# TRANSACTIONS OF SOCIETY OF ACTUARIES 1977 REPORTS

#### I GROUP WEEKLY INDEMNITY INSURANCE

HIS is the thirtieth annual report on the continuing study of the morbidity experience of Group Weekly Indemnity insurance. In compiling this report, the Committee has included the available experience of employer/employee groups and has excluded the experience of trusteeships and association cases insuring employees of the member employers and the experience of union cases, whether or not insurance depends upon continued employment. The experience of plans written under State Cash Sickness Laws and the experience of insured groups outside the United States also have been excluded.

### RATIO OF ACTUAL TO TABULAR CLAIMS

Throughout this report, experience is presented in the form of ratios of actual to tabular claims, based on the 1947-49 weekly indemnity tabulars, as reported in the 1962 Reports and reproduced in this report. Caution must be used in interpreting the data contained in this report because, among other reasons, the 1947-49 tabulars may not reflect accurately the current claim patterns. The maternity tabulars do not reflect the substantial decline in birth rates since the tabulars were developed, with the result that the actual-to-tabular ratios for maternity benefits have been well below 50 percent in recent studies, while the actual-to-tabular ratios for nonmaternity benefits are generally near 100 percent or even higher; this wide difference is concealed and may create distortions when the experience for maternity and that for nonmaternity are combined. The tabulars also do not reflect certain factors, such as age distribution, industry classification, or size of case, which may have a relevant effect on the experience results.

## CONTRIBUTING COMPANIES

The Committee wishes to express its gratitude to the companies that generously contributed data to this study. The report contains experience for the years 1972, 1973, 1974, 1975, and 1976. Six companies contributed data for all five years. Two additional companies contributed data for four years, one for all years except 1976 and one for all years except 1974. The latter company represents a large portion of the data for this study and, because we use three-year totals of experience, there is some difficulty in comparing the results of the studies of the last three years with those of prior years. The results generally reflect the composite effect of

variations in company practice in administration and claim procedures, as well as variations in experience among groups.

The majority of the companies contribute exposures and claims based upon policy years ending in the calendar year designated. If the renewal dates for all cases included in the study were distributed uniformly over the year, then the central point of the exposure for each policy year would be approximately January 1 of that year. However, this assumption may not be very precise because of a concentration of policy renewals in January and July.

The following companies contributed experience for the study:

Aetna Life Insurance Company
Connecticut General Life Insurance Company
Continental Assurance Company
Equitable Life Assurance Society
Metropolitan Life Insurance Company
Occidental Life Insurance Company of California
Prudential Insurance Company of America
The Travelers Insurance Company

### ANALYSIS OF EXPERIENCE

This year we are returning to the format of reports as shown in studies prior to the last study. Specifically, we once again are reporting non-maternity and maternity separate experience in this report. This change affects Tables 2 and 3. Data errors in the maternity exposure, which affected the last report, have been corrected. The corrected figures were used in compiling this report. This may make it difficult to compare this report with the report published last year, but this report should be comparable with prior reports.

Table 1 shows the experience for the period 1974-76 for each of eight plans (four different elimination periods; two different maximum benefit periods), all of which provide a six-week maternity benefit. All size groups are included. The corresponding experience of nonjumbo groups only (units with less than 1,000 insured employees) is displayed in Table 2 for each of four plan combinations. For those nonjumbo units for which the data were available, Table 2 separates the combined experience into its nonmaternity and maternity segments. Also included in Table 2 for each of the four plan combinations is the nonjumbo experience for the period 1974-76 of plans that do not provide a maternity benefit. Table 3 is a five-year trend analysis of the Table 2 experience for each year 1972-76 inclusive. Particular care should be exercised in analyzing the year-by-year trend in experience because 1974 experience does not include the

experience of our largest contributor. Table 4 is an analysis of experience by size of experience unit. Results are shown separately for plans with and without maternity benefits. Table 5 analyzes the nonjumbo experience of plans with no maternity benefit by the female percent composition of the experience units. The 1947–49 tabular claim costs used to calculate ratios in the first five tables are shown in Table 6.

Table 1 shows results slightly better for thirteen-week plans but con-

TABLE 1

GROUP WEEKLY INDEMNITY EXPERIENCE
PLANS WITH SIX WEEKS' MATERNITY BENEFIT
ALL SIZE GROUPS
COMBINED 1974-76 POLICY YEARS' EXPERIENCE, BY PLAN

Plan	No. Experience Units	Weekly Indemnity Exposed (000)	Actual Claims Including Maternity (000)	Ratio of Actual to 1947–49 Weekly Indemnity Tabular
1-4-13. 4-4-13. 1-8-13. 8-8-13.	211 83 890 226	1,741 401 6,200 2,527	1,282 169 4,412 1,673	103% 66 107 92
Total, 13-week plans.	1,410	10,869	7,536	101%
1-4-26 4-4-26 1-8-26 8-8-26	160 20 956 120	2,947 739 13,295 3,278	3,337 660 13,610 2,515	142% 111 134 81
Total, 26-week plans	1,256	20,259	20,122	124%
Total, all plans	2,666	31,128	27,658	117%

siderably worse for twenty-six week plans compared with last year's report. All plans combined showed a higher ratio than in the last report. This reverses a trend of improving ratios overall that this table has shown in the last several reports. Actual-to-tabular ratios for twenty-six week plans continue to run higher than those for thirteen-week plans. The ratios shown in Tables 2 and 3 confirm this relationship for plans with maternity benefits. However, for plans with no maternity benefit the thirteen-week plans had higher ratios than the twenty-six week plans in Table 2 and in all but two years of experience in Table 3. Table 3 also shows that the nonmaternity experience of plans with maternity benefits has been worse than that for plans with no maternity benefit in each of

TABLE 2

GROUP WEEKLY INDEMNITY EXPERIENCE
GROUPS WITH LESS THAN 1,000 EMPLOYEES EXPOSED
1974-76 POLICY YEARS' EXPERIENCE, BY PLAN

	Nonmaternity and Maternity Combined Experience*			Nonmaternity and Maternity Separate Experience*							
Plan	No I	Weekly	Actual	Ratio of Actual to	No.	Weekly	Actual Claims		Ratio of Actual to 1947-49 Weekly Indemnity Tabular		
	Experience Units	Indemnity Exposed (000)	Claims (000)	1947-49 Weekly Indemnity Tabular	Experience Units	Indemnity Exposed (000)	Non- maternity (000)	Maternity (000)	Non- maternity	Maternity	Combined
	Plans with 6 Weeks' Maternity Benefit										
13-week: 4th-day sickness 8th-day sickness	288 1,095	1,678 6,884	1,063 4,738	91% 101	188 572	1,159 3,858	768 2,566	19 183	104% 113	30% 45	98% 103
Total	1,383	8,562	5,801	99%	760	5,017	3,334	202	111%	43%	102%
26-week: 4th-day sickness 8th-day sickness	169 1,041	2,164 11,355	2,295 10,975	129% 128	118 542	1,210 6,406	1,249 5,902	12 152	132% 131	22% 36	126% 123
Total	1,210	13,519	13,270	128%	660	7,616	7,151	164	131%	35%	123%

<sup>\*</sup> The separate experience exposure is less than the combined experience exposure because separate experience is not available for all groups.

TABLE 2-Continued

		Nonmaternity and Maternity Combined Experience*			Nonmaternity and Maternity Separate Experience*							
	Plan	No.	Weekly	Actual	Ratio of Actual to	No.	Weekly	Actual Claims		Ratio of Actual to 1947-49 Weekly Indemnity Tabular		
		Experience Units	Indemnity Exposed (000)	Claims (000)	1947-49 Weekly Indemnity Tabular	Experience Units	Indemnity Exposed (000)	Non- maternity (000)	Maternity (000)	Non- maternity	Maternity	Combined
201		Plans with No Maternity Benefit						<u>'</u>				
	13-week: 4th-day sickness 8th-day sickness				, , , , , , , , , , , , , , , , , , , ,	200 3,266	1,087 17,953	887 10,663		120% 103		
	Total					3,466	19,040	11,550		104%		
	26-week: 4th-day sickness 8th-day sickness					290 4,770	3,171 31,699	3,110 22,281		129% 99		
	Total				. ,	5,060	34,870	25,391		101%		

# TABLE 3

# GROUP WEEKLY INDEMNITY EXPERIENCE GROUPS WITH LESS THAN 1,000 EMPLOYEES EXPOSED 1972-76 POLICY YEARS' EXPERIENCE, BY PLAN

PLAN	RA	ros or Act	UAL TO 1947 CY YEAR ENI				
	1972	1973	1974	1975*	1976		
	Plans with 6 Weeks' Maternity Benefit						
Nonmaternity and maternity combined experience:							
4th-day sickness	93% 103	89% 104	70% 99	99% 102	96% 101		
Total	101%	101%	94%	102° €	100%		
26-week: 4th-day sickness 8th-day sickness	110% 120	110°7 107	127% 120	131°¢	131% 129		
Total	118%	108%	1220%	120%	130€€		
Nonmaternity and maternity separate experience:† Nonmaternity: 13-week: 4th-day sickness 8th-day sickness	103% 113	104% 115	99° c 117	108% 108	102% 116		
Total	111%	112%	113%	108%	112%		
26-week: 4th-day sickness 8th-day sickness	120% 133	115% 129	102% 150	138% 125	131% 132		
Total	131%	126%	143%	128%	132%		
Maternity (all plans)	40%	37%	42%	40%	37%		
Combined: 13-week: 4th-day sickness. 8th-day sickness.	97% 102	97% 104	95% 109	103% 97	96% 105		
Total	101%	102%	106%	99%	103%		
26-week: 4th-day sickness 8th-day sickness	114% 125	109% 121	99% 138	132% 118	124% 124		
Total	123%	119%	133%	121%	124%		

<sup>\*</sup> These are corrected ratios and therefore are not the same as the ratios that appeared in the 1976 Reports.

<sup>†</sup> The nonmaternity and maternity separate experience is also included in the nonmaternity and maternity combined experience.

Plan	RATIOS OF ACTUAL TO 1947-49 TABULAR FOR POLICY YEAR ENDING IN:							
	1972	1973	1974	1975*	1976			
	Plans with No Maternity Benefits							
13-week: 4th-day sickness 8th-day sickness	97% 99	105% 100	119% 106	135% 104	104% 100			
Total	99%	100%	107%	106%	100%			
26-week: 4th-day sickness	87% 104	105% 98	118% 101	120% 98	146% 99			
Total	102%	99%	103%	100%	104%			

<sup>\*</sup> These are corrected ratios and therefore are not the same as the ratios that appeared in the 1976 Reports.

TABLE 4—GROUP WEEKLY INDEMNITY EXPERIENCE
ALL SIZE GROUPS
COMBINED 1974-76 POLICY YEARS' EXPERIENCE,
BY SIZE OF EXPERIENCE UNIT

Size	No. Experience Units	Weekly Indemnity Exposed (000)	Actual Claims Including Maternity (000)	Ratio of Actual to 1947–49 Weekly Indemnity Tabular
	Pla	ans with 6 Weeks	' Maternity Ben	efit
<50 lives 50-99 100-249 250-499 500-999	816 692 674 285 126	1,301 2,931 6,659 6,086 5,104	902 2,425 5,562 5,462 4,720	97% 115 114 120 126
Total < 1,000	2,593	22,081	19,071	118%
1,000 or more	73	9,047	8,587	115%
Grand total	2,666	31,128	27,658	117%
		Plans with No M	laternity Benefit	
<50 lives 50-99 100-249 250-499 500-999	3,818 2,323 1,674 543 168	7,566 10,695 16,617 11,734 7,298	4,564 6,607 11,352 8,990 5,428	91% 94 103 114 109
Total <1,000	8,526	53,910	36,941	103%
1,000 or more	130	16,098	13,683	121%
Grand total	8,656	70,008	50,624	107%

the five years shown. It should be noted that values contained in Table 3, with respect to the 1975 experience year, have been corrected and are different from numbers published in the previous report for 1975 experience.

For plans with maternity benefits, Table 4 results show significantly worse experience than in prior reports. For nonjumbo business, ratios generally increase by size of group, a phenomenon consistent with prior

TABLE 5

GROUP WEEKLY INDEMNITY EXPERIENCE
GROUPS WITH LESS THAN 1,000 EMPLOYEES EXPOSED
1974-76 POLICY YEARS' EXPERIENCE, BY FEMALE PERCENT
PLANS WITH NO MATERNITY BENEFIT, ALL BENEFIT PERIODS COMBINED

Female Percent	No. Experience Units	Weekly Indemnity Exposed (000)	Actual Claims (000)	Ratio of Actual to 1947–49 Weekly Indemnity Tabular
<11%	3,518	22,759	15,245	108%
11-21%	1,538	9,279	5,783	96
21-31%	903	6,145	3,889	94
31–41%	712	4,301	2,809	95
	521	3,527	2,511	97
11-61%	421	2,876	2,361	111
11-71%	314	1,757	1,567	115
11-81%	265	1,518	1,179	99
$1-91\frac{6}{6}$	225	1,361	1,215	107
	109	387	382	117
Total	8,526	53,910	36,941	103%

TABLE 6

1947-49 WEEKLY INDEMNITY TABULAR
ANNUAL CLAIM COSTS PER \$10 WEEKLY BENEFIT

Plan	Male	Female (with Mater- nity Benefit)	Female (with No Maternity Benefit)
1-4-13	\$5.77	\$13.09	\$ 9.67
4-4-13	5.69	12.91	9.49
1-8-13	4.99	11.40	7.98
8-8-13	4.81	11.01	7.59
1-4-26	7.32	14.56	11.14
4-4-26	7.23	14.37	10.95
1-8-26	6.50	12.81	9.39
8-8-26	6.31	12.41	8.99

years' experience. Jumbo experience was quite good in the last report, but returned to former levels in this report. For plans with no maternity benefit, experience followed a continuing trend of slight deterioration in all size groups. Again, ratios tended to increase with size of group.

Table 5 shows that, for nonjumbo groups with no maternity benefit, with all benefit periods combined, and with more than 10 percent female, there is a general tendency for the ratios to increase as the female percentage increases. The table shows a relatively higher ratio for groups with less than 11 percent female. It is worth noting, however, that 42 percent of the exposures fall in the "less than 11 percent female" category. The prior report contained some cases with known coding errors by percent female. Those cases have been identified and corrected for this year's study. However, it is possible that groups of unknown percent female distribution have been coded in error as "less than 11 percent female" when, in fact, a higher classification is applicable. If that is true, the actual-to-tabular ratio for these cases would be high if normal experience prevailed. The actual claims would reflect the higher cost associated with female risks, and the tabular claims would reflect erroneously the more favorable experience expected for male risks.