

TRANSACTIONS OF SOCIETY OF ACTUARIES 1981 REPORTS

I. GROUP WEEKLY INDEMNITY INSURANCE

This is the thirty-fourth annual report on the continuing study of the morbidity experience under contracts providing for 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. In the past three reports, the tabular claims used were those derived from the 1947-49 weekly indemnity nonmaternity tabulars and 40 percent of the 1947-49 weekly indemnity maternity tabulars. This report is the first one to show experience for plans with full maternity benefits. The maternity experience in prior reports was limited to plans providing a six-week benefit period. This report has separate exhibits for plans with full maternity benefits and plans with six-week maternity benefits.

The two years' worth of full maternity experience that is currently available shows actual-to-tabular ratios of about 100 percent when compared with 100 percent of the 1947-49 weekly indemnity maternity tabulars. For this reason, 100 percent of the weekly indemnity tabulars was used for all plans with full maternity benefits. For plans with six-week maternity benefits, tabulars are on the same basis as the previous three years.

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.

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 1976, 1977, 1978, 1979, and 1980. Eight companies contrib-

uted data for some or all of these 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 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
 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

The Pregnancy Discrimination Act of 1978, an amendment to Title VII of the Civil Rights Act of 1964, was effective April 29, 1979. This legislation imposed the requirement on all groups with 15 or more lives that in any benefit program, pregnancy-related disabilities must be treated the same as disabilities caused or contributed to by any other medical conditions.

The impact of the legislation is shown in this report for the first time this year. Experience under plans providing full benefits for pregnancy-related disabilities included in the 1979 experience contribution was withheld from the 1980 report. However, it is included this year, along with 1980 experience for plans with full pregnancy disability benefits.

In analyzing the various tables, the reader should note that the 1979 experience may have been affected by the federal maternity legislation. Some companies had difficulty in complying with the special maternity coding requirements for that year.

Table 1A shows the experience for the period 1979-80 for each of eight plans (four different elimination periods, two different maximum benefit periods), all of which provide a full maternity benefit. All size groups are included. The corresponding experience for the period 1978-80 of plans that provide a six-week maternity benefit is shown in Table 1B.

Experience of nonjumbo groups only (units with less than 1,000 insured employees) is displayed in Tables 2A and 2B for each of four plan combinations for plans with full and six-week maternity benefits, respectively. For those nonjumbo units for which the data were available, Tables 2A and 2B separate the combined experience into its nonmaternity and maternity segments. Also included in Table 2A for each of the four plan combinations is the nonjumbo experience for the period 1978–80 of plans that do not provide a maternity benefit.

Table 3A is a four-year trend analysis of the Table 2 experience for each year, 1976–79 inclusive. Care should be exercised in analyzing the year-by-year experience because several of our contributors were unable to participate in 1977, and the 1979 experience may have been affected by the federal maternity legislation. Table 3B shows 1980 experience, which is not comparable to the experience of the prior four years for plans with maternity benefits since 1980 includes full maternity benefits only and a maternity tabular of 100 percent of the 1947–49 weekly indemnity maternity tabular. The 1976–79 experience includes six-week maternity benefits only and a maternity tabular of 40 percent of the 1947–49 weekly indemnity maternity tabular.

Table 4A is an analysis of experience by size of experience unit. Results are shown separately for plans with and without maternity benefits. Experience of plans with full maternity benefits is shown in Table 4A, and the corresponding experience of plans with six-week maternity benefits is shown in Table 4B.

Table 5 analyzes the nonjumbo experience of plans with no maternity benefits by the female percentage composition of the experience units. The tabular claim costs used to calculate ratios are shown in Table 6. The first set is based on 100 percent of the 1947–49 weekly indemnity tabulars. The second set is based on 100 percent of the 1947–49 weekly indemnity nonmaternity tabulars and 40 percent of the 1947–49 weekly indemnity maternity tabulars.

Table 1A is not directly comparable to prior years because it contains plans with full maternity benefits only. All plans combined had a ratio of 112 percent. The actual-to-tabular ratio for twenty-six-week plans is higher than that for thirteen-week plans. This has been the case for six-week maternity plans for the past several years. Fourth-day accident, fourth-day sickness plans show the highest ratios by far for both thirteen-week and twenty-six-week plans. Table 1B shows results very similar to last year's results, with any differences caused by the exclusion of 1977 experience in this year's table.

Table 2A shows that plans with no maternity benefits continued to have quite stable results, with thirteen-week plans having slightly worse results

than last year and twenty-six-week plans showing a slight improvement. The maternity experience is not comparable to last year's experience because it includes only full maternity, but it does show the same relationship of higher ratios for twenty-six-week plans than for thirteen-week plans. Table 2B shows results similar to last year's, but shows significant deterioration in maternity experience for thirteen-week plans and slight deterioration in maternity experience for twenty-six-week plans.

Only nonmaternity experience in Tables 3A and 3B is comparable. The results continue to show that the nonmaternity experience under plans with maternity benefits is worse than the experience of plans with no maternity benefits. Nonmaternity experience results under plans with maternity benefits improved significantly from 1979 to 1980, while results for plans with no maternity benefits worsened somewhat.

Although Table 4A results for plans with maternity benefits are not directly comparable to last year's results, they show similar ratios by size of group except for jumbo cases. The full maternity jumbo category has a much lower ratio than any of the other categories (98 percent), whereas six-week maternity jumbo showed a much higher ratio than any other category last year (166 percent) and this year in Table 4B (164 percent). For nonjumbo plans with maternity benefits, there is a pattern of experience that worsens as the size of the group increases, except that cases with under 50 lives have a much higher ratio than the next two size categories. For plans with no maternity benefits, results have improved for all categories except the largest nonjumbo cases, which showed only slight deterioration. Jumbo showed the most significant improvement. Again, ratios tend to increase with the size of the group for groups under 500 lives.

Table 5 shows that, for nonjumbo groups with no maternity benefit, with all benefit periods combined, there is a general tendency for the ratios to increase as the female percentage increases, for groups with between 11 percent and 70 percent female content. The actual-to-tabular ratio for cases with less than 11 percent female is higher than expected based on the results of other female proportions. This result has been observed in earlier reports. It has been suggested that this may have been caused by miscoding of cases where the female percentage is unknown or the tendency of occupations with such low female percentages to be more hazardous than those with higher female percentages or both. At the higher female percentages, actual-to-tabular ratios this year are again better than those of cases with lower female percentages. This result was first clearly evident in the last report.

TABLE 1A
GROUP WEEKLY INDEMNITY EXPERIENCE
WITH FULL MATERNITY BENEFIT
ALL SIZE GROUPS
COMBINED 1979-80 POLICY YEARS' EXPERIENCE, BY PLAN
TABULAR CLAIMS = 1947-49 WEEKLY INDEMNITY 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	82	962	754	1.06
4-4-13	19	362	676	2.21
1-8-13	512	8,625	6,665	1.16
8-8-13	112	8,018	2,988	.60
Total, 13-week plans ..	725	17,967	11,083	.94
1-4-26	302	16,232	17,076	1.25
4-4-26	18	879	1,433	1.82
1-8-26	1,010	22,824	22,330	1.26
8-8-26	183	11,235	9,877	.90
Total, 26-week plans ..	1,513	51,170	50,716	1.17
Total, all plans	2,238	69,137	61,799	1.12

* Weekly Indemnity Exposed is reported in units of \$10 of weekly indemnity in-force.

TABLE 1B
GROUP WEEKLY INDEMNITY EXPERIENCE
WITH SIX WEEKS' MATERNITY BENEFIT
ALL SIZE GROUPS
COMBINED 1978-80 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	165	1,709	1,416	1.22
4-4-13	17	242	273	1.78
1-8-13	503	6,868	5,134	1.26
8-8-13	54	737	738	1.57
Total, 13-week plans ..	739	9,556	7,561	1.29
1-4-26	392	13,922	18,889	1.58
4-4-26	13	366	303	.99
1-8-26	677	14,598	14,753	1.39
8-8-26	94	1,850	1,589	1.17
Total, 26-week plans ..	1,176	30,736	35,534	1.46
Total, all plans	1,915	40,292	43,095	1.43

TABLE 2A

GROUP WEEKLY INDEMNITY EXPERIENCE
GROUPS WITH FEWER THAN 1,000 EMPLOYEES EXPOSED
EXPERIENCE BY PLAN

TABULAR CLAIMS - 1947-49 WEEKLY INDEMNITY 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	
1979-80 Policy Years' Experience—Plans with Full Maternity Benefit												
13-week:												
4th-day sickness ..	100	1,163	1,082	1.26	93	1,146	964	84	1.27	.96	1.24	
8th-day sickness ..	606	7,646	6,015	1.13	579	7,185	5,209	622	1.24	.84	1.18	
Total	706	8,809	7,097	1.15	672	8,331	6,173	706	1.24	.85	1.19	
26-week:												
4th-day sickness ..	295	6,638	8,995	1.52	292	6,581	8,392	490	1.56	.96	1.51	
8th-day sickness ..	1,153	19,031	18,095	1.22	1,136	18,745	16,466	1,395	1.24	1.03	1.22	
Total	1,448	25,669	27,090	1.30	1,428	25,326	24,858	1,885	1.32	1.01	1.30	
1978-80 Policy Years' Experience—Plans with No Maternity Benefits												
13-week:												
4th-day sickness ..					93	739	472		.98			
8th-day sickness ..					1,128	9,657	5,739		1.04			
Total					1,221	10,396	6,211		1.03			
26-week:												
4th-day sickness ..					198	2,876	2,068		.91			
8th-day sickness ..					2,235	25,054	16,430		.97			
Total					2,433	27,930	18,498		.96			

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

TABLE 2B
GROUP WEEKLY INDEMNITY EXPERIENCE
GROUPS WITH FEWER THAN 1,000 EMPLOYEES EXPOSED
1978-80 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 ..	177	1,324	937	1.12	176	1,321	908	28	1.10	1.58	1.11
8th-day sickness ..	550	5,535	4,451	1.30	547	5,509	4,146	294	1.31	1.47	1.31
Total	727	6,859	5,388	1.26	723	6,830	5,054	322	1.26	1.48	1.28
26-week:											
4th-day sickness ..	376	8,062	9,445	1.38	376	8,063	9,153	292	1.38	1.14	1.37
8th-day sickness ..	752	12,720	12,303	1.32	750	12,632	11,705	501	1.31	1.43	1.31
Total	1,128	20,782	21,748	1.34	1,126	20,695	20,858	793	1.36	1.31	1.34

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

TABLE 3A

GROUP WEEKLY INDEMNITY EXPERIENCE
GROUPS WITH FEWER THAN 1,000 EMPLOYEES EXPOSED
1976-79 POLICY YEARS' EXPERIENCE, BY PLAN

NONMATERNITY TABULAR CLAIM = 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:			
	1976	1977	1978	1979
Plans with 6 Weeks' Maternity Benefit				
Nonmaternity and maternity combined experience:				
13-week:				
4th-day sickness	1.02	1.13	1.04	1.22
8th-day sickness	1.11	1.18	1.29	1.37
Total	1.09	1.17	1.24	1.34
26-week:				
4th-day sickness	1.36	1.30	1.23	1.57
8th-day sickness	1.35	1.37	1.33	1.33
Total	1.35	1.35	1.28	1.42
Nonmaternity and maternity separate experience:*				
Nonmaternity:				
13-week:				
4th-day sickness	1.02	1.13	1.04	1.22
8th-day sickness	1.16	1.18	1.30	1.36
Total	1.12	1.17	1.24	1.33
26-week:				
4th-day sickness	1.31	1.29	1.25	1.57
8th-day sickness	1.32	1.37	1.34	1.32
Total	1.32	1.34	1.29	1.42
Maternity (all plans) .....	.93	1.28	.98	1.61
Combined:				
13-week:				
4th-day sickness	1.01	1.14	1.04	1.22
8th-day sickness	1.15	1.18	1.29	1.38
Total	1.12	1.17	1.24	1.35
26-week:				
4th-day sickness	1.28	1.29	1.23	1.57
8th-day sickness	1.30	1.37	1.33	1.33
Total	1.30	1.34	1.28	1.42
Plans with No Maternity Benefits				
13-week:				
4th-day sickness	1.04	1.00	.89	1.11
8th-day sickness	1.00	1.00	.97	1.08
Total	1.00	1.00	.97	1.08
26-week:				
4th-day sickness	1.46	1.25	1.17	.69
8th-day sickness .....	.99	1.04	.98	.97
Total	1.04	1.06	1.00	.93

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

TABLE 3B

GROUP WEEKLY INDEMNITY EXPERIENCE
 GROUPS WITH FEWER THAN 1,000
 EMPLOYEES EXPOSED

1980 POLICY YEAR EXPERIENCE, BY PLAN

TABULAR CLAIMS = 1947-49 WEEKLY INDEMNITY TABULARS

Plan	Ratios of Actual to 1947-49 Tabular for 1980 Policy Year
	Plans with Full Maternity Benefit
Nonmaternity and maternity combined experience:	
13-week:	
4th-day sickness	1.28
8th-day sickness	1.16
Total	1.18
26-week:	
4th-day sickness	1.43
8th-day sickness	1.22
Total	1.28
Nonmaternity and maternity separate experience:*	
Nonmaternity:	
13-week:	
4th-day sickness	1.31
8th-day sickness	1.23
Total	1.24
26-week:	
4th-day sickness	1.47
8th-day sickness	1.23
Total	1.30
Maternity (all plans).....	1.00
Combined:	
13-week:	
4th-day sickness	1.29
8th-day sickness	1.18
Total	1.20
26-week:	
4th-day sickness	1.43
8th-day sickness	1.22
Total	1.28
	Plans with No Maternity Benefits
13-week:	
4th-day sickness .....	.80
8th-day sickness	1.06
Total	1.04
26-week:	
4th-day sickness	1.13
8th-day sickness .....	.92
Total .....	.94

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

TABLE 4A
GROUP WEEKLY INDEMNITY EXPERIENCE
ALL SIZE GROUPS
EXPERIENCE BY SIZE OF EXPERIENCE UNIT
TABULAR CLAIMS = 1947-49 WEEKLY INDEMNITY TABULARS

Size	No Experience Units	Weekly Indemnity Exposed (000)	Actual Claims including Maternity (000)	Ratio of Actual to 1947-49 Weekly Indemnity Tabular
1979-80 Policy Years' Experience—Plans with Full Maternity Benefit				
<50 lives	487	1,264	1,177	1.21
50-99	512	3,297	2,702	1.06
100-249	690	10,199	8,757	1.10
250-499	314	10,160	10,726	1.35
500-999	151	9,558	10,825	1.40
Total <1,000	2,154	34,478	34,187	1.26
1,000 or more	84	34,659	27,612	.98
Grand total	2,238	69,137	61,799	1.12
1978-80 Policy Years' Experience—Plans with No Maternity Benefit				
<50 lives	1,333	2,922	1,541	.77
50-99	972	5,960	3,274	.86
100-249	881	11,352	7,766	1.06
250-499	325	9,200	6,280	1.09
500-999	143	8,892	5,848	.93
Total <1,000	3,654	38,326	24,709	.98
1,000 or more	75	16,528	13,424	.88
Grand total	3,729	54,854	38,133	.95

TABLE 4B

GROUP WEEKLY INDEMNITY EXPERIENCE
ALL SIZE GROUPS
COMBINED 1978-80 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 Six Weeks' Maternity Benefit				
<50 lives	485	928	822	1.21
50-99	424	2,472	1,906	1.11
100-249	538	7,619	6,775	1.23
250-499	270	8,349	8,515	1.35
500-999	138	8,273	9,118	1.48
Total <1,000	1,855	27,641	27,136	1.33
1,000 or more	60	12,651	15,959	1.64
Grand total	1,915	40,292	43,095	1.43

TABLE 5

GROUP WEEKLY INDEMNITY EXPERIENCE
GROUPS WITH FEWER THAN 1,000 EMPLOYEES EXPOSED
1978-80 POLICY YEARS' EXPERIENCE, BY FEMALE PERCENTAGE
PLANS WITH NO MATERNITY BENEFIT, ALL BENEFIT PERIODS COMBINED
NONMATERNITY TABULAR CLAIMS = 1947-49 WEEKLY
INDEMNITY NONMATERNITY TABULARS

Female Percentage	No. Experience Units	Weekly Indemnity Exposed (000)	Actual Claims (000)	Ratio of Actual to 1947-49 Weekly Indemnity Tabular
Less than 11%	1,535	16,964	10,550	1.06
11-21%	585	5,945	3,317	.87
21-31%	390	3,930	2,265	.84
31-41%	345	3,110	2,279	1.02
41-51%	223	1,803	1,255	.99
51-61%	182	1,902	1,563	1.07
61-71%	150	1,738	1,520	1.10
71-81%	112	1,963	1,272	.77
81-91%	77	734	523	.90
91-100%	55	237	165	.78
Total	3,654	38,326	24,709	.98

TABLE 6
TABULAR CLAIM COSTS USED TO CALCULATE RATIOS
1947-49 WEEKLY INDEMNITY TABULAR*
ANNUAL CLAIM COSTS PER \$10 WEEKLY BENEFIT

Plan	Male	Female (with Maternity 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

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

* A description of the development of the tabular factors from Morton D. Miller's paper "Group Weekly Indemnity Continuation Table Study," *TSA*, Vol. III, can be found in the *1962 Reports*.