

**TRANSACTIONS OF SOCIETY OF ACTUARIES  
1968 REPORTS**

**III. LAPSE RATES UNDER TERM CONVERSIONS AND  
GUARANTEED INSURABILITY OPTIONS BETWEEN  
1961 AND 1966 POLICY ANNIVERSARIES**

**B**ECAUSE of the lack of any intercompany study of lapse rates on policies issued as a result of the exercise of the conversion privilege included in term insurance policies or the exercise of options under guaranteed insurability riders, the Committee on Mortality under Ordinary Insurances and Annuities decided to expand the second intercompany study of term conversions reported elsewhere in this *Reports* issue by asking companies to submit comparable data regarding lapses. For purposes of this study, lapses were calculated on an annual basis and included (1) all policies terminated other than by death, maturity, or expiry and (2) policies transferred to extended term or reduced paid up. Thus lapses included the following:

1. Termination without value because of failure to pay premiums.
2. Cash surrenders at any time prior to maturity.
3. Transfers to extended term or reduced paid up insurance.

A copy of the instructions sent to contributing companies is shown in the Appendix.

**SCOPE OF THE STUDY**

The study was restricted to conversions of term insurance and guaranteed insurability option elections where the original policy was issued at standard rates. Companies were asked, where possible, to subdivide data according to sex and type of underwriting of the original policy (i.e., medical or nonmedical). In the case of conversions of term insurance, they were also asked to subdivide data by type of term insurance, type of conversion (i.e., at the end of or prior to the end of the conversion period), and, for term coverage converted at the end of the conversion period, the type of conversion privilege (i.e., the interval between the end of the conversion period and the end of the term coverage). Data were requested by number of policies and amount of insurance.

The study was developed in two parts. For Part A, to which all of the nine participating companies contributed, duration was measured from date of conversion of the term coverage to a permanent plan of insurance, or date of election under the guaranteed insurability option. For Part B,

to which five companies contributed, duration was measured from the original date of issue of the term coverage or guaranteed insurability option rider, though, of course, no exposure was included prior to date of conversion or election. The Part A data were analyzed by the insured's age at conversion or election and duration since conversion or election for the first fifteen years following conversion or election, and by the insured's attained age for the later durations. The Part B data were analyzed by the insured's age at issue of the original term coverage or guaranteed insurability option rider, and the duration since issue of that coverage or rider for the first fifteen years, and by the insured's attained age at later durations.

Since the companies contributed in different degrees to the various subdivisions of the study, comparability of the lapse rates is affected to some extent by the relative lapse rates of the different companies. The extent of these variations is shown in Table 11, which shows the lapse rates by company for each of the types of term insurance studied.

#### LAPSE RATES UNDER TERM CONVERSIONS

Data for the portion of the study relating to lapses under term conversions have been furnished by the nine companies shown in Table 1. Included in this table are percentages of the total exposure that were contributed by each of the companies to Parts A and B of the study.

##### PART A: DURATION MEASURED FROM DATE OF CONVERSION— ANALYSIS BY TYPE OF TERM INSURANCE AND CONVERSION PRIVILEGE

In Table 2, the results on term conversions included in Part A of the study are analyzed by type of conversion and type of conversion privilege. Tables 3 and 4 subdivide this analysis by type of term insurance. For purposes of this analysis, medical and nonmedical and male and female data were combined. Although this may have created some distortion of the results, it was not considered to be significant. By combining these categories, it was possible to include a substantial volume of data which the contributing companies were unable to split by sex and underwriting class.

The total exposure for Part A was 1,677,373 by number of policies and \$15,232,595,121 by amount of insurance. There were 42,379 lapses, totaling \$428,979,382 of insurance.

##### *General Comment on Results—All Term Plans Combined*

Table 2 shows the lapse experience for all types of term insurance combined. This table in general shows the magnitude of the lapse rates

experienced on attained age conversions when duration is measured from date of conversion. The results are shown separately for policies converted prior to the end of the period during which conversion was permitted, those converted at the end of the conversion period, and those for which this information was not available.

The over-all lapse rate was 2.5 per cent by number of policies and 2.8 per cent by amount of insurance. During the first fifteen years after conversion the rate was 2.8 per cent by amount of insurance. The rates

TABLE 1  
LIST OF CONTRIBUTING COMPANIES  
AND PROPORTION OF TOTAL EXPOSURES CONTRIBUTED BY EACH  
TO EACH PART OF THE STUDY

	PART A		PART B	
	Number of Policies	Amount of Insurance	Number of Policies	Amount of Insurance
Equitable, N.Y.....	10.3%	11.5%	19.2%	23.2%
Life of Georgia.....	*	0.1		
Massachusetts Mutual...	16.2	18.8		
Mutual Benefit.....	1.6	2.2	2.9	4.4
Mutual Life, N.Y.....	9.4	11.0		
Northwestern Mutual.....	18.2	18.9		
Penn Mutual.....	21.7	16.4	40.1	33.0
Sun Life.....	3.1	3.0	5.8	6.1
Travelers.....	19.5	18.1	32.0	33.3
Total.....	100.0%	100.0%	100.0%	100.0%
Total exposure.....	1,677,373	\$15,232,595,121	904,353	\$7,567,015,566
Total lapses.....	42,379	\$ 428,979,382	26,122	\$ 246,921,102

\* Data by number of policies not provided.

generally showed a sharp decrease by duration from conversion during the select period, the rates by amount for all ages combined varying from 5.8 per cent for duration 1 to 2.1 per cent for durations 6-15. For durations 16 and over, lapse rates were under 2 per cent for attained ages under 60; however, for ages 60 and over, the rate increased to 3.4 per cent by amount of insurance.

During the select period, lapse rates decreased sharply by increasing age for duration 1, the rate by amount of insurance ranging from a high of 10.5 per cent for ages 15-24 to a low of 4.2 per cent for ages 65 and over.

TABLE 2

## CONVERSIONS FROM ALL TERM PLANS COMBINED

## PART A

Male and Female, Medical and Nonmedical Combined

AGE AT CONVERSION	DURATION FROM CONVERSION	CONVERSION AT END OF CONVERSION PERIOD WITH INTERVAL BETWEEN END OF CONVERSION PERIOD AND END OF TERM COVERAGE OF:															END OR PRIOR STATUS UNKNOWN			TOTAL				
		CONVERSION PRIOR TO END OF PERIOD			0 Years			1-3 Years			4-5 Years			Over 5 Years			Unknown							
		No. Lapses	Lapse Rate		No. Lapses	Lapse Rate		No. Lapses	Lapse Rate		No. Lapses	Lapse Rate		No. Lapses	Lapse Rate		No. Lapses	Lapse Rate		No. Lapses	Lapse Rate			
			No.	Amt.		No.	Amt.		No.	Amt.		No.	Amt.		No.	Amt.		No.	Amt.		No.	Amt.	No.	Amt.
Select																								
15-24	1	458	14.6%	15.2%	122	11.6%	11.0%	3							254	6.3%	6.3%	30	24.4%*	25.3%*	867	10.2%	10.5%	
	2	161	6.0	6.2	36	4.2*	5.4*	3							153	4.4	4.0	8			361	4.9	5.0	
	3-5	281	4.7	4.2	64	3.4	3.4	103	4.0*	3.3%*					173	2.4	2.8	20	2.0*	1.7*	548	3.4	3.3	
	6-15	209	3.3	3.3	64	2.7	2.4	143	8*	4.4*					132	1.7	1.7	48	2.2*	2.1*	467	2.4	2.4	
	Total	1,109	6.1%	6.4%	286	4.6%	4.7%	303	0%*	3.9%*					712	3.2%	3.4%	106	3.1%	3.3%	2,243	4.4%	4.6%	
25-34	1	1,415	9.2%	9.3%	383	16.0%	15.5%	316	5%*	6.3%*			5		1,047	4.5%	4.2%	342	13.2%	12.2%	3,224	7.3%	7.0%	
	2	598	4.1	4.0	74	3.5	3.3	133	0*	2.2*	2			635	3.0	3.0	162	4.4	4.2	1,483	3.5	3.4		
	3-5	1,313	3.6	3.9	198	3.4	3.8	222	2*	1.7*			12	2.2%*	1.7%*	1,234	2.4	3.1	350	1.7	1.6	3,129	2.7	3.1
	6-15	1,841	2.5	2.7	344	2.4	2.5	522	1	2.1			18	2.5*	2.2*	1,126	1.5	1.8	862	1.2	1.2	4,243	1.8	1.9
	Total	5,164	3.7%	4.1%	999	4.0%	4.6%	1,182	7%	2.5%	3		35	2.1%*	1.8%*	4,042	2.4%	2.7%	1,716	1.8%	1.8%	12,077	2.8%	3.0%
35-44	1	1,147	5.8%	5.7%	337	14.4%	14.6%	634	9%	4.8%	3		21	2.2%*	1.8%*	948	4.0%	3.3%	446	11.0%	10.1%	2,965	5.7%	5.4%
	2	528	2.8	3.1	101	4.4	4.8	241	1.9*	1.7*	5		11	1.2*	1.9*	643	3.0	3.1	194	3.0	3.1	1,506	2.9	3.1
	3-5	1,231	2.6	2.9	242	3.1	3.3	731	1.9	2.2			41	1.7*	1.6*	1,287	2.5	3.0	466	1.3	1.3	3,340	2.3	2.6
	6-15	2,167	2.0	2.3	521	2.0	2.2	161	1.8	2.1			68	1.4	1.5	1,471	1.7	2.2	1,212	1.1	1.2	5,600	1.7	1.9
	Total	5,073	2.6%	3.0%	1,201	3.1%	3.9%	3,212	1%	2.4%	8		141	1.6%	1.6%	4,349	2.4%	2.7%	2,318	1.5%	1.7%	13,411	2.3%	2.6%
45-54	1	531	4.4%	4.5%	157	11.9%	11.3%	514	5%	3.0%	1		15	3.7%*	3.8%*	386	3.7%	3.0%	177	9.6%	8.8%	1,318	4.8%	4.6%
	2	266	2.4	2.8	53	3.9	3.9	282	5*	1.8*	4		8		247	2.6	3.7	90	3.3	3.1	696	2.6	3.1	
	3-5	595	2.3	2.8	132	2.6	2.6	782	2	2.1			11	1.1*	1.2*	539	2.3	2.6	208	1.4	1.7	1,563	2.1	2.4
	6-15	1,450	2.5	2.9	445	2.2	2.7	198	2.2	2.4			36	1.5*	1.4*	789	2.0	2.3	747	1.6	1.7	3,665	2.1	2.4
	Total	2,842	2.7%	3.0%	787	2.8%	3.4%	355	2.4%	2.3%	5		70	1.7%	1.7%	1,961	2.4%	2.6%	1,222	1.9%	2.1%	7,242	2.4%	2.7%
55-64	1	133	3.2%	4.1%	44	11.8%*	16.3%*	122	5%*	1.7%*	24	3.2%*	3.1%*		57	3.4%	2.9%	40	12.4%*	9.7%*	310	3.9%	4.6%	
	2	79	2.0	2.0	13	3.1*	5.0*	9			7				53	3.4	3.0	19	4.3*	5.2*	181	2.4	2.7	
	3-5	220	2.6	3.2	61	3.8	5.1	312	3*	2.1*	25	1.9*	1.6*	1	101	2.5	3.6	47	1.9*	1.7*	486	2.5	3.1	
	6-15	460	3.5	3.4	111	2.6	3.1	77	2.7	3.0	93	3.9	3.9	2	180	2.8	2.9	217	2.7	2.6	1,140	3.1	3.1	
	Total	892	3.0%	3.3%	229	3.5%	5.0%	129	2.5%	2.4%	149	2.9%	3.0%	4		391	2.8%	3.1%	323	2.9%	2.8%	2,117	3.0%	3.2%

\* Rates based on 10-49 lapses inclusive. No rates shown for fewer than ten lapses.

TABLE 2—Continued

AGE AT CONVERSION	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:												END OR PRIOR STATUS UNKNOWN			TOTAL							
				0 Years			1-3 Years			4-5 Years			Over 5 Years								Unknown					
		No. Lapses	Lapse Rate		No. Lapses	Lapse Rate		No. Lapses	Lapse Rate		No. Lapses	Lapse Rate		No. Lapses	Lapse Rate		No. Lapses	Lapse Rate		No. Lapses	Lapse Rate					
			No.	Amt.		No.	Amt.		No.	Amt.		No.	Amt.		No.	Amt.		No.	Amt.		No.	Amt.	No.	Amt.		
Select																										
65 and over.....	1	1		5					4						6				16	4.9%*	4.2%*					
	2			2					3						1				11	3.5%*	3.2%*					
	3-5	9							11	3.2%*	3.8%*				2				27	3.6%*	3.8%*					
	6-15	3		3					24	4.2%*	5.5%*				4				41	3.4%*	3.2%*					
	Total	15	2.7%*	1.9%*	10	5.6%*	4.1%*	1	42	3.4%*	4.1%*				13	4.7%*	3.7%*	14	3.9%*	4.3%*	95	3.6%*	3.5%*			
All ages.....	1	3,685	6.7%	6.5%	1,048	14.0%	14.0%	160	4.5%	3.9%	33	2.7%*	2.3%*	41	2.5%*	2.4%*	2,698	4.3%	3.7%	1,035	11.5%	10.6%	8,700	6.2%	5.8%	
	2	1,631	3.2	3.3	279	3.9	4.3	78	2.2	1.8	21	2.0*	2.9*	20	1.3*	1.9*	1,732	3.1	3.2	475	3.5	3.5	4,236	3.2	3.3	
	3-5	3,649	2.9	3.2	697	3.1	3.4	214	2.1	2.1	36	2.1*	2.0*	65	1.6	1.5	3,336	2.4	3.0	1,096	1.5	1.5	9,093	2.4	2.7	
	6-15	6,130	2.4	2.6	1,488	2.2	2.5	502	2.1	2.3	117	4.0	4.2	124	1.5	1.5	3,702	1.7	2.1	3,093	1.3	1.4	15,156	1.9	2.1	
	Total	15,095	3.1%	3.4%	3,512	3.4%	4.0%	954	2.3%	2.4%	207	3.0%	3.1%	250	1.7%	1.7%	11,468	2.4%	2.8%	5,699	1.7%	1.9%	37,185	2.6%	2.8%	
Ultimate																										
Att. age		221	1.8%	1.8%	169	1.8%	1.9%	5							1			26	0.9%*	1.2%*	22	1.2%*	1.0%*	444	1.6%	1.7%
30-49		816	1.8	1.9	482	1.5	1.7	32	1.9%*	1.7%*					19	1.0%*	1.2%*	46	1.2%*	1.0%*	100	1.8	1.7	1,495	1.6	1.8
50-59		1,471	3.3	3.7	1,328	2.9	3.4	154	2.8	3.0	12	8.9%*	9.6%*	52	2.5	2.2	32	1.7*	0.9*	206	3.3	3.3	3,255	3.1	3.4	
60 and over.....																										
	Total	2,508	2.4%	2.7%	1,979	2.3%	2.7%	191	2.5%	2.7%	12	8.9%*	9.6%*	72	1.7%	1.8%	104	1.2%	1.0%	328	2.4%	2.4%	5,194	2.3%	2.6%	
Grand total.....		17,603	3.0%	3.3%	5,491	2.9%	3.6%	1,145	2.4%	2.4%	219	3.1%	3.2%	322	1.7%	1.7%	11,572	2.4%	2.7%	6,027	1.8%	1.9%	42,379	2.5%	2.8%	

For all select durations combined, the rates by amount of insurance ranged from 4.6 per cent for ages 15–24 to 2.6 per cent for ages 35–44.

The over-all lapse rate by amount of insurance for conversions prior to the end of the period during which conversion was permitted was 3.3 per cent, and the first-year lapse rate was 6.5 per cent, both of which were lower than the over-all rate of 3.6 per cent and the first-year rate of 14.0 per cent for policies converted at the end of the term (and conversion) period. It should be noted, however, that over-all rates are affected by the relative proportions of select and ultimate data in these categories, as well as by variations in the type of term insurance included in these two categories.

For plans converted at the end of the period during which conversion was permitted, first-year lapse rates tended to be highest for the shorter periods between the expiry of the conversion privilege and the end of the term coverage. Where conversion was permitted until the end of the term coverage, the first-year rate was 14.0 per cent, whereas when conversion was permitted only until from one to three years prior to expiry of the term coverage, the rate was 3.9 per cent by amount; and, when conversion was permitted only until four years or more prior to expiry of the term coverage, the rate was 2.4 per cent by amount. Of the 5,491 lapses on conversions issued at the end of the conversion period where conversion was permitted until the end of the term coverage, 4,993 were from conversions from policies providing automatic conversion within ten years.

The first-year lapse rates by amount of insurance for individual companies ranged from a low of 2.8 per cent to a high of 10.7 per cent, and the over-all rates ranged from a low of 1.8 per cent (for the same company which had the 10.7 per cent first-year rate) to a high of 4.0 per cent.

#### *Analysis by Type of Term Insurance*

Tables 3 and 4 analyze the lapse rates by type of term insurance, with most types being further subdivided according to whether conversion took place at or prior to the end of the conversion period. The highest lapse rates were experienced for conversions from term policies providing for automatic conversion within ten years, the first-year lapse rate being 12.5 per cent by amount of insurance as compared with 5.8 per cent for all plans combined. The over-all lapse rate was also highest at 3.8 per cent as compared with 2.8 per cent for all plans combined.

For conversions from term plans providing for automatic conversion within ten years, the lapse rates at durations 1 and 2 were higher for

TABLE 3  
ANALYSIS BY TYPE OF TERM INSURANCE  
PART A  
Male and Female, Medical and Nonmedical Combined

AGE AT CONVERSION	DURATION FROM CONVERSION	CONVERSIONS FROM TERM PLANS PROVIDING AUTOMATIC CONVERSION WITHIN TEN YEARS							CONVERSIONS FROM RENEWABLE TERM PLANS PROVIDING LEVEL AMOUNTS OF INSURANCE			CONVERSIONS FROM DECREASING TERM PLANS						
		Conversion Prior to End of Period		Conversion at End of Period		Total			Total			Conversion Prior to End of Period		Conversion at End of Period		Total		
		No. Lapses	Rate by Amount	No. Lapses	Rate by Amount	No. Lapses	Lapse Rate		No. Lapses	Lapse Rate		No. Lapses	Rate by Amount	No. Lapses	Rate by Amount	No. Lapses	Lapse Rate	
							No.	Amt.		No.	Amt.						No.	Amt.
15-24	1	126	15.1%	122	11.1%	248	12.6%	13.0%	45	6.3%*	5.1%*	26	25.6%*	8	.....	34	11.5%*	15.8%*
	2	32	3.8*	36	5.4*	68	4.2	4.7	27	4.8*	5.0*	5	.....	3	.....	8	.....	.....
	3-5	64	3.4	62	3.3	126	3.6	3.3	24	2.5*	2.5*	2	.....	6	.....	8	.....	.....
	6-15	56	3.1	55	2.3	111	2.9	2.7	17	2.5*	2.8*	.....	.....	1	.....	1	.....	.....
	Total	278	5.7%	275	4.8%	553	5.1%	5.2%	113	3.8%	3.8%	33	16.6%*	18	2.8%*	51	5.4%	8.8%
25-34	1	239	12.2%	382	15.8%	621	14.8%	14.3%	245	6.4%	7.9%	171	10.4%	59	2.8%	230	6.3%	7.5%
	2	70	4.0	73	3.3	143	3.7	3.6	104	3.0	3.4	87	5.0	20	1.6*	107	3.7	3.8
	3-5	170	4.1	195	4.0	365	3.6	4.0	227	2.8	3.9	91	3.3	41	2.0*	132	2.5	2.8
	6-15	256	3.0	317	2.5	573	2.7	2.7	157	1.5	1.9	76	2.8	35	1.5*	111	2.2	2.2
	Total	735	4.5%	967	4.8%	1,702	4.3%	4.6%	733	2.8%	3.8%	425	5.3%	155	2.0%	580	3.4%	4.0%
35-44	1	100	7.8%	334	14.6%	434	12.8%	12.3%	252	4.5%	4.1%	273	7.0%	58	2.8%	331	5.0%	5.9%
	2	33	3.1*	99	4.9	132	4.1	4.2	122	2.4	2.5	134	4.7	23	2.1*	157	2.9	4.1
	3-5	100	4.4	222	3.5	322	3.3	3.8	293	2.5	3.0	151	2.6	51	1.8	202	2.2	2.4
	6-15	236	2.9	421	2.3	657	2.3	2.6	226	1.8	2.1	116	2.7	29	1.5*	145	2.0	2.4
	Total	469	3.8%	1,076	4.2%	1,545	3.4%	4.0%	893	2.6%	2.8%	674	4.2%	161	2.1%	835	2.9%	3.7%
45-54	1	48	4.8%*	157	11.5%	205	11.6%	9.2%	145	4.4%	4.7%	156	4.2%	29	3.8%*	185	4.1%	4.2%
	2	12	3.4*	53	4.0	65	3.6	3.8	80	2.7	3.6	59	1.6	13	2.9*	72	2.0	1.7
	3-5	43	3.4*	107	2.7	150	2.7	2.9	165	2.7	2.8	88	3.2	26	2.2*	114	2.1	3.0
	6-15	151	3.1	349	3.0	500	2.7	3.0	163	2.8	3.0	66	2.6	16	1.6*	82	2.5	2.3
	Total	254	3.4%	666	3.8%	920	3.3%	3.6%	553	3.0%	3.4%	369	3.0%	84	2.6%	453	2.7%	3.0%

\* Rates based on 10-49 lapses inclusive. No rates shown for fewer than ten lapses.

TABLE 3—Continued

AGE AT CONVERSION	DURATION FROM CONVERSION	CONVERSIONS FROM TERM PLANS PROVIDING AUTOMATIC CONVERSION WITHIN TEN YEARS						CONVERSIONS FROM RENEWABLE TERM PLANS PROVIDING LEVEL AMOUNTS OF INSURANCE			CONVERSIONS FROM DECREASING TERM PLANS							
		Conversion Prior to End of Period		Conversion at End of Period		Total		Total			Conversion Prior to End of Period		Conversion at End of Period		Total			
		No. Lapses	Rate by Amount	No. Lapses	Rate by Amount	No. Lapses	Lapse Rate		No. Lapses	Lapse Rate		No. Lapses	Rate by Amount	No. Lapses	Rate by Amount	No. Lapses	Lapse Rate	
							No.	Amt.		No.	Amt.						No.	Amt.
55-64	1	7		43	16.4%*	50	10.9%	14.0%	38	4.1%*	6.5%*	36	3.7%*	1		37	2.8%*	3.6%*
	2	2		10	4.5*	12	2.5*	3.4*	15	1.9*	2.4*	20	1.6*			20	1.9*	1.5*
	3-5	10	3.4%*	47	5.1*	57	3.7	4.6	46	3.4*	4.8*	34	3.0*			34	2.5*	2.8*
	6-15	22	2.8*	70	3.4	92	3.2	3.2	41	4.0*	3.2*	9		1		10	2.0*	1.8*
	Total	41	3.5%*	170	5.5%	211	3.9%	4.9%	140	3.4%	4.4%	99	2.7%	2		101	2.4%	2.6%
65 and over	1			5		5			1									
	2			2		2												
	3-5								1			1				1		
	6-15			1		1			1									
	Total			8		8			3			1				1		
All ages	1	520	9.9%	1,043	14.1%	1,563	13.3%	12.5%	726	5.1%	5.3%	662	6.7%	155	3.0%	817	5.0%	5.8%
	2	149	3.5	273	4.3	422	3.8	4.0	348	2.7	3.1	305	3.7	59	2.0	364	2.8	3.3
	3-5	387	4.0	633	3.5	1,020	3.3	3.7	756	2.7	3.2	367	2.9	124	1.9	491	2.3	2.7
	6-15	721	3.0	1,213	2.6	1,934	2.5	2.8	605	1.9	2.3	267	2.6	82	1.5	349	2.1	2.3
	Total	1,777	4.0%	3,162	4.3%	4,939	3.8%	4.2%	2,435	2.8%	3.3%	1,601	4.1%	420	2.1%	2,021	3.0%	3.6%
Att. age	30-49	51	1.8%	154	1.8%	205	1.8%	1.8%										
	50-59	210	2.0	453	1.7	663	1.5	1.8	2									
	60 and over	391	3.6	1,224	3.4	1,615	3.0	3.4	24	3.3%*	4.7%*	3			3			
	Total	652	2.7%	1,831	2.7%	2,483	2.3%	2.7%	26	2.6%*	3.6%*	3			3			
Grand total	2,429	3.8%	4,993	3.8%	7,422	3.1%	3.8%	2,461	2.8%	3.3%	1,604	4.1%	420	2.1%	2,024	3.0%	3.6%	

\* Rates based on 10-49 lapses inclusive. No rates shown for fewer than ten lapses.



TABLE 4  
ANALYSIS BY TYPE OF TERM INSURANCE  
PART A  
Male and Female, Medical and Nonmedical Combined

AGE AT CONVERSION	DURATION FROM CONVERSION	CONVERSIONS FROM ALL OTHER TERM PLANS							CONVERSIONS FROM TERM PLANS NOT IDENTIFIABLE BY TYPE									
		Conversion Prior to End of Period		Conversion at End of Period		Total			Conversion Prior to End of Period		Conversion at End of Period		End or Prior Status Unknown		Total			
		No. Lapses	Rate by Amount	No. Lapses	Rate by Amount	No. Lapses	Lapse Rate		No. Lapses	Rate by Amount	No. Lapses	Rate by Amount	No. Lapses	Rate by Amount	No. Lapses	Lapse Rate		
							No.	Amt.								No.	Amt.	
		Select																
15-24.....	1	268	17.7%	142	5.1%	410	8.9%	9.0%	1	.....	99	12.9%	30	25.3%*	130	14.4%	15.0%	
	2	102	6.7	57	2.2	159	4.0	3.6	2	.....	89	9.6	8	.....	99	10.4	8.9	
	3-5	196	5.1	115	2.6	311	3.4	3.5	2	.....	57	3.7	20	1.7*	79	3.1	3.0	
	6-15	145	3.4	119	1.7	264	2.4	2.4	.....	.....	26	2.0*	48	2.1*	74	2.1	2.1	
	Total	711	6.7%	433	2.7%	1,144	4.0%	4.2%	5	.....	271	6.0%	106	3.3%	382	4.9%	4.9%	
25-34.....	1	813	8.5%	529	3.0%	1,342	5.6%	4.8%	14	10.8%*	430	6.1%	342	12.2%	786	8.9%	8.0%	
	2	351	3.7	281	2.1	632	2.8	2.7	4	.....	329	5.4	162	4.2	495	5.3	4.9	
	3-5	933	4.0	629	2.4	1,562	2.7	3.1	6	.....	487	4.0	350	1.6	843	2.5	2.6	
	6-15	1,445	2.7	756	1.6	2,201	1.9	2.1	.....	.....	339	2.6	862	1.2	1,201	1.4	1.5	
	Total	3,542	3.7%	2,195	2.1%	5,737	2.6%	2.8%	24	5.8%*	1,585	4.1%	1,716	1.8%	3,325	2.5%	2.6%	
35-44.....	1	543	5.0%	492	3.2%	1,035	4.4%	3.9%	13	6.4%*	454	4.3%	446	10.2%	913	6.8%	6.1%	
	2	270	2.7	246	2.4	516	2.3	2.5	3	.....	382	4.1	194	3.1	579	3.8	3.7	
	3-5	791	2.8	659	2.6	1,450	2.4	2.7	8	.....	599	3.3	466	1.3	1,073	1.9	2.1	
	6-15	1,718	2.1	1,135	2.0	2,853	1.9	2.1	.....	.....	507	2.5	1,212	1.2	1,719	1.3	1.5	
	Total	3,322	2.6%	2,532	2.4%	5,854	2.3%	2.5%	24	4.2%*	1,942	3.3%	2,318	1.7%	4,284	2.0%	2.2%	

\* Rates based on 10-49 lapses inclusive. No rates shown for fewer than ten lapses.

TABLE 4—Continued

AGE AT CONVERSION	DURATION FROM CONVERSION	CONVERSIONS FROM ALL OTHER TERM PLANS							CONVERSIONS FROM TERM PLANS NOT IDENTIFIABLE BY TYPE										
		Conversion Prior to End of Period		Conversion at End of Period		Total			Conversion Prior to End of Period		Conversion at End of Period		End or Prior Status Unknown		Total				
		No. Lapses	Rate by Amount	No. Lapses	Rate by Amount	No. Lapses	Lapse Rate		No. Lapses	Rate by Amount	No. Lapses	Rate by Amount	No. Lapses	Rate by Amount	No. Lapses	Rate by Amount	No. Lapses	Lapse Rate	
							No.	Amt.										No.	Amt.
		Select																	
45-54.....	1	191	3.9%	186	2.5%	377	3.5%	3.2%	4		225	3.7%	177	8.8%	406	5.7%	5.2%		
	2	128	2.6	111	4.0	239	2.3	3.3	3		147	2.9	90	3.1	240	3.1	3.0		
	3-5	332	2.2	273	2.1	605	2.1	2.2	2		319	3.2	208	1.7	529	1.9	2.4		
	6-15	1,156	2.9	754	2.2	1,910	2.3	2.6			263	2.0	747	1.7	1,010	1.6	1.8		
	Total	1,807	2.8%	1,324	2.4%	3,131	2.3%	2.6%	9		954	2.7%	1,222	2.1%	2,185	2.1%	2.3%		
55-64.....	1	54	2.3%	54	2.8%	108	2.9%	2.6%	1		36	2.3%*	40	9.7%*	77	5.4%	4.4%		
	2	44	2.4*	39	2.1*	83	2.2	2.3			32	3.5*	19	5.2*	51	3.5	4.1		
	3-5	139	2.8	101	2.3	240	2.4	2.6	1		61	4.3	47	1.7*	109	2.2	3.0		
	6-15	410	3.5	281	3.0	691	3.2	3.3			89	3.1	217	2.6	306	2.8	2.7		
	Total	647	3.1%	475	2.7%	1,122	2.9%	2.9%	2		218	3.4%	323	2.8%	543	2.9%	3.1%		
65 and over.....	1	1		3		4					6			6					
	2	2		4		6							2	3					
	3-5	7		11	3.2%*	18	3.2%*	2.9%*			2		5	7					
	6-15	3		26	4.2*	29	3.6*	3.2*			3		7	10	2.9%*	3.1%*			
	Total	13	1.4%*	44	3.4%*	57	3.1%	2.8%			12	5.1%*	14	4.3%*	26	4.4%*	4.6%*		

\* Rates based on 10-49 lapses inclusive. No rates shown for fewer than ten lapses.

TABLE 4—Continued

AGE AT CONVERSION	DURATION FROM CONVERSION	CONVERSIONS FROM ALL OTHER TERM PLANS							CONVERSIONS FROM TERM PLANS NOT IDENTIFIABLE BY TYPE									
		Conversion Prior to End of Period		Conversion at End of Period		Total			Conversion Prior to End of Period		Conversion at End of Period		End or Prior Status Unknown		Total			
		No. Lapses	Rate by Amount	No. Lapses	Rate by Amount	No. Lapses	Lapse Rate		No. Lapses	Rate by Amount	No. Lapses	Rate by Amount	No. Lapses	Rate by Amount	No. Lapses	Lapse Rate		
							No.	Amt.								No.	Amt.	
137 All ages.....	1 2 3-5 6-15  Total	Select																
		1,870	6.1%	1,406	3.1%	3,276	4.9%	4.3%	33	7.7%*	1,250	4.8%	1,035	10.6%	2,318	7.3%	6.6%	
		2,897	3.1	738	2.5	1,635	2.6	2.7	12	2.9*	980	4.3	475	3.5	1,467	4.2	4.0	
		2,398	3.1	1,788	2.5	4,186	2.5	2.7	19	5.4*	1,525	3.5	1,096	1.5	2,640	2.1	2.3	
		4,877	2.5	3,071	2.0	7,948	2.0	2.3	.....	.....	1,227	2.4	3,093	1.4	4,320	1.5	1.6	
	Total	10,042	3.0%	7,003	2.3%	17,045	2.5%	2.7%	64	5.4%	4,982	3.4%	5,699	1.9%	10,745	2.2%	2.4%	
	Att. age 30-49..... 50-59..... 60 and over.....  Total  Grand total.....	Ultimate																
		170	1.8%	41	1.4%*	211	1.6%	1.7%	.....	.....	6	.....	22	1.0%*	28	1.3%*	1.1%*	
		597	1.8	111	1.2	708	1.7	1.7	7	.....	15	1.9%*	100	1.7	122	1.8	1.7	
		964	3.8	295	2.5	1,259	3.2	3.4	89	3.4%	59	3.8	206	3.3	354	3.1	3.4	
Total		1,731	2.6%	447	1.9%	2,178	2.3%	2.5%	96	3.2%	80	3.2%	328	2.4%	504	2.5%	2.7%	
Grand total.....	11,773	3.0%	7,450	2.3%	19,223	2.5%	2.7%	160	4.3%	5,062	3.4%	6,027	1.9%	11,249	2.2%	2.4%		

policies converted at the end of the conversion period than for policies converted prior to the end of the conversion period; however, for later durations and generally for all durations for conversions from other types of term insurance, lapse rates were lower for policies converted at the end of the conversion period.

PART A: DURATION MEASURED FROM DATE OF CONVERSION—ANALYSIS  
BY SEX, TYPE OF UNDERWRITING, AND POLICY VS. RIDER

Table 5 analyzes the lapse experience by sex, Table 6 compares the experience on conversions from term policies originally issued medically with those originally issued on a nonmedical basis, and Table 7 compares the experience on conversions from term policies with conversions from term riders.

The analysis by sex showed that female lapse rates generally are higher than male rates, with the difference not varying much by age or duration. During the select period, the female rate was 4.0 per cent, as compared with 2.8 per cent for males, while during the ultimate period the female rate was 4.5 per cent compared with 2.6 per cent for males.

The analysis of medical vs. nonmedical lapses showed a first-year lapse rate of 8.8 per cent for nonmedical as compared with 5.7 per cent for medical issues. The first-year rate was higher for nonmedical below age 45 and lower for ages 45 and over. After duration 1 there was no significant difference between medical and nonmedical issues.

The comparison of lapse rates on conversions from term policies and term riders showed that conversions from decreasing term policies have a somewhat higher lapse rate than conversions from decreasing term riders, the duration 1 rates being 8.1 per cent for policy conversions and 4.1 per cent for rider conversions, and the over-all rates being 5.0 per cent for policy conversions and 2.7 per cent for rider conversions. For conversions from other types of term plans, there was relatively little difference between policy conversions and rider conversions.

PART B: DURATION MEASURED FROM ORIGINAL DATE OF ISSUE OF  
TERM POLICY—ANALYSIS BY TYPE OF TERM INSURANCE  
AND CONVERSION PRIVILEGE

The results of Part B of the study are analyzed by type of conversion and type of conversion privilege in Table 8. Tables 9 and 10 subdivide this analysis by type of term insurance. As was true of Part A, medical and nonmedical and male and female data have been combined, thus

TABLE 5  
ANALYSIS OF TERM CONVERSION LAPSE RATES BY SEX  
PART A  
All Conversion Codes Combined  
All Term Plans Combined—Medical and Nonmedical Combined

AGE AT CONVERSION	DURATION FROM CONVERSION	MALE		FEMALE	
		No. Lapses	Rate by Amount	No. Lapses	Rate by Amount
Select					
15-24.....	1	816	10.5%	51	10.5%
	2	334	4.9	27	5.8*
	3- 5	507	3.2	41	6.6*
	6-15	437	2.4	30	3.0*
	Total	2,094	4.6%	149	6.4%
25-34.....	1	3,104	7.0%	120	7.1%
	2	1,422	3.4	59	3.8
	3- 5	3,045	3.1	84	3.7
	6-15	4,161	1.9	82	3.5
	Total	11,732	3.0%	345	4.4%
35-44.....	1	2,819	5.3%	146	7.1%
	2	1,445	3.2	61	2.8
	3- 5	3,228	2.6	112	3.1
	6-15	5,445	1.9	155	3.0
	Total	12,937	2.6%	474	3.7%
45-54.....	1	1,238	4.5%	80	6.2%
	2	652	3.1	44	4.5*
	3- 5	1,471	2.4	92	4.5
	6-15	3,557	2.4	108	2.9
	Total	6,918	2.7%	324	4.1%
55-64.....	1	301	4.7%	9	.....
	2	170	2.6	11	4.5%*
	3- 5	470	3.0	16	5.4*
	6-15	1,100	3.1	40	2.1*
	Total	2,041	3.2%	76	3.7%
65 and over.....	1	16	4.3%*	.....	.....
	2	11	3.3*	.....	.....
	3- 5	26	3.9*	1	.....
	6-15	41	3.3*	.....	.....
	Total	94	3.6%	1	.....

\* Rates based on 10-49 lapses inclusive. No rates shown for fewer than ten lapses.

TABLE 5—Continued

AGE AT CONVERSION	DURATION FROM CONVERSION	MALE		FEMALE	
		No. Lapses	Rate by Amount	No. Lapses	Rate by Amount
		Select			
All ages . . . . .	1	8,294	5.8%	406	6.8%
	2	4,034	3.3	202	3.7
	3-5	8,747	2.7	346	3.9
	6-15	14,741	2.1	415	3.0
	Total	35,816	2.8%	1,369	4.0%
		Ultimate			
Att. age					
30-49 . . . . .		271	1.7%	10	4.3%*
50-59 . . . . .		843	1.9	12	3.1*
60 and over . . . . .		1,867	3.4	36	5.5*
	Total	2,981	2.6%	58	4.5%
Grand total . . . . .		38,797	2.8%	1,427	4.0%

\* Rates based on 10-49 lapses inclusive. No rates shown for fewer than ten lapses.

TABLE 6  
 COMPARISON OF TERM CONVERSION LAPSE RATES ACCORDING  
 TO WHETHER ORIGINAL TERM POLICY WAS MEDICAL OR NONMEDICAL  
 PART A

All Conversion Codes Combined—Male and Female Combined

AGE AT CONVERSION	DURATION FROM CONVERSION	MEDICAL		NONMEDICAL	
		No. Lapses	Rate by Amount	No. Lapses	Rate by Amount
Select					
15-24.....	1	225	8.7%	543	11.5%
	2	107	4.4	165	4.3
	3- 5	276	3.5	215	2.8
	6-15	344	2.4	97	2.5
	Total	952	3.8%	1,020	5.6%
25-34.....	1	1,594	6.6%	1,200	8.8%
	2	766	3.0	386	3.4
	3- 5	2,043	2.9	599	3.0
	6-15	3,648	1.9	256	1.5
	Total	8,051	2.7%	2,441	4.3%
35-44.....	1	2,205	5.5%	307	6.8%
	2	1,028	2.9	96	2.9
	3- 5	2,557	2.5	184	2.7
	6-15	4,945	1.9	148	1.5
	Total	10,735	2.5%	735	3.1%
45-54.....	1	1,070	4.8%	23	3.4%*
	2	537	3.2	12	2.5*
	3- 5	1,229	2.3	15	1.0*
	6-15	3,330	2.4	72	2.0
	Total	6,166	2.7%	122	1.9%
55-64.....	1	263	5.0%	11	3.6%*
	2	145	2.6	4	.....
	3- 5	403	2.9	22	2.0*
	6-15	972	3.1	79	3.4
	Total	1,783	3.2%	116	2.9%
65 and over.....	1	10	3.0%*	.....	.....
	2	9	.....	1	.....
	3- 5	24	3.6*	1	.....
	6-15	36	3.3*	2	.....
	Total	79	3.3%	4	.....

\* Rates based on 10-49 lapses inclusive. No rates shown for fewer than ten lapses.

TABLE 6—Continued

AGE AT CONVERSION	DURATION FROM CONVERSION	MEDICAL		NONMEDICAL	
		No. Lapses	Rate by Amount	No. Lapses	Rate by Amount
All ages.....		Select			
	1	5,367	5.7%	2,084	8.8%
	2	2,592	3.0	664	3.4
	3-5	6,532	2.6	1,036	2.8
	6-15	13,275	2.1	654	1.8
	Total	27,766	2.7%	4,438	4.1%
Att. age		Ultimate			
	30-49.....	262	1.8%	13	1.3%*
	50-59.....	793	1.9	54	1.7
	60 and over.....	1,656	3.5	239	3.2
	Total	2,711	2.7%	306	2.7%
	Grand total.....	30,477	2.7%	4,744	4.0%

\* Rates based on 10-49 lapses inclusive. No rates shown for fewer than ten lapses.



TABLE 7

## COMPARISON OF CONVERSIONS FROM TERM POLICIES AND TERM RIDERS

## PART A

Male and Female, Medical and Nonmedical Combined

AGE AT CONVERSION	DURATION FROM CONVERSION	CONVERSION FROM DECREASING TERM PLANS				CONVERSION FROM TERM PLANS CODED AS "ALL OTHER"			
		Conversion from Term Policies		Conversion from Term Riders		Conversion from Term Policies		Conversion from Term Riders	
		No. Lapses	Rate by Amount	No. Lapses	Rate by Amount	No. Lapses	Rate by Amount	No. Lapses	Rate by Amount
Select									
15-24.....	1	16	29.4%*	18	7.8%*	68	9.0%	342	9.0%
	2	4	.....	4	.....	29	3.1*	130	3.8
	3- 5	2	.....	6	.....	75	4.4	236	3.3
	6-15	.....	.....	1	.....	99	3.2	165	2.0
	Total	22	22.1%*	29	3.8%*	271	4.6%	873	4.0%
25-34.....	1	109	13.5%	121	3.9%	236	5.1%	1,106	4.8%
	2	50	6.0	57	2.4	130	3.3	502	2.5
	3- 5	53	3.6	79	2.4	361	3.6	1,201	2.9
	6-15	26	4.6*	85	1.8	810	2.5	1,391	1.9
	Total	238	7.3%	342	2.5%	1,537	3.1%	4,200	2.7%
35-44.....	1	143	7.3%	188	5.0%	286	4.6%	749	3.6%
	2	67	5.9	90	2.9	165	3.7	351	2.0
	3- 5	71	2.7	131	2.2	489	2.9	961	2.6
	6-15	32	3.5*	113	2.1	1,453	2.3	1,400	1.9
	Total	313	5.0%	522	3.0%	2,393	2.7%	3,461	2.4%
45-54.....	1	96	6.0%	89	2.4%	150	3.0%	227	3.3%
	2	24	1.4*	48	2.1*	122	4.5	117	2.2
	3- 5	53	3.8	61	2.4	330	2.1	275	2.2
	6-15	20	1.8*	62	2.5	1,256	2.8	654	2.2
	Total	193	3.7%	260	2.3%	1,858	2.8%	1,273	2.3%
55-64.....	1	26	4.1%*	11	2.5%*	92	2.5%	16	2.8%*
	2	13	1.3*	7	.....	64	2.2	19	2.6*
	3- 5	24	3.4*	10	1.4*	192	2.2	48	4.1*
	6-15	5	.....	5	.....	588	3.3	103	3.5
	Total	68	3.0%	33	1.9%*	936	2.8%	186	3.5%
65 and over..	1	.....	.....	.....	.....	4	.....	.....	.....
	2	.....	.....	.....	.....	6	.....	.....	.....
	3- 5	1	.....	.....	.....	18	2.9%*	.....	.....
	6-15	.....	.....	.....	.....	28	3.2*	1	.....
	Total	1	.....	.....	.....	56	2.7%	1	.....

\* Rates based on 10-49 lapses inclusive. No rates shown for fewer than ten lapses.

TABLE 7—Continued

AGE AT CONVERSION	DURATION FROM CONVERSION	CONVERSION FROM DECREASING TERM PLANS				CONVERSION FROM TERM PLANS CODED AS "ALL OTHER"			
		Conversion from Term Policies		Conversion from Term Riders		Conversion from Term Policies		Conversion from Term Riders	
		No. Lapses	Rate by Amount	No. Lapses	Rate by Amount	No. Lapses	Rate by Amount	No. Lapses	Rate by Amount
All ages.....		Select							
	1	390	8.1%	427	4.1%	836	4.2%	2,440	4.3%
	2	158	4.2	206	2.5	516	3.6	1,119	2.3
	3-5	204	3.3	287	2.3	1,465	2.8	2,721	2.7
	6-15	83	3.2	266	2.0	4,234	2.6	3,714	2.0
	Total	835	5.0%	1,186	2.7%	7,051	2.8%	9,994	2.6%
Att. age		Ultimate							
	30-49.....					83	1.8%	128	1.6%
	50-59.....					258	1.7	450	1.7
	60 and over.....			3		725	3.4	534	3.5
		Total			3		1,066	2.7%	1,112
Grand total.....		835	5.0%	1,189	2.7%	8,117	2.8%	11,106	2.5%

\* Rates based on 10-49 lapses inclusive. No rates shown for fewer than ten lapses.

making it possible to include a substantial volume of data which could not be split by sex or underwriting class.

The total exposure of Part B was 904,353 by number of policies and \$7,567,015,566 by amount of insurance, resulting in 26,122 lapses, totaling \$246,921,102.

#### *General Comments on Results—All Term Plans Combined*

Table 8 shows the lapse experience for all term plans combined. This table in general shows the lapse rates experienced on attained age conversions when duration is measured from the original date of issue of the term policy.

The over-all lapse rate was 2.9 per cent by number of policies and 3.3 per cent by amount of insurance. This compares with 2.5 per cent by number of policies and 2.8 per cent by amount of insurance in Part A, differing only because some companies did not contribute to Part B. It should be noted that the volume of data was nearly identical for Parts A and B for each category except "end of period conversions with unknown interval" and "end or prior status unknown."

Because of the method by which the exposure for duration 1 was calculated, distortions resulted in the duration 1 lapse rates. For this reason no rates have been shown for duration 1. Because of the small proportion of the total data involved, it is believed that this distortion does not materially affect the rates for all durations combined.

Since lapse rates are generally higher during the period immediately after issue of a policy, the lapse rates by duration during the select period were generally higher in Part B than they were in Part A. For duration 2, the rate of 12.6 per cent by amount compared with 3.3 per cent for Part A, and for durations 3-5 the rate of 5.0 per cent compared with 2.7 per cent for Part A.

#### *Analysis by Type of Term Insurance*

Tables 9 and 10 analyze the lapse rates by type of term insurance, with most types being further subdivided according to whether conversion took place at or prior to the end of the conversion period. As was true of Part A, the highest lapse rates were experience for conversions from term plans providing for automatic conversion within ten years, with the rate for duration 2 being particularly high (26.9 per cent by amount) for policies converted at the end of the conversion period.



TABLE 8—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							
				0 Years			1-3 Years			4-5 Years			Over 5 Years					Unknown					
		No. Lapses	Lapse Rate		No. Lapses	Lapse Rate		No. Lapses	Lapse Rate		No. Lapses	Lapse Rate		No. Lapses	Lapse Rate		No. Lapses	Lapse Rate					
			No.	Amt.		No.	Amt.		No.	Amt.		No.	Amt.		No.	Amt.		No.	Amt.	No.	Amt.		
Select																							
65 and over	1																						
	2																						
	3-5																						
	6-15																						
	Total																						
All ages	1	141													21		162						
	2	1,180	11.7%	11.2%	301	26.4%	26.8%								53	9.2%	8.4%	1,534	13.0%	12.6%			
	3-5	3,383	4.9	4.7	890	6.5	6.5	31	7.9%*	5.7%*					309	5.3	4.6	4,614	5.2	5.0			
	6-15	8,435	2.7	2.8	1,838	2.8	3.1	642	2.4	2.4	25	3.0%*	3.1%*	136	1.8%	1.8%	655	2.6	2.5	11,731	2.7	2.8	
	Total	13,139	3.3%	3.5%	3,029	3.8%	4.3%	673	2.5%	2.4%	25	3.0%*	3.2%*	137	1.8%	1.8%	1,038	3.3%	3.2%	18,041	3.3%	3.6%	
Ultimate																							
Att. age	30-49	737	1.7%	1.9%	290	1.9%	2.0%	55	1.8%	1.9%					54	1.5%	1.7%	86	1.7%	2.0%	1,222	1.8%	1.9%
	40-59	1,509	1.8	1.9	655	1.5	1.8	117	1.6	1.7	5				67	1.3	1.2	175	1.8	2.1	2,528	1.7	1.9
	60 and over	2,195	3.3	3.6	1,517	2.9	3.4	273	2.7	3.1	190	3.2%	3.3%		64	2.4	2.2	92	2.4	2.5	4,331	3.1	3.5
	Total	4,441	2.3%	2.5%	2,462	2.2%	2.7%	445	2.2%	2.4%	195	3.2%	3.3%		185	1.6%	1.6%	353	1.9%	2.1%	8,081	2.2%	2.5%
	Grand total	17,580	3.0%	3.3%	5,491	2.9%	3.6%	1,118	2.4%	2.4%	220	3.1%	3.2%		322	1.7%	1.7%	1,391	2.8%	2.9%	26,122	2.9%	3.3%

TABLE 9  
ANALYSIS BY TYPE OF TERM INSURANCE  
PART B  
Male and Female, Medical and Nonmedical Combined

TERM ISSUE AGE	DURATION FROM TERM ISSUE	CONVERSIONS FROM TERM PLANS PROVIDING AUTOMATIC CONVERSION WITHIN TEN YEARS						CONVERSIONS FROM RENEWABLE TERM PLANS PROVIDING LEVEL AMOUNTS OF INSURANCE			CONVERSIONS FROM DECREASING TERM PLANS				
		Conversion Prior to End of Period		Conversion at End of Period		Total		Total			Total				
		No. Lapses	Rate by Amount	No. Lapses	Rate by Amount	No. Lapses	Lapse Rate		No. Lapses	Lapse Rate		No. Lapses	Lapse Rate		
							No.	Amt.		No.	Amt.		No.	Amt.	
		Select													
15-24.....	1	25				25				7			3		
	2	74	10.5%	63	17.7%	137	13.4%	13.0%	25	11.1%*	8.9%*	24	22.6%*	31.7%*	
	3-5	155	5.5	201	5.9	356	5.9	5.7	69	6.2	6.8	42	9.9*	10.4*	
	6-15	96	2.5	186	3.2	282	3.1	2.9	49	3.7*	3.7*	34	3.9*	3.3*	
	Total	350	5.0%	450	4.9%	800	5.0%	4.9%	150	5.7%	5.8%	103	7.3%	9.4%	
25-34.....	1	19				19			16			7			
	2	161	15.2%	121	28.8%	282	20.5%	19.9%	77	11.2%	11.0%	67	12.2%	16.3%	
	3-5	216	5.1	304	6.4	520	5.8	5.8	195	4.5	4.4	240	6.2	6.4	
	6-15	346	3.2	578	3.3	924	3.0	3.3	229	2.5	2.5	379	2.8	2.7	
	Total	742	4.6%	1,003	4.7%	1,745	4.3%	4.6%	517	3.7%	3.7%	693	3.9%	4.4%	
35-44.....	1	10				10			6			6			
	2	50	7.3%	83	28.4%	133	17.4%	14.8%	78	10.2%	9.5%	63	11.2%	14.8%	
	3-5	104	4.6	281	6.9	385	6.1	5.9	212	4.0	4.0	198	4.5	4.7	
	6-15	226	3.0	548	3.1	774	2.8	3.0	292	2.4	2.4	373	2.4	2.3	
	Total	390	3.7%	912	4.4%	1,302	3.7%	4.1%	588	3.2%	3.3%	640	3.1%	3.7%	

TABLE 9—Continued

TERM ISSUE AGE	DURATION FROM TERM ISSUE	CONVERSIONS FROM TERM PLANS PROVIDING AUTOMATIC CONVERSION WITHIN TEN YEARS							CONVERSIONS FROM RENEWABLE TERM PLANS PROVIDING LEVEL AMOUNTS OF INSURANCE			CONVERSIONS FROM DECREASING TERM PLANS			
		Conversion Prior to End of Period		Conversion at End of Period		Total			Total			Total			
		No. Lapses	Rate by Amount	No. Lapses	Rate by Amount	No. Lapses	Lapse Rate		No. Lapses	Lapse Rate		No. Lapses	Lapse Rate		
							No.	Amt.		No.	Amt.		No.	Amt.	
Select															
45-54.....	1	3				3				4			2		
	2	23	5.1%*	23	30.1%*	46	17.9%*	10.7%*	28	8.1%*	9.5%*	29	10.0%*	9.5%*	
	3- 5	29	2.6*	80	5.0	109	4.3	4.0	93	4.0	4.7	83	3.8	4.3	
	6-15	125	3.7	272	3.6	397	3.0	3.6	174	2.6	3.3	147	2.3	2.5	
	Total	180	3.5%	375	4.2%	555	3.5%	3.9%	299	3.2%	4.0%	261	3.0%	3.6%	
55-64.....	1														
	2	5		8		13	22.8%*	26.3%*	3			5			
	3- 5	6		19	13.3%*	25	5.4*	9.0*	21	4.5%*	6.3%*	10	2.9%*	2.5%*	
	6-15	13	2.8%*	46	4.9*	59	4.3	4.0	34	4.4*	5.2*	15	2.8*	3.0*	
	Total	24	4.3%*	73	8.1%	97	5.1%	6.5%	58	4.5%	6.3%	30	3.2%*	3.5%*	
65 and over.....	1														
	2														
	3- 5														
	6-15														
	Total														

TABLE 9—Continued

TERM ISSUE AGE	DURATION FROM TERM ISSUE	CONVERSIONS FROM TERM PLANS PROVIDING AUTOMATIC CONVERSION WITHIN TEN YEARS						CONVERSIONS FROM RE- NEWABLE TERM PLANS PROVIDING LEVEL AMOUNTS OF INSURANCE				CONVERSIONS FROM DE- CREASING TERM PLANS		
		Conversion Prior to End of Period		Conversion at End of Period		Total		Total				Total		
		No. Lapses	Rate by Amount	No. Lapses	Rate by Amount	No. Lapses	Lapse Rate		No. Lapses	Lapse Rate		No. Lapses	Lapse Rate	
							No.	Amt.		No.	Amt.		No.	Amt.
		Select												
All ages.....	1	57				57			33			18		
	2	313	10.7%	298	26.9%	611	17.6%	16.0%	211	10.1%	10.1%	188	12.1%	15.0%
	3-5	510	4.6	885	6.4	1,395	5.7	5.6	590	4.4	4.4	573	5.1	5.2
	6-15	806	3.1	1,630	3.3	2,436	3.0	3.2	778	2.6	2.7	948	2.6	2.5
	Total	1,686	4.1%	2,813	4.6%	4,499	4.1%	4.4%	1,612	3.5%	3.7%	1,727	3.5%	4.1%
		Ultimate												
Att. age	30-49.....	72	1.5%	243	1.9%	315	1.8%	1.8%	1			11	1.4%*	1.3%*
	50-59.....	249	2.2	573	1.9	822	1.6	2.0	2			12	1.3*	1.3*
	60 and over.....	421	3.7	1,364	3.5	1,785	3.1	3.5	52	4.0%	5.0%	9		
	Total	742	2.7%	2,180	2.7%	2,922	2.3%	2.7%	55	3.5%	4.4%	32	1.7%*	1.7%*
Grand total.....		2,428	3.8%	4,993	3.8%	7,421	3.1%	3.8%	1,667	3.5%	3.7%	1,759	3.4%	4.0%

\* Rates based on 10-49 lapses inclusive. No rates shown for fewer than ten lapses or for duration 1.



TABLE 10  
ANALYSIS BY TYPE OF TERM INSURANCE  
PART B  
Male and Female, Medical and Nonmedical Combined

TERM ISSUE AGE	DURATION FROM TERM ISSUE	CONVERSIONS FROM ALL OTHER TERM PLANS							CONVERSIONS FROM TERM PLANS NOT IDENTIFIABLE BY TYPE						
		Conversion Prior to End of Period		Conversion at End of Period		Total			Conversion Prior to End of Period		Conversion at End of Period		Total		
		No. Lapses	Rate by Amount	No. Lapses	Rate by Amount	No. Lapses	Lapse Rate		No. Lapses	Rate by Amount	No. Lapses	Rate by Amount	No. Lapses	Lapse Rate	
							No.	Amt.						No.	Amt.
		Select													
15-24	1	10		3		13									
	2	164	20.0%	10	10.8%*	174	18.6%	19.0%	1					1	
	3-5	480	7.5	43	6.6*	523	7.8	7.4	5					5	
	6-15	749	3.7	107	2.8	856	3.5	3.6	2					2	
	Total	1,403	5.1%	163	3.8%	1,566	4.9%	4.9%	8					8	
25-34	1	13		10		23			1					1	
	2	201	12.1%	15	6.5%*	216	11.2%	11.5%	5					5	
	3-5	792	5.2	133	5.8	925	5.3	5.3	14	5.1%*				14	5.2%* 5.1%*
	6-15	2,826	2.8	596	2.3	3,422	2.6	2.7	3					3	
	Total	3,832	3.3%	754	2.7%	4,586	3.1%	3.2%	23	5.3%*				23	5.6%* 4.7%*
35-44	1	8		4		12									
	2	80	7.0%	20	9.4%*	100	8.2%	7.3%	5					5	
	3-5	343	3.6	88	3.2	431	3.9	3.5	13	2.9%*				13	3.9%* 2.9%*
	6-15	1,730	2.5	573	2.2	2,303	2.2	2.4	6		1			7	
	Total	2,161	2.7%	685	2.4%	2,846	2.5%	2.6%	24	4.5%*	1			25	5.2%* 4.4%*

\* Rates based on 10-49 lapses inclusive. No rates shown for fewer than ten lapses or for duration 1.

TABLE 10—Continued

TERM ISSUE AGE	DURATION FROM TERM ISSUE	CONVERSIONS FROM ALL OTHER TERM PLANS						CONVERSIONS FROM TERM PLANS NOT IDENTIFIABLE BY TYPE							
		Conversion Prior to End of Period		Conversion at End of Period		Total		Conversion Prior to End of Period		Conversion at End of Period		Total			
		No. Lapses	Rate by Amount	No. Lapses	Rate by Amount	No. Lapses	Lapse Rate		No. Lapses	Rate by Amount	No. Lapses	Rate by Amount	No. Lapses	Lapse Rate	
							No.	Amt.						No.	Amt.
		Select													
45-54.....	1	3		2		5									
	2	17	5.1%*	4		21	5.3%*	4.8%*	1					1	
	3- 5	102	4.3	29	4.2%*	131	4.2	4.3	4					4	
	6-15	634	3.0	245	2.6	879	2.6	2.9	2					2	
	Total	756	3.2%	280	2.8%	1,036	2.8%	3.1%	7					7	
55-64.....	1					1									
	2	1				1									
	3- 5	6		3		9			1					1	
	6-15	60	3.7%	34	2.7%*	94	3.9%	3.4%	1					1	
	Total	67	3.5%	37	2.7%*	104	3.9%	3.3%	2					2	
65 and over....	1														
	2														
	3- 5														
	6-15														
	Total														

\* Rates based on 10-49 lapses inclusive. No rates shown for fewer than ten lapses or for duration 1.

TABLE 10—Continued

TERM ISSUE AGE	DURATION FROM TERM ISSUE	CONVERSIONS FROM ALL OTHER TERM PLANS							CONVERSIONS FROM TERM PLANS NOT IDENTIFIABLE BY TYPE						
		Conversion Prior to End of Period		Conversion at End of Period		Total			Conversion Prior to End of Period		Conversion at End of Period		Total		
		No. Lapses	Rate by Amount	No. Lapses	Rate by Amount	No. Lapses	Lapse Rate		No. Lapses	Rate by Amount	No. Lapses	Rate by Amount	No. Lapses	Lapse Rate	
							No.	Amt.						No.	Amt.
		Select													
All ages.....	1	34		19		53				1				1	
	2	463	10.5%	49	7.7%*	512	11.4%	10.1%		12	9.5%*			12	8.7%*
	3-5	1,723	4.8	296	4.6	2,019	5.2	4.8		37	3.7*			37	4.6*
	6-15	5,999	2.8	1,555	2.3	7,554	2.6	2.7		14	10.0*	1		15	6.3*
	Total	8,219	3.2%	1,919	2.6%	10,138	3.0%	3.1%		64	5.4%	1		65	5.5%
		Ultimate													
Att. age															
30-49.....		653	2.0%	242	1.9%	895	1.7%	2.0%						14	2.2%*
50-59.....		1,240	1.9	438	1.7	1,678	1.7	1.8		7		7		14	2.2%*
60 and over..		1,642	3.6	703	2.9	2,345	3.1	3.4		89	3.4%	51	4.6%	140	2.9
	Total	3,535	2.4%	1,383	2.2%	4,918	2.2%	2.4%		96	3.2%	58	4.5%	154	2.8%
Grand total..		11,754	3.0%	3,302	2.5%	15,056	2.7%	2.9%		160	4.3%	59	4.1%	219	3.3%

## VARIATION IN LAPSE RATES BY COMPANY

Table 11 shows the variation in lapse rates by company. Because of the importance of duration 1 lapse rates, they have been shown separately for Part A. The rates for all durations combined are, of course, the same for Part A and for Part B (for those companies contributing to Part B)

TABLE 11

VARIATION IN LAPSE RATES BY COMPANY  
UNDER CONVERSION POLICIES

All Ages Combined  
Male and Female, Medical and Nonmedical Combined

COMPANY	TYPE OF TERM INSURANCE										TOTAL		
	Auto. Conv. within 10 Years		Level Renewable		Decreasing		All Other		Not Ident.				
	No.	Amt.	No.	Amt.	No.	Amt.	No.	Amt.	No.	Amt.	No.	Amt.	
Duration 1 of Part A													
D.....	13.6%	11.5%	5.2%	4.8%	3.8%	3.1%	3.8%	4.4%	.....	5.6%	4.8%	6.6%	6.0%
E.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5.6	4.8
F.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	11.6	10.7
G.....	12.0	12.1	↑	↑	↑	↑	↑	↑	.....	.....	.....	8.6	8.5
H.....	8.9	7.6	6.8	7.1	6.4	8.6	3.5	3.8	.....	.....	.....	4.9	6.0
J.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6.8	6.0
K.....	13.9	13.8	9.0*	12.0*	8.2	10.1	7.3	6.6	.....	.....	.....	8.8	8.7
M.....	.....	.....	3.0	3.6	2.4	2.4	3.2	2.6	.....	.....	.....	3.1	2.8
T.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5.7*	5.7*
All Durations Combined													
D.....	3.7%	4.1%	3.1%	3.2%	2.7%	2.8%	1.9%	2.1%	.....	.....	.....	2.5%	2.9%
E.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3.2	3.4
F.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1.7	1.8
G.....	4.5	4.8	↑	↑	2.6	2.5	2.5	3.1	.....	.....	.....	3.4	3.9
H.....	2.5	2.9	4.1	4.4	4.0	5.1	2.5	2.7	.....	.....	.....	2.6	3.1
J.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4.1	4.0
K.....	3.4	4.3	4.0	5.2	3.5	4.1	2.8	3.0	.....	.....	.....	3.0	3.4
M.....	.....	.....	2.0	2.7	1.7	1.8	1.9	2.2	.....	.....	.....	1.9	2.3
T.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3.2	3.2

\* Rates based on 10-49 lapses inclusive.

† Fewer than ten lapses.

and therefore have been shown only once. As might be expected, there was considerable variation by company for duration 1, but somewhat less for all durations combined.

## GUARANTEED INSURABILITY OPTION ELECTIONS

Companies were asked to contribute data on policies issued as a result of the exercise of options under guaranteed insurability riders. They were asked to subdivide data, if possible, between options elected at

regular option dates and those elected as special option conditions, such as marriage, birth of a child, and so forth. Unfortunately, very few data were available, and as a result no breakdown by age or type of election was meaningful. For Part A the results were as follows, for all ages and types of election combined, all data being during the select period:

DURATION SINCE ELECTION	No. LAPSES*	RATE	
		No.	Amount
1.....	411	4.1%	3.8%
2.....	114	1.9	1.8
3- 5.....	132	2.0	2.1
6-15.....	3	.....	.....
Total.....	660	2.9%	2.8%

\* No rates shown for fewer than ten lapses.

Most of the exposure was in the 25-34 age group, and about 95 per cent of the exposure for which the type of election could be ascertained was for regular option elections.

For Part B the results were as follows, for all ages and types of election combined, all data being during the select period:

DURATION SINCE ORIGINAL ISSUE	No. LAPSES	RATE	
		No.	Amount
1.....	41	4.0%*	3.6%*
2.....	91	3.4	3.0
3- 5.....	316	2.3	2.2
6-15.....	121	2.1	2.1
Total.....	569	2.5%	2.3%

\* Rates based on 10-49 lapses inclusive.

### APPENDIX I

The Society of Actuaries' Committee on Mortality under Ordinary Insurances and Annuities has decided to make a study of lapses on term conversions and policies issued as a result of the exercise of options under guaranteed insurability riders. It has been decided to restrict the data to the most recent five years. Accordingly, you are invited to contribute to a lapse study, which will

cover the experience between 1961 and 1966 anniversaries under standard Ordinary policies of the following types: (1) conversions from term insurance and (2) policies issued as a result of the exercise of options under guaranteed insurability riders.

Full details of the scope and procedures for the investigation are given in the enclosed instructions. This lapse study is a companion to the term conversion mortality study, instructions to which were sent on March 3, 1967. You will recall that with these instructions mention was made of the possibility of a companion lapse study.

If you do not find it feasible to contribute your company's experience in the precise form requested, you are invited to submit it in such modified form as may be more practical (e.g., omitting certain years of issue), with a statement of the basis on which your data have been compiled.

The Committee would like to have all contributions by December 1, 1967. Please address them as shown on page 9 of the instructions. If you are unable to contribute, please let me know.

Sincerely,

WM. H. SCHMIDT  
*Chairman*

#### INSTRUCTIONS FOR CONTRIBUTION TO INVESTIGATION OF LAPSES UNDER TERM CONVERSIONS AND GIO ELECTIONS

This study is to cover the lapses 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 experience is to be studied from 1961 to 1966 policy anniversaries.

#### GENERAL INSTRUCTIONS

The study is divided into two parts. Part A studies lapses with duration measured from the year in which the policy was converted or the option was elected. Part B studies lapses with duration measured from the year of issue of the original policy. Part B exposure and lapses should, of course, be included, only beginning with date of conversion or election, however. It is recognized that some companies will be unable to contribute to Part B because of lack of available data. It is also recognized that some companies will be unable to make some of the subdivisions of data which have been requested. Therefore codes have been provided for submitting combined data, if necessary. Companies are, of course, urged to subdivide data where feasible. If data can be subdivided in part, please do so, contributing the balance on a combined basis.

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. Group conversions.
2. Substandard policies.
3. Joint life policies.
4. Term riders retained as term insurance after conversion.
5. Policies requiring any type of underwriting at the time of conversion.
6. Conversions to policies dated back to some year prior to that of conversion.
7. Policies not subject to normal medical or nonmedical underwriting at time of original issue. For example, exclude cases written on a guaranteed issue basis.
8. Conversions of dependents under family plans of insurance.

For purposes of this study, the term "lapse" is intended to include (1) all policies terminated other than by death or maturity or (2) all policies transferred to extended term or reduced paid up. (Presumably no policies in the categories being studied will terminate by expiry or conversion.) Thus "lapse" includes the following:

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  $n + 1$  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 should be exposed only until the date of death.

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 which are contributing lapses on a calendar-year basis submit their exposures on the same basis as that for the term conversion mortality study (e.g., year end in force plus "alpha" deaths). The lapse-rate formulas that the Committee plans to use are shown in Appendix II.

Data are requested for all years of original issue and for all years of conversion or election through 1965. 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. As with the companion mortality study, data for both parts should be submitted on both a select basis (with a fifteen-year select period) and an ultimate basis, as described below.

## INSTRUCTIONS FOR COMPLETING SUMMARY CARDS

PART A: STUDY OF LAPSES WITH DURATION MEASURED  
FROM DATE OF CONVERSION OR ELECTION

Columns	Item	Instructions																		
1-3	Company code number	Your company code number is _____.																		
4	Identification code	Gangpunch 5 for term conversions. Gangpunch 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: <table border="1" data-bbox="686 477 896 655" 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>.</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 below age 15. For the ultimate portion of the study, submit data by individual attained age. Punch the individual attained age in columns 5 and 6.																		
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. Code as 01 to 15. For the ultimate portion of the study, punch XX (numeric).																		
9	Age last-nearest code	Code 1 for data based on age nearest birthday. Code 2 for data based on age last birthday.																		
10	Sex	Male 1 Female 2																		
11	Medical code	If unable to split data by sex, code 9. Code according to type of underwriting at time of issue of original policy as follows: Medical 1 Nonmedical 2 If unable to split data by underwriting class, code 9.																		
12	Conversion code	For policies converted from term insurance before the end of the period during which conversion was permitted, code 1. "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 policies converted from term insurance at the end of the period during which conversion was permitted, code according to																		



Columns	Item	Instructions												
		the number of years between expiry of the conversion privilege and expiry of the term insurance coverage, as follows:												
		<table border="0" style="margin-left: auto; margin-right: auto;"> <tr> <td style="text-align: center;">No. Years</td> <td style="text-align: center;">Code</td> </tr> <tr> <td style="text-align: center;">0*</td> <td style="text-align: center;">2</td> </tr> <tr> <td style="text-align: center;">1-3</td> <td style="text-align: center;">3</td> </tr> <tr> <td style="text-align: center;">4-5</td> <td style="text-align: center;">4</td> </tr> <tr> <td style="text-align: center;">Over 5</td> <td style="text-align: center;">5</td> </tr> <tr> <td style="text-align: center;">Unknown</td> <td style="text-align: center;">6</td> </tr> </table>	No. Years	Code	0*	2	1-3	3	4-5	4	Over 5	5	Unknown	6
No. 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.												
		NOTE.—For renewable term policies, use the final expiry date of the conversion privilege (not renewal dates) in determining code.												
		For election of options under guaranteed insurability riders, code as follows:												
		Code 7 for options elected at "regular" option dates determined by age.												
		Code 8 for options elected at "special" option dates such as at marriage or upon birth of a child.												
		If unable to split data in this manner, code 9.												
13	Policy-rider code	Code 1 for conversions from term insurance policies. Code 2 for conversions from term riders. Code 9 if unable to split data in this manner, and for election of options under guaranteed insurability riders.												
14	Policy plan group—before conversion or election	Code according to the policy plan before conversion or election, as follows: Code 1 for term insurance plans providing for automatic conversion within 10 years of original issue. Code 2 for renewable term plans providing a level amount of insurance. Code 3 for decreasing term plans (including decreasing term riders), such as mortgage insurance, etc. Code 4 for all other term plans (including level term riders). Code 5 for election of options under guaranteed insurability riders. If unable to split data in this manner, code 9.												
15	Type of analysis year	Policy year 1 Calendar year 2												
16-20		Leave blank.												
21-27	Exposed (policies)	Punch the number of policies exposed, if available. If not, punch X (numeric) in column 27, and leave rest of field blank.												
28-39	Exposed (amounts)	Punch 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.												
40-44	Lapses (policies)	Punch the number of policies terminated by lapse, if such figures are available. If not, punch X (numeric) in column 44, and leave rest of field blank.												

Columns	Item	Instructions
45-54	Lapses (amounts)	Punch 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.

NOTE.—Except in fields to be left blank, a zero should be punched in all columns which would otherwise remain unpunched, unless instructed to the contrary.

PART B: STUDY OF LAPSES WITH DURATION MEASURED FROM DATE  
OF ISSUE OF ORIGINAL POLICY

Columns	Item	Instructions																		
1-3	Company code number	See instructions for Part A. Gangpunch 7 for term conversions. Gangpunch 8 for GIO elections.																		
4	Identification code																			
5-6	Age	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="1"> <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>.</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 policies originally issued below age 15.																		
		For the ultimate portion of the study, submit data by individual attained age. Punch the individual attained age in columns 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 (cols. 5 and 6) and duration since issue (cols. 7 and 8).																		
7-8	Duration since issue	Data should be submitted for the select portion of the study by individual duration since issue of the original policy. Code as 01 to 15. For the ultimate portion of the study, punch XX (numeric).																		
9	Age last-nearest code	Code 1 for data based on age nearest birthday.																		
10	Sex	Code 2 for data based on age last birthday. Male 1 Female 2																		
11	Medical code	If unable to split data by sex, code 9. Code according to type of underwriting at time of issue of original policy as follows: Medical 1 Nonmedical 2																		

Columns	Item	Instructions												
12	Conversion code	<p>If unable to split data by underwriting class, code 9.</p> <p>For policies converted from term insurance before the end of the period during which conversion was permitted, code 1. "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.</p> <p>For policies converted from term insurance at the end of the period during which conversion was permitted, code according to the number of years between expiry of the conversion privilege and expiry of the term insurance coverage, as follows:</p> <table data-bbox="601 534 881 651"> <thead> <tr> <th data-bbox="601 534 663 554">No. Years</th> <th data-bbox="842 547 881 567">Code</th> </tr> </thead> <tbody> <tr> <td data-bbox="601 567 624 588">0*</td> <td data-bbox="854 567 865 588">2</td> </tr> <tr> <td data-bbox="601 588 624 608">1-3</td> <td data-bbox="854 588 865 608">3</td> </tr> <tr> <td data-bbox="601 608 624 628">4-5</td> <td data-bbox="854 608 865 628">4</td> </tr> <tr> <td data-bbox="601 628 647 648">Over 5</td> <td data-bbox="854 628 865 648">5</td> </tr> <tr> <td data-bbox="601 648 670 668">Unknown</td> <td data-bbox="854 648 865 668">6</td> </tr> </tbody> </table> <p data-bbox="601 661 881 695">* This means policies convertible until end of term insurance period.</p> <p data-bbox="601 695 881 762">NOTE.—For renewable term policies, use the final expiry date of the conversion privilege (not renewal dates) in determining code.</p>	No. Years	Code	0*	2	1-3	3	4-5	4	Over 5	5	Unknown	6
No. Years	Code													
0*	2													
1-3	3													
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Columns	Item	Instructions
15	Type of analysis year	Policy year 1 Calendar year 2
16-20		Leave blank.
21-27	Exposed (policies)	Punch the number of policies exposed, if available. If not, punch X (numeric) in column 27, and leave rest of field blank.
28-39	Exposed (amounts)	Punch 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.
40-44	Lapses (policies)	Punch the number of policies terminated by lapse, if such figures are available. If not, punch X (numeric) in column 44, and leave rest of field blank.
45-54	Lapses (amounts)	Punch 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.

NOTE.—Except in fields to be left blank, a zero should be punched in all columns which would otherwise remain unpunched, unless instructed to the contrary.

#### TRANSMISSION OF DATA

Contributions are to be transmitted for each part with control totals by age last-nearest code (col. 9), sex (col. 10), and medical code (col. 11). Control totals should include card count, and exposures and lapses by number of policies and amount of insurance.

Although the Committee is not specifying any particular card stock, it would be appreciated if the contributions for Part A of the study could be submitted on left corner-cut stock and the contributions for Part B on right corner-cut stock. It also would be appreciated if each company's contribution could be sorted on columns 9 (major) to 14 (minor), separately for each part, prior to transmission.

The work of the Committee would be simplified greatly if each company reviewed its contribution carefully before submitting it, making sure that all fields in the transmittal cards are properly punched. In particular, please be sure that the transmittal cards balance with the check totals requested in Parts A and B. In other studies check totals and transmittal cards have not balanced. This can occur if the contributing company uses a set of work cards to establish the check totals and a punch is omitted in reproducing transmittal cards from the work cards. Please make every effort to prevent this from occurring.

Please address your contributions to Mr. Peter W. Plumley, Second Vice-President and Actuary, Corporate Actuarial Department, The Travelers Insurance Company, Hartford, Connecticut 06115. The Committee would like to have your contributions by December 1, 1967.

Sincerely yours,

WILLIAM H. SCHMIDT  
Chairman

## APPENDIX II

LAPSE RATE FORMULAS WHERE LAPSES ARE CONTRIBUTED  
ON A CALENDAR-YEAR BASIS

$$(wq)_{(x)+0]} = \frac{W_{(x)+|0]} + W_{(x)+|1]}{E_{(x)+0]}^w}, \quad (1)$$

where  $W_{(x)+|t]}$  are the terminations other than by death or maturity.

$$E_{(x)+0]}^w = E_{(x)+0]}^d + W_{(x)+|0]}. \quad (2)$$

$$(wq)_{(x)+t]} = \frac{W_{(x)+|t+1]}}{E_{(x)+t]}^w} \quad (t \geq 1). \quad (3)$$

$$E_{(x)+t]}^w = E_{(x)+t]}^d \quad (t \geq 1). \quad (4)$$