

# TRANSACTIONS OF SOCIETY OF ACTUARIES 1979 REPORTS

## I. GROUP WEEKLY INDEMNITY INSURANCE

**T**HIS is the thirty-second 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

Experience in this report is presented in the form of ratios of actual to tabular claims. Up until last year's report, the tabular claims used were the 1947-49 weekly indemnity tabulars reported in the *1962 Reports* and last reproduced in this report last year. For the past several years it was observed that, while nonmaternity experience showed actual-to-tabular ratios at or above 100 percent, the ratios for maternity experience were much lower, averaging about 40 percent. The effect of this was that, when maternity and nonmaternity experience was combined, trends in experience were masked by variations in the relative proportions of nonmaternity and maternity exposure in the experience. In order to alleviate this problem, the Committee decided to use 1947-49 tabulars for nonmaternity experience and 40 percent of 1947-49 tabulars for maternity experience. Last year's report showed experience on both bases for comparison purposes. This year's report shows experience on the new basis only. Actual-to-tabular ratios shown in this report are not comparable to those shown in prior reports for this reason, except for nonmaternity-only experience. 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 tabulars also do not reflect certain factors, such as age distribution, industry classification, or size of case, that may have a relevant effect on the experience results. The maternity experience contained in this report may not be indicative of experience to be expected on new maternity benefits that comply with federal maternity legislation passed in 1978. Maternity experience is limited to plans providing a six-week benefit

period. Arrangements have been made to begin compiling experience for next year's report on plans that provide maternity benefits equal to non-maternity benefits.

#### 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 1974, 1975, 1976, 1977, and 1978. Nine companies contributed data for some or all of these years. One company representing a large portion of the data for this study did not contribute in 1974. 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 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 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  
 The Hartford Insurance Group  
 Metropolitan Life Insurance Company  
 Occidental Life Insurance Company of California  
 Prudential Insurance Company of America  
 The Travelers Insurance Company

#### ANALYSIS OF EXPERIENCE

Table 1 shows the experience for the period 1976-78 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 non-maternity and maternity segments. Also included in Table 2 for each of the four plan combinations is the nonjumbo experience for

the period 1976-78 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 1974-78 inclusive. Care should be exercised in analyzing the year-by-year experience because 1974 experience does not include the experience of our largest contributor, and several others of our contributors were unable to participate in 1977. 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 nonmaternity benefit by the female percent composition of the experience units. The tabular claim costs used to calculate ratios in the first five tables are shown in Table 6. Because these tabular claim costs are based on 100 percent of the 1947-49 weekly indemnity tabulars for nonmaternity experience and 40 percent of the 1947-49 tabulars for maternity experience, these tables are comparable only to the second set of tables published last year (the B set) and are not

TABLE 1  
 GROUP WEEKLY INDEMNITY EXPERIENCE  
 WITH SIX WEEKS' MATERNITY BENEFIT  
 ALL SIZE GROUPS  
 COMBINED 1976-78 POLICY YEARS' EXPERIENCE, BY PLAN  
 NONMATERNITY TABULAR CLAIMS = 1947-49 WEEKLY INDEMNITY  
 NONMATERNITY TABULARS; MATERNITY TABULAR CLAIMS = 40 PERCENT  
 OF 1947-49 WEEKLY INDEMNITY MATERNITY TABULARS

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.....	293	3,123	2,486	118%
4-4-13.....	26	294	267	144
1-8-13.....	850	7,381	5,633	124
8-8-13.....	140	1,854	1,483	122
Total, 13-week plans...	1,309	12,652	9,869	122%
1-4-26.....	429	11,571	13,569	140%
4-4-26.....	17	554	514	115
1-8-26.....	1,028	17,826	18,369	141
8-8-26.....	133	2,150	1,759	102
Total, 26-week plans...	1,607	32,101	34,211	137%
Total, all plans....	2,916	44,753	44,080	134%

TABLE 2  
 GROUP WEEKLY INDEMNITY EXPERIENCE  
 GROUPS WITH LESS THAN 1,000 EMPLOYEES EXPOSED  
 1976-78 POLICY YEARS' EXPERIENCE, BY PLAN  
 NONMATERNITY TABULAR CLAIMS = 1947-49 WEEKLY INDEMNITY  
 NONMATERNITY TABULARS; MATERNITY TABULAR CLAIMS = 40 PERCENT  
 OF 1947-49 WEEKLY INDEMNITY MATERNITY TABULARS

PLAN	NONMATERNITY AND MATERNITY COMBINED EXPERIENCE*				NONMATERNITY AND MATERNITY SEPARATE EXPERIENCE*						
	No. Experience Units	Weekly Indemnity Exposed (000)	Actual Claims (000)	Ratio of Actual to 1947-49 Weekly Indemnity Tabular	No. Experience Units	Weekly Indemnity Exposed (000)	Actual Claims		Ratio of Actual to 1947-49 Weekly Indemnity Tabular		
							Non- maternity (000)	Maternity (000)	Non- maternity	Maternity	Combined
Plans with 6 Weeks' Maternity Benefit											
13-week:											
4th-day sickness.....	308	2,199	1,521	106%	293	2,073	1,385	35	106%	94%	106%
8th-day sickness.....	973	7,763	5,761	120	859	7,107	5,044	331	122	117	122
Total.....	1,281	9,962	7,282	116%	1,152	9,180	6,429	366	118%	114%	118%
26-week:											
4th-day sickness.....	426	7,543	7,917	127%	411	7,192	7,316	164	126%	87%	125%
8th-day sickness.....	1,136	15,731	15,528	132	1,000	14,360	13,651	433	135	109	134
Total.....	1,562	23,274	23,445	128%	1,411	21,552	20,967	597	132%	102%	131%

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

TABLE 2—Continued

PLAN	NONMATERNITY AND MATERNITY COMBINED EXPERIENCE*				NONMATERNITY AND MATERNITY SEPARATE EXPERIENCE*						
	No. Experience Units	Weekly Indemnity Exposed (000)	Actual Claims (000)	Ratio of Actual to 1947-49 Weekly Indemnity Tabular	No. Experience Units	Weekly Indemnity Exposed (000)	Actual Claims		Ratio of Actual to 1947-49 Weekly Indemnity Tabular		
							Non- maternity (000)	Maternity (000)	Non- maternity	Maternity	Combined
Plans with No Maternity Benefits											
13-week:											
4th-day sickness .....					151	939	614		99%		
8th-day sickness .....					2,111	14,006	8,041		100		
Total .....					2,262	14,945	8,655		100%		
26-week:											
4th-day sickness .....					279	2,935	2,993		130%		
8th-day sickness .....					3,185	27,556	19,674		100		
Total .....					3,464	30,491	22,667		104%		

TABLE 3

GROUP WEEKLY INDEMNITY EXPERIENCE  
GROUPS WITH LESS THAN 1,000 EMPLOYEES EXPOSED  
1974-78 POLICY YEARS' EXPERIENCE, BY PLAN

NONMATERNITY TABULAR CLAIMS = 1947-49 WEEKLY INDEMNITY  
NONMATERNITY TABULARS; MATERNITY TABULAR CLAIMS = 40 PERCENT  
OF 1947-49 WEEKLY INDEMNITY MATERNITY TABULARS

PLAN	RATIOS OF ACTUAL TO 1947-49 TABULAR FOR POLICY YEAR ENDING IN:				
	1974	1975	1976	1977	1978
Plans with 6 Weeks' Maternity Benefit					
Nonmaternity and maternity combined experience:					
13-week:					
4th-day sickness . . . . .	73%	104%	102%	113%	104%
8th-day sickness . . . . .	107	112	111	118	129
Total . . . . .	100%	111%	109%	117%	124%
26-week:					
4th-day sickness . . . . .	130%	135%	136%	130%	123%
8th-day sickness . . . . .	120	137	135	137	133
Total . . . . .	122%	137%	135%	135%	128%
Nonmaternity and maternity separate experience*:					
Nonmaternity:					
13-week:					
4th-day sickness . . . . .	99%	108%	102%	113%	104%
8th-day sickness . . . . .	117	108	116	118	130
Total . . . . .	113%	108%	112%	117%	124%
26-week:					
4th-day sickness . . . . .	102%	138%	131%	129%	125%
8th-day sickness . . . . .	150	125	132	137	134
Total . . . . .	143%	128%	132%	134%	129%
Maternity (all plans) . . . . .	105%	101%	93%	128%	98%
Combined:					
13-week:					
4th-day sickness . . . . .	100%	108%	101%	114%	104%
8th-day sickness . . . . .	118	108	115	118	129
Total . . . . .	115%	108%	112%	117%	124%
26-week:					
4th-day sickness . . . . .	102%	136%	128%	129%	123%
8th-day sickness . . . . .	146	124	130	137	133
Total . . . . .	140%	127%	130%	134%	128%

\* The nonmaternity and maternity separate experience is also included in the nonmaternity and maternity combined experience.

TABLE 3—Continued

PLAN	RATIOS OF ACTUAL TO 1947-49 TABULAR FOR POLICY YEAR ENDING IN:				
	1974	1975	1976	1977	1978
Plans with No Maternity Benefits					
13-week:					
4th-day sickness .....	119%	135%	104%	100%	89%
8th-day sickness .....	106	104	100	100	97
Total .....	107%	105%	100%	100%	97%
26-week:					
4th-day sickness .....	118%	113%	146%	125%	117%
8th-day sickness .....	101	98	99	104	98
Total .....	103%	100%	104%	106%	100%

directly comparable to tables published in previous years, except for nonmaternity experience.

Table 1 shows results that deteriorated significantly since last year for thirteen-week plans, but only slightly for twenty-six-week plans. All plans combined had a ratio of 134 percent, compared to 130 percent a year ago. This represents a continuation of worsening experience over the last three years. Actual-to-tabular ratios continue to run higher for twenty-six-week plans than for thirteen-week plans. Tables 2 and 3 show this same relationship, although it is less marked for plans without maternity benefits. They also show that the nonmaternity experience under plans with maternity benefits has been worse than the experience of plans with no maternity benefit in each of the five years shown. Table 3 shows a claim trend that has increased rather dramatically for thirteen-week plans, while experience under twenty-six-week plans has been more stable. The ratios for thirteen- and twenty-six-week plans are closer together in most categories than they have been in the last five years.

For plans with maternity benefits, Table 4 shows a pattern of experience that worsens consistently as the size of the group increases. This was generally true of prior years' studies, except that, unlike past reports, this one shows jumbo experience to be as bad as or worse than that of the next category down. Relative to last year's study, experience improved under 500 lives and worsened in the larger groups. For plans with no maternity benefits, results below 500 lives were mixed, with

TABLE 4  
 GROUP WEEKLY INDEMNITY EXPERIENCE  
 ALL SIZE GROUPS  
 COMBINED 1976-78 POLICY YEARS' EXPERIENCE,  
 BY SIZE OF EXPERIENCE UNIT  
 NONMATERNITY TABULAR CLAIMS = 1947-49 WEEKLY INDEMNITY  
 NONMATERNITY TABULARS; MATERNITY TABULAR CLAIMS = 40 PERCENT  
 OF 1947-49 WEEKLY INDEMNITY MATERNITY TABULARS

Size	No. Experience Units	Weekly Indemnity Exposed (000)	Actual Claims Including Maternity (000)	Ratio of Actual to 1947-49 Weekly Indemnity Tabular
Plans with 6 Weeks' Maternity Benefit				
< 50 lives . . . . .	790	1,511	1,052	98%
50-99 . . . . .	700	3,481	2,574	104
100-249 . . . . .	806	9,436	8,266	123
250-499 . . . . .	376	10,145	9,381	127
500-999 . . . . .	171	8,663	9,454	149
Total <1,000 . . . . .	2,843	33,236	30,727	128%
1,000 or more . . . . .	73	11,517	13,353	149%
Grand total . . . . .	2,916	44,753	44,080	134%
Plans with No Maternity Benefit				
< 50 lives . . . . .	2,187	4,553	2,676	88%
50-99 . . . . .	1,607	8,267	4,973	91
100-249 . . . . .	1,346	14,653	10,499	107
250-499 . . . . .	425	9,838	7,607	114
500-999 . . . . .	161	8,126	5,566	101
Total <1,000 . . . . .	5,726	45,437	31,321	102%
1,000 or more . . . . .	102	17,937	14,483	110%
Grand total . . . . .	5,828	63,374	45,804	105%



**TABLE 5**  
**GROUP WEEKLY INDEMNITY EXPERIENCE**  
**GROUPS WITH LESS THAN 1,000 EMPLOYEES EXPOSED**  
**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
Less than 11% female.....	2,369	18,982	13,236	111%
11-21%.....	996	8,343	5,028	93
21-31%.....	602	4,920	3,171	95
31-41%.....	517	3,752	2,489	95
41-51%.....	337	2,375	1,701	99
51-61%.....	281	2,199	1,783	107
61-71%.....	231	1,848	1,577	109
71-81%.....	188	1,746	1,293	92
81-91%.....	147	1,045	804	95
91-100%.....	58	227	239	128
Total.....	5,726	45,437	31,321	102%

**TABLE 6**  
**1947-49 WEEKLY INDEMNITY**  
**NONMATERNITY TABULARS**  
**40 PERCENT OF 1947-49 WEEKLY**  
**INDEMNITY MATERNITY TABULARS**  
**ANNUAL CLAIM COSTS PER \$10 WEEKLY BENEFIT**

Plan	Male	Female (with Maternity Benefit)	Female (with No Maternity Benefit)
1-4-13.....	\$5.77	\$11.04	\$ 9.67
4-4-13.....	5.69	10.86	9.49
1-8-13.....	4.99	9.35	7.98
8-8-13.....	4.81	8.96	7.59
1-4-26.....	7.32	12.51	11.14
4-4-26.....	7.23	12.32	10.95
1-8-26.....	6.50	10.76	9.39
8-8-26.....	6.31	10.36	8.99

deterioration above 500 lives. 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 that 42 percent of the exposures fall in the "less than 11 percent female" category. If 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, then 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. In recent years we have attempted to make sure that the female percentage was being coded correctly, so the experience in the less than 11 percent female category may be more accurate than in previous years. However, the possible problem described above may still apply to these data. Another possible explanation for this problem is that groups with less than 11 percent females are more likely to be engaged in occupations that are more hazardous than average. The *1975 Reports* contain the most recent five-year analysis of group weekly indemnity experience by industry. That analysis, coupled with United States Department of Labor statistics that show industry employment split by sex, indicates that many groups with less than 11 percent female have group weekly indemnity experience that is worse than the average for all industries combined.