

TRANSACTIONS OF SOCIETY OF ACTUARIES 1982 REPORTS

III. EXPERIENCE UNDER TERM CONVERSIONS AND GUARANTEED INSURABILITY OPTIONS BETWEEN 1971 AND 1978 POLICY ANNIVERSARIES

ABSTRACT

This report covers the intercompany study of experience between 1971 and 1978 policy anniversaries for two types of benefits, namely, term insurance conversion rights and guaranteed insurability options (GIO). The study was designed to derive information relative to conversion and election rates, lapse rates, and mortality rates required to evaluate the extra mortality costs associated with each of these benefits according to a basis described in Appendix II. Expected death claims are based on the 1965-70 Basic Tables. The following comments apply to the six different sets of experience submitted by the contributors.

TERM CONVERSION RATES

Only aggregate conversion rates by attained age at conversion were derived, because of the limited amount of data provided. Conversion rates increase with attained age and are higher than those derived in the 1966-71 study.

LAPSE RATES UNDER CONVERTED POLICIES

Analyses were prepared to continue the historical experience shown in the prior 1966-71 intercompany study for policy-year duration measured from the date of issue of the conversion policy. In the aggregate, the lapse rate for the recent 1971-78 period is higher than that for prior periods. However, by duration, there is no consistent pattern.

MORTALITY RATIOS UNDER CONVERTED POLICIES

Analyses were prepared to continue the historical experience shown in the prior 1966-71 intercompany study for policy-year duration measured from the date of issue of the original term policy. The mortality ratios for the recent 1971-78 period are generally lower than those for the prior period except for conversions made at the end of the conversion period on decreasing term plans. The overall mortality ratio for conversions made prior to the end of the conversion period is lower than the mortality ratio for conversions made at the end of the conversion period. The overall ratio for medical business is lower than that for nonmedical business. Decreasing term plan conversions exhibit the highest mortality ratio.

Analyses were also prepared to show experience with respect to policy-year duration measured from the conversion date.

GIO ELECTION RATES

Election rates by attained age at election were derived for regular election and special elections. Rates for regular election increase steadily with advancing age

for central ages 31, 34, 37, and 40. The regular election rates are greater than in the previous study. Rates for special elections show a peak for the attained-age group 36–40.

LAPSE RATES UNDER GIO ELECTIONS

Lapse rates for both regular and special election appear to be favorable. The overall rates for issue-age groups for medical business are consistently lower than for the corresponding nonmedical business. The rates for regular elections are slightly higher than those for special elections.

MORTALITY RATIOS UNDER GIO ELECTIONS

Male business experienced overall ratios somewhat in excess of the expected. Medical business experienced overall ratios that were lower than those for nonmedical business.

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PREFACE

The prior study of the mortality and lapse experience on term plan conversions and guaranteed insurability options conducted by the Society

of Actuaries Committee on Mortality under Ordinary Insurance and Annuities covered the experience between 1966 and 1971 policy anniversaries. The results of this study were published in the *1973 TSA Reports*.

Because of the continued interest in conversions and GIO elections, the Committee decided that various facets of experience related to these benefits should be the subject of a continuing investigation. For the 1971–78 study, as in the earlier study, the Committee decided to concentrate on data that could be used to develop the costs of extra mortality experienced under conversions and GIO elections according to a specific formula.

For the purpose of the conversion study, the Committee followed the concept that the present value of the extra mortality costs on the date of issue of the original policy is dependent on nine major elements: assumed rate of interest, issue age and persistency of the original plan, conversion period, conversion rate, plan of conversion policy, persistency and mortality under the conversion policy, and mortality under corresponding standard nonconversion policies. A similar concept was followed for GIO elections.

The reader may wish to refer to Appendix I for the instructions given to contributing companies and also to Appendix II for details of the concept described above for measuring extra mortality costs. Expected deaths for this report are based on the 1965–70 Male Basic Tables and on the 1965–70 Female Basic Tables for the experience submitted by sex. The 1965–70 Combined Basic Tables were used for the small volume of data submitted for the ultimate experience that was not separated by sex. War deaths were excluded from this experience.

PART A: TERM CONVERSION EXPERIENCE

Part A presents term conversion experience relating to three of the five sets of rates that are required under the formulas given in Appendix II as a basis for measuring the present value of extra mortality costs. These three sets of rates include conversion rates, lapse rates under converted policies, and mortality rates under converted policies. The Committee believes that suitable data for the two remaining rates required to measure the extra mortality costs (namely, the persistency rates applicable to the period prior to the date of conversion and the mortality rates thereafter for standard nonconversion policies) may be obtained from company experience or from published sources.

The four categories of term plans that were studied in the prior reports were once again studied this time, namely, plans automatically convertible within ten years, renewable term plans, decreasing term plans, and all other identifiable term plans, which consist primarily of other level term insurance

plans. The same two types of major conversion groups were once again analyzed—conversion group 1 for conversion policies issued prior to the end of the conversion period and conversion group 2 for conversion policies issued at the end of the conversion period.

A(1). Conversion Rates under Term Policies

The definition of the conversion rate given in Appendix II expresses this rate as a function of three variables: issue age of the term plan, conversion period, and duration at conversion. For the purpose of this study, however, the assumption was adopted that conversion rates for each of the two major conversion groups would depend primarily on one variable—the attained age on the date of conversion. In order to test this assumption with respect to the degree of the conversion rate dependence on both (i) attained age at conversion and (ii) duration at conversion, companies were asked to report their experience by attained-age groups each separated into two duration subgroups: conversions effected during the first seven policy years and those effected thereafter. The data for the conversion rate experience were furnished by the companies on Report Form No. 1 as shown in Appendix I.

Unfortunately, only two companies were able to supply conversion rate experience and one of them could only supply aggregate data by attained age. Therefore, it was not possible to present the analysis of data by conversion group, category of term plan, and duration subgroup, since the analysis would have been based on the limited experience of only one company.

Table I presents a summary of the aggregate conversion rates based on amounts of insurance as reported by the two companies. The total number

TABLE I
 TERM CONVERSION RATES BY ATTAINED AGE AT
 CONVERSION*
 (Based on Amounts)

Attained Age at Conversion	Aggregate Conversion Rate	Number of Conversions
15-24	3.8%	4,022
25-34	4.6	25,063
35-44	6.0	25,720
45-54	7.8	14,324
55 and over	7.7	3,461
Total	5.6	72,590

* Based on the experience of two contributing companies.

of conversions contributed was 72,590. The exposure used to obtain a particular rate shown in Table 1 was estimated from each company's actual number of conversions and the related conversion rate, which was submitted on an amount basis.

The rates shown in Table 1 suggest a tendency for rates to increase with attained age up to the 45–54 age group. Conversion rates for the 1971–78 study period are higher than those shown in the Table 3 Summary of the 1966–71 study.

A(2). Lapse Rates under Converted Policies

The definition for the persistency rate used in formula (2) of Appendix II assumes that the corresponding lapse rate for a conversion policy arising from a particular term plan type is a function of four variables. The 1961–66 lapse study for conversion policies suggested that the use of four variables may be an unnecessary refinement for practical purposes and that the assumption might be made that lapse rates would depend primarily on only two of these variables, namely, age at issue of the conversion policy and duration measured from its issue date, provided that the conversions at the end of the conversion period are separated from the earlier conversions. The cost of conversion, furthermore, would appear to be much more dependent upon conversion rates and the associated excess mortality rates under conversion policies than upon the general level of lapse rates. Because of these considerations, the Committee decided for the purpose of this report to continue the simpler two-variable lapse rate assumptions distinguishing between conversion groups 1 and 2.

The data for the lapse experience were furnished by the five companies listed in Appendix IV. The total exposure was 1,993,607 by number of policies and \$30.5 billion by amount of insurance. There were 76,572 lapses with a total of \$1.3 billion of insurance.

Tables 2–7 were prepared in a form that continues the experience shown in Tables 5–10 of the prior lapse study (see p. 138 of the *1973 Reports*). The results, as before, are analyzed by number of policies and amount of insurance for the two major conversion groups as to time of conversion. In the case of conversion group 2, analyses were also prepared by type of conversion privilege (i.e., the interval between the end of the conversion period and the end of the term coverage). Subdivisions of the experience for term plan groups are given also for sex, for type of underwriting of the original policy (i.e., medical or nonmedical), and for type of contract (i.e., policy or rider).

AC2.1. GENERAL COMMENT ON RESULTS

Table 2, which was prepared to summarize the experience for all types

TABLE 2
LAPSE RATES FOR CONVERSIONS FROM ALL TERMS PLANS COMBINED
MALE AND FEMALE, MEDICAL AND NONMEDICAL, POLICIES AND RIDERS COMBINED

AGE AT CONVERSION	DERIVATION FROM CONVERSION	CONVERSIONS PRIOR TO END OF PERIOD			CONVERSION AT END OF CONVERSION PERIOD WITH INTERVAL BETWEEN END OF CONVERSION PERIOD AND END OF TERM COVERAGE OF:												TOTAL					
		No. of Lapses	Lapse Rate		0 Years			1-3 Years			Over 3 Years			Unknown						Total		
			No.	Amt.	No. of Lapses	Lapse Rate		No. of Lapses	Lapse Rate		No. of Lapses	Lapse Rate		No. of Lapses	Lapse Rate		No. of Lapses	Lapse Rate				
						No.	Amt.		No.	Amt.		No.	Amt.		No.	Amt.		No.	Amt.			
		Select																				
15-24	1	3,110	11.3%	11.4%	40	8.6%	8.0%	1	20.0%	8.2%	3	15.0%	20.7%	0	0%	0%	44	8.9%	9.3%	3,154	11.3%	11.4%
	2	1,477	7.0	7.3	11	3.0	2.4	1	33.3	4.7	0	0	0	0	0	0	12	3.1	2.3	1,489	6.9	7.2
	3-5	1,689	4.4	4.8	17	2.7	2.7	0	.0	0	3	25.0	40.3	0	0	0	20	3.1	3.3	1,709	4.4	4.8
	6-15	681	3.5	3.9	8	4.4	4.4	0	.0	0	0	0	0	0	0	0	8	4.4	4.4	689	3.5	3.9
	Total	6,957	6.5%	7.1%	76	4.6%	4.5%	2	16.6%	3.5%	6	13.3%	17.2%	0	0%	0%	84	5.0%	5.1%	7,041	6.5%	7.0%
25-34	1	11,746	9.4%	8.9%	215	6.8%	6.3%	16	8.1%	8.1%	38	5.9%	7.2%	0	0%	0%	269	6.7%	6.5%	12,105	9.3%	8.8%
	2	5,758	6.0	5.8	70	2.8	2.6	10	5.5	7.9	17	3.5	5.4	0	0	.0	97	3.1	3.2	5,855	5.9	5.7
	3-5	7,541	4.3	5.2	136	3.0	3.5	12	2.3	2.0	22	3.4	5.1	1	12.5	14.5	171	3.0	3.5	7,712	4.2	5.1
	6-15	4,166	2.7	3.3	80	1.8	1.9	13	1.5	2.2	1	1.1	1.1	0	0	.0	94	1.8	2.0	4,260	2.7	3.2
	Total	29,211	5.3%	5.9%	501	3.5%	3.7%	51	2.9%	3.4%	78	4.2%	6.0%	1	5.8%	6.9%	631	3.5%	3.9%	29,842	5.2%	5.8%
35-44	1	7,172	6.8%	5.9%	148	4.0%	4.2%	51	5.5%	4.3%	97	2.8%	2.8%	1	50.0%	33.3%	297	3.5%	3.7%	7,469	6.6%	5.7%
	2	3,137	3.5	3.6	76	2.2	2.5	24	2.6	2.1	53	1.5	1.7	0	0	.0	153	2.0	2.2	3,290	3.4	3.6
	3-5	6,065	3.2	4.1	184	2.1	2.8	46	1.6	1.3	114	1.7	2.0	0	0	.0	344	1.9	2.4	6,409	3.1	4.0
	6-15	4,450	2.1	3.0	222	1.5	1.6	68	1.4	2.1	45	1.5	2.3	0	0	.0	335	1.5	1.8	4,785	2.0	2.9
	Total	20,824	3.5%	4.1%	630	2.1%	2.6%	189	2.0%	2.1%	309	1.8%	2.1%	1	9.0%	5.0%	1,129	2.0%	2.4%	21,953	3.4%	4.0%
45-54	1	3,159	5.4%	4.0%	70	3.0%	3.8%	62	4.3%	6.0%	112	2.1%	1.7%	0	0%	0%	244	2.7%	2.4%	3,603	5.0%	3.9%
	2	1,465	2.7	2.9	40	1.8	1.6	24	1.6	1.8	47	.9	.7	0	0	.0	111	1.2	1.2	1,576	2.5	2.8
	3-5	2,967	2.4	3.4	139	2.4	2.5	69	1.6	1.4	150	1.4	1.3	0	0	.0	358	1.7	1.9	3,325	2.3	3.2
	6-15	2,316	2.0	2.7	203	2.1	2.4	104	1.5	1.6	117	2.1	2.1	0	0	.0	424	1.9	2.1	2,740	2.0	2.7
	Total	10,107	2.8%	3.2%	452	2.2%	2.6%	259	1.8%	2.1%	426	1.6%	1.4%	0	0%	0%	1,137	1.9%	2.1%	11,244	2.7%	3.1%

TABLE 2—Continued

AGE AT CONVERSION	DURATION FROM CONVERSION	CONVERSIONS PRIOR TO END OF PERIOD			CONVERSION AT END OF CONVERSION PERIOD WITH INTERVAL BETWEEN END OF CONVERSION PERIOD AND END OF TERM COVERAGE OF														TOTAL			
		Lapse Rate		0 Years		1-3 Years		Over 3 Years			Unknown			Total								
		No. of Lapses	No.	Amt.	No. of Lapses	Lapse Rate		No. of Lapses	Lapse Rate		No. of Lapses	Lapse Rate		No. of Lapses	Lapse Rate		No. of Lapses	No.	Amt.			
						No.	Amt.		No.	Amt.		No.	Amt.		No.	Amt.						
Select—Continued																						
55 and over	1	686	4.4%	4.0%	21	3.5%	2.6%	47	5.9%	8.3%	41	7.0%	1.7%	3	8.0%	2.9%	112	3.2%	3.3%	798	4.1%	3.9%
	2	351	2.6	2.8	14	2.6	3.4	17	2.1	1.3	28	1.4	4.8	1	1.6	3.4	60	1.8	1.3	411	2.4	2.8
	3-5	741	2.6	3.1	35	2.6	2.3	61	2.6	5.6	60	1.4	1.4	7	1.4	2.2	158	2.0	2.9	899	2.5	3.1
	6-15	667	3.0	3.8	113	4.1	3.6	80	2.1	2.6	42	2.6	5.7	1	1.1	7.7	236	2.8	3.4	903	3.0	3.7
Total		2,445	3.1%	3.4%	183	3.5%	3.0%	205	2.6%	4.0%	171	1.7%	3.7%	7	2.0%	2.3%	566	2.4%	3.2%	3,011	2.9%	3.4%
All ages	1	26,073	7.8%	6.8%	494	4.8%	4.6%	177	5.2%	6.0%	291	2.4%	2.6%	4	5.9%	3.1%	966	3.8%	4.0%	27,039	7.5%	6.7%
	2	12,188	4.4	4.4	211	2.3	2.3	76	2.2	2.1	145	1.3	1.9	1	1.4	3.2	433	1.8	2.1	12,621	4.2	4.3
	3-5	19,003	3.4	4.3	511	2.4	2.8	188	1.9	2.2	349	1.6	1.8	3	2.0	2.4	1,051	2.0	2.4	20,054	3.3	4.2
	6-15	12,280	2.3	3.1	626	2.0	2.1	265	1.6	2.0	205	2.0	2.7	1	1.0	7	1,097	1.9	2.1	13,377	2.3	3.0
Total		69,544	4.1%	4.6%	1,842	2.6%	2.9%	706	2.1%	2.6%	990	1.8%	2.1%	9	2.3%	2.4%	3,547	2.2%	2.6%	73,091	4.0%	4.5%
Ultimate																						
Attained ages	30-49	357	1.5%	1.8%	11	1.6%	1.9%	0	0%	0%	0	0%	0%	0	0%	0%	11	1.3%	1.8%	368	1.5%	1.8%
	50-59	1,014	1.5	1.7	76	1.6	1.5	18	2.3	2.7	1	2.9	1.8	0	0	0	98	1.7	1.7	1,112	1.5	1.7
	60 and over	1,622	2.7	2.7	329	2.7	2.9	37	2.0	2.7	13	2.0	1.7	0	0	0	379	2.5	2.8	2,001	2.7	2.7
Total		2,993	2.0%	2.1%	416	2.3%	2.4%	55	2.0%	2.6%	17	2.1%	1.7%	0	0%	0%	488	2.3%	2.4%	3,481	2.0%	2.2%
Grand total		72,537	3.9%	4.5%	2,258	2.5%	2.8%	761	2.1%	2.6%	1,007	1.8%	2.1%	9	2.3%	2.4%	4,035	2.2%	2.6%	76,572	3.8%	4.4%

of term insurance plans combined, shows the lapse rates experienced on attained-age conversions when duration is measured from date of conversion. The results are shown separately for conversion groups 1 and 2, that is, for policies issued prior to the end of the conversion period and for policies issued at the end of the conversion period. Furthermore, the data were subdivided into select (first fifteen years after conversion) and ultimate (durations 16 and over) experience.

The overall lapse rate was 3.8 percent by number of policies and 4.4 percent by amount of insurance. During the first fifteen years after conversion, the rate was 4.5 percent by amount of insurance. The rates during the select period generally showed a decrease by duration, the rates by amount for all ages combined varying from 6.7 percent for duration 1 to 3.0 percent for durations 6–15. For durations 16 and over, the overall rate by amount was 2.2 percent. The rate was 1.8 percent for attained ages under 50, and 2.7 percent for ages 60 and over.

Duration 1 lapse rates by amount decreased sharply with increasing age from 11.4 percent for ages 15–24 to 3.9 percent for ages 55 and over. For all select durations combined, the rates by amount ranged from 7.0 percent for ages 15–24 to 3.1 percent for ages 45–54.

The overall lapse rate by amount of insurance for conversions prior to the end of the period during which conversion was permitted was 4.6 percent, while the first-year lapse rate was 6.8 percent. For conversions at the end of the conversion period the lapse rates were 2.6 percent and 4.0 percent respectively.

For plans converted at the end of the period during which conversion was permitted, the first-year lapse rate by amount was 4.6 percent when conversion was permitted until the end of the term coverage, 6.0 percent when conversion was permitted only until from one to three years prior to expiry of the term coverage, and 2.6 percent when conversion was permitted only until four years or more prior to expiry of the term coverage.

The first-year lapse rates by amount of insurance for individual companies ranged from a low of 4.2 percent to a high of 9.0 percent, and the overall rates ranged from a low of 3.0 percent to a high of 5.5 percent.

AC 2). ANALYSIS BY TYPE OF TERM INSURANCE

Tables 3 and 4 analyze the lapse rates for the four types of term insurance, with three of the types being further subdivided according to whether conversion took place at or prior to the end of the conversion period. A separation for the renewable term plan category for the two conversion groups was not prepared because of the small volume of data for conversion group 2.

TABLE 3

LAPSE RATES BY TYPE OF TERM INSURANCE, MALE AND FEMALE,
MEDICAL AND NONMEDICAL, POLICIES AND RIDERS COMBINED

AGE AT CONVERSION	DURATION FROM CONVERSION	CONVERSIONS FROM TERM PLANS AUTOMATICALLY CONVERTIBLE WITHIN 10 YEARS						CONVERSIONS FROM RENEWABLE TERM PLANS PROVIDING LEVEL AMOUNTS OF INSURANCE			
		Conversions Prior to End of Period		Conversions at End of Period		Total		Total			
		No. of Lapses	Rate by Amt.	No. of Lapses	Rate by Amt.	No. of Lapses	Lapse Rate	No. of Lapses	Lapse Rate		
									No.	Amt.	No.
Select											
15-24	1	1,411	10.8%	29	7.7%	1,440	10.1%	10.7%	128	10.8%	10.2%
	2	651	6.4	11	3.0	662	5.9	6.8	144	6.3	6.5
	3-5	811	4.7	10	2.1	821	4.7	4.7	179	4.7	4.9
	6-15	169	4.1	3	2.5	172	3.7	3.4	67	3.0	3.3
	Total	3,042	6.4%	53	3.2%	3,095	6.2%	6.9%	318	6.3%	6.8%
25-34	1	2,728	10.6%	150	7.4	2,878	9.7	10.4%	1,780	7.7%	8.2%
	2	1,283	6.2	40	2.7	1,323	5.7	6.0	782	4.8	4.8
	3-5	1,793	5.7	74	4.4	1,867	5.0	5.6	1,099	4.6	5.7
	6-15	321	5.3	9	3.1	330	4.4	5.2	485	3.0	3.7
	Total	6,125	7.3%	273	4.9%	6,398	6.5%	7.2%	4,146	5.2%	6.1%
35-44	1	828	7.0%	61	4.9%	889	6.8%	6.8%	935	4.7%	5.6%
	2	427	4.3	27	2.7	454	4.2	4.2	432	2.9	3.0
	3-5	796	5.0	46	2.9	842	4.5	4.9	819	3.4	4.0
	6-15	169	5.0	8	1.8	177	4.2	4.9	565	2.5	3.4
	Total	2,220	5.4%	142	3.5%	2,362	5.1%	5.3%	2,751	3.4%	4.1%
45-54	1	222	4.9%	32	4.4%	254	3.9%	4.8%	362	3.6%	2.8%
	2	137	4.3	10	1.8	147	3.3	4.0	215	2.7	2.9
	3-5	245	4.2	20	3.0	265	3.4	4.1	403	2.9	3.5
	6-15	82	5.5	4	3.7	86	4.6	5.4	322	2.6	3.3
	Total	686	4.5%	66	3.2%	752	3.9%	4.4%	1,302	2.9%	3.1%
55 and over	1	33	6.5%	4	1.0%	37	3.4%	5.9%	93	3.5%	2.7%
	2	33	3.9	2	3.3	35	3.8	3.9	51	2.3	2.6
	3-5	54	6.3	4	3.7	58	5.8	6.1	90	2.4	2.4
	6-15	23	11.5	0	.0	23	6.6	10.6	96	3.4	4.1
	Total	143	6.2%	10	2.4%	153	4.0%	5.9%	330	2.9%	2.8%
All ages	1	5,222	8.9%	276	5.5%	5,498	8.7%	8.6%	3,495	6.0%	5.9%
	2	2,531	5.4	90	2.5	2,621	5.2	5.2	1,624	3.7	3.6
	3-5	3,699	5.2	154	3.4	3,853	4.5	5.1	2,500	3.7	4.3
	6-15	764	5.3	24	2.5	788	4.2	5.2	1,535	2.7	3.4
	Total	12,216	6.3%	544	3.9%	12,760	5.9%	6.2%	9,244	4.0%	4.5%
Ultimate											
Attained ages:											
30-49		0	0%	0	0%	0	0%	0%	46	1.6%	1.7%
50-59		0	0	0	0	0	0	0	195	1.9	1.9
60 and over		0	0	0	.0	0	0	0	245	2.7	2.9
Total		0	0%	0	0%	0	0%	0%	486	2.2%	2.3%
Grand total		12,216	6.3%	544	3.9%	12,760	5.9%	6.2%	9,730	3.9%	4.4%

TABLE 4
LAPSE RATES BY TYPE OF TERM INSURANCE,
MALE AND FEMALE, MEDICAL AND NONMEDICAL, POLICIES AND RIDERS COMBINED

AGE AT CONVERSION	DURATION FROM CONVERSION	CONVERSIONS FROM DECREASING TERM PLANS							CONVERSIONS FROM ALL OTHER IDENTIFIABLE TERM PLANS								
		Conversions Prior to End of Period		Conversions at End of Period		Total			Conversions Prior to End of Period		Conversions at End of Period		Total				
		No. of Lapses	Rate by Amt.	No. of Lapses	Rate by Amt.	No. of Lapses	Lapse Rate		No. of Lapses	Rate by Amt.	No. of Lapses	Rate by Amt.	No. of Lapses	Rate by Amt.	No. of Lapses	Lapse Rate	
							No.	Amt.								No.	Amt.
		Select															
15-24.....	1	1,020	14.5%	1	9.1%	1,021	14.8%	14.4%	358	10.6%	11	8.4%	369	9.8%	10.6%		
	2	475	9.9	1	5.3	476	9.9	9.9	208	7.2	0	0	208	6.4	7.0		
	3- 5	398	5.5	2	21.2	400	5.1	5.5	300	4.4	7	4.5	307	4.1	4.4		
	6-15	140	4.5	0	.0	140	4.1	4.5	304	3.6	5	7.2	309	3.3	3.6		
	Total	2,033	9.2%	4	13.3%	2,037	8.9%	9.2%	1,170	5.7%	23	5.1%	1,193	5.0%	5.7%		
25-34.....	1	6,218	9.3%	33	5.9%	6,251	10.5%	9.3%	1,031	6.6%	74	4.6%	1,105	6.7%	6.5%		
	2	3,007	6.6	17	4.3	3,024	6.7	6.6	691	5.3	36	2.9	727	4.9	5.2		
	3- 5	3,124	4.2	28	5.9	3,152	3.8	4.2	1,526	5.6	69	2.6	1,595	4.1	5.4		
	6-15	1,349	3.2	6	1.8	1,355	2.8	3.2	2,009	2.9	79	1.9	2,088	2.4	2.9		
	Total	13,698	5.9%	84	5.2%	13,782	5.9%	5.9%	5,257	4.5%	258	2.7%	5,515	3.5%	4.4%		

TABLE 4--Continued

AGE AT CONVERSION	DURATION FROM CONVERSION	CONVERSIONS FROM DECREASING TERM PLANS							CONVERSIONS FROM ALL OTHER IDENTIFIABLE TERM PLANS						
		Conversions Prior to End of Period		Conversions at End of Period		Total			Conversions Prior to End of Period		Conversions at End of Period		Total		
		No. of Lapses	Rate by Amt	No. of Lapses	Rate by Amt	No. of Lapses	Lapse Rate		No. of Lapses	Rate by Amt.	No. of Lapses	Rate by Amt.	No. of Lapses	Lapse Rate	
							No.	Amt.						No.	Amt.
<i>Select Continued</i>															
35-44.....	1	4,883	6.6%	92	2.2%	4,975	7.7%	6.5%	546	3.8%	127	3.3%	673	4.1%	3.7%
	2	1,898	3.9	49	1.4	1,947	3.6	3.8	381	3.7	75	2.1	456	2.8	3.5
	3- 5	3,242	3.4	119	2.1	3,361	2.9	3.3	1,210	4.6	176	2.4	1,386	2.9	4.3
	6-15	1,669	2.5	38	1.4	1,707	1.9	2.5	2,047	3.1	289	1.8	2,336	2.0	2.9
	Total	11,692	4.0%	298	1.9%	11,990	3.7%	3.9%	4,184	3.6%	667	2.2%	4,851	2.4%	3.5%
45-54.....	1	2,542	4.8%	137	2.1%	2,679	5.7%	4.6%	242	3.8%	67	3.7%	309	3.2%	3.8%
	2	938	2.6	49	.8	987	2.4	2.5	175	2.6	51	1.5	226	2.4	2.4
	3- 5	1,797	2.7	177	1.5	1,974	2.1	2.6	524	3.9	159	2.0	683	2.5	3.5
	6-15	1,020	2.1	111	1.6	1,131	1.6	2.1	892	2.7	309	2.2	1,201	2.2	2.6
	Total	6,297	3.0%	474	1.5%	6,771	2.7%	2.9%	1,833	3.2%	586	2.3%	2,419	2.4%	3.0%
55 and over....	1	507	4.7%	69	2.2%	576	4.5%	4.3%	57	2.8%	35	5.8%	92	3.3%	3.5%
	2	214	2.3	32	3.5	246	2.2	2.5	54	2.9	25	3.9	79	3.0	3.2
	3- 5	468	2.6	76	1.2	544	2.3	2.4	137	3.2	70	4.2	207	2.9	3.4
	6-15	289	2.9	66	2.1	355	2.4	2.8	263	3.7	166	3.7	429	3.4	3.7
	Total	1,478	3.1%	243	2.1%	1,721	2.8%	2.9%	511	3.3%	296	4.1%	807	3.2%	3.5%

TABLE 4—Continued

AGE AT CONVERSION	DURATION FROM CONVERSION	CONVERSIONS FROM DECREASING TERM PLANS							CONVERSIONS FROM ALL OTHER IDENTIFIABLE TERM PLANS						
		Conversions Prior to End of Period		Conversions at End of Period		Total			Conversions Prior to End of Period		Conversions at End of Period		Total		
		No. of Lapses	Rate by Amt.	No. of Lapses	Rate by Amt.	No. of Lapses	Lapse Rate		No. of Lapses	Rate by Amt.	No. of Lapses	Rate by Amt.	No. of Lapses	Lapse Rate	
							No.	Amt.						No.	Amt.
Select—Continued															
All ages	1	15,170	7.4%	332	2.4%	15,502	8.2%	7.2%	2,234	5.0%	314	3.9%	2,548	5.2%	4.9%
	2	6,532	4.6	148	1.7	6,680	4.2	4.5	1,509	4.1	187	2.1	1,696	3.6	3.8
	3-5	9,029	3.5	402	1.8	9,431	2.9	3.4	3,697	4.6	481	2.5	4,178	3.2	4.4
	6-15	4,467	2.6	221	1.7	4,688	2.1	2.6	5,515	3.0	848	2.2	6,363	2.2	2.9
	Total	35,198	4.5%	1,103	1.9%	36,301	4.1%	4.4%	12,955	3.9%	1,830	2.5%	14,785	2.9%	3.7%
Ultimate															
Attained ages:															
30-49		14	1.7%	0	.0%	14	1.3%	1.7%	297	1.9%	11	.8%	308	1.5%	1.8%
50-59		52	1.4	0	.0	52	1.3	1.4	767	1.7	98	1.7	865	1.5	1.7
60 and over		64	2.1	0	.0	64	2.8	2.0	1,313	2.6	379	2.8	1,692	2.6	2.7
Total		130	1.6%	0	.0%	130	1.8%	1.6%	2,377	2.1%	488	2.4%	2,865	2.0%	2.1%
Grand total		35,328	4.4%	1,103	1.9%	36,431	4.0%	4.3%	15,332	3.6%	2,318	2.5%	17,650	2.7%	3.5%

95

Of the 2,258 lapses on conversions issued at the end of the conversion period when conversion was permitted until the end of the term coverage, only 544 were lapses from policies providing automatic conversion within ten years.

This group experienced the highest lapse rates with an overall lapse rate by amount of 6.2 percent, as compared with 4.4 percent for all plans combined, and a first-year lapse rate of 8.6 percent, as compared with 6.7 percent for all plans combined.

For all durations combined for each type of term insurance, lapse rates were lower for policies converted at the end of the conversion period.

AC2.3). ANALYSIS BY SEX

The analysis by sex given in Table 5 shows that female lapse rates by amounts generally were higher than male rates, with differences not varying much by age or duration. During the select period the female rate was 4.8 percent, compared with 3.7 percent for males; during the ultimate period the female rate was 2.5 percent, compared with 1.8 percent for males. In contrast, the 1966–71 study indicated female rates generally were lower than male rates.

AC2.4). ANALYSIS BY TYPE OF UNDERWRITING

The analysis of lapse rates for medical, nonmedical, and paramedical business given in Table 6 shows a first-year lapse rate by amount of 7.1 percent for paramedical issues, 4.0 percent for medical issues, and 6.5 percent for nonmedical issues.

AC2.5). ANALYSIS BY ORIGINAL POLICY AND RIDER FORMS

A comparison of lapse rates on conversions from term policies and term riders given in Table 7 shows that, in general, conversions from the policies included in the "all other identifiable term plans" group have a higher lapse rate than conversions from the term riders in that group, the duration 1 rates being 6.0 percent for policy conversions and 3.6 percent for rider conversions and the overall rates being 4.2 percent for policy conversions and 2.9 percent for rider conversions. In contrast, conversions from the policies included in the "decreasing term plans" group had a lower duration 1 rate than conversions from the term riders in that group.

AC2.6). COMPARISON WITH THE 1966–71 STUDY

Table 8 compares aggregate lapse rates shown in Tables 6 and 7 of the *1973 Reports* with those derived from the present study. In the aggregate the lapse rates for the current study are slightly higher than those shown

TABLE 5
LAPSE RATES FOR TERM CONVERSIONS BY SEX,
ALL CONVERSION CODES, TERM PLANS,
MEDICAL AND NONMEDICAL, POLICIES AND RIDERS COMBINED

AGE AT CONVERSION	DURATION FROM CONVERSION	MALE			FEMALE		
		No. of Lapses	Lapse Rate		No. of Lapses	Lapse Rate	
			By Policies	By Amount		By Policies	By Amount
Select							
15-24	1	2,397	11.1%	11.2%	867	11.2%	11.9%
	2	1,168	6.5	7.0	413	7.3	7.1
	3- 5	1,707	4.1	4.5	441	4.4	5.3
	6-15	1,655	3.1	3.4	195	3.4	3.2
	Total	6,927	5.2%	5.8%	1,916	6.6%	7.3%
25-34	1	10,899	9.3%	8.7%	1,649	7.8%	7.8%
	2	5,338	5.4	5.3	902	5.6	5.8
	3- 5	8,615	3.8	4.5	1,060	3.9	4.8
	6-15	8,920	2.3	2.7	497	2.7	3.2
	Total	33,772	4.1%	4.7%	4,108	5.0%	5.6%
35-44	1	6,883	6.2%	5.4%	877	6.1%	5.9%
	2	3,194	3.1	3.2	392	3.4	3.5
	3- 5	7,470	2.8	3.5	679	2.9	3.9
	6-15	10,130	1.8	2.3	588	2.4	3.3
	Total	27,677	2.7%	3.2%	2,536	3.4%	4.1%
45-54	1	3,290	4.7%	3.7%	419	5.8%	5.1%
	2	1,530	2.3	2.6	191	3.2	4.0
	3- 5	3,786	2.2	3.0	380	2.9	3.7
	6-15	5,815	2.0	2.5	412	2.8	3.0
	Total	14,421	2.4%	2.8%	1,402	3.4%	3.8%
55 and over	1	721	3.9%	3.6%	102	6.6%	5.3%
	2	414	2.4	3.1	35	2.7	2.1
	3- 5	1,010	2.4	3.0	93	3.3	3.6
	6-15	1,719	3.0	3.3	104	3.5	4.9
	Total	3,864	2.9%	3.3%	334	3.9%	4.1%
All ages	1	24,190	7.1%	6.4%	3,914	7.1%	7.2%
	2	11,644	3.9	3.9	1,933	4.8	4.8
	3- 5	22,588	3.0	3.7	2,653	3.5	4.3
	6-15	28,239	2.1	2.5	1,796	2.7	3.3
	Total	86,661	3.2%	3.7%	10,296	4.4%	4.8%
Ultimate							
Attained ages:							
30-49		1,132	1.4%	1.4%	34	2.6%	3.5%
50-59		3,097	1.3	1.4	72	2.3	2.5
60 and over		4,859	2.4	2.4	115	2.6	2.2
Total		9,088	1.7%	1.8%	221	2.5%	2.5%
Grand total		95,749	2.9%	3.5%	10,517	4.3%	4.8%

in the prior report except for the category "all other identifiable term." However, there is no consistent pattern by duration. The total exposure by amount of \$30.5 billion shown in Appendix IV was 37 percent higher than that for the prior report, while the total number of lapses (76,572) contributed was 22 percent higher.

TABLE 6

LAPSE RATES FOR TERM CONVERSIONS BY TYPE OF UNDERWRITING, ALL CONVERSION CODES, TERM PLANS, MALE AND FEMALE, POLICIES AND RIDERS COMBINED

AGE AT CONVERSION	DURATION FROM CONVERSION	MEDICAL		NONMEDICAL		PARAMEDICAL				
		No. of Lapses	Lapse Rate		No. of Lapses	Lapse Rate		No. of Lapses	Lapse Rate	
			By Policies	By Amount		By Policies	By Amount		By Policies	By Amount
Select										
15-24	1	99	7.2	7.5%	464	9.6%	10.2%	36	31.2%	10.1%
	2	65	4.9	5.0	285	6.2	6.7	16	8.2	7.8
	3-5	31	3.6	4.8	192	4.1	4.3	8	1.1	8
	6-15	203	2.5	2.9	537	3.2	3.4	0	0	0
	Total	498	3.4%	4.1%	1,478	5.1%	5.3%	60	7.9%	7.7%
25-34	1	1,177	5.4%	5.9%	1,166	6.5%	6.6%	303	8.0%	8.3%
	2	617	2.7	2.9	784	4.6	4.8	181	6.4	6.7
	3-5	2,061	3.1	4.0	1,364	3.3	3.9	90	4.7	4.8
	6-15	3,082	1.8	2.2	1,420	2.4	2.6	0	0	0
	Total	6,937	2.4%	3.3%	4,704	3.8%	4.0%	664	6.8%	7.2%
35-44	1	1,035	3.0%	3.3%	328	3.9%	4.0%	209	6.1%	5.8%
	2	788	2.2	2.3	248	3.0	3.7	86	4.5	4.1
	3-5	2,713	2.4	3.3	491	2.1	2.4	60	4.8	5.1
	6-15	4,580	1.5	2.1	668	1.7	2.0	0	0	0
	Total	9,116	1.9%	2.6%	1,735	2.2%	2.6%	355	5.4%	5.2%
45-54	1	524	2.5%	2.9%	56	3.8%	2.9%	78	6.7%	5.1%
	2	452	2.1	2.0	42	2.9	2.6	33	5.1	5.2
	3-5	1,413	2.2	3.0	78	2.0	1.8	19	4.2	4.5
	6-15	2,620	1.9	2.3	78	1.7	1.9	2	16.6	10.8
	Total	5,009	2.0%	2.5%	254	2.2%	2.1%	129	5.8%	5.1%
55 and over	1	147	3.1%	3.4%	2	3.4%	3.2%	6	3.6%	2.9%
	2	116	2.4	1.5	1	1.7	4.1	3	3.3	2.1
	3-5	340	2.6	2.9	4	2.6	5.5	2	4.4	8.1
	6-15	712	3.1	3.1	8	2.8	2.8	0	0	0
	Total	1,315	2.9%	3.1%	12	2.7%	3.3%	11	3.6%	3.3%
All ages	1	2,982	3.6%	4.0%	2,016	3.6%	6.5%	719	7.1%	7.1%
	2	2,038	2.3	2.5	1,328	4.4	4.7	319	5.6	5.6
	3-5	6,658	2.5	3.4	2,331	3.0	3.5	176	4.8	4.8
	6-15	11,197	1.7	2.2	2,508	2.2	2.5	2	1.4	1.4
	Total	22,875	2.1%	2.8%	8,183	3.2%	3.8%	1,216	6.2%	6.3%
Ultimate										
Attained ages	30-49	717	1.3%	1.4%	127	1.5%	1.4%	0	0%	0%
	50-59	2,190	1.2	1.3	162	1.6	1.5	0	0	0
	60 and over	3,535	2.4	2.4	46	2.0	2.2	0	0	0
	Total	6,442	1.7%	1.8%	335	1.6%	1.5%	0	0%	0%
Grand total	29,317	2.0%	2.7%	8,518	3.1%	3.7%	1,216	6.2%	6.3%	

TABLE 7

LAPSE RATES FOR TERM CONVERSIONS ARISING FROM POLICIES OR RIDERS
ALL CONVERSION CODES, TERM PLANS, MEDICAL AND
NONMEDICAL, MALE AND FEMALE COMBINED

AGE AT CONVERSION	DURA- TION FROM CON- VERSION	CONVERSIONS FROM DECREASING TERM PLANS				CONVERSIONS FROM ALL OTHER IDENTIFIABLE TERM PLANS			
		Policies		Riders		Policies		Riders	
		No. of Lapses	Rate by Amount	No. of Lapses	Rate by Amount	No. of Lapses	Rate by Amount	No. of Lapses	Rate by Amount
Select									
15-24	1	191	14.2%	828	14.5%	221	12.0%	130	9.8%
	2	86	8.7	390	10.4	113	7.3	82	7.8
	3- 5	91	6.8	308	5.0	160	4.5	127	5.1
	6-15	30	4.6	110	4.5	138	3.9	158	3.5
	Total	398	9.4%	1,636	9.1%	632	6.3%	497	5.5%
25-34	1	1,287	8.4%	4,966	9.8%	585	7.8%	523	5.0%
	2	627	5.9	2,396	7.0	359	6.5	365	3.9
	3- 5	705	4.4	2,447	4.2	643	6.3	952	4.7
	6-15	260	3.9	1,096	3.0	687	3.5	1,399	2.6
	Total	2,879	5.9%	10,905	5.9%	2,274	5.5%	3,239	3.6%
35-44	1	889	5.8%	4,087	6.8%	318	4.5%	354	3.0%
	2	398	4.1	1,549	3.6	219	5.0	237	2.1
	3- 5	684	3.5	2,677	3.2	565	5.2	818	3.5
	6-15	312	3.2	1,394	2.3	777	3.6	1,557	2.5
	Total	2,283	4.2%	9,707	3.8%	1,879	4.4%	2,966	2.8%
45-54	1	610	4.1%	2,069	4.9%	187	5.1%	121	2.1%
	2	267	2.7	720	2.3	144	3.4	82	1.1
	3- 5	472	2.7	1,502	2.6	339	4.2	343	2.6
	6-15	284	2.6	847	1.9	505	2.9	695	2.4
	Total	1,633	3.0%	5,138	2.8%	1,175	3.7%	1,241	2.3%
55 and over	1	233	3.8%	343	4.9%	68	4.2%	22	2.3%
	2	109	2.0	136	3.1	52	3.0	27	3.7
	3- 5	237	2.4	306	2.3	135	4.0	69	2.3
	6-15	121	2.7	235	2.9	265	3.7	164	4.0
	Total	700	2.7%	1,020	3.2%	520	3.8%	282	3.2%
All ages	1	3,210	6.3%	12,293	7.7%	1,379	6.0%	1,150	3.6%
	2	1,487	4.2	5,191	4.6	887	5.0	793	2.6
	3- 5	2,189	3.5	7,240	3.4	1,842	5.1	2,309	3.7
	6-15	1,007	3.2	3,682	2.4	2,372	3.4	3,973	2.6
	Total	7,893	4.3%	28,406	4.4%	6,480	4.5%	8,225	3.0%
Ultimate									
Attained ages:									
30-49		0	.0%	14	1.7%	114	2.0%	194	1.7%
50-59		0	.0	52	1.4	373	1.8	492	1.5
60 and over		1	1.5	63	2.1	762	2.7	930	2.7
Total		1	.4%	129	1.7%	1,249	2.3%	1,616	2.0%
Grand total		7,894	4.3%	28,535	4.4%	7,729	4.2%	9,841	2.9%

TABLE 8
 TERM CONVERSION EXPERIENCE
 COMPARISON OF LAPSE RATES WITH EXPERIENCE FOR 1966-71
 (Based on Number of Policies)

POLICY YEAR DURATION	EXPERIENCE PERIOD	ORIGINAL TERM PLAN			
		Automatic Conversion within 10 Years	Level Renewable Term	Decreasing Term	All Other Identifiable Term
1.....	{ 1971-78	8.7%	6.0%	8.2%	5.2%
	{ 1966-71	14.6	5.8	6.4	5.9
2.....	{ 1971-78	5.2	3.7	4.2	3.6
	{ 1966-71	4.7	3.9	3.7	3.7
3-5.....	{ 1971-78	4.5	3.7	2.9	3.2
	{ 1966-71	3.8	3.2	2.5	2.9
6-15.....	{ 1971-78	4.2	2.7	2.1	2.2
	{ 1966-71	2.8	2.4	2.2	2.3
16 and over.....	{ 1971-78	-	2.2	1.8	2.0
	{ 1966-71	2.6	3.1	3.1	2.5
Total.....	{ 1971-78	5.9%	3.9%	4.0%	2.7%
	{ 1966-71	3.4	3.2	3.5	2.8

* Fewer than ten lapses.

A(3). Mortality Rates under Converted Policies

The definition for the death rate used in formula (2) in Appendix II assumed that the death rate for a conversion policy arising from a particular term plan type is a function of four variables. However, the Committee requested data that might be used under the broader assumption that the death rates for each category of experience would depend primarily on only two of these variables—the issue age of the term plan and the duration measured from its issue date, provided that the conversions at the end of the period are separated from the earlier issues.

The data for the death rate experience were furnished by the five companies listed in Appendix IV. The total exposure was 1,929,367 by number of policies and \$29.9 billion by amount of insurance. There were 10,522 death claims, totaling \$124,279,000. Tables 9-16 were prepared in a form that continues the experience shown in Tables 12-19 of the prior mortality study (see p. 151 of the *1973 Reports*).

The results are analyzed by number of policies and amount of insurance for the same categories given before: major conversion group (conversion at or before end of conversion period), type of conversion privilege (duration from end of conversion period to expiry), term plan group, sex, type of underwriting of the original policy, and type of contract. Duration is measured from issue of the original term policy or rider. The 1965-70 Basic Tables were used as the basis for expected deaths. In addition,

Tables 17-24 were prepared in a form identical to Tables 9-16 respectively, but duration is measured from the conversion date. The Committee had hoped to obtain contributions from additional companies unable to contribute data based on the date of issue of the original term policy or rider. Two additional contributions were received, but both were subdivided only by sex. Hence they are included only in Table 22.

The data for the death rate experience subdivided only by sex and with duration measured from conversion date (Table 22) were furnished by the five companies listed in Appendix IV. The total exposure was 1,929,367 by number of policies and \$29.9 billion by amount of insurance. There were 10,522 death claims, totaling \$124,279,000 of insurance.

A(3.1). GENERAL COMMENTS ON RESULTS

Table 9, which summarizes the experience for all term plans combined, shows mortality ratios for attained-age conversions with duration measured from the issue date of the term policy or rider.

The overall mortality ratios were 97 percent by number of policies and 94 percent by amount of insurance. During the select period, the ratios by amount for the various issue-age groups ranged from 92 to 114 percent. The ultimate mortality ratios by amount for attained ages 30 and over showed a narrower pattern, ranging between 79 and 91 percent.

For policies converted prior to the end of the period during which conversion was permitted, the overall ratio by amount was 93 percent, as compared with a value of 102 percent for policies converted at the end of the conversion period.

Mortality ratios on an amount basis for individual companies are shown below.

COMPANY	CONVERSION PRIOR TO END OF PERIOD		CONVERSION AT END OF PERIOD	
	Select	Ultimate	Select	Ultimate
A	95%	97%	118%	104%
B	77	68	*	*
C	67	82
D	125	105	116	129
E	102	75	97	90

* The ratio is not shown because it is based on fewer than ten claims.

A(3.2). TERM PLANS PROVIDING FOR AUTOMATIC CONVERSION WITHIN
TEN YEARS

Table 10 shows the mortality experience on conversions from term plans which provided for automatic conversion within ten years of original issue.

TABLE 9

MORTALITY RATIOS FOR CONVERSIONS OF ALL TERM PLANS COMBINED
 MALE AND FEMALE, MEDICAL, NONMEDICAL, AND PARAMEDICAL POLICIES AND RIDERS COMBINED

ISSUE AGE	DURATION FROM TERM ISSUÉ	CONVERSION PRIOR TO END OF PERIOD			CONVERSION AT END OF CONVERSION PERIOD WITH INTERVAL BETWEEN END OF CONVERSION PERIOD AND END OF TERM COVERAGE OF												TOTAL					
		Ratio			0 Years			1-3 Years			Over 3 Years			Unknown						Total		
		No. of Actual Deaths	Ratio		No. of Actual Deaths	Ratio		No. of Actual Deaths	Ratio		No. of Actual Deaths	Ratio		No. of Actual Deaths	Ratio		No. of Actual Deaths	Ratio		No. of Actual Deaths	Ratio	
			No.	Amt.		No.	Amt.		No.	Amt.		No.	Amt.		No.	Amt.		No.	Amt.		No.	Amt.
Select																						
15-24	1-3	35	96%	104%	0	0%	0%	0	0%	0%	0	0%	0%	0	0%	0%	0	0%	0%	35	96%	104%
	4-5	42	82	91	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42	82	91
	6-10	82	94	96	3	64	59	0	0	0	0	0	0	0	0	0	3	56	54	85	91	94
	11-15	76	135	122	4	126	137	0	0	0	1	138	674	0	0	0	5	109	223	81	133	131
	Total	235	102%	101%	7	88%	88%	0	0%	0%	1	93%	495%	0	0%	0%	8	80%	129%	243	101%	102%
25-34	1-3	69	91%	127%	0	0%	0%	0	0%	0%	0	0%	0%	0	0%	0%	0	0%	0%	69	91%	127%
	4-5	113	102	105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	113	102	104
	6-10	339	110	101	13	127	219	4	324	87	3	156	74	0	0	0	20	149	279	359	112	110
	11-15	467	115	116	21	95	108	15	213	217	12	125	173	0	0	0	48	124	144	515	116	118
	Total	988	110%	110%	34	105%	157%	19	229%	415%	15	129%	152%	0	0%	0%	68	130%	189%	1,056	111%	114%
35-44	1-3	70	120%	88%	0	0%	0%	0	0%	0%	0	0%	0%	0	0%	0%	0	0%	0%	70	120%	88%
	4-5	148	103	101	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	148	103	100
	6-10	622	104	98	16	77	55	6	98	81	9	93	161	0	0	0	31	85	77	653	102	96
	11-15	877	108	112	36	85	85	22	91	67	38	126	107	0	0	0	96	99	88	973	107	109
	Total	1,717	107%	102%	52	82%	70%	28	92%	71%	47	108%	120%	0	0%	0%	127	95%	83%	1,844	106%	101%
45-54	1-3	62	100%	90%	0	0%	0%	0	0%	0%	0	0%	0%	0	0%	0%	0	0%	0%	62	99%	90%
	4-5	199	112	122	1	495	966	0	0	0	0	0	0	0	0	1	425	757	150	113	127	
	6-10	550	102	88	16	104	86	10	99	54	12	88	72	0	0	0	38	82	77	588	100	87
	11-15	515	101	78	24	88	93	44	118	135	27	73	88	3	532	313	98	96	105	613	100	82
	Total	1,276	102%	91%	41	95%	111%	54	114%	111%	39	67%	80%	3	481%	301%	137	92%	103%	1,413	101%	92%

TABLE 9—Continued

Issue Age	Duration from Term Issue	Conversion Prior to End of Period			Conversion at End of Conversion Period with Interval Between End of Conversion Period and End of Term Coverage of:												Total					
		Ratio		0 Years		1-3 Years		Over 3 years		Unknown		Total										
		No. of Actual Deaths	No.	Amt.	No. of Actual Deaths	Ratio		No. of Actual Deaths	Ratio		No. of Actual Deaths	Ratio		No. of Actual Deaths	Ratio		No. of Actual Deaths	Ratio				
						No.	Amt.		No.	Amt.		No.	Amt.		No.	Amt.		No.	Amt.			
<i>Select—Continued</i>																						
55 and over	1-3	16	74%	67%	0	0%	0%	0	0%	0%	1	666%	37%	0	0%	0%	1	425%	28%	17	78%	66%
	4-5	62	147	109	0	0	0	1	199	31	0	0	0	0	0	1	116	20	63	146	107	
	6-10	144	112	90	4	72	96	7	111	63	9	62	71	1	71	34	21	76	76	165	105	88
	11-15	97	127	172	3	46	17	13	131	77	10	154	144	1	57	32	27	109	66	124	123	153
	Total	319	419%	108%	7	57%	63%	21	125%	66%	20	94%	87%	2	61%	29%	50	93%	70%	369	114%	104%
All ages	1-3	252	99%	96%	0	0%	0%	0	0%	0%	1	271%	8%	0	0%	0%	1	215%	7%	253	99%	95%
	4-5	514	107	109	1	146	927	1	184	29	0	0	0	0	0	2	129	445	516	107	110	
	6-10	1,737	104	94	52	92	94	27	112	133	33	70	95	1	67	33	113	87	100	1,850	103	95
	11-15	2,032	109	106	88	87	89	94	119	112	88	105	20	4	172	73	274	103	103	2,306	109	106
	Total	4,535	106%	100%	141	89%	98%	122	117%	117%	122	93%	108%	5	126%	55%	390	98%	104%	4,925	106%	101%
<i>Ultimate</i>																						
Attained ages:		25	117%	102%	0	0%	0%	0	0%	0%	2	123%	57%	0	0%	0%	2	55%	21%	27	108%	89%
	30-39	488	107	91	22	56	75	24	121	100	40	84	108	0	0	0	86	81	91	574	102	91
	40-49	1,448	90	84	140	87	90	86	99	114	132	93	110	0	0	358	92	100	1,806	90	86	
	50-59	1,575	89	83	282	88	88	125	88	114	106	101	104	2	66	45	515	90	97	2,090	89	86
	60-69	620	83	71	217	90	94	84	127	140	13	89	126	0	0	0	314	97	105	934	88	79
	70-79	106	90	80	56	93	142	4	111	35	0	0	0	0	0	60	94	136	166	91	81	
	80 and over																					
	Total	4,262	90%	81%	717	87%	94%	323	101%	118%	293	94%	108%	2	40%	31%	1,335	91%	101%	5,597	91%	85%
Grand total		8,797	98%	93%	858	87%	95%	445	105%	118%	415	94%	108%	7	79%	45%	1,725	93%	102%	10,522	97%	94%

TABLE 10

MORTALITY RATIOS FOR CONVERSIONS FROM TERM PLANS
 PROVIDING FOR AUTOMATIC CONVERSION WITHIN 10 YEARS
 MALE AND FEMALE, MEDICAL, NONMEDICAL, AND PARAMEDICAL,
 POLICIES AND RIDERS COMBINED

TERM ISSUE AGE	DURA- TION FROM TERM ISSUE	CONVERSION PRIOR TO END OF PERIOD			CONVERSION AT END OF PERIOD			TOTAL		
		No. of Actual Deaths	Ratio		No. of Actual Deaths	Ratio		No. of Actual Deaths	Ratio	
			No.	Amt.		No.	Amt.		No.	Amt.
Select										
15-24	1-3	13	66%	80%	0	0%	0%	13	66%	80%
	4-5	16	65	77	0	0	0	16	65	77
	6-10	17	70	65	3	88	81	20	72	67
	11-15	0	0	0	1	227	47	1	58	12
	Total	46	66%	72%	4	103%	72%	50	68%	72%
25-34	1-3	19	77%	159%	0	0	0%	19	77%	159%
	4-5	19	65	75	0	0	0	19	65	75
	6-10	22	75	82	6	117	151	28	81	93
	11-15	1	36	36	1	84	118	2	51	59
	Total	61	71%	97%	7	111%	145%	68	74%	101%
35-44	1-3	14	114%	72%	0	0%	0%	14	114%	72%
	4-5	19	67	102	0	0	0	19	67	102
	6-10	29	73	49	4	49	35	33	69	47
	11-15	8	127	91	3	124	78	11	126	88
	Total	70	81%	73%	7	66%	41%	77	79%	70%
45-54	1-3	8	68%	128%	0	0%	0%	8	68%	128%
	4-5	10	49	54	0	0	0	10	49	54
	6-10	19	62	66	7	122	80	26	72	68
	11-15	3	74	126	1	90	22	4	77	100
	Total	40	60%	77%	8	117%	74%	48	65%	76%
55 and over	1-3	2	41%	19%	0	0%	0%	2	41%	19%
	4-5	12	157	92	0	0	0	12	157	92
	6-10	11	132	67	1	57	12	12	119	59
	11-15	0	0	0	0	0	0	0	0	0
	Total	25	119%	62%	1	44%	10%	26	112%	59%
All ages	1-3	56	76%	101%	0	0%	0%	56	76%	101%
	4-5	76	69	80	0	0	0	76	69	80
	6-10	98	74	63	21	87	71	119	76	65
	11-15	12	82	82	6	106	65	18	89	78
	Total	242	73%	78%	27	90%	70%	269	75%	78%
Ultimate										
Attained ages:		0	0%	0%	0	0%	0%	0	0%	0%
30-39		0	0	0	0	0	0	0	0	0
40-49		2	502	1,359	0	0	0	2	240	814
50-59		0	0	0	1	787	881	1	200	202
60-69		0	0	0	0	0	0	0	0	0
70-79		0	0	0	0	0	0	0	0	0
Total		2	202%	707%	1	110%	91%	3	158%	439%
Grand total		244	74%	79%	28	91%	71%	272	75%	79%

For policies converted at the end of the conversion period (for which there were only twenty-eight deaths), all the data were coded as indicating that conversion was permitted until expiry of the term coverage. The overall mortality ratio of 79 percent by amount was considerably lower than the 94 percent in Table 9 for all term plans combined. Only two companies contributed to the category.

A(3.3). RENEWABLE TERM PLANS PROVIDING LEVEL AMOUNTS OF INSURANCE

Table 11 shows the mortality experience on conversions from renewable term plans that provide level amounts of insurance. The overall ratio of 78 percent by amount was also considerably lower than that for all term plans combined. Very little experience (nineteen deaths) was submitted for the select period for conversions at the end of the conversion period.

A(3.4). DECREASING TERM PLANS

Table 12 shows the mortality experience on conversions from decreasing term plans. This category showed the highest mortality of any of the categories studied, the ratios by amount being consistently over 100 percent, with an overall average of 117 percent.

A(3.5). ALL OTHER IDENTIFIABLE TERM PLANS

Table 13 shows an overall mortality ratio by amount of 91 percent for conversions from all other identifiable term plans not included in the three categories discussed above. Five companies contributed to the category, with individual company ratios by amount ranging from a low of 64 percent to a high of 119 percent.

Mortality ratios by amount were 88 percent for conversions prior to the end of the conversion period, compared to 104 percent for conversions at the end of the conversion period, the latter experience being subdivided by type of conversion period, for which the ratios range from 97 percent to 126 percent.

A(3.6). ANALYSIS BY SEX

Table 14 shows a comparison of male and female mortality. The overall ratio by amount for females was 78 percent compared with 88 percent for males. By number of policies, the overall ratio for females was 92 percent compared with 93 percent for males. Only 447 deaths, or about 3.3 percent, of the total were female lives.

TABLE 11
MORTALITY RATIOS FOR CONVERSIONS FROM RENEWABLE TERM PLANS
MALE AND FEMALE, MEDICAL, NONMEDICAL, AND PARAMEDICAL,
POLICIES AND RIDERS COMBINED

TERM ISSUE AGE	DURATION FROM TERM ISSUE	CONVERSION PRIOR TO END OF PERIOD			CONVERSION AT END OF PERIOD			TOTAL		
		No. of Actual Deaths	Ratio		No. of Actual Deaths	Ratio		No. of Actual Deaths	Ratio	
			No.	Amt.		No.	Amt.		No.	Amt.
Select										
15-24	1-3	5	108%	86%	0	0%	0%	5	108%	85%
	4-5	4	75	99	0	0	0	4	75	99
	6-10	5	59	46	0	0	0	5	59	46
	11-15	0	0	0	0	0	0	0	0	0
	Total	14	67%	67%	0	0%	0%	14	66%	66%
25-34	1-3	18	90%	119%	0	0%	0%	18	90%	118%
	4-5	23	107	86	0	0	0	23	107	86
	6-10	27	66	67	0	0	0	27	66	67
	11-15	24	87	145	0	0	0	24	82	132
	Total	92	84%	97%	0	0%	0%	92	82%	96%
35-44	1-3	18	96%	88%	0	0%	0%	18	96%	87%
	4-5	22	68	81	0	0	0	22	68	81
	6-10	86	96	105	1	442	141	87	97	105
	11-15	72	97	120	4	101	83	76	97	117
	Total	198	92%	101%	5	118%	82%	203	93%	101%
45-54	1-3	6	34%	38%	0	0%	0%	6	34%	38%
	4-5	26	104	111	0	0	0	26	103	111
	6-10	62	80	69	0	0	0	62	80	69
	11-15	53	82	42	6	140	96	59	85	46
	Total	147	80%	65%	6	126%	87%	153	81%	65%
55 and over	1-3	3	69%	18%	0	0%	0%	3	69%	18%
	4-5	3	69	17	1	5,000	1,953	4	92	20
	6-10	10	106	85	0	0	0	10	102	80
	11-15	11	150	64	0	0	0	11	132	55
	Total	27	106%	42%	1	71%	14%	28	105%	41%
All ages	1-3	50	77%	71%	0	0%	0%	50	77%	71%
	4-5	78	88	88	1	2,222	410	79	89	88
	6-10	190	84	84	1	89	36	191	84	84
	11-15	160	91	90	10	89	69	170	91	88
	Total	478	86%	84%	12	95%	64%	490	86%	83%
Ultimate										
Attained ages:										
30-39	0	0%	0%	0	0%	0%	0	0%	0%	
40-49	22	73	52	0	0	0	22	73	52	
50-59	127	67	72	0	0	0	127	67	72	
60-69	235	82	74	4	70	49	239	82	74	
70-79	91	83	62	3	48	37	94	81	61	
80 and over	2	82	24	0	0	0	2	59	21	
Total	477	77%	70%	7	53%	39%	484	77%	70%	
Grand total	955	81%	79%	19	74%	56%	974	81%	78%	

TABLE 12

MORTALITY RATIOS FOR CONVERSIONS FROM DECREASING TERM PLANS
 MALE AND FEMALE, MEDICAL, NONMEDICAL, AND PARAMEDICAL,
 POLICIES AND RIDERS COMBINED

TERM ISSUE AGE	DURA- TION FROM TERM ISSUE	CONVERSION PRIOR TO END OF PERIOD			CONVERSION AT END OF PERIOD			TOTAL		
		No. of Actual Deaths	Ratio		No. of Actual Deaths	Ratio		No. of Actual Deaths	Ratio	
			No.	Amt.		No.	Amt.		No.	Amt.
Select										
15-24	1-3	15	197%	246%	0	0%	0%	15	197%	246%
	4-5	18	123	133	0	0	0	18	123	133
	6-10	45	119	135	0	0	0	45	118	134
	11-15	57	173	158	0	0	0	57	170	155
	Total	135	145%	153%	0	0%	0%	135	144%	152%
25-34	1-3	24	113%	161%	0	0%	0%	24	113%	161%
	4-5	59	140	138	0	0	0	59	140	138
	6-10	213	130	119	4	172	110	217	130	119
	11-15	322	137	133	17	213	349	339	140	140
	Total	618	134%	130%	21	203%	276%	639	135%	133%
35-44	1-3	27	153%	111%	0	0%	0%	27	153%	111%
	4-5	88	150	138	0	0	0	88	150	138
	6-10	390	116	121	11	87	166	401	115	122
	11-15	574	115	107	48	136	136	622	116	108
	Total	1,079	118%	117%	59	123%	147%	1,138	119%	118%
45-54	1-3	40	165%	186%	0	0%	0%	40	165%	186%
	4-5	91	137	159	0	0	0	91	137	159
	6-10	384	117	107	16	59	66	400	113	105
	11-15	330	108	95	55	95	116	385	106	97
	Total	845	117%	118%	71	84%	93%	916	113%	117%
55 and over	1-3	7	77%	258%	0	0%	0%	7	76%	258%
	4-5	34	147	111	0	0	0	34	145	110
	6-10	89	114	78	13	73	80	102	107	78
	11-15	37	111	176	15	135	143	52	117	170
	Total	167	116%	119%	28	96%	97%	195	113%	117%
All ages	1-3	113	142%	171%	0	0%	0%	113	142%	171%
	4-5	290	142	143	0	0	0	290	141	143
	6-10	1,121	119	113	44	73	97	1,165	116	112
	11-15	1,320	119	113	135	120	149	1,455	119	116
	Total	2,844	122%	121%	179	104%	124%	3,023	121%	121%
Ultimate										
Attained ages:										
	30-39	21	162%	158%	2	148%	86%	23	161%	152%
	40-49	267	137	124	47	98	108	314	129	121
	50-59	625	114	104	138	89	88	763	108	101
	60-69	332	104	88	98	90	100	430	100	90
	70-79	24	76	84	12	161	119	36	92	88
	80 and over	0	0	0	0	0	0	0	0	0
	Total	1,269	114%	102%	297	92%	96%	1,566	109%	101%
Grand total		4,113	119%	118%	476	96%	110%	4,589	116%	117%

TABLE 13

MORTALITY RATIOS FOR CONVERSIONS FROM ALL OTHER IDENTIFIABLE TERM PLANS
 MALE AND FEMALE, MEDICAL, NONMEDICAL, AND PARAMEDICAL, POLICIES AND RIDERS COMBINED

TERM ISSUE AGE	DURATION FROM TERM ISSUE	CONVERSION PRIOR TO END OF PERIOD			CONVERSION AT END OF CONVERSION PERIOD WITH INTERVAL BETWEEN END OF CONVERSION PERIOD AND END OF TERM COVERAGE OF												TOTAL					
		Ratio		0 Years		1-3 Years		Over 3 Years		Unknown		Total										
		No. of Actual Deaths	No.	Amt	No. of Actual Deaths	Ratio		No. of Actual Deaths	Ratio		No. of Actual Deaths	Ratio		No. of Actual Deaths	Ratio		No. of Actual Deaths	Ratio				
						No.	Amt.		No.	Amt.		No.	Amt.		No.	Amt.						
Select																						
15-24	1-3	2	45%	31%	0	0%	0%	0	0%	0%	0	0%	0%	0	0%	0%	0	0%	0%	2	45%	31%
	4-5	4	58	58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	58	57
	6-10	15	87	99	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	80	91
	11-15	19	98	107	3	111	156	0	0	0	1	552	229	0	0	0	4	118	299	23	101	139
	Total	40	84%	86%	3	75%	100%	0	0%	0%	1	549%	224%	0	0%	0%	4	82%	201%	44	83%	96%
25-34	1-3	8	79%	54%	0	0%	0%	0	0%	0%	0	0%	0%	0	0%	0%	0	0%	0%	8	78%	54%
	4-5	12	68	125	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	68	124
	6-10	77	104	107	7	137	292	3	390	399	0	0	0	0	0	10	170	440	87	109	133	
	11-15	120	85	95	20	97	108	7	138	192	3	180	118	0	0	0	30	108	125	150	89	99
	Total	217	89%	99%	27	104%	162%	10	171%	436%	3	189%	118%	0	0%	0%	40	119%	205%	257	93%	111%
35-44	1-3	11	115%	83%	0	0%	0%	0	0%	0%	0	0%	0%	0	0%	0%	0	0%	0%	11	115%	83%
	4-5	19	77	83	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19	76	82
	6-10	117	86	80	12	95	69	3	105	68	0	0	0	0	0	15	96	67	132	87	79	
	11-15	223	97	113	32	80	84	8	66	70	1	30	24	0	0	0	41	74	75	264	93	107
	Total	370	93%	95%	44	84%	78%	11	73%	69%	1	29%	24%	0	0%	0%	56	79%	72%	426	90%	92%
45-54	1-3	8	89%	49%	0	0%	0%	0	0%	0%	0	0%	0%	0	0%	0%	0	0%	0%	8	89%	49%
	4-5	22	104	141	1	49%	96%	0	0	0	0	0	0	0	0	1	480	910	23	108	165	
	6-10	85	81	84	9	93	91	5	145	46	1	77%	74	0	0	15	113	85	100	85	84	
	11-15	129	95	83	23	88	97	11	98	136	1	68	77	1	561	465	36	92	106	165	95	87
	Total	244	90%	88%	33	91%	123%	16	109%	103%	2	124%	101%	1	561%	465%	52	99%	118%	296	92%	92%

TABLE 13—Continued

TERM ISSUE AGE	DURATION FROM TERM ISSUE	CONVERSION PRIOR TO END OF PERIOD			CONVERSION AT END OF CONVERSION PERIOD WITH INTERVAL BETWEEN END OF CONVERSION PERIOD AND END OF TERM COVERAGE OF:														TOTAL			
		No. of Actual Deaths	Ratio		0 Years			1-3 Years			Over 3 years			Unknown		Total						
			No.	Amt.	No. of Actual Deaths	Ratio		No. of Actual Deaths	Ratio		No. of Actual Deaths	Ratio		No. of Actual Deaths	Ratio		No. of Actual Deaths	Ratio				
						No.	Amt.		No.	Amt.		No.	Amt.		No.	Amt.		No.	Amt.	No.	Amt.	
Select—Continued																						
55 and over	1-3	4	123%	42%	0	0%	0%	0	0%	0%	1	892%	38%	0	0%	0%	1	591%	30%	5	146%	42%
	4-5	13	182	207	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	167	191
	6-10	34	102	112	3	79	137	3	128	70	0	0	1	97	38	7	89	96	41	100	109	
	11-15	49	138	188	3	52	20	8	185	101	0	0	0	1	70	39	12	99	49	61	128	164
	Total	100	127%	147%	6	62%	82%	11	157%	76%	1	63%	5%	2	77%	34%	20	96%	66%	120	120%	135%
All ages	1-3	33	91%	59%	0	0%	0%	0	0%	0%	1	793%	36%	0	0%	0%	1	518%	27%	34	93%	59%
	4-5	70	91	121	1	146	927	0	0	0	0	0	0	0	0	1	78	464	71	90	127	
	6-10	328	90	89	31	95	113	14	146	153	1	114	68	1	96	38	47	107	119	375	91	92
	11-15	540	96	107	81	85	91	34	102	112	6	79	87	2	124	56	123	89	95	663	95	105
	Total	971	93%	98%	113	88%	108%	48	111%	123%	8	91%	81%	3	107%	44%	172	94%	109%	1,143	93%	100%
Ultimate																						
Attained ages:	30-39	4	51%	49%	0	0%	0%	0	0%	0%	0	0%	0%	0	0%	0%	0	0%	0%	4	39%	37%
	40-49	199	86	82	21	55	73	11	101	91	7	72	128	0	0	0	39	66	85	238	82	83
	50-59	694	79	80	138	87	91	49	106	122	33	112	158	0	0	0	220	94	104	914	82	85
	60-69	1,008	87	87	281	88	88	83	93	122	48	105	99	0	0	0	412	90	97	1,420	88	89
	70-79	505	84	73	217	90	94	70	130	155	12	89	128	0	0	0	299	97	107	804	88	83
	80 and over	104	94	63	56	93	142%	4	151	59	0	0	0	0	0	0	60	95	140	164	95	85
Total	2,514	84%	80%	713	87%	94%	217	107%	128%	100	101%	125%	0	0%	0%	1,030	92%	103%	3,544	86%	86%	
Grand total	3,485	87%	88%	826	87%	97%	265	107%	126%	108	100%	115%	3	59%	33%	1,202	92%	104%	4,687	88%	91%	

A(3.7). ANALYSIS BY TYPE OF UNDERWRITING

Three companies were able to split their data between conversions from term policies originally issued medically, those issued nonmedically, and those issued paramedically. Of the total number of claims, 88 percent were coded as medical, 11 percent as nonmedical, and 1 percent as para-

TABLE 14

MORTALITY RATIOS FOR CONVERSIONS FROM TERM PLAN BY SEX
ALL CONVERSION CODES, TERM PLANS, MEDICAL, NONMEDICAL, AND PARAMEDICAL,
POLICIES AND RIDERS COMBINED

TERM ISSUE AGE	DURATION FROM TERM ISSUE	MALE			FEMALE		
		No. of Actual Deaths	Mortality Ratio		No. of Actual Deaths	Mortality Ratio	
			By Policies	By Amount		By Policies	By Amount
Select							
15-34	1-3	104	104%	125%	11	55%	57%
	4-5	155	96	98	26	99	88
	6-10	572	101	97	50	86	75
	11-15	847	101	98	38	111	130
	Total	1,678	101%	100%	125	90%	87%
35-54	1-3	138	117%	100%	4	31%	13%
	4-5	312	104	111	20	78	62
	6-10	1,600	95	85	91	93	71
	11-15	2,340	93	83	91	106	90
	Total	4,390	95%	88%	206	93%	69%
55 and over	1-3	15	71%	65%	2	109%	33%
	4-5	60	131	89	4	159	291
	6-10	203	105	93	7	95	32
	11-15	119	128	153	4	74	58
	Total	477	115%	106%	17	99%	86%
All ages	1-3	257	108%	103%	17	108%	31%
	4-5	527	104	106	50	92	85
	6-10	2,375	97	88	148	91	70
	11-15	3,386	96	89	133	106	97
	Total	6,545	98%	92%	348	92%	75%
Ultimate							
Attained ages:							
30-39		37	101%	82%	0	0%	0%
40-49		732	98	82	14	137	234
50-59		2,210	88	82	32	94	107
60-69		2,444	89	87	35	94	79
70-79		991	88	80	16	86	73
80 and over		164	92	82	2	106	32
Total		6,578	90%	83%	99	96%	96%
Grand total		13,123	93%	88%	447	92%	78%

medical. Table 15 shows medical, nonmedical, and paramedical mortality for conversions from term policies providing for automatic conversion within ten years, for conversions from all other identifiable term plans, and for all conversions combined.

For the select period the overall mortality ratio by amount was 93 percent for medical and 96 percent for nonmedical. The 81 percent ratio for paramedical is based on only twenty-eight deaths. For the ultimate experience, the overall mortality ratio by amount was 78 percent for medical and 75 percent for nonmedical.

A(3.8). ANALYSIS BY ORIGINAL POLICY AND RIDER FORMS

Table 16 relates to experience on conversions from term policies in relation to that for term riders. Data adequate for comparative purposes were available only for conversions from decreasing term plans prior to the end of the conversion period and for conversions from level term plans with a separation for the two major conversion groups.

Overall mortality ratios by amount were higher for conversions from term policies than for conversions from term riders. This relationship held for both the select and ultimate durations only for the conversions prior to the end of the conversion period, and here the differences between policies and riders were 3 percent or less. For all other identifiable term insurance with respect to both policy and rider conversions, the aggregate mortality ratios were higher for conversions at the end of the period than for earlier conversions.

A(3.9). ANALYSES WITH DURATION MEASURED FROM CONVERSION DATE

Tables 17–24 were prepared in a form identical with that of Tables 9–16 except that issue age is that of the conversion policy and duration is measured from the conversion date. As would be expected, the mortality ratios are higher than the corresponding mortality ratios in Tables 9–16, since expected deaths are reduced.

With the exception of Table 22, Tables 17–24 are based on the experience of five companies. Table 22 is based on the experience of seven companies. It is significant to note that the overall mortality ratio by amount is 91 percent in Table 22, while in Table 17 the same ratio is 111 percent. This reflects the inclusion of just two additional companies.

A(3.10). COMPARISON OF CONVERSION RATES WITH MORTALITY RATES

A comparison of conversion rates with mortality rates is omitted because only two companies provided conversion rate data.

TABLE 15

MORTALITY RATIOS FOR TERM CONVERSIONS BY TYPE OF UNDERWRITING
 ALL CONVERSION CODES, MALE AND FEMALE, POLICIES AND RIDERS COMBINED

TERM ISSUE AGE	DURA- TION FROM TERM ISSUE	TERM PLANS PROVIDING AUTOMATIC CONVERSION WITHIN 10 YEARS						OTHER TERM PLANS						ALL TERM PLANS COMBINED					
		Medical		Nonmedical		Paramedical		Medical		Nonmedical		Paramedical		Medical		Nonmedical		Paramedical	
		No. of Actual Deaths	Ratio by Amt	No. of Actual Deaths	Ratio by Amt	No. of Actual Deaths	Ratio by Amt	No. of Actual Deaths	Ratio by Amt	No. of Actual Deaths	Ratio by Amt	No. of Actual Deaths	Ratio by Amt	No. of Actual Deaths	Ratio by Amt	No. of Actual Deaths	Ratio by Amt	No. of Actual Deaths	Ratio by Amt
Select:																			
15-24	1-3	0	0%	0	0%	0	0%	0	0%	3	86%	1	140%	0	0%	3	85%	1	130%
	4-5	0	0	0	0	0	0	1	34	5	90	0	0	1	34	5	88	0	0
	6-10	0	0	1	124	0	0	6	71	10	71	0	0	6	70	11	72	0	0
	11-15	0	0	0	0	0	0	10	202	16	92	0	0	10	202	16	92	0	0
	Total	0	0%	1	80%	0	0%	17	99%	34	82%	1	79%	17	98%	35	82%	1	79%
25-34	1-3	0	0%	0	0%	0	0%	13	134%	3	38%	4	111%	13	134%	3	38%	4	110%
	4-5	0	0	0	0	0	0	34	69	9	63	5	189	14	68	9	61	5	158
	6-10	4	260	0	0	0	0	73	104	60	106	0	0	77	108	60	105	0	0
	11-15	0	0	0	0	0	0	118	114	73	98	0	0	118	114	73	98	0	0
	Total	4	208%	0	0%	0	0%	218	106%	145	93%	9	121%	222	107%	145	93%	9	120%
35-44	1-3	0	0%	0	0%	0	0%	17	93%	3	146%	4	44%	17	93%	3	146%	4	44%
	4-5	1	137	0	0	0	0	34	87	4	230	6	103	35	87	4	229	6	102
	6-10	2	36	0	0	0	0	186	96	28	97	0	0	188	95	28	96	0	0
	11-15	0	0	0	0	0	0	289	104	19	77	0	0	289	104	19	77	0	0
	Total	3	47%	0	0%	0	0%	526	98%	74	99%	10	62%	529	97%	74	99%	10	61%
45-54	1-3	0	0%	0	0%	0	0%	11	47%	0	0	7	97%	11	47%	0	0%	1	9%
	4-5	0	0	0	0	0	0	30	105	2	70	6	158	30	103	2	70	6	158
	6-10	5	69	0	0	0	0	144	78	4	78	0	0	149	78	4	278	0	0
	11-15	0	0	0	0	0	0	203	66	7	181	0	0	203	66	2	181	0	0
	Total	5	59%	0	0%	0	0%	388	75%	8	177%	7	63%	393	75%	8	177%	7	63%

TABLE 15—Continued

TERM ISSUE AGE	DURA- TION FROM TERM ISSUE	TERM PLANS PROVIDING AUTOMATIC CONVERSION WITHIN 10 YEARS						OTHER TERM PLANS						ALL TERM PLANS COMBINED					
		Medical		Nonmedical		Paramedical		Medical		Nonmedical		Paramedical		Medical		Nonmedical		Paramedical	
		No. of Actual Deaths	Ratio by Amt.	No. of Actual Deaths	Ratio by Amt.	No. of Actual Deaths	Ratio by Amt.	No. of Actual Deaths	Ratio by Amt.	No. of Actual Deaths	Ratio by Amt.	No. of Actual Deaths	Ratio by Amt.	No. of Actual Deaths	Ratio by Amt.	No. of Actual Deaths	Ratio by Amt.	No. of Actual Deaths	Ratio by Amt.
Select—Continued																			
55 and over	1-3	0	0%	0	0%	0	0%	5	26%	0	0%	1	52%	5	26%	0	0%	1	52%
	4-5	0	0	0	0	0	0	13	121	0	0	0	0	13	120	0	0	0	0
	6-10	1	26	0	0	0	0	44	103	0	0	0	0	45	102	0	0	0	0
	11-15	0	0	0	0	0	0	52	165	0	0	0	0	52	165	0	0	0	0
	Total	1	21%	0	0%	0	0%	114	113%	0	0%	1	28%	115	112%	0	0%	1	27%
All ages	1-3	0	0%	0	0%	0	0%	46	74%	9	60%	11	64%	46	74%	9	60%	11	64%
	4-5	1	51	0	0	0	0	92	93	20	98	17	126	93	92	20	97	17	125
	6-10	12	78	1	52%	0	0	453	91	102	107	0	0	465	91	103	106	0	0
	11-15	0	0	0	0	0	0	672	99	130	93	0	0	672	99	130	93	0	0
	Total	13	73%	1	34%	0	0%	1,263	93%	261	96%	28	82%	1,276	93%	262	96%	28	81%
Ultimate																			
Attained ages	30-39	0	0%	0	0%	0	0%	3	61%	2	46%	0	0%	3	61%	2	46%	0	0%
	40-49	0	0	0	0	0	0	150	78	90	75	0	0	150	78	90	75	0	0
	50-59	0	0	0	0	0	0	814	79	146	78	0	0	814	79	146	78	0	0
	60-69	0	0	0	0	0	0	1,374	81	40	75	0	0	1,374	81	40	75	0	0
	70-79	0	0	0	0	0	0	725	70	1	30	0	0	725	70	1	30	0	0
	80 and over	0	0	0	0	0	0	149	82	0	0	0	0	149	82	0	0	0	0
	Total	0	0%	0	0%	0	0%	3,215	78%	279	75%	0	0%	3,215	78%	279	75%	0	0%
Grand total		13	73%	1	34%	0	0%	4,478	85%	540	87%	28	82%	4,491	85%	541	87%	28	81%

TABLE 16

MORTALITY RATIOS FOR CONVERSIONS FROM TERM POLICIES AND TERM RIDERS
 MALE AND FEMALE, MEDICAL, NONMEDICAL, AND PARAMEDICAL COMBINED

TERM ISSUE AGE	DURA- TION FROM TERM ISSUE	CONVERSIONS FROM DECREASING TERM PLANS WITH CONVERSION PRIOR TO END OF CONVERSION PERIOD						CONVERSIONS FROM ALL OTHER IDENTIFIABLE PLANS											
								With Conversion Prior to End of Conversion Period						With Conversion at End of Conversion Period					
		Conversions from Term Policies			Conversions from Term Riders			Conversions from Term Policies			Conversions from Term Riders			Conversions from Term Policies			Conversions from Term Riders		
		No. of Actual Deaths	Ratio		No. of Actual Deaths	Ratio		No. of Actual Deaths	Ratio		No. of Actual Deaths	Ratio		No. of Actual Deaths	Ratio		No. of Actual Deaths	Ratio	
			By Pols	By Amt.		By Pols	By Amt.		By Pols	By Amt.		By Pols	By Amt.		By Pols	By Amt.		By Pols	By Amt.
		Select																	
15-24	1-3	7	293%	415%	8	154%	133%	2	85%	46%	0	0%	0%	0	0%	0%	0	0%	0%
	4-5	2	66	50	16	138	164	2	64	63	2	53	51	0	0	0	0	0	0
	6-10	3	70	81	42	126	145	7	106	137	8	76	71	0	0	0	0	0	0
	11-15	1	76	20	56	177	166	3	75	71	16	105	119	0	0	0	4	149	405
	Total	13	118%	148%	122	149%	154%	14	87%	89%	26	82%	83%	0	0%	0%	4	122%	332%
25-34	1-3	9	92%	192%	18	132%	132%	4	80%	49%	4	75%	62%	0	0%	0%	0	0%	0%
	4-5	20	134	140	39	143	137	6	79	178	6	60	64	0	0	0	0	0	0
	6-10	40	114	99	173	134	127	26	102	131	51	106	90	9	260	398	1	41	536
	11-15	33	115	95	289	140	139	20	66	74	100	90	102	5	88	96	25	114	134
	Total	102	115%	120%	516	138%	134%	56	82%	119	161	92%	94%	14	152%	241%	26	106%	184%
35-44	1-3	9	112%	73%	18	187%	152%	6	127%	98%	5	108%	59%	0	0%	0%	0	0%	0%
	4-5	34	152	151	54	149	126	11	94	122	8	62	27	0	0	0	0	0	0
	6-10	115	127	156	275	113	100	49	83	64	68	88	97	8	78	49	7	131	119
	11-15	99	99	82	475	119	115	76	103	129	146	95	103	13	69	70	28	77	79
	Total	257	117%	129%	822	119%	110%	142	95%	97%	227	91%	94%	21	72%	59%	35	84%	86%
45-54	1-3	22	178%	227%	18	152%	123%	7	131%	66%	4	77%	18%	0	0%	0%	0	0%	0%
	4-5	30	100	200	61	167	100	11	87	96	14	124	226	0	0	0	1	1,030	6,673
	6-10	139	109	94	245	122	121	50	80	73	35	83	107	11	112	52	4	115	256
	11-15	133	122	109	196	100	85	70	101	88	55	86	75	24	117	131	12	64	64
	Total	324	116%	130%	520	117%	106%	138	92%	81%	102	86%	101%	35	115%	95%	17	76%	170%

TABLE 16—Continued

TERM ISSUE AGE	DERIVATION FROM TERM ISSUE	CONVERSIONS FROM DECREASING TERM PLANS WITH CONVERSION PRIOR TO END OF CONVERSION PERIOD						CONVERSIONS FROM ALL OTHER IDENTIFIABLE PLANS											
								With Conversion Prior to End of Conversion Period					With Conversion at End of Conversion Period						
		Conversions from Term Policies			Conversions from Term Riders			Conversions from Term Policies			Conversions from Term Riders		Conversions from Term Policies			Conversions from Term Riders			
		No. of Actual Deaths	Ratio		No. of Actual Deaths	Ratio		No. of Actual Deaths	Ratio		No. of Actual Deaths	Ratio		No. of Actual Deaths	Ratio		No. of Actual Deaths	Ratio	
By Pols.	By Amt.		By Pols.	By Amt.		By Pols.	By Amt.		By Pols.	By Amt.		By Pols.	By Amt.		By Pols.	By Amt.			
55 and over	1-3	4	70%	404%	3	90%	30%	3	123%	34%	1	123%	81%	1	689%	31%	0	0%	0%
	4-5	16	119	111	18	184	111	8	147	149	5	298	434	0	0	0	0	0	0
	6-10	56	123	76	33	101	81	24	92	93	10	145	204	5	77	35	2	145	360
	11-15	24	130	224	12	82	75	39	147	206	10	117	102	12	111	56	0	0	0
	Total	100	120%	142%	66	109%	81%	74	122%	138%	26	145%	192%	18	100%	43%	2	71%	186%
All ages	1-3	51	133%	207%	62	150%	126%	22	110%	67%	11	67%	46%	1	649%	29%	0	0%	0%
	4-5	102	122	162	188	155	122	38	94	123	32	87	118	0	0	0	1	273	1,314
	6-10	353	117	114	768	120	113	156	87	80	172	93	101	33	107	84	14	106	244
	11-15	290	113	105	1,028	121	116	208	102	119	327	93	97	54	96	94	69	85	96
	Total	796	117%	130%	2,046	124%	116%	424	95%	99%	542	92%	98%	88	100%	88%	84	89%	139%
Attained ages:	Ultimate																		
	30-39	1	374%	552%	20	158%	147%	1	80%	63%	3	45%	45%	0	0%	0%	0	0%	0%
	40-49	16	126	102	250	137	126	43	82	60	156	88	91	8	59	35	31	69	102
	50-59	58	104	104	567	115	104	246	85	83	447	77	78	94	110	128	126	84	89
	60-69	50	96	87	282	106	88	443	90	92	563	84	81	185	90	98	227	91	96
	70-79	4	121	142	20	70	78	286	91	77	218	76	65	180	104	124	119	87	74
	80 and over	0	0	0	0	0	0	78	100	60	26	81	83	51	114	153	9	49	38
	Total	129	103%	98%	1,139	116%	103%	1,097	89%	82%	1,413	80%	79%	518	99%	115%	512	85%	89%
	Grand total	925	115%	128%	3,185	121%	113%	1,521	91%	89%	1,955	83%	87%	606	99%	108%	596	86%	100%

TABLE 17
MORTALITY RATIOS FOR CONVERSIONS OF ALL TERM PLANS COMBINED
MALE AND FEMALE, MEDICAL, NONMEDICAL, AND PARAMEDICAL, POLICIES AND RIDERS COMBINED

CONVERSION ISSUE AGE	DURA- TION FROM CON- VERSION	CONVERSION PRIOR TO END OF PERIOD		CONVERSION AT END OF CONVERSION PERIOD WITH INTERVAL BETWEEN END OF CONVERSION PERIOD AND END OF TERM COVERAGE OF														TOTAL				
		Ratio		0 Years				1-3 Years				Over 3 years				Unknown				Total		
		No. of Actual Deaths	Ratio	No. of Actual Deaths	Ratio		No. of Actual Deaths	Ratio		No. of Actual Deaths	Ratio		No. of Actual Deaths	Ratio		No. of Actual Deaths	Ratio		No. of Actual Deaths	Ratio		
					No.	Amt.		No.	Amt.		No.	Amt.		No.	Amt.		No.	Amt.		No.	Amt.	No.
		Select																				
15-24	1-3	51	88%	113%	0	0%	0%	0	0%	0%	0	0%	0%	0	0%	0%	0	0%	0%	51	86%	111%
	4-5	17	83	79	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	82	78
	6-10	14	95	97	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	94	96
	11-15	5	120	85	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	119	84
	Total	87	90%	102%	0	0%	0%	0	0%	0%	0	0%	0%	0	0%	0%	0	0%	0%	87	88%	101%
25-34	1-3	280	109%	123%	5	72%	58%	1	229%	494%	2	152%	371%	0	0%	0%	8	92%	125%	288	109%	123%
	4-5	113	113	119	4	154	148	0	0	0	3	952	569	0	0	0	7	216	168	120	116	120
	6-10	145	102	96	2	48	19	2	244	649	1	123	776	0	0	0	5	99	143	150	102	97
	11-15	102	84	90	2	49	45	0	0	0	0	0	0	0	0	0	2	41	37	104	83	88
	Total	640	103%	112%	13	73%	62%	3	129%	309%	6	349%	412%	0	0%	0%	22	101%	117%	662	103%	112%
35-44	1-3	583	164%	125%	26	183%	249%	7	165%	523%	30	207%	291%	0	0%	0%	63	191%	291%	646	166%	135%
	4-5	316	119	109	12	91	115	9	195	80	10	105	85	0	0	0	31	114	103	347	118	109
	6-10	598	118	116	27	82	74	20	157	176	12	142	184	0	0	0	59	109	105	657	117	115
	11-15	402	101	96	42	122	147	9	96	166	5	87	75	0	0	0	56	113	146	458	102	100
	Total	1,899	124%	113%	107	113%	144%	45	145%	212%	57	149%	208%	0	0%	0%	209	127%	167%	2,108	125%	117%
45-54	1-3	937	187%	178%	30	145%	168%	47	269%	188%	86	180%	176%	0	0%	0%	153	186%	174%	1,090	187%	177%
	4-5	531	141	96	20	106	87	25	167	118	43	133	121	0	0	0	88	133	104	619	140	97
	6-10	832	121	102	58	121	147	40	99	163	31	92	115	0	0	0	129	106	147	961	119	107
	11-15	417	108	88	76	137	127	29	116	115	34	168	187	0	0	0	139	138	131	556	114	95
	Total	2,717	139%	122%	184	129%	137%	131	139%	145%	194	145%	153%	0	0%	0%	509	137%	143%	3,226	139%	125%

TABLE 17—Continued

CONVERSION ISSUE AGE	DURA- TION FROM CON- VERSION	CONVERSION PRIOR TO END OF PERIOD		CONVERSION AT END OF CONVERSION PERIOD WITH INTERVAL BETWEEN END OF CONVERSION PERIOD AND END OF TERM COVERAGE OF:														TOTAL				
		Ratio		0 Years		1-3 Years		Over 3 Years		Unknown		Total		No. of Actual Deaths	Ratio							
		No. of Actual Deaths	Ratio	No. of Actual Deaths	Ratio		No. of Actual Deaths	Ratio		No. of Actual Deaths	Ratio		No. of Actual Deaths			Ratio		No. of Actual Deaths	Ratio			
					No.	Amt.		No.	Amt.		No.	Amt.		No.	Amt.	No.	Amt.			No.	Amt.	
<i>Select—Continued</i>																						
55 and over	1-3	440	183%	128%	17	164%	183%	33	200%	103%	65	168%	186%	4	182%	96%	119	176%	162%	559	182%	133%
	4-5	238	134	109	12	122	134	21	110	73	40	144	148	2	111	35	75	128	116	313	132	110
	6-10	380	142	134	25	93	65	79	155	186	34	163	177	1	41	46	139	137	135	519	140	134
	11-15	184	146	173	32	84	96	41	151	153	8	109	142	0	0	0	81	112	120	265	133	157
	Total	1,242	153%	132%	86	101%	107%	174	153%	145%	147	155%	171%	7	109%	63%	414	138%	134%	1,656	149%	133%
All ages	1-3	2,291	162%	144%	78	146%	183%	78	223%	202%	183	179%	205%	4	180%	96%	343	178%	193%	2,634	164%	148%
	4-5	1,215	129	105	48	107	108	55	141	91	96	137	129	2	111	35	201	129	109	1,416	129	105
	6-10	1,969	122	111	112	100	103	141	134	181	78	124	148	1	41	46	332	118	134	2,301	121	113
	11-15	1,110	107	103	152	115	119	79	127	138	47	141	158	0	0	0	278	122	128	1,388	110	106
	Total	6,585	132%	119%	390	114%	127%	353	146%	157%	404	150%	171%	7	108%	63%	1,154	135%	144%	7,739	137%	122%
<i>Ultimate</i>																						
Attained ages:		0	0%	0%	0	0%	0%	0	0%	0%	0	0%	0%	0	0%	0%	0	0%	0%	0	0%	0%
30-39		92	97	97	3	98	128	0	0	0	0	0	0	0	0	0	3	84	110	95	97	98
40-49		505	76	78	41	80	67	18	227	259	2	118	260	0	0	0	61	100	96	566	78	79
50-59		978	88	88	178	87	93	30	98	129	9	71	67	0	0	0	217	87	98	1,195	88	89
60-69		548	84	68	190	98	96	40	127	158	7	98	141	0	0	0	237	102	107	785	89	76
70-79		105	94	60	56	94	144%	4	145	50	0	0	0	0	0	0	60	97	140	165	95	82
80 and over																						
Total		2,228	85%	79%	468	91%	99%	92	126%	149%	18	83%	110%	0	0%	0%	578	95%	106%	2,806	87%	83%
Grand total		8,813	115%	108%	858	100%	114%	445	142%	155%	422	145%	168%	7	108%	63%	1,732	118%	130%	10,545	116%	111%

TABLE 18

MORTALITY RATIOS FOR CONVERSIONS FROM TERM PLANS PROVIDING FOR AUTOMATIC CONVERSION WITHIN 10 YEARS MALE AND FEMALE, MEDICAL, NONMEDICAL, AND PARAMEDICAL, POLICIES AND RIDERS COMBINED

CONVERSION ISSUED AGE	DURATION FROM CONVERSION	CONVERSION PRIOR TO END OF PERIOD			CONVERSION AT END OF PERIOD			TOTAL		
		No. of Actual Deaths	Ratio		No. of Actual Deaths	Ratio		No. of Actual Deaths	Ratio	
			No.	Amt.		No.	Amt.		No.	Amt.
Select:										
15-24	1-3	21	65%	87%	0	0%	0%	21	64%	85%
	4-5	5	47	43	0	0	0	5	46	42
	6-10	4	88	80	0	0	0	4	86	79
	Total	30	63%	76%	0	0%	0%	30	62%	75%
25-34	1-3	44	68%	115%	3	73%	67%	47	68%	112%
	4-5	13	70	84	1	116	83	14	72	84
	6-10	7	93	72	1	332	53	8	103	72
	Total	64	70%	103%	5	94%	69%	69	72%	102%
35-44	1-3	37	104%	102%	8	196%	191%	45	114%	109%
	4-5	16	75	85	1	59	73	17	74	85
	6-10	8	71	85	1	114	62	9	74	84
	Total	61	90%	95%	10	151%	154%	71	95%	99%
45-54	1-3	28	81%	114%	4	83%	58%	32	81%	107%
	4-5	14	77	45	1	57	38	15	75	44
	6-10	17	142	160	2	179	86	19	145%	156
	Total	59	91%	102%	7	91%	56%	66	91%	98%
55 and over	1-3	18	127%	58%	5	236%	168%	23	141%	70%
	4-5	9	115	81	0	0	0	9	105	75
	6-10	3	67	50	1	242	85	4	82	53
	Total	30	113%	64%	6	182%	120%	36	121%	69%
All ages	1-3	148	82%	101%	20	125%	115%	168	85%	103%
	4-5	57	74	70	3	56	46	60	73	69
	6-10	39	98	104	5	178	74	44	103	103
	11-15	0	0	0	0	0	0	0	0	0
	Total	244	82%	93%	28	116%	97%	272	85%	94%
Grand total	244	82%	93%	28	116%	97%	272	85%	94%	

TABLE 19

MORTALITY RATIOS FOR CONVERSIONS FROM RENEWABLE TERM PLANS
 MALE AND FEMALE, MEDICAL, NONMEDICAL, AND PARAMEDICAL,
 POLICIES AND RIDERS COMBINED

CONVERSION ISSUE AGE	DURATION FROM CONVERSION	CONVERSION PRIOR TO END OF PERIOD			CONVERSION AT END OF PERIOD			TOTAL		
		No. of Actual Deaths	Ratio		No. of Actual Deaths	Ratio		No. of Actual Deaths	Ratio	
			No.	Amt.		No.	Amt.		No.	Amt.
Select										
15-24	1-3	3	51%	90%	0	0%	0%	3	51%	89%
	4-5	0	0	0	0	0	0	0	0	0
	6-10	1	60	46	0	0	0	1	60	46
	11-15	0	0	0	0	0	0	0	0	0
	Total	4	40%	65%	0	0%	0%	4	40%	64%
25-34	1-3	45	105%	121%	0	0%	0%	45	104%	121%
	4-5	5	41	65	0	0	0	5	41	65
	6-10	10	69	54	0	0	0	10	69	54
	11-15	9	69	103	0	0	0	9	69	103
	Total	69	84%	101%	0	0%	0%	69	83%	101%
35-44	1-3	70	123%	118%	1	88%	31%	71	122%	117%
	4-5	29	96	84	0	0	0	29	95	83
	6-10	44	89	173	0	0	0	44	89	172
	11-15	53	100	95	0	0	0	53	100	95
	Total	196	103%	121%	1	64%	24%	197	103%	120%
45-54	1-3	90	129%	122%	4	204%	152%	94	131%	123%
	4-5	37	93	65	0	0	0	37	93	64
	6-10	56	84	73	0	0	0	56	84	72
	11-15	54	90	45	0	0	0	54	90	45
	Total	237	100%	86%	4	151%	124%	241	101%	86%
55 and over	1-3	55	146%	79%	5	162%	63%	60	147%	78%
	4-5	30	135	90	1	54	34	31	129	87
	6-10	38	128	88	6	199	263	44	135	99
	11-15	41	224	164	2	80	70	43	206	155
	Total	164	152%	94%	14	134%	105%	178	151%	95%
All ages	1-3	263	123%	114%	10	157%	90%	273	124%	113%
	4-5	101	95	74	1	40	21	102	94	74
	6-10	149	92	107	6	176	222	155	94	108
	11-15	157	109	81	2	77	68	159	108	81
	Total	670	107%	100%	19	128%	97%	689	108%	100%
Ultimate										
Attained ages:										
30-39		0	0%	0%	0	0%	0%	0	0%	0%
40-49		7	59	44	0	0	0	7	59	44
50-59		67	64	78	0	0	0	67	64	78
60-69		142	82	87	0	0	0	142	82	87
70-79		68	75	49	0	0	0	68	75	49
80 and over		2	82	24	0	0	0	2	73	21
Total		286	75%	72%	0	0%	0%	286	74%	72%
Grand total		956	95%	93%	19	124%	92%	975	95%	93%

TABLE 20

MORTALITY RATIOS FOR CONVERSIONS FROM DECREASING TERM PLANS
 MALE AND FEMALE, MEDICAL, NONMEDICAL, AND PARAMEDICAL,
 POLICIES AND RIDERS COMBINED

CONVERSION ISSUE AGE	DIVER- SION FROM CON- VERSION	CONVERSION PRIOR TO END OF PERIOD			CONVERSION AT END OF PERIOD			TOTAL		
		No. of Actual Deaths	Ratio		No. of Actual Deaths	Ratio		No. of Actual Deaths	Ratio	
			No.	Am't		No.	Am't		No.	Am't
Select										
15-24	1-3	24	176%	230%	0	0%	0%	24	175%	230%
	4-5	8	531	175%	0	0	0	8	531	175%
	6-10	2	74	41	0	0	0	2	74	41
	11-15	1	258	158	0	0	0	1	258	158
	Total	29	174%	192%	0	0	0	29	174%	192%
25-34	1-3	68	147%	161%	1	84%	48%	69	146%	161%
	4-5	51	153	141	3	806	589	54	158	143
	6-10	5	96	88	1	131	284	6	127	88
	11-15	13	85	101	1	2,777	3,690	14	91	108
	Total	80	132%	137%	6	328%	252%	86	134%	138%
35-44	1-3	422	200%	169%	26	211%	395%	448	200%	178%
	4-5	210	134	106%	13	135	114	223	135	106%
	6-10	347	142	119	18	166	188	365	143	120
	11-15	109	127	110	1	67	29	110	126	109
	Total	1,088	156%	133%	58	169%	266%	1,146	156%	137%
45-54	1-3	732	219%	262%	100	201%	094%	832	217%	256%
	4-5	413	162	132	53	139	130	466	159	132
	6-10	575	138	116	50	99	108	625	134	115
	11-15	144	122	96	7	101	170	151	121	98
	Total	1,864	166%	170%	210	144%	151%	2,074	163%	169%
55 and over	1-3	307	198%	151%	75	163%	166%	382	190%	153%
	4-5	160	140	126	51	136	150	211	139	129
	6-10	223	147	148	73	161	176	296	150	152
	11-15	53	155	137	9	159	136	62	155	136
	Total	743	163%	142%	208	154%	164%	951	161%	146%
All ages	1-3	1,650	200%	202%	202	185%	211%	1,852	198%	203%
	4-5	859	149	124	120	140	139	979	148	125
	6-10	1,198	138	119	142	133	145	1,340	137	120
	11-15	320	126	106	18	127	165	338	126	108
	Total	4,027	159%	151%	482	152%	172%	4,509	159%	152%
Ultimate										
Attained ages										
30-39		0	0%	0%	0	0%	0%	0	0%	0%
40-49		3	68	185	0	0	0	3	68	183
50-59		36	93	85	0	0	0	36	93	85
60-69		42	97	74	1	78%	389	43	99	75
70-79		14	78	76	0	0	0	14	78	76
80 and over		0	0	0	0	0	0	0	0	0
Total		95	90%	82%	1	458%	236%	96	91%	82%
Grand total		4,122	157%	149%	483	152%	172%	4,605	156%	150%

TABLE 21

MORTALITY RATIOS FOR CONVERSIONS FROM ALL OTHER IDENTIFIABLE TERM PLANS
 MALE AND FEMALE, MEDICAL, NONMEDICAL, AND PARAMEDICAL, POLICIES AND RIDERS COMBINED

CONVERSION ISSUE AGE	DURA- TION FROM CON- VERSION	CONVERSION PRIOR TO END OF PERIOD		CONVERSION AT END OF CONVERSION PERIOD WITH INTERVAL BETWEEN END OF CONVERSION PERIOD AND END OF TERM COVERAGE OF:														TOTAL				
		Ratio		0 Years		1-3 Years		Over 3 years		Unknown		Total		No. of Actual Deaths	Ratio							
		No. of Actual Deaths	No.	Amt.	No. of Actual Deaths	Ratio		No. of Actual Deaths	Ratio		No. of Actual Deaths	Ratio				No. of Actual Deaths	Ratio					
						No.	Amt.		No.	Amt.		No.	Amt.	No.	Amt.							
Select																						
15-24	1-3	6	75%	82%	0	0%	0%	0	0%	0%	0	0%	0%	0	0%	0%	0	0%	0%	6	73%	81%
	4-5	7	174	143	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	170	141
	6-10	7	122	151	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	121	150
	11-15	4	120	91	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	119	91
	Total	24	114%	114%	0	0%	0%	0	0%	0%	0	0%	0%	0	0%	0%	0	0%	0%	24	112%	112%
25-34	1-3	23	67%	60%	2	71%	44%	1	381%	625%	1	740%	69%	0	0%	0%	4	125%	245%	27	72%	71%
	4-5	24	105	155	3	174	187	0	0	0	0	0	0	0	0	3	152	163	27	109	156	
	6-10	77	116	117	1	26	14	2	291	676	0	0	0	0	0	3	66	145	80	113	118	
	11-15	80	87	87	1	24	22	0	0	0	0	0	0	0	0	1	20	18	81	83	83	
	Total	204	95%	100%	7	56%	51%	3	159%	333%	1	564%	68%	0	0%	0%	11	76%	131%	215	93%	102%
35-44	1-3	54	104%	73%	18	180%	289%	4	172%	596%	6	200%	219%	0	0%	0%	28	182%	326%	82	121%	111%
	4-5	61	104	140	11	98	125	4	149	61	2	112	54	0	0	0	17	108	107	78	105	136
	6-10	199	99	97	26	82	75	10	121	158	4	159	263	0	0	0	40	94	100	239	98	97
	11-15	240	93	94	42	123	147	8	94	169	5	95	80	0	0	0	55	115	148	295	96	100
	Total	554	97%	98%	97	111%	143%	26	120%	209%	17	135%	161%	0	0%	0%	140	115%	157%	694	100%	106%
45-54	1-3	87	142%	132%	24	153%	223%	12	227%	173%	9	186%	161%	0	0%	0%	45	175%	203%	132	152%	147%
	4-5	67	105	86	19	113	96	9	151	109	6	197	117	0	0	0	34	132	101	101	113	89
	6-10	184	96	98	55	120	150	19	108	193	3	49	107	0	0	0	77	111	159	261	100	110
	11-15	219	104	105	76	138	127	24	120	109	32	173	193	0	0	0	132	141	130	351	116	111
	Total	557	106%	104%	174	130%	146%	64	131%	146%	50	154%	161%	0	0%	0%	288	134%	148%	845	114%	113%

TABLE 21—Continued

CONVERSION ISSUE AGE	DURATION FROM CONVERSION	CONVERSION PRIOR TO END OF PERIOD			CONVERSION AT END OF CONVERSION PERIOD WITH INTERVAL BETWEEN END OF CONVERSION PERIOD AND END OF TERM COVERAGE OF														TOTAL			
		Ratio		0 Years			1-3 Years			Over 3 years			Unknown			Total						
		No. of Actual Deaths	No.	Amt.	No. of Actual Deaths	Ratio		No. of Actual Deaths	Ratio		No. of Actual Deaths	Ratio		No. of Actual Deaths	Ratio		No. of Actual Deaths	Ratio				
						No.	Amt.		No.	Amt.		No.	Amt.		No.	Amt.		No.	Amt.			
<i>Select—Continued</i>																						
55 and over	1-3	60	179%	204%	12	148%	192%	12	229%	98%	9	406%	417%	1	107%	40%	34	206%	183%	94	188%	199%
	4-5	39	115	111	12	133	156	7	106	66	3	201	50	1	90	31	23	126	110	62	119	110
	6-10	116	141	148	24	92	64	31	142	194	3	120	38	1	56	56	59	113	115	175	130	139
	11-15	90	122	181	32	84	96	30	154	166	8	117	146	0	0	0	70	109	122	160	116	159
	Total	305	136%	162%	80	98%	106%	80	151%	154%	23	176%	176%	3	78%	43%	186	123%	127%	491	131%	151%
All ages	1-3	230	122%	118%	86	152%	224%	29	221%	224%	28	245%	280%	1	106%	40%	111	182%	230%	341	136%	136%
	4-5	198	108	116	45	116	121	20	129	82	11	173	83	1	90	41	77	125	107	275	112	115
	6-10	583	107	107	106	98	105	62	128	194	10	90	110	1	88	56	179	106	131	762	106	111
	11-15	633	99	109	151	115	119	62	127	140	45	147	163	0	0	0	258	122	128	891	105	113
	Total	1,644	106%	111%	358	114%	131%	173	148%	163%	91	156%	177%	3	78%	43%	625	124%	143%	2,269	110%	117%
<i>Ultimate</i>																						
Attained ages:		0	0%	0%	0	0%	0%	0	0%	0%	0	0%	0%	0	0%	0%	0	0%	0%	0	0%	0%
30-39		82	105	103	3	98	128	0	0	0	0	0	0	0	0	0	3	85	111	85	104	103
40-49		402	78	78	41	80	67	18	227	259	7	118	260	0	0	0	61	100	96	463	80	80
50-59		794	89	89	178	87	93	30	99	129	8	63	62	0	0	0	216	87	98	1,010	89	90
60-69		466	86	74	190	98	96	40	128	163	7	98	141	0	0	0	237	102	107	703	91	82
70-79		103	95	62	56	94	144	4	163	89	0	0	0	0	0	0	60	97	143	163	96	85
80 and over																						
	Total	1,847	86%	81%	468	91%	99%	92	127%	154%	17	79%	107%	0	0%	0%	577	95%	107%	2,424	88%	86%
Grand total		3,491	94%	98%	826	100%	115%	265	134%	160%	108	136%	164%	3	78%	43%	1,202	108%	127%	4,693	98%	103%

TABLE 22

MORTALITY RATIOS FOR CONVERSIONS FROM TERM PLAN BY SEX
ALL CONVERSION CODES, TERM PLANS, MEDICAL, NONMEDICAL, AND PARAMEDICAL,
POLICIES AND RIDERS COMBINED

CONVERSION ISSUE AGE	DURATION FROM CONVER- SION	MALE			FEMALE		
		No. of Actual Deaths	Mortality Ratio		No. of Actual Deaths	Mortality Ratio	
			By Policies	By Amount		By Policies	By Amount
Select							
15-34	1- 3	383	110%	121%	59	77%	82%
	4- 5	204	108	96	21	77	131
	6-10	393	90	87	24	76	86
	11-15	373	75	71	16	133	106
	Total	1,353	92%	93%	120	81%	94%
35-54	1- 3	2,047	165%	143%	130	139%	108%
	4- 5	1,313	111	90	71	111	89
	6-10	3,443	98	90	108	87	69
	11-15	3,279	83	85	58	75	82
	Total	10,082	102%	97%	367	102%	86%
55 and over	1- 3	698	177%	155%	22	144%	112%
	4- 5	433	121	126	18	164	136
	6-10	1,033	122	124	35	163	199
	11-15	739	99	104	11	64	102
	Total	2,903	124%	123%	86	132%	143%
All ages	1- 3	3,513	177%	142%	226	177%	102%
	4- 5	2,368	137	98	125	122	103
	6-10	5,931	123	96	187	106	91
	11-15	5,944	115	87	110	103	88
	Total	14,338	105%	101%	573	100%	96%
Ultimate							
Attained ages:							
30-39		5	86%	76%	0	0%	0%
40-49		328	71	70	6	122	425
50-59		2,285	71	72	14	51	35
60-69		4,061	75	76	53	90	80
70-79		2,717	76	75	38	58	37
80 and over		868	84	77	41	96	111
Total		10,264	75%	75%	152	76%	68%
Grand total		24,602	89%	91%	725	93%	91%

TABLE 23

MORTALITY RATIOS FOR TERM CONVERSIONS BY TYPE OF UNDERWRITING
 ALL CONVERSION CODES, MALE AND FEMALE, POLICYS AND RIDERS COMBINED

CONVERSION ISSUE AGE	DURATION FROM CONVERSION	TERM PLANS PROVIDING AUTOMATIC CONVERSION WITHIN 10 YEARS						OTHER TERM PLANS						ALL TERM PLANS COMBINED					
		Medical		Nonmedical		Paramedical		Medical		Nonmedical		Paramedical		Medical		Nonmedical		Paramedical	
		No. of Deaths	Ratio by Amt.	No. of Deaths	Ratio by Amt.	No. of Deaths	Ratio by Amt.	No. of Deaths	Ratio by Amt.	No. of Deaths	Ratio by Amt.	No. of Deaths	Ratio by Amt.	No. of Deaths	Ratio by Amt.	No. of Deaths	Ratio by Amt.	No. of Deaths	Ratio by Amt.
Select																			
15-24	1-3	0	0%	1	259%	0	0%	3	86%	5	105%	1	179%	3	86%	6	109%	1	179%
	4-5	0	0	0	0	0	0	2	49	1	78	0	0	2	49	3	77	0	0
	6-10	0	0	0	0	0	0	5	198	1	65	0	0	2	198	4	65	0	0
	11-15	0	0	0	0	0	0	2	77	2	88	0	0	2	77	2	88	0	0
	Total	0	0%	1	228%	0	0%	9	103%	14	88%	1	164%	9	102%	15	90%	1	164%
25-34	1-3	0	0%	0	0%	0	0%	30	112%	26	78%	9	163%	30	110%	26	74%	9	162%
	4-5	0	0	0	0	0	0	17	159	18	80	0	0	17	158	18	80	0	0
	6-10	0	0	0	0	0	0	39	84	81	122	0	0	39	84	51	122	0	0
	11-15	0	0	0	0	0	0	88	90	38	89	0	0	88	90	38	89	0	0
	Total	0	0%	0	0%	0	0%	141	105%	130	94%	9	153%	141	105%	130	94%	9	153%
35-44	1-3	4	160%	0	0%	0	0%	107	115%	33	122%	7	61%	111	116%	33	121%	7	60%
	4-5	1	195	0	0	0	0	82	114	40	139	0	0	83	115	40	139	0	0
	6-10	0	0	0	0	0	0	223	116	63	77	0	0	223	116	63	77	0	0
	11-15	0	0	0	0	0	0	266	96	62	85	0	0	266	96	62	85	0	0
	Total	5	166%	0	0%	0	0%	678	110%	198	97%	7	86%	683	110%	198	97%	7	86%
45-54	1-3	4	71%	0	0%	0	0%	186	135%	21	310%	8	79%	190	133%	21	340%	8	69%
	4-5	0	0	0	0	0	0	114	78	11	60	0	0	114	75	11	60	0	0
	6-10	0	0	0	0	0	0	320	97	24	118	0	0	320	92	24	118	0	0
	11-15	0	0	0	0	0	0	374	88	1	124	0	0	374	88	17	124	0	0
	Total	4	61%	0	0%	0	0%	944	99%	73	162%	8	67%	948	98%	73	162%	8	62%

TABLE 23—Continued

CONVERSION ISSUE AGE	DUR- TION FROM CONVER- SION	TERM PLANS PROVIDING AUTOMATIC CONVERSION WITHIN 10 YEARS						OTHER TERM PLANS						ALL TERM PLANS COMBINED					
		Medical		Nonmedical		Paramedical		Medical		Nonmedical		Paramedical		Medical		Nonmedical		Paramedical	
		No. of Actual Deaths	Ratio by Amt.	No. of Actual Deaths	Ratio by Amt.	No. of Actual Deaths	Ratio by Amt.	No. of Actual Deaths	Ratio by Amt.	No. of Actual Deaths	Ratio by Amt.	No. of Actual Deaths	Ratio by Amt.	No. of Actual Deaths	Ratio by Amt.	No. of Actual Deaths	Ratio by Amt.	No. of Actual Deaths	Ratio by Amt.
Select—Continued																			
55 and over	1-3	4	195%	0	0%	0	0%	99	139%	1	12%	1	28%	103	140%	1	12%	1	28%
	4-5	0	0	0	0	0	0	66	96	1	36	0	0	66	95	1	36	0	0
	6-10	0	0	0	0	0	0	166	114	2	70	0	0	166	114	2	70	0	0
	11-15	0	0	0	0	0	0	127	145	2	189	0	0	127	145	2	189	0	0
	Total	4	155%	0	0%	0	0%	458	125%	6	56%	1	26%	462	125%	6	56%	1	26%
All ages	1-3	12	114%	1	45%	0	0%	425	126%	86	125%	26	96%	437	126%	87	124%	26	96%
	4-5	1	59	0	0	0	0	281	98	73	101	0	0	282	98	73	100	0	0
	6-10	0	0	0	0	0	0	750	104	144	97	0	0	750	104	144	97	0	0
	11-15	0	0	0	0	0	0	774	100	118	90	0	0	774	100	118	90	0	0
		Total	13	105%	1	39%	0	0%	2,230	107%	421	103%	26	89%	2,243	107%	422	103%	26
Ultimate																			
Attained ages	30-39	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
	40-49	0	0	0	0	0	0	52	98	30	96	0	0	52	98	30	96	0	0
	50-59	0	0	0	0	0	0	408	74	65	85	0	0	408	74	65	85	0	0
	60-69	0	0	0	0	0	0	1,009	88	25	68	0	0	1,009	88	25	68	0	0
	70-79	0	0	0	0	0	0	648	70	0	0	0	0	648	70	0	0	0	0
	80 and over	0	0	0	0	0	0	149	83	0	0	0	0	149	83	0	0	0	0
	Total	0	0%	0	0%	0	0%	2,266	80%	120	83%	0	0%	2,266	80%	120	83%	0	0%
Grand total		13	105%	1	39%	0	0%	4,496	96%	541	99%	26	89%	4,509	96%	542	99%	26	88%

TABLE 24

MORTALITY RATIOS FOR CONVERSIONS FROM TERM POLICIES AND TERM RIDERS
 MALE AND FEMALE, MEDICAL, NONMEDICAL, AND PARAMEDICAL COMBINED

CONVERSION ISSUE AGE	DURATION FROM CONVERSION	CONVERSIONS FROM DECREASING TERM PLANS WITH CONVERSION PRIOR TO END OF CONVERSION PERIOD						CONVERSIONS FROM ALL OTHER IDENTIFIABLE PLANS											
		Conversions from Term Policies			Conversions from Term Riders			With Conversion Prior to End of Conversion Period					With Conversion at End of Conversion Period						
		No. of Actual Deaths	Ratio		No. of Actual Deaths	Ratio		No. of Actual Deaths	Ratio		No. of Actual Deaths	Ratio		No. of Actual Deaths	Ratio		No. of Actual Deaths	Ratio	
			By Pols.	By Amt.		By Pols.	By Amt.		By Pols.	By Amt.		By Pols.	By Amt.		By Pols.	By Amt.		By Pols.	By Amt.
		Select																	
15-24	1-3	6	244%	361%	15	158%	176%	4	115%	99%	1	32%	36%	0	0%	0%	0	0%	0%
	4-5	1	135	121	4	131	195	4	215	160	2	138	108	0	0%	0%	0	0%	0%
	6-10	0	0	0	2	95	61	0	0	0	6	222	320	0	0	0	0	0	0
	11-15	0	0	0	1	301	187	2	195	191	2	87	36	0	0	0	0	0	0
	Total	7	183%	266%	22	147%	164%	10	114%	96%	11	113%	131%	0	0%	0%	0	0%	0%
25-34	1-3	32	114%	152%	136	158%	166%	7	55%	48%	16	74%	72%	2	190%	162%	2	93%	320%
	4-5	15	164	136	56	150	143	7	88	241	17	113	84	1	158	19	2	149	281
	6-10	3	34	66	48	108	93	18	103	112	59	121	120	2	124	276	1	34	30
	11-15	1	57	56	12	88	108	15	66	78	65	93	91	0	0	0	1	69	80
	Total	51	107%	132%	252	139%	140%	47	77%	107%	157	103%	96%	5	75%	98%	6	76%	173%
35-44	1-3	80	176%	132%	842	206%	189%	15	80%	57%	39	117%	89%	6	176%	300%	22	184%	343%
	4-5	30	101	67	180	142	123	22	113	151	39	100	132	4	121	111	13	105	105
	6-10	42	110	93	305	148	127	54	98	98	144	98	96	9	80	51	31	99	126
	11-15	9	99	55	100	130	120	60	89	90	180	94	96	25	107	163	30	122	130
	Total	161	132%	102%	927	161%	146%	151	94%	97%	402	98%	99%	44	106%	147%	96	120%	165%
45-54	1-3	164	184%	317%	567	231%	222%	38	131%	97%	49	174%	186%	12	185%	80%	33	171%	295%
	4-5	92	148	132	321	131	117	33	115	104	33	95	61	9	140	70	25	129	124
	6-10	123	136	113	251	138	117	66	84	81	116	104	117	32	138	197	45	97	126
	11-15	26	133	101	118	120	95	102	121	131	117	93	80	57	131	125	75	150	137
	Total	405	155%	202%	1,457	169%	152%	239	108%	101%	315	103%	107%	110	138%	133%	178	132%	162%

TABLE 24—Continued

CONVERSION ISSUE AGE	DURA- TION FROM CONVER- SION	CONVERSIONS FROM DECREASING TERM PLANS WITH CONVERSION PRIOR TO END OF CONVERSION PERIOD						CONVERSIONS FROM ALL OTHER IDENTIFIABLE PLANS											
								With Conversion Prior to End of Conversion Period						With Conversion at End of Conversion Period					
		Conversions from Term Policies			Conversions from Term Riders			Conversions from Term Policies			Conversions from Term Riders			Conversions from Term Policies			Conversions from Term Riders		
		No. of Actual Deaths	Ratio		No. of Actual Deaths	Ratio		No. of Actual Deaths	Ratio		No. of Actual Deaths	Ratio		No. of Actual Deaths	Ratio		No. of Actual Deaths	Ratio	
			By Pols.	By Amt.		By Pols.	By Amt.		By Pols.	By Amt.		By Pols.	By Amt.		By Pols.	By Amt.		By Pols.	By Amt.
Select—Continued																			
55 and over	1- 3	124	190%	144%	183	204%	160%	39	172%	146%	17	174%	294%	15	179%	97%	19	235%	301%
	4- 5	72	152	150	88	132	95	21	90	83	17	172	201	10	107	57	13	146	178
	6-10	89	153	182	133	142	113	82	145	144	31	127	152	41	144	147	18	76	66
	11-15	17	187	169	36	143	118	66	138	213	23	88	87	49	132	151	21	77	58
	Total	302	168%	157%	440	160%	126%	208	138%	154%	88	125%	169%	115	138%	131%	71	105%	120%
All ages	1- 3	406	176%	213%	1,243	208%	194%	103	119%	91%	122	123%	140%	35	180%	135%	76	183%	311%
	4- 5	210	141	122	649	152	126	87	107	125	108	108	107	24	121	72	53	126	135
	6-10	257	131	121	939	140	118	220	105	102	356	107	111	84	130	153	95	91	110
	11-15	53	134	98	267	125	109	245	110	134	387	93	89	131	122	138	127	123	113
	Total	926	150%	161%	3,098	162%	146%	655	109%	113%	973	103%	107%	274	130%	134%	351	121%	153%
Ultimate																			
Attained ages	30-39	0	0%	0%	0	0%	0%	0	0%	0%	0	0%	0%	0	0%	0%	0	0%	0%
	40-49	0	0	0	3	70	189	31	111	84	51	101	117	2	67	62	1	188	363
	50-59	1	107	87	35	92	85	163	84	80	239	74	76	43	118	115	18	74	64
	60-69	1	82	67	41	98	74	330	90	88	464	88	89	102	86	104	114	88	89
	70-79	0	0	0	14	79	76	260	95	80	206	77	64	134	104	113	103	99	94
	80 and over	0	0	0	0	0	0	77	99	58	26	84	85	51	117	157	9	49	38
	Total	2	80%	71%	93	91%	83%	861	92%	81%	986	82%	81%	332	100%	117%	245	89%	87%
Grand total		928	150%	160%	3,191	159%	143%	1,516	98%	97%	1,959	91%	97%	606	112%	125%	596	105%	129%

AG.11). COMPARISON WITH THE 1966-71 EXPERIENCE

Table 25 presents a comparison of mortality ratios by amounts derived from the 1971-78 period with those published in the *1973 Reports* for the 1966-71 period. The ratios are not directly comparable, since expected deaths were based on the 1955-60 Basic Tables in the 1966-71 study, while expected deaths in the 1971-78 study are based on the 1965-70 Basic Tables. The total number of deaths for the 1971-78 period (10,522) is less than half the number in the earlier experience (22,390).

The mortality ratios in Table 25 for the 1971-78 experience are lower than those for the prior period for conversions prior to the end of the conversion period. The overall ratio of 93 percent for conversion group 1 with respect to the 1971-78 experience shows a decrease of 2 percentage points from the 95 percent for the 1966-71 experience, but the decrease is actually greater because of the different bases for expected deaths. The increase of 5 percentage points indicated for group 2 is probably not significant.

PART B: GUARANTEED INSURABILITY OPTION EXPERIENCE

Part B presents GIO experience relating to three of the five sets of rates that are required under the GIO counterparts of the formulas given in Appendix II for conversion policies. These three sets of rates include election rates, lapse rates under elected policies, and mortality rates under

TABLE 25
TERM CONVERSION MORTALITY
COMPARISON OF MORTALITY RATIOS WITH EXPERIENCE FOR 1966-71
(Based on Amounts)

TERM PLANS	CONVERSIONS PRIOR TO END OF CONVERSION PERIOD				CONVERSIONS AT END OF CONVERSION PERIOD			
	1966-71 Period		1971-78 Period		1966-71 Period		1971-78 Period	
	Mortality Ratio*	No. of Deaths	Mortality Ratio†	No. of Deaths	Mortality Ratio*	No. of Deaths	Mortality Ratio†	No. of Deaths
Automatic conversions within 10 years	92%	922	79%	244	97%	4,425	71%	28
Renewable	97	1,676	79	955	77	157	56	19
Decreasing	134	1,705	118	4,113	88	115	110	476
All other identifiable plans	90	9,543	88	3,485	98	3,847	104	1,202
Total	95%	13,846	93%	8,797	97%	8,544	102%	1,725

* Based on 1955-60 Basic Tables.

† Based on 1965-70 Basic Tables.

elected policies. Again, the Committee believes that suitable data for establishing the two remaining rates required to measure the extra mortality costs (namely, the persistency rates applicable to the period prior to the date of election and the mortality rates for standard policies) may be obtained from company experience or from published sources.

As in the previous study, analyses were prepared for the two major election groups: group 1 representing policies issued on "regular" option dates, and group 2 representing policies issued on "special" option dates associated with marriage or the birth of a child.

B(1). Election Rates

The counterpart of formula (2) given in Appendix II for GIO experience expresses election rates as a function of two variables: issue age of the base policy and duration to the date of election. For the purpose of this current study, however, the Committee, for practical purposes, adopted the assumption that election rates for each of the two major option groups would depend primarily on one variable: the attained age on the date of election. The Committee anticipated that the volume of experience with respect to GIO election rates would be small. Consequently, it did not ask companies to separate their experience into duration subgroups to test the concept that GIO election rates depend primarily on attained age rather than on duration.

The data for the election rate experience were furnished by four companies, in accordance with Report Form No. 2 shown in Appendix I. Appendix V, which lists the companies contributing to this portion of the study, indicates that the number of GIO elections totaled 120,808, of which 108,614 were classified as "regular" and 12,194 as "special." A third option type, "other" (election made at a specified time based on special extracontractual programs such as marketing drives), was established, but only two companies contributed data, and their data could not be combined because of differences in their marketing drives.

Table 26 presents a distribution of regular and special election rates by age derived from the experience submitted by companies listed in Appendix V. A regular election rate is the result obtained by dividing the amount elected on a specific anniversary by the maximum amount that could have been elected at that time on a regular basis by all eligible policyholders. On the other hand, a special election rate is the result obtained by dividing the amounts actually elected on a special basis (such as marriage, or birth of a child) during a specific year by the amounts that could have been elected if all policyholders had met the eligibility requirements for the special option during that year. Because the denomi-

nator used to determine a special rate for a particular cell may be from three to five times as great as that for the corresponding regular rate. Special rates are at a much lower level than those for regular rates.

The first part of Table 26 shows the distribution of regular election option rates by central ages 22, 25, 28, 31, 34, 37, and 40. The regular rates increase steadily with advancing age for central ages 31, 34, 37, and 40, from 12.3 percent for central age 31 to 23.6 percent for central age 40. Also, the regular rates are greater at every central age than those in the previous study. Of interest is the broad spread between the maximum and minimum rates reported by individual companies, presumably due to diversity in administrative practices and financial inducement programs.

The second part of Table 26 shows the distribution of special election option rates by quinquennial age groups. As expected, the special election rates are of a low order of magnitude: the overall rate of 0.62 percent is about one twentieth of the overall regular election rate. As in the case of the regular elections, the spread of the special election rates reported by individual companies is relatively broad.

TABLE 26
GUARANTEED INSURABILITY OPTIONS
ELECTION RATES BY ATTAINED AGE

ATTAINED AGE AT ELECTION	TOTAL ELECTIONS	AGGREGATE ELECTION RATE	RANGE OF INDIVIDUAL COMPANY ELECTION RATES*			
			Maximum		Minimum	
			Rate	Number	Rate	Number
Regular Elections						
21-23	13,685	14.6				
24-26	23,768	11.7	14.9	17,004	4.2	1,046
27-29	26,760	13.3	16.3	17,785	7.5	3,073
30-32	18,842	12.3	17.1	13,449	3.7	910
33-35	12,468	13.1	18.4	8,423	5.2	831
36-38	7,797	15.0	20.7	5,081	8.7	698
39-41	5,294	23.6	62.6	1,067	13.0	743
Total	108,614	13.2				
Special Elections						
20 and under	238	.16	.86	106	.10	101
21-25	3,660	.60	2.62	2,188	.23	318
26-30	3,806	.49	1.00	1,046	.23	361
31-35	3,050	.97	4.49	2,246	.20	151
36-40	1,440	1.32	8.98	1,240	.16	36
Total	12,194	.62				

* Entries are given only if two or more companies each reported at least fifty elections for the indicated category.

B(2). Lapse Rates under Elected Policies

For the reasons stated in Section A(2) concerning term conversions, the Committee requested only such data as would be needed under the assumption that lapse rates for each category of experience would depend primarily on two variables: age at issue of the elected policy and duration measured from its date of issue.

The data for the lapse experience were furnished by the companies shown in Appendix V. The total exposures were 603,029 by number of policies and \$6,057 million by amount of insurance. There were 26,822 lapses, totaling \$239 million of insurance.

Tables 27 and 28 present a few details of the experience as summarized in Appendix V. The overall lapse rate by amount is 3.3 percent for regular elections and 3.2 percent for special elections. The rates for the totals shown in Table 28 for medically examined business are consistently lower

TABLE 27
LAPSE RATES FOR GUARANTEED INSURABILITY ELECTIONS
MALE AND FEMALE, MEDICAL AND NONMEDICAL COMBINED
SELECT EXPERIENCE

AGE AT ELECTION	DURATION SINCE ELECTION	ELECTIONS AT REGULAR OPTION DATES			ELECTIONS AT SPECIAL OPTION DATES		
		No. of Lapses	Lapse Rate		No. of Lapses	Lapse Rate	
			No.	Amt		No.	Amt
15-24	1	1,266	8.0%	8.0%	310	6.8%	6.5%
	2	551	4.8	4.8	123	3.3	3.2
	3- 5	553	3.1	3.1	291	3.2	3.0
	6-15	126	2.5	2.5	182	2.7	2.8
	Total	2,496	4.9%	5.0%	906	3.7%	3.7%
25-34	1	8,273	6.1%	5.6%	517	5.4%	5.0%
	2	3,715	3.4	3.1	199	2.9	2.7
	3- 5	5,322	2.6	2.6	321	2.6	2.7
	6-15	2,648	2.0	2.0	124	1.8	1.9
	Total	19,958	3.5%	3.3%	1,161	3.3%	3.2%
35 and over	1	952	4.0%	3.6%	57	3.0%	2.7%
	2	368	2.0	1.9	15	1.2	1.0
	3- 5	584	1.9	2.0	48	1.9	1.9
	6-15	237	1.6	1.7	40	1.9	1.9
	Total	2,141	2.5%	2.4%	160	2.0%	2.0%
All ages	1	10,491	6.0%	5.5%	884	5.5%	5.1%
	2	4,634	3.4	3.1	337	2.8	2.6
	3- 5	6,459	2.6	2.6	660	2.8	2.7
	6-15	3,011	2.0	2.0	346	2.2	2.2
	Total	24,595	3.4%	3.3%	2,227	3.3%	3.2%

TABLE 28

GUARANTEED INSURABILITY ELECTIONS LAPSE RATES BY SEX AND UNDERWRITING CLASS
REGULAR AND SPECIAL OPTIONS COMBINED SELECT EXPERIENCE

AGE AT ELECTION	DURATION SINCE ELECTION	MALE			FEMALE			MEDICAL			NONMEDICAL			PYRAMIDICAL		
		No. of Lapses	Lapse Rate		No. of Lapses	Lapse Rate		No. of Lapses	Lapse Rate		No. of Lapses	Lapse Rate		No. of Lapses	Lapse Rate	
			No.	Amt.		No.	Amt.		No.	Amt.		No.	Amt.		No.	Amt.
15-24	1	1,435	7.6%	7.6%	141	9.0%	9.1%	91	5.0%	4.8%	163	6.8%	6.9%	0	0.0%	0.0%
	2	606	4.2	4.2	68	7.0	7.0	42	2.2	2.4	70	3.5	3.7	0	0.0	0.0
	3-5	800	3.1	3.1	44	3.8	3.6	133	2.3	2.5	163	3.2	3.3	0	0.0	0.0
	6-15	301	2.6	2.7	7	4.6	4.2	132	2.2	2.3	98	3.0	3.2	0	0.0	0.0
	Total	3,142	4.4%	4.5%	260	6.8%	6.8%	398	2.6%	2.7%	494	3.9%	4.1%	0	0.0%	0.0%
25-34	1	7,996	5.9%	5.5%	794	7.7%	6.9%	1,527	3.7%	3.8%	1,113	6.5%	6.7%	24	8.0%	7.9%
	2	3,611	3.3	3.1	303	4.5	4.1	587	1.6	1.6	641	4.5	4.7	20	8.9	9.0
	3-5	5,380	2.6	2.6	263	3.1	3.0	1,588	1.9	2.0	849	3.0	3.0	8	4.5	4.8
	6-15	2,723	2.0	2.0	49	1.9	1.7	1,274	1.7	1.8	472	2.7	2.7	2	40.0	46.3
	Total	19,710	3.4%	3.3%	1,409	5.0%	4.6%	4,976	2.1%	2.3%	3,075	4.0%	4.2%	54	7.6%	7.8%
35 and over	1	904	3.7%	3.4%	105	6.0%	5.1%	149	1.9%	2.0%	101	3.5%	3.4%	1	7.1%	14.8%
	2	344	1.8	1.8	39	3.3	2.5	85	1.3	1.3	51	2.4	2.5	0	0.0	0.0
	3-5	595	1.9	2.0	37	2.5	2.9	184	1.5	1.6	84	2.0	2.1	0	0.0	0.0
	6-15	272	1.7	1.8	5	1.1	0.9	128	1.7	1.9	41	1.7	1.6	0	0.0	0.0
	Total	2,115	2.3%	2.3%	186	3.8%	3.4%	546	1.6%	1.7%	277	2.4%	2.5%	1	3.4%	7.4%
All ages	1	10,335	5.8%	5.4%	1,040	7.6%	6.9%	1,767	3.5%	3.6%	1,327	6.1%	6.3%	25	7.9%	8.1%
	2	4,561	3.2	3.0	410	4.6	4.2	714	1.6	1.6	762	4.2	4.3	20	8.5	8.6
	3-5	6,775	2.6	2.6	344	3.1	3.0	1,905	1.9	2.0	1,096	2.9	3.0	8	4.2	4.5
	6-15	3,296	2.0	2.0	61	1.9	1.7	1,534	1.7	1.8	611	2.6	2.7	2	40.0	46.3
	Total	24,967	3.3%	3.3%	1,855	5.0%	4.7%	5,920	2.1%	2.2%	3,846	3.8%	4.0%	55	7.4%	7.7%

than for nonmedical business. The experience on female elections is higher than that for males.

B(3). Mortality Rates under Elected Policies

As in connection with the term conversion portion of this report, the Committee requested companies to submit only such mortality data as might be used under the broad assumption that death rates for each category of experience would depend primarily on two variables, namely, the issue age of the original policy that contained the election right and the duration measured from the issue date of the original policy. Because the Committee anticipated that the volume of experience would be small, no request was made to furnish data to test this broad assumption.

The data for the mortality experience were furnished by the companies shown in Appendix V. The total exposure was 766,899 by number of policies and \$8.205 million by amount of insurance. There were 1,094 death claims, totaling \$11.7 million of insurance.

Table 29 presents a few details of portions of the experience summarized in Appendix V. Duration is measured from the option issue date. The overall mortality rate by amount was 117 percent for male experience and 240 percent for female experience, which contained only 49 deaths. The experience reported for medical business showed a mortality ratio by amount of 103 percent, somewhat lower than the 109 percent for nonmedical business. Only one death was reported for paramedical business.

Table 30 presents mortality ratios where "age" is age at election and duration is measured from the election date. Mortality ratios are, of course, higher than the corresponding mortality ratios in Table 29, since expected deaths are reduced.

A comparison of the experience for the 1971-78 period with that for the prior period is difficult, since the basis for expected deaths for the 1971-78 study is the 1965-70 Basic Tables, while the basis for the 1966-71 study was the 1955-60 Basic Tables.

TABLE 29
 GUARANTEED INSURABILITY ELECTIONS
 MORTALITY RATIOS BY SEX AND UNDERWRITING CLASS
 REGULAR AND SPECIAL OPTIONS COMBINED
 SELECT EXPERIENCE

AGE AT OPTION ISSUE	DURATION SINCE OPTION ISSUE	MALE			FEMALE			MEDICAL			NONMEDICAL		
		No. of Actual Deaths	Ratio		No. of Actual Deaths	Ratio		No. of Actual Deaths	Ratio		No. of Actual Deaths	Ratio	
			No.	Amt.		No.	Amt.		No.	Amt.		No.	Amt.
15-34	1	4	1.028%	1.737%	0	0%	0%	0	0%	0%	3	6.666%	3.559%
	2	10	94	121	0	0	0	5	142	164	1	54	16
	3-5	114	117	122	7	122	189	35	97	99	16	103	127
	6-15	667	116	113	40	214	281	263	99	100	88	109	103
	Total	795	116%	115%	47	185%	249%	303	99%	101%	108	110%	110%
35 and over	1	0	0%	0%	0	0%	0%	0	0%	0%	0	0%	0%
	2	0	0	0	0	0	0	0	0	0	0	0	0
	3-5	7	247	244	0	0	0	6	341	332	0	0	0
	6-15	22	144	142	2	155	171	8	123	103	1	107	66
	Total	29	158%	161%	2	131%	134%	14	167%	162%	1	92%	54%
All ages	1	4	1.007%	1.679%	0	0%	0%	0	0%	0%	3	6.521%	2.618%
	2	10	93	118	0	0	0	5	137	158	1	54	16
	3-5	121	121	127	7	118	177	41	109	111	16	102	126
	6-15	689	117	114	42	210	272	271	99	100	89	109	102
	Total	824	117%	117%	49	182%	240%	317	101%	103%	109	110%	109%

TABLE 30
 GUARANTEED INSURABILITY ELECTIONS
 MORTALITY RATIOS BY SEX AND UNDERWRITING CLASS
 REGULAR AND SPECIAL OPTIONS COMBINED
 SELECT EXPERIENCE

AGE AT ELECTION	DURATION SINCE ELECTION	MALE			FEMALE			MEDICAL			NONMEDICAL		
		No. of Actual Deaths	Ratio		No. of Actual Deaths	Ratio		No. of Actual Deaths	Ratio		No. of Actual Deaths	Ratio	
			No.	Amt.		No.	Amt.		No.	Amt.		No.	Amt.
15-34	1	225	175%	215%	21	224%	434%	49	176%	181%	27	159%	242%
	2	141	132	153	12	188	212	38	136	127	9	61	65
	3-5	238	111	112	4	48	92	76	99	94	29	92	95
	6-15	186	99	99	2	72	73	88	89	90	39	166	171
	Total	790	124%	134%	39	145%	230%	251	108%	110%	104	120%	139%
35 and over	1	66	277%	276%	7	479%	558%	18	234%	280%	9	318%	212%
	2	50	200	201	1	84	99	12	140	144	1	35	41
	3-5	81	136	131	8	383	321	27	119	118	12	153	135
	6-15	50	92	92	2	195	105	21	88	104	11	149	116
	Total	247	152%	153%	18	312%	294%	78	124%	139%	33	158%	128%
All ages	1	291	191%	227%	28	258%	455%	67	189%	200%	36	181%	237%
	2	191	145	163	13	172	190	50	137	130	10	57	60
	3-5	319	116	117	12	116	149	103	103	99	41	104	104
	6-15	236	97	97	4	106	82	109	89	93	50	162	159
	Total	1,037	130%	138%	57	175%	244%	329	112%	116%	137	127%	137%

APPENDIX I

INSTRUCTIONS TO CONTRIBUTING COMPANIES

The Society of Actuaries' Committee on Mortality under Ordinary Insurance and Annuities will study term conversion and guaranteed insurability option experience between 1971 and 1978 anniversaries. The data specifications are substantially the same as in the last study, which was published in the *1973 Reports* number.

For the purpose of this study, the present value of the extra mortality costs on the date of issue of the original policy is viewed as a function of the issue age and persistency of the original plan, date of election, election rate, and the persistency, mortality, and amounts at risk for the elected policy.

Mortality will be studied on the basis of duration measured from original date of issue and lapse rates will be studied on the basis of duration measured from date of conversion or election only. Data for the term conversion portion will be subdivided into two major conversion groups: (1) conversions effected prior to the end of the conversion period and (2) those effected at the end of the conversion period.

The specifications have also been expanded to enable companies unable to contribute based on the date of issue of the original policy or guaranteed insurability rider to submit data based on the conversion or election date. If sufficient data are received, results will be included in our report.

The Committee recognizes that conversion and GIO election rates could vary between companies and therefore requests that each contributor state their administrative procedures (including financial inducements) at time of conversion or election which might affect these rates. Data affected by special practices should be reported separately, if possible.

The Committee would like to have all contributions by July 1, 1980. The Committee would welcome contributions to any of the parts which will be covered by this study. If you do not find it feasible to contribute in the precise form requested, you are invited to submit your experience in such modified form as may be practicable, with a statement of basis on which your data have been compiled. Please let the Committee know by January 1, 1980, as to whether you will be able to participate. If you can contribute, please indicate the scope of what your contribution will be. Please address your replies to Mr. Grier D. Potts, Assistant Vice-President and Actuary, Mutual of New York, 1740 Broadway, New York, New York 10019.

Thank you for your cooperation in this study.

Sincerely,
JOHN H. COOK
Chairman

INSTRUCTIONS FOR CONTRIBUTIONS TO INVESTIGATION OF MORTALITY
AND LAPSE RATES UNDER TERM CONVERSIONS AND GIO ELECTIONS

This study is to cover mortality and lapse experience from the 1971 to 1978 policy anniversaries under individual life insurance policies of the following types:

1. Policies issued as a result of the exercise of the conversion privilege included in term insurance policies and riders.
2. Policies issued as a result of the exercise of options under guaranteed insurability riders.

The following classes of policies should be excluded. If it is not feasible to do so, please inform the Committee in the letter of transmittal accompanying your company's contribution which of them are included.

1. Conversions to term plans.
2. Group conversions.
3. Substandard policies.
4. Joint life policies.
5. Term riders retained as term insurance after conversion.
6. Policies requiring underwriting at the time of conversion for the life insurance benefits. Do not exclude policies where evidence was required *solely* on account of the inclusion of a disability or other additional benefit.
7. Conversions to policies dated back to some year prior to that of conversion.
8. Policies not subject to normal medical, paramedical, or nonmedical underwriting at time of original issue. For example, exclude cases written on a guaranteed issue basis.
9. Conversions of dependents under family plans of insurance.

Some insurance plans give the insured a right to what may be described as a combination of a term conversion and a GIO election, which will result in a single policy providing a death benefit greater than existed prior to the exercise of the right. The total experience for rights of this type should also be excluded. However, it is requested that companies send with their letter of transmittal a description of any of these types (together with policy form) so that the Committee may provide for coverages of these types in the next study.

It is recognized that some companies might be unable to make subdivisions of data which have been requested. In some instances, a code is provided for submitting combined experience. Companies are, of course, urged to subdivide data where feasible. Sections 1 and 2 following give separate instructions for the study of mortality and lapse, respectively.

Section 1: Mortality Experience

Mortality experience will be studied on a fifteen-year select and ultimate basis with duration measured from year of issue of the original policy. Exposure and deaths, of course, should be included only for the period following the date of

conversion or election. Experience with respect to extended term or reduced paid-up insurance periods should be excluded.

If sufficient data are obtained from those companies who can contribute only on the basis of the date of issue of the conversion or election, appropriate studies will be included in the report.

The recommended practice for suicides during the exclusion period, compromised claims, and limited benefits paid under aviation exclusion clauses is to include them in the exposure for the full amount and in claims for the amount paid. In your letter of transmittal please describe any variations from this recommended practice. Also, if possible, show in bytes 55–69 the number of claims and the amount of benefits associated with any war deaths which are included in your total experience in bytes 40–54. See *TSA, 1977 Reports*, page 54, for the definition of war deaths.

Data are requested for all years of original issue and all years of conversion or election through 1977. If it is necessary to limit your contribution to particular years of issue or conversion or election, please describe these limits in the letter of transmittal.

The Committee will calculate expected deaths for all contributions. Summarized data should be submitted on magnetic tape in accordance with the following instructions.

Byte	Item	Instructions																										
1–3	Company code number	Your company code number is																										
4	Identification code	Record 3 for term conversions Record 4 for GIO elections.																										
5–6	Age at issue of original term coverage (or GIO rider)	For the select portion of the study (i.e., within 15 years of issue of original policy), submit data by five-year age groups at time of issue of the original term policy or policy containing the guaranteed insurability option rider, according to the following code:																										
		<table border="0"> <thead> <tr> <th style="text-align: left;">Age Group</th> <th style="text-align: left;">Code</th> </tr> </thead> <tbody> <tr> <td>15–19</td> <td>15</td> </tr> <tr> <td>20–24</td> <td>20</td> </tr> <tr> <td>25–29</td> <td>25</td> </tr> <tr> <td>30–34</td> <td>30</td> </tr> <tr> <td>35–39</td> <td>35</td> </tr> <tr> <td>40–44</td> <td>40</td> </tr> <tr> <td>45–49</td> <td>45</td> </tr> <tr> <td>50–54</td> <td>50</td> </tr> <tr> <td>55–59</td> <td>55</td> </tr> <tr> <td>60–64</td> <td>60</td> </tr> <tr> <td>65–69</td> <td>65</td> </tr> <tr> <td>70 and over</td> <td>70</td> </tr> </tbody> </table>	Age Group	Code	15–19	15	20–24	20	25–29	25	30–34	30	35–39	35	40–44	40	45–49	45	50–54	50	55–59	55	60–64	60	65–69	65	70 and over	70
Age Group	Code																											
15–19	15																											
20–24	20																											
25–29	25																											
30–34	30																											
35–39	35																											
40–44	40																											
45–49	45																											
50–54	50																											
55–59	55																											
60–64	60																											
65–69	65																											
70 and over	70																											

Exclude policies originally issued below age 15.

For the ultimate portion of the study, submit data by individual attained age. Record the individual attained age in bytes 5–6.

NOTE: For term or guaranteed insurability option riders added to existing policies after issue, use date of addition of rider in determining age at issue (bytes 5–6) and duration since issue (bytes 7–8).

Byte	Item	Instructions
7-8	Duration since issue of original term coverage (or GIO rider)	Data should be submitted for the select portion of the study by individual duration since issue of the original policy. Record as 01 to 15. For the ultimate portion of the study, record 99.
9	Age last-nearest code	Record 1 for data based on age nearest birthday. Record 2 for data based on age last birthday.
10	Sex	Male 1. Female 2. If unable to split data by sex, record 9.
11	Medical code	Record according to type of underwriting at time of issue of original policy as follows: Medical 1. Nonmedical 2. Paramedical 3. If unable to split data by underwriting class, record 9.
12	Conversion code	Use code 1 for major conversion group 1, policies converted from term insurance before the end of the period during which conversion was permitted. "End of the period" is defined as the policy year at the end of which the conversion privilege expires. However, companies may use a different definition if more convenient; if they do, they should state their definition in the letter of transmittal. For major conversion group 2, policies converted from term insurance at the end of the period during which conversion was permitted, record according to the number of years between expiry of the conversion privilege and expiry of the term insurance coverage, as follows:

Number of Years	Code
0*	2
1-3	3
4-5	4
Over 5	5
Unknown	6

* This means policies convertible until end of term insurance period

NOTES:

In determining the code for renewable term policies, use the final expiry date of the conversion privilege, assuming renewal as long as permitted.

If unable to distinguish between code 1 and codes 2 to 6, record 0.

For election of options under guaranteed insurability riders, record as follows:

Byte	Item	Instructions
		Record 7 for options elected at "regular" option dates (determined by age or possibly by duration).
		Record 8 for options elected at "special" option dates, such as at marriage or upon birth of child.
		Record 9 for options elected at "other" times based on special extracontractual programs, such as marketing drives.
		If unable to split GIO data in this manner, record 0.
13	Policy-rider code	Record 1 for conversions from term insurance policies.
		Record 2 for conversions from term riders.
		Record 9 if unable to distinguish term conversions by codes 1 and 2. Also use code 9 for all GIO elections.
14	Policy plan group—before conversion or election	Record according to the policy plan before conversion or election as follows:
		Record 1 for term insurance plans providing for automatic conversion within 10 years of original issue.
		Record 2 for yearly renewable term plans providing a level amount of insurance.
		Record 3 for other renewable term plans providing a level amount of insurance.
		Record 4 for decreasing term plans (including decreasing term riders), such as mortgage insurance, etc.
		Record 5 for all other identifiable term plans (including level term riders).
		Record 6 for election of options under guaranteed insurability riders.
		Record 7 for unidentifiable term plans or riders.
15	Test subgroups	Record 1—term conversions issued not later than end of the 7th year after issue of term plan.
		Record 2—term conversions issued after the end of the 7th year after issue of term plan.
		Record 9 if unable to distinguish term conversions by codes 1 and 2. Also use code 9 for all GIO elections.
16–20		Leave blank.
21–27	Exposed (policies)	Record the number of policies exposed, if available. If no, leave field blank.
28–39	Exposed (amounts)	Record amount to the nearer \$1. If a company summarizes in units greater than \$1, fill in any zeros required to maintain the alignment of the decimal point.

Byte	Item	Instructions																
40-44	Actual deaths (policies)	Record the number of policies terminated by death, if such figures are available. If not, leave field blank.																
45-54	Actual deaths (amounts)	Record amount to the nearer \$1. If a company summarizes in units greater than \$1, fill in any zeros required to maintain the alignment of the decimal point.																
55-59	War deaths (policies)	Record the number of policies included in actual deaths, bytes 40-44, if such figures are available. If not, leave field blank.																
60-69	War deaths (amounts)	Record amount to the nearer \$1 included in actual deaths, bytes 45-54. If a company summarizes in units greater than \$1, fill in any zeros required to maintain the alignment of the decimal point.																
70-71	Age at issue of conversion (election)	For the select portion of the study (i.e., within 15 years of conversion [election]), submit data by five-year age groups at time of conversion (election) according to the following code: <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Age Group</th> <th>Code</th> </tr> </thead> <tbody> <tr> <td>15-19</td> <td>15</td> </tr> <tr> <td>20-24</td> <td>20</td> </tr> <tr> <td>25-29</td> <td>25</td> </tr> <tr> <td>...</td> <td>...</td> </tr> <tr> <td>60-64</td> <td>60</td> </tr> <tr> <td>65-69</td> <td>65</td> </tr> <tr> <td>70 and over</td> <td>70</td> </tr> </tbody> </table>	Age Group	Code	15-19	15	20-24	20	25-29	25	60-64	60	65-69	65	70 and over	70
Age Group	Code																	
15-19	15																	
20-24	20																	
25-29	25																	
...	...																	
60-64	60																	
65-69	65																	
70 and over	70																	
		Exclude conversions (elections) issued below age 15.																
		For the ultimate portion of the study, submit data by individual attained age. Record the individual attained age in bytes 70-71.																
72-73	Duration since issue of conversion (election)	Data should be submitted for the select portion of the study by individual duration since conversion (election). Record as 01 to 15. For the ultimate portion of the study, record 99.																
74-80		Leave blank.																

NOTE: Except in fields to be left blank, all unused bytes should be filled with zeros.

Section 2: Lapse Experience

Lapse experience will be studied on a fifteen-year select and ultimate basis with duration measured from the year in which the policy was converted or the option elected. Exposure and lapses, of course, should be included only for the period following the date of conversion or election.

For purposes of this study, the term "lapses" will be used to measure rates of voluntary nonrenewal. Thus "lapse" includes:

1. Termination without value because of failure to pay premiums.

2. Cash surrenders at any time prior to maturity. (If possible, the amount of insurance terminated in a part surrender should be treated as a lapse.)
3. Transfers to extended term or reduced paid-up insurance.

If possible, all contributions should be made using policy years for the analysis year. Thus, lapses at duration n would include policies with a premium paid to date *greater than* $n - 1$ years from date of issue, but not greater than n years from issue. In other words, if no part of the premium due in the $(n + 1)$ st policy year is paid, it is a duration n lapse.

Where possible, exposures also should be calculated on a policy-year basis. Lapses should be exposed for the full year. While deaths theoretically should be exposed only until the date of death, the question of whether to include this refinement will be left to the contributor's discretion.

It is recognized that some companies can contribute only on the basis of using a calendar year as the analysis year. For those companies, duration at lapse is equal to the calendar year of lapse minus the calendar year of issue. Lapses in the calendar year of issue should be recorded separately and coded as duration 00.

It is suggested that companies that are contributing lapses on a calendar-year basis submit their exposures on the same basis as for the term conversion mortality study (e.g., year-end in-force plus "alpha" deaths). The lapse rate formulas the Committee plans to use are given in the Appendix [Appendix I, p. 146].

Data are requested for all years of original issue and all years of conversion or election through 1977. If it is necessary to limit your contribution to particular years of issue or conversion or election, please describe these limits in the letter of transmittal. Data should be submitted on magnetic tape in accordance with the following instructions:

Byte	Item	Instructions
		Use instructions given for section I except as noted below.
4	Identification code	Record 5 for term conversions. Record 6 for GIO elections.
5-6	Age	For the select portion of the study (i.e., within 15 years of conversion or election) submit data by five-year age groups at time of conversion or election according to the following code:

Age Group	Code
15-19	15
20-24	20
25-29	25
30-34	30
35-39	35
40-44	40
45-49	45
50-54	50
55-59	55
60-64	60
65-69	65
70 and over	70

Exclude conversions below age 15.
For the ultimate portion of the study, submit data by individual attained age. Record the individual attained age in bytes 5-6.

Byte	Item	Instructions
7-8	Duration since conversion or election	Data should be submitted for the select portion of the study by individual duration since conversion or election. Record as 01 to 15 if experience is submitted by policy year. Record as 00 to 15 if experience is submitted by calendar year. For the ultimate portion of the study, record 99.
15	Type of analysis year	Policy year 1. Calendar year 2.
40-44	Lapses (policies)	Record the number of policies terminated by lapse, if such figures are available. If not, leave field blank.
45-54	Lapses (amounts)	Record amount of lapses to the nearer \$1. If a company summarizes in units greater than \$1, fill in any zeros required to maintain the alignment of the decimal point.
55-80		Leave blank.

INSTRUCTIONS FOR REPORT FORM NO. 1

1. The combined experience for conversions from term policies and term riders should be reported on Form No. 1.
2. Rates should be expressed on an amount basis to the nearest one-tenth of a percent.
3. "Number" refers to the number of policies issued under the conversion privilege.
4. Rate definitions:

Conversion group 1—conversions effected before the end of the conversion period; an *annual* rate of conversion for a specific period should be obtained by dividing the amount converted during that period by the amount eligible to convert each year during the same period.

Conversion group 2—conversions effected at the end of the conversion period; the rate should be determined by dividing the amount converted at the "end of the period" by the amount eligible to convert at that time.

The Committee suggests that the conversion rate for periods greater than one year be obtained not as an arithmetic average of yearly conversion rates but rather on an aggregate basis. For example, with respect to durations 1-7, the annual rate would be obtained as follows:

$$\text{Annual rate} = \frac{\sum_1^7 C_t}{\sum_1^7 E_t} .$$

where

- C_t = Amount of conversions effected for policy year t ;
- E_t = Exposure to conversion for policy year t .

REPORT FORM NO. 1

TERM PLAN CONVERSION RATES

- Group 1: Conversion Prior to End of Conversion Period
- Group 2: Conversion at End of Conversion Period

AGE AT CONVERSION	YEARS TO CONVERSION				Total	
	1-7	8 and Over	Number	Rate %	Number	Rate %
Plans Automatically Convertible within 10 Years						
15-24						
25-34						
35-44						
45-54						
55 and over						
Total						
Yearly Renewable Term Plans						
15-24						
25-34						
35-44						
45-54						
55 and over						
Total						
Other Renewable Term Plans						
15-24						
25-34						
35-44						
45-54						
55 and over						
Total						
Decreasing Term Plans						
15-24						
25-34						
35-44						
45-54						
55 and over						
Total						
All Other Identifiable Term Plans						
15-24						
25-34						
35-44						
45-54						
55 and over						
Total						
Unidentifiable Term Plans or Riders						
15-24						
25-34						
35-44						
45-54						
55 and over						
Total						

REPORT FORM NO. 2

GIO ELECTION RATES

AGE AT ELECTION	TYPE OF OPTION						Total	
	"Regular" Option		"Special" Option		"Other" Option		Number	Rate %
	Number	Rate %	Number	Rate %	Number	Rate %	Number	Rate %
20 and under								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
32								
33								
34								
35								
36								
37								
38								
39								
40								
41								
42 and over								

INSTRUCTIONS FOR REPORT FORM NO. 2

1. Companies are invited to contribute on a combined basis if they are unable to separate data by type of option. If data split is obtained by an approximation, please note the form accordingly. If a combined experience is contributed, so indicate on Report Form No. 2 and report data under the Total category only.
2. Rates should be expressed on an amount basis to the nearest one-tenth of a percent.
3. "Number" refers to the number of policies issued under the election privilege.
4. Option types:
 - Regular—election may be made only on specific policy anniversaries.
 - Special—election may be made at dates dependent upon special events, such as marriage and birth or adoption of child.
 - Other—election may be made at a specific time based on special extracontractual programs, such as marketing drives.
5. Rate definitions:
 - Regular—amount actually elected on a specific anniversary divided by the maximum amount that then could have been elected by all eligible policyholders.
 - Special—amount actually elected during a specific year divided by the amount that could have been elected if all policyholders had met the eligibility requirements for the special option during that year.
 - Other—amount actually elected during a specific period divided by the amount that could have been elected if all policyholders had met the eligibility requirements for the special option during that period.

APPENDIX I

Lapse Rate Formulas Where Lapses Are Contributed on a Calendar-Year Basis

$$(wq)_{(t):j} = \frac{W_{(t):j} + W_{(t+1):j}}{E_{(t):j}^n} \tag{1}$$

where the $W_{(t):j}$'s are the terminations other than by death or maturity.

$$E_{(t):j}^n = E_{(t):j}^{d'} + W_{(t):j} \tag{2}$$

$$(wq)_{(t):j} = \frac{W_{(t+1):j}}{E_{(t):j}^n}, \quad t \geq 1 \tag{3}$$

$$E_{(t):j}^n = E_{(t):j}^{d'}, \quad t \geq 1 \tag{4}$$

APPENDIX II

A BASIS FOR MEASURING THE EXTRA MORTALITY COSTS
FOR A STANDARD WHOLE LIFE POLICY ISSUED AS
A CONVERSION RIGHT UNDER A TERM PLAN

PART I. CONVERSION AT END OF A SPECIFIC YEAR

$A_{(x,m,r)}$ = Present value at age x of the extra mortality cost due to conversion effected at end of a specific policy year r ($r \leq m$) (1)

$$= p_{(x,m)} e_{(x,m,r)} K_{(x,m,r)} v^r.$$

$K_{(x,m,r)}$ = Present value at age y of the extra mortality cost (where $y = x + r$) (2)

$$= \sum_{t=1}^{\infty} {}_t p_{(x,m,r)} [q_{(x,m,r+t)} - q_{(x)+t-1}] \overline{AR}_{(x),t} v^t.$$

Notes

- a) It is assumed that conversion is permitted on any policy anniversary during the first m policy years of the term policy.
- b) Formulas (1) and (2) express the concept that the level of extra mortality costs depends primarily on the issue age of the term policy (x), the duration to conversion (r), the duration after conversion (t), and the conversion period (m).
- c) Formula (2) may be viewed as an approximation to a more exact formula that recognizes separate persistency rates for whole life policies issued to standard lives with issue age y .

Definitions

- x = Age at issue of term plan;
- r = Duration from issue date of term plan to issue date of conversion plan;
- $y = x + r$ = Age at issue of conversion plan;
- m = Number of years during which conversion is permitted;
- ${}_r p_{(x,m)}$ = Probability that term policy is in force at end of r years, assuming all possible modes of termination *prior* to end of year r ;
- $e_{(x,m,r)}$ = Probability that term policy that is in force at the end of r years is then converted;

- ${}_t p_{(x, m, t)}$ = Probability that conversion policy will enter its policy year $t + 1$, assuming all possible modes of termination;
- $q_{(x, m, t, t)}$ = Probability that conversion policy that enters its policy year $t + 1$ will terminate by death during that year;
- $q_{(s, t, t)}$ = Probability that a standard policy that enters its policy year $t + 1$ will terminate by death during that year;
- $\overline{AR}_{(s, t, t)}$ = Amount at risk under standard whole life policy at the end of its policy year t .

PART II. A SPECIAL CASE FOR PART I

Under some conditions, theoretical considerations or actual experience will suggest that for practical purposes the calculation of extra mortality costs may be simplified considerably if one general set of assumptions may be made for conversions issued prior to the end of the conversion period and another set for conversions issued at the end of the conversion period. Thus,

For Conversion Group 1, $r = m$

Assume:

Values of $e_{(x, m, t)}$ depend only on the parameter $x + r$;

Values of ${}_t p_{(x, m, t)}$ depend only on the parameters y and t ;

Values of ${}_t p_{(s, m, t)}$ depend only on the parameters x and r ;

Values of $q_{(x, m, t, t)}$ depend only on the parameters $x = y - r$ and $s = r + t$.

Under the foregoing assumptions, formulas (1) and (2) may be rewritten in a simpler notational form as

$$A_{(x, t)} = {}_t p_{(x)}^t e_{(x, t)} K_{(x, t)} v^t, \quad (3)$$

where the superscript T distinguishes experience for term policies,

$$K_{(x, t)} = \sum_{t=1}^{\infty} e_{(x, t)} p_{(s)}^t [q_{(x, t, t, t)} - q_{(s, t, t)}] \overline{AR}_{(s, t, t)} v^t, \quad (4)$$

where the superscripts c and s distinguish experience for conversion and standard policies,

For Conversion Group 2, $r = m$

Assume:

Values of $e_{(x, m, t)}$ depend only on the parameter $y = x + m$;

Values of ${}_t p_{(x,m,t)}$ depend only on the parameters y and t ;

Values of ${}_t p_{(x,m)}$ depend only on the parameters x and m ;

Values of $q_{(x,m,r),t}$ depend only on the parameters $x = y - r$ and $s = m + t$.

Under the foregoing assumptions, formulas (1) and (2) may be rewritten in simpler notational form as

$$A_{(x,m)} = {}_m p_{[y]} e_{(x,m)} K_{(x,m)} v^m, \tag{5}$$

$$K_{(x,m)} = \sum_{t=1}^{\infty} {}_t p_{[y]} [q_{[y],m+r,t} - q_{[y],t-1}] AR_{[y],t} v^t, \tag{6}$$

PART III. TOTAL OF EXTRA MORTALITY COSTS FOR THE SPECIAL CASE

The present value of the total of all extra mortality costs is equal to

$$\sum_{r=1}^{m-1} A_{(x,r)} + A_{(x,m)},$$

where the value of $A(x, m)$ and the set of values of $A(x, r)$ for $r = 1$ to $r = m - 1$ are uniquely determined according to the two sets of assumptions stated above for this special case.

APPENDIX III

TERM CONVERSION EXPERIENCE

LIST OF COMPANIES CONTRIBUTING TO
CONVERSION RATE STUDY AND
PROPORTION OF TOTAL CONVERSIONS
CONTRIBUTED BY EACH

Company	Proportion of Total for Conversions Issued
Massachusetts Mutual.....	54.6%
Mutual of New York.....	45.4
Total.....	100.0%
Policies eligible for conversion.....	1,305,000
Total conversions.....	72,590

APPENDIX IV

TERM CONVERSION EXPERIENCE

LIST OF COMPANIES CONTRIBUTING TO THE MORTALITY
AND LAPSE EXPERIENCE AND PROPORTION OF
TOTAL EXPOSURES CONTRIBUTED BY EACH

COMPANY	GROUP 1 CONVERSIONS ISSUED PRIOR TO END OF CONVERSION PERIOD		GROUP 2 CONVERSIONS ISSUED AT END OF CONVERSION PERIOD	
	Number of Policies	Amount of Insurance	Number of Policies	Amount of Insurance
Mortality Experience				
John Hancock	32.6%	19.9%	22.3%	19.0%
Massachusetts Mutual	31.5	34.6	52.3	48.2
Mutual of New York	8.9	8.5	.2	.2
New York Life	23.5	29.1	19.6	21.7
Northwestern	3.5	7.9	5.6	10.9
Total	100.0%	100.0%	100.0%	100.0%
Total exposures*	1,775,671	28,089,089	153,696	1,781,228
Total claims*	8,797	108,189	1,725	16,090
Lapse Experience				
John Hancock	32.1%	19.8%	19.3%	17.9%
Massachusetts Mutual	30.9	33.9	45.0	45.0
Mutual of New York	9.8	9.3	.2	.2
New York Life	23.8	29.2	30.6	26.8
Northwestern	3.4	7.8	4.9	10.1
Total	100.0%	100.0%	100.0%	100.0%
Total exposures*	1,815,088	28,619,130	178,519	1,910,318
Total lapses*	72,537	1,298,782	4,035	50,780

* In \$1,000 units for amount.

APPENDIX V

GUARANTEED INSURABILITY OPTION EXPERIENCE

LIST OF COMPANIES CONTRIBUTING TO THE MORTALITY
AND LAPSE EXPERIENCE AND PROPORTION OF
TOTAL EXPOSURES CONTRIBUTED BY EACH

COMPANY	LAPSE EXPERIENCE		MORTALITY EXPERIENCE	
	Number of Policies	Amount of Insurance	Number of Policies	Amount of Insurance
John Hancock	18.7%	15.8%	14.6%	11.6%
Massachusetts Mutual	15.4	15.7	12.1	11.6
Mutual of New York	17.6	16.1	13.7	11.7
New York Life	42.6	43.0	33.4	31.7
Northwestern	5.7	9.4	26.2	33.4
Total	100.0%	100.0%	100.0%	100.0%
Total exposures*	603,029	6,056,585	766,899	8,204,797
Total lapses or claims*	26,822	238,596	1,094	11,745

* In \$1,000 units for amounts of insurance.

LIST OF COMPANIES CONTRIBUTING TO ELECTION
RATE STUDY AND PROPORTION OF TOTAL
ELECTIONS CONTRIBUTED BY EACH

COMPANY	PROPORTION OF TOTAL FOR	
	Regular Elections	Special Elections
John Hancock	11.2%	7.1%
Massachusetts Mutual	7.2	56.0
Mutual of New York	9.7	5.5
New York Life	71.9	31.4
Total	100.0%	100.0%
Policies eligible for election	821,000	1,957,000*
Total elections	108,614	12,194

* Assuming that all policies are subject to special elections each year.

