

## TRANSACTIONS OF SOCIETY OF ACTUARIES 1965 REPORTS

### II. EXPERIENCE UNDER INDIVIDUAL MEDICAL EXPENSE POLICIES, 1962-63

**T**HIS report presents an analysis of morbidity experience under individual medical expense policies during calendar years 1962 and 1963. The experience on lives covered under family and individual policies was combined. No differentiation was made by the types of renewal provision contained in the contracts or followed in their administration. Payments made to the end of the calendar year following the year in which a claim was incurred are included; estimates of future payments on claims pending at the end of this period are included only on major medical claims.

Policies without a deductible were analyzed separately from those with a deductible, and, as to the latter, account was taken of the amount of the deductible. Data on policies with a deductible were submitted only if the deductible applied to all benefits under the policy except the maternity benefit. Only data on claims which were in excess of the deductible are included; claim data reflect amounts of eligible medical expenses *before* the application of the deductible, except in the study of major medical benefits. The method of calculation of policy claim costs for a combination of benefits involving a deductible is outlined in the section on "Deductible Amounts" (p. 108).

Excluded from the investigation were:

1. Franchise and wholesale insurance.
2. Conversions from group insurance.
3. Policies issued with an extra premium unless such policies constituted a very small proportion of the contributing company's total business. (Policies issued with a medical impairment rider, but without an extra premium, were included in the study.)
4. Policies issued at senior ages on a mass enrollment basis, without evidence of insurability.

In the sections on frequency of hospitalization and average amount of hospital claim, only in-patient claims are included. The section on surgery, however, includes data on surgery performed both in and out of the hospital, and the section on major medical insurance includes data on services performed both in and out of the hospital.

Maternity claims were excluded except in the section dealing specifically with maternity expense benefits.

Unless otherwise indicated, data shown are for all durations combined. The duration is a calendar-year duration rather than a policy-year duration and is determined by subtracting the calendar year of issue from the calendar year of experience. Companies were requested not to submit data for duration 0 (the calendar year in which a policy was issued).

#### CONTRIBUTING COMPANIES

The following 24 companies contributed data to one or more sections of this report:

Connecticut General Life Insurance Company  
Continental Assurance Company  
Continental Casualty Company  
Equitable Life Assurance Society of the United States  
General American Life Insurance Company  
Great-West Life Assurance Company  
John Hancock Mutual Life Insurance Company  
Liberty Life Insurance Company  
Life Insurance Company of Virginia  
Lincoln National Life Insurance Company  
Metropolitan Life Insurance Company  
Monarch Life Insurance Company  
Mutual Life Insurance Company of New York  
Mutual of Omaha Insurance Company  
New York Life Insurance Company  
Occidental Life Insurance Company of California  
Pacific Mutual Life Insurance Company  
Provident Mutual Life Insurance Company of Philadelphia  
Prudential Insurance Company of America  
Standard Insurance Company  
Travelers Insurance Company  
Union Mutual Life Insurance Company  
Western and Southern Life Insurance Company  
Woodmen Accident and Life Company

#### HOSPITAL ROOM AND BOARD BENEFIT

Twenty-one companies contributed experience to this section of the study. The volume of claims, shown in the accompanying tabulation by maximum benefit period, was slightly more than twice as large as that under the 1960-61 experience.

Maximum Benefit Period Number of Days	Daily Hospital Benefit In Force on Hospitaliza- tion Claims
28.....	\$ 11,390
30.....	1,047,232
31.....	323,666
35.....	971,126
42.....	307,966
45.....	85,577
50.....	66,059
60.....	37,518
70.....	77,938
75.....	792
90.....	1,178,152
100.....	835,566
120.....	810,812
150.....	103,028
180.....	165,385
240.....	87,675
365.....	1,481,941
500.....	1,777,975
Total.....	<u>\$9,369,798</u>

Frequencies of hospitalization and average claims and claim costs per \$1 of daily hospital benefits were developed in the same manner as in the previous study (*TSA, 1963 Reports*, pp. 136-38).

Table 1 shows, for policies with no deductible, the frequency of hospitalization and the adjusted average claim and average claim costs per \$1 of daily hospital benefit for experience grouped into maximum benefit periods of 31, 90, and 365 days. Because the data are not homogeneous, the values in Table 1 are not too smooth. In general, the claim cost increases as the maximum benefit period increases, and the claim cost for each maximum benefit period increases as the age increases. Below age 55 the claim cost for males is lower and for age 55 and above higher than for females.

Table 2 shows, for policies with a \$25 or \$50 deductible, as well as policies with no deductible, comparable data but with all experience adjusted to a 90-day maximum benefit period. If the data entering this table were homogeneous, the frequency of hospitalization should be smaller, the average claim larger, and the claim cost smaller on policies with a \$50 deductible than on policies with no deductible, and the experience on policies with a \$25 deductible should lie between the other two. The re-

TABLE 1

1962-63 EXPERIENCE UNDER INDIVIDUALLY UNDERWRITTEN POLICIES  
 FREQUENCY OF HOSPITALIZATION; AVERAGE CLAIM AND  
 CLAIM COST PER \$1 OF DAILY HOSPITAL BENEFIT  
 NO DEDUCTIBLE

ATTAINED AGE	FREQUENCY OF HOSPITALIZATION	AVERAGE CLAIM FOR MAXIMUM BENEFIT PERIOD OF			CLAIM COST FOR MAXIMUM BENEFIT PERIOD OF		
		31 Days	90 Days	365 Days	31 Days	90 Days	365 Days
Male							
15-19.....	.1001	\$ 5.52	\$ 5.61	\$ 5.31	\$ .553	\$ .562	\$ .532
20-24.....	.0702	5.64	5.92	6.69	.396	.416	.470
25-29.....	.0658	5.62	6.24	6.90	.370	.411	.454
30-34.....	.0718	6.15	6.59	7.04	.442	.473	.505
35-39.....	.0823	6.70	7.44	7.36	.551	.612	.606
40-44.....	.0925	7.31	7.75	8.09	.676	.717	.748
45-49.....	.1061	7.94	8.61	8.79	.842	.914	.933
50-54.....	.1233	8.62	9.52	9.42	1.063	1.174	1.161
55-59.....	.1365	9.68	10.68	10.67	1.321	1.458	1.456
60-64.....	.1507	10.30	11.24	11.32	1.552	1.694	1.706
65-69.....	.1616	10.79	11.80	12.16	1.744	1.907	1.965
70-74.....	.1788	11.66	14.24	14.51	2.085	2.546	2.594
75-79.....	.2290	11.97	13.90	14.86	2.741	3.183	3.403
Female							
15-19.....	.1098	\$ 4.54	\$ 4.75	\$ 5.50	\$ .498	\$ .522	\$ .604
20-24.....	.0972	5.41	5.90	5.72	.526	.573	.556
25-29.....	.1092	6.22	6.77	6.44	.679	.739	.703
30-34.....	.1230	6.78	7.39	6.90	.834	.909	.849
35-39.....	.1378	7.35	7.77	7.77	1.013	1.071	1.071
40-44.....	.1490	7.59	8.12	8.22	1.131	1.210	1.225
45-49.....	.1522	8.25	8.70	8.60	1.256	1.324	1.309
50-54.....	.1459	8.83	9.33	9.24	1.288	1.361	1.348
55-59.....	.1381	9.39	10.17	9.84	1.297	1.404	1.359
60-64.....	.1381	10.02	10.92	10.88	1.384	1.508	1.503
65-69.....	.1480	10.82	11.77	11.99	1.601	1.742	1.775
70-74.....	.1626	11.91	15.33	15.76	1.937	2.493	2.563
75-79.....	.1989	12.63	15.35	16.80	2.512	3.053	3.342
Child							
All ages.....	.0846	\$ 4.08	\$ 4.27	\$ 4.27	\$ .345	\$ .361	\$ .361

TABLE 2

1962-63 EXPERIENCE UNDER INDIVIDUALLY UNDERWRITTEN POLICIES  
 FREQUENCY OF HOSPITALIZATION; AVERAGE CLAIM AND  
 CLAIM COST PER \$1 OF DAILY HOSPITAL BENEFIT  
 ADJUSTED TO A MAXIMUM BENEFIT PERIOD OF 90 DAYS

ATTAINED AGE	NO DEDUCTIBLE			\$25 DEDUCTIBLE			\$50 DEDUCTIBLE		
	Fre- quency	Average Claim	Claim Cost	Fre- quency	Average Claim	Claim Cost	Fre- quency	Average Claim	Claim Cost
Male									
15-19 . . .	.1001	\$ 5.38	\$ .539	.0967	\$ 4.82	\$ .466	.0502	\$ 7.50	\$ .377
20-24 . . .	.0702	6.14	.431	.0566	7.31	.414	.0498	6.87	.342
25-29 . . .	.0658	6.31	.415	.0573	7.06	.405	.0454	6.09	.276
30-34 . . .	.0718	6.63	.476	.0581	6.39	.371	.0494	6.42	.317
35-39 . . .	.0823	7.24	.596	.0785	7.86	.617	.0543	7.40	.402
40-44 . . .	.0925	7.77	.719	.0907	7.97	.723	.0659	7.45	.491
45-49 . . .	.1061	8.52	.904	.1016	8.38	.851	.0867	8.55	.741
50-54 . . .	.1233	9.31	1.148	.1097	9.86	1.082	.0849	9.90	.841
55-59 . . .	.1365	10.51	1.435	.1340	11.75	1.575	.1095	11.45	1.254
60-64 . . .	.1507	11.21	1.689	.1424	11.51	1.639	.1137	12.32	1.401
65-69 . . .	.1616	11.83	1.912	.1574	11.88	1.870	.1240	12.46	1.545
70-74 . . .	.1788	13.59	2.430	.1817	14.34	2.606	.1464	13.57	1.987
75-79 . . .	.2290	13.70	3.137	.2478	13.61	3.373	.1356	15.01	2.035
Female									
15-19 . . .	.1098	\$ 4.98	\$ .547	.1122	\$ 5.78	\$ .649	.1304	\$ 5.96	\$ .777
20-24 . . .	.0972	5.67	.551	.0859	5.92	.509	.0722	7.15	.516
25-29 . . .	.1092	6.49	.709	.0962	6.74	.648	.0775	6.84	.530
30-34 . . .	.1230	7.07	.870	.1196	7.51	.898	.0885	7.41	.656
35-39 . . .	.1378	7.66	1.056	.1374	7.96	1.094	.0993	7.98	.792
40-44 . . .	.1490	8.02	1.195	.1444	8.11	1.171	.1132	8.05	.911
45-49 . . .	.1522	8.57	1.304	.1467	8.59	1.260	.1223	8.60	1.052
50-54 . . .	.1459	9.20	1.342	.1328	14.06	1.867	.1109	9.13	1.013
55-59 . . .	.1381	9.91	1.369	.1478	10.28	1.519	.1087	10.90	1.185
60-64 . . .	.1381	10.76	1.486	.1360	11.20	1.523	.1159	11.63	1.348
65-69 . . .	.1480	11.66	1.726	.1525	11.49	1.752	.1131	12.39	1.401
70-74 . . .	.1626	14.33	2.330	.1633	14.20	2.319	.1199	13.38	1.604
75-79 . . .	.1989	14.92	2.968	.2015	17.36	3.498	.1427	14.69	2.096
Child									
Allages . .	.0846	\$ 4.20	\$ .355	.0768	\$ 4.51	\$ .346	.0617	\$ 4.38	\$ .270

NOTE.—For policies with a deductible, average claim and claim cost reflect eligible expenses *before* application of the deductible; frequency involves only claims where total eligible policy expenses exceed the policy deductible.

sults for the \$50 deductible tend to follow this pattern, but the lack of homogeneity and small volume of experience result in some inconsistencies, especially for the \$25 deductible. As an indication of the relations shown by homogeneous data, reference should be made to the experience of one large company which appears in the *TSA, 1963 Reports*, page 141, Table 3.

Table 3 compares the experience shown in Table 2 for policies with no deductible with the 1960-61 Intercompany Experience and with the 1956 Intercompany Hospital Table. For adults, the frequencies, average claims, and claim costs for 1962-63 are almost always higher than those for 1960-61, while for children they have decreased. Ratios of 1962-63 experience to 1960-61 experience for all ages combined are shown in the accompanying tabulation.

	Frequencies	Average Claims	Claim Costs
Adult males.....	103%	101%	105%
Adult females.....	104	102	106
Child.....	98	98	96

An analysis by duration was made of the experience on policies with no deductible. Actual claim costs related to claim costs for duration 3 and later are shown in the accompanying tabulation. Although these results

Duration	Adult Males	Adult Females	Total Adults	Children	Total
1.....	82%	87%	85%	98%	86%
2.....	91	92	92	97	92
3 and later.....	100	100	100	100	100
All durations.....	94%	95%	95%	99%	95%

are quite similar to the pattern shown by the 1960-61 experience, it should be noted that considerable variation exists by company.

Table 4 contains a graduation of the crude frequencies and average claims of Table 2 for policies with no deductible and claim costs derived as a product of these functions.

#### MISCELLANEOUS HOSPITAL EXPENSE BENEFIT

Nineteen companies contributed experience to this section of the study. Although there were over 460,000 claims, the number of different maxi-

TABLE 3

1962-63 EXPERIENCE UNDER INDIVIDUALLY UNDERWRITTEN POLICIES  
 COMPARISON WITH 1960-61 INTERCOMPANY EXPERIENCE AND  
 1956 INTERCOMPANY HOSPITAL TABLE  
 FREQUENCY OF HOSPITALIZATION; AVERAGE CLAIM AND  
 CLAIM COST PER \$1 OF DAILY HOSPITAL BENEFIT  
 NO DEDUCTIBLE—MAXIMUM BENEFIT PERIOD OF 90 DAYS

ATTAINED AGE	1962-63 INTERCOMPANY EXPERIENCE			RATIO OF 1962-63 EXPERIENCE TO 1960-61 EXPERIENCE			RATIO OF 1962-63 EXPERIENCE TO 1956 TABLE		
	Fre- quency	Average Claim	Claim Cost	Fre- quency	Average Claim	Claim Cost	Fre- quency	Average Claim	Claim Cost
Male									
15-19 . . .	.1001	\$ 5.38	\$ .539	1.45	.95	1.38	1.28	.72	.92
20-24 . . .	.0702	6.14	.431	1.02	1.00	1.02	.90	.82	.74
25-29 . . .	.0658	6.31	.415	1.01	1.00	1.01	.87	.83	.72
30-34 . . .	.0718	6.63	.476	1.03	1.03	1.06	.96	.83	.79
35-39 . . .	.0823	7.24	.596	1.02	1.03	1.05	1.03	.82	.84
40-44 . . .	.0925	7.77	.719	1.04	1.02	1.05	1.04	.78	.81
45-49 . . .	.1061	8.52	.904	1.00	1.05	1.05	1.06	.76	.80
50-54 . . .	.1233	9.31	1.148	1.03	.99	1.02	1.07	.76	.82
55-59 . . .	.1365	10.51	1.435	1.02	1.00	1.02	1.02	.84	.85
60-64 . . .	.1507	11.21	1.689	1.04	.97	1.02	.98	.87	.85
65-69 . . .	.1616	11.83	1.912	1.06	1.02	1.08	.97	.86	.83
70-74 . . .	.1788	13.59	2.430	1.05	1.09	1.14	1.03	.79	.81
75-79 . . .	.2290	13.70	3.137	1.07	.98	1.04	1.31	.59	.77
Female									
15-19 . . .	.1098	\$ 4.98	\$ .547	1.19	.95	1.13	1.17	.69	.81
20-24 . . .	.0972	5.67	.551	1.00	1.02	1.02	.98	.77	.75
25-29 . . .	.1092	6.49	.709	1.02	1.04	1.06	.98	.84	.82
30-34 . . .	.1230	7.07	.870	1.04	1.04	1.07	1.01	.86	.87
35-39 . . .	.1378	7.66	1.056	1.03	1.05	1.08	1.06	.87	.92
40-44 . . .	.1490	8.02	1.195	1.07	1.00	1.07	1.08	.86	.92
45-49 . . .	.1522	8.57	1.304	1.03	1.02	1.05	1.05	.86	.90
50-54 . . .	.1459	9.20	1.342	1.03	1.03	1.06	.96	.86	.83
55-59 . . .	.1381	9.91	1.369	1.03	1.00	1.03	.88	.87	.76
60-64 . . .	.1381	10.76	1.486	1.01	.99	1.01	.85	.87	.74
65-69 . . .	.1480	11.66	1.726	1.07	1.01	1.08	.88	.85	.75
70-74 . . .	.1626	14.33	2.330	1.07	1.09	1.17	.94	.83	.78
75-79 . . .	.1989	14.92	2.968	1.10	.93	1.02	1.14	.64	.73
Child									
All ages . . .	.0846	\$ 4.20	\$ .355	.98	.98	.96	Not applicable		

TABLE 4  
 1962-63 EXPERIENCE UNDER INDIVIDUALLY  
 UNDERWRITTEN POLICIES  
 GRADUATED FREQUENCY OF HOSPITALIZATION;  
 GRADUATED AVERAGE CLAIM AND CLAIM COST  
 PER \$1 OF DAILY HOSPITAL BENEFIT  
 NO DEDUCTIBLE—MAXIMUM BENEFIT  
 PERIOD OF 90 DAYS

Attained Age	Frequency	Average Claim	Claim Cost
Male			
15-19 . . . . .	.0957	\$ 5.45	\$ .522
20-24 . . . . .	.0751	6.00	.451
25-29 . . . . .	.0673	6.34	.427
30-34 . . . . .	.0712	6.70	.477
35-39 . . . . .	.0809	7.20	.582
40-44 . . . . .	.0928	7.79	.723
45-49 . . . . .	.1068	8.52	.910
50-54 . . . . .	.1221	9.39	1.147
55-59 . . . . .	.1359	10.37	1.409
60-64 . . . . .	.1486	11.22	1.667
65-69 . . . . .	.1625	12.11	1.968
70-74 . . . . .	.1858	13.21	2.454
75-79 . . . . .	.2239	13.86	3.103
Female			
15-19 . . . . .	.1061	\$ 4.98	\$ .528
20-24 . . . . .	.1024	5.71	.585
25-29 . . . . .	.1095	6.45	.706
30-34 . . . . .	.1229	7.07	.869
35-39 . . . . .	.1373	7.61	1.045
40-44 . . . . .	.1476	8.06	1.190
45-49 . . . . .	.1502	8.57	1.287
50-54 . . . . .	.1455	9.17	1.334
55-59 . . . . .	.1394	9.88	1.377
60-64 . . . . .	.1391	10.78	1.499
65-69 . . . . .	.1479	12.05	1.782
70-74 . . . . .	.1664	13.82	2.300
75-79 . . . . .	.1953	15.09	2.947
Child			
All ages . . . . .	.0846	\$ 4.20	\$ .355



imum benefit amounts made it difficult to incorporate all the data into tables which would be meaningful and useful. It was, therefore, deemed necessary, as was the case with the 1960-61 study, to build the study around the \$100 maximum benefit.

Table 5 shows the average claim for a \$100 maximum benefit on policies with no deductible. Graduated average claims are also shown and are used as a basis of comparison in subsequent tables and analyses.

Table 6 shows the graduated frequencies of hospitalization, the graduated average claims, and the claim costs for a \$100 maximum benefit. The frequencies of hospitalization are the same as those shown in Table 4, and the average claims are the same as those shown in Table 5. The claim cost is the product of the frequency and the average claim.

Table 7 shows a comparison of the actual 1962-63 experience for a \$100 maximum benefit on policies with no deductible with the corresponding 1960-61 experience and with the 1956 Intercompany Hospital Table. The frequencies of hospitalization are the same as those shown in Table 3. The claim costs for the 1962-63 experience are about 7 per cent higher than for the 1960-61 experience.

Table 8 shows the relationship of average claims for other maximum benefit amounts for which there were two hundred or more claims to those for the \$100 maximum benefit amount. It also indicates to what extent each experience cell consists of the experience of a single company. The \$100 maximum benefit cell was the only cell with a sufficiently large number of claims to permit detailed analyses for which the largest single contribution constituted less than 90 per cent of the total.

Table 9 indicates the range in the level of average claims experienced for the \$100 maximum benefit amount among companies offering the maximum. The level of the ratios of actual to tabular for males, females, and children for a single company is generally consistent but varies considerably from one company to another.

Table 10 shows that for each age group the average claim increases as the maximum amount increases. The ratios in the table were derived from data obtained by truncating the claims of a single company (which had a \$1,225 maximum for this benefit) at \$100, \$150, \$200, \$250, and \$300.

Tables 11 and 12 present experience showing the variation in average claims by amount of deductible. There were several maximum benefit amounts for which the \$0 and \$25 deductible cells contain sufficient experience for analysis in Table 11. Table 12 is the experience of one company for a number of maximum benefit amounts issued with both a \$0 and \$50 deductible. The average claim is larger on policies with the de-

TABLE 5  
 1962-63 EXPERIENCE UNDER INDIVIDUALLY  
 UNDERWRITTEN POLICIES  
 MISCELLANEOUS HOSPITAL EXPENSE BENEFIT  
 AVERAGE AMOUNT OF CLAIM  
 NO DEDUCTIBLE—\$100 MAXIMUM BENEFIT

ATTAINED AGE	NUMBER OF CLAIMS	AVERAGE CLAIM	
		Actual	Graduated
Male			
15-19 . . . . .	517	\$61.61	\$64.24
20-24 . . . . .	2,504	67.77	66.77
25-29 . . . . .	1,519	69.80	69.05
30-34 . . . . .	1,257	71.21	71.07
35-39 . . . . .	1,223	73.12	73.09
40-44 . . . . .	1,383	75.35	75.12
45-49 . . . . .	1,719	77.86	77.14
50-54 . . . . .	2,246	78.96	78.91
55-59 . . . . .	2,665	79.81	80.17
60-64 . . . . .	2,049	81.05	81.19
65-69 . . . . .	1,939	82.20	81.94
70-74 . . . . .	1,474	80.71	81.94
75-79 . . . . .	732	79.75	81.94
Female			
15-19 . . . . .	750	\$60.88	\$61.36
20-24 . . . . .	2,852	68.03	67.73
25-29 . . . . .	1,903	72.91	72.38
30-34 . . . . .	1,824	75.02	75.52
35-39 . . . . .	2,199	77.70	77.54
40-44 . . . . .	2,853	79.02	78.65
45-49 . . . . .	3,799	79.09	79.16
50-54 . . . . .	4,412	79.94	79.61
55-59 . . . . .	4,381	79.33	79.61
60-64 . . . . .	3,056	79.18	79.61
65-69 . . . . .	2,873	80.85	79.61
70-74 . . . . .	2,257	78.17	79.61
75-79 . . . . .	935	78.66	79.61
Child			
All ages . . . . .	10,841	\$57.96	\$57.96

TABLE 6  
 1962-63 EXPERIENCE UNDER INDIVIDUALLY  
 UNDERWRITTEN POLICIES  
 GRADUATED FREQUENCY OF HOSPITALIZATION;  
 GRADUATED AVERAGE CLAIM AND CLAIM COST  
 \$100 MAXIMUM MISCELLANEOUS HOSPITAL  
 EXPENSE BENEFIT  
 NO DEDUCTIBLE

Attained Age	Frequency	Average Claim	Claim Cost
Male			
15-19 . . . . .	.0957	\$64.24	\$ 6.15
20-24 . . . . .	.0751	66.77	5.01
25-29 . . . . .	.0673	69.05	4.65
30-34 . . . . .	.0712	71.07	5.06
35-39 . . . . .	.0809	73.09	5.91
40-44 . . . . .	.0928	75.12	6.97
45-49 . . . . .	.1068	77.14	8.24
50-54 . . . . .	.1221	78.91	9.63
55-59 . . . . .	.1359	80.17	10.90
60-64 . . . . .	.1486	81.19	12.06
65-69 . . . . .	.1625	81.94	13.32
70-74 . . . . .	.1858	81.94	15.22
75-79 . . . . .	.2239	81.94	18.35
Female			
15-19 . . . . .	.1061	\$61.36	\$ 6.51
20-24 . . . . .	.1024	67.73	6.94
25-29 . . . . .	.1095	72.38	7.93
30-34 . . . . .	.1229	75.52	9.28
35-39 . . . . .	.1373	77.54	10.65
40-44 . . . . .	.1476	78.65	11.61
45-49 . . . . .	.1502	79.16	11.89
50-54 . . . . .	.1455	79.61	11.58
55-59 . . . . .	.1394	79.61	11.10
60-64 . . . . .	.1391	79.61	11.07
65-69 . . . . .	.1479	79.61	11.77
70-74 . . . . .	.1664	79.61	13.25
75-79 . . . . .	.1953	79.61	15.55
Child			
All ages . . . . .	.0846	\$57.96	\$ 4.90

TABLE 7

1962-63 EXPERIENCE UNDER INDIVIDUALLY UNDERWRITTEN POLICIES  
 COMPARISON WITH 1960-61 INTERCOMPANY EXPERIENCE  
 AND 1956 INTERCOMPANY HOSPITAL TABLE  
 \$100 MAXIMUM MISCELLANEOUS HOSPITAL EXPENSE BENEFIT  
 NO DEDUCTIBLE

ATTAINED AGE	1962-63 INTERCOMPANY EXPERIENCE			RATIO OF 1962-63 EXPERIENCE TO 1960-61 EXPERIENCE			RATIO OF 1962-63 EXPERIENCE TO 1956 TABLE		
	Fre- quency	Aver- age Claim	Claim Cost	Fre- quency	Aver- age Claim	Claim Cost	Fre- quency	Aver- age Claim	Claim Cost
Male									
15-19.....	.1001	\$61.61	\$ 6.17	1.45	1.05	1.52	1.28	.98	1.26
20-24.....	.0702	67.77	4.76	1.02	1.06	1.08	.90	1.06	.96
25-29.....	.0658	69.80	4.59	1.01	1.03	1.04	.87	1.04	.90
30-34.....	.0718	71.21	5.11	1.03	1.01	1.04	.96	1.01	.97
35-39.....	.0823	73.12	6.02	1.02	1.04	1.06	1.03	1.00	1.03
40-44.....	.0925	75.35	6.97	1.04	1.05	1.09	1.04	.98	1.02
45-49.....	.1061	77.86	8.26	1.00	1.02	1.02	1.06	.97	1.03
50-54.....	.1233	78.96	9.74	1.03	1.05	1.08	1.07	.95	1.02
55-59.....	.1365	79.81	10.89	1.02	1.07	1.09	1.02	.93	.94
60-64.....	.1507	81.05	12.21	1.04	1.02	1.07	.98	.91	.89
65-69.....	.1616	82.20	13.28	1.06	1.05	1.12	.97	.89	.86
70-74.....	.1788	80.71	14.43	1.05	1.01	1.07	1.03	.84	.87
75-79.....	.2290	79.75	18.26	1.07	1.06	1.13	1.31	.80	1.05
Female									
15-19.....	.1098	\$60.88	\$ 6.68	1.19	1.01	1.20	1.17	.97	1.14
20-24.....	.0972	68.03	6.61	1.00	1.04	1.04	.98	1.06	1.04
25-29.....	.1092	72.91	7.96	1.02	1.03	1.05	.98	1.09	1.06
30-34.....	.1230	75.02	9.23	1.04	1.01	1.05	1.01	1.07	1.08
35-39.....	.1378	77.70	10.71	1.03	1.07	1.10	1.06	1.06	1.12
40-44.....	.1490	79.02	11.77	1.07	1.04	1.10	1.08	1.03	1.11
45-49.....	.1522	79.09	12.04	1.03	1.03	1.06	1.05	.99	1.04
50-54.....	.1459	79.94	11.66	1.03	1.07	1.10	.96	.96	.92
55-59.....	.1381	79.33	10.96	1.03	1.04	1.07	.88	.92	.81
60-64.....	.1381	79.18	10.93	1.01	1.03	1.05	.85	.88	.75
65-69.....	.1480	80.85	11.97	1.07	1.06	1.14	.88	.87	.77
70-74.....	.1626	78.17	12.71	1.07	1.01	1.09	.94	.82	.77
75-79.....	.1989	78.66	15.65	1.10	1.04	1.14	1.14	.79	.90
Child									
All ages.....	.0846	\$57.96	\$ 4.90	.98	1.09	1.07	Not applicable		

TABLE 8

1962-63 EXPERIENCE UNDER INDIVIDUALLY UNDERWRITTEN POLICIES  
MISCELLANEOUS HOSPITAL EXPENSE BENEFIT  
VARIATION IN AVERAGE CLAIM BY MAXIMUM BENEFIT AMOUNT  
NO DEDUCTIBLE

MAXIMUM BENEFIT AMOUNT	NUMBER OF CLAIMS			PROPORTION OF EXPERI- ENCE FROM LARGEST SINGLE CON- TRIBUTOR (PER CENT)	RATIO OF ACTUAL TO TABULAR*		
	Male	Female	Child		Male	Female	Child
\$ 40.....	85	143	51	57	.486	.495	.594
50.....	8,848	13,767	3,990	94	.518	.525	.688
60.....	3,288	7,568	2,049	93	.693	.704	.888
70.....	161	250	57	60	.801	.795	.923
75.....	1,017	1,543	783	96	.752	.765	.805
80.....	642	1,031	439	39	.867	.847	.831
90.....	6,584	15,587	6,154	99	.987	.990	1.099
100.....	21,293	34,144	10,841	67	1.000	1.000	1.000
120.....	7,235	16,858	6,384	93	1.245	1.245	1.241
125.....	544	695	238	100	1.116	1.125	1.100
150.....	15,488	25,993	8,115	90	1.250	1.240	1.091
160.....	2,065	4,029	2,812	96	1.362	1.398	1.301
180.....	87	121	34	43	1.446	1.499	1.477
200.....	15,469	26,432	7,771	90	1.387	1.385	1.116
225.....	115	211	126	62	1.501	1.670	1.357
240.....	7,805	12,845	9,035	97	1.549	1.608	1.322
250.....	13,808	23,852	6,863	100	1.472	1.470	1.122
300.....	14,638	24,842	7,232	95	1.550	1.536	1.146
320.....	7,489	9,734	6,646	100	1.741	1.847	1.468
400.....	1,971	1,813	1,021	86	1.905	1.997	1.522
500.....	91	103	60	74	1.983	1.899	1.308
1,225.....	13,798	23,840	6,855	100	1.801	1.707	1.170

\* Tabular based on graduated average amount of claim for \$100 maximum benefit shown in Table 5.

TABLE 9

1962-63 EXPERIENCE UNDER INDIVIDUALLY UNDERWRITTEN POLICIES  
MISCELLANEOUS HOSPITAL EXPENSE BENEFIT  
VARIATION IN AVERAGE CLAIM BY CONTRIBUTING COMPANY  
NO DEDUCTIBLE—\$100 MAXIMUM BENEFIT

COMPANY	NUMBER OF CLAIMS			RATIO OF ACTUAL TO TABULAR*		
	Male	Female	Child	Male	Female	Child
A.....	198	279	124	.917	.905	.828
B.....	289	328	273	.958	.980	1.026
C.....	764	1,009	245	1.093	1.078	1.189
D.....	75	141	17	1.148	1.114	1.188
E.....	21	30	10	1.083	.969	1.071
F.....	178	288	97	.987	.999	1.046
G.....	1,726	2,551	1,040	.918	.921	.967
H.....	351	682	345	1.017	1.024	1.044
I.....	5	14	14	.877	1.187	1.312
J.....	14	33	18	1.142	1.044	1.121
K.....	3,875	4,949	1,803	.985	1.001	1.053
L.....	13,797	23,840	6,855	1.009	1.004	.982
Totals..	21,293	34,144	10,841	1.000	1.000	1.000

\* Tabular based on graduated average amount of claim for \$100 maximum benefit shown in Table 5.

TABLE 10  
 1962-63 EXPERIENCE UNDER INDIVIDUALLY UNDERWRITTEN POLICIES  
 MISCELLANEOUS HOSPITAL EXPENSE BENEFIT  
 VARIATION IN AVERAGE CLAIM BY MAXIMUM BENEFIT AMOUNT AND AGE  
 NO DEDUCTIBLE  
 (Based on One Company's Claims Truncated at \$100, \$150, \$200, \$250, and \$300)

ATTAINED AGE	NUMBER OF CLAIMS	RATIO OF ACTUAL TO TABULAR* FOR MAXIMUM BENEFIT AMOUNT				
		\$100	\$150	\$200	\$250	\$300
Male						
15-19.....	205	.966	1.088	1.163	1.210	1.240
20-24.....	1,708	1.039	1.189	1.260	1.305	1.335
25-29.....	1,048	1.034	1.195	1.280	1.334	1.368
30-34.....	819	1.009	1.176	1.257	1.305	1.341
35-39.....	736	1.031	1.232	1.339	1.399	1.436
40-44.....	855	.992	1.202	1.325	1.399	1.451
45-49.....	1,068	1.004	1.228	1.360	1.448	1.510
50-54.....	1,456	1.011	1.247	1.389	1.487	1.555
55-59.....	1,758	.998	1.246	1.412	1.529	1.618
60-64.....	1,206	1.006	1.273	1.449	1.570	1.658
65-69.....	1,389	1.005	1.284	1.475	1.610	1.711
70-74.....	1,083	.996	1.281	1.477	1.610	1.712
75-79.....	466	.983	1.261	1.460	1.603	1.708
Female						
15-19.....	348	1.042	1.192	1.269	1.313	1.334
20-24.....	1,936	1.011	1.171	1.250	1.294	1.320
25-29.....	1,303	1.020	1.209	1.314	1.381	1.423
30-34.....	1,158	1.005	1.214	1.334	1.406	1.452
35-39.....	1,355	1.009	1.235	1.362	1.433	1.477
40-44.....	1,795	1.010	1.132	1.389	1.476	1.526
45-49.....	2,581	1.003	1.247	1.396	1.496	1.562
50-54.....	3,150	1.002	1.240	1.385	1.473	1.527
55-59.....	3,332	1.000	1.247	1.400	1.496	1.559
60-64.....	2,041	1.000	1.245	1.398	1.495	1.560
65-69.....	2,243	1.018	1.282	1.449	1.556	1.628
70-74.....	1,871	.983	1.236	1.403	1.524	1.615
75-79.....	725	.985	1.236	1.396	1.509	1.584
Child						
All ages.....	6,855	.982	1.065	1.102	1.121	1.134

\* Tabular based on graduated average amount of claim for \$100 maximum benefit shown in Table 5.

**TABLE 11**  
**1962-63 EXPERIENCE UNDER INDIVIDUALLY UNDERWRITTEN POLICIES**  
**MISCELLANEOUS HOSPITAL EXPENSE BENEFIT**  
**VARIATION IN AVERAGE CLAIM BY MAXIMUM**  
**BENEFIT AMOUNT, DEDUCTIBLE AND AGE**

ATTAINED AGE	RATIOS OF ACTUAL TO TABULAR*							
	Maximum Benefit Amount							
	\$100		\$120		\$150		\$300	
	Deductible		Deductible		Deductible		Deductible	
	\$0	\$25	\$0	\$25	\$0	\$25	\$0	\$25
	Male							
15-19	.959		1.248		1.232	1.640	1.268	1.898
20-24	1.015	1.160	1.275	1.252	1.197	1.459	1.343	1.829
25-29	1.011	1.220	1.271	1.276	1.211	1.355	1.402	1.733
30-34	1.002	1.303	1.266	1.134	1.192	1.336	1.360	1.614
35-39	1.000	1.277	1.238	1.187	1.249	1.389	1.481	1.722
40-44	1.003	1.266	1.249	1.289	1.231	1.316	1.463	1.317
45-49	1.009	1.102	1.241	1.282	1.258	1.384	1.528	1.810
50-54	1.001	1.131	1.265	1.241	1.258	1.353	1.559	2.366
55-59	.996	1.203	1.208	1.215	1.261	1.437	1.635	2.137
60-64	.998	.980	1.248	1.261	1.290	1.415	1.681	2.025
65-69	1.003	1.035	1.246	1.235	1.289	1.400	1.714	.....
70-74	.985	1.071	1.221	1.197	1.283	1.409	1.710	.....
75-79	.973	.984	1.206	1.174	1.258	1.442	1.708	.....
	Female							
15-19	.992	1.208	1.283	1.538	1.287	1.627	1.319	1.652
20-24	1.004	1.194	1.250	1.319	1.187	1.359	1.341	1.959
25-29	1.007	1.248	1.268	1.314	1.229	1.356	1.427	1.983
30-34	.993	1.299	1.243	1.315	1.227	1.377	1.465	1.903
35-39	1.002	1.168	1.252	1.298	1.245	1.466	1.482	1.671
40-44	1.005	1.342	1.220	1.263	1.151	1.315	1.541	1.682
45-49	.999	1.348	1.245	1.334	1.252	1.444	1.574	1.649
50-54	1.004	1.192	1.238	1.308	1.253	1.355	1.537	1.756
55-59	.996	1.305	1.233	1.266	1.261	1.362	1.571	1.902
60-64	.995	1.087	1.244	1.235	1.258	1.412	1.574	1.274
65-69	1.016	.995	1.249	1.174	1.285	1.385	1.628	.....
70-74	.982	.946	1.256	1.139	1.238	1.356	1.615	.....
75-79	.988	.974	1.250	1.171	1.237	1.352	1.584	.....
	Child							
All ages	1.00	1.175	1.241	1.230	1.091	1.235	1.146	1.401

\* Tabular based on graduated average amount of claim for \$100 maximum benefit shown in Table 5.

NOTE.—For policies with a deductible, average claim reflects eligible medical expenses before application of the deductible.

**TABLE 12**  
**1962-63 EXPERIENCE UNDER INDIVIDUALLY UNDERWRITTEN POLICIES**  
**MISCELLANEOUS HOSPITAL EXPENSE BENEFIT**  
**VARIATION IN AVERAGE CLAIM BY MAXIMUM**  
**BENEFIT AMOUNT, DEDUCTIBLE AND AGE**  
**(Experience of One Company)**

ATTAINED AGE	RATIOS OF ACTUAL TO TABULAR*															
	Maximum Benefit Amount															
	\$60		\$90		\$120		\$160		\$240		\$320					
	Deductible		Deductible		Deductible		Deductible		Deductible		Deductible					
	\$0	\$50	\$0	\$50	\$0	\$50	\$0	\$50	\$0	\$50	\$0	\$50				
Male																
15-19.....			.985			1.344			1.425			1.481			1.576	
20-24.....	.804		1.055	1.114	1.283	1.468	1.313		1.465	1.636	1.620	2.105				
25-29.....	.770	.827	1.046	1.176	1.281	1.259	1.311	1.502	1.502	1.698	1.691	1.972				
30-34.....	.779	.730	1.055	1.010	1.277	1.277	1.376	1.637	1.552	1.843	1.806	1.909				
35-39.....	.725	.788	1.025	1.148	1.258	1.412	1.354	1.337	1.608	1.828	1.745	2.050				
40-44.....	.726	.774	.988	1.065	1.271	1.328	1.383	1.525	1.620	1.807	1.774	2.157				
45-49.....	.730	.698	.995	1.023	1.242	1.290	1.433	1.592	1.629	1.928	1.950	2.210				
50-54.....	.695	.749	.980	1.026	1.277	1.272	1.371	1.603	1.670	1.887	2.098	2.179				
55-59.....	.684	.713	.970	1.002	1.219	1.286	1.345	1.490	1.656	1.732	2.175	2.378				
60-64.....	.677	.691	.959	1.022	1.253	1.302	1.432		1.587		1.881					
65-69.....	.685	.711	.973	.991	1.249	1.178										
70-74.....	.676	.700	.962	.969	1.227	1.238										
75-79.....	.669	.692	.951	.980	1.203	1.200										
Female																
15-19.....	.882		1.175		1.323		1.346		1.523	1.862	1.700	2.243				
20-24.....	.774	.862	1.018	1.079	1.256	1.434	1.383	1.580	1.445	1.683	1.675	2.136				
25-29.....	.769	.804	1.020	1.070	1.282	1.320	1.437	1.394	1.546	1.792	1.722	1.963				
30-34.....	.724	.734	.989	1.051	1.246	1.395	1.336	1.516	1.641	1.876	1.839	2.047				
35-39.....	.715	.765	1.011	1.005	1.262	1.283	1.421	1.539	1.677	1.776	1.915	2.240				
40-44.....	.696	.692	1.011	1.091	1.223	1.326	1.401	1.559	1.660	1.767	1.999	2.237				
45-49.....	.688	.713	1.008	1.053	1.250	1.314	1.427	1.478	1.663	1.724	1.966	2.080				
50-54.....	.698	.741	.971	1.049	1.244	1.275	1.391	1.458	1.670	1.876	1.951	2.142				
55-59.....	.704	.720	.982	1.018	1.237	1.303	1.355	1.489	1.750	1.835	1.971	2.179				
60-64.....	.708	.742	.966	1.053	1.249	1.235	1.533	1.416	1.830	1.983	2.354					
65-69.....	.695	.734	.985	.999	1.250	1.291										
70-74.....	.699	.730	.973	1.013	1.261	1.301										
75-79.....	.697	.697	.982	1.040	1.251	1.285										
Child																
All ages..	.889	.968	1.100	1.193	1.258	1.337	1.304	1.471	1.326	1.576	1.468	1.717				

\* Tabular based on graduated average amount of claim for \$100 maximum benefit shown in Table 5.  
 NOTE.—For policies with a deductible, average claim reflects eligible medical expenses before application of the deductible.



ductible, and the difference appears to become greater as the maximum amount of benefit increases.

An analysis by duration and by company of the experience for the \$100 maximum benefit amount on policies with no deductible indicated that average claims as related to average claims for all durations combined were about 98 per cent for duration 1 and 101 per cent for duration 3 and later. An analysis by duration for one company for a \$1,225 maximum benefit amount on policies with no deductible showed that average claims for duration 1 as related to average claims for duration 3 and later were about 95 per cent for males and 94 per cent for females. The larger variation by duration observed under the \$1,225 maximum benefit amount may reflect the greater amount of salvage under the \$1,225 amount.

#### SURGICAL EXPENSE BENEFIT

Twenty companies contributed experience covering over \$35,000,000 of claims to this section of the study. This is nearly double the volume contributed to the 1960-61 experience (*TSA, 1963 Reports*, pp. 150-60). A description of the data used, methods of calculation, and techniques used in standardizing heterogeneous surgical schedules was presented with the previous study.

Table 13 shows, for policies without a deductible provision, the ungraduated frequencies, average claims, and claim costs per \$100 of maximum surgical benefit. Also shown is a comparison with similar data previously published for the 1960-61 experience as well as a comparison with the 1956 Intercompany Surgical Table adjusted to a standardized basis as shown in *TSA, 1963 Reports*, page 155. For adults, the claim costs were about 5-10 per cent higher than in the previous study, with the largest increases occurring at ages over 35. Although the frequency of surgery increased slightly, increases in the average amount per claim were the main reason for the increased claim costs. For children, frequencies and claim costs decreased slightly.

A graduation of the crude data shown in Table 13 appears in Table 14.

Table 15 shows, for policies with a \$25 or \$50 deductible as well as policies with no deductible, comparable ungraduated data. The amount of claims paid for the surgical expense benefit under policies with deductible amounts constituted less than 10 per cent of the amount paid under policies without a deductible. Because of the small volume, there are many statistical variations, and, therefore, no comparison of the current experience with the previous experience is shown for policies with deductibles. When comparisons are made between the claim frequencies,

TABLE 13

1962-63 EXPERIENCE UNDER INDIVIDUALLY UNDERWRITTEN POLICIES  
 COMPARISON WITH 1960-61 INTERCOMPANY EXPERIENCE  
 AND 1956 INTERCOMPANY SURGICAL TABLE  
 FREQUENCY OF SURGERY; AVERAGE CLAIM AND CLAIM COST  
 PER \$100 OF MAXIMUM SURGICAL SCHEDULE  
 STANDARD SCHEDULE—NO DEDUCTIBLE

ATTAINED AGE	1962-63 INTERCOMPANY EXPERIENCE			RATIO OF 1962-63 EXPERIENCE TO 1960-61 EXPERIENCE			RATIO OF 1962-63 EXPERIENCE TO 1956 TABLE*		
	Fre- quency	Aver- age Claim	Claim Cost	Fre- quency	Aver- age Claim	Claim Cost	Fre- quency	Aver- age Claim	Claim Cost
Male									
15-19.....	.1256	\$12.46	\$1.56	1.37	.99	1.36	1.55	.73	1.13
20-24.....	.0891	13.12	1.17	1.06	1.00	1.06	1.14	.76	.87
25-29.....	.0803	13.46	1.08	1.00	1.03	1.03	1.08	.76	.82
30-34.....	.0832	14.12	1.17	1.02	1.03	1.04	1.13	.78	.88
35-39.....	.0854	15.85	1.35	1.00	1.09	1.09	1.16	.85	.99
40-44.....	.0868	17.36	1.51	1.02	1.08	1.10	1.16	.90	1.05
45-49.....	.0912	19.96	1.82	.99	1.10	1.08	1.17	.94	1.10
50-54.....	.0962	23.06	2.22	1.02	1.07	1.09	1.16	.95	1.11
55-59.....	.1043	25.04	2.61	1.05	1.04	1.09	1.16	.98	1.13
60-64.....	.1053	32.89	3.46	1.03	1.07	1.11	1.08	1.13	1.22
65-69.....	.1140	34.87	3.98	1.02	1.03	1.05	1.16	1.18	1.37
70-74.....	.1136	39.28	4.46	1.01	1.09	1.10	1.16	1.33	1.54
75-79.....	.1146	42.80	4.90	.93	1.15	1.06	1.17	1.45	1.69
Female									
15-19.....	.0981	\$15.95	\$1.56	1.17	.96	1.12	1.17	.77	.90
20-24.....	.0933	17.64	1.65	.97	1.08	1.05	1.01	.84	.85
25-29.....	.1083	19.85	2.15	1.00	1.08	1.09	1.01	.87	.88
30-34.....	.1184	23.15	2.74	1.00	1.07	1.07	1.06	.93	.99
35-39.....	.1257	25.53	3.21	1.02	1.09	1.11	1.13	.93	1.05
40-44.....	.1285	28.52	3.66	1.02	1.09	1.11	1.14	.98	1.12
45-49.....	.1243	28.53	3.55	1.01	1.08	1.09	1.13	.98	1.12
50-54.....	.1141	27.06	3.09	1.01	1.07	1.08	1.09	.95	1.04
55-59.....	.1039	27.06	2.81	.99	1.05	1.04	1.02	.97	1.00
60-64.....	.1002	29.79	2.98	.99	1.04	1.03	1.01	1.05	1.06
65-69.....	.1010	32.14	3.25	1.00	1.11	1.11	1.03	1.15	1.18
70-74.....	.0989	34.40	3.40	.99	1.13	1.12	1.01	1.23	1.24
75-79.....	.0954	38.01	3.63	.94	1.23	1.15	.97	1.36	1.32
Child									
All ages.....	.1104	\$12.40	\$1.37	.99	1.00	.99	Not applicable		

\* Average claims and claim costs of the 1956 Intercompany Surgical Table adjusted to a standardized basis as shown in Table 15, T.S.A., 1963 Reports, page 155.

TABLE 14

1962-63 EXPERIENCE UNDER INDIVIDUALLY UNDER-  
WRITTEN POLICIES GRADUATED FREQUENCY OF  
SURGERY; GRADUATED AVERAGE CLAIM AND CLAIM  
COST PER \$100 OF MAXIMUM SURGICAL BENEFIT  
STANDARD SCHEDULE—NO DEDUCTIBLE

Attained Age	Frequency	Average Claim	Claim Cost
Male			
15-19 .....	.0954	\$12.50	\$1.19
20-24 .....	.0842	13.10	1.10
25-29 .....	.0822	13.40	1.10
30-34 .....	.0823	14.10	1.16
35-39 .....	.0841	15.50	1.30
40-44 .....	.0872	17.40	1.52
45-49 .....	.0914	20.00	1.83
50-54 .....	.0956	23.40	2.24
55-59 .....	.1002	27.20	2.73
60-64 .....	.1062	31.80	3.38
65-69 .....	.1128	36.00	4.06
70-74 .....	.1170	39.70	4.64
75-79 .....	.1198	46.40	5.56
Female			
15-19 .....	.0909	\$16.00	\$1.45
20-24 .....	.0934	17.65	1.65
25-29 .....	.1020	19.85	2.02
30-34 .....	.1202	22.55	2.71
35-39 .....	.1270	25.80	3.28
40-44 .....	.1282	28.60	3.67
45-49 .....	.1264	28.75	3.63
50-54 .....	.1175	27.00	3.17
55-59 .....	.1040	26.90	2.80
60-64 .....	.1002	29.15	2.92
65-69 .....	.0982	31.85	3.13
70-74 .....	.0972	35.10	3.41
75-79 .....	.0968	39.10	3.78
Child			
All ages .....	.1104	\$12.40	\$1.37

**TABLE 15**  
**1962-63 EXPERIENCE UNDER INDIVIDUALLY UNDERWRITTEN POLICIES**  
**FREQUENCY OF SURGERY; AVERAGE CLAIM AND CLAIM COST**  
**PER \$100 OF MAXIMUM SURGICAL SCHEDULE**  
**STANDARD SCHEDULE**

ATTAINED AGE	NO DEDUCTIBLE			\$25 DEDUCTIBLE			\$50 DEDUCTIBLE		
	Fre- quency	Aver- age Claim	Claim Cost	Fre- quency	Aver- age Claim	Claim Cost	Fre- quency	Aver- age Claim	Claim Cost
<b>Male</b>									
15-19...	.1256	\$12.46	\$1.56	.0806	\$19.60	\$1.58	.0407	\$21.84	\$ .89
20-24...	.0891	13.12	1.17	.0360	21.51	.77	.0408	24.52	1.00
25-29...	.0803	13.46	1.08	.0361	21.12	.76	.0348	24.50	.85
30-34...	.0832	14.12	1.17	.0302	20.59	.62	.0336	26.50	.89
35-39...	.0854	15.85	1.35	.0434	24.31	1.06	.0361	26.79	.97
40-44...	.0868	17.36	1.51	.0499	26.73	1.33	.0411	26.65	1.10
45-49...	.0912	19.96	1.82	.0483	27.16	1.31	.0544	29.01	1.58
50-54...	.0962	23.06	2.22	.0553	32.67	1.81	.0574	32.40	1.86
55-59...	.1043	25.04	2.61	.0692	32.43	2.24	.0728	33.13	2.41
60-64...	.1053	32.89	3.46	.0821	43.14	3.54	.0730	41.69	3.04
65-69...	.1140	34.87	3.98	.0862	42.06	3.63	.0742	44.21	3.28
70-74...	.1136	39.28	4.46	.1029	40.17	4.13	.0792	43.88	3.48
75-79...	.1146	42.80	4.90	.0908	45.61	4.14	.0633	44.73	2.83
<b>Female</b>									
15-19...	.0981	\$15.95	\$1.56	.0771	\$21.51	\$1.66	.1018	\$26.43	\$2.69
20-24...	.0933	17.64	1.65	.0516	22.75	1.17	.0542	26.33	1.43
25-29...	.1083	19.85	2.15	.0618	27.41	1.69	.0599	27.35	1.64
30-34...	.1184	23.15	2.74	.0753	31.49	2.37	.0710	33.29	2.36
35-39...	.1257	25.53	3.21	.0871	31.16	2.71	.0816	33.79	2.76
40-44...	.1285	28.52	3.66	.0904	35.23	3.18	.0876	35.69	3.13
45-49...	.1243	28.53	3.55	.0936	36.60	3.43	.0943	37.57	3.54
50-54...	.1141	27.06	3.09	.0796	36.53	2.91	.0800	35.33	2.83
55-59...	.1039	27.06	2.81	.0766	39.19	3.00	.0720	37.78	2.72
60-64...	.1002	29.79	2.98	.0766	43.17	3.31	.0736	39.78	2.93
65-69...	.1010	32.14	3.25	.0837	44.53	3.73	.0687	40.70	2.80
70-74...	.0989	34.40	3.40	.0858	44.24	3.80	.0709	43.27	3.07
75-79...	.0954	38.01	3.63	.0629	46.57	2.93	.0677	44.48	3.01
<b>Child</b>									
All ages...	.1104	\$12.40	\$1.37	.0496	\$17.07	\$ .85	.0506	\$19.96	\$1.01

NOTE.—For policies with a deductible, average claim cost reflects eligible medical expenses before application of the deductible.

average claims and claim costs of policies without a deductible, with a \$25 deductible and with a \$50 deductible, certain anomalies may be observed. As was pointed out in the *TSA, 1963 Reports*, page 156, these anomalies are probably the result of heterogeneous data.

An analysis by duration was made of the experience on policies with no deductible. Actual claim costs related to claim costs for duration 3 and later are shown in the accompanying tabulation.

Duration	Adult Males	Adult Females	Total Adults	Children	Total
1 . . . . .	90%	96%	94%	94%	94%
2 . . . . .	98	98	98	90	97
3 and later . . . . .	100	100	100	100	100
All durations . . . . .	97%	98%	98%	97%	97%

#### DEDUCTIBLE AMOUNTS

In hospital and surgical expense policies, any deductible amount is generally subtracted from the sum of all benefits (except maternity) otherwise payable at the time of a claim. This has the effect of eliminating those claims for total amounts less than the deductible and of reducing larger claims to the extent of the deductible amount.

Annual claim frequencies were obtained by dividing the number of claims in excess of the deductible by the number of lives exposed. Claim frequencies corresponding to deductible amounts of \$25 and \$50 are shown in Table 16. For homogeneous data we would expect the claim frequencies to decrease as the deductible amount increases. Exceptions to this relation in Table 16 probably reflect statistical fluctuations and heterogeneous data.

Since it is easier to satisfy a given deductible under a policy providing large rather than small benefits, claim frequencies for a given deductible tend to vary with the amount of benefits provided. The frequencies shown in Table 16 are for all benefits combined. For homogeneous data we might expect such a claim frequency to exceed the corresponding frequency of hospitalization, because of claims which exceed the deductible by reason of surgical benefits where hospitalization is not involved and by reason of out-patient nonsurgical benefits. Exceptions to this relation between corresponding frequencies in Table 16 and Table 2 also probably reflect statistical fluctuations and heterogeneous data.

To obtain the claim cost for a particular combination of benefits involving a deductible, it is necessary to reflect the savings resulting from the

TABLE 16  
 1962-63 EXPERIENCE UNDER INDIVIDUALLY  
 UNDERWRITTEN POLICIES  
 CLAIM FREQUENCY OF POLICIES WITH A DEDUCTIBLE

ATTAINED AGE	\$25 DEDUCTIBLE		\$50 DEDUCTIBLE	
	Number of Claims	Claim Frequency	Number of Claims	Claim Frequency
Male				
15-19.....	111	.095	53	.061
20-24.....	1,381	.063	492	.056
25-29.....	1,117	.063	621	.049
30-34.....	743	.061	646	.053
35-39.....	718	.077	630	.061
40-44.....	744	.090	678	.073
45-49.....	807	.102	745	.091
50-54.....	771	.108	651	.092
55-59.....	770	.131	657	.116
60-64.....	659	.144	435	.117
65-69.....	566	.156	354	.129
70-74.....	432	.175	276	.149
75-79.....	321	.247	133	.137
Female				
15-19.....	208	.099	267	.143
20-24.....	1,886	.088	1,070	.082
25-29.....	1,390	.098	1,161	.087
30-34.....	1,241	.121	1,081	.096
35-39.....	1,317	.135	1,134	.106
40-44.....	1,594	.150	1,315	.120
45-49.....	1,755	.147	1,387	.127
50-54.....	1,547	.136	1,193	.121
55-59.....	1,398	.145	992	.117
60-64.....	1,089	.137	775	.126
65-69.....	1,049	.154	606	.119
70-74.....	695	.163	425	.125
75-79.....	380	.205	259	.151
Child				
All ages.....	6,958	.081	7,185	.067

NOTE.—These frequencies involve only claims where the total eligible medical expenses exceed the policy deductible.

deductible amount. This is indicated in the following example, for a female age  $x$  under a policy with no out-patient benefits:

Benefits:

\$ 10 daily hospital benefit for a maximum hospital confinement of 90 days.

\$100 maximum miscellaneous hospital expense benefit.

\$200 maximum surgical schedule—standard schedule.

\$100 maternity benefit.

\$ 50 deductible, but not applicable to maternity benefit.

Let  $r_x^h$  represent frequency of hospitalization under a \$50 deductible plan.

$h_x$  represent the average duration of hospitalization under a \$50 deductible plan with a 90-day maximum.

$m_x$  represent the average miscellaneous hospital expense benefit covered under a \$50 deductible plan with a \$100 maximum benefit.

$r_x^s$  represent the frequency of surgery under a \$50 deductible plan.

$s_x$  represent the average amount of surgical claim covered under a \$50 deductible plan, per \$100 maximum surgical schedule—standard schedule.

$r_x^m$  represent the maternity claim rate.

$r_x^d$  represent the claim frequency under a \$50 deductible plan, excluding maternity claims.

The claim cost for all the benefits is given by the following expression:

$$(r_x^h)(10 h_x + m_x) + 2(r_x^s)(s_x) - 50 r_x^d + 100 r_x^m .$$

#### MATERNITY EXPENSE BENEFIT

Fifteen companies contributed data on 89,247 claims to this section of the study, which covers experience under basic hospital-surgical policies that provide benefits for childbirth or miscarriage. The policies included in the experience covered pregnancy which commenced after 30 days from date of issue or maternities which occurred after 10 months from date of issue. Maternity benefits provided by the policies varied considerably as shown by the accompanying tabulation:

#### ANALYSIS OF DATA BY TYPE OF MATERNITY BENEFIT

Maternity Benefit Provided in Policy	Number of Claims in Study (All Durations)
10 times daily hospital benefit . . . . .	31,508
5 times combined daily hospital benefit of husband and wife . .	15,704
10 times daily hospital benefit but not more than \$100 . . . . .	182
Flat \$50 . . . . .	1,332
Flat \$150 or \$200 . . . . .	22,691
10 times daily hospital benefit plus full hospital and surgical benefits after ninth day of hospitalization . . . . .	3,682
Full hospital and surgical benefits . . . . .	14,148
Total . . . . .	<u>89,247</u>

Frequencies of maternity by attained age and duration are shown in Table 17. Most of the data were submitted with the first four durations shown separately, but some were submitted with only the first two durations shown separately. The experiences for these two kinds of data are shown separately as well as on a combined basis, and the maternity claim frequencies of the 1956 Intercompany Hospital Table are shown for comparative purposes. The frequencies for durations 5 and later are very close to those of the 1956 Table.

As expected, claim frequencies on the maternity benefit are highest for duration 2, after which they consistently decrease by duration. The lower claim frequencies for duration 1 as compared with duration 2 can

TABLE 17  
1962-63 EXPERIENCE UNDER INDIVIDUALLY UNDERWRITTEN POLICIES  
MATERNITY CLAIM FREQUENCY

AT-TAINED AGE	NUM-BER OF CLAIMS	FRE-QUENCY	NUM-BER OF CLAIMS	FRE-QUENCY	NUM-BER OF CLAIMS	FRE-QUENCY	NUM-BER OF CLAIMS	FRE-QUENCY	NUM-BER OF CLAIMS	FRE-QUENCY	1956 INTER-COM-PANY HOSP. TABLE FRE-QUENCY
	Experience of Companies Which Submitted Data with the First Four Durations Shown Separately										
	Duration 1		Duration 2		Duration 3		Duration 4		Duration 5 and Later		
20-24	6,477	.311	4,704	.377	2,566	.352	1,409	.325	1,227	.264	.285
25-29	3,143	.230	2,879	.290	1,978	.259	1,583	.257	2,652	.192	.196
30-34	1,241	.129	1,162	.169	853	.153	741	.147	1,961	.117	.117
35-39	437	.053	459	.077	331	.067	284	.061	1,009	.055	.060
40-44	142	.018	133	.023	120	.025	107	.023	329	.017	.016
45-49	47	.006	32	.005	29	.006	17	.003	63	.003	.....
Experience of Companies Which Submitted Data with the First Two Durations Shown Separately											
	Duration 1		Duration 2		Duration 3 and Later						
20-24	11,950	.336	8,003	.439	5,573	.378	.....	.....	.....	.....	.285
25-29	3,977	.202	3,986	.272	7,290	.237	.....	.....	.....	.....	.196
30-34	1,624	.111	1,647	.151	3,545	.135	.....	.....	.....	.....	.117
35-39	681	.048	646	.065	1,428	.058	.....	.....	.....	.....	.060
40-44	163	.012	178	.017	377	.015	.....	.....	.....	.....	.016
45-49	16	.001	19	.002	29	.001	.....	.....	.....	.....	.....
Combined Experience of All Companies											
	Duration 1		Duration 2		Duration 3 and Later						
20-24	18,427	.327	12,707	.414	10,775	.348	.....	.....	.....	.....	.285
25-29	7,120	.213	6,865	.280	13,503	.231	.....	.....	.....	.....	.196
30-34	2,865	.118	2,809	.158	7,100	.132	.....	.....	.....	.....	.117
35-39	1,118	.050	1,105	.069	3,052	.058	.....	.....	.....	.....	.060
40-44	305	.019	311	.019	933	.017	.....	.....	.....	.....	.016
45-49	63	.003	51	.003	138	.002	.....	.....	.....	.....	.....



be attributed to the initial waiting period of 10 months following date of issue. On the assumption that issues are spread uniformly throughout the year, the effect of the 10-month waiting period on the frequencies for calendar-year duration 1 can be approximately offset by multiplying the frequencies shown by 1.53.

#### MAJOR MEDICAL EXPENSE BENEFITS

Fourteen companies contributed data on 16,730 claims to this section of the study. The volume of claims was more than twice as large as that under the 1960-61 experience.

Most of the data were for policies providing a \$500 deductible amount and 75 per cent or 80 per cent coinsurance. Claim data for policies providing 80 per cent coinsurance were converted to a 75 per cent coinsurance basis by multiplying the amounts paid by .9375.

Table 18 shows the combined experience of durations 3 and later for plans with a \$500 deductible amount, 75 per cent coinsurance (including adjusted data for 80 per cent coinsurance plans), and no limit on the daily amount of hospital room and board benefit allowed as an eligible expense. This table is assumed to represent the experience for a \$7,500 maximum amount, since most of the data were for that amount. The number of claims included in this table should be carefully considered in weighing the results.

Table 18 also compares the 1962-63 experience with the 1960-61 experience (*TSA, 1963 Reports*, p. 165). Using the claim costs for durations 3 and later from the 1960-61 experience as an expected, the ratio of actual amounts paid in the 1962-63 experience to the expected amounts paid, for adult ages 15-69, was 103 per cent for males, 110 per cent for females, and 106 per cent for all adults. The claim cost for a child in the current study was 14 per cent less than the previous study.

A graduation of the crude claim cost shown in Table 18 is shown in Table 19.

The current study includes data from a number of companies that had not contributed data to the previous study and vice versa. For this reason, it is not believed that the relative increase in claim costs from the previous study to the current study as shown in Table 18 is appropriate for any company. Four companies have contributed data, on the type of plan selected for analysis, for each of the four calendar years 1960 through 1963. Using as an expected the 1960 experience of the four companies according to duration, five-year age group, and sex, a comparison of the 1961, 1962, and 1963 experience with the 1960 experience was obtained, and this is shown in Table 20. The results indicate that the claim

TABLE 18  
 1962-63 EXPERIENCE UNDER INDIVIDUALLY UNDERWRITTEN POLICIES  
 MAJOR MEDICAL EXPENSE BENEFIT  
 \$500 DEDUCTIBLE AMOUNT—\$7,500 MAXIMUM AMOUNT—  
 75 PER CENT COINSURANCE\*  
 NO HOSPITAL ROOM AND BOARD LIMIT  
 DURATIONS 3 AND LATER

ATTAINED AGE	NUMBER OF LIVES EXPOSED	NUMBER OF CLAIMS	AMOUNT PAID	FREQUENCY	AVERAGE CLAIM	CLAIM COST	RATIO OF 1962-63 EXPERIENCE TO 1960-61 EXPERIENCE		
							Frequency	Average Claim	Claim Cost
Male									
15-19...	12	0	0	0	0	0			
20-24...	1,392	18	\$ 12,769	.0129	\$ 709	\$ 9.17	1.84	1.72	3.18
25-29...	2,502	31	19,957	.0124	644	7.98	.72	.63	.45
30-34...	4,914	69	41,606	.0140	603	8.47	1.04	.56	.59
35-39...	8,109	146	108,352	.0180	742	13.36	.96	.77	.74
40-44...	8,810	219	176,771	.0249	807	20.06	1.11	1.07	1.18
45-49...	8,918	246	257,604	.0276	1,047	28.89	.88	1.04	.92
50-54...	8,127	359	349,899	.0442	975	43.05	1.10	1.03	1.13
55-59...	7,126	432	516,506	.0606	1,196	72.48	1.23	1.28	1.57
60-64...	4,695	340	412,731	.0724	1,214	87.91	.94	.92	.86
65-69...	807	71	81,162	.0880	1,143	100.57	1.08	.72	.77
70-74...	83	7	3,861	.0843	552	46.52	Not available		
75 and over...	82	11	18,272	.1341	1,661	222.83	Not available		
Female									
15-19...	667	3	\$ 819	.0045	\$ 273	\$ 1.23			
20-24...	1,455	22	17,928	.0151	815	12.32	.73	2.26	1.65
25-29...	3,384	75	41,688	.0222	556	12.32	.98	.81	.79
30-34...	5,860	144	128,049	.0246	889	21.85	.87	1.30	1.14
35-39...	8,063	244	182,498	.0303	748	22.63	1.04	1.36	1.41
40-44...	8,615	367	257,750	.0426	702	29.92	1.26	.86	1.09
45-49...	8,401	416	383,563	.0495	922	45.66	1.03	1.23	1.27
50-54...	7,725	359	343,226	.0465	956	44.43	.91	.83	.76
55-59...	6,384	321	373,991	.0503	1,165	58.58	1.04	1.36	1.42
60-64...	3,858	209	209,036	.0542	1,000	54.18	1.03	.95	.98
65-69...	612	58	61,110	.0948	1,054	99.85	1.52	.93	1.41
70-74...	153	16	9,781	.1046	611	63.93	Not available		
75 and over...	169	26	42,163	.1538	1,622	249.49	Not available		
Child									
All ages..	79,832	527	\$331,084	.0066	\$ 628	\$ 4.15	1.05	.83	.86

\* Includes policies with 80 per cent coinsurance, for which amounts paid have been multiplied by .9375.

NOTE.—Average claim and claim cost reflect eligible expenses after application of the deductible; frequency involves only claims where total eligible expenses exceed the deductible.

frequencies, as well as average claims increased significantly during the period from 1960 to 1963, with an average annual increase in the claim costs of about 7 per cent.

Ratios of actual experience to expected experience on policies with a \$25 room and board limit are shown in Table 21. The expected is based on the experience on policies with no room and board limit, and the expected factors vary according to duration, five-year age group, and sex.

TABLE 19  
1962-63 EXPERIENCE UNDER INDIVIDUALLY  
UNDERWRITTEN POLICIES  
MAJOR MEDICAL EXPENSE BENEFIT  
\$500 DEDUCTIBLE AMOUNT—  
\$7,500 MAXIMUM AMOUNT—  
75 PER CENT COINSURANCE  
NO HOSPITAL ROOM AND BOARD LIMIT  
GRADUATED CLAIM COSTS FOR  
DURATIONS 3 AND LATER

Attained Age		Claim Cost
	Male	
20-24.....		\$ 4.98
25-29.....		7.15
30-34.....		10.26
35-39.....		14.73
40-44.....		21.15
45-49.....		30.36
50-54.....		43.57
55-59.....		62.55
60-64.....		89.80
65-69.....		128.91
	Female	
20-24.....		\$ 13.66
25-29.....		16.70
30-34.....		20.41
35-39.....		24.96
40-44.....		30.52
45-49.....		37.38
50-54.....		45.70
55-59.....		55.88
60-64.....		68.36
65-69.....		83.65
	Child	
All ages.....		\$ 4.15

TABLE 20  
 1962-63 EXPERIENCE UNDER INDIVIDUALLY  
 UNDERWRITTEN POLICIES  
 MAJOR MEDICAL EXPENSE BENEFIT  
 \$500 DEDUCTIBLE AMOUNT—75 PER CENT COINSURANCE\*—  
 NO ROOM AND BOARD LIMIT  
 RATIOS OF 1961, 1962, AND 1963 EXPERIENCE  
 TO 1960 EXPERIENCE  
 EXPERIENCE OF FOUR COMPANIES  
 MALE, FEMALE, AND CHILDREN COMBINED

YEAR OF EXPERIENCE	NUMBER OF CLAIMS	RATIO OF ACTUAL TO EXPECTED†		
		Claim Frequency	Average Claim	Claim Cost
1961.....	1,785	1.01	1.09	1.10
1962.....	2,132	1.06	1.08	1.14
1963.....	2,055	1.17	1.04	1.22

\* Includes policies with 80 per cent coinsurance, for which amounts paid have been multiplied by .9375.

† Expected based on 1960 experience of the four companies.

TABLE 21  
 1962-63 EXPERIENCE UNDER INDIVIDUALLY  
 UNDERWRITTEN POLICIES  
 MAJOR MEDICAL EXPENSE BENEFIT  
 \$500 DEDUCTIBLE AMOUNT—75 PER CENT COINSURANCE\*  
 RATIOS OF ACTUAL TO EXPECTED EXPERIENCE ON  
 POLICIES WITH A \$25 ROOM AND BOARD LIMIT

SEX	NUMBER OF CLAIMS	RATIO OF ACTUAL TO EXPECTED†		
		Claim Frequency	Average Claim	Claim Cost
Male.....	496	1.05	.87	.92
Female.....	645	1.00	.84	.84
All adults..	1,141	1.02	.86	.88
Child.....	250	1.31	1.04	1.36

\* Includes policies with 80 per cent coinsurance, for which amounts paid have been multiplied by .9375.

† Expected based on experience on policies with no maximum room and board limit.

TABLE 22  
 1962-63 EXPERIENCE UNDER INDIVIDUALLY  
 UNDERWRITTEN POLICIES  
 MAJOR MEDICAL EXPENSE BENEFIT  
 RATIOS OF ACTUAL TO EXPECTED ON POLICIES WITH A  
 \$300 DEDUCTIBLE AMOUNT—75 PER CENT COINSURANCE—  
 NO ROOM AND BOARD LIMIT  
 EXPERIENCE OF ONE COMPANY

SEX	NUMBER OF CLAIMS	RATIO OF ACTUAL TO EXPECTED*		
		Claim Frequency	Average Claim	Claim Cost
Male.....	247	1.74	.87	1.51
Female.....	293	1.56	.78	1.22
All adults..	540	1.64	.82	1.34
Child.....	110	2.39	.74	1.77

\* Expected based on experience on policies with a \$500 deductible amount—75 per cent coinsurance—no room and board limit.

TABLE 23  
 1962-63 EXPERIENCE UNDER INDIVIDUALLY UNDERWRITTEN POLICIES  
 MAJOR MEDICAL EXPENSE BENEFIT  
 \$500 DEDUCTIBLE AMOUNT—75 PER CENT COINSURANCE\*—  
 NO ROOM AND BOARD LIMIT  
 RATIOS OF ACTUAL TO EXPECTED FOR DURATIONS 1 AND 2

SEX	DURATION	NUMBER OF CLAIMS	RATIO OF ACTUAL TO EXPECTED†		
			Claim Frequency	Average Claim	Claim Cost
Male.....	{1	930	.61	.81	.49
	{2	751	.92	.91	.84
Female.....	{1	1,308	.71	.80	.57
	{2	1,092	.93	.77	.72
All adults.....	{1	2,238	.66	.80	.53
	{2	1,843	.93	.83	.77
Child.....	{1	205	.96	.97	.93
	{2	172	.89	1.15	1.03

\* Includes policies with 80 per cent coinsurance, for which amounts paid have been multiplied by .9375.

† Expected based on experience for durations 3 and later.

Except in the case of children, the claim costs are lower on policies with a \$25 room and board limit.

The only deductible amount, other than the \$500 deductible amount, for which there were sufficient data to warrant any analysis was \$300, and data for this deductible were largely those of one company. Claim frequencies and claim costs are higher and average claims lower for this company for the \$300 deductible than for the \$500 deductible, as indicated in Table 22. The expected used in Table 22 is based on the experience on policies with a \$500 deductible amount and no room and board limit, and the expected factors vary according to duration, five-year age group, and sex. The \$300 deductible amount plan had a \$5,000 maximum benefit, while the \$500 deductible amount plan consisted mostly of policies with a \$7,500 maximum benefit. It should be noted that the number of claims is small.

Table 23 compares the experience for duration 1 and duration 2 with that for durations 3 and later. The results show an even more marked variation in claim costs by duration than did the 1960-61 experience. Some of this difference may be explained by the fact that the same companies did not contribute to both studies. The 1962-63 experience actually indicated that claim costs continue to increase by duration beyond duration 3. The data were grouped for durations 3 and later in developing an experience table, so as to have enough volume and to be able to make comparisons with the 1960-61 experience.