 were based on the experience under *elective* waiver of premium benefits only.

TABLE 8C

ACTUAL TERMINATIONS BY DEATH FOR EACH BENEFIT*
 COMPARED WITH EXPECTED TERMINATIONS BASED ON GRADUATED
 RATES OF TERMINATION BY DEATH FOR BENEFIT 5 OF THE
 1930-50 DISABLED LIVES STUDY†
 DISABILITY YEARS 1-15 ONLY
 BY AMOUNTS OF ANNUAL PREMIUMS WAIVED

	AUTOMATIC BENEFIT		ELECTIVE BENEFIT		AUTOMATIC AND ELECTIVE BENEFITS COMBINED	
	Actual Deaths	Ratio of Actual to Expected	Actual Deaths	Ratio of Actual to Expected	Actual Deaths	Ratio of Actual to Expected
	By Disability Year					
Disability year:						
1.....	\$ 506,696	63%	\$ 560,577	94%	\$1,067,273	76%
2.....	491,603	99	467,263	107	958,866	103
3.....	178,657	73	246,631	95	425,288	84
4.....	102,183	72	184,427	103	286,610	89
5.....	58,983	68	102,551	78	161,534	74
6-10.....	106,805	78	349,138	102	455,943	94
11-15.....	4,254	57	145,375	109	149,629	107
1-15.....	\$1,449,181	76%	\$2,055,962	99%	\$3,505,143	88%
	By Attained Age at Policy Anniversary Preceding Disability					
Attained age:						
15-19.....	\$ 5,556	67%	\$ 1,733	44%	\$ 7,289	60%
20-24.....	20,733	60	10,206	57	30,939	59
25-29.....	35,463	67	19,623	71	55,086	68
30-34.....	39,987	51	33,922	75	73,909	60
35-39.....	100,988	75	71,498	86	172,486	79
40-44.....	172,695	71	161,245	97	333,940	81
45-49.....	284,786	83	349,386	107	634,172	94
50-54.....	376,660	78	552,806	97	929,466	88
55-59.....	412,313	77	855,543	102	1,267,856	92
15-59.....	\$1,449,181	76%	\$2,055,962	99%	\$3,505,143	88%

* Excluding data for one company that did not submit data for amounts of premiums waived.

† The 1930-50 study's graduated termination rates for Benefit 5 were based on the experience under elective waiver of premium benefits only.

TABLE 9A

TOTAL ACTUAL TERMINATIONS IN EACH OBSERVATION PERIOD*
 COMPARED WITH EXPECTED TERMINATIONS BASED ON GRADUATED
 TERMINATION RATES FOR BENEFIT 5 OF THE 1930-50 DISABLED LIVES STUDY†
 DISABILITY YEARS 1-15 ONLY
 BY AMOUNTS OF ANNUAL PREMIUMS WAIVED

	PERIOD 1		PERIOD 2		PERIOD 3	
	Actual Terminations	Ratio of Actual to Expected	Actual Terminations	Ratio of Actual to Expected	Actual Terminations	Ratio of Actual to Expected
By Disability Year						
Disability year:						
1	\$346,270	163%	\$2,084,654	148%	\$3,502,630	117%
2	129,819	112	1,164,047	110	2,077,166	83
3	31,832	87	395,836	92	758,493	66
4	19,026	109	153,248	69	406,923	68
5	14,179	137	95,464	74	188,661	57
6-10	17,383	72	168,889	80	416,788	74
11-15	5,164	62	62,689	96	94,801	87
1-15	\$563,673	133%	\$4,124,827	117%	\$7,445,462	90%
By Attained Age at Policy Anniversary Preceding Disability						
Attained age:						
15-19	\$ 11,472	139%	\$ 57,110	133%	\$ 77,614	110%
20-24	33,808	164	215,509	140	377,112	109
25-29	31,162	149	222,335	135	483,736	102
30-34	58,365	168	301,766	123	520,554	94
35-39	74,011	143	447,890	119	743,913	97
40-44	79,794	135	617,263	112	1,077,821	89
45-49	99,204	135	739,287	116	1,344,922	86
50-54	97,282	111	731,010	104	1,520,284	87
55-59	78,575	114	792,657	122	1,299,506	84
15-59	\$563,673	133%	\$4,124,827	117%	\$7,445,462	90%

* Excluding data for one company that did not submit data for amounts of premiums waived.

† The 1930-50 study's graduated termination rates for Benefit 5 were based on the experience for all four periods of that study combined. (However, 89 percent of the terminations occurred during 1940-50.)

TABLE 9B

ACTUAL TERMINATIONS BY RECOVERY IN EACH OBSERVATION PERIOD*
 COMPARED WITH EXPECTED TERMINATIONS BASED ON GRADUATED
 RATES OF TERMINATION BY RECOVERY FOR BENEFIT 5 OF THE
 1930-50 DISABLED LIVES STUDY†
 DISABILITY YEARS 1-15 ONLY
 BY AMOUNTS OF ANNUAL PREMIUMS WAIVED

	PERIOD 1		PERIOD 2		PERIOD 3	
	Actual Recoveries	Ratio of Actual to Expected	Actual Recoveries	Ratio of Actual to Expected	Actual Recoveries	Ratio of Actual to Expected
	By Disability Year					
Disability year:						
1.....	\$281,995	184%	\$1,727,788	173%	\$2,856,498	137%
2.....	97,373	111	843,097	106	1,471,696	79
3.....	16,021	65	251,937	86	492,915	63
4.....	5,037	51	89,596	66	197,954	53
5.....	6,204	121	42,524	63	88,042	48
6-10.....	3,119	35	27,454	35	116,544	50
11-15.....	838	41	7,761	53	4,426	18
1-15.....	\$410,587	141%	\$2,990,157	126%	\$5,228,075	94%
	By Attained Age at Policy Anniversary Preceding Disability					
Attained age:						
15-19.....	\$ 11,028	148%	\$ 53,686	138%	\$ 74,193	117%
20-24.....	31,884	172	204,833	148	358,773	115
25-29.....	29,139	159	203,526	141	449,482	108
30-34.....	54,309	183	277,051	132	475,416	101
35-39.....	64,416	152	398,066	128	630,846	101
40-44.....	66,097	145	516,497	121	858,344	92
45-49.....	66,367	130	540,214	120	942,660	86
50-54.....	51,948	101	456,682	112	910,480	89
55-59.....	35,399	132	339,602	136	527,881	87
15-59.....	\$410,587	141%	\$2,990,157	126%	\$5,228,075	94%

* Excluding data for one company that did not submit data for amounts of premiums waived.

† The 1930-50 study's graduated termination rates for Benefit 5 were based on the experience for all four periods of that study combined. (However, 89 percent of the terminations occurred during 1940-50.)

TABLE 9C

ACTUAL TERMINATIONS BY DEATH IN EACH OBSERVATION PERIOD*
 COMPARED WITH EXPECTED TERMINATIONS BASED ON GRADUATED
 RATES OF TERMINATION BY DEATH FOR BENEFIT 5 OF THE
 1930-50 DISABLED LIVES STUDY†
 DISABILITY YEARS 1-15 ONLY
 BY AMOUNTS OF ANNUAL PREMIUMS WAIVED

	PERIOD 1		PERIOD 2		PERIOD 3	
	Actual Deaths	Ratio of Actual to Expected	Actual Deaths	Ratio of Actual to Expected	Actual Deaths	Ratio of Actual to Expected
	By Disability Year					
Disability year:						
1.....	\$ 64,275	107%	\$ 356,866	86%	\$ 646,132	70%
2.....	32,446	117	320,950	122	605,470	94
3.....	15,811	132	143,899	106	265,578	74
4.....	13,989	188	63,652	73	208,969	92
5.....	7,975	153	52,940	86	100,619	67
6-10.....	14,264	92	141,435	107	300,244	90
11-15.....	4,326	69	54,928	109	90,375	108
1-15.....	\$153,086	114%	\$1,134,670	99%	\$2,217,387	82%
	By Attained Age at Policy Anniversary Preceding Disability					
Attained age:						
15-19.....	\$ 444	58%	\$ 3,424	82%	\$ 3,421	47%
20-24.....	1,924	92	10,676	69	18,339	53
25-29.....	2,023	80	18,809	93	34,254	59
30-34.....	4,056	79	24,715	69	45,138	55
35-39.....	9,595	102	49,824	73	113,067	81
40-44.....	13,697	104	100,766	83	219,477	80
45-49.....	32,837	146	199,073	105	402,262	87
50-54.....	45,334	125	274,328	94	609,804	84
55-59.....	43,176	103	453,055	114	771,625	83
15-59.....	\$153,086	114%	\$1,134,670	99%	\$2,217,387	82%

* Excluding data for one company that did not submit data for amounts of premiums waived.

† The 1930-50 study's graduation termination rates for Benefit 5 were based on the experience for all four periods of that study combined. (However, 89 percent of the terminations occurred during 1940-50.)

TABLE 10A

TOTAL ACTUAL TERMINATIONS FOR EACH SEX*
 COMPARED WITH EXPECTED TERMINATIONS BASED ON GRADUATED
 TERMINATION RATES FOR BENEFIT 5 OF THE 1930-50 DISABLED LIVES STUDY†
 DISABILITY YEARS 1-15 ONLY
 BY AMOUNTS OF ANNUAL PREMIUMS WAIVED

	MALE		FEMALE	
	Actual Terminations	Ratio of Actual to Expected	Actual Terminations	Ratio of Actual to Expected
	By Disability Year			
Disability year:				
1.....	\$ 5,603,155	131%	\$330,399	92%
2.....	3,139,953	93	231,079	73
3.....	1,098,461	75	87,700	62
4.....	538,453	70	40,744	57
5.....	275,977	64	22,327	56
6-10.....	568,090	77	34,970	58
11-15.....	159,119	91	3,535	52
1-15.....	\$11,383,208	101%	\$750,754	75%
	By Attained Age at Policy Anniversary Preceding Disability			
Attained age:				
15-19.....	\$ 139,286	121%	\$ 6,910	105%
20-24.....	595,158	122	31,271	92
25-29.....	696,574	115	40,659	80
30-34.....	826,093	108	54,592	76
35-39.....	1,179,528	108	86,286	81
40-44.....	1,651,530	100	123,348	72
45-49.....	2,022,251	99	161,162	73
50-54.....	2,196,634	94	151,942	70
55-59.....	2,076,154	97	94,584	79
15-59.....	\$11,383,208	101%	\$750,754	75%

* Excluding data for one company that did not submit data for amounts of premiums waived.

† The 1930-50 study's graduated termination rates for Benefit 5 were not differentiated by sex but were based on combined male and female data.

TABLE 10B
 ACTUAL TERMINATIONS BY RECOVERY FOR EACH SEX*
 COMPARED WITH EXPECTED TERMINATIONS BASED ON GRADUATED
 RATES OF TERMINATION BY RECOVERY FOR BENEFIT 5 OF THE
 1930-50 DISABLED LIVES STUDY†
 DISABILITY YEARS 1-15 ONLY
 BY AMOUNTS OF ANNUAL PREMIUMS WAIVED

	MALE		FEMALE	
	Actual Recoveries	Ratio of Actual to Expected	Actual Recoveries	Ratio of Actual to Expected
By Disability Year				
Disability year:				
1	\$4,589,386	154%	\$276,895	109%
2	2,242,750	89	169,416	71
3	698,894	70	61,979	61
4	266,291	57	26,296	56
5	123,553	53	13,217	55
6-10	127,482	44	19,635	70
11-15	12,458	32	567	25
1-15	\$8,060,814	107%	\$568,005	82%
By Attained Age at Policy Anniversary Preceding Disability				
Attained age:				
15-19	\$ 132,330	127%	\$ 6,577	110%
20-24	566,756	130	28,734	94
25-29	644,987	121	37,160	83
30-34	757,320	117	49,456	81
35-39	1,022,762	115	70,566	81
40-44	1,341,172	105	99,766	76
45-49	1,431,114	99	118,127	75
50-54	1,317,732	97	101,378	79
55-59	846,641	102	56,241	114
15-59	\$8,060,814	107%	\$568,005	82%

* Excluding data for one company that did not submit data for amounts of premiums waived.

† The 1930-50 study's graduated termination rates for Benefit 5 were not differentiated by sex but were based on combined male and female data.

TABLE 10C
 ACTUAL TERMINATIONS BY DEATH FOR EACH SEX*
 COMPARED WITH EXPECTED TERMINATIONS BASED ON GRADUATED
 RATES OF TERMINATION BY DEATH FOR BENEFIT 5 OF THE
 1930-50 DISABLED LIVES STUDY†
 DISABILITY YEARS 1-15 ONLY
 BY AMOUNTS OF ANNUAL PREMIUMS WAIVED

	MALE		FEMALE	
	Actual Deaths	Ratio of Actual to Expected	Actual Deaths	Ratio of Actual to Expected
	By Disability Year			
Disability year:				
1.....	\$1,013,769	79%	\$ 53,504	50%
2.....	897,203	105	61,663	80
3.....	399,567	86	25,721	63
4.....	272,162	91	14,448	59
5.....	152,424	76	9,110	56
6-10.....	440,608	98	15,335	47
11-15.....	146,661	108	2,968	65
1-15.....	\$3,322,394	90%	\$182,749	60%
	By Attained Age at Policy Anniversary Preceding Disability			
Attained age:				
15-19.....	\$ 6,956	60%	\$ 333	52%
20-24.....	28,402	58	2,537	74
25-29.....	51,587	70	3,499	56
30-34.....	68,773	61	5,136	48
35-39.....	156,766	79	15,720	81
40-44.....	310,358	83	23,582	61
45-49.....	591,137	97	43,035	66
50-54.....	878,902	91	50,564	57
55-59.....	1,229,513	94	38,343	55
15-59.....	\$3,322,394	90%	\$182,749	60%

* Excluding data for one company that did not submit data for amounts of premiums waived.

† The 1930-50 study's graduated termination rates for Benefit 5 were not differentiated by sex but were based on combined male and female data.

TABLE 11A

TOTAL ACTUAL TERMINATIONS FOR EACH PLAN*
 COMPARED WITH EXPECTED TERMINATIONS BASED ON GRADUATED
 TERMINATION RATES FOR BENEFIT 5 OF THE 1930-50 DISABLED LIVES STUDY†
 DISABILITY YEARS 1-15 ONLY
 BY AMOUNTS OF ANNUAL PREMIUMS WAIVED

	LIFE		ENDOWMENT		TERM	
	Actual Terminations	Ratio of Actual to Expected	Actual Terminations	Ratio of Actual to Expected	Actual Terminations	Ratio of Actual to Expected
By Disability Year						
Disability year:						
1.....	\$1,908,789	111%	\$411,324	130%	\$ 67,883	132%
2.....	1,242,422	84	218,868	82	34,363	96
3.....	575,792	80	78,263	60	7,704	56
4.....	288,087	72	43,046	56	3,942	58
5.....	169,633	70	25,995	53	1,845	51
6-10.....	378,194	79	72,378	73	2,229	44
11-15.....	135,461	90	26,160	107	70	50
1-15.....	\$4,698,378	91%	\$876,034	91%	\$118,036	101%
By Attained Age at Policy Anniversary Preceding Disability						
Attained age:						
15-19.....	\$ 29,281	80%	\$ 7,591	97%		
20-24.....	151,793	98	39,889	95	\$ 975	136%
25-29.....	200,852	94	50,719	105	4,418	115
30-34.....	252,901	89	46,790	91	7,597	82
35-39.....	418,805	100	76,949	94	13,833	88
40-44.....	600,243	90	108,369	82	26,708	104
45-49.....	910,792	92	157,840	92	25,121	91
50-54.....	979,712	82	196,029	86	24,219	132
55-59.....	1,153,999	94	191,858	95	15,165	101
15-59.....	\$4,698,378	91%	\$876,034	91%	\$118,036	101%

* Excluding data for one company that did not submit data for amounts of premiums waived and one company that did not submit data by plan.

† The 1930-50 study's graduated termination rates for Benefit 5 were based on the experience for all plans combined.

TABLE 11B

ACTUAL TERMINATIONS BY RECOVERY FOR EACH PLAN*
 COMPARED WITH EXPECTED TERMINATIONS BASED ON GRADUATED
 RATES OF TERMINATION BY RECOVERY FOR BENEFIT 5 OF THE
 1930-50 DISABLED LIVES STUDY†
 DISABILITY YEARS 1-15 ONLY
 BY AMOUNTS OF ANNUAL PREMIUMS WAIVED

	LIFE		ENDOWMENT		TERM	
	Actual Recoveries	Ratio of Actual to Expected	Actual Recoveries	Ratio of Actual to Expected	Actual Recoveries	Ratio of Actual to Expected
	By Disability Year					
Disability year:						
1.....	\$1,407,156	121%	\$326,866	152%	\$53,391	145%
2.....	823,499	76	141,992	73	24,472	90
3.....	341,991	72	46,592	53	5,061	52
4.....	116,493	50	19,751	42	1,508	35
5.....	76,060	62	8,125	31	1,173	59
6-10.....	64,732	38	20,297	50	510	26
11-15.....	8,614	28	4,411	56		
1-15.....	\$2,838,545	87%	\$568,034	92%	\$86,115	105%
	By Attained Age at Policy Anniversary Preceding Disability					
Attained age:						
15-19.....	\$ 27,651	84%	\$ 6,979	100%		
20-24.....	141,703	102	38,497	103	\$ 975	152%
25-29.....	183,967	98	44,929	106	4,198	124
30-34.....	222,874	92	40,313	93	6,736	85
35-39.....	356,616	104	60,817	93	11,460	88
40-44.....	451,344	88	86,497	86	22,345	111
45-49.....	591,681	86	107,194	92	17,634	90
50-54.....	484,648	72	107,838	85	14,203	124
55-59.....	378,061	83	74,970	95	8,564	141
15-59.....	\$2,838,545	87%	\$568,034	92%	\$86,115	105%

* Excluding data for one company that did not submit data for amounts of premiums waived and one company that did not submit data by plan.

† The 1930-50 study's graduated termination rates for Benefit 5 were based on the experience for all plans combined.

TABLE 11C
 ACTUAL TERMINATIONS BY DEATH FOR EACH PLAN*
 COMPARED WITH EXPECTED TERMINATIONS BASED ON GRADUATED
 RATES OF TERMINATION BY DEATH FOR BENEFIT 5 OF THE
 1930-50 DISABLED LIVES STUDY†
 DISABILITY YEARS 1-15 ONLY
 BY AMOUNTS OF ANNUAL PREMIUMS WAIVED

	LIFE		ENDOWMENT		TERM	
	Actual Deaths	Ratio of Actual to Expected	Actual Deaths	Ratio of Actual to Expected	Actual Deaths	Ratio of Actual to Expected
By Disability Year						
Disability year:						
1	\$ 501,633	91%	\$ 84,458	83%	\$14,492	99%
2	418,923	103	76,876	107	9,891	117
3	233,801	96	31,671	75	2,643	64
4	171,594	103	23,295	76	2,434	96
5	93,573	79	17,870	77	672	41
6-10	313,462	103	52,081	88	1,719	61
11-15	126,847	107	21,749	132	70	75
1-15	\$1,859,833	97%	\$308,000	89%	\$31,921	93%
By Attained Age at Policy Anniversary Preceding Disability						
Attained age:						
15-19	\$ 1,630	43%	\$ 612	73%		
20-24	10,090	63	1,392	30		
25-29	16,885	64	5,790	94	\$ 220	47%
30-34	30,027	71	6,477	80	861	66
35-39	62,189	79	16,132	102	2,373	85
40-44	148,899	96	21,872	70	4,363	76
45-49	319,111	105	50,646	90	7,487	93
50-54	495,064	96	88,191	88	10,016	144
55-59	775,938	101	116,888	96	6,601	74
15-59	\$1,859,833	97%	\$308,000	89%	\$31,921	93%

* Excluding data for one company that did not submit data for amounts of premiums waived and one company that did not submit data by plan.

† The 1930-50 study's graduated termination rates for Benefit 5 were based on the experience for all plans combined.

TABLE 12A
 TOTAL ACTUAL TERMINATIONS
 IN EACH OBSERVATION PERIOD—AUTOMATIC BENEFIT
 COMPARED WITH EXPECTED TERMINATIONS BASED ON CRUDE 1959-74
 AUTOMATIC BENEFIT TERMINATION RATES FOR ALL PERIODS COMBINED
 DISABILITY YEARS 1-15 ONLY
 BY AMOUNTS OF ANNUAL PREMIUMS WAIVED

	PERIOD 1		PERIOD 2		PERIOD 3	
	Actual Terminations	Ratio of Actual to Expected	Actual Terminations	Ratio of Actual to Expected	Actual Terminations	Ratio of Actual to Expected
	By Disability Year					
Disability year:						
1.....	\$244,315	127%	\$1,360,080	118%	\$2,194,611	89%
2.....	68,116	133	656,237	124	1,272,415	90
3.....	12,845	187	164,745	126	396,842	91
4.....	1,435	201	66,056	119	204,222	95
5.....			30,209	141	87,031	91
6-10.....			7,224	43	168,168	106
11-15.....			273	174	4,144	97
1-15.....	\$326,711	130%	\$2,284,824	120%	\$4,327,433	90%
	By Attained Age at Policy Anniversary Preceding Disability					
Attained age:						
15-19.....	\$ 10,907	89%	\$ 46,874	105%	\$ 56,744	98%
20-24.....	30,092	117	171,746	112	255,827	92
25-29.....	21,846	104	167,964	116	325,762	93
30-34.....	44,432	140	219,376	117	345,106	89
35-39.....	50,110	137	295,478	112	468,139	91
40-44.....	49,714	122	392,966	115	669,823	92
45-49.....	53,327	145	386,215	129	737,555	88
50-54.....	36,597	139	345,753	120	863,832	93
55-59.....	29,686	150	258,452	144	604,645	87
15-59.....	\$326,711	130%	\$2,284,824	120%	\$4,327,433	90%

TABLE 12B

ACTUAL RECOVERIES IN EACH OBSERVATION PERIOD—AUTOMATIC BENEFIT
 COMPARED WITH EXPECTED RECOVERIES BASED ON CRUDE 1959-74
 AUTOMATIC BENEFIT RECOVERY RATES FOR ALL PERIODS COMBINED
 DISABILITY YEARS 1-15 ONLY
 BY AMOUNTS OF ANNUAL PREMIUMS WAIVED

	PERIOD 1		PERIOD 2		PERIOD 3	
	Actual Terminations	Ratio of Actual to Expected	Actual Terminations	Ratio of Actual to Expected	Actual Terminations	Ratio of Actual to Expected
By Disability Year						
Disability year:						
1.....	\$211,193	124%	\$1,188,495	118%	\$1,892,622	90%
2.....	57,554	139	511,156	125	936,455	89
3.....	7,756	146	126,359	134	261,660	88
4.....	642	131	48,816	134	120,072	91
5.....			16,165	142	42,092	90
6-10.....			2,119	35	66,468	108
11-15.....					163	104
1-15.....	\$277,145	127%	\$1,893,110	121%	\$3,319,532	90%
By Attained Age at Policy Anniversary Preceding Disability						
Attained age:						
15-19.....	\$ 10,463	89%	\$ 44,402	105%	\$ 54,104	99%
20-24.....	28,748	116	164,280	112	243,904	92
25-29.....	21,050	107	155,109	115	303,950	93
30-34.....	42,278	140	205,717	117	320,932	89
35-39.....	45,499	137	266,868	114	400,372	90
40-44.....	44,135	124	333,321	114	562,352	92
45-49.....	37,805	129	309,145	133	545,361	86
50-54.....	27,910	138	255,774	123	585,838	91
55-59.....	19,257	145	158,494	155	302,719	83
15-59.....	\$277,145	127%	\$1,893,110	121%	\$3,319,532	90%

TABLE 12C

ACTUAL DEATHS IN EACH OBSERVATION PERIOD - AUTOMATIC BENEFIT
 COMPARED WITH EXPECTED DEATHS BASED ON CRUDE 1959-74
 AUTOMATIC BENEFIT DEATH RATES FOR ALL PERIODS COMBINED
 DISABILITY YEARS 1-15 ONLY
 BY AMOUNTS OF ANNUAL PREMIUMS WAIVED

	PERIOD 1		PERIOD 2		PERIOD 3	
	Actual Deaths	Ratio of Actual to Expected	Actual Deaths	Ratio of Actual to Expected	Actual Deaths	Ratio of Actual to Expected
By Disability Year						
Disability year:						
1.....	\$33,122	155%	\$171,585	122%	\$ 301,989	88%
2.....	10,562	109	145,081	124	335,960	92
3.....	5,089	323	38,386	105	135,182	96
4.....	793	354	17,240	90	84,150	102
5.....			14,044	139	44,939	92
6-10.....			5,105	53	101,700	105
11-15.....			273	181	3,981	97
1-15.....	\$49,566	151%	\$391,714	117%	\$1,007,901	93%
By Attained Age at Policy Anniversary Preceding Disability						
Attained age:						
15-19.....	\$ 444	91%	\$ 2,472	119%	\$ 2,640	88%
20-24.....	1,344	134	7,466	113	11,923	91
25-29.....	796	62	12,855	135	21,812	89
30-34.....	2,154	138	13,659	122	24,174	89
35-39.....	4,611	139	28,610	95	67,767	100
40-44.....	5,579	112	59,645	122	107,471	90
45-49.....	15,522	210	77,070	114	192,194	92
50-54.....	8,687	140	89,979	112	277,994	96
55-59.....	10,429	158	99,958	129	301,926	92
15-59.....	\$49,566	151%	\$391,714	117%	\$1,007,901	93%

TABLE 13A

TOTAL ACTUAL TERMINATIONS FOR EACH SEX—AUTOMATIC BENEFIT
 COMPARED WITH EXPECTED TERMINATIONS BASED ON CRUDE 1959-74
 AUTOMATIC TERMINATION RATES FOR MALES AND FEMALES COMBINED
 DISABILITY YEARS 1-15 ONLY
 BY AMOUNTS OF ANNUAL PREMIUMS WAIVED

	MALE		FEMALE	
	Actual Terminations	Ratio of Actual to Expected	Actual Terminations	Ratio of Actual to Expected
	By Disability Year			
Disability year:				
1.....	\$3,564,982	103%	\$234,024	69%
2.....	1,833,051	102	163,717	79
3.....	520,534	103	53,898	81
4.....	241,062	101	30,651	91
5.....	99,978	98	17,262	111
6-10.....	150,400	102	24,992	90
11-15.....	3,508	98	909	110
1-15.....	\$6,413,515	103%	\$525,453	76%
	By Attained Age at Policy Anniversary Preceding Disability			
Attained age:				
15-19.....	\$ 108,841	102%	\$ 5,684	78%
20-24.....	435,375	102	22,290	78
25-29.....	486,643	102	28,929	75
30-34.....	571,391	102	37,523	73
35-39.....	751,611	102	62,116	78
40-44.....	1,026,563	103	85,940	74
45-49.....	1,063,677	103	113,420	78
50-54.....	1,146,752	104	99,430	71
55-59.....	822,662	102	70,121	84
15-59.....	\$6,413,515	103%	\$525,453	76%

TABLE 13B
ACTUAL RECOVERIES FOR EACH SEX—AUTOMATIC BENEFIT
COMPARED WITH EXPECTED RECOVERIES BASED ON CRUDE 1959-74
AUTOMATIC BENEFIT RECOVERY RATES FOR MALES AND FEMALES COMBINED
DISABILITY YEARS 1-15 ONLY
BY AMOUNTS OF ANNUAL PREMIUMS WAIVED

	MALE		FEMALE	
	Actual Recoveries	Ratio of Actual to Expected	Actual Recoveries	Ratio of Actual to Expected
By Disability Year				
Disability year:				
1.....	\$3,091,828	103%	\$200,482	69%
2.....	1,382,368	102	122,797	80
3.....	358,595	102	37,180	82
4.....	149,096	100	20,434	98
5.....	49,018	97	9,239	118
6-10.....	55,549	96	13,038	123
11-15.....	163	122	0	0
1-15.....	\$5,086,617	103%	\$403,170	76%
By Attained Age at Policy Anniversary Preceding Disability				
Attained age:				
15-19.....	\$ 103,618	102%	\$ 5,351	77%
20-24.....	416,606	102	20,326	74
25-29.....	454,069	102	26,040	73
30-34.....	534,622	103	34,305	72
35-39.....	662,767	103	49,972	72
40-44.....	866,744	103	73,064	75
45-49.....	806,528	103	85,783	79
50-54.....	803,440	104	66,082	70
55-59.....	438,223	101	42,247	94
15-59.....	\$5,086,617	103%	\$403,170	76%

TABLE 13C
 ACTUAL DEATHS FOR EACH SEX—AUTOMATIC BENEFIT
 COMPARED WITH EXPECTED DEATHS BASED ON CRUDE 1959-74
 AUTOMATIC BENEFIT DEATH RATES FOR MALES AND FEMALES COMBINED
 DISABILITY YEARS 1-15 ONLY
 BY AMOUNTS OF ANNUAL PREMIUMS WAIVED

	MALE		FEMALE	
	Actual Deaths	Ratio of Actual to Expected	Actual Deaths	Ratio of Actual to Expected
	By Disability Year			
Disability year:				
1	\$ 473,154	103%	\$ 33,542	69%
2	450,683	103	40,920	77
3	161,939	103	16,718	79
4	91,966	103	10,217	80
5	50,960	99	8,023	103
6-10	94,851	106	11,954	70
11-15	3,345	97	909	114
1-15	\$1,326,898	103%	\$122,283	76%
	By Attained Age at Policy Anniversary Preceding Disability			
Attained age:				
15-19	\$ 5,223	100%	\$ 333	94%
20-24	18,769	97	1,964	143
25-29	32,574	100	2,889	104
30-34	36,769	102	3,218	84
35-39	88,844	98	12,144	115
40-44	159,819	104	12,876	67
45-49	257,149	104	27,637	73
50-54	343,312	104	33,348	72
55-59	384,439	103	27,874	72
15-59	\$1,326,898	103%	\$122,283	76%

TABLE 14A
 TOTAL ACTUAL TERMINATIONS
 IN EACH OBSERVATION PERIOD—ELECTIVE BENEFIT*
 COMPARED WITH EXPECTED TERMINATIONS BASED ON CRUDE 1959-74
 ELECTIVE BENEFIT TERMINATION RATES FOR ALL PERIODS COMBINED
 DISABILITY YEARS 1-15 ONLY
 BY AMOUNTS OF ANNUAL PREMIUMS WAIVED

	PERIOD 1		PERIOD 2		PERIOD 3	
	Actual Terminations	Ratio of Actual to Expected	Actual Terminations	Ratio of Actual to Expected	Actual Terminations	Ratio of Actual to Expected
By Disability Year						
Disability year:						
1.....	\$101,955	114%	\$ 724,574	108%	\$1,308,019	95%
2.....	61,703	114	507,810	117	804,751	91
3.....	18,987	90	231,091	121	361,651	91
4.....	17,591	149	87,192	86	202,701	104
5.....	14,179	202	65,255	103	101,630	92
6-10.....	17,383	90	161,665	112	248,620	94
11-15.....	5,164	68	62,416	104	90,657	100
1-15.....	\$236,962	113%	\$1,840,003	111%	\$3,118,029	94%
By Attained Age at Policy Anniversary Preceding Disability						
Attained age:						
15-19.....	\$ 565	71%	\$ 10,236	95%	\$ 20,870	104%
20-24.....	3,716	91	43,763	98	121,285	101
25-29.....	9,316	150	54,371	113	157,974	94
30-34.....	13,933	135	82,390	108	175,448	95
35-39.....	23,901	101	152,412	107	275,774	96
40-44.....	30,080	133	224,297	106	407,998	95
45-49.....	45,877	123	353,072	109	607,367	94
50-54.....	60,685	111	385,257	107	656,452	95
55-59.....	48,889	98	534,205	119	694,861	89
15-59.....	\$236,962	113%	\$1,840,003	111%	\$3,118,029	94%

* Excluding data for one company that did not submit data for amounts of premiums waived.

TABLE 14B

ACTUAL RECOVERIES IN EACH OBSERVATION PERIOD—ELECTIVE BENEFIT*
 COMPARED WITH EXPECTED RECOVERIES BASED ON CRUDE 1959-74
 ELECTIVE BENEFIT RECOVERY RATES FOR ALL PERIODS COMBINED
 DISABILITY YEARS 1-15 ONLY
 BY AMOUNTS OF ANNUAL PREMIUMS WAIVED

	PERIOD 1		PERIOD 2		PERIOD 3	
	Actual Recoveries	Ratio of Actual to Expected	Actual Recoveries	Ratio of Actual to Expected	Actual Recoveries	Ratio of Actual to Expected
By Disability Year						
Disability year:						
1.....	\$ 70,802	109%	\$ 539,293	110%	\$ 963,876	94%
2.....	39,819	113	331,941	117	535,241	91
3.....	8,265	70	125,578	115	231,255	95
4.....	4,395	100	40,780	106	77,882	97
5.....	6,204	204	26,359	100	45,950	94
6-10.....	3,119	90	25,335	99	50,076	101
11-15.....	838	127	7,761	137	4,263	65
1-15.....	\$133,442	108%	\$1,097,047	112%	\$1,908,543	94%
By Attained Age at Policy Anniversary Preceding Disability						
Attained age:						
15-19.....	\$ 565	76%	\$ 9,284	91%	\$ 20,089	106%
20-24.....	3,136	82	40,553	97	114,869	102
25-29.....	8,089	143	48,417	111	145,532	95
30-34.....	12,031	134	71,334	107	154,484	95
35-39.....	18,917	95	131,198	110	230,474	95
40-44.....	21,962	129	183,176	114	295,992	92
45-49.....	28,562	121	231,069	110	397,299	94
50-54.....	24,038	86	200,908	113	324,642	94
55-59.....	16,142	97	181,108	125	225,162	86
15-59.....	\$133,442	108%	\$1,097,047	112%	\$1,908,543	94%

* Excluding data for one company that did not submit data for amounts of premiums waived.

TABLE 14C

ACTUAL DEATHS IN EACH OBSERVATION PERIOD—ELECTIVE BENEFIT*
 COMPARED WITH EXPECTED DEATHS BASED ON CRUDE 1959-74
 ELECTIVE BENEFIT DEATH RATES FOR ALL PERIODS COMBINED
 DISABILITY YEARS 1-15 ONLY
 BY AMOUNTS OF ANNUAL PREMIUMS WAIVED

	PERIOD 1		PERIOD 2		PERIOD 3	
	Actual Deaths	Ratio of Actual to Expected	Actual Deaths	Ratio of Actual to Expected	Actual Deaths	Ratio of Actual to Expected
	By Disability Year					
Disability year:						
1.....	\$ 31,153	129%	\$185,281	102%	\$ 344,143	97%
2.....	21,884	118	175,869	116	269,510	91
3.....	10,722	115	105,513	129	130,396	84
4.....	13,196	179	46,412	74	124,819	109
5.....	7,975	200	38,896	105	55,680	91
6-10.....	14,264	91	136,330	114	198,544	92
11-15.....	4,326	62	54,655	101	86,394	102
1-15.....	\$103,520	120%	\$742,956	108%	\$1,209,486	94%
	By Attained Age at Policy Anniversary Preceding Disability					
Attained age:						
15-19.....	\$ 0	0%	\$ 952	152%	\$ 781	74%
20-24.....	580	213	3,210	114	6,416	90
25-29.....	1,227	221	5,954	137	12,442	85
30-34.....	1,902	139	11,056	113	20,964	92
35-39.....	4,984	133	21,214	92	45,300	102
40-44.....	8,118	142	41,121	80	112,006	107
45-49.....	17,315	125	122,003	108	210,068	94
50-54.....	36,647	136	184,349	102	331,810	96
55-59.....	32,747	98	353,097	116	469,699	91
15-59.....	\$103,520	120%	\$742,956	108%	\$1,209,486	94%

* Excluding data for one company that did not submit data for amounts of premiums waived.

TABLE 15A
TOTAL ACTUAL TERMINATIONS FOR EACH SEX—ELECTIVE BENEFIT*
COMPARED WITH EXPECTED TERMINATIONS BASED ON CRUDE 1959-74
ELECTIVE BENEFIT TERMINATION RATES FOR MALES AND FEMALES COMBINED
DISABILITY YEARS 1-15 ONLY
BY AMOUNTS OF ANNUAL PREMIUMS WAIVED

	MALE		FEMALE	
	Actual Terminations	Ratio of Actual to Expected	Actual Terminations	Ratio of Actual to Expected
By Disability Year				
Disability year:				
1	\$2,038,173	101%	\$ 96,375	79%
2	1,306,902	101	67,362	83
3	577,927	100	33,802	98
4	297,391	101	10,093	72
5	175,999	102	5,065	61
6-10	417,690	101	9,978	68
11-15	155,611	101	2,626	65
1-15	\$4,969,693	101%	\$225,301	81%
By Attained Age at Policy Anniversary Preceding Disability				
Attained age:				
15-19	\$ 30,445	100%	\$ 1,226	109%
20-24	159,783	101	8,981	89
25-29	209,931	102	11,730	77
30-34	254,702	102	17,069	81
35-39	427,917	102	24,170	78
40-44	624,967	101	37,408	82
45-49	958,574	102	47,742	76
50-54	1,049,882	101	52,512	88
55-59	1,253,492	101	24,463	77
15-59	\$4,969,693	101%	\$225,301	81%

* Excluding data for one company that did not submit data for amounts of premiums waived.

TABLE 15B

ACTUAL RECOVERIES FOR EACH SEX—ELECTIVE BENEFIT*
 COMPARED WITH EXPECTED RECOVERIES BASED ON CRUDE 1959-74
 ELECTIVE BENEFIT RECOVERY RATES FOR MALES AND FEMALES COMBINED
 DISABILITY YEARS 1-15 ONLY
 BY AMOUNTS OF ANNUAL PREMIUMS WAIVED

	MALE		FEMALE	
	Actual Recoveries	Ratio of Actual to Expected	Actual Recoveries	Ratio of Actual to Expected
	By Disability Year			
Disability year:				
1.....	\$1,497,558	101%	\$ 76,413	83%
2.....	860,382	101	46,619	82
3.....	340,299	100	24,799	106
4.....	117,195	101	5,862	79
5.....	74,535	101	3,978	82
6-10.....	71,933	97	6,597	162
11-15.....	12,295	100	567	93
1-15.....	\$2,974,197	101%	\$164,835	87%
	By Attained Age at Policy Anniversary Preceding Disability			
Attained age:				
15-19.....	\$ 28,712	100%	\$ 1,226	113%
20-24.....	150,150	101	8,408	88
25-29.....	190,918	101	11,120	80
30-34.....	222,698	101	15,151	83
35-39.....	359,995	101	20,594	80
40-44.....	474,428	102	26,702	78
45-49.....	624,586	102	32,344	76
50-54.....	514,292	99	35,296	110
55-59.....	408,418	100	13,994	117
15-59.....	\$2,974,197	101%	\$164,835	87%

* Excluding data for one company that did not submit data for amounts of premiums waived.

TABLE 15C
ACTUAL DEATHS FOR EACH SEX—ELECTIVE BENEFIT*
COMPARED WITH EXPECTED DEATHS BASED ON CRUDE 1959-74
ELECTIVE BENEFIT DEATH RATES FOR MALES AND FEMALES COMBINED
DISABILITY YEARS 1-15 ONLY
BY AMOUNTS OF ANNUAL PREMIUMS WAIVED

	MALE		FEMALE	
	Actual Deaths	Ratio of Actual to Expected	Actual Deaths	Ratio of Actual to Expected
By Disability Year				
Disability year:				
1.....	\$ 540,615	102%	\$19,962	68%
2.....	446,520	101	20,743	85
3.....	237,628	101	9,003	80
4.....	180,196	101	4,231	63
5.....	101,464	102	1,087	31
6-10.....	345,757	102	3,381	33
11-15.....	143,316	101	2,059	60
1-15.....	\$1,995,496	101%	\$60,466	68%
By Attained Age at Policy Anniversary Preceding Disability				
Attained age:				
15-19.....	\$ 1,733	103%		
20-24.....	9,633	100	\$ 573	98%
25-29.....	19,013	104	610	43
30-34.....	32,004	102	1,918	72
35-39.....	67,922	102	3,576	71
40-44.....	150,539	100	10,706	94
45-49.....	333,988	102	15,398	75
50-54.....	535,590	102	17,216	62
55-59.....	845,074	101	10,469	53
15-59.....	\$1,995,496	101%	\$60,466	68%

* Excluding data for one company that did not submit data for amounts of premiums waived.

TABLE 16
ACTUAL TERMINATION EXPERIENCE
FOR EACH BENEFIT* BY OBSERVATION PERIOD
COMPARED WITH EXPECTED TERMINATIONS BASED ON GRADUATED
TERMINATION RATES FOR BENEFIT 5† OF THE 1930-50 DISABLED LIVES STUDY
DISABILITY YEARS 1-15 ONLY
BY AMOUNTS OF ANNUAL PREMIUMS WAIVED

OBSERVATION PERIOD	AUTOMATIC BENEFIT		ELECTIVE BENEFIT		AUTOMATIC AND ELECTIVE BENEFITS COMBINED	
	Actual Terminations	Ratio of Actual to Expected	Actual Terminations	Ratio of Actual to Expected	Actual Terminations	Ratio of Actual to Expected
Total Terminations						
1.....	\$ 326,711	164%	\$ 236,962	105%	\$ 563,673	133%
2.....	2,284,824	132	1,840,003	103	4,124,827	117
3.....	4,327,433	92	3,118,029	88	7,445,462	90
All periods combined	\$6,938,968	104%	\$5,194,994	93%	\$12,133,962	99%
Terminations by Recovery						
1.....	\$ 277,145	182%	\$ 133,442	96%	\$ 410,587	141%
2.....	1,893,110	147	1,097,047	100	2,990,157	126
3.....	3,319,532	101	1,908,543	84	5,228,075	94
All periods combined	\$5,489,787	116%	\$3,139,032	90%	\$ 8,628,819	105%
Terminations by Death						
1.....	\$ 49,566	106%	\$ 103,520	119%	\$ 153,086	114%
2.....	391,714	87	742,956	107	1,134,670	99
3.....	1,007,901	71	1,209,486	93	2,217,387	82
All periods combined	\$1,449,181	76%	\$2,055,962	99%	\$ 3,505,143	88%

* Excluding data for one company that did not submit data for the amounts of premiums waived.

† These termination rates were for the elective benefit only.

TABLE 17
ACTUAL TERMINATIONS
FOR EACH BENEFIT BY SIZE OF ANNUAL PREMIUM WAIVED
COMPARED WITH EXPECTED TERMINATIONS BASED ON CRUDE 1959-74
TERMINATION RATES FOR ALL SIZES COMBINED FOR EACH BENEFIT
DISABILITY YEARS 1-15 ONLY
BY AMOUNTS OF ANNUAL PREMIUMS WAIVED*

SIZE OF ANNUAL PREMIUM BEING WAIVED (IN DOLLARS)	AUTOMATIC BENEFIT		ELECTIVE BENEFIT		AUTOMATIC AND ELECTIVE BENEFITS COMBINED	
	Actual Terminations	Ratio of Actual to Expected	Actual Terminations	Ratio of Actual to Expected	Actual Terminations	Ratio of Actual to Expected
Total Terminations						
0-99.....	\$ 447,686	89%	\$ 337,002	93%	\$ 784,688	91%
100-199.....	1,917,827	93	937,504	96	2,855,331	94
200-299.....	1,386,414	97	785,045	96	2,171,459	97
300-399.....	644,155	100	557,116	101	1,201,271	100
400 and over.....	2,542,886	110	2,578,327	103	5,121,213	107
Total.....	\$6,938,968	100%	\$5,194,994	100%	\$12,133,962	100%
Terminations by Recovery						
0-99.....	\$ 374,350	88%	\$ 172,413	83%	\$ 546,763	86%
100-199.....	1,640,065	93	599,923	94	2,239,988	94
200-299.....	1,097,273	97	513,153	96	1,610,426	98
300-399.....	502,384	100	333,915	102	836,299	101
400 and over.....	1,875,715	113	1,519,628	106	3,395,343	109
Total.....	\$5,489,787	100%	\$3,139,032	100%	\$ 8,628,819	100%
Terminations by Death						
0-99.....	\$ 73,336	95%	\$ 164,589	106%	\$ 237,925	104%
100-199.....	277,762	95	337,581	100	615,343	97
200-299.....	289,141	98	271,892	96	561,033	95
300-399.....	141,771	97	223,201	99	364,972	99
400 and over.....	667,171	105	1,058,699	100	1,725,870	103
Total.....	\$1,449,181	100%	\$2,055,962	100%	\$ 3,505,143	100%

* Excluding data for one company that did not submit data for amounts of premiums waived.

TABLE 18A

ACTUAL TERMINATIONS FOR EACH BENEFIT BY NUMBER OF POLICIES
 COMPARED WITH EXPECTED TERMINATIONS BASED ON
 CRUDE 1959-74 TERMINATION RATES BY AMOUNTS OF
 ANNUAL PREMIUMS WAIVED FOR EACH BENEFIT
 DISABILITY YEARS 1-15 ONLY

	AUTOMATIC BENEFIT		ELECTIVE BENEFIT		AUTOMATIC AND ELECTIVE BENEFITS COMBINED	
	Number of Actual Terminations	Ratio of Actual to Expected	Number of Actual Terminations	Ratio of Actual to Expected	Number of Actual Terminations	Ratio of Actual to Expected
	By Disability Year					
Disability year:						
1.....	16,790	95%	7,969	92%	24,759	94%
2.....	8,962	93	5,604	97	14,566	94
3.....	2,746	95	2,675	99	5,421	97
4.....	1,321	97	1,294	95	2,615	96
5.....	586	100	825	97	1,411	98
6-10.....	885	100	2,241	105	3,126	104
11-15.....	54	150	935	109	989	111
1-15.....	31,344	95%	21,543	97%	52,887	96%
	By Attained Age at Policy Anniversary Preceding Disability					
Attained age:						
15-19.....	925	96%	238	105%	1,163	99%
20-24.....	3,429	98	1,108	101	4,537	99
25-29.....	3,804	99	1,311	100	5,115	99
30-34.....	3,940	99	1,491	105	5,431	102
35-39.....	4,484	96	1,859	91	6,343	94
40-44.....	4,834	94	2,660	96	7,494	95
45-49.....	4,292	91	3,549	92	7,841	91
50-54.....	3,489	89	4,287	101	7,776	89
55-59.....	2,147	90	5,040	95	7,187	89
15-59....	31,344	95%	21,543	97%	52,887	96%

TABLE 18B
 ACTUAL RECOVERIES FOR EACH BENEFIT BY NUMBER OF POLICIES
 COMPARED WITH EXPECTED RECOVERIES BASED ON
 CRUDE 1959-74 RECOVERY RATES BY AMOUNTS OF
 ANNUAL PREMIUMS WAIVED FOR EACH BENEFIT
 DISABILITY YEARS 1-15 ONLY

	AUTOMATIC BENEFIT		ELECTIVE BENEFIT		ELECTIVE AND AUTOMATIC BENEFITS COMBINED	
	Number of Actual Recoveries	Ratio of Actual to Expected	Number of Actual Recoveries	Ratio of Actual to Expected	Number of Actual Recoveries	Ratio of Actual to Expected
By Disability Year						
Disability year:						
1.....	14,871	94%	5,898	90%	20,769	93%
2.....	7,284	94	3,682	94	10,966	94
3.....	2,034	93	1,687	100	3,721	96
4.....	906	96	572	99	1,478	97
5.....	342	98	292	76	634	86
6-10.....	396	93	475	112	871	103
11-15.....	3	158	94	116	97	117
1-15.....	25,836	94%	12,700	94%	38,536	94%
By Attained Age at Policy Anniversary Preceding Disability						
Attained age:						
15-19.....	878	96%	222	104%	1,100	99%
20-24.....	3,260	98	1,034	101	4,294	99
25-29.....	3,543	100	1,177	98	4,720	99
30-34.....	3,654	98	1,283	103	4,937	100
35-39.....	3,948	97	1,525	90	5,473	95
40-44.....	4,006	92	1,933	94	5,939	93
45-49.....	3,246	91	2,132	87	5,378	89
50-54.....	2,261	83	1,940	95	4,201	88
55-59.....	1,040	82	1,454	88	2,494	85
15-59.....	25,836	94%	12,700	94%	38,536	94%

TABLE 18C

ACTUAL DEATHS FOR EACH BENEFIT BY NUMBER OF POLICIES
 COMPARED WITH EXPECTED DEATHS BASED ON
 CRUDE 1959-74 DEATH RATES BY AMOUNTS OF
 ANNUAL PREMIUMS WAIVED FOR EACH BENEFIT
 DISABILITY YEARS 1-15 ONLY

	AUTOMATIC BENEFIT		ELECTIVE BENEFIT		ELECTIVE AND AUTOMATIC BENEFITS COMBINED	
	Number of Actual Deaths	Ratio of Actual to Expected	Number of Actual Deaths	Ratio of Actual to Expected	Number of Actual Deaths	Ratio of Actual to Expected
	By Disability Year					
Disability year:						
1.....	1,919	100%	2,071	97%	3,990	98%
2.....	1,678	89	1,922	104	3,600	96
3.....	712	100	988	96	1,700	98
4.....	415	99	722	92	1,137	94
5.....	244	104	533	114	777	111
6-10.....	489	105	1,766	104	2,255	105
11-15.....	51	150	841	108	892	110
1-15.....	5,508	97%	8,843	101%	14,351	99%
	By Attained Age at Policy Anniversary Preceding Disability					
Attained age:						
15-19.....	47	99%	16	119%	63	103%
20-24.....	169	105	74	112	243	107
25-29.....	261	97	134	113	395	102
30-34.....	286	106	208	114	494	109
35-39.....	536	90	334	98	870	93
40-44.....	828	102	727	102	1,555	102
45-49.....	1,046	90	1,417	101	2,463	96
50-54.....	1,228	101	2,347	106	3,575	104
55-59.....	1,107	98	3,586	98	4,693	98
15-59.....	5,508	97%	8,843	101%	14,351	99%

TABLE 19A
1959-74 GRADUATED* MONTHLY TERMINATION RATES
AUTOMATIC BENEFIT
FIRST YEAR OF DISABILITY
BASED ON AMOUNTS OF ANNUAL PREMIUMS WAIVED
CERTAIN CONTRIBUTORS ONLY

DIS- ABILITY MONTH	ATTAINED AGE ON POLICY ANNIVERSARY PRECEDING DISABLEMENT								
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59
Graduated Monthly Rate of Termination (Multiplied by 1,000)									
7.....	96.7	99.0	99.5	97.6	92.8	84.6	73.2	58.8	41.8
8.....	95.8	97.7	97.2	94.8	90.3	83.2	73.1	59.8	43.1
9.....	92.9	94.0	92.7	89.5	84.6	77.9	68.9	57.0	41.8
10.....	88.5	88.4	86.5	82.5	77.1	70.5	62.3	52.0	39.1
11.....	82.8	81.8	79.2	75.1	69.4	62.7	55.4	46.7	36.1
12.....	76.8	74.8	71.8	67.7	62.3	55.9	49.0	41.5	33.1
Graduated Monthly Rate of Termination by Recovery (Multiplied by 1,000)									
7.....	95.0	97.6	97.7	94.8	88.6	78.9	66.5	51.8	34.8
8.....	93.2	95.2	94.3	90.8	84.7	75.7	64.0	49.9	33.6
9.....	89.7	90.7	88.9	84.6	78.0	69.2	58.3	45.4	30.5
10.....	84.9	84.7	82.1	77.0	69.8	61.0	50.9	39.6	26.7
11.....	79.2	77.9	74.5	69.1	61.7	53.0	43.7	33.8	23.0
12.....	73.4	71.0	67.1	61.6	54.5	46.3	37.6	28.9	19.8
Graduated Monthly Rate of Termination by Death (Multiplied by 1,000)									
7.....	1.7	1.4	1.8	2.8	4.2	5.7	6.7	7.0	7.0
8.....	2.6	2.5	2.9	4.0	5.6	7.5	9.1	9.9	9.5
9.....	3.2	3.3	3.8	4.9	6.6	8.7	10.6	11.6	11.3
10.....	3.6	3.7	4.4	5.5	7.3	9.5	11.4	12.4	12.4
11.....	3.6	3.9	4.7	6.0	7.7	9.7	11.7	12.9	13.1
12.....	3.4	3.8	4.7	6.1	7.8	9.6	11.4	12.6	13.3

* The method of graduation used is described in Appendix II.

TABLE 19B
1959-74 GRADUATED* MONTHLY TERMINATION RATES
AUTOMATIC BENEFIT
SECOND YEAR OF DISABILITY
BASED ON AMOUNTS OF ANNUAL PREMIUMS WAIVED
CERTAIN CONTRIBUTORS ONLY

Dis- ABILITY MONTH	ATTAINED AGE ON POLICY ANNIVERSARY PRECEDING DISABLEMENT								
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59
Graduated Monthly Rate of Termination (Multiplied by 1,000)									
13.....	71.1	68.3	65.1	60.9	55.9	50.0	43.6	37.0	29.8
14.....	66.0	62.8	59.2	55.0	50.2	44.7	38.9	32.8	26.3
15.....	61.7	58.2	54.4	50.0	45.3	40.2	34.6	28.9	22.8
16.....	58.2	54.6	50.5	46.2	41.5	36.4	31.0	25.5	19.9
17.....	55.3	51.7	47.6	43.2	38.5	33.5	28.4	23.0	17.2
18.....	52.7	49.3	45.3	40.9	36.2	31.4	26.3	21.0	15.1
19.....	50.3	46.9	43.1	38.8	34.2	29.4	24.5	19.3	13.6
20.....	48.2	44.8	40.9	36.7	32.1	27.6	23.0	18.0	12.8
21.....	46.4	42.7	38.7	34.5	30.1	25.7	21.3	17.0	12.7
22.....	45.1	40.9	36.6	32.3	28.0	23.9	19.8	16.1	12.8
23.....	44.2	39.4	34.7	30.4	26.2	22.2	18.4	15.3	13.1
24.....	43.7	38.1	33.1	28.6	24.5	20.7	17.3	14.8	13.5
Graduated Monthly Rate of Termination by Recovery (Multiplied by 1,000)									
13.....	67.9	64.7	60.5	55.0	48.4	40.9	33.0	25.0	16.8
14.....	62.9	59.3	54.9	49.6	43.4	36.5	29.3	21.8	13.8
15.....	58.5	54.8	50.4	45.2	39.4	33.0	26.1	18.8	10.8
16.....	54.8	51.2	46.8	41.9	36.3	30.1	23.4	16.2	8.3
17.....	51.7	48.2	44.0	39.2	33.8	27.8	21.3	14.2	6.6
18.....	49.0	45.7	41.7	37.0	31.7	25.9	19.5	12.8	5.8
19.....	46.6	43.4	39.5	34.9	29.7	24.0	18.0	11.8	5.6
20.....	44.6	41.4	37.4	32.8	27.6	22.2	16.7	11.1	5.6
21.....	43.0	39.5	35.4	30.7	25.6	20.4	15.3	10.4	5.4
22.....	41.8	37.9	33.4	28.6	23.7	18.8	14.0	9.4	4.8
23.....	41.0	36.4	31.6	26.8	22.0	17.3	12.6	8.2	3.9
24.....	40.6	35.1	29.9	25.0	20.4	15.8	11.2	6.8	2.7
Graduated Monthly Rate of Termination by Death (Multiplied by 1,000)									
13.....	3.2	3.6	4.6	5.9	7.5	9.1	10.6	12.0	13.0
14.....	3.1	3.5	4.3	5.4	6.8	8.2	9.6	11.0	12.5
15.....	3.2	3.4	4.0	4.8	5.9	7.2	8.5	10.1	12.0
16.....	3.4	3.4	3.7	4.3	5.2	6.3	7.6	9.3	11.6
17.....	3.6†	3.5	3.6	4.0	4.7	5.7	7.1	8.8	10.6
18.....	3.7†	3.6	3.6	3.9	4.5	5.5	6.8	8.2	9.3
19.....	3.7†	3.5	3.6	3.9	4.5	5.4	6.5	7.5	8.0
20.....	3.6†	3.4	3.5	3.9	4.5	5.4	6.3	6.9	7.2
21.....	3.4†	3.2	3.3	3.8	4.5	5.3	6.0	6.6	7.3
22.....	3.3†	3.0	3.2	3.7	4.3	5.1	5.8	6.7	8.0
23.....	3.2†	3.0	3.1	3.6	4.2	4.9	5.8	7.1	9.2
24.....	3.1†	3.0	3.2	3.6	4.1	4.9	6.1	8.0	10.8

* The method graduation used is described in Appendix II.

† The crude rate for this and all subsequent months is equal to a constant percentage of the corresponding 1930-50 graduated rates for Benefit 5.

TABLE 19C
 1959-74 GRADUATED* MONTHLY TERMINATION RATES
 ELECTIVE BENEFIT
 FIRST YEAR OF DISABILITY
 BASED ON AMOUNTS OF ANNUAL PREMIUMS WAIVED
 CERTAIN CONTRIBUTORS ONLY

DIS- ABILITY MONTH	ATTAINED AGE ON POLICY ANNIVERSARY PRECEDING DISABLEMENT								
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59
Graduated Monthly Rate of Termination (Multiplied by 1,000)									
7.....	75.1	88.7	97.3	100.5	98.6	91.5	79.7	62.9	41.9
8.....	66.0	76.0	82.2	84.5	82.5	76.4	66.4	52.9	35.9
9.....	58.1	65.1	69.3	70.6	68.8	63.8	55.7	44.6	30.3
10.....	51.4	55.7	58.3	59.0	57.6	53.8	47.3	38.0	25.9
11.....	45.7	48.3	49.7	50.0	48.9	46.0	41.1	33.6	23.4
12.....	40.9	42.4	43.4	43.5	42.6	40.4	36.6	30.7	22.6
Graduated Monthly Rate of Termination by Recovery (Multiplied by 1,000)									
7.....	73.2	85.1	92.0	93.7	90.3	81.8	68.4	50.4	28.6
8.....	63.8	71.6	75.6	75.8	72.0	64.3	53.1	38.7	21.4
9.....	55.7	60.4	62.3	61.3	57.3	50.5	41.2	29.5	15.2
10.....	48.8	51.3	51.8	50.2	46.4	40.4	32.5	22.6	10.8
11.....	43.2	44.4	44.0	42.2	38.7	33.6	26.9	18.5	8.7
12.....	38.7	39.2	38.6	36.8	33.8	29.5	23.8	16.7	8.5
Graduated Monthly Rate of Termination by Death (Multiplied by 1,000)									
7.....	1.9†	3.6	5.3	6.8	8.3	9.7	11.3	12.5	13.3
8.....	2.2†	4.4	6.6	8.7	10.5	12.1	13.3	14.2	14.5
9.....	2.4†	4.7	7.0	9.3	11.5	13.3	14.5	15.1	15.1
10.....	2.6†	4.4	6.5	8.8	11.2	13.4	14.8	15.4	15.1
11.....	2.5†	3.9	5.7	7.8	10.2	12.4	14.2	15.1	14.7
12.....	2.2†	3.2	4.8	6.7	8.8	10.9	12.8	14.0	14.1

* The method of graduation used is described in Appendix II.

† The crude rate for this and all subsequent months is equal to a constant percentage of the corresponding 1930-50 graduated rates for Benefit 5.

TABLE 19D
 1959-74 GRADUATED* MONTHLY TERMINATION RATES
 ELECTIVE BENEFIT
 SECOND YEAR OF DISABILITY
 BASED ON AMOUNTS OF ANNUAL PREMIUMS WAIVED
 CERTAIN CONTRIBUTORS ONLY

DIS- ABILITY MONTH	ATTAINED AGE ON POLICY ANNIVERSARY PRECEDING DISABLEMENT								
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59
Graduated Monthly Rate of Termination (Multiplied by 1,000)									
13.....	37.0	38.2	39.0	39.1	38.4	36.5	33.4	28.6	22.0
14.....	34.1	35.4	36.1	36.2	35.6	33.9	31.1	26.8	21.0
15.....	32.0	33.4	34.2	34.4	33.9	32.3	29.5	25.2	19.5
16.....	30.6	32.0	32.9	33.0	32.6	31.2	28.6	24.1	18.1
17.....	29.9	31.1	31.7	31.9	31.5	30.1	27.5	23.0	16.6
18.....	29.7	30.5	30.9	30.8	30.1	28.6	25.8	21.5	15.3
19.....	30.1	30.3	30.1	29.6	28.5	26.7	23.7	19.5	14.1
20.....	31.1	30.6	29.7	28.6	26.8	24.5	21.5	17.9	13.9
21.....	32.7	31.5	29.8	27.8	25.4	22.5	19.4	16.7	14.5
22.....	34.7	32.6	30.2	27.5	24.5	21.2	18.1	15.8	14.9
23.....	37.2	34.2	31.1	27.8	24.3	20.8	17.5	14.9	13.5
24.....	40.2	36.1	32.2	28.5	25.0	21.3	17.5	13.7	10.3
Graduated Monthly Rate of Termination by Recovery (Multiplied by 1,000)									
13.....	35.2	35.5	34.9	33.4	30.9	27.2	22.4	16.3	9.0
14.....	32.7	33.0	32.5	31.2	29.1	25.9	21.7	16.1	9.1
15.....	30.9†	31.3	31.0	29.9	28.0	25.1	21.1	15.6	8.5
16.....	29.8†	30.2	29.9	28.8	27.0	24.3	20.4	14.8	7.6
17.....	29.3†	29.4	28.9	27.8	26.0	23.3	19.4	13.8	6.6
18.....	29.2†	28.9	28.1	26.7	24.6	21.7	17.8	12.6	6.0
19.....	29.6†	28.7	27.3	25.5	23.0	19.9	16.0	11.3	5.7
20.....	30.3†	28.8	26.8	24.4	21.4	18.0	14.3	10.3	6.0
21.....	31.4†	29.3	26.7	23.6	20.2	16.5	12.9	9.6	6.6
22.....	32.7†	30.0	26.9	23.4	19.6	15.7	12.1	9.1	6.9
23.....	34.3†	31.1	27.6	23.8	19.8	15.7	11.9	8.6	5.9
24.....	36.1†	32.5	28.7	24.8	20.8	16.5	12.1	7.8	3.7
Graduated Monthly Rate of Termination by Death (Multiplied by 1,000)									
13.....	1.8†	2.7	4.1	5.7	7.5	9.3	11.0	12.3	13.0
14.....	1.4†	2.4†	3.6	5.0	6.5	8.0	9.4	10.7	11.9
15.....	1.1†	2.1†	3.2	4.5	5.9	7.2	8.4	9.6	11.0
16.....	0.8†	1.8†	3.0†	4.2†	5.6	6.9	8.2	9.3	10.5
17.....	0.6†	1.7†	2.8†	4.1†	5.5	6.8	8.1	9.2	10.0
18.....	0.5†	1.6†	2.8†	4.1†	5.5	6.9	8.0	8.9	9.3
19.....	0.5†	1.6†	2.8†	4.1†	5.5	6.8	7.7	8.2	8.4
20.....	0.8†	1.8†	2.9†	4.2†	5.4†	6.5	7.2	7.6	7.9
21.....	1.3†	2.2†	3.1†	4.2†	5.2†	6.0	6.5	7.1	7.9
22.....	2.0†	2.6†	3.3†	4.1†	4.9†	5.5	6.0	6.7	8.0
23.....	2.9†	3.1†	3.5†	4.0†	4.5†	5.1	5.6	6.3	7.6
24.....	4.1†	3.6†	3.5†	3.7†	4.2†	4.8	5.4	5.9	6.6

* The method of graduation used is described in Appendix II.

† The crude rate for this and all subsequent months is equal to a constant percentage of the corresponding 1930-50 Graduated Rates for Benefit 5.

TABLE 19E
 1959-74 GRADUATED* MONTHLY TERMINATION RATES
 AUTOMATIC AND ELECTIVE BENEFITS COMBINED
 FIRST YEAR OF DISABILITY
 BASED ON AMOUNTS OF ANNUAL PREMIUMS WAIVED
 CERTAIN CONTRIBUTORS ONLY

DIS- ABILITY MONTH	ATTAINED AGE ON POLICY ANNIVERSARY PRECEDING DISABLEMENT								
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59
	Graduated Monthly Rate of Termination (Multiplied by 1,000)								
7	89.9	96.1	99.4	99.4	95.3	87.1	75.2	59.6	41.6
8	87.6	91.9	93.5	92.5	88.6	81.3	70.9	57.5	41.0
9	83.6	86.0	86.0	84.1	80.0	73.4	64.1	52.1	37.3
10	78.3	79.0	77.9	75.1	70.6	64.6	56.5	46.1	32.8
11	72.2	71.7	69.9	66.8	62.1	56.4	49.6	41.0	29.7
12	66.4	64.8	62.5	59.5	55.4	50.0	44.0	37.0	28.1
	Graduated Monthly Rate of Termination by Recovery (Multiplied by 1,000)								
7	88.5	94.3	96.8	95.7	90.3	80.5	66.9	50.4	32.0
8	85.1	88.9	89.5	87.1	81.5	72.4	60.3	45.9	29.3
9	80.4	82.3	81.4	77.9	71.7	62.9	52.0	39.3	24.3
10	74.8	75.1	73.1	68.8	62.1	53.5	43.5	32.4	19.3
11	68.8	67.9	65.2	60.6	53.9	45.7	36.6	26.8	16.0
12	63.3	61.3	58.1	53.6	47.6	40.1	31.9	23.3	14.3
	Graduated Monthly Rate of Termination by Death (Multiplied by 1,000)								
7	1.4	1.8	2.6	3.7	5.0	6.6	8.3	9.2	9.6
8	2.5	3.0	4.0	5.4	7.1	8.9	10.6	11.6	11.7
9	3.2	3.7	4.6	6.2	8.3	10.5	12.1	12.8	13.0
10	3.5	3.9	4.8	6.3	8.5	11.1	13.0	13.7	13.5
11	3.4	3.8	4.7	6.2	8.2	10.7	13.0	14.2	13.7
12	3.1	3.5	4.4	5.9	7.8	9.9	12.1	13.7	13.8

* The method of graduation used is described in Appendix II.

TABLE 19F
 1959-74 GRADUATED* MONTHLY TERMINATION RATES
 AUTOMATIC AND ELECTIVE BENEFITS COMBINED
 SECOND YEAR OF DISABILITY
 BASED ON AMOUNTS OF ANNUAL PREMIUMS WAIVED
 CERTAIN CONTRIBUTORS ONLY

DIS- ABILITY MONTH	ATTAINED AGE ON POLICY ANNIVERSARY PRECEDING DISABLEMENT								
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59
Graduated Monthly Rate of Termination (Multiplied by 1,000)									
13.....	61.0	58.9	56.5	53.7	50.0	45.2	39.7	33.6	26.2
14.....	56.6	54.3	51.7	48.8	45.5	41.1	36.1	30.5	23.5
15.....	53.2	50.8	48.0	45.0	41.6	37.7	33.0	27.4	20.8
16.....	50.4	48.0	45.2	42.0	38.7	35.0	30.7	25.2	18.8
17.....	48.1	45.7	42.8	39.7	36.4	32.8	28.8	23.6	16.8
18.....	45.9	43.5	40.8	37.6	34.4	30.8	26.8	21.7	14.9
19.....	43.7	41.4	38.7	35.6	32.3	28.6	24.4	19.5	13.5
20.....	41.8	39.5	36.7	33.4	30.0	26.3	22.1	17.6	13.0
21.....	40.0	37.7	34.9	31.5	27.8	24.0	20.0	16.5	13.9
22.....	38.8	36.4	33.5	30.0	26.1	22.2	18.5	15.7	14.7
23.....	38.0	35.6	32.6	29.2	25.4	21.5	17.6	14.8	14.0
24.....	37.8	35.2	32.5	29.3	25.8	21.7	17.4	13.8	11.5
Graduated Monthly Rate of Termination by Recovery (Multiplied by 1,000)									
13.....	58.3	55.8	52.4	48.1	42.7	36.2	29.0	21.4	13.2
14.....	54.1	51.4	47.9	43.7	38.9	33.1	26.9	20.0	11.7
15.....	50.7	47.9	44.4	40.4	35.8	30.7	24.8	17.9	9.6
16.....	47.8	45.1	41.8	37.8	33.5	28.6	22.9	15.9	7.5
17.....	45.4	42.8	39.5	35.7	31.5	26.7	21.1	14.2	6.0
18.....	43.2	40.6	37.5	33.7	29.5	24.7	19.2	12.7	5.4
19.....	41.2	38.7	35.5	31.7	27.4	22.5	17.2	11.6	5.6
20.....	39.6	37.0	33.7	29.7	25.2	20.4	15.4	10.7	6.0
21.....	38.2	35.6	32.2	28.0	23.3	18.5	13.9	9.9	6.4
22.....	37.3	34.6	31.1	26.8	22.0	17.2	12.8	9.1	6.2
23.....	36.9	34.0	30.3	26.1	21.4	16.7	12.1	8.2	5.2
24.....	37.0	33.6	30.0	26.0	21.6	16.8	11.8	7.1	3.1
Graduated Monthly Rate of Termination by Death (Multiplied by 1,000)									
13.....	2.7	3.1	4.1	5.6	7.3	9.0	10.7	12.2	13.0
14.....	2.5	2.9	3.8	5.1	6.6	8.0	9.2	10.5	11.8
15.....	2.5	2.9	3.6	4.6	5.8	7.0	8.2	9.5	11.2
16.....	2.6	2.9	3.4	4.2	5.2	6.4	7.8	9.3	11.3
17.....	2.7	2.9	3.3	4.0	4.9	6.1	7.7	9.4	10.8
18.....	2.7	2.9	3.3	3.9	4.9	6.1	7.6	9.0	9.5
19.....	2.5	2.7	3.2	3.9	4.9	6.1	7.2	7.9	7.9
20.....	2.2	2.5	3.0	3.7	4.8	5.9	6.7	6.9	7.0
21.....	1.8†	2.1	2.7	3.5	4.5	5.5	6.1	6.6	7.5
22.....	1.5†	1.8	2.4	3.2	4.1	5.0	5.7	6.6	8.5
23.....	1.1†	1.6	2.3	3.1	4.0	4.8	5.5	6.6	8.8
24.....	0.8†	1.6	2.5	3.3	4.2	4.9	5.6	6.7	8.4

* The method graduation used is described in Appendix II.

† The crude rate for this and all subsequent months is equal to a constant percentage of the corresponding 1930-50 graduated rates for Benefit 5.

TABLE 20A
 1959-74 GRADUATED MONTHLY TERMINATION RATES
 EXPRESSED AS A PERCENTAGE OF CORRESPONDING 1930-50
 GRADUATED MONTHLY TERMINATION RATES FOR BENEFIT 5
 AUTOMATIC BENEFIT
 FIRST YEAR OF DISABILITY
 BASED ON AMOUNTS OF ANNUAL PREMIUMS WAIVED
 CERTAIN CONTRIBUTORS ONLY

Dis- ABILITY MONTH	ATTAINED AGE ON POLICY ANNIVERSARY PRECEDING DISABLEMENT								
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59
	Ratio of Graduated Monthly Rates of Termination								
7	251%	266%	248%	217%	186%	159%	139%	126%	125%
8	274	260	232	203	179	160	145	136	134
9	291	248	213	186	167	153	143	137	135
10	299	231	193	168	151	141	135	132	134
11	293	210	172	149	136	127	124	125	131
12	272	189	153	133	121	115	113	117	129
	Ratio of Graduated Monthly Rates of Termination by Recovery								
7	255%	296%	295%	269%	234%	203%	184%	184%	270%
8	295	288	264	236	212	193	181	184	251
9	328	273	235	207	188	175	168	175	226
10	345	252	207	180	163	153	150	158	201
11	339	227	181	157	142	133	131	140	180
12	307	201	159	137	124	116	114	123	164
	Ratio of Graduated Monthly Rates of Termination by Death								
7	131%	33%	26%	29%	35%	40%	40%	38%	34%
8	78	56	47	48	54	59	61	58	50
9	71	69	67	67	72	77	78	74	65
10	71	80	82	85	89	93	93	87	78
11	73	85	94	98	100	104	104	98	89
12	79	89	97	103	107	109	108	105	99

TABLE 20B

1959-74 GRADUATED MONTHLY TERMINATION RATES
EXPRESSED AS A PERCENTAGE OF CORRESPONDING 1930-50
GRADUATED MONTHLY TERMINATION RATES FOR BENEFIT 5
AUTOMATIC BENEFIT
SECOND YEAR OF DISABILITY
BASED ON AMOUNTS OF ANNUAL PREMIUMS WAIVED
CERTAIN CONTRIBUTORS ONLY

DIS- ABILITY MONTH	ATTAINED AGE ON POLICY ANNIVERSARY PRECEDING DISABLEMENT								
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59
Ratio of Graduated Monthly Rates of Termination									
13.....	229%	160%	129%	114%	107%	106%	109%	118%	134%
14.....	198	143	116	104	98	97	100	109	128
15.....	169	129	107	96	90	89	92	101	120
16.....	147	119	101	91	86	84	86	94	113
17.....	130	111	97	88	83	81	83	89	106
18.....	119	106	94	87	82	80	81	86	98
19.....	112	103	93	86	82	80	81	85	93
20.....	110	102	92	85	81	80	81	84	90
21.....	110	102	91	84	81	80	81	84	91
22.....	113	102	90	83	80	79	81	85	94
23.....	116	104	89	82	78	78	80	86	99
24.....	120	105	88	80	77	77	79	87	104
Ratio of Graduated Monthly Rates of Termination by Recovery									
13.....	248%	167%	134%	117%	109%	106%	108%	120%	162%
14.....	205	147	120	106	99	96	98	108	142
15.....	170	130	110	98	92	89	90	97	120
16.....	143	118	102	93	87	85	84	87	100
17.....	125	109	98	90	85	82	80	80	84
18.....	113	103	95	88	84	81	78	76	77
19.....	107	100	93	87	83	80	78	76	79
20.....	106	99	92	87	82	79	77	77	81
21.....	108	99	92	86	82	79	77	77	81
22.....	113	101	92	86	81	78	76	76	76
23.....	119	104	92	85	80	77	75	71	65
24.....	125	105	91	83	78	75	70	64	47
Ratio of Graduated Monthly Rates of Termination by Death									
13.....	89%	93%	86%	90%	97%	105%	110%	113%	110%
14.....	115	99	84	86	91	100	106	113	115
15.....	168	114	83	79	82	91	99	110	121
16.....	241	132	85	75	76	83	93	108	126
17.....	323*	152	89	73	72	78	91	108	125
18.....	333*	169	93	74	72	79	92	108	117
19.....	282*	168	95	76	74	82	93	104	105
20.....	209*	161	89	75	77	85	95	100	97
21.....	155*	139	79	70	76	86	95	98	99
22.....	113*	116	72	66	74	85	95	102	109
23.....	88*	106	68	64	71	84	96	111	128
24.....	76*	104	68	64	70	84	103	126	150

* The crude 1959-74 rate for this and all subsequent months is equal to a constant percentage of the corresponding 1930-50 graduated rates for Benefit 5.

TABLE 20C
 1959-74 GRADUATED MONTHLY TERMINATION RATES
 EXPRESSED AS A PERCENTAGE OF CORRESPONDING 1930-50
 GRADUATED MONTHLY TERMINATION RATES FOR BENEFIT 5
 ELECTIVE BENEFIT
 FIRST YEAR OF DISABILITY
 BASED ON AMOUNTS OF ANNUAL PREMIUMS WAIVED
 CERTAIN CONTRIBUTORS ONLY

DIS- ABILITY MONTH	ATTAINED AGE ON POLICY ANNIVERSARY PRECEDING DISABLEMENT								
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59
	Ratio of Graduated Monthly Rates of Termination								
7.....	195%	238%	242%	223%	197%	172%	151%	135%	126%
8.....	189	202	196	181	164	147	132	120	112
9.....	182	172	159	147	136	125	116	107	98
10.....	174	146	130	120	113	107	102	97	89
11.....	161	124	108	100	95	93	92	90	85
12.....	145	107	92	85	83	83	84	87	88
	Ratio of Graduated Monthly Rates of Termination by Recovery								
7.....	197%	258%	278%	265%	238%	211%	189%	179%	222%
8.....	202	216	212	197	180	164	150	143	160
9.....	203	182	164	150	138	128	119	113	113
10.....	198	153	131	117	108	101	96	90	81
11.....	184	129	107	96	89	84	80	77	68
12.....	162	111	91	82	77	74	72	71	70
	Ratio of Graduated Monthly Rates of Termination by Death								
7.....	146*	84%	75%	70%	68%	68%	68%	67%	65%
8.....	67*	99	107	106	101	95	90	83	77
9.....	53*	100	124	129	125	118	107	96	87
10.....	52*	94	123	136	137	131	121	108	94
11.....	51*	84	113	128	132	132	126	115	100
12.....	51*	75	97	113	120	124	122	117	104

* The crude 1959-74 rate for this and all subsequent months is equal to a constant percentage of the corresponding 1930-50 graduated rates for Benefit 5.

TABLE 20D
 1959-74 GRADUATED MONTHLY TERMINATION RATES
 EXPRESSED AS A PERCENTAGE OF CORRESPONDING 1930-50
 GRADUATED MONTHLY TERMINATION RATES FOR BENEFIT 5
 ELECTIVE BENEFIT
 SECOND YEAR OF DISABILITY
 BASED ON AMOUNTS OF ANNUAL PREMIUMS WAIVED
 CERTAIN CONTRIBUTORS ONLY

Dis- ABILITY MONTH	ATTAINED AGE ON POLICY ANNIVERSARY PRECEDING DISABLEMENT								
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59
Ratio of Graduated Monthly Rates of Termination									
13.....	119 ^c _c	90 ^c _c	77 ^c _c	73 ^c _c	74 ^c _c	77 ^c _c	83 ^c _c	91 ^c _c	99 ^c _c
14.....	102	81	71	68	69	73	80	89	102
15.....	88	74	68	66	67	72	79	88	103
16.....	77	70	66	65	67	72	79	89	103
17.....	70	67	65	65	68	73	80	89	102
18.....	67	66	64	65	68	73	80	89	99
19.....	67	66	65	65	68	73	79	86	96
20.....	71	69	67	66	68	71	76	84	97
21.....	78	75	70	68	68	70	74	83	104
22.....	87	82	74	71	69	70	74	84	109
23.....	98	91	80	75	73	73	77	84	103
24.....	110	99	86	80	78	79	80	81	80
Ratio of Graduated Monthly Rates of Termination by Recovery									
13.....	128 ^c _c	92 ^c _c	77 ^c _c	71 ^c _c	69 ^c _c	70 ^c _c	73 ^c _c	78 ^c _c	86 ^c _c
14.....	107	82	71	67	66	68	73	80	94
15.....	90*	75	68	65	65	68	73	81	94
16.....	78*	70	65	64	65	68	73	80	91
17.....	71*	67	64	64	65	69	73	78	85
18.....	68*	65	64	63	65	68	72	75	79
19.....	68*	66	64	64	64	66	69	73	81
20.....	72*	69	66	64	64	64	66	71	87
21.....	79*	73	69	67	65	64	65	72	100
22.....	88*	81	74	70	67	65	66	74	109
23.....	100*	89	81	75	72	70	70	75	98
24.....	111*	97	88	82	80	78	76	74	65
Ratio of Graduated Monthly Rates of Termination by Death									
13.....	50 ^c _c *	69 ^c _c	76 ^c _c	88 ^c _c	97 ^c _c	108 ^c _c	114 ^c _c	116 ^c _c	110%
14.....	52*	67*	70	79	88	98	104	109	110
15.....	57*	69*	67	74	82	91	98	105	112
16.....	57*	70*	68*	73*	80	91	100	108	114
17.....	53*	72*	69*	75*	83	94	104	114	117
18.....	44*	74*	71*	77*	87	99	109	117	117
19.....	42*	76*	74*	79*	90	103	110	114	111
20.....	47*	86*	75*	80*	92*	103	108	110	107
21.....	60*	93*	74*	77*	88*	98	104	106	108
22.....	69*	100*	75*	75*	82*	91	98	104	110
23.....	80*	110*	75*	71*	77*	86	94	99	106
24.....	99*	124*	74*	67*	71*	83	91	94	91

* The crude 1959-74 rate for this and all subsequent months is equal to a constant percentage of the corresponding 1930-50 graduated rates for Benefit 5.

TABLE 20E
 1959-74 GRADUATED MONTHLY TERMINATION RATES
 EXPRESSED AS A PERCENTAGE OF CORRESPONDING 1930-50
 GRADUATED MONTHLY TERMINATION RATES FOR BENEFIT 5
 AUTOMATIC AND ELECTIVE BENEFITS COMBINED
 FIRST YEAR OF DISABILITY
 BASED ON AMOUNTS OF ANNUAL PREMIUMS WAIVED
 CERTAIN CONTRIBUTORS ONLY

DIS- ABILITY MONTH	ATTAINED AGE ON POLICY ANNIVERSARY PRECEDING DISABLEMENT								
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59
Ratio of Graduated Monthly Rates of Termination									
7.....	234%	258%	248%	221%	191%	164%	143%	128%	125%
8.....	251	245	223	198	176	157	141	130	127
9.....	262	227	198	175	158	144	133	125	121
10.....	264	206	174	153	139	129	122	117	112
11.....	255	184	152	133	121	114	111	110	108
12.....	235	163	133	117	108	103	101	104	110
Ratio of Graduated Monthly Rates of Termination by Recovery									
7.....	238%	286%	293%	271%	238%	207%	185%	179%	248%
8.....	269	269	251	227	204	185	170	169	219
9.....	293	248	215	191	173	159	150	151	180
10.....	304	223	185	161	145	134	128	129	145
11.....	294	198	159	137	124	114	110	111	125
12.....	265	174	138	119	108	101	97	99	118
Ratio of Graduated Monthly Rates of Termination by Death									
7.....	109%	43%	38%	38%	41%	46%	50%	50%	47%
8.....	75	67	64	66	68	70	71	68	62
9.....	70	78	83	86	90	93	89	82	75
10.....	70	83	91	97	104	108	105	95	84
11.....	70	83	95	101	107	114	115	108	93
12.....	71	80	90	100	107	113	116	114	102

TABLE 20F

1959-74 GRADUATED MONTHLY TERMINATION RATES
 EXPRESSED AS A PERCENTAGE OF CORRESPONDING 1930-50
 GRADUATED MONTHLY TERMINATION RATES FOR BENEFIT 5
 AUTOMATIC AND ELECTIVE BENEFITS COMBINED
 SECOND YEAR OF DISABILITY
 BASED ON AMOUNTS OF ANNUAL PREMIUMS WAIVED
 CERTAIN CONTRIBUTORS ONLY

Dis- ABILITY MONTH	ATTAINED AGE ON POLICY ANNIVERSARY PRECEDING DISABLEMENT								
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59
Ratio of Graduated Monthly Rates of Termination									
13.....	197%	138%	112%	100%	96%	96%	99%	107%	117%
14.....	170	124	102	92	88	89	93	102	114
15.....	146	113	95	86	83	84	88	96	110
16.....	127	104	90	83	80	81	85	93	107
17.....	113	98	87	81	78	80	84	91	103
18.....	104	94	85	80	78	79	83	89	96
19.....	98	91	83	79	77	78	81	85	92
20.....	95	89	82	78	76	77	79	82	91
21.....	95	90	82	77	75	75	76	82	100
22.....	97	91	82	77	74	74	76	84	108
23.....	100	94	84	79	76	76	77	83	106
24.....	103	97	86	82	81	80	80	82	89
Ratio of Graduated Monthly Rates of Termination by Recovery									
13.....	213%	144%	116%	103%	96%	94%	95%	103%	127%
14.....	177	127	105	93	88	87	90	99	121
15.....	147	114	97	88	83	83	85	92	106
16.....	125	104	91	84	80	80	82	86	90
17.....	110	97	88	82	79	79	80	80	77
18.....	100	92	85	80	78	77	77	76	72
19.....	95	89	83	79	77	75	74	74	79
20.....	94	88	83	79	75	73	72	74	88
21.....	96	90	84	79	74	71	70	74	96
22.....	101	93	86	80	75	71	70	74	98
23.....	107	97	88	83	78	74	72	72	86
24.....	114	101	91	86	83	79	74	67	54
Ratio of Graduated Monthly Rates of Termination by Death									
13.....	75%	80%	78%	86%	95%	105%	111%	115%	109%
14.....	92	84	75	81	89	97	102	107	109
15.....	131	96	75	75	81	89	95	103	113
16.....	186	111	78	72	76	84	95	108	123
17.....	246	127	81	72	75	84	98	116	127
18.....	242	138	84	74	77	88	102	118	120
19.....	190	130	84	75	80	92	103	109	103
20.....	128	117	76	72	81	94	101	101	94
21.....	83*	91	63	64	76	90	97	99	102
22.....	50*	70	55	58	70	84	93	102	116
23.....	31*	59	50	56	68	81	92	103	123
24.....	20*	55	52	60	71	84	96	106	116

* The crude 1959-74 rate for this and all subsequent months is equal to a constant percentage of the corresponding 1930-50 graduated rates for Benefit 5.

TABLE 21A
1959-74 GRADUATED* YEARLY TERMINATION RATES—AUTOMATIC BENEFIT
BASED ON AMOUNTS OF ANNUAL PREMIUMS WAIVED
YEARS OF DISABILITY 1-5 ONLY
ATTAINED AGE ON POLICY ANNIVERSARY PRECEDING DISABLEMENT

Dis- ability Year	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59
Graduated Yearly Rates of Termination (Multiplied by 1,000)									
1.....	427.6	428.3	422.2	409.2	389.6	362.0	324.0	272.9	208.7
2.....	483.0	456.9	428.3	396.7	362.1	323.7	280.8	234.6	187.8
3.....	286.7	274.8	259.4	240.5	218.0	191.7	162.0	129.4	94.6
4.....	154.8	159.4	156.3	146.8	132.3	113.9	93.6	72.9	53.2
5.....	76.5	96.5	103.6	100.5	90.6	77.0	63.1	52.0	47.0
Graduated Yearly Rate of Termination by Recovery (Multiplied by 1,000)									
1.....	413.6	414.6	405.5	386.7	358.5	320.9	273.8	216.7	149.8
2.....	453.3	427.5	394.9	356.1	311.9	262.2	206.6	145.7	80.7
3.....	270.6	257.7	238.3	213.3	183.5	149.5	112.1	71.9	29.8
4.....	144.7	147.8	141.1	126.5	106.1	81.7	55.7	29.9	6.5
5.....	67.3	85.6	89.5	82.1	67.0	47.8	28.1	11.4	1.6
Graduated Yearly Rate of Termination by Death (Multiplied by 1,000)									
1.....	14.0	13.7	16.7	22.5	31.1	41.1	50.2	56.2	58.9
2.....	29.7	29.4	33.4	40.6	50.2	61.5	74.2	88.9	107.1
3.....	16.1	17.1	21.1	27.2	34.5	42.2	49.9	57.5	64.8
4.....	10.1	11.6	15.2	20.3	26.2	32.2	37.9	43.0	46.7
5.....	9.2	10.9	14.1	18.4	23.6	29.2	35.0	40.6	45.4

* The method of graduation used is described in Appendix II.

TABLE 21B
1959-74 GRADUATED* YEARLY TERMINATION RATES—ELECTIVE BENEFIT
BASED ON AMOUNTS OF ANNUAL PREMIUMS WAIVED
YEARS OF DISABILITY 1-5 ONLY
ATTAINED AGE ON POLICY ANNIVERSARY PRECEDING DISABLEMENT

Dis-ability Year	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59
Graduated Yearly Rates of Termination (Multiplied by 1,000)									
1	291.4	325.1	345.8	352.5	344.9	322.2	286.3	235.1	166.8
2	331.3	333.8	331.3	323.0	308.3	286.5	257.8	221.6	177.0
3	205.5	245.1	261.8	254.7	231.3	199.0	165.5	139.0	127.8
4	117.7	170.7	194.9	190.6	168.0	137.0	107.9	91.4	98.5
5	61.7	111.1	134.4	133.8	118.2	96.2	76.8	69.5	83.9
Graduated Yearly Rates of Termination by Recovery (Multiplied by 1,000)									
1	280.8	306.3	317.7	314.6	296.5	263.2	217.0	158.5	87.4
2	318.4	313.1	300.5	280.6	253.1	218.2	176.9	129.3	74.4
3	196.5	230.4	236.8	221.8	191.3	151.3	108.1	68.0	37.4
4	110.7	159.1	174.4	164.4	137.3	100.9	63.3	32.7	17.5
5	55.5	100.7	117.2	112.0	92.2	64.8	36.9	15.9	8.9
Graduated Yearly Rates of Termination by Death (Multiplied by 1,000)									
1	10.6	18.8	28.1	37.9	48.4	59.0	69.3	76.6	79.4
2	12.9	20.7	30.8	42.4	55.2	68.3	80.9	92.3	102.6
3	9.0	14.7	25.0	32.9	40.0	47.7	57.4	71.0	90.4
4	7.0	11.6	20.5	26.2	30.7	36.1	44.6	58.7	81.0
5	6.2	10.4	17.2	21.8	26.0	31.4	39.9	53.6	75.0

* The method of graduation used is described in Appendix II.

TABLE 21C
 1959-74 GRADUATED* YEARLY TERMINATION RATES—
 AUTOMATIC AND ELECTIVE COMBINED
 BASED ON AMOUNTS OF ANNUAL PREMIUMS WAIVED
 YEARS OF DISABILITY 1-5 ONLY
 ATTAINED AGE ON POLICY ANNIVERSARY PRECEDING DISABLEMENT

Dis- ability Year	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59
Graduated Yearly Rates of Termination (Multiplied by 1,000)									
1.....	391.6	399.8	400.4	392.8	375.9	347.9	309.2	257.2	190.6
2.....	433.0	416.2	396.2	372.4	344.4	311.1	272.6	229.2	181.9
3.....	254.0	265.3	262.4	247.8	224.6	195.6	164.5	135.8	114.6
4.....	136.0	163.3	171.0	163.7	146.1	123.1	100.4	84.3	82.1
5.....	67.6	100.7	113.9	112.0	100.2	84.0	69.3	62.9	71.6
Graduated Yearly Rate of Termination by Recovery (Multiplied by 1,000)									
1.....	378.0	385.0	381.1	366.5	340.1	301.1	251.5	192.3	123.4
2.....	412.5	393.3	366.8	333.5	293.7	247.8	196.4	139.8	77.8
3.....	244.7	249.8	240.3	218.9	188.3	151.2	110.7	70.2	33.4
4.....	130.8	151.1	153.1	140.7	118.1	89.3	58.9	31.8	13.4
5.....	62.0	89.2	97.7	91.7	75.7	54.2	32.1	14.7	7.3
Graduated Yearly Rate of Termination by Death (Multiplied by 1,000)									
1.....	13.6	14.8	19.3	26.3	35.8	46.8	57.7	64.9	67.2
2.....	20.5	22.9	29.4	38.9	50.7	63.3	76.2	89.4	104.1
3.....	9.3	15.5	22.1	28.9	36.3	44.4	53.8	65.7	81.2
4.....	5.2	12.2	17.9	23.0	28.0	33.8	41.5	52.5	68.7
5.....	5.6	11.5	16.2	20.3	24.5	29.8	37.2	48.2	64.3

* The method of graduation used is described in Appendix II.

TABLE 22A
 1959-74 GRADUATED YEARLY TERMINATION RATES—AUTOMATIC BENEFIT
 EXPRESSED AS A PERCENTAGE OF CORRESPONDING 1930-50
 GRADUATED RATES FOR BENEFIT 5
 BASED ON AMOUNTS OF ANNUAL PREMIUMS WAIVED
 YEARS OF DISABILITY 1-5 ONLY
 ATTAINED AGE ON POLICY ANNIVERSARY PRECEDING DISABLEMENT

Dis- ability Year	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59
Ratio of Graduated Yearly Rates of Termination									
1.....	242%	205%	179%	159%	145%	135%	128%	123%	126%
2.....	126	111	99	92	89	88	89	94	106
3.....	85	80	76	74	74	74	74	72	66
4.....	54	56	58	60	61	61	60	54	43
5.....	33	43	49	54	56	56	53	48	44
Ratio of Graduated Yearly Rates of Termination by Recovery									
1.....	265%	225%	197%	178%	163%	154%	150%	156%	207%
2.....	126	111	101	95	90	87	86	87	96
3.....	88	82	79	76	75	73	71	66	50
4.....	57	59	61	61	61	59	54	43	15
5.....	34	44	51	54	54	50	41	24	5
Ratio of Graduated Yearly Rates of Termination by Death									
1.....	67%	56%	54%	57%	63%	69%	71%	68%	63%
2.....	135	114	81	77	82	91	99	108	115
3.....	58	54	53	60	69	76	80	80	76
4.....	33	34	41	51	62	69	70	66	59
5.....	29	33	42	53	64	69	70	66	60

TABLE 22B
 1959-74 GRADUATED YEARLY TERMINATION RATES—ELECTIVE BENEFIT
 EXPRESSED AS A PERCENTAGE OF CORRESPONDING 1930-50
 GRADUATED RATES FOR BENEFIT 5
 BASED ON AMOUNTS OF ANNUAL PREMIUMS WAIVED
 ATTAINED AGE ON POLICY ANNIVERSARY PRECEDING DISABLEMENT

Dis- ability Year	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59
Ratio of Graduated Yearly Rates of Termination									
1.....	168%	156%	146%	137%	129%	120%	113%	106%	100%
2.....	87	81	77	75	76	78	82	88	100
3.....	61	71	76	78	78	77	75	77	89
4.....	41	60	72	77	78	74	69	68	80
5.....	27	49	64	72	73	70	65	65	78
Ratio of Graduated Yearly Rate of Termination by Recovery									
1.....	180%	166%	155%	144%	135%	126%	119%	114%	121%
2.....	88	81	77	75	73	73	73	77	89
3.....	64	73	78	79	78	74	69	63	63
4.....	44	64	75	80	79	73	62	47	41
5.....	28	52	67	74	74	68	54	34	28
Ratio of Graduated Yearly Rate of Termination by Death									
1.....	51%	76%	91%	96%	99%	99%	98%	93%	85%
2.....	59	80	74	80	90	101	108	112	110
3.....	32	47	63	72	80	86	93	99	106
4.....	23	34	55	66	73	77	82	91	102
5.....	19	31	51	63	70	75	80	88	99

TABLE 22C
 1959-74 GRADUATED YEARLY TERMINATION RATES—
 AUTOMATIC AND ELECTIVE COMBINED
 EXPRESSED AS A PERCENTAGE OF CORRESPONDING 1930-50
 GRADUATED RATES FOR BENEFIT 5
 BASED ON AMOUNT OF ANNUAL PREMIUMS WAIVED
 YEARS OF DISABILITY 1-5 ONLY
 ATTAINED AGE ON POLICY ANNIVERSARY PRECEDING DISABLEMENT

Dis- ability Year	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59
Ratio of Graduated Yearly Rates of Termination									
1.....	222%	192%	169%	153%	140%	130%	122%	116%	115%
2.....	113	101	92	87	85	84	86	91	103
3.....	76	77	77	76	76	75	75	75	79
4.....	48	58	63	67	68	66	64	63	67
5.....	29	44	54	60	62	61	58	58	67
Ratio of Graduated Yearly Rate of Termination by Recovery									
1.....	243%	209%	186%	168%	155%	144%	137%	138%	171%
2.....	114	102	94	89	85	82	82	83	93
3.....	79	80	79	78	77	74	70	65	56
4.....	51	61	66	68	68	64	57	45	31
5.....	31	46	56	60	61	57	47	32	23
Ratio of Graduated Yearly Rate of Termination by Death									
1.....	65%	60%	62%	67%	73%	79%	82%	79%	72%
2.....	93	89	71	74	83	94	102	108	112
3.....	33	49	56	64	72	80	87	92	96
4.....	17	36	48	58	66	72	77	81	86
5.....	18	34	48	58	66	71	75	79	85

TABLE 23A

DISTRIBUTION OF CLAIMS CODED BY CAUSE OF DISABILITY
AUTOMATIC BENEFIT—OBSERVATION PERIOD 1

CAUSE	ATTAINED AGES AT POLICY ANNIVERSARY PRECEDING DISABILITY								
	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	15-59*
Number of Claims (Policies)									
01 Pulmonary tuberculosis	30	35	39	28	16	17	5	4	180
03 Malignant neoplasms	11	8	19	25	33	38	36	31	205
05 Diabetes	1			5	5	1	8	3	23
06 Mental disorders	44	31	39	41	29	25	17	7	258
07 Eyes, diseases of	20	22	16	18	30	22	27	22	186
08-10 Cardiovascular	13	20	32	74	120	104	109	87	563
11 Respiratory (excl. 01)	1			4	2	6	9	9	32
12 Digestive system	6	9	13	12	28	18	15	10	115
13 Nephritis	1	2	4			1			9
14 Bones, diseases of	68	77	93	100	90	60	39	20	558
15 External violence	28	43	24	56	42	29	18	16	264
16 Other	242	160	183	182	121	97	59	29	1,188
All causes combined	465	407	462	545	516	418	342	238	3,581
Percentage Distribution Based on Amount of Insurance									
01 Pulmonary tuberculosis	6.0%	8.9%	9.5%	5.3%	2.7%	4.1%	1.0%	1.6%	5.1%
03 Malignant neoplasms	2.6	1.7	4.2	5.2	6.9	12.7	9.7	19.5	6.7
05 Diabetes	0.1			0.6	0.6		0.6	0.9	0.3
06 Mental disorders	9.3	7.7	8.3	8.4	4.4	8.2	5.5	2.7	7.3
07 Eyes, diseases of	3.9	4.6	4.1	2.3	4.6	3.0	5.5	6.5	4.1
08-10 Cardiovascular	3.2	4.9	5.7	13.1	29.5	27.7	40.5	43.0	18.0
11 Respiratory (excl. 01)	0.2			0.4	0.2	1.0	1.1	1.6	0.4
12 Digestive system	1.4	2.6	3.1	2.6	5.5	5.8	5.0	4.7	3.7
13 Nephritis	0.2	0.8	1.0			0.7			0.4
14 Bones, diseases of	16.2	18.7	21.2	19.0	17.5	14.8	9.1	6.8	16.0
15 External violence	3.8	8.0	3.3	7.1	3.8	2.6	2.0	1.8	4.2
16 Other	53.3	42.0	39.7	36.1	24.4	19.6	20.0	10.9	33.8
All causes combined	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Estimated Crude Rate of Disablement per \$1,000 of Amount of Insurance									
01 Pulmonary tuberculosis	0.03	0.05	0.07	0.05	0.04	0.08	0.03	0.07	0.05
03 Malignant neoplasms	0.01	0.01	0.03	0.05	0.09	0.25	0.26	0.91	0.06
05 Diabetes				0.01	0.01		0.02	0.04	
06 Mental disorders	0.05	0.05	0.06	0.08	0.06	0.16	0.15	0.13	0.07
07 Eyes, diseases of	0.02	0.03	0.03	0.02	0.06	0.06	0.15	0.30	0.04
08-10 Cardiovascular	0.02	0.03	0.04	0.12	0.39	0.55	1.09	2.00	0.17
11 Respiratory (excl. 01)						0.02	0.03	0.07	
12 Digestive system	0.01	0.02	0.02	0.02	0.07	0.12	0.13	0.22	0.03
13 Nephritis			0.01			0.01			
14 Bones, diseases of	0.09	0.11	0.16	0.18	0.23	0.30	0.24	0.32	0.15
15 External violence	0.02	0.05	0.03	0.07	0.05	0.05	0.05	0.09	0.04
16 Other	0.31	0.25	0.31	0.34	0.32	0.39	0.54	0.51	0.32
All causes combined	0.58	0.59	0.77	0.94	1.33	2.00	2.68	4.66	0.95

NOTE.—Percentages and crude rates may not add up because of rounding.

* Including data for ages 15-19 not shown separately.

TABLE 23B

 DISTRIBUTION OF CLAIMS CODED BY CAUSE OF DISABILITY
 AUTOMATIC BENEFIT—OBSERVATION PERIOD 2

CAUSE	ATTAINED AGES AT POLICY ANNIVERSARY PRECEDING DISABILITY								
	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	15-59*
Number of Claims (Policies)									
01 Pulmonary tuberculosis	76	71	71	110	91	50	24	13	524
03 Malignant neoplasms	44	63	64	136	200	250	270	204	1,244
05 Diabetes	3	6	4	11	26	24	31	23	128
06 Mental disorders	203	154	178	181	203	157	101	68	1,289
07 Eyes, diseases of	75	52	55	87	107	114	97	88	699
08-10 Cardiovascular	97	111	197	339	675	720	751	540	3,449
11 Respiratory (excl. 01)	2	1	4	4	9	21	33	35	109
12 Digestive system	55	48	66	89	121	125	108	59	679
13 Nephritis	8	8	4	3	8	3	4	1	41
14 Bones, diseases of	300	448	581	651	633	495	314	191	3,660
15 External violence	126	150	171	242	226	185	139	74	1,351
16 Other	1,008	883	759	753	689	601	429	268	5,732
All causes combined	1,997	1,995	2,154	2,606	2,988	2,745	2,301	1,564	18,905
Percentage Distribution Based on Amount of Insurance									
01 Pulmonary tuberculosis	3.7%	3.6%	3.2%	3.6%	3.2%	1.5%	1.2%	0.5%	2.6%
03 Malignant neoplasms	2.2	2.9	3.3	5.2	7.2	9.0	10.6	15.7	6.8
05 Diabetes	0.1	0.3	0.1	0.8	0.8	0.6	1.2	0.8	0.6
06 Mental disorders	9.4	8.6	7.5	7.5	7.4	5.9	4.4	5.9	7.1
07 Eyes, diseases of	3.6	2.3	2.5	3.7	3.5	4.6	4.0	4.6	3.6
08-10 Cardiovascular	4.9	5.5	13.3	13.5	24.0	27.6	37.2	37.3	20.3
11 Respiratory (excl. 01)	0.1	2.7	0.1	0.1	0.2	0.3	0.7	0.7	0.3
12 Digestive system	2.8	2.7	4.2	3.7	4.4	4.8	6.1	4.6	4.2
13 Nephritis	0.3	0.3	0.1	0.1	0.2	0.5	0.1	0.1	0.2
14 Bones, diseases of	15.5	22.9	26.0	24.3	20.4	17.4	13.6	11.3	19.1
15 External violence	4.3	5.1	4.8	5.3	3.9	3.3	2.5	1.6	3.9
16 Other	52.9	45.8	34.9	32.4	24.8	24.5	18.4	16.7	31.3
All causes combined	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Estimated Crude Rate of Disablement per \$1,000 of Amount of Insurance									
01 Pulmonary tuberculosis	0.03	0.03	0.03	0.06	0.08	0.05	0.06	0.03	0.04
03 Malignant neoplasms	0.02	0.03	0.04	0.08	0.17	0.28	0.54	1.09	0.11
05 Diabetes	0.01	0.01	0.01	0.01	0.02	0.02	0.06	0.06	0.01
06 Mental disorders	0.08	0.07	0.08	0.11	0.17	0.19	0.23	0.41	0.12
07 Eyes, diseases of	0.03	0.02	0.03	0.06	0.08	0.14	0.20	0.32	0.06
08-10 Cardiovascular	0.04	0.05	0.14	0.21	0.56	0.88	1.89	2.59	0.34
11 Respiratory (excl. 01)	0.01	0.01	0.01	0.01	0.01	0.01	0.04	0.05	0.01
12 Digestive system	0.02	0.02	0.05	0.06	0.10	0.15	0.31	0.32	0.07
13 Nephritis	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01
14 Bones, diseases of	0.13	0.20	0.28	0.37	0.48	0.55	0.69	0.78	0.32
15 External violence	0.04	0.04	0.05	0.08	0.09	0.11	0.12	0.11	0.07
16 Other	0.44	0.39	0.37	0.50	0.58	0.78	0.93	1.16	0.52
All causes combined	0.84	0.86	1.07	1.54	2.35	3.17	5.08	6.94	1.67

NOTE.—Percentages and crude rates may not add up because of rounding.

* Including data for ages 15-19 not shown separately.

TABLE 23C
DISTRIBUTION OF CLAIMS CODED BY CAUSE OF DISABILITY
AUTOMATIC BENEFIT—OBSERVATION PERIOD 3

CAUSE	ATTAINED AGES AT POLICY ANNIVERSARY PRECEDING DISABILITY								
	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	15-59*
	Number of Claims (Policies)								
01 Pulmonary tuberculosis	21	19	31	33	43	48	20	18	233
03 Malignant neoplasms	57	80	100	152	276	412	476	401	1,964
05 Diabetes	3	6	7	31	50	56	0	91	325
06 Mental disorders	166	196	185	207	246	257	189	133	1,602
07 Eyes, diseases of	81	121	98	124	193	222	209	186	1,255
08-10 Cardiovascular	103	167	310	583	1,203	1,685	1,953	1,725	7,755
11 Respiratory (excl. 01)		1	6	15	18	50	72	98	260
12 Digestive system	41	85	102	150	178	214	181	146	1,101
13 Nephritis		2	9	3	6	7	6	2	37
14 Bones, diseases of	416	880	986	1,051	1,124	1,194	991	667	7,374
15 External violence	135	175	203	231	263	244	247	200	1,737
16 Other	1,052	1,157	944	908	948	859	737	516	7,397
All causes combined	2,075	2,889	2,981	3,488	4,548	5,248	5,161	4,183	31,040
	Percentage Distribution Based on Amount of Insurance								
01 Pulmonary tuberculosis	1.3%	0.6%	0.9%	1.1%	1.2%	0.7%	0.3%	0.4%	0.8%
03 Malignant neoplasms	2.9	2.8	3.2	4.5	5.9	8.4	9.6	9.4	6.5
05 Diabetes	0.1	0.2	0.3	1.0	1.0	0.8	1.3	2.2	1.0
06 Mental disorders	7.4	6.8	6.4	5.5	5.7	4.6	6.2	3.6	5.5
07 Eyes, diseases of	3.9	4.2	3.6	3.1	4.6	4.1	3.9	3.9	3.9
08-10 Cardiovascular	4.9	5.7	11.1	16.1	27.1	33.5	39.4	44.5	26.3
11 Respiratory (excl. 01)			0.2	0.3	0.2	0.4	0.7	1.0	0.4
12 Digestive system	1.9	2.9	3.7	4.1	3.6	4.6	3.7	3.1	3.6
13 Nephritis			0.2	0.1	0.2	0.1	0.1		0.1
14 Bones, diseases of	20.1	31.9	34.1	31.2	24.2	22.3	18.3	15.5	23.8
15 External violence	4.7	4.1	4.0	3.8	3.2	2.3	2.0	2.0	3.0
16 Other	52.9	41.3	32.3	29.2	23.3	18.2	14.5	14.3	25.2
All causes combined	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	Estimated Crude Rate of Disablement per \$1,000 of Amount of Insurance								
01 Pulmonary tuberculosis	0.01	0.01	0.01	0.02	0.03	0.03	0.02	0.04	0.02
03 Malignant neoplasms	0.03	0.03	0.04	0.08	0.15	0.34	0.65	0.79	0.15
05 Diabetes				0.02	0.03	0.03	0.09	0.19	0.02
06 Mental disorders	0.07	0.07	0.08	0.10	0.15	0.19	0.42	0.30	0.12
07 Eyes, diseases of	0.04	0.04	0.05	0.05	0.12	0.17	0.27	0.32	0.09
08-10 Cardiovascular	0.05	0.06	0.14	0.28	0.71	1.37	2.69	3.72	0.59
11 Respiratory (excl. 01)				0.01	0.01	0.02	0.05	0.09	0.01
12 Digestive system	0.02	0.03	0.05	0.07	0.09	0.19	0.25	0.26	0.08
13 Nephritis							0.01		
14 Bones, diseases of	0.18	0.34	0.44	0.54	0.64	0.91	1.25	1.30	0.54
15 External violence	0.04	0.04	0.05	0.07	0.08	0.09	0.14	0.16	0.07
16 Other	0.49	0.44	0.41	0.51	0.61	0.74	0.99	1.20	0.57
All causes combined	0.92	1.07	1.28	1.74	2.63	4.08	6.82	8.36	2.26

NOTE.—Percentages and crude rates may not add up because of rounding.

* Including data for ages 15-19 not shown separately.

TABLE 23D

DISTRIBUTION OF CLAIMS CODED BY CAUSE OF DISABILITY
AUTOMATIC BENEFIT—ALL OBSERVATION PERIODS COMBINED

CAUSE	ATTAINED AGES AT POLICY ANNIVERSARY PRECEDING DISABILITY								15-59*
	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	
Number of Claims (Policies)									
01 Pulmonary tuberculosis	127	125	141	171	150	115	49	35	937
03 Malignant neoplasms	112	151	183	313	509	700	782	636	3,413
05 Diabetes	7	12	11	47	81	81	119	117	476
06 Mental disorders	413	381	402	429	478	439	307	208	3,149
07 Eyes, diseases of	176	195	169	229	330	358	333	296	2,140
08-10 Cardiovascular	213	298	539	996	1,998	2,509	2,813	2,352	11,767
11 Respiratory (excl. 01)	3	2	10	23	29	77	114	142	401
12 Digestive system	102	142	181	251	327	357	304	215	1,895
13 Nephritis	9	12	17	6	14	11	10	3	87
14 Bones, diseases of	784	1,405	1,660	1,802	1,847	1,749	1,344	878	11,592
15 External violence	289	368	398	529	531	458	404	290	3,352
16 Other	2,302	2,200	1,886	1,843	1,758	1,557	1,225	813	14,317
All causes combined	4,537	5,291	5,597	6,639	8,052	8,411	7,804	5,985	53,526
Percentage Distribution Based on Amount of Insurance									
01 Pulmonary tuberculosis	2.8%	2.3%	2.5%	2.4%	2.1%	1.1%	0.6%	0.5%	1.7%
03 Malignant neoplasms	2.6	2.8	3.3	4.8	6.4	8.8	9.8	11.3	6.6
05 Diabetes	0.1	0.2	0.2	0.9	0.9	0.7	1.3	1.8	0.8
06 Mental disorders	8.4	7.2	7.0	6.5	6.3	5.2	5.7	4.1	6.2
07 Eyes, diseases of	3.8	3.5	3.2	3.2	4.2	4.2	4.0	4.2	3.8
08-10 Cardiovascular	4.7	5.6	11.5	14.9	26.1	31.4	38.8	42.7	23.8
11 Respiratory (excl. 01)	0.1	0.1	0.1	0.2	0.2	0.4	0.7	1.0	0.4
12 Digestive system	2.2	2.8	3.8	3.8	4.0	4.7	4.4	3.5	3.8
13 Nephritis	0.2	0.2	0.3	0.1	0.2	0.3	0.1	0.1	0.2
14 Bones, diseases of	17.8	27.7	30.0	27.6	22.4	20.4	16.7	14.1	21.7
15 External violence	4.4	4.8	4.2	4.6	3.5	2.7	2.1	1.9	3.4
16 Other	52.9	42.9	33.9	31.0	23.9	20.2	15.8	14.8	27.8
All causes combined	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Estimated Crude Rate of Disablement per \$1,000 of Amount of Insurance									
01 Pulmonary tuberculosis	0.02	0.02	0.03	0.04	0.05	0.04	0.04	0.04	0.03
03 Malignant neoplasms	0.02	0.03	0.04	0.08	0.16	0.32	0.60	0.89	0.13
05 Diabetes	0.01	0.02	0.01	0.01	0.02	0.02	0.08	0.15	0.02
06 Mental disorders	0.07	0.07	0.08	0.10	0.15	0.19	0.35	0.33	0.12
07 Eyes, diseases of	0.03	0.03	0.04	0.05	0.10	0.15	0.24	0.33	0.07
08-10 Cardiovascular	0.04	0.05	0.13	0.24	0.64	1.15	2.37	3.35	0.46
11 Respiratory (excl. 01)	0.01	0.01	0.01	0.01	0.02	0.02	0.05	0.08	0.01
12 Digestive system	0.02	0.03	0.04	0.06	0.10	0.17	0.27	0.28	0.07
13 Nephritis	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
14 Bones, diseases of	0.15	0.27	0.35	0.44	0.55	0.75	1.02	1.11	0.42
15 External violence	0.04	0.05	0.05	0.07	0.09	0.10	0.13	0.15	0.07
16 Other	0.45	0.41	0.40	0.50	0.58	0.74	0.96	1.16	0.54
All causes combined	0.85	0.96	1.17	1.60	2.44	3.66	6.10	7.85	1.94

NOTE.—Percentages and crude rates may not add up because of rounding.

* Including data for ages 15-19 not shown separately.

TABLE 24A
DISTRIBUTION OF CLAIMS CODED BY CAUSE OF DISABILITY
ELECTIVE BENEFIT—OBSERVATION PERIOD 1

CAUSE	ATTAINED AGES AT POLICY ANNIVERSARY PRECEDING DISABILITY								
	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	15-59*
	Number of Claims (Policies)								
01 Pulmonary tuberculosis	10	17	28	15	24	32	42	33	202
03 Malignant neoplasms	8	11	24	32	77	140	175	179	648
05 Diabetes				4	3	4	19	45	75
06 Mental disorders	47	71	74	99	132	173	196	171	985
07 Eyes, diseases of	3	14	22	43	66	104	202	296	752
08-10 Cardiovascular	5	9	16	61	140	409	783	1,148	2,571
11 Respiratory (excl. 01)	2		3	5	10	44	90	147	301
12 Digestive system	5	6	12	24	22	30	67	48	215
13 Nephritis			4	1	4	3	5	11	28
14 Bones, diseases of	12	22	34	59	76	97	193	217	710
15 External violence	76	85	89	115	127	127	114	110	869
16 Other	30	60	113	122	226	243	365	459	1,623
All causes combined	198	295	419	580	907	1,406	2,251	2,864	8,979
	Percentage Distribution Based on Amount of Insurance								
01 Pulmonary tuberculosis	6.5%	9.0%	5.6%	3.7%	2.7%	2.8%	1.3%	0.7%	2.4%
03 Malignant neoplasms	3.8	3.6	7.8	6.4	10.7	13.3	9.0	7.3	8.7
05 Diabetes				0.2	0.3	0.2	1.0	0.8	0.5
06 Mental disorders	26.6	24.2	16.1	14.4	11.9	10.6	8.2	6.0	10.7
07 Eyes, diseases of	1.3	3.6	5.8	5.6	6.0	5.6	9.4	9.8	7.5
08-10 Cardiovascular	1.9	3.7	4.4	11.0	13.9	31.7	35.9	40.8	28.0
11 Respiratory (excl. 01)	0.7		0.6	0.5	1.1	2.7	2.4	4.5	2.5
12 Digestive system	1.7	1.7	2.4	3.2	4.7	1.7	3.0	1.7	2.5
13 Nephritis			2.6	0.1	0.6	0.1	0.3	0.4	0.4
14 Bones, diseases of	5.0	7.9	5.3	6.7	6.7	8.5	6.9	6.4	6.8
15 External violence	39.0	28.5	23.7	20.7	16.2	8.2	6.1	3.4	11.0
16 Other	13.5	17.8	25.6	27.6	25.2	14.6	16.6	18.2	19.0
All causes combined	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	Estimated Crude Rate of Disablement per \$1,000 of Amount of Insurance								
01 Pulmonary tuberculosis	0.04	0.05	0.02	0.02	0.02	0.04	0.03	0.03	0.02
03 Malignant neoplasms	0.02	0.02	0.03	0.04	0.07	0.19	0.19	0.29	0.08
05 Diabetes							0.02	0.03	
06 Mental disorders	0.16	0.14	0.06	0.09	0.08	0.15	0.18	0.24	0.09
07 Eyes, diseases of	0.01	0.02	0.02	0.04	0.04	0.08	0.20	0.39	0.07
08-10 Cardiovascular	0.01	0.02	0.02	0.07	0.10	0.44	0.78	1.61	0.25
11 Respiratory (excl. 01)					0.01	0.04	0.05	0.18	0.02
12 Digestive system	0.01	0.01	0.01	0.02	0.03	0.02	0.07	0.07	0.02
13 Nephritis			0.01				0.01	0.02	
14 Bones, diseases of	0.03	0.04	0.02	0.04	0.05	0.12	0.15	0.25	0.06
15 External violence	0.24	0.16	0.09	0.13	0.11	0.11	0.13	0.14	0.10
16 Other	0.08	0.10	0.10	0.18	0.17	0.20	0.36	0.72	0.17
All causes combined	0.61	0.56	0.38	0.64	0.69	1.40	2.16	3.95	0.89

NOTE.—Percentages and crude rates may not add up because of rounding.

* Including data for ages 15-19 not shown separately.

TABLE 24B
DISTRIBUTION OF CLAIMS CODED BY CAUSE OF DISABILITY
ELECTIVE BENEFIT—OBSERVATION PERIOD 2

CAUSE	ATTAINED AGES AT POLICY ANNIVERSARY PRECEDING DISABILITY								
	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	15-59*
Number of Claims (Policies)									
01 Pulmonary tuberculosis	13	32	23	19	29	26	26	23	191
03 Malignant neoplasms	30	45	76	77	190	304	396	504	1,630
05 Diabetes		1	2		8	15	31	62	119
06 Mental disorders	51	84	111	149	176	177	198	182	1,148
07 Eyes, diseases of	12	16	20	48	87	118	212	330	845
08-10 Cardiovascular	6	19	44	127	341	633	972	1,436	3,578
11 Respiratory (excl. 01)	6	8	2	17	23	39	83	181	360
12 Digestive system	13	18	32	45	77	86	102	110	483
13 Nephritis	6	7	4	5	12	14	15	6	69
14 Bones, diseases of	35	68	84	131	172	215	239	244	1,189
15 External violence	359	318	311	353	369	408	302	206	2,738
16 Other	43	63	93	123	228	258	344	527	1,685
All causes combined	574	679	802	1,094	1,712	2,293	2,920	3,811	14,035
Percentage Distribution Based on Amount of Insurance									
01 Pulmonary tuberculosis	2.6%	5.3%	3.3%	2.2%	1.7%	0.8%	0.9%	0.6%	1.5%
03 Malignant neoplasms	5.0	7.2	11.8	6.1	13.2	14.2	14.0	11.9	11.8
05 Diabetes		0.1	0.2		0.3	0.3	0.7	1.3	0.5
06 Mental disorders	8.0	11.6	12.8	15.2	10.7	9.1	7.4	4.7	9.0
07 Eyes, diseases of	1.7	2.3	2.4	3.9	5.1	3.4	7.5	8.2	5.4
08-10 Cardiovascular	0.9	3.9	8.0	11.2	20.1	31.0	35.6	40.4	26.2
11 Respiratory (excl. 01)	0.9	1.3	0.2	1.6	0.8	1.3	2.0	3.9	1.9
12 Digestive system	2.1	2.9	5.6	5.1	4.5	4.0	2.5	2.8	3.5
13 Nephritis	0.8	1.1	0.3	0.3	0.5	0.5	0.6	0.1	0.4
14 Bones, diseases of	5.1	10.0	10.2	11.6	8.5	8.4	6.8	5.5	7.7
15 External violence	65.6	45.2	35.8	31.0	21.7	16.6	9.9	7.2	20.5
16 Other	7.3	9.1	9.4	11.8	13.1	10.4	12.1	13.4	11.6
All causes combined	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Estimated Crude Rate of Disablement per \$1,000 of Amount of Insurance									
01 Pulmonary tuberculosis	0.02	0.03	0.02	0.02	0.02	0.01	0.02	0.03	0.02
03 Malignant neoplasms	0.03	0.03	0.07	0.05	0.15	0.25	0.38	0.55	0.15
05 Diabetes							0.02	0.06	0.01
06 Mental disorders	0.05	0.06	0.07	0.12	0.12	0.16	0.20	0.22	0.11
07 Eyes, diseases of	0.01	0.01	0.01	0.03	0.06	0.06	0.21	0.38	0.07
08-10 Cardiovascular	0.01	0.02	0.04	0.09	0.23	0.54	0.97	1.88	0.33
11 Respiratory (excl. 01)	0.01	0.01		0.01	0.01	0.02	0.05	0.18	0.02
12 Digestive system	0.01	0.01	0.03	0.04	0.05	0.07	0.07	0.13	0.04
13 Nephritis		0.01			0.01	0.01	0.02		0.01
14 Bones, diseases of	0.03	0.05	0.06	0.09	0.10	0.15	0.19	0.26	0.10
15 External violence	0.39	0.22	0.20	0.24	0.24	0.29	0.27	0.33	0.26
16 Other	0.04	0.04	0.05	0.09	0.15	0.18	0.33	0.62	0.15
All causes combined	0.60	0.48	0.55	0.76	1.13	1.75	2.73	4.65	1.25

NOTE.—Percentages and crude rates may not add up because of rounding.

* Including data for ages 15-19 not shown separately.

TABLE 24C
DISTRIBUTION OF CLAIMS CODED BY CAUSE OF DISABILITY
ELECTIVE BENEFIT—OBSERVATION PERIOD 3

CAUSE	ATTAINED AGES AT POLICY ANNIVERSARY PRECEDING DISABILITY								
	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	15-59*
	Number of Claims (Policies)								
01 Pulmonary tuberculosis	5	10	9	12	14	14	14	8	86
03 Malignant neoplasms	55	84	106	130	257	376	506	560	2,082
05 Diabetes	3	2	9	4	13	30	48	83	192
06 Mental disorders	79	111	113	139	150	201	203	204	1,223
07 Eyes, diseases of	19	25	45	60	115	118	184	278	848
08-10 Cardiovascular	17	28	90	251	536	954	1,370	2,035	5,282
11 Respiratory (excl. 01)	4	4	8	9	25	89	135	250	524
12 Digestive system	14	35	44	56	88	146	153	137	677
13 Nephritis	1	10	3	14	17	11	8	9	74
14 Bones, diseases of	76	170	224	219	291	396	398	452	2,231
15 External violence	649	632	524	478	462	517	388	331	4,104
16 Other	40	93	137	135	198	243	284	374	1,519
All causes combined	971	1,264	1,372	1,507	2,166	3,095	3,691	4,721	18,842
	Percentage Distribution Based on Amount of Insurance								
01 Pulmonary tuberculosis	0.4%	0.6%	0.6%	0.7%	0.4%	0.4%	0.4%	0.1%	0.4%
03 Malignant neoplasms	5.0	6.6	9.6	11.0	12.1	12.4	14.5	13.9	11.8
05 Diabetes	0.2	0.1	0.5	0.1	0.4	1.0	1.0	1.7	0.8
06 Mental disorders	9.9	9.1	7.8	10.3	7.3	6.7	5.7	4.6	7.1
07 Eyes, diseases of	1.7	1.4	4.7	2.8	5.0	3.1	5.3	5.8	4.2
08-10 Cardiovascular	1.4	1.8	6.3	14.6	26.7	33.4	38.6	44.9	27.4
11 Respiratory (excl. 01)	0.3	0.3	0.4	0.7	1.2	2.5	3.0	4.0	2.1
12 Digestive system	1.1	3.1	2.7	5.4	3.2	4.6	3.6	2.7	3.5
13 Nephritis	0.1	0.6	0.2	0.6	0.6	0.4	0.6	0.1	0.4
14 Bones, diseases of	7.4	15.4	15.5	13.8	12.0	11.4	8.8	7.9	10.9
15 External violence	66.8	54.2	42.2	32.9	21.3	16.3	10.7	5.3	23.3
16 Other	5.6	6.6	9.5	7.3	9.7	7.8	7.8	8.9	8.2
All causes combined	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	Estimated Crude Rate of Disablement per \$1,000 of Amount of Insurance								
01 Pulmonary tuberculosis				0.01	0.01	0.01	0.01	0.01	0.01
03 Malignant neoplasms	0.05	0.05	0.08	0.12	0.17	0.26	0.47	0.75	0.18
05 Diabetes						0.02	0.03	0.09	0.01
06 Mental disorders	0.09	0.07	0.06	0.11	0.10	0.14	0.18	0.25	0.11
07 Eyes, diseases of	0.02	0.01	0.04	0.03	0.07	0.07	0.17	0.31	0.06
08-10 Cardiovascular	0.01	0.01	0.05	0.16	0.38	0.71	1.24	2.41	0.42
11 Respiratory (excl. 01)				0.01	0.02	0.05	0.10	0.21	0.03
12 Digestive system	0.01	0.02	0.02	0.06	0.05	0.10	0.12	0.14	0.05
13 Nephritis				0.01	0.01	0.01	0.02	0.01	0.01
14 Bones, diseases of	0.07	0.11	0.12	0.15	0.17	0.24	0.28	0.42	0.17
15 External violence	0.61	0.39	0.33	0.36	0.30	0.34	0.34	0.28	0.36
16 Other	0.05	0.05	0.08	0.08	0.14	0.16	0.25	0.48	0.12
All causes combined	0.91	0.72	0.79	1.09	1.41	2.11	3.21	5.36	1.53

NOTE.—Percentages and crude rates may not add up because of rounding.

* Including data for ages 15-19 not shown separately.

TABLE 24D

DISTRIBUTION OF CLAIMS CODED BY CAUSE OF DISABILITY
ELECTIVE BENEFIT—ALL OBSERVATION PERIODS COMBINED

CAUSE	ATTAINED AGES AT POLICY ANNIVERSARY PRECEDING DISABILITY								
	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	15-59*
	Number of Claims (Policies)								
01 Pulmonary tuberculosis	28	59	60	46	67	72	82	64	479
03 Malignant neoplasms	93	140	206	239	524	820	1,077	1,243	4,360
05 Diabetes	3	3	11	8	24	49	98	190	386
06 Mental disorders	177	266	298	387	458	551	597	557	3,356
07 Eyes, diseases of	34	55	87	151	268	340	598	904	2,445
08-10 Cardiovascular	28	56	150	439	1,017	1,996	3,125	4,619	11,431
11 Respiratory (excl. 01)	12	12	13	31	58	172	308	578	1,185
12 Digestive system	32	59	88	125	187	262	322	295	1,375
13 Nephritis	7	17	11	20	33	28	28	26	171
14 Bones, diseases of	123	260	342	409	539	708	830	913	4,130
15 External violence	1,084	1,035	924	946	958	1,052	804	647	7,711
16 Other	122	216	343	380	652	744	993	1,360	4,827
All causes combined	1,743	2,178	2,533	3,181	4,785	6,794	8,862	11,396	41,856
	Percentage Distribution Based on Amount of Insurance								
01 Pulmonary tuberculosis	1.6%	2.7%	1.9%	1.6%	1.1%	0.9%	0.7%	0.4%	1.1%
03 Malignant neoplasms	4.9	6.5	10.1	8.9	12.3	13.1	13.3	12.0	11.3
05 Diabetes	0.1	0.1	0.4	0.1	0.3	0.7	0.9	1.4	0.7
06 Mental disorders	10.9	11.3	10.1	12.3	9.0	8.1	6.7	4.9	8.2
07 Eyes, diseases of	1.7	1.9	4.2	3.5	5.2	3.6	6.8	7.3	5.1
08-10 Cardiovascular	1.3	2.6	6.6	13.0	22.9	32.4	37.1	42.6	27.1
11 Respiratory (excl. 01)	0.5	0.5	0.4	0.9	1.1	2.1	2.6	4.1	2.1
12 Digestive system	1.5	2.9	3.5	5.0	3.8	4.0	3.1	2.5	3.4
13 Nephritis	0.3	0.7	0.5	0.4	0.5	0.4	0.6	0.2	0.4
14 Bones, diseases of	6.5	13.2	12.9	12.1	10.1	10.0	7.8	6.8	9.3
15 External violence	64.0	49.3	38.3	30.6	20.8	15.2	9.6	5.6	20.5
16 Other	6.8	8.4	11.3	11.5	12.7	9.6	10.8	12.2	10.9
All causes combined	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	Estimated Crude Rate of Disablement per \$1,000 of Amount of Insurance								
01 Pulmonary tuberculosis	0.01	0.02	0.01	0.01	0.01	0.02	0.02	0.02	0.01
03 Malignant neoplasms	0.04	0.04	0.07	0.08	0.16	0.26	0.40	0.61	0.16
05 Diabetes						0.01	0.03	0.07	0.01
06 Mental disorders	0.09	0.07	0.07	0.12	0.11	0.16	0.20	0.25	0.12
07 Eyes, diseases of	0.01	0.01	0.03	0.03	0.07	0.07	0.20	0.37	0.07
08-10 Cardiovascular	0.01	0.02	0.05	0.12	0.29	0.63	1.11	2.16	0.38
11 Respiratory (excl. 01)				0.01	0.01	0.04	0.08	0.21	0.03
12 Digestive system	0.01	0.02	0.02	0.05	0.05	0.08	0.09	0.13	0.05
13 Nephritis					0.01	0.01	0.02	0.01	0.01
14 Bones, diseases of	0.05	0.08	0.09	0.11	0.13	0.19	0.23	0.34	0.13
15 External violence	0.51	0.32	0.26	0.29	0.26	0.29	0.29	0.28	0.29
16 Other	0.05	0.05	0.08	0.11	0.16	0.19	0.32	0.62	0.15
All causes combined	0.79	0.64	0.69	0.94	1.26	1.94	2.99	5.06	1.40

NOTE.—Percentages and crude rates may not add up because of rounding.

* Including data for ages 15-19 not shown separately.

TABLE 25A
DISTRIBUTION OF CLAIMS CODED BY CAUSE OF DISABILITY
AUTOMATIC AND ELECTIVE BENEFITS COMBINED—OBSERVATION PERIOD 1

CAUSE	ATTAINED AGES AT POLICY ANNIVERSARY PRECEDING DISABILITY								
	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	15-59*
Number of Claims (Policies)									
01 Pulmonary tuberculosis	40	52	67	43	40	49	47	37	362
03 Malignant neoplasms	19	19	43	57	110	178	211	210	853
05 Diabetes	1			9	8	5	27	48	98
06 Mental disorders	91	102	113	140	161	198	213	178	1,243
07 Eyes, diseases of	23	36	38	61	96	126	229	318	938
08-10 Cardiovascular	18	29	48	135	260	513	892	1,235	3,134
11 Respiratory (excl. 01)	3	3	3	9	12	50	99	156	333
12 Digestive system	11	15	25	36	50	48	82	58	330
13 Nephritis	1	2	8	1	4	4	5	11	37
14 Bones, diseases of	80	90	127	159	166	157	232	237	1,268
15 External violence	104	128	113	171	169	156	132	126	1,133
16 Other	272	220	296	304	347	340	424	488	2,811
All causes combined	663	702	881	1,125	1,423	1,824	2,593	3,102	12,560
Percentage Distribution Based on Amount of Insurance									
01 Pulmonary tuberculosis	6.2%	9.0%	7.7%	4.4%	2.7%	3.1%	1.2%	0.8%	3.2%
03 Malignant neoplasms	3.0	2.6	5.0	5.9	9.3	13.2	9.1	8.4	8.2
05 Diabetes	0.1			0.3	0.4	0.2	0.9	0.8	0.5
06 Mental disorders	15.2	15.5	12.0	11.9	9.1	10.0	7.9	5.7	9.7
07 Eyes, diseases of	3.0	4.1	4.8	4.2	5.5	5.0	8.9	9.5	6.5
08-10 Cardiovascular	2.7	4.3	5.1	11.8	19.6	30.8	36.5	41.0	25.1
11 Respiratory (excl. 01)	0.3		0.3	0.5	0.8	2.3	2.3	4.2	1.9
12 Digestive system	1.5	2.2	2.8	3.0	5.0	2.7	3.3	2.0	2.8
13 Nephritis	0.1	0.4	1.7		0.4	0.2	0.3	0.4	0.4
14 Bones, diseases of	12.4	13.6	13.8	11.7	10.7	9.9	7.2	6.4	9.5
15 External violence	15.8	17.6	12.8	15.1	11.7	6.9	5.6	3.3	9.0
16 Other	39.7	30.6	33.1	31.1	24.9	15.8	17.0	17.5	23.3
All causes combined	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Estimated Crude Rate of Disablement per \$1,000 of Amount of Insurance									
01 Pulmonary tuberculosis	0.04	0.05	0.05	0.03	0.03	0.05	0.03	0.03	0.03
03 Malignant neoplasms	0.02	0.01	0.04	0.05	0.09	0.22	0.21	0.35	0.08
05 Diabetes							0.02	0.03	
06 Mental disorders	0.09	0.09	0.07	0.09	0.09	0.17	0.18	0.24	0.09
07 Eyes, diseases of	0.02	0.02	0.03	0.03	0.05	0.08	0.21	0.40	0.06
08-10 Cardiovascular	0.02	0.02	0.03	0.09	0.19	0.51	0.86	1.73	0.23
11 Respiratory (excl. 01)					0.01	0.04	0.05	0.18	0.02
12 Digestive system	0.01	0.01	0.02	0.02	0.05	0.04	0.08	0.08	0.03
13 Nephritis			0.01				0.01	0.01	
14 Bones, diseases of	0.07	0.08	0.08	0.09	0.10	0.16	0.17	0.27	0.09
15 External violence	0.09	0.10	0.08	0.12	0.11	0.11	0.13	0.14	0.08
16 Other	0.23	0.18	0.20	0.25	0.24	0.26	0.40	0.74	0.22
All causes combined	0.59	0.58	0.61	0.79	0.98	1.65	2.35	4.21	0.93

NOTE.—Percentages and crude rates may not add up because of rounding.

* Including data for ages 15-19 not shown separately.

TABLE 25B

DISTRIBUTION OF CLAIMS CODED BY CAUSE OF DISABILITY
AUTOMATIC AND ELECTIVE BENEFITS COMBINED—OBSERVATION PERIOD 2

CAUSE	ATTAINED AGES AT POLICY ANNIVERSARY PRECEDING DISABILITY								
	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	15-59*
Number of Claims (Policies)									
01 Pulmonary tuberculosis	89	103	94	129	120	76	50	36	715
03 Malignant neoplasms	74	108	140	213	390	554	666	708	2,874
05 Diabetes	3	7	6	11	34	39	62	85	247
06 Mental disorders	254	238	289	330	379	334	299	250	2,437
07 Eyes, diseases of	87	68	75	135	194	232	309	418	1,544
08-10 Cardiovascular	103	130	241	466	1,016	1,353	1,723	1,976	7,027
11 Respiratory (excl. 01)	8	9	6	21	32	60	116	216	469
12 Digestive system	68	66	98	134	198	211	210	169	1,162
13 Nephritis	14	15	8	8	20	17	19	7	110
14 Bones, diseases of	335	516	665	782	805	710	553	435	4,849
15 External violence	485	468	482	595	595	593	441	280	4,089
16 Other	1,051	946	852	876	917	859	773	795	7,417
All causes combined	2,571	2,674	2,956	3,700	4,700	5,038	5,221	5,375	32,940
Percentage Distribution Based on Amount of Insurance									
01 Pulmonary tuberculosis	3.4%	4.1%	3.2%	3.1%	2.5%	1.1%	1.0%	0.6%	2.1%
03 Malignant neoplasms	3.0	4.2	6.2	5.5	9.9	11.8	12.6	13.0	9.2
05 Diabetes	0.1	0.2	0.1	0.5	0.5	0.4	0.9	1.2	0.6
06 Mental disorders	9.0	9.5	9.3	10.4	8.9	7.6	6.2	5.0	8.0
07 Eyes, diseases of	3.1	2.3	2.4	3.7	4.2	3.9	6.1	7.2	4.5
08-10 Cardiovascular	3.8	5.0	11.5	12.6	22.2	29.5	36.2	39.5	23.1
11 Respiratory (excl. 01)	0.3	0.4	0.1	0.7	0.5	0.9	1.5	3.0	1.0
12 Digestive system	2.6	2.8	4.7	4.2	4.5	4.3	3.9	3.3	3.9
13 Nephritis	0.5	0.5	0.2	0.2	0.3	0.5	0.4	0.1	0.3
14 Bones, diseases of	12.6	18.9	20.7	19.4	15.0	12.5	9.6	7.2	13.6
15 External violence	21.5	17.5	15.2	15.2	11.9	10.5	6.9	5.6	12.0
16 Other	40.1	34.4	26.4	24.5	19.5	16.9	14.7	14.4	21.8
All causes combined	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Estimated Crude Rate of Disablement per \$1,000 of Amount of Insurance									
01 Pulmonary tuberculosis	0.03	0.03	0.03	0.03	0.04	0.03	0.03	0.03	0.03
03 Malignant neoplasms	0.02	0.03	0.05	0.06	0.16	0.27	0.43	0.68	0.13
05 Diabetes				0.01	0.01	0.01	0.03	0.06	0.01
06 Mental disorders	0.07	0.07	0.08	0.12	0.14	0.17	0.21	0.26	0.12
07 Eyes, diseases of	0.02	0.02	0.02	0.04	0.07	0.09	0.21	0.38	0.06
08-10 Cardiovascular	0.03	0.03	0.09	0.14	0.36	0.66	1.25	2.07	0.34
11 Respiratory (excl. 01)				0.01	0.01	0.02	0.05	0.16	0.02
12 Digestive system	0.02	0.02	0.04	0.05	0.07	0.10	0.13	0.17	0.06
13 Nephritis					0.01	0.01	0.01		
14 Bones, diseases of	0.09	0.13	0.17	0.22	0.24	0.28	0.33	0.38	0.20
15 External violence	0.16	0.12	0.12	0.17	0.19	0.24	0.24	0.29	0.17
16 Other	0.30	0.24	0.22	0.27	0.32	0.38	0.50	0.75	0.32
All causes combined	0.74	0.70	0.82	1.11	1.62	2.25	3.44	5.25	1.45

NOTE.—Percentages and crude rates may not add up because of rounding.

* Including data for ages 15-19 not shown separately.

TABLE 25C

DISTRIBUTION OF CLAIMS CODED BY CAUSE OF DISABILITY
AUTOMATIC AND ELECTIVE BENEFITS COMBINED—OBSERVATION PERIOD 3

CAUSE	ATTAINED AGES AT POLICY ANNIVERSARY PRECEDING DISABILITY								
	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	15-59*
Number of Claims (Policies)									
01 Pulmonary tuberculosis	26	29	40	45	57	62	34	26	319
03 Malignant neoplasms	112	164	206	282	533	788	982	961	4,046
05 Diabetes	6	8	16	35	63	86	128	174	517
06 Mental disorders	245	307	298	346	396	458	392	337	2,825
07 Eyes, diseases of	100	146	143	184	308	340	393	464	2,103
08-10 Cardiovascular	120	195	400	834	1,739	2,639	3,323	3,760	13,037
11 Respiratory (excl. 01)	4	5	14	24	43	139	207	348	784
12 Digestive system	55	120	146	206	266	360	334	283	1,778
13 Nephritis	1	12	12	17	23	18	14	11	111
14 Bones, diseases of	492	1,050	1,210	1,270	1,415	1,590	1,389	1,119	9,605
15 External violence	784	807	727	709	725	761	635	531	5,841
16 Other	1,101	1,250	1,081	1,043	1,146	1,102	1,021	890	8,916
All causes combined	3,046	4,093	4,293	4,995	6,714	8,343	8,852	8,904	49,882
Percentage Distribution Based on Amount of Insurance									
01 Pulmonary tuberculosis	0.9%	0.6%	0.8%	0.9%	0.9%	0.6%	0.3%	0.2%	0.6%
03 Malignant neoplasms	3.8	4.3	5.9	7.4	8.7	10.3	11.9	12.0	9.0
05 Diabetes	0.2	0.1	0.4	0.6	0.7	0.9	1.2	2.0	0.9
06 Mental disorders	8.5	7.4	7.0	7.6	6.4	5.6	6.0	4.2	6.2
07 Eyes, diseases of	3.0	3.1	4.1	3.0	4.8	3.6	4.6	5.0	4.1
08-10 Cardiovascular	3.4	4.1	9.0	15.4	26.9	33.5	39.0	44.7	26.8
11 Respiratory (excl. 01)	0.1	0.1	0.3	0.5	0.7	1.4	1.8	2.7	1.2
12 Digestive system	1.6	3.0	3.3	4.7	3.4	4.6	3.6	2.9	3.5
13 Nephritis	0.0	0.3	0.2	0.3	0.3	0.2	0.3	0.1	0.2
14 Bones, diseases of	14.7	25.2	26.2	23.4	18.7	17.1	13.8	11.2	17.7
15 External violence	31.1	24.5	20.1	16.8	11.3	9.0	6.1	3.9	12.5
16 Other	32.8	27.2	22.7	19.4	17.2	13.2	11.3	11.3	17.2
All causes combined	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Estimated Crude Rate of Disablement per \$1,000 of Amount of Insurance									
01 Pulmonary tuberculosis	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.02	0.01
03 Malignant neoplasms	0.03	0.04	0.06	0.10	0.16	0.28	0.52	0.74	0.16
05 Diabetes	0.00	0.00	0.00	0.01	0.01	0.02	0.05	0.12	0.02
06 Mental disorders	0.08	0.07	0.07	0.10	0.12	0.16	0.26	0.26	0.11
07 Eyes, diseases of	0.03	0.03	0.04	0.04	0.09	0.10	0.20	0.31	0.07
08-10 Cardiovascular	0.03	0.04	0.09	0.21	0.50	0.92	1.70	2.77	0.49
11 Respiratory (excl. 01)	0.01	0.01	0.01	0.01	0.01	0.04	0.08	0.17	0.02
12 Digestive system	0.01	0.03	0.03	0.06	0.06	0.13	0.16	0.18	0.06
13 Nephritis	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
14 Bones, diseases of	0.13	0.22	0.26	0.31	0.35	0.47	0.60	0.69	0.32
15 External violence	0.28	0.22	0.20	0.22	0.21	0.25	0.27	0.24	0.23
16 Other	0.30	0.24	0.23	0.26	0.32	0.37	0.49	0.70	0.31
All causes combined	0.91	0.88	1.01	1.33	1.86	2.76	4.35	6.19	1.82

NOTE.—Percentages and crude rates may not add up because of rounding.

* Including data for ages 15-19 not shown separately.

TABLE 25D

DISTRIBUTION OF CLAIMS CODED BY CAUSE OF DISABILITY
AUTOMATIC AND ELECTIVE BENEFITS COMBINED—
ALL OBSERVATION PERIODS COMBINED

CAUSE	ATTAINED AGES AT POLICY ANNIVERSARY PRECEDING DISABILITY								
	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	15-59*
Number of Claims (Policies)									
01 Pulmonary tuberculosis	155	184	201	217	217	187	131	99	1,416
03 Malignant neoplasms	205	291	389	552	1,033	1,520	1,859	1,879	7,773
05 Diabetes	10	15	22	55	105	130	217	307	862
06 Mental disorders	590	647	700	816	936	990	904	765	6,505
07 Eyes, diseases of	210	250	256	380	598	698	931	1,200	4,585
08-10 Cardiovascular	241	354	689	1,435	3,015	4,505	5,938	6,971	23,198
11 Respiratory (excl. 01)	15	14	23	54	87	249	422	720	1,586
12 Digestive system	134	201	269	376	514	619	626	510	3,270
13 Nephritis	16	29	28	26	47	39	38	29	258
14 Bones, diseases of	907	1,665	2,002	2,211	2,386	2,457	2,174	1,791	15,722
15 External violence	1,373	1,403	1,322	1,475	1,489	1,510	1,208	937	11,063
16 Other	2,424	2,416	2,229	2,223	2,410	2,301	2,218	2,173	19,144
All causes combined	6,280	7,469	8,130	9,820	12,837	15,205	16,666	17,381	95,382
Percentage Distribution Based on Amount of Insurance									
01 Pulmonary tuberculosis	2.4%	2.4%	2.3%	2.0%	1.6%	1.0%	0.6%	0.4%	1.4%
03 Malignant neoplasms	3.4	4.2	6.0	6.6	9.2	11.1	11.8	11.8	9.0
05 Diabetes	0.1	0.2	0.3	0.6	0.6	0.7	1.1	1.6	0.7
06 Mental disorders	9.3	8.8	8.2	9.0	7.5	6.7	6.3	4.7	7.2
07 Eyes, diseases of	3.0	2.9	3.6	3.4	4.6	3.9	5.6	6.3	4.4
08-10 Cardiovascular	3.5	4.4	9.5	14.1	24.6	31.9	37.9	42.7	25.4
11 Respiratory (excl. 01)	0.2	0.2	0.2	0.5	0.6	1.3	1.8	3.0	1.2
12 Digestive system	1.9	2.9	3.7	4.4	3.9	4.3	3.7	2.9	3.6
13 Nephritis	0.2	0.4	0.3	0.2	0.3	0.3	0.3	0.1	0.3
14 Bones, diseases of	13.7	22.2	23.2	20.8	16.7	14.9	11.7	9.3	15.5
15 External violence	26.1	21.7	17.8	16.1	11.5	9.3	6.3	4.3	12.0
16 Other	36.2	29.8	24.9	22.4	18.7	14.7	13.0	13.1	19.3
All causes combined	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Estimated Crude Rate of Disablement per \$1,000 of Amount of Insurance									
01 Pulmonary tuberculosis	0.02	0.02	0.02	0.02	0.03	0.03	0.02	0.02	0.02
03 Malignant neoplasms	0.03	0.03	0.06	0.08	0.16	0.28	0.47	0.69	0.15
05 Diabetes				0.01	0.01	0.02	0.04	0.09	0.01
06 Mental disorders	0.08	0.07	0.08	0.11	0.13	0.17	0.25	0.27	0.12
07 Eyes, diseases of	0.02	0.02	0.03	0.04	0.08	0.10	0.22	0.37	0.07
08-10 Cardiovascular	0.03	0.04	0.09	0.17	0.42	0.81	1.51	2.50	0.42
11 Respiratory (excl. 01)				0.01	0.01	0.03	0.07	0.18	0.02
12 Digestive system	0.02	0.02	0.03	0.05	0.07	0.11	0.15	0.17	0.06
13 Nephritis					0.01	0.01	0.01	0.01	
14 Bones, diseases of	0.11	0.18	0.21	0.25	0.29	0.38	0.47	0.54	0.25
15 External violence	0.22	0.17	0.16	0.20	0.20	0.24	0.25	0.25	0.20
16 Other	0.30	0.24	0.23	0.27	0.32	0.37	0.52	0.77	0.32
All causes combined	0.83	0.80	0.92	1.22	1.72	2.54	3.98	5.85	1.64

Note.—Percentages and crude rates may not add up because of rounding.

* Including data for ages 15-19 not shown separately.

TABLE 26

ACTUAL TERMINATIONS BY CAUSE OF DISABILITY FOR EACH TYPE OF BENEFIT
 COMPARED WITH EXPECTED TERMINATIONS BASED ON
 CRUDE TERMINATION RATES FOR ALL CAUSES AND BENEFITS COMBINED
 DISABILITY YEARS 1-15 ONLY
 BY AMOUNTS OF ANNUAL PREMIUMS WAIVED*

CAUSE	ELECTIVE		AUTOMATIC		COMBINED	
	Actual	A/E	Actual	A/E	Actual	A/E
Total Terminations						
01 Pulmonary tuberculosis	\$ 62,499	150%	\$ 149,495	153%	\$ 211,994	152%
03 Malignant neoplasms	874,409	186	739,999	176	1,614,408	181
05 Diabetes	32,437	82	42,551	70	74,988	75
06 Mental disorders	398,231	81	328,823	72	727,054	77
07 Eyes, diseases of	232,905	71	191,931	60	424,836	66
08-10 Cardiovascular	1,358,584	87	1,500,341	83	2,858,925	85
11 Respiratory (excl. 01)	97,055	79	17,896	58	114,951	75
12 Digestive system	223,607	138	347,538	147	571,145	143
13 Nephritis	24,574	124	10,742	121	35,316	123
14 Bones, diseases of	397,051	80	1,372,127	98	1,769,178	93
15 External violence	1,030,429	107	222,453	93	1,252,882	104
16 Other	463,213	70	2,015,072	118	2,478,285	105
All causes combined	\$5,194,994	97%	\$6,938,968	102%	\$12,133,962	100%
Terminations by Recovery						
01 Pulmonary tuberculosis	\$ 58,834	193%	\$ 142,364	176%	\$ 201,198	181%
03 Malignant neoplasms	110,673	34	133,168	43	243,841	38
05 Diabetes	16,843	75	28,348	67	45,191	70
06 Mental disorders	323,810	95	291,891	81	615,701	88
07 Eyes, diseases of	81,258	44	136,535	58	217,793	52
08-10 Cardiovascular	762,524	86	1,158,662	95	1,921,186	91
11 Respiratory (excl. 01)	24,837	36	8,855	46	33,692	38
12 Digestive system	155,375	141	288,191	160	443,566	153
13 Nephritis	10,762	74	7,575	102	18,337	83
14 Bones, diseases of	349,158	102	1,314,610	119	1,663,768	115
15 External violence	992,904	130	211,106	111	1,204,010	126
16 Other	252,054	64	1,768,482	127	2,020,536	113
All causes combined	\$3,139,032	90%	\$5,489,787	107%	\$ 8,628,819	100%
Terminations by Death						
01 Pulmonary tuberculosis	\$ 3,665	33%	\$ 7,131	41%	\$ 10,796	38%
03 Malignant neoplasms	763,736	541	606,831	530	1,370,567	536
05 Diabetes	15,594	93	14,203	77	29,797	85
06 Mental disorders	74,421	51	36,932	38	111,353	46
07 Eyes, diseases of	151,647	106	55,396	68	207,043	92
08-10 Cardiovascular	596,060	87	341,679	59	937,739	74
11 Respiratory (excl. 01)	72,218	133	9,041	78	81,259	123
12 Digestive system	68,232	130	59,347	106	127,579	118
13 Nephritis	13,812	263	3,167	214	16,979	252
14 Bones, diseases of	47,893	31	57,517	19	105,410	23
15 External violence	37,525	19	11,347	23	48,872	20
16 Other	211,159	79	246,500	79	457,749	79
All causes combined	\$2,055,962	110%	\$1,449,181	88%	\$ 3,505,143	100%

* Excluding data for one company that did not submit data for amounts of premiums waived.

TABLE 27

TERMINATIONS BY CAUSE OF DISABILITY FOR EACH OBSERVATION PERIOD
 COMPARED WITH EXPECTED TERMINATIONS BASED ON
 CRUDE TERMINATION RATES FOR ALL CAUSES AND PERIODS COMBINED
 DISABILITY YEARS 1-15 ONLY
 BY AMOUNTS OF ANNUAL PREMIUMS WAIVED*

CAUSE	PERIOD 1		PERIOD 2		PERIOD 3	
	Actual	A/E	Actual	A/E	Actual	A/E
Total Terminations						
01 Pulmonary tuberculosis	\$ 30,236	140%	\$ 111,229	173%	\$ 70,529	132%
03 Malignant neoplasms	86,756	211	503,197	188	1,024,455	176
05 Diabetes	1,947	81	22,455	105	50,586	66
06 Mental disorders	33,783	91	285,768	91	407,503	68
07 Eyes, diseases of	11,302	71	166,686	82	246,848	58
08-10 Cardiovascular	149,048	117	925,507	102	1,784,370	77
11 Respiratory (excl. 01)	4,583	92	54,164	116	56,204	55
12 Digestive system	21,795	154	201,523	154	347,827	137
13 Nephritis	2,623	207	13,265	138	19,428	109
14 Bones, diseases of	69,521	122	523,486	117	1,176,171	84
15 External violence	15,946	124	421,050	118	815,886	98
16 Other	136,133	112	896,497	114	1,445,655	100
All causes combined	\$563,673	123%	\$4,124,827	116%	\$7,445,462	92%
Terminations by Recovery						
01 Pulmonary tuberculosis	\$ 30,037	163%	\$ 106,226	201%	\$ 64,935	163%
03 Malignant neoplasms	17,636	58	72,189	38	154,016	37
05 Diabetes	174	12	16,137	117	28,880	58
06 Mental disorders	31,361	105	249,358	105	334,982	77
07 Eyes, diseases of	7,536	66	75,800	59	134,457	48
08-10 Cardiovascular	98,152	123	655,734	114	1,167,300	80
11 Respiratory (Excl. 01)	2,631	89	14,255	54	16,806	29
12 Digestive system	17,990	165	164,301	171	261,275	143
13 Nephritis	596	60	5,271	73	12,470	90
14 Bones, diseases of	66,437	144	487,483	142	1,109,848	106
15 External violence	15,545	148	402,089	142	786,376	119
16 Other	122,492	124	741,314	124	1,156,730	107
All causes combined	\$410,587	120%	\$2,990,157	117%	\$5,228,075	91%
Terminations by Death						
01 Pulmonary tuberculosis	\$ 199	6%	\$ 5,003	44%	\$ 5,594	41%
03 Malignant neoplasms	69,120	654	431,008	562	870,439	516
05 Diabetes	1,773	189	6,318	84	21,706	81
06 Mental disorders	2,422	34	36,410	48	72,521	45
07 Eyes, diseases of	3,766	84	90,886	122	112,391	77
08-10 Cardiovascular	50,896	107	269,773	80	617,070	71
11 Respiratory (excl. 01)	1,952	95	39,909	194	39,398	91
12 Digestive system	3,805	115	37,222	107	86,552	123
13 Nephritis	2,027	734	7,994	330	6,958	172
14 Bones, diseases of	3,084	28	36,003	35	66,323	20
15 External violence	401	17	18,961	26	29,510	17
16 Other	13,641	59	155,183	82	288,925	79
All causes combined	\$153,086	132%	\$1,134,670	113%	\$2,217,387	93%

* Excluding data for one company that did not submit data for amounts of premiums waived.

TABLE 28

TERMINATIONS BY CAUSE OF DISABILITY FOR
EACH OBSERVATION PERIOD—AUTOMATIC BENEFIT
COMPARED WITH EXPECTED TERMINATIONS BASED ON
CRUDE AUTOMATIC BENEFIT RATES FOR ALL CAUSES AND PERIODS COMBINED
DISABILITY YEARS 1-15 ONLY
BY AMOUNTS OF ANNUAL PREMIUMS WAIVED

CAUSE	PERIOD 1		PERIOD 2		PERIOD 3	
	Actual	A/E	Actual	A/E	Actual	A/E
Total Terminations						
01 Pulmonary tuberculosis	\$ 18,655	125%	\$ 74,944	157%	\$ 55,896	147%
03 Malignant neoplasms	37,188	214	227,424	178	475,387	164
05 Diabetes	589	80	12,442	110	29,520	59
06 Mental disorders	18,388	94	128,681	90	181,754	59
07 Eyes, diseases of	6,473	67	60,884	72	124,574	55
08-10 Cardiovascular	63,529	127	444,268	104	992,544	74
11 Respiratory (excl. 01)	623	121	6,259	100	11,014	45
12 Digestive system	16,240	162	128,048	162	203,250	133
13 Nephritis	1,476	197	4,012	112	5,254	109
14 Bones, diseases of	57,672	142	396,173	121	918,282	86
15 External violence	0	0	86,694	107	135,759	83
16 Other	105,878	122	714,995	127	1,194,199	108
All causes combined	\$326,711	130%	\$2,284,824	120%	\$4,327,433	90%
Terminations by Recovery						
01 Pulmonary tuberculosis	\$ 18,655	139%	\$ 72,002	173%	\$ 51,707	169%
03 Malignant neoplasms	7,548	53	42,556	42	83,064	38
05 Diabetes	69	12	9,548	109	18,731	52
06 Mental disorders	18,195	105	122,163	101	151,533	62
07 Eyes, diseases of	4,884	59	41,780	61	89,871	52
08-10 Cardiovascular	58,322	145	373,261	115	727,079	76
11 Respiratory (excl. 01)	623	146	3,853	87	4,379	27
12 Digestive system	13,552	160	111,482	173	163,157	136
13 Nephritis	357	53	3,343	108	3,875	95
14 Bones, diseases of	55,722	155	383,348	138	875,540	102
15 External violence	0	0	83,471	121	127,635	97
16 Other	99,218	127	646,303	133	1,022,961	112
All causes combined	\$277,145	127%	\$1,893,110	121%	\$3,319,532	90%
Terminations by Death						
01 Pulmonary tuberculosis	\$ 0	0%	\$ 2,942	48%	\$ 4,189	56%
03 Malignant neoplasms	29,640	976	184,868	700	392,323	547
05 Diabetes	520	319	2,894	116	10,789	79
06 Mental disorders	193	9	6,518	30	30,221	48
07 Eyes, diseases of	1,589	110	19,104	113	34,703	64
08-10 Cardiovascular	5,207	54	71,007	70	265,465	68
11 Respiratory (excl. 01)	0	0	2,406	130	6,635	81
12 Digestive system	2,688	170	16,566	112	40,093	120
13 Nephritis	1,119	1,622	669	135	1,379	181
14 Bones, diseases of	1,950	42	12,825	25	42,742	20
15 External violence	0	0	3,223	27	8,124	25
16 Other	6,660	78	68,692	88	171,238	88
All causes combined	\$ 49,566	151%	\$ 391,714	117%	\$1,007,901	93%

TABLE 29

TERMINATIONS BY CAUSE OF DISABILITY FOR
EACH OBSERVATION PERIOD—ELECTIVE BENEFIT
COMPARED WITH EXPECTED TERMINATIONS BASED ON
CRUDE ELECTIVE BENEFIT RATES FOR ALL CAUSES AND PERIODS COMBINED
DISABILITY YEARS 1-15 ONLY
BY AMOUNTS OF ANNUAL PREMIUMS WAIVED*

CAUSE	PERIOD 1		PERIOD 2		PERIOD 3	
	Actual	A/E	Actual	A/E	Actual	A/E
Total Terminations						
01 Pulmonary tuberculosis	\$ 11,581	169%	\$ 36,285	212%	\$ 14,633	93%
03 Malignant neoplasms	49,568	212	275,773	198	549,068	192
05 Diabetes	1,358	83	10,013	99	21,066	78
06 Mental disorders	15,395	88	157,087	93	225,749	79
07 Eyes, diseases of	4,829	74	105,802	89	122,274	62
08-10 Cardiovascular	85,519	110	481,239	99	791,826	81
11 Respiratory (excl. 01)	3,960	90	47,905	119	45,190	60
12 Digestive system	5,555	127	73,475	140	144,577	144
13 Nephritis	1,147	221	9,253	156	14,174	112
14 Bones, diseases of	11,849	68	127,313	105	257,889	75
15 External violence	15,946	132	334,356	127	680,127	108
16 Other	30,255	80	181,502	75	251,456	69
All causes combined	\$236,962	113%	\$1,840,003	111%	\$3,118,029	94%
Terminations by Recovery						
01 Pulmonary tuberculosis	\$ 11,382	220%	\$ 34,224	284%	\$ 13,228	131%
03 Malignant neoplasms	10,088	65	29,633	34	70,952	38
05 Diabetes	105	13	6,589	132	10,149	71
06 Mental disorders	13,166	107	127,195	114	183,449	98
07 Eyes, diseases of	2,652	76	34,020	58	44,586	42
08-10 Cardiovascular	39,830	105	282,473	115	440,221	85
11 Respiratory (excl. 01)	2,008	89	10,402	52	12,427	32
12 Digestive system	4,438	160	52,819	163	98,118	154
13 Nephritis	1,239	80	1,928	50	8,595	96
14 Bones, diseases of	10,715	95	104,135	140	234,308	105
15 External violence	15,545	165	318,618	163	658,741	136
16 Other	23,274	101	95,011	73	133,769	66
All causes combined	\$133,442	108%	\$1,097,047	112%	\$1,908,543	94%
Terminations by Death						
01 Pulmonary tuberculosis	\$ 199	12%	\$ 2,061	41%	\$ 1,405	25%
03 Malignant neoplasms	39,480	499	246,140	470	478,116	484
05 Diabetes	1,253	148	3,424	67	10,917	87
06 Mental disorders	2,229	43	29,892	52	42,300	43
07 Eyes, diseases of	2,177	71	71,782	119	77,688	84
08-10 Cardiovascular	45,689	115	198,766	83	351,605	75
11 Respiratory (excl. 01)	1,952	91	37,503	185	32,763	89
12 Digestive system	1,117	70	20,656	104	46,459	126
13 Nephritis	908	413	7,325	351	5,579	153
14 Bones, diseases of	1,134	18	23,178	48	23,581	20
15 External violence	401	15	15,738	23	21,386	14
16 Other	6,981	48	86,491	77	117,687	72
All causes combined	\$103,520	120%	\$ 742,956	108%	\$1,209,486	94%

* Excluding data for one company that did not submit data for amounts of premiums waived.

TABLE A
EFFECT OF GRADUATION ON WAIVER OF
PREMIUM DISABILITY CLAIMS
PERIOD 3 (1969-74) EXPERIENCE ONLY
AUTOMATIC AND ELECTIVE BENEFITS COMBINED
SELECT AND ULTIMATE EXPERIENCE COMBINED
MALE AND FEMALE EXPERIENCE COMBINED
 (Unit: \$1,000 of Life Insurance)

Attained Age	Actual Claims (1)	Claims Based on Graduated Rates* (2)	(1) minus (2) (3)
18-19	4,185	4,212	- 27
20-24	29,953	30,125	-172
25-29	46,023	45,863	160
30-34	53,034	52,463	571
35-39	63,065	63,559	-494
40-44	79,221	79,610	-389
45-49	96,882	96,199	683
50-54	102,628	103,268	-640
55-59	89,151	89,024	127
18-59	564,142	564,323	-181

* Shown in column 1 of Table 2.

TABLE B1
 CRUDE ACTUAL 1959-74 MONTHLY TERMINATION RATES
 AUTOMATIC BENEFIT COMPARED WITH CORRESPONDING 1959-74
 GRADUATED MONTHLY TERMINATION RATES FOR
 AUTOMATIC BENEFIT SHOWN IN TABLE 19A
 FIRST YEAR OF DISABILITY ONLY
 BASED ON AMOUNTS OF ANNUAL PREMIUMS WAIVED
 CERTAIN CONTRIBUTORS ONLY

	TERMINATIONS BY RECOVERY		TERMINATIONS BY DEATH		TOTAL TERMINATIONS	
	Actual	A/E	Actual	A/E	Actual	A/E
By Month of Disability						
Disability month:						
7.....	\$ 709,622	87%	\$ 63,152	94%	\$ 772,774	88%
8.....	911,442	125	95,564	110	1,007,006	124
9.....	597,157	99	89,981	96	687,138	98
10.....	436,730	88	89,990	94	526,720	89
11.....	330,942	93	85,450	106	416,392	95
12.....	276,715	94	75,112	98	351,827	95
7-12.....	\$3,262,608	99%	\$ 499,249	100%	\$3,761,857	99%
By Attained Age Preceding Disability						
Attained age:						
15-19.....	\$ 58,460	100%	\$ 1,943	101%	\$ 60,403	100%
20-24.....	241,126	99	8,321	103	249,447	99
25-29.....	276,069	97	15,951	138	292,020	99
30-34.....	330,613	102	13,468	74	344,081	101
35-39.....	417,105	103	31,717	94	448,822	103
40-44.....	533,985	97	63,282	93	597,267	97
45-49.....	525,307	92	111,871	110	637,178	95
50-54.....	553,048	104	132,978	100	686,026	103
55-59.....	326,895	99	119,718	96	446,613	98
15-59.....	\$3,262,608	99%	\$ 499,249	100%	\$3,761,857	99%

TABLE B2
 CRUDE ACTUAL 1959-74 MONTHLY TERMINATION RATES
 AUTOMATIC BENEFIT COMPARED WITH CORRESPONDING 1959-74
 GRADUATED MONTHLY TERMINATION RATES FOR
 AUTOMATIC BENEFIT SHOWN IN TABLE 19B
 SECOND YEAR OF DISABILITY ONLY
 BASED ON AMOUNTS OF ANNUAL PREMIUMS WAIVED
 CERTAIN CONTRIBUTORS ONLY

	TERMINATIONS BY RECOVERY		TERMINATIONS BY DEATH		TOTAL TERMINATIONS	
	Actual	A/E	Actual	A/E	Actual	A/E
By Month of Disability						
Disability month:						
13	\$ 259,246	108%	\$ 76,402	112%	\$ 335,648	109%
14	235,238	117	55,283	92	290,521	111
15	149,383	88	46,344	88	195,727	88
16	142,595	97	50,544	106	193,139	99
17	130,035	101	43,182	101	173,217	101
18	112,319	98	41,739	108	154,058	100
19	113,424	109	33,885	97	147,309	106
20	101,335	107	29,679	93	131,014	103
21	81,303	95	32,885	107	114,188	98
22	69,410	90	28,797	94	98,207	91
23	61,310	107	25,318	99	86,628	105
24	49,567	99	27,545	100	77,112	99
13-24	\$1,505,165	102%	\$ 491,603	100%	\$1,996,768	102%
By Attained Age Preceding Disability						
Attained age:						
15-19	\$ 33,329	95%	\$ 1,610	72%	\$ 34,939	94%
20-24	135,225	103	8,077	88	143,302	102
25-29	137,734	98	11,618	97	149,352	98
30-34	153,187	104	13,296	81	166,483	102
35-39	187,741	100	35,050	119	222,791	103
40-44	277,666	110	57,391	99	335,057	108
45-49	235,937	93	88,354	99	324,291	95
50-54	226,932	109	121,926	98	348,858	105
55-59	117,414	99	154,281	102	271,695	101
15-59	\$1,505,165	102%	\$ 491,603	100%	\$1,996,768	102%

TABLE B3
CRUDE ACTUAL 1959-74 MONTHLY TERMINATION RATES
ELECTIVE BENEFIT COMPARED WITH CORRESPONDING 1959-74
GRADUATED MONTHLY TERMINATION RATES FOR
ELECTIVE BENEFIT SHOWN IN TABLE 19C
FIRST YEAR OF DISABILITY ONLY
BASED ON AMOUNTS OF ANNUAL PREMIUMS WAIVED
CERTAIN CONTRIBUTORS ONLY

	TERMINATIONS BY RECOVERY		TERMINATIONS BY DEATH		TOTAL TERMINATIONS	
	Actual	A/E	Actual	A/E	Actual	A/E
By Month of Disability						
Disability month:						
7.....	\$ 395,455	101%	\$ 68,658	95%	\$ 464,113	100%
8.....	298,848	106	80,025	103	378,873	105
9.....	197,027	96	78,114	101	275,141	98
10.....	130,462	86	77,247	104	207,709	92
11.....	111,863	93	63,699	93	175,562	93
12.....	96,546	93	67,618	111	164,164	100
7-12.....	\$1,230,201	98%	\$ 435,361	101%	\$1,665,562	99%
By Attained Age Preceding Disability						
Attained age:						
15-19.....	\$ 11,780	104%	\$ 407	87%	\$ 12,187	104%
20-24.....	62,103	98	4,121	97	66,224	98
25-29.....	80,643	94	6,572	81	87,215	93
30-34.....	88,042	87	12,641	97	100,683	88
35-39.....	161,673	116	21,287	91	182,960	113
40-44.....	179,885	91	45,929	102	225,814	93
45-49.....	269,937	102	86,062	103	355,999	102
50-54.....	210,389	88	115,789	102	326,178	92
55-59.....	165,749	107	142,553	102	308,302	104
15-59.....	\$1,230,201	98%	\$ 435,361	101%	\$1,665,562	99%

TABLE B4
 CRUDE ACTUAL 1959-74 MONTHLY TERMINATION RATES
 ELECTIVE BENEFIT COMPARED WITH CORRESPONDING 1959-74
 GRADUATED MONTHLY TERMINATION RATES FOR
 ELECTIVE BENEFIT SHOWN IN TABLE 19D
 SECOND YEAR OF DISABILITY ONLY
 BASED ON AMOUNTS OF ANNUAL PREMIUMS WAIVED
 CERTAIN CONTRIBUTORS ONLY

	TERMINATIONS BY RECOVERY		TERMINATIONS BY DEATH		TOTAL TERMINATIONS	
	Actual	A/E	Actual	A/E	Actual	A/E
	By Month of Disability					
Disability month:						
13	\$ 116,176	132%	\$ 51,510	106%	\$ 167,686	123%
14	91,406	113	31,280	76	122,686	100
15	60,881	81	29,901	82	90,782	81
16	60,245	86	38,002	111	98,247	94
17	87,441	137	34,804	107	122,245	127
18	59,020	104	40,864	135	99,884	115
19	47,692	94	23,435	85	71,127	90
20	37,573	80	19,308	76	56,881	79
21	33,471	76	20,695	86	54,166	79
22	46,886	110	28,785	125	75,671	115
23	45,374	112	18,993	89	64,367	104
24	36,508	98	17,517	91	54,025	96
13-24	\$ 722,673	104%	\$ 355,094	97%	\$1,077,767	101%
	By Attained Age Preceding Disability					
Attained age:						
15-19	\$ 7,531	83%	\$ 376	94%	\$ 7,907	84%
20-24	39,000	107	1,867	71	40,867	105
25-29	49,790	111	5,067	103	54,857	110
30-34	50,683	87	5,967	64	56,650	84
35-39	77,001	119	12,814	87	89,815	113
40-44	99,245	98	34,701	108	133,946	101
45-49	150,878	107	65,372	102	216,250	105
50-54	148,573	106	92,154	94	240,727	101
55-59	99,972	99	136,776	98	236,748	98
15-59	\$ 722,673	104%	\$ 355,094	97%	\$1,077,767	101%

TABLE B5

CRUDE ACTUAL 1959-74 MONTHLY TERMINATION RATES
 AUTOMATIC AND ELECTIVE BENEFITS COMBINED COMPARED WITH
 CORRESPONDING 1959-74 GRADUATED MONTHLY TERMINATION RATES FOR
 AUTOMATIC AND ELECTIVE BENEFITS SHOWN IN TABLE 19E
 FIRST YEAR OF DISABILITY ONLY
 BASED ON AMOUNTS OF ANNUAL PREMIUMS WAIVED
 CERTAIN CONTRIBUTORS ONLY

	TERMINATIONS BY RECOVERY		TERMINATIONS BY DEATH		TOTAL TERMINATIONS	
	Actual	A/E	Actual	A/E	Actual	A/E
	By Month of Disability					
Disability month:						
7.....	\$1,105,077	91%	\$ 131,810	96%	\$1,236,887	92%
8.....	1,210,290	119	175,589	106	1,385,879	117
9.....	794,184	98	168,095	97	962,279	98
10.....	567,192	88	167,237	97	734,429	90
11.....	442,805	94	149,149	99	591,954	95
12.....	373,261	94	142,730	103	515,991	97
7-12.....	\$4,492,809	99%	\$ 934,610	100%	\$5,427,419	99%
	By Attained Age Preceding Disability					
Attained age:						
15-19.....	\$ 70,240	103%	\$ 2,350	99%	\$ 72,590	102%
20-24.....	303,229	99	12,442	103	315,671	99
25-29.....	356,712	96	22,523	118	379,235	97
30-34.....	418,655	98	26,109	85	444,764	97
35-39.....	578,778	107	53,004	94	631,782	105
40-44.....	713,870	96	109,211	96	823,081	96
45-49.....	795,244	96	197,933	106	993,177	97
50-54.....	763,437	100	248,767	100	1,012,204	100
55-59.....	492,644	100	262,271	100	754,915	100
15-59.....	\$4,492,809	99%	\$ 934,610	100%	\$5,427,419	99%

TABLE B6
 CRUDE ACTUAL 1959-74 MONTHLY TERMINATION RATES
 AUTOMATIC AND ELECTIVE BENEFITS COMBINED COMPARED WITH
 CORRESPONDING 1959-74 GRADUATED MONTHLY TERMINATION RATES FOR
 AUTOMATIC AND ELECTIVE BENEFITS SHOWN IN TABLE 19F
 SECOND YEAR OF DISABILITY ONLY
 BASED ON AMOUNTS OF ANNUAL PREMIUMS WAIVED
 CERTAIN CONTRIBUTORS ONLY

	TERMINATIONS BY RECOVERY		TERMINATIONS BY DEATH		TOTAL TERMINATIONS	
	Actual	A/E	Actual	A/E	Actual	A/E
By Month of Disability						
Disability month:						
13.....	\$ 375,422	114%	\$ 127,912	110%	\$ 503,334	113%
14.....	326,644	114	86,563	88	413,207	107
15.....	210,264	84	76,245	88	286,509	85
16.....	202,840	93	88,546	108	291,386	97
17.....	217,476	112	77,986	100	295,462	109
18.....	171,339	100	82,603	116	253,942	105
19.....	161,116	104	57,320	92	218,436	101
20.....	138,908	99	48,987	88	187,895	96
21.....	114,774	89	53,580	101	168,354	93
22.....	116,296	98	57,582	109	173,878	102
23.....	106,684	110	44,311	96	150,995	105
24.....	86,075	97	45,062	100	131,137	98
13-24.....	\$2,227,838	102%	\$ 846,697	100%	\$3,074,535	102%
By Attained Age Preceding Disability						
Attained age:						
15-19.....	\$ 40,860	94%	\$ 1,986	94%	\$ 42,846	94%
20-24.....	174,225	105	9,944	99	184,169	105
25-29.....	187,524	101	16,685	109	204,209	102
30-34.....	203,870	98	19,263	79	223,133	96
35-39.....	264,742	105	47,864	111	312,606	106
40-44.....	376,911	107	92,092	103	469,003	106
45-49.....	386,815	97	153,726	101	540,541	98
50-54.....	375,505	107	214,080	97	589,585	103
55-59.....	217,386	99	291,057	100	508,443	100
15-59.....	\$2,227,838	102%	\$ 846,697	100%	\$3,074,535	102%

TABLE C1
 CRUDE ACTUAL 1959-74 YEARLY TERMINATION RATES
 AUTOMATIC BENEFIT COMPARED WITH CORRESPONDING 1959-74
 GRADUATED YEARLY TERMINATION RATES FOR
 AUTOMATIC BENEFIT SHOWN IN TABLE 21A
 YEARS OF DISABILITY 1-5 ONLY
 BASED ON AMOUNTS OF ANNUAL PREMIUMS WAIVED

	TERMINATIONS BY RECOVERY		TERMINATIONS BY DEATH		TOTAL TERMINATIONS	
	Actual	A/E	Actual	A/E	Actual	A/E
By Year of Disability						
Disability year:						
1.....	\$3,292,310	98%	\$ 506,696	96%	\$3,799,006	97%
2.....	1,505,165	101	491,603	97	1,996,768	100
3.....	395,775	91	178,657	96	574,432	92
4.....	169,530	120	102,183	115	271,713	118
5.....	58,257	115	58,983	108	117,240	111
1-5.....	\$5,421,037	99%	\$1,338,122	98%	\$6,759,159	99%
By Attained Age Preceding Disability (Years of Disability 1-5 Only)						
Attained age:						
15-19.....	\$ 107,265	98%	\$ 5,103	96%	\$ 112,368	98%
20-24.....	430,954	99	19,675	92	450,629	99
25-29.....	474,764	96	33,257	111	508,021	97
30-34.....	559,195	101	36,731	79	595,926	100
35-39.....	699,584	100	91,298	105	790,882	101
40-44.....	928,135	99	162,464	94	1,090,599	98
45-49.....	884,837	94	262,861	102	1,147,698	95
50-54.....	857,644	103	347,354	97	1,204,998	101
55-59.....	478,659	99	379,379	98	858,038	99
15-59.....	\$5,421,037	99%	\$1,338,122	98%	\$6,759,159	99%

TABLE C2
CRUDE ACTUAL 1959-74 YEARLY TERMINATION RATES
ELECTIVE BENEFIT COMPARED WITH CORRESPONDING 1959-74
GRADUATED YEARLY TERMINATION RATES FOR
ELECTIVE BENEFIT SHOWN IN TABLE 21B
YEARS OF DISABILITY 1-5 ONLY
BASED ON AMOUNTS OF ANNUAL PREMIUMS WAIVED

	TERMINATIONS BY RECOVERY		TERMINATIONS BY DEATH		TOTAL TERMINATIONS	
	Actual	A/E	Actual	A/E	Actual	A/E
By Year of Disability						
Disability year:						
1.....	\$1,573,971	100%	\$ 560,577	103%	\$2,134,548	100%
2.....	907,001	103	467,263	101	1,374,264	102
3.....	365,098	105	246,631	98	611,729	102
4.....	123,057	84	184,427	112	307,484	99
5.....	78,513	120	102,551	88	181,064	99
1-5.....	\$3,047,640	101%	\$1,561,449	101%	\$4,609,089	101%
By Attained Age Preceding Disability (Years of Disability 1-5 Only)						
Attained age:						
15-19.....	\$ 28,843	100%	\$ 1,073	87%	\$ 29,916	97%
20-24.....	155,168	106	8,896	94	164,064	106
25-29.....	198,135	102	18,639	99	216,774	102
30-34.....	230,176	94	31,130	94	261,306	94
35-39.....	369,457	111	59,776	95	429,233	108
40-44.....	486,024	100	134,997	102	621,021	101
45-49.....	634,636	104	281,548	110	916,184	106
50-54.....	533,359	93	397,337	96	930,696	94
55-59.....	411,842	102	628,053	102	1,039,895	102
15-59.....	\$3,047,640	101%	\$1,561,449	101%	\$4,609,089	101%

TABLE C3
CRUDE ACTUAL 1959-74 YEARLY TERMINATION RATES
AUTOMATIC AND ELECTIVE BENEFITS COMBINED COMPARED WITH
CORRESPONDING 1959-74 GRADUATED YEARLY TERMINATION RATES FOR
AUTOMATIC AND ELECTIVE BENEFIT SHOWN IN TABLE 21C
YEARS OF DISABILITY 1-5 ONLY
BASED ON AMOUNTS OF ANNUAL PREMIUMS WAIVED

	TERMINATIONS BY RECOVERY		TERMINATIONS BY DEATH		TOTAL TERMINATIONS	
	Actual	A/E	Actual	A/E	Actual	A/E
By Year of Disability						
Disability year:						
1.....	\$4,866,281	97%	\$1,067,273	101%	\$5,933,554	98%
2.....	2,412,166	101	958,866	100	3,371,032	101
3.....	760,873	97	425,288	96	1,186,161	96
4.....	292,587	102	286,610	113	579,197	107
5.....	136,770	119	161,534	95	298,304	105
1-5.....	\$8,468,677	99%	\$2,899,571	101%	\$11,368,248	99%
By Attained Age Preceding Disability (Years of Disability 1-5 Only)						
Attained age:						
15-19.....	\$ 136,108	99%	\$ 6,176	108%	\$ 142,284	99%
20-24.....	586,122	101	28,571	100	614,693	101
25-29.....	672,899	97	51,896	112	724,795	98
30-34.....	789,371	98	67,861	89	857,232	97
35-39.....	1,069,041	103	151,074	103	1,220,115	103
40-44.....	1,414,159	99	297,461	99	1,711,620	99
45-49.....	1,519,473	97	544,409	107	2,063,882	99
50-54.....	1,391,003	98	744,691	97	2,135,694	98
55-59.....	890,501	98	1,007,432	101	1,897,933	100
15-59.....	\$8,468,677	99%	\$2,899,571	101%	\$11,368,248	99%

