TRANSACTIONS OF SOCIETY OF ACTUARIES 1957 REPORTS

TRANSACTIONS

1957 REPORTS OF MORTALITY AND MORBIDITY EXPERIENCE

REPORT OF THE COMMITTEE ON MORTALITY UNDER ORDINARY INSURANCES AND ANNUITIES

MORTALITY UNDER STANDARD ORDINARY INSURANCE ISSUES BETWEEN 1955 AND 1956 ANNIVERSARIES

Ordinary insurance issues between 1955 and 1956 anniversaries. It takes up in turn the mortality experience under:

- 1. Standard Ordinary insurance issued subject to a medical examination, during each of the first 15 policy years,
- 2. Standard Ordinary insurance issued without a medical examination, during each of the first 15 policy years,
- Standard Ordinary insurance—medical and nonmedical issues combined during the 16th and subsequent policy years,
- 4. Standard Ordinary insurance by sex, separately for issues (a) subject to a medical examination and (b) without a medical examination, during each of the first 15 policy years.

The names of the contributing companies and their proportionate contributions to the total exposures are given in Table A of the Appendix.

EXPERIENCE UNDER STANDARD MEDICALLY EXAMINED ISSUES DURING THE FIRST FIFTEEN YEARS OF INSURANCE

The current experience during the first 15 years of insurance is based on an exposure of \$57,322,599,000 and actual claims of \$176,603,000.

Expected deaths were calculated on the 1946–49 Select Basic Table (TSA II, 506). The mortality ratios on this table are presented in Table 1 by age groups at issue for all years of issue combined. The experience by year of issue (or by policy year) is presented in Table 2. The detailed experience by age groups at issue for each year of issue (or each policy year) is set forth in Table B of the Appendix.

The aggregate mortality ratio for the period from 1955 to 1956 anniversaries (86.4%) was 1.4 percentage points lower than that (87.8%) for the period from 1954 to 1955 anniversaries.

Table 1 brings out that for all five year age groups at issue between

TABLE 1

STANDARD MEDICALLY EXAMINED ISSUES OF 1941 TO 1955 EXPERIENCE BETWEEN 1955 AND 1956 ANNIVERSARIES BY AGE AT ISSUE

POLICY YEARS 1 TO 15 COMBINED

(Amounts Shown in \$1,000 Units)

Ages at Issue	Exposed to Risk	Actual Deaths	Expected Deaths on 1946-1949 Select Basic Table	Mortality Ratio	
0-14	\$ 933,137	\$ 676	\$ 834	81.1%	
5-19	1,943,842	1,777	2,069	85.9	
0-24	4,760,343	4,142	4,960	83.5	
5-29	9,098,641	9,219	11,485	80.3	
0-34	11,601,331	17,012	20,710	82.1	
5-39	11,052,564	29,516	32,676	90.3	
0-44	8,565,768	34,822	39,470	88.2	
5-49	5,221,012	33,334	38,705	86.1	
0-54	2,668,506	24,807	28,635	86.6	
5-59	1,090,506	14.162	16,252	87.1	
0-64	319,413	5,610	6.721	83.5	
5 and over	67,536	1,526	1.931	79.0	
All Ages	\$57,322,599	\$176,603	\$204,448	86.4%	

TABLE 2

STANDARD MEDICALLY EXAMINED ISSUES OF 1941 TO 1955 EXPERIENCE BETWEEN 1955 AND 1956 ANNIVERSARIES BY YEAR OF ISSUE

ALL AGES COMBINED

Year of Issue	Policy Year	Exposed to Risk	Actual Deaths	Expected Deaths on 1946-1949 Select Basic Table	Mortality Ratio
1941	15	\$ 2,296,172	\$ 14,582	\$ 17,788	82.0%
1942	14	1,643,555	10,174	12,162	83.7
1943	13	1,863,292	11,790	13,864	85.0
1944	12	2,151,612	12,997	15,095	86.1
1945	11	2,396,082	12,463	14,897	83.7
1946	10	3,644,325	15,596	17,154	90.9
1947	9	3,526,540	13,809	15,961	86.5
1948	9 8 7	3,168,769	11,371	12,994	87.5
1949		3,354,769	10,328	11,907	86.7
1950	6 5	4,026,010	10,159	13,051	77.8
1951	5	3,827,709	9,852	12,560	78.4
1952	4 3 2	4,371,319	11,196	12,193	91.8
1953	3	5,298,312	12,268	12,443	98.6
1954	2	6,594,896	9,809	11,509	85.2
1955	1	9,159,237	10,209	10,870	93.9
All Years					
of Issue		\$ 57,322,599	\$176,603	\$204,448	86.4%

35 and 59 the mortality ratios exceeded 86%, while at ages under 35 and at ages 60 and over the mortality ratios were below 86% of the 1946–49 Select Basic Table.

Table 2 shows that the mortality ratios for the first, third, and fourth policy years were several percentage points higher than for the fifth, sixth, seventh, eighth, and ninth policy year durations. In previous

TABLE 3

STANDARD MEDICALLY EXAMINED ISSUES OF 1941 TO 1955

EXPERIENCE BETWEEN 1955 AND 1956 ANNIVERSARIES

PERCENTAGE DISTRIBUTION BY CAUSE OF DEATH OF AMOUNT PAID IN CLAIMS

Cause of Death:	Tuber- culosis (All Forms)	Malig- nant Neo- plasms	Dia- betes Mel- litus	Vascu- lar Le- sions Affect- ing Central Nervous System	latory	Pneu- monia and Influ- enza	Accidents and Homicide	Sui- cide	War Deaths	All Other Causes and Un- known
Committee's 1950 Code:	01, 02	18-33	37	42	49–55	56-59	88-96, 98	97	99	Resid- ual
Ages 10-29 at issue Policy Years 1-5 Policy Years 6-15 Policy Years 1-15	.0%	10.5% 18.6 15.9	.3% .4 .4	2 2% 3 0 2 7	7.3% 20.3 15.9	.5% .4 .4	60.1% 31.1 41.0	6.5% 9.1 8.2	.0%	12.6% 16.6 15.2
Ages 30-39 at issue Policy Years 1-5 Policy Years 6-15 Policy Years 1-15	.2	19.4 19.3 19.3	. 0 . 3 . 2	2.9 3.3 3.2	36.1 45.5 42.6	1.0 .6 .7	20.6 11.3 14.2	5.2 5.4 5.3	. 0 . 0 . 0	14.6 14.1 14.2
Ages 40-49 at issue Policy Years 1-5 Policy Years 6-15 Policy Years 1-15	. 1 . 2 . 2	20.5 22.3 21.8	.1 .3 .3	2.9 4.4 4.0	49.2 49.9 49.6	1.2 .8 .9	9.8 5.4 6.7	3 · 1 3 · 3 3 · 2	.0 .0 .0	13.1 13.4 13.3
Ages 50 and over at issue Policy Years 1-5 Policy Years 6-15 Policy Years 1-15	.1 .1 .1	21.8 23.2 22.8	1.1 1.1 .8	2.8 6.5 5.4	51.8 50.3 50.7	.6 1.0 .9	10.1 3.6 5.6	1.7 2.6 2.3	.0 .0 .0	11.0 11.6 11.4
All Ages at issue Policy Years 1-5 Policy Years 6-15 Policy Years 1-15	.1 .2 .2	19.5 21.4 20.9	.1 .5 .4	2.8 4.5 4.0	42.2 46.4 45.1	.9 .8 .8	17.9 8.7 11.4	3.6 4.1 4.0	.0 .0 .0	12.9 13.4 13.2

reports it had been noted that the mortality ratios for the first and second policy year durations were higher than for subsequent durations.

Table 3 presents an analysis of current experience on medical issues according to the major subdivisions by cause of death based on the Committee's 1950 Code for Cause of Death (TSA I, 617). This table shows the percentage distribution by cause of death of the amount paid in claims. A comparison of the death rates based on the percentage distribution of mortality by cause of death between 1955 and 1956 anniversaries with the corresponding death rates for the period between 1950

and 1951 anniversaries (based on data in Table 3, page 4, 1952 Reports, after adjustment for war deaths) indicates that for medical issues in the first 15 policy years (a) the death rate from tuberculosis has decreased to one third or less of its level five years ago, and (b) death rates from cancer have increased somewhat at almost all issue ages. It is noteworthy that there has been little change in the death rates from diseases of the heart and circulatory system.

TABLE 4

STANDARD NONMEDICAL ISSUES OF 1941 TO 1955

EXPERIENCE BETWEEN 1955 AND 1956 ANNIVERSARIES
BY AGE AT ISSUE

POLICY YEARS 1-15 COMBINED

(Amounts Shown in \$1,000 Units)

Ages at Issue	Exposed or Risk	Actual Deaths	Expected Deaths* on 1946-1949 Select Basic Table	Mortality Ratio*
0-14	\$ 878,888	\$ 587	\$ 663	88.5%
5-19	2,770,607	2,538	2,722	93.2
0-24	4,138,746	3,287	3,890	84.5
5-29	3.944,839	3,717	4,417	84.2
0-34	2,645,938	3,686	4,087	90.2
5–39	1,321,337	3,883	3,638	106.7
)-44	405,262	1,903	1,958	97.2
5–49	72,706	613	530	115.7
and over	17,971	173	202	85.6
All Ages	\$16,196,294	\$20,387	\$22,107	92.2%

^{*} Not adjusted for distribution of exposures by age within each five year age group at issue.

EXPERIENCE UNDER STANDARD NONMEDICAL ISSUES DURING THE FIRST FIFTEEN YEARS OF INSURANCE

The current experience during the first fifteen years of insurance is based on an exposure of \$16,196,294,000 and actual claims of \$20,387,000. Expected deaths were calculated on the 1946-49 Select Basic Table (*TSA* II, 506), which was based on the experience under medical issues.

Nonmedical business has continued to grow in importance as part of the total experience on recent Ordinary issues. The exposure on non-medical issues in the current study increased 12.1% over that in the study covering the period from 1954 to 1955 anniversaries, whereas the corresponding exposure on medical issues increased only 9.1%. However, for the 16 companies contributing to this study, the proportion of

nonmedical insurance has decreased slightly on new issues, accounting for approximately 23.8% of the standard issues of 1955 (by amounts) as compared with 26.0% of the standard issues of 1954 and 28.9% of the standard issues of 1953.

The mortality ratios for nonmedical issues are presented in Table 4 by age groups at issue for all years of issue combined. These mortality ratios understate somewhat the death rates on nonmedical business because in calculating the expected deaths no adjustment was made for the fact that the central ages of the exposures under nonmedical issues for issue age groups 35-39, 40-44, 45-49, and 50 and over were younger than the central ages of the mortality rates for those age groups in the 1946-49 Select Basic Table; this situation arose from the limiting ages for nonmedical issues of the contributing companies being variously set at 35, 40, 45, or 50, so that the exposures beyond these ages tended to fall off sharply.

The extent to which Table 4 understates the true mortality on non-medical business is brought out by the figures shown below.

MORTALITY RATIOS ON NONMEDICAL ISSUES OF 1941
TO 1955—EXPERIENCE BETWEEN 1955 AND 1956
Anniversaries by Age at Issue
POLICY YEARS 1 TO 15 COMBINED

	MORTALITY RATIOS					
Ages at Issue	Unadjusted	Adjusted*				
35–39 40–44	106.7% 97.2	106.8%				
45–49	115.7 85.6	122.1 87.8				
Ages 35 and over	103.9%	106.3%				

^{*}For distribution of exposures by age within each five year age group at issue.

The unadjusted mortality ratios understate the true mortality on non-medical business to a significant degree only in the age groups 40–44 and 45–49 at issue. The nonmedical business issued at ages 50 and over represents primarily business issued under special circumstances (as for instance under salary allotment plans) which do not affect the distribution of exposures by age within each five year age group at issue.

Allowing for the understatement of the mortality ratios on nonmedical business issued at ages 40-44 and 45-49 as shown in Table 4, it appears

that the mortality ratios on nonmedical business exceeded those on medical business by less than 10 percentage points at issue ages below 35, by about 15 percentage points at issue ages 35–44, and about 35 percentage points at issue ages 45–49.

The aggregate mortality ratio on nonmedical business for the period from 1955 to 1956 anniversaries (92.2%) was .4 percentage points lower

TABLE 5

STANDARD NONMEDICAL ISSUES OF 1941 TO 1955 EXPERIENCE BETWEEN 1955 AND 1956 ANNIVERSARIES

BY YEAR OF ISSUE

ALL AGES COMBINED (Amounts Shown in \$1,000 Units)

Year of Issue	Policy Year	Exposed to Risk	Actual Deaths	Expected Deaths* on 1946-1949 Select Basic Table	Mortality Ratio*
1941	15	\$ 304,602	\$ 868	\$ 996	87.1%
1942	14	241,078	651	736	88.5
1943	13	419,801	1,014	1,146	88.5
1944	12	466,058	1,047	1,187	88.2
1945	11	503,927	1,013	1,170	86.6
1946	10	937,057	1,538	1,750	87.9
1947	9	786,010	1,355	1,396	97.1
1948	8	681,351	987	1,133	87.1
1949	7	747, 128	1,092	1,126	97.0
1950	6	954,313	1,170	1,345	87.0
1951	6 5 4 3 2	1,442,908	1,761	1,991	88.4
1952	[4 [1,665,634	1,971	2,053	96.0
1953	3	2,007,807	2,020	2,195	92.0
1954	1 2 1	2,179,512	1,717	1,922	89.3
1955	1	2,859,108	2,183	1,961	111.3
All Years					
of Issue		\$16,196,294	\$20,387	\$22,107	92.2%

^{*} Not adjusted for distribution of exposures by age within each five year age group at issue.

than that (92.6%) for the period from 1954 to 1955 anniversaries, both on an unadjusted basis. The mortality ratios by year of issue (or by policy year) are presented in Table 5, also on an unadjusted basis. The mortality ratio for the first policy year was markedly higher than that for any of the later durations. In the experience since 1950 anniversaries, the mortality ratios for the first and second policy year durations have been generally relatively high.

The details of the unadjusted experience by age groups at issue for

each year of issue (or each policy year) are set forth in Table C of the Appendix.

Table 6 presents an analysis of the current experience on nonmedical issues according to the major subdivisions by cause of death based on the Committee's 1950 Code for Cause of Death (TSA I, 617). This table shows the percentage distribution by cause of death of the amount paid

TABLE 6

STANDARD NONMEDICAL ISSUES OF 1941 TO 1955
EXPERIENCE BETWEEN 1955 AND 1956 ANNIVERSARIES
PERCENTAGE DISTRIBUTION BY CAUSE OF DEATH OF AMOUNT PAID IN CLAIMS

Cause of Death:	Tuber- culosis (All Forms)	Malig- nant Neo- plasms	Dia- betes Mel- litus	Vascu- lar Le- sions Affect- ing Central Nervous System	latory	Pneu- monia and Influ- enza	Accidents and Homicide	Sui- cide	War Deaths	All Other Causes and Un- known
Committee's 1950 Code:	01, 02	18–33	37	42	4955	56-59	88-96, 98	97	99	Resid- ual
Ages 10-29 at issue Policy Years 1-5 Policy Years 6-15. Policy Years 1-15	.5% .9 .7	12.4% 16.5 14.3	.9% .7 .8	2.0% 2.5 2.3	6.6% 18.2 11.9	.7% 1.3 1.0	58.3% 33.4 46.6	4.1% 6.2 5.0	.2% .1 .2	14.3% 20.2 17.2
Ages 30-39 at issue Policy Years 1-5 Policy Years 6-15 Policy Years 1-15	.6 .7 .6	15.1 17.8 16.6	.7	3.6 3.8 3.7	33.2 43.8 39.4	. 5 1 . 2 . 9	21.1 10.1 14.8	4.3 3.5 3.8	.0 .0 .0	21.5 18.4 19.7
Ages 40-49 at issue Policy Years 1-5 Policy Years 6-15 Policy Years 1-15	.1 .0 .0	20.2 20.4 20.3	.4 1.2 .9	6.9 5.5 5.9	42.4 50.0 47.7	.9 2.0 1.6	13.6 4.9 7.8	3.9 3.2 3.4	.0	11.6 12.8 12.4
Ages 50 and over at issue Policy Years 1-5 Policy Years 6-15 Policy Years 1-15	.0 .0 .0	32.4 14.8 22.9	.0 .0 .0	.0 2.1 1.1	50.3 48.8 49.5	.0 1.5 .8	1.2 .0 .6	2.7 10.3 6.8	.0	13.4 22.5 18.3
All Ages at issue Policy Years 1-5 Policy Years 6-15 Policy Years 1-15	.5 .6 .6	14.2 17.6 16.0	.6 .8 .7	3.0 3.5 3.2	19.1 33.7 26.8	.6 1.4 1.0	41.3 19.3 29.7	4.1 4.7 4.4	.1 .1 .1	16.5 18.3 17.5

in claims. A comparison of the death rates based on the percentage distribution of the mortality by cause of death between 1955 and 1956 anniversaries with the corresponding death rates for the period between 1950 and 1951 anniversaries (based on the data in Table 6, page 8, 1952 Reports, after adjustment for war deaths) indicates that for nonmedical issues in the first fifteen policy years (a) the death rate from tuberculosis has decreased to about one half of its level five years ago, (b) death rates from pneumonia and influenza have decreased somewhat at issue ages under 40, and (c) the death rate from accidents and homicides has in-

creased appreciably at ages under 30. There has been little change in the death rates from diseases of the heart and circulatory system. A comparison of Tables 3 and 6 shows that tuberculosis at issue ages under 40 and diabetes at issue ages under 50 are the only diseases for which mortality among nonmedical issues is consistently higher than among medical issues.

Ideally, it would have been desirable to compare the nonmedical experience with an experience on strictly comparable policies issued with a medical examination. Data for such a comparison, however, are not available. Table 7 presents side by side the experience on medical and nonmedical issues as reported to the Committee for the period from 1951 to

TABLE 7

COMPARISON OF MEDICAL AND NONMEDICAL EXPERIENCE*

BETWEEN 1951 AND 1956 ANNIVERSARIES

BY AGE GROUP AT ISSUE AND DURATION (FIRST FIFTEEN POLICY YEARS)

Age Group	PCLICY YEARS											
AT ISSUE	1-2			3-5 6-10		11-15		1-15				
			Mortal	Mortality Ratios on 1946-49 Select Basic Table								
	Medi- cal	Non- medi- cal	Medi- cal	Non- medi- cal	Medi- cal	Non- medi- cal	Medi- cal %	Non- medi- cal	Medi- cal	Non- medi- cal		
10–19 20–29. 30–39. 40–49. 50 and over		100.8 98.9 98.3† 139.1† 99.1†	98.9 82.3 86.0 87.6 88.3	97.3 86.8 96.9† 106.4† 91.4†	97.0 86.5 90.1 92.7 88.5	89.8 84.9 97.1† 109.5† 79.4†		79.7 84.9 98.5† 102.7† 116.2†		92.4 88.7 97.6 109.4 92.2		
All Ages.	94.3	101.5†	87.1	93.8†	90.5	93.2†	88.3	92.9†	89.4	94.8		
]	Ratios o	f Nonme	lical to	Medical	Mortali	ly Ratios				
10–19	105 114 108 141 102	.7 .6	98 105 112 121 103	.7 .5	92 98 107 118 89	.8	94 101 106 117 134	.4	108 108 121	0.4% 5.0 3.1 1.0		
All Ages.	107	.6%	107	.7%	103	.0%	105	2%	100	5.0%		

^{*} Excludes war claims up to 1954 anniversaries.

[†] Adjusted for distribution of exposures by age within each five year age group at issue.

1956 anniversaries. The nonmedical mortality ratios shown in this table have been adjusted approximately so as to reflect the distribution of nonmedical exposures by age within each five year age group at issue. In so far as these figures go, they indicate that (a) with the exception of the age group under 20 at issue, nonmedical mortality is appreciably higher than on medical business and (b) the excess nonmedical mortality over medical mortality increases from about 5 percent at issue ages 20-29 to 8 percent at issue ages 30-39 and to over 20 percent at issue ages 40-49. At ages 10-29 the effects of antiselection are largely confined to the early policy years, whereas with advancing age they extend to the later durations. However, the relationship between medical and nonmedical mortality at issue ages 10-19 has shown sizable fluctuations due to the relatively small volume of data. It should also be kept in mind that the nonmedical experience at issue ages 50 and over reflects primarily business issued under special circumstances, as for instance under salary allotment plans.

Additional data furnished the Committee indicate that females continue to constitute a higher proportion of nonmedical issues (21.2%) than of medical issues (8.4%) by amounts of insurance. This was noted in previous reports. To the extent that females constitute a higher proportion of the nonmedical experience than of the medical experience, Table 7 understates the excess of nonmedical mortality over medical mortality.

EXPERIENCE UNDER STANDARD ISSUES DURING THE 16TH AND SUBSEQUENT POLICY YEARS

The current experience during the 16th and subsequent policy years is based on an exposure of \$24,840,856,000 and actual claims of \$462,209,000. Expected deaths were based on the 1946–49 Ultimate Basic Table (TSA II, 507) and also on the Commissioners 1941 Standard Ordinary Mortality Table. The mortality ratios based on these tables are presented in Table 8 by attained age groups.

The aggregate mortality ratio on the 1946–49 Ultimate Basic Table for the period from 1955 to 1956 anniversaries (88.1%) was virtually unchanged from that (88.2%) for the period from 1954 to 1955 anniversaries.

Table 9 presents an analysis of the current experience on business in the 16th and subsequent policy years according to the major subdivisions by cause of death based on the Committee's 1950 Code for Cause of Death (TSA I, 617). This table shows the percentage distribution by cause of death of the amount paid in claims. A comparison of the death rates based on the percentage distribution of the mortality by cause of death between 1955 and 1956 anniversaries with the corresponding death

TABLE 8

STANDARD ISSUES DURING 16TH AND SUBSEQUENT POLICY YEARS EXPERIENCE BETWEEN 1955 AND 1956 ANNIVERSARIES BY ATTAINED AGE

ALL POLICY YEARS COMBINED

(Amounts Shown in \$1,000 Units)

Attained Ages	Exposed to Risk	Actual Deaths	Expected Deaths on 1946-1949 Ultimate Basic Table	Expected Deaths on CSO Table	Mortality Ratio on 1946-1949 Ultimate Basic Table	Mortality Ratio on CSO Table
25-29	\$ 209,669	\$ 280	\$ 253	s 668	110.7%	42.0%
30-34	579,137	735	862	2,318	85.3	31.7
35~39	1,355,592	2,084	2,760	7,140	75.5	29.2
40-44	2,374,304	6,575	7,823	16,953	84.0	38.8
45-49	3,369,777	16,365	19,175	33,870	85.3	48.3
50-54	3,985,616	32,214	37,544	57,459	85.8	56.1
55~59	4,060,712	53,956	64 142	85,817	84.1	62.9
60-64	3,592,637	77,706	90,179	112,056	86.2	69.3
65~69	2,539.024	80,424	94,371	117,528	85.2	68.4
70~74	1,558,742	80,921	85,048	107,030	95 1	75.6
75-79	797,964	58, 193	64,757	81,510	89.9	71.4
80-84	313,909	34,430	38,226	47,027	90.1	73.2
85-89	86,331	13,435	15,451	18,674	87.0	71.9
9095	17,442	4,891	4,218	5,416	116.0	90.3
All Ages	\$24,840,856	\$462,209	\$524,809	\$693,466	88.1%	66.7%

TABLE 9
STANDARD ISSUES DURING 16TH AND SUBSEQUENT POLICY YEARS
EXPERIENCE BETWEEN 1955 AND 1956 ANNIVERSARIES

PERCENTAGE DISTRIBUTION BY CAUSE OF DEATH OF AMOUNT PAID IN CLAIMS

Cause of Death:	Tuber culosis (All Forms)	Malig- nant Neo- plasms	Dia- betes Mel- litus	Vascu- lar Le- sions Affect- ing Central Nervous System	latory	Pneu- monia and Influ- enza	Acci- dents and Homi- cide	Sui- cide	War Deaths	All Other Causes and Un- known
Committee's 1950 Code:	01, 02	18-33	37	42	49-55	56-59	88-96, 98	97	99	Resid- ual
Attained Ages Under 40* 40-49 50-59 60-69 70-79 80 and over All Ages*	1.1% 5 .3 .3 .2 .1	17.9% 20.0 19.1 17.9 17.5 11.7	1.2% .5 1.0 1.1 1.3 .9	3.2% 5.3 6.3 8.4 12.6 15.6	21.9% 43.6 50.6 54.2 50.3 52.5	1.0 .7 .9 1.6 2.9	25 0% 8.2 4.3 2.3 1.8 1.6	3.9 3.2 1.4 .6 .2	.0%	21.2% 17.0 14.5 13.5 14.1 14.5

^{*} Excludes ages 24 and under.

rates for the period between 1950 and 1951 anniversaries (based on the data in Table 9, page 11, 1952 Reports, after adjustment for war deaths) indicates that on business in the 16th and subsequent policy years (a) the death rate from tuberculosis has decreased considerably from its level five years ago, (b) death rates from cancer have increased somewhat at attained ages up to 79, and (c) death rates from vascular lesions affecting the central nervous system have decreased at ages 50–79. There has been little change in the death rates from diseases of the heart and circulatory system.

It had been noted in some companies that at the older ages the ultimate experience on premium-paying policies was somewhat higher than on fully paid-up policies. Ten companies were able to submit their experience on premium-paying policies and seven companies did so on fully paid-up policies; the former constituted 67.4% of the total ultimate experience, while the latter accounted for 13.6% of the total experience (both percentages based on exposures). This permitted a comparison to be made of the mortality on premium-paying and paid-up business, with mortality ratios calculated on the 1946–49 Ultimate Basic Table, as shown in Table 10. At attained ages 65 and over, the mortality ratios were generally higher on premium-paying than on fully paid-up policies, the differential in favor of fully paid-up policies averaging about 5 percentage points.

EXPERIENCE BY SEX UNDER STANDARD MEDICALLY EXAMINED ISSUES AND UNDER STANDARD NONMEDICAL ISSUES DURING THE FIRST FIFTEEN YEARS OF INSURANCE

Of the sixteen contributing companies, eleven were able to submit their experience separately for males and females (a) on standard medically examined issues, and (b) on nonmedical issues, during the first 15 years of insurance. Expected deaths were calculated on the 1946-49 Select Basic Table (TSA II, 506). It should be noted, however, that the eleven companies contributing data by sex represented only 47.3% of the medical exposures and only 37.4% of the nonmedical exposures. The level of standard mortality in these eleven companies was close to 100% of that of all contributing companies on medically examined issues, but only about 94% of that of all companies on nonmedical issues.

Medically Examined Issues

The mortality ratios by sex on standard medically examined issues during the first 15 years of insurance are presented in Table 11 by age

TABLE 10

COMPARISON BETWEEN MORTALITY EXPERIENCE UNDER PREMIUM-PAYING AND FULLY PAID-UP POLICIES

STANDARD ISSUES DURING THE

16TH AND SUBSEQUENT POLICY YEARS OBSERVED BETWEEN 1955 AND 1956 ANNIVERSARIES

(Amounts Shown in \$1,000 Units)

.	Premium-Payi	ING POLICIES	FULLY PAID-UP POLICIES			
ATTAINED AGES	Actual Deaths	Mortality Ratio	Actual Deaths	Mortality Ratio		
25-29	\$ 232	110.5%	\$ 7	87.5%		
30-34	543	83.3	99	94.3		
35-39	1,574	73.9	246	76.9		
40-44	4,799	83.1	865	82.6		
45-49	11,820	86.3	2,012	79.7		
50-54	22,960	87.7	3,766	79.9		
55-59	36,803	84.9	6,709	84.3		
50-64	50,042	85.9	10,203	84.9		
55-69	49,170	85.7	12,076	82.8		
70–74	47,277	98.2	12,867	88.0		
75–79	32,073	93.3	10,580	88.1		
30–84	17,485	95.8	7.280	89.8		
35-89	6,145	93.5	2,991	77.9		
90–95	1,722	118.4	1,566	129.7		
All Ages	\$282,645	89.3%	\$71,267	85.8%		

TABLE 11

STANDARD MEDICALLY EXAMINED ISSUES OF 1941 TO 1955 EXPERIENCE BETWEEN 1955 AND 1956 ANNIVERSARIES BY SEX AND AGE AT ISSUE

EXPECTED DEATHS ON 1946-1949 SELECT BASIC TABLE POLICY YEARS 1 TO 15 COMBINED

AGES AT	1		ACTUAL	Deates	Mortali	RATIO OF FEMALE TO MALE	
1350£	Male	Female	Male	Female	Male	Female	Mor- TALITY
10-14	\$ 335,998	\$ 96,758	\$ 279	\$ 29	96.5%	33.3%	34.5%
15-19	624,458	137,783	608	60	94.3	40.0	42.4
20-24	1,635,085	256,103	1,702	136	103.8	46.7	45.0
25-29	3,671,934	281,882	3,837	230	86.3	56.8	65.8
30-34	4,952,855	313,660	6,985	339	82.4	53.2	64.6
35-39	4,887,635	341,566	13,673	421	97.4	37.8	38.8
40-44	3,991,070	346,994	16,652	623	92.6	36.7	39.6
45-49	2,562,557	257,843	16,212	897	87.7	46.0	52.5
50-54	1,365,205	151,357	12,759	730	89.9	45.1	50.2
55-59	573,905	71,436	7,437	542	90.4	51.5	57.0
60-64	173,918	24,747	2,949	202	86.4	39.5	45.7
65 and	,	,	-,				
over	39,478	5,490	875	53	82.2	37.6	45.7
All							
Ages	\$24,814,098	\$2,285,619	\$83,968	\$4,262	90.4%	44.1%	48.8%

groups at issue for all years of issue combined. The corresponding experience by year of issue (or by policy year) is presented in Table 12. The detailed experience by age groups at issue for each year of issue (or policy year) is set forth in Table D of the Appendix.

Table 11 brings out that, in relation to the 1946-49 Select Basic Table, male mortality during this one year of experience was highest at ages under

TABLE 12

STANDARD MEDICALLY EXAMINED ISSUES OF 1941 TO 1955 EXPERIENCE BETWEEN 1955 AND 1956 ANNIVERSARIES BY SEX AND YEAR OF ISSUE

ENPECTED DEATHS ON 1946-1949 SELECT BASIC TABLE ALL AGES COMBINED

(Amounts Shown in \$1,000 Units)

YEAR OF POLICY YEAR		Exposed to Risk			Actual Deaths		MORTALITY RATIO		RATIO OF FEMALE TO MALE
ISSUE	IESK	Male		Female	Male	Female	Male	Female	Mor-
1941	15	8 851,147	s	113,502	\$ 6,246	\$ 378	84.9%	38.8%	45.7%
1942	14	580,632	ļ	109,867	4.335	462		i59.8	69.7
1943	13	705,545	1	110,933	5.642		93.4	48.1	51.5
1944	12	849,165		126,556	5,802			38.2	42.7
1945	11	944,390		119,189	5.506		85.7	40.3	47.0
1946	10	1,431,239	1	145,457	7,791		102.9	32.1	31.2
1947		1,550,053		149,997	7,005			50.9	55.8
1948		1,282,882		119,000	5,242			45.3	50.2
1949		1,385,962		133,936	4,796			56.5	63.4
1950		1,726,191		138,652	5,020			30.1	36.1
1951		1,733,653	İ	142,434	4,900			32.0	39.2
1952		2,012,109	1	161,415	5,812		97.0	70.8	73.0
1953		2,307,694		183,374	6,191		106.2	54.0	50.8
1954	2	3,096,170		235,801	4,977			22.1	25.4
1955	ī	4,357,266		295,506	4,643			46.8	55.0
All Years of Issue		\$24,814,098	\$2	285 619	\$83 968	S4 262	90.4%	44 1%	48.8%

25 at issue and also in the age range from 35–44 at issue. Correspondingly, female mortality was highest at ages 25–34 at issue. In the aggregate, female mortality under standard medical issues during the first 15 years of insurance was less than half (48.8%) that of males. Female mortality was relatively highest at issue ages 25–34, where it was about 65% of male mortality and was relatively lowest at issue ages 10-14 and at issue ages 35-44, where it was below 40% of male mortality.

Table 12 reveals wide fluctuations in the mortality ratios for males and females by year of issue (or by policy year) but shows no significant pattern in the ratio of female to male mortality by duration.

Nonmedical Issues

The mortality ratios by sex on nonmedical issues during the first 15 years of insurance are presented in Table 13 by age groups at issue for all years of issue combined. The corresponding experience by year of issue (or by policy year) is presented in Table 14. The detailed experience by age groups at issue for each year of issue (or each policy year) is set forth in Table E of the Appendix. These mortality ratios understate

TABLE 13

STANDARD NONMEDICAL ISSUES OF 1941 TO 1955
EXPERIENCE BETWEEN 1955 AND 1956 ANNIVERSARIES
BY SEX AND AGE AT ISSUE
EXPECTED DEATHS ON 1946-1949 SELECT BASIC TABLE
POLICY YEARS 1 TO 15 COMBINED

(Amounts Shown in \$1,000 Units)

Ages at Issue	Exposen	to Rick	Rick Actual Deaths			M) REALITY		
18806	Male	Female	Male	Female	Male	Female	Mos-	
10–14 15–19 20–24 25–29 30–34 35–39 40–44 45–49 50 and over	\$ 227,270 608,594 1,086,878 1,180,622 889,855 555,752 186,124 26,462 6,566	\$ 92,880 247,551 396,065 226,014 162,205 116,930 34,984 4,568 1,004	\$ 178 655 942 1,164 1,340 1,659 939 260 75	\$ 50 125 210 176 165 228 96 6 5	100.0% 107.7 92.3 85.5 89.1 98.3 98.7 111.1 98.7	71.4% 50.0 52.1 60.5 55.4 64.6 56.1 17.1 45.5	71.4% 46.4 56.4 70.8 62.2 65.7 56.8 15.4 46.1	
All Ages	\$4,768,123	\$1,282,201	\$7,212	\$1,061	94.6%	56.4%	59.6%	

^{*} Not adjusted for distribution of exposures by age within each five year age group at issue.

somewhat the death rates on nonmedical business because in calculating the expected deaths no adjustment was made for the fact that the central ages of the exposures under nonmedical issues for issue age groups 35–39, 40–44, 45–49, and 50 and over were younger than the central ages of the mortality rates for those age groups in the 1946–49 Select Basic Table.

In relation to the 1946-49 Select Basic Table, male mortality during this one year of experience was highest at ages 45-49 and also at ages 15-19; it was lowest in the age group 25-29 at issue. Similarly, female mortality was highest at issue ages 10-14 and at issue ages 35-39. In the aggregate, female mortality on nonmedical issues in the first 15 years of insur-

ance was about 60% of that of males. Female mortality was relatively highest at issue ages 10-14 and at issue ages 25-29, and relatively lowest at issue ages 15-19.

Table 14 shows considerable fluctuations in the mortality ratios for males and females by year of issue (or by policy year) and reveals no significant pattern in the ratio of female to male mortality by duration.

Medical and Nonmedical Issues

Table 15 presents side by side the experience on medical and non-medical issues, separately for each sex. The nonmedical mortality ratios shown in this table have not been adjusted to reflect the distribution of nonmedical exposures by age within each five year age group at issue. In so far as these figures for one year's experience go, they indicate that (a) the excess mortality on nonmedical issues was materially higher among female lives than among male lives, (b) nonmedical mortality

TABLE 14

STANDARD NONMEDICAL ISSUES OF 1941 TO 1955
EXPERIENCE BETWEEN 1955 AND 1956 ANNIVERSARIES
BY SEX AND YEAR OF ISSUE
EXPECTED DEATHS ON 1946-1949 SELECT BASIC TABLE
ALL AGES COMBINED

YEAR OF Issue	Policy Year	Exposed to Risk			ACTUAL DEATHS		MORTALITY RATIO*		RATIO OF FEMALE TO MALE			
ISSUE	YEAR	Male	F	emale	M	ale	Fer	nale	Ma	ıle	Female	Mor- tality*
1941	15	\$ 97,567	\$	28,631	\$	374	\$	34	90.	6%	35.8%	39.5%
1942	14	76,367		34,716		294		56	97.		60.2	61.6
1943	13	125,948	ì	62,454	1	418		81	96.	5	56.3	58.3
1944	12	128,579		72,334		425	ĺ	89	98.	8	56.7	57.4
1945	11	158,158		71,071		448		81	96.	1	55.9	58.2
1946	10	328,000	1	82,676	1	675	ì	81	93.	4	53.3	57.1
1947	9	280,719		77,804		573		104	97	4	78.8	80.9
1948	8	253,875		67,729	ł	418		73	88	$\bar{2}$	65.8	74.6
1949		266,698		71,654	l	461		64	103	6	61.0	58.9
1950	6	335,089		79,894	1	450	ļ	63	86	Ō.	55.8	64.9
1951	5	383,404		93,365	l	547		72	98	9	56.7	57.3
1952	4	468,587		08,477		516		72	86	9	55.4	63.8
1953		569,160		26,019	ļ	591		65	92	3	47.8	51.8
1954		597,985		40,082		452		64			50.4	61.1
1955	1	697,987		65,295		570			116		53.9	46.3
All Years	,											
of Issue		\$4,768,123	\$1.2	82,201	\$7	,212	\$1.	061	94	6%	56.4%	59.6%

^{*} Not adjusted for distribution of exposures by age within each five year age group at issue.

TABLE 15

COMPARISON BY SEX OF MEDICAL AND NONMEDICAL EXPERIENCE
BETWEEN 1955 AND 1956 ANNIVERSARIES
BY AGE GROUP AT ISSUE AND DURATION (FIRST FIFTEEN POLICY YEARS)

				ios on 194 Asic Tabl				F Nonmedi Edical Rati	
			Policy	Years			Po	licy Years	
Age Group at Issue	1	5	6	-15	1	-15			
	Medi- cal	Non- medi- cal*	Medi- cal	Non- medi- cal*	Medi- cal	Non- medi- cal*	15	6-45	: 1 1 [©]
					Male L	, IVES			14.1 10.00
10–19 20–29. 30–39 40–49 50 and	87.7 94.5 93.0 93.3	119.9 91.8 85.7 109.7	98.2 88.7 91.2 88.8	93.8 85.2 97.8 98.8	95.0 91.0 91.7 90.1	106.0 88.4 94.0 101.2	136.7% 97.1 92.2 117.6	95.5% 96.1 107.2 111.3	111.6% 97.1 102.5 112.3
over	87.3	72.7	90.2	109.3	89.3	98.7	83.3	121.2	110.5
All Ages	91.4	94.7	89.9	94.6	90.4	94.6	103.6%	105.2%	104.6%
					FEMALE	Lives	·		
10–19 20–29 30–39 40–49 50 and	23.5 44.3 66.5 43.3	54.2 47.8 56.5 63.2	41.4 55.2 36.6 41.1	55.0 60.1 61.9 44.3	37.6 52.6 43.4 41.7	54.7 55.6 60.4 49.5	230.6% 107.9 85.0 146.0	132 9% 108.9 169.1 107.8	145.5% 105.7 139.2 118.7
over	39.1	16.7	49.1	80.0	45.9	45.5	42.7	162.9	99.1
All Ages	44.9	52.8	43.9	58.2	44.1	56.4	117.6%	132.6%	127.9%

^{*} No adjustment has been made for the age distribution of the nonmedical data.

among males was some 12 percent higher than on medical issues at issue ages 10–19 and also at issue ages 40–49, whereas there was little difference between medical and nonmedical mortality in the age group 20–39 at issue, and (c) nonmedical mortality among females was about 40 percent higher than on medical issues at issue ages 10–19 and 30–39 and almost 20 percent higher at issue ages 40–49, there being relatively little differ-

TABLE 16

STANDARD COMBINED MEDICAL AND NONMEDICAL ISSUES OF 1941 TO 1955 EXPERIENCE BETWEEN 1955 AND 1956 ANNIVERSARIES BY SEX AND AGE AT ISSUE

EXPECTED DEATHS ON 1946-1949 SELECT BASIC TABLE
POLICY YEARS 1 TO 15 COMBINED
(Amounts Shown in \$1,000 Units)

Exposed	то	Risk	ACTUAL	DE	ATHS	Mortali	TY RATIO	RATIO OF FEMALE TO MALE
Male		Female	Male	F	emale	Male	Female	Mor- tality
	\$		\$ 457 1,263	\$	79 185	97.9% 100.8	50.3% 46.3	51.4% 45.9
2,721,963 4,852,556		652,168 507,896	2,644 5,001		346 406	99.4 86.1	49.9 58.3	50.2 67.7
5,443,387		458,496	8,325 15,332		504 649	97.5	53.9 44.2	64.6 45.3
2,589,019		262,411	16,472		903	88.0	45.5	41.4 51.7
	e 2		-	-				$\frac{51.4}{50.8\%}$
	Male \$ 563,268 1,233,052 2,721,963 4,852,556 5,842,710 5,443,387 4,177,194	Male \$ 563,268 1,233,052 2,721,963 4,852,556 5,842,710 5,443,387 4,177,194 2,589,019 2,159,072	\$ 563,268 1,233,052 2,721,963 4,852,556 5,842,710 5,443,387 4,177,194 2,589,019 2,159,072 381,386 4,177,194 2,589,019 2,159,072 381,963 381,978 262,411 254,034	Male Female Male \$ 563,268 \$ 189,638 \$ 457 1,233,052 385,334 1,263 2,721,963 652,168 2,644 4,852,556 507,896 5,001 5,842,710 475,865 8,325 5,443,387 458,496 15,332 4,177,194 381,978 17,591 2,589,019 262,411 16,472 2,159,072 254,034 24,095	Male Female Male F \$ 563,268 \$ 189,638 \$ 457 1,233,052 385,334 1,263 2,771,963 652,168 2,644 4,852,556 507,896 5,001 5,842,710 475,865 8,325 5,443,387 458,496 15,332 4,177,194 381,978 17,591 2,589,019 262,411 16,472 2,159,072 254,034 24,095 1	Male Female Male Female \$ 563,268 \$ 189,638 \$ 457 \$ 79 1,233,052 385,334 1,263 185 2,721,963 652,168 2,644 346 4,852,556 507,896 5,001 406 5,842,710 475,865 8,325 504 5,443,387 458,496 15,332 649 4,177,194 381,978 17,591 719 2,589,019 262,411 16,472 903 2,159,072 254,034 24,095 1,532	Male Female Male Female Male \$ 563,268 \$ 189,638 \$ 457 \$ 79 97.9% 1,233,052 385,334 1,263 185 100.8 2,771,963 652,168 2,644 346 99.4 4,852,556 507,896 5,001 406 86.1 5,842,710 475,865 8,325 504 83.4 5,443,387 458,496 15,332 649 97.5 4,177,194 381,978 17,591 719 92.9 2,589,019 262,411 16,472 903 88.0 2,159,072 254,034 24,095 1,532 89.3	Male Female Male Female Male Female \$ 563,268 \$ 189,638 \$ 457 \$ 79 97.9% 50.3% 1,233,052 385,334 1,263 365 19.84 46.3 2,721,963 652,168 2,644 346 99.4 49.9 4,852,556 507,896 5,001 406 86.1 58.3 5,842,710 475,865 8,325 504 83.4 53.9 5,443,387 458,496 15,332 649 97.5 44.2 4,177,194 381,978 17,591 719 92.9 38.5 2,589,019 262,411 16,472 903 88.0 45.5 2,159,072 254,034 24,095 1,532 89.3 45.9

ence between medical and nonmedical mortality in the age range 20-29 at issue.

Of interest also is the experience on medical and nonmedical business combined, considered separately for the two sexes. This is shown in Table 16 by age groups at issue. In relation to the 1946-49 Select Basic Table, male mortality was highest at ages under 25 and lowest in the age range 25-34. Female mortality, on the other hand, was highest in the age range 25-34 and lowest at ages 35 and over. In the aggregate, male mortality was just about double that of females.

APPENDIX

TABLE A

CONTRIBUTING COMPANIES PROPORTION OF TOTAL EXPOSURES CONTRIBUTED BY EACH

	First Policy	- (16th and	FIRST	15 Police	YEARS BY	SEX
Company	Medical	Non-	SUBSE- QUENT POLICY	Medical Issues		Nonmedical Issues	
	Issues	medical Issues	YEARS	Male	Female	Male	Female
Metropolitan	22.4%	28.2%	28.6%				
Prudential		33.2	13.7				
New York Life	10.4	10.9		19.8%	2.2%	21.5%	7.5%
Equitable, N.Y	9.2	7.3	10.9	17.8	1.5	16.1	3.6
Northwestern Mutual	8.4		9.6				
John Hancock	4.7	7.0	3.3 j	9.2		13.4	5.5
Massachusetts Mutual	3.8	1.9	4.6	7.4	.6	4.3	. 7
Mutual Life, N.Y	3.7	2.3	7.8	7.2	.8	5.3	.8
Mutual Benefit	3.7	.9	3.7				
Penn Mutual	3.4	.9	4.1	6.6	. 6	2.0	. 4
Travelers	3.4	.6	4.1	6.6	.5	1.3	. 1
Connecticut Mutual	2.9	2.4	2.2	5.7	.4	5.6	.9
Aetna	2.6	.8	2.8	5.1	.4 .5	1.6	.6
Connecticut General	1.8	.3	1.0	3.5	.3	.6	.1
Provident Mutual	1.5	. 3	2.1				
Sun Life, Canada	1.4	3.0	1.5	2.7	. 2	7.2	.9
Total	100.0%	100.0%	100.0%	91.6%	8.4%	78.9%	21.1%

TABLE B

STANDARD MEDICALLY EXAMINED ISSUES OF 1941 TO 1955 EXPERIENCE BETWEEN 1955 AND 1956 ANNIVERSARIES BY YEAR OF ISSUE AND AGE AT ISSUE

EXPECTED DEATHS ON 1946-1949 SELECT BASIC TABLE

Issue Year (Policy Year)	Ages at Issue	Exposed to Risk	Actual Deaths	Expected Deaths	Mortality Ratio
1941 (15)	10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50-54 55-59 60-64 65 and over	\$ 78,163 166,903 346,455 416,542 424,458 357,306 242,183 157,566 70,031 26,448 8,750 1,367	\$ 55 156 471 992 1,767 2,803 2,287 2,668 1,872 950 419	\$ 91 234 648 1,229 2,144 2,933 3,211 3,336 2,116 1,153 558 135	60% 67 73 81 82 96 71 80 88 82 75
	All Ages	\$2,296,172	\$14,582	\$17,788	82%
1942(14)	10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50-54 55-59 60-64 65 and over	\$ 56,853 118,430 198,640 280,486 299,240 264,076 192,644 133,031 67,261 25,303 6,516 1,075	\$ 61 95 261 516 984 1,337 1,777 2,072 1,583 1,025 324 139	\$ 65 152 322 718 1,284 1,838 2,167 2,422 1,774 974 356 90	94% 63 81 72 77 73 82 86 89 105 91
	All Ages	\$1,643,555	\$10,174	\$12,162	84%
1943(13)	10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50-54 55-59 60-64 65 and over	\$ 59,738 107,167 157,342 265,337 331,889 340,352 280,474 184,910 94,753 31,944 8,101 1,285	\$ 45 135 188 483 1,135 1,739 2,631 2,500 1,676 914 226 118	\$ 68 130 222 589 1,248 2,097 2,763 2,973 2,202 1,090 390 92	66% 104 85 82 91 83 95 84 76 84 58 128
	All Ages	\$1,863,292	\$11,790	\$13,864	85%

TABLE B-Continued

Issue Year (Policy Year)	Ages at Issue	Exposed to Risk	Actual Deaths	Expected Deaths	Mortality Ratio
1944(12)	10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50-54 55-59 60-64 65 and over	\$ 72,113 114,130 145,236 251,592 381,103 424,155 370,896 228,035 116,835 37,144 8,742 1,631	\$ 65 108 106 452 1,037 2,134 2,986 2,749 1,907 902 409 142	\$ 81 132 189 493 1,269 2,375 3,238 3,322 2,386 1,125 381 104	80% 82 56 92 82 90 92 83 80 80 107
	All Ages	\$2,151,612	\$12,997	\$15,095	86%
1945(11)	10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50-54 55-59 60-64 65 and over	\$ 73,593 114,670 158,818 277,798 447,044 498,925 401,866 243,761 128,195 39,288 10,210 1,914	\$ 84 137 196 408 1.187 2.124 2.835 2.359 1,794 991 278 70	\$ 81 128 189 494 1,319 2,505 3,131 3,162 2,318 1,047 411 112	104% 107 104 83 90 85 21 75 77 95 68 63
	All Ages	\$2,396,082	\$12,463	\$14,897	84%
1946 (10)	10–14 15–19 20–24 25–29 30–34 35–39 40–44 45–49 50–54 55–59 60–64 65 and over	\$ 78,066 135,190 399,771 614,629 722,494 687,121 509,950 285,318 146,030 50,606 12,823 2,327	\$ 94 92 338 868 1,619 2,818 3,180 2,561 1,985 1,495 410 136	\$ 84 147 444 971 1,828 3,003 3,452 3,181 2,288 1,166 467 123	112% 63 76 89 89 94 92 81 87 128 88 111
	All Ages	\$3,644,325	\$15,596	\$17,154	91%
1947(9)	10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50-54 55-59 60-64 65 and over	\$ 71,045 151,297 324,075 518,290 691,917 684,745 537,314 306,940 164,888 59,550 13,820 2,659	\$ 63 134 281 556 1,289 2,302 3,248 2,488 2,162 810 342 134	\$ 72 163 344 752 1,564 2,677 3,240 3,008 2,332 1,229 454 126	88% 82 82 74 82 86 100 83 93 66 75 106
	All Ages	\$3,526,540	\$13,809	\$15,961	86%

Issue Year (Policy Year)	Ages at Issue	Exposed to Risk	Actual Deaths	Expected Deaths	Mortality Ratio
1948(8)	10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50-54 55-59 60-64 65 and over	\$ 52,742 120,858 297,205 499,674 631,140 594,960 476,725 277,587 145,930 54,025 15,178 2,745	\$ 52 112 276 487 1,221 1,688 2,200 2,267 1,893 800 302 73	\$ 47 129 306 675 1,300 2,094 2,579 2,421 1,878 1,009 440 116	111% 87 90 72 94 81 85 94 101 79 69
	All Ages	\$3,168,769	\$11,371	\$12,994	88%
1949	10–14 15–19 20–24 25–29 30–34 35,39 40–44 45–49 50–54 55–59 60–64 65 and over	\$ 49,655 119,807 326,784 555,581 658,255 639,982 494,590 285,179 146,577 59,267 16,004 3,088	\$ 40 120 265 581 760 1,754 2,147 1,932 1,554 856 244 75	\$ 44 128 320 683 1,191 1,920 2,359 2,119 1,667 973 392 111	91% 94 83 85 64 91 91 93 88 62 68
	All Ages	\$3,354,769	\$10,328	\$11,907	87%
1950	10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50-54 55-59 60-64 65 and over	\$ 51,286 144,680 388,939 695,915 825,909 755,962 561,121 336,868 173,767 70,821 17,657 3,085	\$ 24 164 254 605 851 1,688 1,875 2,135 1,548 637 310 68	\$ 42 153 381 814 1,371 2,079 2,508 2,274 1,847 1,092 393 97	57% 107 67 74 62 81 75 94 84 58 79 70
	All Ages	\$4,026,010	\$10,159	\$13,051	78%
1951(5)	10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50-54 55-59 60-64 65 and over	\$ 45,157 101,586 250,601 574,582 763,686 764,502 620,581 388,177 199,132 90,008 23,805 5,892	\$ 52 80 138 438 687 1,631 2,088 1,863 1,033 1,354 365 123	\$ 34 108 246 644 1,138 1,858 2,457 2,310 1,876 1,253 474 162	153% 74 56 68 60 88 85 81 55 108 77 76
	All Ages	\$3,827,709	\$ 9,852	\$12,560	78%

TABLE B-Continued

Issue Year					
(Policy	Ages at	Exposed to	Actual	Expected	Mortality
Year)	Issue	Risk	Deaths	Deaths	Ratio
1952	10–14	\$ 45,955	\$ 20	\$ 30	67%
(4)	15-19	96,748	89	98	91
	20-24	257,598	173	242	71
	25-29	667,428	587	694	85
	30-34	897,648	998	1,158	86
	35-39	894,266	1,493	1,851	81
ł	40-44	709,101	1,944	2,333	83
	45-49	446,540	2,392	2,251	106
ļ	50-54	215,879	1,430	1,671	86
	55-59	103,244	1,200	1,200	100
	60-64	30,614	813	518	157
	65 and over	6,298	57	147	39
	All Ages	\$4.371,319	\$11,196	\$12,193	92%
1953	10-14	\$ 48,281	\$ 12	\$ 28	43%
(3)	15-19	114,995	112	110	102
	20-24	308,310	297	274	108
,	25-29	839,443	833	814	102
	30-34 35-39	1,109,116 1.082,869	1,076 2,485	1,264	85 129
	40-44	837,350	2.215	1,928 2,294	97
	45-49	530,034	2,214	2,263	98
	50-54	266,950	1,785	1,679	106
1	55-59	117,061	744	1,114	67
	60-64	36,499	460	523	88
	65 and over	7,404	35	152	23
	All Ages	\$5,298,312	\$12,268	\$12,443	98%
1954	10-14	\$ 67,604	\$ 1	\$ 34	3%
(2)	15-19	143,538	105	121	87
` ′	20-24	442,147	370	340	109
	25-29	1,073,423	599	880	68
1	30-34	1,425,150	1,022	1,297	79
	35-39	1,299,758	1,862	1,807	103
	40-44	1,006,396	1,839	2,003	92
	45-49	618,292	1,683	1,954	86
	50-54	318,684	1,252	1,418	88
	55-59	141,455	630	968	65
j	60-64	45,884	370	484	76
	65 and over	12,565	76	203	37
	All Ages	\$6,594,896	\$ 9,809	\$11,509	85%
1955	10-14	\$ 82,886	\$ 8	\$ 33	24%
(1)	15-19	193,843	138	136	101
	20-24	758,422	528	493	107
	25-29	1,567,921	814	1,035	79
	30-34	1,992,282	1,379	1,335	103
1	35-39	1,763,585	1,658	1,711	97
ł	40-44	1,324,577	1,570	1,735	90
	45-49 50-54	798,774 413,594	1,451 1,333	1,709	85 113
	50-5 4 55-59	184,342	854	1,183 859	99
[55-59 60-64	64,810	338	480	70
ļ	65 and over	14,201	138	161	86
	All Ages	\$9,159,237	\$10,209	\$10,870	94%
		\$7,107,201	1 410,207	\$10,070	1 /6

TABLE C
STANDARD NONMEDICAL ISSUES OF 1941 TO 1955
EXPERIENCE BETWEEN 1955 AND 1956 ANNIVERSARIES BY YEAR OF ISSUE
AND AGE AT ISSUE

EXPECTED DEATHS BY 1946-1949 SELECT BASIC TABLE (Amounts Shown in \$1,000 Units)

Issue Year (Policy Year)	Ages at Issue	Exposed to Risk	Actual Deaths	Expected Deaths	Mortality Ratio
1941 (15)	10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50 and over	\$ 14,214 59,310 90,585 66,266 45,240 19,005 8,108 1,758 116	\$ 22 71 115 147 258 138 93 21 3	\$ 16 83 169 195 228 156 108 37 4	138% 86 68 75 113 88 86 57
	All Ages	\$ 304,602	\$ 868	\$ 996	87%
1942(14)	10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50 and over	\$ 14,246 52,026 59,555 47,641 37,664 19,225 8,620 1,919 182	\$ 13 59 59 100 153 123 97 39 8	\$ 16 67 96 122 162 134 97 35 7	81% 88 61 82 94 92 100 111 114
1943	All Ages 10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50 and over	\$ 241,078 \$ 34,105 96,590 88,894 75,167 64,290 42,930 15,501 2,139 185	\$ 651 \$ 25 85 88 144 226 283 120 41 2	\$ 736 \$ 39 117 125 167 242 264 153 34 5	88% 64% 73 70 86 93 107 78 121 40
	All Ages	\$ 419,801	\$1,014	\$1,146	88%

TABLE C-Continued

Issue Year (Policy Year)	Ages at Issue	Exposed to Risk	Actual Deaths	Expected Deaths	Mortality Ratio
1944(12)	10–14 15–19 20–24 25–29 30–34 35–39 40–44 45–49 50 and over	\$ 46,807 113,419 88,812 71,902 67,976 54,175 20,435 2,242 290	\$ 43 97 56 129 178 307 184 36	\$ 52 132 115 141 226 303 178 33 7	83% 73 49 91 79 101 103 109 243
	All Ages	\$ 466,058	\$1,047	\$1,187	88%
1945(11)	10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50 and over	\$ 51,102 113,174 95,531 87,027 74,140 58,533 21,756 2,331 333	\$ 47 104 83 144 200 253 145 34 3	\$ 56 127 113 155 219 294 169 30 7	84% 82 73 93 91 86 86 113 43
	All Ages	\$ 503,927	\$1,013	\$1,170	87%
1946 (10)	10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50 and over	\$ 43,877 113,710 298,409 253,032 127,932 73,084 23,265 3,011 691	\$ 49 104 244 314 324 305 156 34 8	\$ 47 124 331 400 324 319 158 34 13	104% 84 74 79 100 96 99 100 62
	All Ages	\$ 937,057	\$1,538	\$1,750	88%
1947	10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50 and over	\$ 46,177 146,416 222,887 168,173 103,435 68,488 25,531 3,750 1,153	\$ 51 151 209 241 216 266 177 33 11	\$ 47 158 236 244 234 268 154 37 18	109% 96 89 99 92 99 115 89 61
	All Ages	\$ 786,010	\$1,355	\$1,396	97%

TABLE C-Continued

Issue Year	Ages at	Exposed to	Actual	Expected	Mortality
(Policy Year)	Issue	Risk	Deaths	Deaths	Ratio
1948(8)	10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50 and over	\$ 41,728 129,209 197,534 143,622 84,555 55,501 23,269 4,257 1,676	\$ 31 84 180 154 172 191 109 49 17	\$ 40 138 203 194 174 195 126 37 26	78% 61 89 79 99 98 87 132 65
	All Ages	\$ 681,351	\$ 987	\$1,133	87%
1949(7)	10–14 15–19 20–24 25–29 30–34 35–39 40–44 45–49 50 and over	\$ 45,232 135,097 213,592 161,788 98,855 62,171 25,162 3,942 1,289	\$ 48 108 177 215 158 208 120 49	\$ 40 145 209 199 179 187 120 29 18	120% 74 85 108 88 111 100 169 50
	All Ages	\$ 747,128	\$1,092	\$1,126	97%
1950 (6)	10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50 and over	\$ 52,767 176,170 266,805 215,236 134,405 73,903 29,517 4,200 1,310	\$ 54 171 247 182 173 193 103 35 12	\$ 43 187 261 252 223 203 132 28 16	126% 91 95 72 78 95 78 125 75
!	All Ages	\$ 954,313	\$1,170	\$1,345	87%
1951	10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50 and over	\$ 66,157 231,456 343,984 364,362 252,166 127,388 44,087 11,058 2,250	\$ 40 292 252 298 336 282 168 73 20	\$ 50 245 337 408 376 310 175 66 24	80% 119 75 73 89 91 96 111 83
	All Ages	\$1,442,908	\$1,761	\$1,991	88%

TABLE C-Continued

Issue Year (Policy Year)	Ages at Issue	Exposed to Risk	Actual Deaths	Expected Deaths	Mortality Ratio
1952	10–14	\$ 75,284	\$ 34	\$ 49	69%
(4)	15-19	258,365	267	261	102
	20-24	379,585	287	357	80
	25-29	444,469	362	462	78
	30–34	302,587	292	390	75
	35-39	144,503	504	299	169
	40-44	46,784	140	154	91
	45-49	11,135	59	56	105
	50 and over	2,922	26	25	104
	All Ages	\$1,665,634	\$1,971	\$2,053	96%
1953	10-14	\$ 94,243	\$ 46	\$ 56	82%
(3)	15-19	337,034	312	324	96
	20-24	450,821	393	401	98
	25-29	537,591	386	521	7.4
	30-34	369,997	356	422	84
	35–39	160,784	341	286	119
	40-44	43,706	115	120	$\frac{96}{1}$
	45–49 50 and over	11,025 2,606	54 17	47 18	115 94
	All Ages	\$2,007,807	\$2,020	\$2,195	92%
1954	10–14	\$ 106,604	\$ 41	\$ 53	77%
(2)	15-19	341,100	284	287	99
)	20-24	539,398	381	415	92
	25-29	583,269	406	478	85
	30-34	402,641	255	366	70
	35-39	164,953	233	229	102
	40-44	34,905	88	69	128
	45-49	5,018	16	16	100
	50 and over	1,624	13	9	144
	All Ages	\$2,179,512	\$1,717	\$1,922	89%
1955	10-14	\$ 146,345	\$ 43	\$ 59	73%
(1)	15-19	467,531	349	327	107
` (20-24	802,354	516	522	99
	25-29	725,294	495	479	103
	30-34	480,009	389	322	121
	35-39	196,694	256	191	134
	40-44	34,616	88	45	196
	45-49	4,921	40	11	364
	50 and over	1,344	7	5	140
	All Ages	\$2,859,108	\$2,183	\$1,961	111%

TABLE D

STANDARD MEDICALLY EXAMINED ISSUES OF 1941 TO 1955 MALE LIVES

EXPERIENCE BETWEEN 1955 AND 1956 ANNIVERSARIES BY YEAR OF ISSUE AND AGE AT ISSUE

EXPECTED DEATHS ON 1946-1949 SELECT BASIC TABLE (Amounts Shown in \$1,000 Units)

Issue Year (Policy Year)	Ages at Issue	Exposed to Risk	Actual Deaths	Expected Deaths	Mortality Ratio
1941 (15)	10–14 15–19 20–24 25–29 30–34 35–39 40–44 45–49	\$ 25,249 44,575 104,448 147,561 164,420 144,756 102,849 69,309	\$ 22 36 126 355 772 1,317 886 1,101	\$ 29 62 195 435 830 1,188 1,364 1,467	76% 58 65 82 93 111 65 75
	50–54 55–59 60–64 65 and over	31,095 12,434 3,821 630	754 605 150 122	939 542 244 62	80 112 61 197
	All Ages	\$ 851,147	\$6,246	\$7,357	85%
1942 (14)	10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50-54 55-59 60-64 65 and over	\$ 18,619 28,580 49,315 85,406 104,730 103,829 83,243 59,178 32,717 11,650 2,893 472	\$ 36 18 117 180 314 585 638 1,065 758 394 156 74	\$ 21 37 80 219 449 723 936 1,078 863 449 158 40	171% 49 146 82 70 81 68 99 88 88 99 185
1943(13)	All Ages 10–14 15–19 20–24 25–29 30–34 35–39 40–44 45–49 50–54 55–59 60–64 65 and over	\$ 580,632 \$ 19,652 25,354 40,812 84,250 119,953 139,473 124,532 86,079 45,348 15,460 4,044 588	\$4,335 \$ 13 48 64 182 469 698 1,374 1,297 945 414 75 63	\$5,053 \$ 22 31 58 187 451 859 1,227 1,384 1,054 528 195 42	86% 59% 155 110 97 104 81 112 94 90 78 38 150
	All Ages	\$ 705,545	\$5,642	\$6,038	93%

Issue Year (Policy Year)	Ages at Issue	Exposed to Risk	Actual Deaths	Expected Deaths	Mortality Ratio
1944 (12)	10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50-54 55-59 60-64 65 and over	\$ 24,414 30,720 40,984 87,597 145,310 175,066 164,499 105,226 53,543 16,847 4,131 828	\$ 18 41 30 183 379 990 1,304 1,302 933 374 228 80	\$ 27 36 53 172 484 980 1,436 1,533 1,093 510 180 53	67% 114 57 106 78 101 91 85 85 73 127
	All Ages	\$ 849,165	\$5,862	\$6,557	89%
1945 (11)	10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50-54 55-59 60-64 65 and over	\$ 24,875 31,618 48,358 102,042 167,320 202,570 173,260 110,447 59,514 18,522 4,748 1,116	\$ 46 26 34 121 496 773 1,319 1,091 938 447 164 51	\$ 27 35 58 182 494 1,017 1,350 1,433 1,076 494 191 65	170 74 59 66 100 76 98 76 87 90 86 78
	All Ages	\$ 944,390	\$5,506	\$6,422	86%
1946(10)	10–14 15–19 20–24 25–29 30–34 35–39 40–44 45–49 50–54 55–59 60–64 65 and over	\$ 26,370 37,121 105,763 211,272 287,557 293,849 231,548 134,708 70,725 25,065 5,941 1,320	\$ 52 16 78 375 800 1,360 1,592 1,196 1,136 1,026 101 59	\$ 28 40 117 334 728 1,284 1,568 1,502 1,108 578 216 70	186 40 67 112 110 106 102 80 103 178 47 84
	All Ages	\$1,431,239	\$7,791	\$7,573	103%
1947	10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50-54 55-59 60-64 65 and over	\$ 27,642 49,088 96,103 206,801 305,435 320,183 264,849 153,838 88,000 29,991 6,724 1,399	\$ 18 64 125 297 531 1,157 1,697 1,220 1,227 416 180 73	\$ 28 53 102 300 690 1,252 1,597 1,508 1,244 619 221 66	64% 121 123 99 77 92 106 81 99 67 81 111
	All Ages	\$1,550,053	\$7,005	\$7,680	91%

Issue Year (Policy Year)	Ages at Issue	Exposed to Risk	Actual Deaths	Expected Deaths	Mortality Ratio
1948(8)	10–14 15–19 20–24 25–29 30–34 35–39 40–44 45–49 50–54 55–59 60–64 65 and over	\$ 20,583 35,142 88,912 184,502 251,205 248,371 213,005 131,868 73,943 26,780 7,057 1,514 \$1,282,882	\$ 28 50 104 169 377 806 937 1,139 1,036 452 95 49 \$5,242	\$ 16 38 92 249 517 874 1,152 1,150 952 500 205 64 \$5,809	175% 132 113 68 73 92 81 99 109 90 46 77
1949	10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50-54 55-59 60-64 65 and over	\$ 18,592 34,773 104,528 214,504 265,531 273,576 224,382 137,170 72,855 30,895 7,827 1,329	\$ 15 18 146 282 350 803 1,104 761 777 387 137	\$ 16 37 102 264 481 821 1,070 1,019 828 507 192 48	94% 49 143 107 73 98 103 75 94 76 71 33
40.70	All Ages	\$1,385,962	\$4,796	\$5,385	89%
1950 (6)	10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50-54 55-59 60-64 65 and over	\$ 19,641 47,690 138,331 286,539 350,561 325,579 256,152 166,740 87,811 37,220 8,549 1,378	\$ 2 71 58 231 377 871 983 1,134 710 353 177 53	\$ 16 51 136 335 582 895 1,145 1,125 933 574 190 43	13% 139 43 69 65 97 86 101 76 61 93 123
1951(5)	All Ages 10–14 15–19 20–24 25–29 30–34 35–39 40–44 45–49 50–54 55–59 60–64 65 and over All Ages	\$1,726,191 \$ 16,451 38,458 102,717 249,024 337,213 339,192 295,435 191,213 102,115 46,621 11,783 3,431 \$1,733,653	\$5,020 \$ 23 27 62 161 241 652 1,051 1,048 511 901 171 52 \$4,900	\$6,025 \$ 12 41 101 279 502 824 1,170 1,138 962 649 235 94 \$6,007	83% 192% 66 61 58 48 79 90 92 53 139 73 55
	All Ages	\$1,735,053	\$4,900	\$0,007	82%

TABLE D-Continued

Issue Year (Policy Year)	Ages at Issue	Exposed to Risk	Actual Deaths	Expected Deaths	Mortality Ratio
1952(4)	10-14 15-19 20-24	\$ 15,582 35,790 104,492	\$ 5 34 96	\$ 10 36 98	50% 94 98
	25-29	292,534	273	304	90
	30–34 35–39	402,551 402,147	453 627	519 832	87
	40-44	338,196	1,089	1,113	98
	45-49 50-54	229,129 113,298	1,358 739	1,155 877	118 84
	55-59	56,730	513	659	78
	60-64	17,711	585	299	196
	65 and over	3,949	40	92	43
	All Ages	\$2,012,109	\$5,812	\$5,994	97%
1953 (3)	10-14 15-19	\$ 17,196 40,808	\$ 0	\$ 10 39	92
(0)	20-24	115,862	180	103	175
	25-29	341,118	364	331	110
	30-34 35-39	463,540 468,382	375 1,538	528 834	71 184
	40-44	378,776	915	1.038	88
	45-49	256,717	1,035	1.096	94
	50-54 55-59	137,556 62,104	1,024 351	865 591	118 59
	60-64	21,286	353	305	116
	65 and over	4,349	20	89	22
	All Ages	\$2,307,694	\$6,191	\$5,829	106%
1954	10-14	\$ 27,658	\$ 1	\$ 14	7%
(2)	15-19 20-24	61,206 188,164	77 223	51 145	151
	25-29	473,917	285	389	73
	30-34	651,839	424	593	72
	35–39 40–44	604,471 484,313	893 936	840 964	106 97
	45-49	318,627	820	1,007	81
	50-54	171,121	711	761	93
	55-59 60-64	79,939 26,344	343 217	547 278	63 78
	65 and over	8,571	47	138	34
	All Ages	\$3,096,170	\$4,977	\$5,727	87%
1955	10-14	\$ 33,474	\$ 0	\$ 13	_09
(1)	15-19 20-24	83,535 306,296	46 259	58 199	130
	25-29	704,867	379	465	82
	30-34	935,690	627	627	100
	35-39 40-44	846,191	603	821 859	73 96
ĺ	45-49	656,031 412,308	827 645	882	73
	50-54	225,564	560	645	87
	55-59	103,647	461	483	95
	60–64 65 and over	41,059 8,604	160 76	304 98	53 78
	All Ages	\$4,357,266	\$4,643	\$5,454	85%

TABLE D-Continued

STANDARD MEDICALLY EXAMINED ISSUES OF 1941 TO 1955 FEMALE LIVES

EXPERIENCE BETWEEN 1955 AND 1956 ANNIVERSARIES BY YEAR OF ISSUE AND AGE AT ISSUE

EXPECTED DEATHS ON 1946-1949 SELECT BASIC TABLE (Amounts Shown in \$1,000 Units)

Issue Year (Policy Year)	Ages at Issue	Exposed to Risk	Actual Deaths	Expected Deaths	Mortality Ratio
1941	10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50-54 55-59 60-64 65 and over	\$ 7,421 10,284 21,767 16,257 15,154 14,550 11,307 8,509 4,655 2,185 1,155 258	\$ 4 4 14 28 22 31 47 134 61 7 26 0	\$ 9 14 41 48 77 119 150 180 141 95 74 25	44% 29 34 58 29 26 31 74 43 7 35 0
	All Ages	\$ 113,502	\$ 378	\$ 973	39%
1942(14)	10-14 15-19 20-24 25-29 30-34 35-39 40-41 45-49 50-54 55-59 60-64 65 and over	\$ 6,731 11,129 20,961 16,807 13,973 13,242 11,238 8,524 4,332 2,301 540 89	\$ 5 6 20 12 20 19 103 82 43 142 8 2	\$ 8 14 34 43 60 92 126 155 114 89 30 7	63% 43 59 28 33 21 82 53 38 160 27 29
	All Ages	\$ 109,867	\$ 462	\$ 772	60%
1943(13)	10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50-54 55-59 60-64 65 and over	\$ 6,338 9,922 16,479 15,697 14,653 15,623 14,489 9,886 5,258 2,040 499	\$ 1 3 20 15 12 35 28 107 41 86 5	\$ 7 12 23 35 55 96 143 159 122 70 24 4	14% 25 87 43 22 36 20 67 34 123 21 200
	All Ages	\$ 110,933	\$ 361	\$ 750	48%

Issue Year (Policy Year)	Ages at Issue	Exposed to Risk	Actual Deaths	Expected Deaths	Mortality Ratio
1944(12)	10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50-54 55-59 60-64 65 and over	\$ 7,324 9,905 17,559 17,859 16,867 17,559 18,349 12,293 5,928 2,420 408 85	\$ 1 8 8 8 37 21 18 52 32 39 20 30 35	\$ 8 11 23 35 56 98 160 179 121 73 18	13% 73 35 106 38 18 33 18 32 27 167 700
	All Ages	\$ 126,556	\$ 301	\$ 787	38%
1945 (11)	10 14 15-19 20 24 25-29 30-34 35 39 40 44 45-49 50-54 55-59 60-64 65 and over	\$ 7,398 9,449 15,414 15,177 16,183 18,629 17,285 10,892 6,188 1,882 649 43	\$ 1 3 10 6 28 43 45 25 34 63 12 1	\$ 8 11 18 27 48 94 135 141 112 50 26 2	13% 27 56 22 58 46 33 18 30 126 46 50
	All Ages	\$ 119,189	\$ 271	\$ 672	40%
1946(10)	10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50-54 55-59 60-64 65 and over	\$ 7,392 12,050 18,306 19,171 20,023 22,563 20,187 14,042 7,821 3,026 805 71	\$ 4 2 3 30 11 70 33 43 14 14 14 13 1	\$ 8 13 20 30 51 99 137 157 123 70 29 4	50% 15 15 100 22 71 24 27 11 20 45 25
	All Ages	\$ 145,457	\$ 238	\$ 741	32%
1947	10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50-54 55-59 60-64 65 and over	\$ 8,342 10,815 18,583 18,962 20,656 23,208 21,127 15,143 8,864 3,339 908 50	\$ 0 1 5 17 30 49 64 92 90 10 2 0	\$ 9 12 20 27 47 91 127 148 125 69 30 2	0% 8 25 63 64 54 50 62 72 14 7
	All Ages	\$ 149,997	\$ 360	\$ 707	51%

TABLE D-Continued

Issue Year (Policy Year)	Ages at Issue	Exposed to Risk	Actual Deaths	Expected Deaths	Mortality Ratio
1948 (8)	10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50-54 55-59 60-64 65 and over	\$ 6,149 7,989 14,589 15,060 16,113 17,012 17,857 12,542 7,291 3,239 1,071 88	\$ 1 5 26 23 10 52 55 48 16 7	\$ 6 9 15 20 33 60 97 109 94 61 31	17% 11 33 130 70 17 54 50 51 26 23 0
	All Ages	\$ 119,000	\$ 244	\$ 539	45%
1949 (7)	10–14 15–19 20–24 25–29 30–34 35–39 40–44 45–49 50–54 55–59 60–64 65 and over	\$ 5,876 8,209 15,065 16,442 18,142 19,601 22,423 14,279 9,079 3,405 1,161 254	\$ 2 25 0 7 5 12 24 49 141 41 5	\$ 5 9 15 20 33 59 107 106 103 56 28 9	40% 278 0 35 15 20 22 46 137 73 18 0
	All Ages	\$ 133,936	\$ 311	\$ 550	57%
1950(6)	10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50-54 55-59 60-64 65 and over	\$ 5,188 8,066 13,898 17,733 17,948 19,355 23,501 15,747 10,773 4,750 1,333 360	\$ 5 0 17 12 24 11 11 43 34 10 5	\$ 4 9 14 21 30 53 105 106 115 73 30	125% 0 121 57 80 21 10 41 30 14 17 0
1	All Ages	\$ 138,652	\$ 172	\$ 571	30%
1951(5)	10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50-54 55-59 60-64 65 and over	\$ 4,558 6,456 14.052 15,739 18,658 20,507 24,439 18,572 11,432 5,686 2,161 174	\$ 5 0 9 7 8 8 8 24 70 26 19 2	\$ 3 7 14 18 28 50 97 111 108 79 43 5	167% 0 64 39 29 16 25 63 24 24 5 40
	All Ages	\$ 142,434	\$ 180	\$ 563	32%

TABLE D—Continued

Issue Year (Policy Year)	Ages at Issue	Exposed to Risk	Actual Deaths	Expected Deaths	Mortality Ratio
1952	10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50-54 55-59 60-64 65 and over	\$ 5,119 6,855 14,203 18,402 22,970 26,220 26,805 21,313 12,033 5,580 1,589 326	\$ 0 4 3 17 13 60 54 54 14 92 53 0	\$ 3 7 13 19 30 54 88 107 93 65 27 8	0% 57 23 89 43 111 61 50 15 142 196 0
	All Ages	\$ 161,415	\$ 364	\$ 514	71%
1953 (3)	10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50-54 55-59 60-64 65 and over	\$ 5,347 7,421 13,872 19,281 25,615 20,199 30,784 26,259 15,131 7,326 2,241 898	\$ 0 3 14 57 77 19 37 67 35 4 23	\$ 3 7 12 19 29 52 84 112 95 70 32 18	0% 43 117 42 266 37 44 60 37 6 72 6
	All Ages	\$ 183,374	\$ 288	\$ 533	54%
1954	10-14 15-19 20-24 25-29 30-34 35-39 40-41 45-49 50-54 55-59 60-64 65 and over	\$ 6,078 8,180 17,480 27,215 35,155 35,950 40,739 30,371 20,265 8,767 4,257 1,324	\$ 0 0 5 8 2 18 27 25 13 15 0 2	\$ 3 7 13 22 32 50 81 96 90 60 45 21	0% 0 38 36 6 36 33 26 14 25 0
	All Ages	\$ 235,801	\$ 115	\$ 520	22%
1955(1)	10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50-54 55-59 60-64 65 and over	\$ 7,497 11,053 23,875 32,080 41,550 48,348 46,444 39,471 22,307 15,490 5,970 1,421	\$ 0 0 3 0 43 18 22 19 97 3 11	\$ 3 8 16 21 28 47 61 84 64 72 44 16	0% 0 19 0 154 38 36 23 152 4 25 6
	All Ages	\$ 295,506	\$ 217	\$ 464	47%

TABLE E
STANDARD NONMEDICAL ISSUES OF 1941 TO 1955
MALE LIVES

EXPERIENCE BETWEEN 1955 AND 1956 ANNIVERSARIES BY YEAR OF ISSUE AND AGE AT ISSUE

EXPECTED DEATHS ON 1946-1949 SELECT BASIC TABLE (Amounts Shown in \$1,000 Units)

Issue Year (Policy Year)	Ages at Issue	Exposed to Risk	Actual Deaths	Expected Deaths	Mortality Ratio
1941 (15)	10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50 and over	\$ 2,184 12,179 24,853 22,884 17,647 11,307 5,157 1,249 107	\$ 4 27 30 43 102 94 56 17 1	\$ 3 17 46 68 89 93 68 26 3	133% 159 65 63 115 101 82 65 33
	All Ages	\$ 97,567	\$374	\$413	91%
1942(14)	10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50 and over	\$ 3,087 11,310 13,676 16,369 15,353 10,478 4,669 1,301 124	\$ 1 12 10 27 75 71 60 31 7	\$ 4 14 22 42 66 73 53 24 3	25% 86 45 64 114 97 113 129 233
	All Ages	\$ 76,367	\$294	\$301	98%
1943(13)	10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50 and over	\$ 9,716 19,424 17,129 24,218 25,956 21,238 6,975 1,157 135	\$ 9 14 17 54 92 138 61 32 1	\$ 11 24 24 54 98 131 69 19 3	82% 58 71 100 94 105 88 168 33
	All Ages	\$125,948	\$418	\$433	97%

TABLE E-Continued

Issue Year (Policy Year)	Ages at Issue	Exposed to Risk	Actual Deaths	Expected Deaths	Mortality Ratio
1944(12)	10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50 and over	\$ 12,368 21,187 12,513 19,589 26,527 25-475 9,364 1,331 225	\$ 18 15 13 36 84 159 57 27 16	\$ 14 25 16 38 88 143 82 19 5	129% 60 81 95 95 111 70 142 320
	All Ages	\$128,579	\$425	\$430	99%
1945	10–14 15–19 20–24 25–29 30–34 35–39 40–44 45–49 50 and over	\$ 14,550 23,871 17,351 26,567 33,026 29,953 11,410 1,179 251	\$ 10 32 22 43 104 127 88 19 3	\$ 16 27 20 47 97 150 89 15 5	63% 119 110 91 107 85 99 127 60
	All Ages	\$158,158	\$448	\$466	96%
1946(10)	10–14 15–19 20–24 25–29 30–34 35–39 40–44 45–49 50 and over	\$ 14,019 30,278 81,543 85,161 60,478 41,154 13,238 1,764 365	\$ 18 42 92 111 152 161 86 12	\$ 15 33 91 135 153 180 90 20 6	120% 127 101 82 99 89 96 60
	All Ages	\$328,000	\$675	\$723	93%
1947(9)	10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50 and over	\$ 13,075 38,661 63,261 60,677 50,381 37,816 14,070 2,202 576	\$ 16 50 70 75 85 153 107 10	\$ 13 42 67 88 114 148 85 22 9	123% 119 104 85 75 103 126 45 78
	All Ages	\$280,719	\$573	\$588	97%

TABLE E-Continued

Issue Year (Policy Year)	Ages at Issue	Exposed to Risk	Actual Deaths	Expected Deaths	Mortality Ratio
1948 (8)	10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50 and over	\$ 10,297 36,964 63,859 56,054 42,163 30,219 11,793 2,007 519	\$ 11 21 50 46 92 100 63 25 10	\$ 10 40 66 76 87 106 64 18 7	110% 53 76 61 106 94 98 139 143
	All Ages	\$253,875	\$418	\$474	88%
1949 (7)	10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50 and over	\$ 12,388 36,056 69,569 59,554 42,362 31,419 12,769 2,050 531	\$ 14 26 54 84 61 114 83 18 7	\$ 11 39 68 73 77 94 61 15 7	127% 67 79 115 79 121 136 120 100
	All Ages	\$266,698	\$461	\$445	104%
1950 (6)	10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50 and over	\$ 15,294 45,785 87,960 75,923 53,345 37,954 16,152 2,179 497	\$ 10 44 88 71 62 106 48 15 6	\$ 13 49 86 89 89 104 72 15 6	77% 90 102 80 70 102 67 100
	All Ages	\$335,089	\$450	\$523	86%
1951	10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50 and over	\$ 18,572 53,446 88,192 91,870 67,669 44,195 16,770 2,177 513	\$ 8 73 90 86 96 106 72 10 6	\$ 14 57 86 103 101 107 66 13 6	57% 128 105 83 95 99 109 77 100
	All Ages	\$383,404	\$547	\$553	99%

TABLE E-Continued

Issue Year (Policy Year)	Ages at Issue	Exposed to Risk	Actual Deaths	Expected Deaths	Mortality Ratio
1952(4)	10–14 15–19 20–24 25–29 30–34 35–39 40–44 45–49 50 and over	\$ 21,730 58,248 100,604 126,696 88,671 51,814 18,635 1,833 356	\$ 13 83 82 109 50 105 67 5	\$ 14 59 95 132 114 107 61 9 3	93% 141 86 83 44 98 110 56 67
	All Ages	\$468,587	\$516	\$594	87%
1953(3)	10–14 15–19 20–24 25–29 30–34 35–39 40–44 45–49 50 and over	\$ 24.652 68.005 119.225 159.973 118.622 60.617 15.328 2,100 638	\$ 22 80 102 101 108 131 35 11	\$ 15 65 106 155 135 108 42 9	147% 123 96 65 80 121 83 122 20
	All Ages	\$569,160	\$591	\$640	92%
1954 (2)	10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50 and over	\$ 26,457 68,741 135,694 167,252 122,628 59,496 14,750 1,956 1,011	\$ 17 56 86 125 60 63 34 4 7	\$ 13 58 104 137 112 83 29 6	131% 97 83 91 54 76 117 67 117
	All Ages	\$597,985	\$452	\$548	82%
1955(1)	10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50 and over	\$ 28,881 84,439 191,449 187,835 125,027 62,617 15,044 1,977 718	\$ 7 80 136 153 117 31 22 24 0	\$ 12 59 124 124 84 61 20 4 2	58% 136 110 123 139 51 110 600 0
	All Ages	\$697,987	\$570	\$490	116%

TABLE E-Continued

STANDARD NONMEDICAL ISSUES OF 1941 TO 1955 FEMALE LIVES

EXPERIENCE BETWEEN 1955 AND 1956 ANNIVERSARIES BY YEAR OF ISSUE AND AGE AT ISSUE

EXPECTED DEATHS ON 1946-1949 SELECT BASIC TABLE

Issue Year (Policy Year)	Ages at Issue	Exposed to Risk	Actual Deaths	Expected Deaths	Mortality Ratio
1941(15)	10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50 and over	\$ 1,264 4,853 10,597 5,251 3,264 2,004 1,139 258	\$ 2 1 6 9 5 4 5 1	\$ 1 7 20 15 16 16 15 5 0	200% 14 30 60 31 25 33 20
	All Ages	\$ 28,631	\$ 34	\$ 95	36%
1942 (14)	10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50 and over	\$ 1,843 7,006 12,749 5,989 3,861 2,081 991 195	\$ 1 6 12 15 5 9 6 2	\$ 2 9 21 15 17 14 11 4 0	50% 67 57 100 29 64 55 50
	All Ages	\$ 34,716	\$ 56	\$ 93	60%
1943(13)	10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50 and over	\$ 4,490 13,381 20,432 10,656 7,347 5,008 1,053 83 4	\$ 2 10 13 7 20 24 5 0	\$ 5 16 29 24 28 31 10 1	40% 63 45 29 71 77 50 0
	All Ages	\$ 62,454	\$ 81	\$144	56%

TABLE E-Continued

Issue Year (Policy Year)	Ages at Issue	Exposed to Risk	Actual Deaths	Expected Deaths	Mortality Ratio
1944(12)	10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50 and over	\$ 5,821 14,947 22,286 12,449 8,823 6,430 1,453 111 14	\$ 3 10 13 17 8 20 17 0	\$ 7 17 29 24 29 36 13 2	43% 59 45 71 28 56 131
	All Ages	\$ 72,334	\$ 89	\$157	57%
(945 11)	10–14 15–19 20–24 25–29 30–34 35–39 40–44 45–49 50 and over	\$ 5,874 14,102 21,370 12,178 8,561 7,011 1,777 187	\$ 7 9 12 12 10 21 10 0	\$ 6 16 25 22 25 35 14 2	117% 56 48 55 40 60 71 0
	All Ages	\$ 71,071	\$ 81	\$145	56%
1946	10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50 and over	\$ 5,934 15,307 25,773 15,461 10,404 7,437 2,093 213 54	\$ 4 6 21 10 18 19 2 0	\$ 6 17 29 24 26 33 14 2	67% 35 72 42 69 58 14 0
	All Ages	\$ 82,676	\$ 81	\$152	53%
1947(9)	10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50 and over	\$ 5,283 15,112 24,830 13,985 9,203 7,071 2,087 183 50	\$ 4 13 21 18 13 27 7 1 0	\$ 5 16 26 20 21 28 13 2	80% 81 81 90 62 96 54 50
	All Ages	\$ 77,804	\$104	\$132	79%

TABLE E-Continued

Issue Year (Policy Year)	Ages at Issu e	Exposed to Risk	Actual Deaths	Expected Deaths	Mortality Ratio
1948(8)	10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50 and over	\$ 4,341 13,685 22,006 11,154 8,077 6,135 1,957 319 55	\$ 1 6 23 4 14 20 4 0	\$ 4 15 23 15 17 22 11 3	25% 40 100 27 82 91 36 0
	All Ages	\$ 67,729	\$ 73	\$111	66%
1949 (7)	10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50 and over	\$ 4,954 14,009 22,788 12,265 8,379 6,765 2,201 234 59	\$ 4 5 8 18 6 20 3 0	\$ 4 15 22 15 15 20 11 2	100% 33 36 120 40 100 27 0
	All Ages	\$ 71,654	\$ 64	\$105	61%
1950 (6)	10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50 and over	\$ 5,954 14,683 24,663 14,260 9,921 7,318 2,743 279 73	\$ 7 3 6 19 9 16 3 0	\$ 5 16 24 17 16 20 12 2	140% 19 25 112 56 80 25 0
	All Ages	\$ 79,894	\$ 63	\$113	56%
1951(5)	10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50 and over	\$ 6,882 17,690 28,032 15,634 11,448 9,586 3,411 586 96	\$ 2 7 21 6 13 14 9 0	\$ 5 19 27 18 17 23 14 3	40% 37 78 33 76 61 64 0
	All Ages	\$ 93,365	\$ 72	\$127	57%

TABLE E-Continued

Issue Year (Policy Year)	Ages at Issue	Exposed to Risk	Actual Deaths	Expected Deaths	Mortality Ratio
1952(4)	10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50 and over	\$ 8,338 20,269 32,666 18,884 13,878 10,609 3,358 414 61	\$ 10 8 18 9 15 6 6 0	\$ 5 20 31 20 18 22 11 2	200% 40 58 45 83 27 55 0
1	All Ages	\$108,477	\$ 72	\$130	55%
1953	10-14 15-19 20-21 25-29 30-34 35-39 40-44 45-49 50 and over	\$ 9,302 23,795 37,268 22,675 17,339 11,734 3,372 407 127	\$ 1 12 10 12 7 17 6 0	\$ 5 23 33 22 20 21 9	20% 52 30 55 35 81 67 0
	All Ages	\$126,019	\$ 65	\$136	48%
1954	10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50 and over	\$ 10.433 25,403 41,635 25,758 19,353 12,946 3,810 498 246	\$ 2 16 12 8 4 7 12 2 1	\$ 5 21 32 21 18 18 18 2 2	40% 76 38 38 22 39 150 100 50
	All Ages	\$140,082	\$ 64	\$127	50%
1955	10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50 and over	\$ 12,167 33,309 48,970 29,415 22,347 14,795 3,539 601 152	\$ 0 13 14 12 18 4 1 0	\$ 5 23 32 19 15 14 5 1	0% 57 44 63 120 29 20 0
	All Ages	\$165,295	\$ 62	\$115	54%