TRANSACTIONS OF SOCIETY OF ACTUARIES

REPORT OF THE COMMITTEE ON EXPERIENCE UNDER GROUP HEALTH INSURANCE

GROUP WEEKLY INDEMNITY INSURANCE AND GROUP HOSPITAL AND SURGICAL EXPENSE INSURANCE

His is the fifteenth annual report on the continuing study of the morbidity experience of Group Weekly Indemnity insurance and Group Employee and Dependent Hospital and Surgical Expense insurance.

In compiling these reports, the Committee includes the available experience of employer-employee groups. The experience of insured groups outside the United States, and of trusteeship and association cases insuring employees of the member employers, and of union cases, whether or not insurance depends on continued employment, is excluded. The data for Group Weekly Indemnity insurance exclude the experience of plans written under State Cash Sickness laws.

Data in the report for Weekly Indemnity and Employee Hospital insurance are based on the experience of groups in those industrial classifications which the contributing companies individually rate standard for premium purposes; tables covering these plans are headed "Nonrated Industries." Data for Surgical Expense insurance, Employee or Dependent, and for Dependent Hospital Expense insurance are based on the experience of groups regardless of industrial classification; tables covering these plans are headed "All Industries."

The tables in this report show the experience for all exposure size groups combined or for exposure size groups 0-7 only. The data are shown for size groups 0-7 in order to minimize the effect that jumbo groups might have upon the ratio of actual to tabular claims in any of the groupings shown. The following exposure constitutes exposure size groups 0-7:

Weekly Indemnity—Less than \$40,000 of weekly indemnity.

Hospital—Less than \$10,000 of daily benefit.

Surgical—Less than 2,000 exposure units of the \$150 or \$200 maximum benefit schedules.

Ratios of Actual to Tabular Claims

The results of the study are presented in the form of ratios of actual to tabular claims. The basis of the hospital and surgical tabular claim factors is outlined in the 1961 report of this Committee.

Tabular claim factors for Weekly Indemnity insurance experience are being used for the first time in this report. The male tabular claim factors are the tabular cost factors developed by Mr. Morton D. Miller in his paper "Group Weekly Indemnity Continuation Table Study," TSA III, and shown in Table XI, "1947-49 Basic Morbidity Table—Males," of that paper. This basis was chosen because the recent experience level for males is reasonably consistent with the costs shown by this Basic Morbidity Table and because no later individual claim studies have been made from which a more recent continuation table could be prepared.

Female tabular claim factors were obtained by basing the total claim cost on the recent level of experience indicated by the female claim costs shown in reports of this Committee. These claim costs were subdivided into maternity and nonmaternity costs by adopting a maternity tabular (\$3.42 per \$10 of Weekly Indemnity) based on the female employee frequency of claim used for the 1957 Surgical Tabular and an average duration of claim based upon statistics of the compiling company for the average duration of maternity benefit. The nonmaternity tabular costs by duration of disability were distributed in a manner similar to the distribution for males using female data shown in Appendix B of Mr. Miller's paper. These tabular claim cost factors are shown in Table 15 and will be known as "1947-49 Weekly Indemnity Tabular" claim factors.

The Committee wishes to point out that the presentation of Group Accident and Health experience in the form of ratios of actual to tabular claims is still in the experimental state, with many factors affecting experience not reflected by the tabulars. For example, the tabulars do not contemplate a variation in experience caused by the age distribution or the geographic location of the employees. These limitations, as well as other factors which may influence the results of an analysis according to a particular characteristic of the experience, would indicate that caution should be used when interpreting the data contained in these reports.

Comparison of Tables

The tables and text in this report have been combined so as to subdivide the study into three sections.

WEEKLY INDEMNITY: Tables 1, 2, and 3 are modifications of the first three tables included in last year's report. Table 15 is new.

HOSPITAL: Tables 4, 5, 6, 7, 8, and 9 correspond to the same tables in last year's report. Table 6A is new.

SURGICAL: Tables 10, 11, 12, and 14 correspond to last year's tables 11, 12, 13, and 14, respectively. Table 13 is new.

Contributing Companies

Nine companies have contributed to the investigation covered in this report. The results are the composite experience of variations in company practice, in underlying administration and claim procedures as well as variations in experience among groups. It should be recognized that many groups may have significantly different claim costs from those indicated in this report.

This report contains experience for years labeled 1957, 1958, 1959, 1960, and 1961. This year's Report contains some additional experience for the year 1960 which was not available for last year's Report. The majority of the companies contribute exposure and claims based upon policy years ending in the calendar year designated; others have contributed using different periods. When the various contributions are weighted according to the period covered, the central point of the exposure submitted for each year is as shown below. Since each of the coverages centered near the same period, only one central period is shown for each year.

	Central Month of
Year	Period of Exposure
1957	September, 1956
1958	September, 1957
1959	December, 1958
1960	December, 1959
1961	December, 1960

The assumption was made that each company's contribution was distributed uniformly over the period of exposure, which may be improper because of a concentration of policy renewals in January and July.

The following companies contributed experience for the investigation covered in this report:

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

WEEKLY INDEMNITY

The basic results of the study of Weekly Indemnity insurance are presented in Table 1, which includes all size groups for the three latest policy years combined. This report includes for the first time the experience of plans which provide benefits commencing on the fourth day for sickness with a maximum benefit of 26 weeks. The exposure unit is one dollar of weekly benefit.

The trend of experience for the five latest years is indicated in Table 2 in the form of ratios of actual to 1947-49 Tabular claims for nonjumbo groups. The ratios shown indicate that the 1960 and 1961 experience of

TABLE 1

COMBINED 1959-61 POLICY YEARS' EXPERIENCE
GROUP WEEKLY INDEMNITY INSURANCE
WITH SIX WEEKS MATERNITY BENEFIT
ALL SIZE GROUPS, NONRATED INDUSTRIES

Plan	Number of Experience Units	Weekly Indemnity Exposed	Actual Claims	Ratio of Actual to 1947-49 Weekly Indem- nity Tabular
1-4-13	2,779	16,484,330	11,326,370	100%
4-4-13	292	1,750,890	1,130,049	93
1-8-13	9,689	46,889,620	27,394,859	94
8-8-13	1,263	11,615,880	7,258,956	99
Total, 13-week plans: All size groups Size groups 0-7	14,023	76,740,720	47,110,234	96%
	13,751	50,336,860	29,716,508	92
1-4-26.	512	8,693,840	6,982,100	99%
4-4-26.	83	2,510,310	2,379,448	115
1-8-26.	3,176	45,669,020	34,155,182	101
8-8-26.	441	21,223,900	14,961,442	101
Total, 26-week plans: All size groups Size groups 0-7	4,212	78,097,070	58,478,172	101%
	3,885	25,542,760	18,486,772	97
Total, all plans: All size groups Size groups 0-7	18,235	154,837,790	105,588,406	99%
	17,636	75,879,620	48,203,280	94

13-week plans has increased slightly over the level of the three prior years, while the 26-week experience has remained fairly constant.

Table 3 contains ratios of actual to tabular claims for plans grouped according to percentage female for the three latest policy years combined. The ratios, which are fairly uniform, indicate a satisfactory relationship between the male and female tabular claim cost.

It is hoped that the presentation of Weekly Indemnity experience in the form of ratios of actual to tabular claims will increase the usefulness of this report. There are, of course, many factors such as age, geographic

TABLE 2

GROUP WEEKLY INDEMNITY INSURANCE, WITH SIX WEEKS MATERNITY BENEFIT
RATIO OF ACTUAL CLAIMS TO 1947-49 WEEKLY INDEMNITY TABULAR BY YEAR AND PLAN
SIZE GROUPS 0-7 ONLY, NONRATED INDUSTRIES

Year and Plan	Number of Experience Units	Weekly Indemnity Exposed	Actual Claims	Ratio of Actual to 1947-49 Weekly Indem- nity Tabular	Number of Experience Units	Weekly Indemnity Exposed	Actual Claims	Ratio of Actual to 1947-49 Weekly Indem- nity Tabular	
		13-Wee	ek Plans		26-Week Plans				
1957: 4th day sickness 8th day sickness	1,546 5,229	5,158,420 17,089,070	3,279,431 9,802,090	93%	220 1.237	1,365,290 7,479,350	1,050,216 5,287,460	95% 96	
Total	6,775	22,247,490	13,081,521	91%	1 457	8,844,640	6,337,676	95%	
1958: 4th day sickness 8th day sickness	947 3,946	3,384,100 13,581,660	2,205,839 7,680,890	96% 90	158 1,003	1,114,950 6,094,270	905,455 4,242,467	99% 95	
Total	4,893	16,965,760	9,886,729	91%	1,161	7,209,220	5,147,922	96%	
1959: 4th day sickness 8th day sickness	1,080 3,483	3,613,610 13,291,520	2,289,641 7,558,423	94% 90	171 1,059	1,297,700 6,720,810	1,031,061 4,800,374	99% 97	
Total	4,563	16,905,130	9,848,064	91%	1,230	8,018,510	5,831,435	97%	
1960: 4th day sickness 8th day sickness	1,045 3,971	3,433,030 14,726,520	2,251,107 8,522,907	96% 92	194 ,210	1,342,350 7,882,270	1,032,451 5,660,694	95% 98%	
Total	5,016	18,159,550	10,774,014	93%	1,404	9,224,620	6,693,145	97%	
1961: 4th day sickness 8th day sickness	881 3,291	2,884,850 12,387,330	1,796,536 7,297,894	92% 94	174 1,077	1,285,030 7,014,600	983,600 4,978,592	95% 96	
Total	4,172	15,272,180	9,094,430	93%	1,251	8,299,630	5,962,192	96%	

TABLE 3

COMBINED 1959-61 POLICY YEARS' EXPERIENCE
GROUP WEEKLY INDEMNITY INSURANCE, WITH SIX WEEKS MATERNITY BENEFIT
RATIO OF ACTUAL CLAIMS TO 1947-49 WEEKLY INDEMNITY TABULAR BY PERCENTAGE FEMALE
SIZE GROUPS 0-7 ONLY, NONRATED INDUSTRIES

Female Per Cent	Number of Experience Units	Weekly Indemnity Exposed	Actual Claims	Ratio of Actual to 1947-49 Weekly Indem- nity Tabular	Number of Experience Units	Weekly Indemnity Exposed	Actual Claims	Ratio of Actual to 1947-49 Weekly Indem- nity Tabular	
		4th Day Sicknes	s, 13-Week Plans		4th Day Sickness, 26-Week Plans				
<11% 11-21 21-31 31-41 41-51 51-61 61-71 71-81 81-91 91-100 Total	1,639 698 322 121 88 64 39 16 15 4	5,455,480 2,223,450 1,241,350 412,610 195,290 224,540 68,290 54,020 53,530 2,930 9,931,490	3,179,181 1,390,326 850,250 350,474 171,378 218,791 66,811 50,772 56,446 2,855	95% 91 90 102 97 100 93 83 88 77	355 109 39 15 14 4 0 2 1 0	2,543,430 929,640 261,300 110,840 54,430 18,260 0 3,090 4,090 0	1,900,788 742,438 218,372 120,941 49,582 8,512 0 3,749 2,730 0 3,047,112	97% 95 92 111 86 42 95 50	
		8th Day Sicknes	s, 13-Week Plans		8th Day Sickness, 26-Week Plans				
<11% 11-21 21-31 31-41 41-51 51-61 61-71 71-81 81-91 91-100	2,232	17,200,680 7,761,000 5,257,810 3,669,740 2,446,030 1,592,190 973,520 836,830 567,770 99,670	8,378,694 3,865,963 3,138,164 2,545,562 1,904,463 1,346,856 788,744 748,846 562,940 98,956	92% 84 91 96 100 100 89 92 96 90	1,905 624 377 192 112 64 40 24 5	12,304,840 4,166,930 2,342,170 1,298,670 761,560 369,120 240,900 108,350 17,070 8,070	8,224,526 2,834,438 1,749,699 1,128,906 705,751 375,063 263,689 116,159 25,139 16,290	98% 92 93 100 100 102 104 96 124 162	
Total	10,744	40,405,240	23,379,188	92%	3,346	21,617,680	15,439,660	97%	

8

location, etc., which are not reflected in the tabular and which may cause inconsistencies in the ratio of actual to tabular claims. Also, the Committee wishes to point out that the 1947–49 Weekly Indemnity Tabular is based on rather old continuation data and may, therefore, be unsuitable for purposes other than the measurement of trends based on the plans studied by the Committee.

HOSPITAL

The basic results of the study of Hospital Expense insurance are presented in Tables 4 and 5 for plans grouped according to nonmaternity room-and-board duration and miscellaneous-fee benefit. The experience shown includes all size groups for the three latest policy years, except that the plans included for the first time in 1960 show combined 1960 and 1961 experience. Because of this, ratios of actual to 1957 tabular claims are shown for the combined 1960 61 as well as for combined 1959 61.

The employee and dependent experience is indicated in Table 6 for each

TABLE 4

COMBINED 1959-61 POLICY YEARS' EXPERIENCE
EMPLOYEE GROUP HOSPITAL EXPENSE INSURANCE
ALL SIZE GROUPS, NONRATED INDUSTRIES

	Number of	Daily Benefit		RATIO OF ACTUAL TO 1957 HOSPITAL TABULAR		
PLAN IDENTIFICATION	EXPERIENCE Units	Exposed	ACTUAL CLAIMS	Combined 1959-61	Combined 1960-61	
31 day:	4.052	6 727 202	11 015 005	10307	10/04	
10× *15×	4,053 829	6,737,292 1,632,531	11,945,985 2,929,670	102%	106% 101	
20×	2,924	4,885,117	9,581,905	107	101	
$*20 \times +75\%$ of	2,924	4,005,117	9,301,903	107	109	
excess	688	965,307	2,124,509		113	
70 day:		, , , , , , , , , , , , , , , , , , , ,	2,1-1,0	1		
10×	704	1,287,950	2,541,633	111	111	
*15×	278	472,614	935,736	1	109	
20×	2,451	4,438,245	9,061,619	111	113	
*20 \times +75% of	, , ,		, , , , , , , , ,			
excess	977	1,460,892	3,345,876	1	117	
120 day:	!	, ,	, ,	l		
*10×	14	31,722	60,107		115	
*15	15	20,402	59,867		161	
*20×	124	362,324	714,214		111	
*20 \times +75% of	1	'				
excess	103	275,144	691,012		132	
Total	13,160	22,569,540	43,992,133	108%	110%	

^{*} These plans contain 1960 and 1961 experience only.

of the two latest policy years in the form of ratios of actual to 1957 Tabular claims. Table 6A summarizes the ratios of actual to tabular for years 1957 through 1961 and indicates the trend of experience. Both employee and dependent experience continue to show an increasing claim cost by year of experience. The experience in Table 6A also indicates that the use of the 1957 Tabular results in a higher ratio of actual to tabular claims as the size of the miscellaneous benefit increases. The 1957 Hospital Tabular is based upon an annual frequency of claim which does not vary

TABLE 5

COMBINED 1959-61 POLICY YEARS' EXPERIENCE
DEPENDENT GROUP HOSPITAL EXPENSE INSURANCE
ALL SIZE GROUPS, ALL INDUSTRIES

	Number of	Daily Benefit		RATIO OF ACTUAL TO 1957 HOSPITAL TABULAR		
PLAN IDENTIFICATION	EXPERIENCE EXPOSED		ACTUAL CLAIMS	Combined 1959-61	Combined 1960-61	
With Maternity Benefits						
31 day:	1			1		
10×	3,342	3,651,562	14,053,607	107%	108%	
*15×	831	776,715	3,334,578		115	
20× *20×+75%	3,319	3,343,838	14,361,538	114	114	
of excess 70 day:	790	773,616	3,684,368		121	
10×	495	555,278	2,091,362	105	108	
*15×	228	274,673	1,179,317	103	117	
20×	2,505	2,926,515	13,054,017	119	120	
*20×+75%	1 2,000	_,,,,,,,,,,,	20,001,01	1	120	
of excess	1,048	1,269,081	6,034,060	1.	120	
120 day:	1 ′	' '	, ,	ļ	ļ	
*10×	13	13,398	45,295	1	98	
*15×	22	43,759	143,321	1	91	
*20×	120	158,794	710,602	1	123	
*20×+75%				1	I .	
of excess	111	240,353	1,323,027		143	
Total	12,824	14,027,582	60,015,092	115%	116%	
No Maternity Benefits						
31 day:	1					
10×	308	473,216	1,469,789	112%	113%	
70 day:	42	101 710	201 175	1		
*10×	43	101,718	321,175		111	
Total	351	574,934	1,790,964	112%	112%	

Note.—Dependent maternity benefits are subject to a nine months' waiting period.

^{*}These plans contain 1960 and 1961 experience only.

TABLE 6

EMPLOYEE AND DEPARTMENT HOSPITAL EXPERIENCE
RATIO OF ACTUAL CLAIMS TO 1957 HOSPITAL TABULAR BY YEAR AND PLAN
SIZE GROUPS 0-7 ONLY, EMPLOYEE-RATED INDUSTRIES EXCLUDED

Policy Year and Duration	Number of Experience Units	Daily Benefit Exposed	Actual Claims	Ratio of Actual to 1957 Hos- pital Tabular	Number of Experience Units	Daily Benefit Exposed	Actual Claims	Ratio of Actua to 1957 Hos- pital Tabular
Employee		All 10	× Plans			All 20	X Plans	·
1960: 31 day 70 day 120 day	1,313 212 7	1,463,425 249,972 15,698	2,641,222 433,195 30,722	104% 99 117	942 761 56	1,216,049 868,548 95,373	2,468,027 1,781,096 210,349	110% 110 124
Total	1,532	1,729,095	3,105,139	104%	1,759	2,179,970	4,459,472	111%
1961: 31 day 70 day 120 day	1,073 182 7	1,233,584 238,092 16,024	2,228,364 470,223 29,385	105% 114 112	877 814 60	1,117,985 946,670 112,453	2,260,552 1,959,012 221,413	112% 113 111
Total	1,262	1,487,700	2,727,972	107%	1,751	2,177,108	4,440,977	112%
		All 15	× Plans	1	All 20×+75% of Excess Plans			
1960: 31 day	425 150 8	511,752 218,777 11,744	980,245 413,026 32,257	107% 104 154	342 466 49	437,201 617,630 104,367	976,510 1,405,488 275,701	112% 116 142
Total	583	742,273	1,425,528	107%	857	1,159,198	2,657,699	116%
1961: 31 day 70 day 120 day	385 125 7	478,318 190,671 8,658	895,186 344,850 27,610	106% 101 170	340 498 48	425,415 656,597 98,908	962,277 1,474,721 259,362	119% 115 141
Total	517	677,647	1,267,646	105%	386	1,180,920	2,696,360	118%

86

Policy Year and Duration	Number of Experience Units	Daily Benefit Exposed	Actual Claims	Ratio of Actual to 1957 Hos- pital Tabular	Number of Experience Units	Daily Benefit Exposed	Actual Claims	Ratio of Actual to 1957 Hos- pital Tabular
Dependent		All 10	× Plans			All 20	X Plans	
1960: 31 day 70 day 120 day	1,217 189 6	1,056,882 171,978 4,970	4,017,276 635,459 12,861	107% 104 74	1,109 841 57	989,713 697,372 62,370	4,274,196 3,126,544 256,848	114% 119 111
Total	1,412	1,233,830	4,665,596	106%	2,007	1,749,455	7,657,588	116%
31 day	997 175 7	867,883 192,862 8,428	3,348,949 707,276 32,434	109% 106 113	990 887 62	883,457 779,710 60,428	3,868,485 3,536,229 272,382	118% 123 123
Total	1,179	1,069,173	4,088,659	109%	1,939	1,723,595	7,677,096	121%
		All 15	× Plans	<u>}</u>	All 20×+75% of Excess Plans			
1960: 31 day 70 day 120 day	435 119 12	364,032 129,835 24,597	1,562,965 539,915 78,154	114% 113 89	367 486 53	321,199 490,022 104,966	1,495,728 2,338,818 583,872	117% 120 144
Total	566	518,464	2,181,034	113%	906	916,187	4,418,418	122%
1961: 31 day 70 day 120 day	391 108 10	335,161 132,322 19,162	1,442,166 588,368 65,167	115% 121 94	418 550 56	374,377 520,645 97,827	1,808,691 2,668,380 543,073	123% 130 141
Total	509	486,645	2,095,701	116%	1,024	992,849	5,020,144	129%

by plan and an average miscellaneous benefit which does vary by plan. This average benefit is based upon an actual distribution of miscellaneous benefit charges. No direct evidence is available to indicate whether the variations in actual to tabular by miscellaneous benefit are the result of inflation, the average miscellaneous benefit assumed by the tabular, an increased frequency of claim under plans with larger miscellaneous benefits, or to other factors.

The annual increases in the ratio of actual to tabular indicated by Table 6A are based on the experience (except for a small amount of

TABLE 6A

EMPLOYEE AND DEPENDENT HOSPITAL EXPERIENCE RATIO OF
ACTUAL CLAIMS TO 1957 HOSPITAL TABULAR BY YEAR AND PLAN
SIZE GROUPS 0-7 ONLY, EMPLOYEE-RATED INDUSTRIES EXCLUDED

Policy Year	All 10× Plans	All 15× Plans	All 20× Plans	All 20× +75% of Excess Flans
Employee 1957	90%		94%	
1958	95		99	<i>.</i>
1959	102	[::::::	108	
1960	104	107%	111	116%
1961	107	105	112	118
Dependent)		}
1957	94%		102%	<i>.</i>
1958	94		107	
1959	104		116	
1960	106	113%	116	122%
1961	109	116	121	129
4204	107			1

dependent experience) of plans that contain maternity benefits. No breakdown between maternity and nonmaternity experience is directly available from the annual study. Table 7, which contains combined employee and dependent experience for each of the two latest policy years, indicates experience according to daily benefit groupings. The 1957, 1958, and 1959 experience for Tables 6 and 7 is shown in the 1961 Reports.

Ratios of actual to tabular claims for employee plans grouped according to percentage female for the three latest policy years combined are shown in Table 8. The fairly uniform ratios in this table, although subject to variations other than those due to male and female claim costs, indicate a satisfactory relationship between male and female claim costs in the 1957 Hospital Tabular.

Table 9 shows the results of an analysis of combined employee and dependent experience by state for the three latest policy years combined.

TABLE 7 EMPLOYEE AND DEPENDENT HOSPITAL EXPERIENCE RATIO OF ACTUAL CLAIMS TO 1957 HOSPITAL TABULAR BY DAILY BENEFIT, PLAN AND YEAR SIZE GROUPS 0-7 ONLY, EMPLOYEE-RATED INDUSTRIES EXCLUDED

	Policy Year and Amount of Daily Benefit (Nearer \$1)	Number of Experience Units	Daily Benefit Exposed	Actual Claims	Ratio of Actual to 1957 Hos- pital Tabular	Number of Experience Units	Daily Benefit Exposed	Actual Claims	Ratio of Actual to 1957 Hos- pital Tabular
			All 10	× Plans			All 20	X Plans	· · · · · · · · · · · · · · · · · · ·
89	1960: \$ 5-8. 9-10. 11-12. 13-14. 15-16. 17-20.	1,154 856 486 168 230 50	785,112 861,435 597,663 290,333 334,568 93,814	2,163,511 2,334,139 1,536,479 730,755 789,450 216,401	103% 106 107 103 108 101	566 1,045 970 390 626 169	340,575 900,030 1,069,690 564,536 834,873 219,721	1,267,330 2,984,574 3,365,873 1,662,010 2,255,723 581,550	117% 116 115 114 109 114
	Total	2,944	2,962,925	7,770,735	105%	3,766	3,929,425	12,117,060	114%
	\$ 5-8 9-10 11-12 13-14 15-16 17-20	886 657 402 148 250 98	625,732 690,992 500,893 210,050 352,860 176,346	1,737,914 1,895,502 1,333,125 553,518 875,674 420,898	106% 109 107 110 110	396 848 939 403 784 320	240,794 688,035 988,527 531,329 1,039,788 412,230	903,881 2,325,848 3,228,089 1,614,932 2,931,412 1,113,911	124% 117 120 118 115 113
	Total	2,441	2,556,873	6,816,631	108%	3,690	3,900,703	12,118,073	117%

TABLE 7-Continued

Policy Year and Amount of Daily Benefit (Nearer \$1)	Number of Experience Units	Daily Benefit Exposed	Actual Claims	Ratio of Actual to 1957 Hos- pital Tabular	Number of Experience Units	Daily Benefit Exposed	Actual Claims	Ratio of Actual to 1957 Hos- pital Tabular
		All 15	× Plans			All 20×+75%	of Excess Plans	
1960:				~		404 404		
\$ 5-8	328	217,494	743,812	116%	242	194,103	784,239	124%
9–10	334	332,359	968,590	109	612	658,533	2,539,300	128
11–12	224	289,083	792,534	108	434	476,938	1,531,151	113
13–14	104	139,139	358,702	102	190	267,946	819,066	116
15–16	115	164,084	434,938	116	223	378,423	1,109,175	113
17-20	44	118,578	307,986	111	62	99,442	293,186	114
Total	1,149	1,260,737	3,606,562	110%	1,763	2,075,385	7,076,117	120%
1961: \$ 5-8	247	163,008	575,723	117%	220	152,961	659,640	127%
9–10	281	279,063	848,761	113	664	650,846	2,549,783	130
11-12	208	250,973	660,903	104	448	485,416	1,737,335	124
13–14	111	186,471	534,688	113	202	282,487	940,115	124
15-16	118	158,507	431,473	117	273	430,294	1,334,485	120
17-20	61	126,270	311,799	109	103	171,765	495,146	118
Total	1,026	1,164,292	3,363,347	112%	1,910	2,173,769	7,716,504	125%

EMPLOYEE HOSPITAL 1959-61 POLICY YEARS' EXPERIENCE RATIO OF ACTUAL CLAIMS TO 1957 HOSPITAL TABULAR BY PERCENTAGE FEMALE SIZE GROUPS 0-7 ONLY, NONRATED INDUSTRIES

Female Per Cent	Number of Experience Units	Daily Benefit Exposed	Actual Claims	Ratio of Actual to 1957 Hos- pital Tabular	Number of Experience Units	Daily Benefit Exposed	Actual Claims	Ratio of Actual to 1957 Hos- pital Tabular	
		All 10	× Plans		All 20× Plans				
<11%. 11-21 21-31 31-41 41-51 51-61 61-71 71-81 81-91 91-100. Total.	1,692 926 616 408 318 226 201 134 80 25	1,805,028 898,335 791,507 529,632 407,306 269,332 255,706 203,350 84,748 23,032 	2,943,513 1,542,421 1,351,424 956,546 832,588 568,362 562,355 490,795 203,259 43,071	104% 104 99 100 108 107 106 112 105 80	2,124 1,256 698 447 320 247 167 65 48 11	2,447,039 1,449,160 854,571 522,282 410,458 402,113 240,567 84,035 68,194 22,366	4,689,147 2,846,841 1,668,412 1,079,998 913,966 982,539 617,223 221,538 195,372 49,082	111% 109 105 107 111 117 117 117 114 115 93	
:		All 15	× Plans*		All 20×+75% of Excess Plans*				
<11% 11-21 21-31 31-41 41-51 51-61 61-71 71-81 81-91 91-100	460 247 161 74 53 39 36 16 12	534,920 363,049 203,674 93,598 82,802 55,571 42,592 25,271 17,633 810	926,610 617,995 398,369 194,643 196,398 139,430 88,921 66,257 62,063 2,488	104% 100 107 111 116 121 96 115 147 103	772 400 195 127 98 73 39 23 14	1,014,498 513,304 310,205 161,417 127,424 107,280 39,178 50,146 15,166 1,500	2,230,141 1,133,282 666,400 369,577 341,692 303,954 101,418 146,127 57,399 4,069	119% 116 110 112 127 124 109 119 146 101	
Total	1,100	1,419,920	2,693,174	106%	1,743	2,340,118	5,354,059	117%	

^{*} These plans contain 1960 and 1961 experience only.

The experience is presented in the form of ratios of actual to tabular claims for all exposure size groups combined and for exposure size groups 0–7 only. The groups included in the experience for any state are those groups with 75 per cent or more of the insured employees in that state. Where it was not possible to assign a group to a particular state, it was assigned to a region if 75 per cent or more of the insured employees were in that region.

When interpreting the variations in experience by area, it should be borne in mind that the Hospital Tabulars do not include an adjustment for the expected variation in costs by area. On the other hand, the tabulars do recognize that for any given dollar maximum miscellaneous-fee benefit the average benefit payable will increase as the dollar amount of daily benefit increases. For example, for a \$200 maximum miscellaneous fee benefit the assumed average benefit for a male employee is \$76.33 for a \$10 daily benefit provided and \$83.16 for a \$20 daily benefit provided. Thus, for the 1957 Tabulars to produce reasonably accurate miscellaneous fee claims costs, it is necessary that the amount of daily benefit provided be reasonably related to the level of hospital room-and-board charges. The area variations in experience shown in Table 9 may be due to variations in the relationship of miscellaneous charges to room-and-board charges in an area, variations in the relationship between the amount of daily benefit provided and the level of room-and-board charges in the area, variations in frequency or average duration of hospital confinement, or a combination of these factors. However, since the daily room-andboard benefit provided is limited to a dollar amount and the miscellaneous-fee benefits provided have aggregate dollar maximums, it is possible that a substantial part of the variations in experience for area shown in Table 9 is due to the frequency of hospital confinement.

The volume of hospital experience shown for California is relatively small and may be atypical because of the exclusion of employee hospital plans which are integrated with California UCD hospital benefits.

The results of the area analysis can be presented only as a composite experience of groups having various industry classifications, distributions of exposure by age, and different types of claim administration. Moreover, it should be understood that the experience of any particular area is affected by various social and economic factors and that variations in experience may be chance fluctuations resulting from an insufficient volume of experience. The analysis indicates a higher claim level in the Plains States and the Southwestern States. A lower claim level is indicated in the Middle Atlantic States and the New England States. The experience of some states within a given region varies considerably from the region average. There may also be marked variations within a given state.

TABLE 9

EMPLOYEE AND DEPENDENT 1959-61 POLICY YEARS' EXPERIENCE
ANALYSIS OF HOSPITAL EXPERIENCE BY STATE
EMPLOYEE-RATED INDUSTRIES EXCLUDED

Location			Size Groups ()-7	RATIO OF TO 1957 1 TABL	Hospital
Code	STATE OR REGION	Number of Experience Units	Daily Benefit Exposed	Actual Claims	Size Groups 0-7	All Size Groups
20	Region Connecticut Maine Massachusetts New Hampshire Rhode Island Vermont	25 622 156 1,295 158 34 144	23,095 936,253 197,116 1,532,442 270,546 51,605 168,701	54,212 2,597,269 582,170 3,918,608 622,558 164,053 439,715	98% 110 113 105 96 113 109	98% 109 88 106 94 113 109
	Total	2,434	3,179,758	8,378,585	106%	105%
30 31 32 33 34 35	Region Delaware Dist. Columbia New Jersey New York Pennsylvania	35 16 99 686 1,988 2,359	37,239 22,811 102,713 593,361 2,079,285 2,566,739	114,775 81,537 265,001 1,343,745 5,075,666 6,946,260	113% 138 112 93 100 107	113% 138 112 92 99 108
	Total	5,183	5,402,148	13,826,984	103%	103%
40. 41. 42. 43. 44. 45. 46.		124 2,008 1,280 199 1,353 1,579 581 317	181,491 2,071,728 1,422,601 154,991 1,578,627 2,115,297 713,726 279,273	538,906 6,038,641 4,005,105 428,868 5,152,693 6,285,462 2,468,525 894,535	109% 108 106 110 127 113 127 115	118% 105 104 115 126 112 123 115
i	Total	7,441	8,517,734	25,812,735	114%	112%
50	Region Iowa Kansas Minnesota Missouri Nebraska North Dakota South Dakota	37 418 287 241 629 263 25 29	44,375 302,748 220,351 164,135 549,248 223,618 18,072 11,059	169,044 1,102,906 742,939 588,167 1,850,716 707,543 68,864 45,713	135% 124 124 126 118 115 146* 137*	135% 128 130 122 119 115 146* 137*
	Total	1,929	1,533,606	5,275,892	122%	123%
60		14 101 57 21 12 71 19	9,525 89,512 55,514 22,551 21,372 77,436 11,352	29,001 276,720 171,218 98,778 65,296 167,770 37,173	127%* 125 109 147 129 90 114*	127%* 116 108 147 129 90 114*
	Total	295	287,262	845,956	115%	111%

^{*} Less than \$50,000 of tabular claims.

TABLE 9—Continued

Location	Carrie		Size Groups (RATIO OF ACTUAL TO 1957 HOSPITAL TABULAR		
Code	STATE OR REGION	Number of Experience Units	Daily Benefit Exposed	Actual Claims	Size Groups 0-7	All Size Groups
70 71 72 73	Region California Oregon Washington	11 435 79 78	20,633 414,938 50,913 79,127	62,105 1,297,820 120,909 235,284	109% 112 92 103	109% 115 92 99
	Total	603	565,611	1,716,118	109%	111%
80	Region Arizona Arkansas Louisiana New Mexico Oklahoma Texas	62 146 298 402 68 270 1,257	47,900 136,515 230,840 225,513 53,449 179,436 1,144,084	188,031 503,414 773,066 900,291 199,399 649,502 4,073,128	137% 135 121 141 118 121 126	137% 125 120 141 118 122 127
	Total	2,503	2,017,767	7,286,831	127%	127%
90. 91. 92. 93. 94. 95. 96. 97. 98.	Region Alabama Florida Georgia Maryland Mississippi North Carolina South Carolina Tennessee Virginia	125 192 513 766 450 165 817 234 398 768	209, 219 183, 589 515, 923 748, 929 430, 603 94, 661 709, 921 223, 874 367, 315 681, 267	619,194 628,550 1,629,237 2,328,694 1,190,703 343,656 2,274,796 684,786 1,158,378 1,943,614	105% 130 115 115 104 129 117 120 119 113	104% 130 115 116 103 129 122 120 123 110
j	Total	4,428	4,165,301	12,801,608	115%	115%
1	All other†	1,070	1,447,053	4,670,893	115%	112%
	Total all loca- tions	25,886	27,116,240	80,615,602	113%	112%

t Less than 75% of employees in one state or region.

SURGICAL

The basic results of the study of Surgical Expense insurance are presented in Table 10 for the three latest policy years combined. The results appear to indicate that dependent plans with no obstetrical benefits have a nonmaternity claim level considerably higher than plans that provide obstetrical benefits. This difference may be due to the age of the group or other factors not measured by the tabular.

The trend of experience for employee and dependent experience is indicated in Table 11 for each of the five latest policy years in the form of ratios of actual to 1957 Tabular claims. Employee experience has remained fairly constant for the last three years, after increases in both 1958 and 1959. Dependent experience indicates a modest increase in cost over 1960.

TABLE 10

COMBINED 1959-61 POLICY YEARS' EXPERIENCE
EMPLOYEE AND DEPENDENT GROUP SURGICAL EXPENSE INSURANCE
ALL SIZE GROUPS, ALL INDUSTRIES

Plan Identification	Number of Experience Units	Maximum Indemnity Exposed per \$150 or \$200 Basic Unit	Actual Claims	Ratio of Actual to 1957 Surgical Tabular
Employee With obstetrical benefits \$150 schedule \$200 schedule	5,896	1,648,993	7,340,819	111%
	19,715	5,124,254	30,020,066	110
Total	25,611	6,773,247	37,360,885	110%
Dependent With obstetrical benefits \$150 schedule \$200 schedule	3,416	750,237	9,767,531	105%
	18,352	3,024,169	47,671,551	105
Total	21,768	3,774,406	57,439,082	105%
No obstetrical benefits	403	109,596	1,010,149	120%
\$150 schedule	2,870	447,775	5,780,016	126
\$200 schedule	3,273	557,371	6,790,165	125%

Note. - Dependent obstetrical benefits are subject to a nine months' waiting period.

Ratios of actual to tabular claims for employee plans grouped according to percentage female for the three latest policy years combined are shown in Table 12. The ratios in this table, although subject to variations other than those of male and female claim costs, indicate that the 1957 Surgical Tabular for male employee is relatively low, while that for female employee is relatively high.

Ratios of actual to tabular claims for plans grouped according to size of the schedule maximum are shown in Table 13 for the three latest policy years combined. The ratios for the \$150 schedule are somewhat erratic, although they generally increase as the size of the schedule maximum

increases. For the \$200 schedule, the ratios clearly increase. The increase in ratios of actual to tabular by size of schedule maximum persists in most geographic regions when the \$200 schedule experience is tabulated by region.

Table 14 contains an analysis of surgical experience by state corresponding to Table 9 for hospital experience. Some of the warnings given with respect to the interpretation of the hospital experience by area also apply to the surgical experience. The Committee would like to point out

TABLE 11

EMPLOYEE AND DEPENDENT SURGICAL EXPERIENCE
RATIO OF ACTUAL CLAIMS TO 1957 SURGICAL TABULAR BY PLAN AND YEAR
SIZE GROUPS 0-7 ONLY, ALL INDUSTRIES

1		\$150 S	CHEDULE			\$200 Sc	HEDULE	
Policy Year	Number of Ex- perience Units	Maximum Indemnity Exposed per \$150 Basic Unit	Actual Claims	Ratio of Actual to 1957 Sur- gical Tabular	Number of Ex- perience Units	Maximum Indemnity Exposed per \$200 Basic Unit	Actual Claims	Ratio of Actual to 1957 Sur- gical Tabular
			Employe	ee, with	Obstetrica	l Benefits		
1957 1958 1959 1960 1961	3,466 2,358 2,137 2,090 1,543	634,950 422,219 389,772 402,255 299,311	2,657,390 1,786,986 1,732,522 1,781,763 1,292,405	103 109 109	7,832 6,127 6,621 7,125 5,629	1,372,404 1,006,267 1,147,791 1,305,363 1,042,947		103 107 106
			Depende	nt, with	Obstetrica	l Benefits		
1957 1958 1959 1960 1961	1,937 1,335 1,207 1,248 919	264,337 191,401 179,727 203,616 150,417	3,282,214 2,350,427 2,316,635 2,535,782 1,886,306	99 104 100	6,880 5,188 5,833 6,863 5,504	609,919 716,638 871,639	13,413,743 9,301,983 11,205,245 13,575,316 11,869,868	102 104 104
!			Depende	nt, No	Obstetrical	Benefits		
1957 1958 1959 1960	270 151 134 141 118	40,630 20,865 24,675 25,015 24,826	335,249 171,911 196,981 236,412 229,797	108% 107 104 123 121	1,037 722 803 1,166 869	127,180 69,196 86,135 118,881 103,167	1,534,456 843,423 1,093,695 1,420,012 1,310,142	119

that the tabulars do not include a factor for variations in claim cost by area or by amount of schedule maximum.

The surgical analysis by area indicates a higher claim level in the Mountain States, the Pacific States, and the Southwestern States. A lower claim level is indicated in the Middle Atlantic States and the New England States. The experience of some states within a given region varies considerably from the region average. There may also be marked variations within a given state.

TABLE 12

EMPLOYEE SURGICAL 1959-61 POLICY YEARS' EXPERIENCE
RATIO OF ACTUAL CLAIMS TO 1957 SURGICAL TABULAR
BY PERCENTAGE FEMALE
SIZE GROUPS 0-7 ONLY, ALL INDUSTRIES

Female Per Cent	Number of Experience Units	Maximum Indem- nity Exposed per Basic Unit	Actual Claims	Ratio of Ac- tual to 1957 Surgical Tabular
		\$150 Sci	hedule	
<11% 11-21 21-31 31-41 41-51 51-61 61-71 71-81 81-91 91-100 Total	2,167 1,130 7777 549 380 268 233 144 93 29	394,326 219,612 138,778 108,197 72,571 53,189 51,559 25,470 23,601 4,035	1,438,182 893,552 611,606 534,290 359,506 303,100 313,202 158,157 172,113 22,982 4,806,690	117% 113 107 107 97 102 100 94 103 75
		\$200 Sci	hedule	
<11%	8,033 4,395 2,423 1,465 1,092 848 570 291 200 58	1,457,436 749,766 444,665 289,612 191,637 149,676 98,041 73,033 32,211 10,024	7,409,613 4,105,809 2,584,958 1,863,329 1,354,816 1,089,406 798,918 561,697 277,021 81,040	111% 108 103 105 106 101 105 93 98 87
Total	19,375	3,496,101	20,126,607	107%

TABLE 13

EMPLOYEE AND DEPENDENT SURGICAL 1959-61 POLICY YEARS' EXPERIENCE RATIO OF ACTUAL CLAIMS TO 1957 SURGICAL TABULAR BY MAXIMUM BENEFIT SIZE GROUPS 0-7 ONLY, ALL INDUSTRIES

		Емп	PLOYEE			DEI	PENDENT	
Maximum Benefit	Number of Experience Units	Maximum Indemnity Exposed per Basic Unit	Actual Claims	Ratio of Actual to 1957 Sur- gical Tabular	Number of Experience Units	Maximum Indemnity Exposed per Basic Unit	Actual Claims	Ratio of Actua to 1957 Sur- gical Tabular
		<u>' </u>		\$150 Sc	hedule			
\$100–149	104 3,001 694 1,067 714	17,960 358,042 162,005 271,184 241,984	94,754 1,618,736 729,836 1,208,160 970,784	111% 104 109 114 107	98 1,621 506 782 531	14,104 168,953 96,135 150,570 152,179	178,855 2,040,203 1,276,497 1,847,942 1,759,931	108% 100 109 106 98
Total	5,580	1,051,175	4,622,270	108%	3,538	581,941	7,103,428	103%
Unknown	190	40,163	184,420	110%	229	26,335	298,485	99%
		<u> </u>	<u>'</u>	\$200 Sc	hedule	 	·	
\$100–199 200 201–299 300 301–600	343 8,145 3,360 6,504 177	52,949 1,091,004 705,395 1,398,512 64,351	290,515 6,260,049 3,988,142 8,193,248 397,916	95% 104 106 110 117	425 8,727 3,646 6,803 227	37,546 828,766 549,129 1,002,859 57,319	531,585 12,836,516 8,637,898 15,628,011 864,502	98% 106 107 109 115
Total	18,529	3,312,211	19,129,870	107%	19.828	2,475,619	38,498,512	107%
Unknown	846	183,890	996,737	104%	1.210	156,176	1,975,766	89%

TABLE 14

EMPLOYEE AND DEPENDENT 1959-61 POLICY YEARS' EXPERIENCE
ANALYSIS OF SURGICAL EXPERIENCE BY STATE
ALL INDUSTRIES

			Size Groups 0	-7	I	ACTUAL SURGICAL ULAR
Location Code	STATE OF REGION	Number of Experience Units	Maximum Surgical Indemnity Exposed	Actual Claims	Size Groups 0-7	All Size Groups
20 21 22 23 24 25 26	Region Connecticut Maine Massachusetts New Hampshire Rhode Island Vermont	61 1,092 232 2,116 234 109 232	10,700 258,249 41,398 356,159 65,066 19,594 34,502	73,554 2,293,498 340,307 3,059,244 524,199 139,825 273,410	88% 99 105 102 97 101 104	88% 101 100 104 97 101 104
	Total	4,076	785,668	6,704,037	100%	102%
30	Region Delaware Dist. Columbia New Jersey New York Pennsylvania Total Region Illinois Indiana Kentucky Michigan Ohio Wisconsin West Virginia	62 28 187 1,034 3,489 4,111 8,911 248 4,389 2,109 343 2,670 3,238 1,074 524	14,320 2,170 28,324 123,554 519,457 658,259 1,346,084 55,719 711,565 318,522 36,610 428,605 646,355 200,171 59,152	119,306 17,037 226,136 909,459 4,115,422 5,710,035 11,097,395 612,296 5,789,311 3,027,796 316,825 4,572,283 5,944,723 2,153,589 485,566	97% 98* 103 90 96 101 98% 117% 93 108 101 117 104 113 101	97% 98* 107 92 100 102 100% 116% 96 101 118 106 115 101
**********	Total	14,595	2,456,699	22,902,389	105%	106%
50 51 52 53 54 55 56 57	Region Iowa Kansas Minnesota Missouri Nebraska North Dakota South Dakota	70 893 578 669 1,093 422 97 101	21,550 109,531 70,501 93,023 165,887 46,546 8,779 9,113	242,437 1,118,501 729,451 1,120,885 1,529,716 471,677 76,026 97,896	122% 113 110 118 101 111 100 104	122% 113 118 119 100 111 100 104
	Total	3,923	524,930	5,386,589	110%	110%

^{*} Less than \$50,000 of tabular claims.

TABLE 14-Continued

			Size Groups 0	-7	RATIO OF TO 1957 S TABI	SURGICAL
LOCATION CODE	STATE OR REGION	Number of Experience Units	Maximum Surgical Indemnity Exposed	Actual Claims	Size Groups 0-7	All Size Groups
60	Region Colorado Idaho Montana Nevada Utah Wyoming	19 192 116 56 64 221 26	4,355 34,616 16,444 10,898 8,393 31,843 2,913	35,653 375,106 172,438 124,473 77,879 353,300 33,072	114%* 122 114 114 94 124 114*	114%* 121 112 125 94 124 114*
	Total	694	109,462	1,171,921	118%	118%
70. 71 72 73	Region California Oregon Washington	32 3,337 209 223	7,876 456,449 23,969 35,609	79,706 4,837,000 265,524 374,099	116 ^C ; 120 121 114	116% 124 122 107
	Total	3,801	523,903	5,556,329	120%	123%
80	Region Arizona Arkansas Louisiana New Mexico Oklahoma Texas	101 269 471 783 153 572 2,757	15,288 38,884 55,794 87,414 22,057 65,508 394,568	151,601 435,603 520,382 943,021 239,375 708,939 3,909,871	113% 125 110 123 101 121 117	112% 134 109 125 104 122 119
	Total	5,106	677,866	6,908,792	118%	120%
90	Region Alabama Florida Georgia Maryland Mississippi North Carolina South Carolina Tennessee	153 332 1,067 960 766 359 1,190 339 332	33,135 71,616 137,815 122,705 122,932 36,133 129,324 48,898 54,083	280,926 687,329 1,366,923 1,107,828 1,040,472 353,285 1,178,230 433,248 474,836	92% 112 113 107 101 106 104 113 117 100	93% 115 114 108 103 106 106 114 116
<i>39</i>	Virginia Total	$\frac{1,237}{6,735}$	138,928 895,569	$\frac{1,123,090}{8,046,167}$	106%	108%
	All other†	2,109	505,682	5,035,869	108%	111%
	Total all loca- tions	49,950	7,827,510	72,809,488	106%	108%

^{*} Less than \$50,000 of tabular claims.

[†] Less than 75 per cent of employees in one state or region.

The surgical variations in ratios of actual to tabular claims by area are probably due primarily to the variation in claim frequencies, since nearly all claim payments are for the maximum amount allowed for the procedure performed. If frequencies are the same, minor variations in the ratios by area may still occur because of differeing frequency distributions of procedures performed, provided such distributions result in different average benefits.

TABLE 15
1947–49 WEEKLY INDEMNITY TABULAR
ANNUAL CLAIM COSTS PER \$10 WEEKLY BENEFIT

Plan	Male	Female (with Obstetrical Benefit)
1–4–13	\$5.77	\$13.09
4-4-13	5.69	12.91
1-8-13	4.99	11.40
8-8-13	4.81	11.01
1-4-26	7.32	14.56
4-4-26	7.23	14.37
1-8-26	6.50	12.81
8-8-26	6.31	12.41