

# **TRANSACTIONS**

1985-86-87 REPORTS OF MORTALITY, MORBIDITY AND OTHER EXPERIENCE

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## **REPORT OF THE INDIVIDUAL LIFE INSURANCE EXPERIENCE STUDIES COMMITTEE**

### **I. MORTALITY UNDER STANDARD ORDINARY INSURANCE ISSUES BETWEEN 1985 AND 1986 ANNIVERSARIES**

#### **ABSTRACT**

This is the latest in a series of annual reports on intercompany mortality experience under Standard Ordinary life insurance policies. Because of differences in contributors, comparisons with previous studies are affected.

Mortality ratios based on the 1975-80 Basic Tables are shown in the body of the report. Mortality ratios based on the 1965-70 Basic Tables are also shown for comparison with previous reports.

#### *General Mortality between 1985 and 1986 Anniversaries*

A direct comparison with the previous study (between 1984 and 1985 anniversaries) cannot be made because the present study included 20 contributors, compared to 23 for the 1984-85 study. General comparisons of 1985-86 and 1984-85 data for the 20 companies that contributed to both studies, using mortality ratios based on the 1975-80 Basic Table, are as follows:

- The overall medical mortality ratio in the select period (83.7 percent) was down about three percentage points.
- The overall nonmedical mortality ratio in the select period (92.4 percent) was effectively the same.
- The overall paramedical mortality ratio in the select period (91.8 percent) decreased about one percentage point.
- The combined medical, paramedical, and nonmedical mortality ratio in the select period (88.0 percent) decreased by about 1.5 percent.
- The overall mortality ratio in the ultimate period (89.8 percent) decreased by about one percentage point.

#### *Mortality by Underwriting Basis between 1981 and 1986 Anniversaries*

In the select period, for all policy years combined, nonmedical mortality was significantly higher than medical mortality for issue ages 0-19 and 35 and above. Paramedical

INDEX OF PRIMARY TABLES

Table	Exposure Period	Policy Years	Medical, Nonmedical or Paramedical	Male and Female	Mortality Ratios by	Mortality Ratios Based on
1 . . . . .	1985-86	1-15	Medical	Combined	Ages at issue	1965-70 and 1975-80 Select Basic Tables
2 . . . . .	1985-86	1-15	Medical	Combined	Year of issue	1965-70 and 1975-80 Select Basic Tables
3 . . . . .	1985-86	1-15	Paramedical	Combined	Ages at issue	1965-70 and 1975-80 Select Basic Tables
4 . . . . .	1986-86	1-15	Paramedical	Combined	Year of issue	1965-70 and 1975-80 Select Basic Tables
5 . . . . .	1985-86	1-15	Nonmedical	Combined	Ages at issue	1965-70 and 1975-80 Select Basic Tables
6 . . . . .	1985-86	1-15	Nonmedical	Combined	Year of issue	1965-70 and 1975-80 Select Basic Tables
7 . . . . .	1981-86	1-15	Medical, nonmedical and paramedical	Combined	Ages at issue	1965-70 and 1975-80 Select Basic Tables
8 . . . . .	1981-86	1-15	Medical, nonmedical, and paramedical	Separate	Ages at issue	1965-70 and 1975-80 Select Basic Tables
9 . . . . .	1981-86	1-15	Medical and nonmedical	Separate	Ages at issue and policy year	1975-80 Select Basic Tables
10 . . . . .	1981-86	1-15	Nonmedical and paramedical	Separate	Ages at issue and policy year	1975-80 Select Basic Tables
11 . . . . .	1981-86	1-15	Medical and paramedical	Separate	Ages at issue and policy year	1975-80 Select Basic Tables
12 . . . . .	1985-86	1-15	Smoker and nonsmoker; medical, nonmedical and paramedical	Combined	Year of issue	1975-80 Select Basic Tables
13 . . . . .	1985-86	1-15	Smoker and nonsmoker; medical, nonmedical and paramedical	Combined	Ages at issue	1975-80 Select Basic Tables
14 . . . . .	1985-86	16 and later	Medical and nonmedical	Separate and Combined	Attained ages	1965-70 and 1975-80 Select Basic Tables
15 . . . . .	1981-86	16 and later	Medical and nonmedical	Combined	Attained ages	1965-70 and 1975-80 Select Basic Tables
16 . . . . .	1981-86	16 and later	Medical and nonmedical	Combined	Attained ages; premium- paying and paid-up	1965-70 and 1975-80 Select Basic Tables
17 . . . . .	1981-86	16 and later	Medical and nonmedical	Separate	Attained ages	1965-70 and 1975-80 Select Basic Tables

## INDEX OF PRIMARY TABLES—Continued

Appendix A . . . .	Names of the contributing companies and proportion of total 1985-86 exposures contributed by each company.					
Appendix B* . . . .	1985-86	1-15	Medical	Separate	Year of issue and ages at issue	1965-70 and 1975-80 Select Basic Tables
Appendix C* . . . .	1985-86	1-15	Nonmedical	Separate	Year of issue and ages at issue	1965-70 and 1975-80 Select Basic Tables
Appendix D* . . . .	1985-86	1-15	Paramedical	Separate	Year of issue and ages at issue	1965-70 and 1975-80 Select Basic Tables

\*Appendixes B, C, and D are not published here but can be obtained upon request from the Society Research Department.

mortality was significantly higher than nonmedical mortality at issue ages 0-9. Compared to medical mortality, paramedical experience was much higher at issue ages 0-9 and 45 and above.

In the ultimate period, nonmedical mortality exceeded medical mortality in all attained age groups except 25-29 and at 90 and above.

*Premium-Paying Versus Fully Paid-up Mortality in the Ultimate Period, between 1981 and 1986 Anniversaries*

Overall mortality on premium-paying insurance continues to be slightly lower than that on fully paid-up insurance overall. For attained ages 35-54, the ratios for premium-paying business are less than 90 percent of those for paid-up.

*Male Versus Female Mortality between 1981 and 1986 Anniversaries*

In the select period, female mortality averaged 73.6 percent of male mortality for medical issues, 55.8 percent for nonmedical issues and 70.1 percent for paramedical issues. The lower ratio for nonmedical issues reflects the much lower accidental death rate for females at the younger ages. In the ultimate period, female mortality was about 63 percent of male mortality.

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INTRODUCTION

This report covers the intercompany mortality experience by amount of insurance under Standard Ordinary insurance between 1985 and 1986 policy anniversaries. The report also covers experience between 1981 and 1986 policy anniversaries for certain comparisons of data (that is, medical, nonmedical and paramedical; premium-paying and paid-up; male and female). The following classes of business are included:

1. Standard Ordinary insurance issued subject to a medical examination, observed during the first 15 policy years;

2. Standard Ordinary insurance issued without a medical or paramedical examination, observed during the first 15 policy years;
3. Standard Ordinary insurance issued subject to a paramedical examination, observed during the first 15 policy years;
4. Standard Ordinary insurance observed during the sixteenth and subsequent policy years. As in previous reports, this ultimate experience is shown for medical and nonmedical issues combined, with a portion of it also shown for medical and nonmedical issues separately. The ultimate experience is also shown separately for premium-paying and fully paid-up (excluding reduced paid-up) policies.

Each of the tables included in this report (with some minor exceptions) shows amounts exposed to risk, actual amounts of death claims, and expected amounts of death claims and mortality ratios of actual-to-expected death claims based on the 1975–80 Male and Female Basic Tables and on the 1965–70 Basic Tables. All the data were submitted separately for males and females in the select period; some of the data were submitted on a combined male-female basis in the ultimate period.

The 1985–86 experience is derived from the contributions of 20 companies. Appendix A gives the names and proportionate contributions of these companies. Each of the tables is based on either select (first 15 policy years) or ultimate (policy years 16 and subsequent) experience.

The following summary tables compare (1) relative percentages of exposures by underwriting category in policy year 1 for several years of issue, (2) the distribution of exposures by underwriting category for the different groups of ages at issue for policy year 1 and years 1–15, and (3) the aggregate mortality ratios with the results of studies made since the 1965–70 Tables were introduced.

EXPOSURES FOR POLICY YEAR 1  
AS A PERCENTAGE OF TOTAL EXPOSURES

Year of Issue	Medical	Nonmedical	Paramedical
1977 .....	34.7%	36.4%	28.9%
1978 .....	35.1	36.4	28.5
1979 .....	35.1	34.4	30.5
1980 .....	38.2	29.3	32.5
1981 .....	33.1	36.3	30.6
1982 .....	29.2	45.7	25.1
1983 .....	24.7	51.8	23.5
1984 .....	22.5	52.2	25.3
1985 .....	20.7	52.1	27.1

## EXPOSURES AS A PERCENTAGE OF TOTAL

Ages at Issue	Policy Year 1			Policy Years 1-15		
	Medical	Nonmedical	Paramedical	Medical	Nonmedical	Paramedical
0-9 .....	2.2%	96.7%	1.1%	5.0%	93.9%	1.1%
10-19 .....	2.4	95.4	2.2	5.3	91.6	3.1
20-29 .....	4.0	86.2	9.8	9.4	78.7	11.9
30-39 .....	17.3	51.9	30.8	25.5	43.5	30.9
40-49 .....	37.1	20.7	42.2	45.6	16.7	37.8
50 and over .....	53.6	6.9	39.5	61.1	5.9	33.1
All ages .....	20.7	52.1	27.1	26.9	48.0	25.1

AGGREGATE MORTALITY RATIOS  
 BASED ON 1965-70 SELECT BASIC TABLES  
 (NUMBERS IN PARENTHESES ARE MORTALITY RATIOS  
 BASED ON THE 1975-80 BASIC TABLES)

Exposure Year	Policy Years 1-15				Policy Years 16 and Over
	Medical	Nonmedical	Paramedical	Combined	
1973-74 .....	88.0%	99.1%	81.1%	89.9%	93.4%
1974-75 .....	85.1	94.9	85.5	87.8	87.1
1975-76 .....	80.9	88.5	81.4	82.3	85.0
1976-77 .....	75.5	87.9	78.0	77.9	82.0
1977-78 .....	75.0	85.9	80.5	77.4	80.5
1978-79 .....	68.7	84.9	74.5	72.1	77.0
1979-80 .....	69.8	82.9	80.2	73.3	77.1
1980-81 .....	69.5	79.8	70.1	71.0	75.2
1981-82 .....	67.8	79.2	73.2	70.7	72.8
1982-83 .....	68.0	74.2	69.9	69.6	73.2
1983-84 .....	68.6 (93.6)	70.8 (89.6)	68.8 (92.2)	69.1 (92.4)	71.2 (91.8)
1984-85 .....	66.2 (90.5)	72.4 (92.5)	69.9 (94.3)	68.5 (91.9)	71.0 (91.1)
1985-86 .....	61.2 (83.7)	72.0 (92.4)	67.9 (91.8)	65.5 (88.0)	70.0 (89.8)

Note: The data for 1985-86 are from 20 companies, whereas those for 1983-84 and 1984-85 are from 23 companies. Please refer to previous studies for the companies that contributed to them.

It would be desirable for the comparisons of medical, nonmedical, and paramedical experience to be based on strictly comparable policies, but data for such a comparison are not available. Medical business generally includes larger amounts of insurance issued to persons at higher average socioeconomic levels than nonmedical and paramedical business. However, medical business also includes policies issued to persons within nonmedical or paramedical amount limits who were not acceptable on these bases because of a medical history. Similarly, paramedical business includes persons not acceptable on a nonmedical basis. In addition, there are considerable variations in limits and proportions of medical, nonmedical, and paramedical business among contributing companies. In this comparison and in all others

throughout this report, the different mix of companies from that in earlier reports may account for some of the differences in mortality ratios.

EXPERIENCE UNDER STANDARD ISSUES  
DURING THE FIRST 15 POLICY YEARS

*Medically Examined Issues*

The 1985-86 experience during the first 15 policy years includes exposures of \$186 billion and actual deaths of \$468 million (from 20 contributing companies). This reduction from the previous year is due in part to the continuing shift in business to paramedical. The corresponding amounts in the 1984-85 experience were \$206 billion and \$548 million, respectively (from 23 contributing companies).

The experience by age group at issue is shown in Table 1 for the first 15 policy years combined. The experience by year of issue is shown in Table 2. The detailed experience by age group at issue for each year of issue, for male and female lives separately, is not shown in this report but is available from the Society Research Department upon request.

TABLE 1  
STANDARD MEDICALLY EXAMINED ISSUES OF 1971-85  
MALE AND FEMALE LIVES COMBINED  
EXPERIENCE BETWEEN 1985 AND 1986 ANNIVERSARIES  
BY AGE AT ISSUE  
POLICY YEARS 1-15 COMBINED  
(Amounts Shown in \$1,000 Units)

Ages at Issue	Exposed to Risk	Actual Deaths	1965-70 Select Basic Tables		1975-80 Select Basic Tables	
			Expected Deaths	Mortality Ratio	Expected Deaths	Mortality Ratio
0-9 .....	\$ 1,698,596	\$ 139	\$ 968	14.4%	\$ 654	21.3%
10-14 .....	718,472	181	549	32.9	573	31.5
15-19 .....	1,039,895	681	975	69.8	970	70.2
20-24 .....	3,650,706	3,079	3,458	89.1	2,945	104.6
25-29 .....	11,954,446	9,194	13,301	69.1	10,812	85.0
30-34 .....	27,794,273	25,603	41,116	62.3	31,894	80.3
35-39 .....	38,154,931	46,959	76,721	61.2	60,115	78.1
40-44 .....	35,178,668	71,095	111,217	63.9	81,015	87.8
45-49 .....	25,435,454	81,606	125,626	65.0	93,075	87.7
50-54 .....	19,007,822	75,577	136,955	55.2	92,429	81.8
55-59 .....	12,134,938	72,530	112,793	64.3	84,984	85.3
60-64 .....	6,455,292	50,652	84,467	60.0	57,340	88.3
65-69 .....	2,266,893	19,863	41,142	48.3	31,314	63.4
70 and over .....	611,047	10,458	14,344	72.9	10,273	101.8
All Ages .....	\$186,101,433	\$467,618	\$763,631	61.2%	\$558,393	83.7%

## STANDARD ORDINARY INSURANCE

7

TABLE 2  
STANDARD MEDICALLY EXAMINED ISSUES OF 1971-85  
MALE AND FEMALE LIVES COMBINED  
EXPERIENCE BETWEEN 1985 AND 1986 ANNIVERSARIES  
BY YEAR OF ISSUE  
ALL AGES COMBINED  
(Amounts Shown in \$1,000 Units)

Year of Issue	Policy Year	Exposed to Risk	Actual Deaths	1965-70 Select Basic Tables		1975-80 Select Basic Tables	
				Expected Deaths	Mortality Ratio	Expected Deaths	Mortality Ratio
1971	15	\$ 4,703,562	\$ 28,320	\$ 45,483	62.3%	\$ 34,563	81.9%
1972	14	5,031,599	28,916	43,896	65.9	33,279	86.9
1973	13	5,036,679	26,626	40,695	65.4	30,867	86.3
1974	12	5,468,499	22,879	40,369	56.7	30,520	75.0
1975	11	5,539,247	23,704	37,677	62.9	28,445	83.3
1976	10	6,138,419	25,001	39,288	63.6	28,922	86.4
1977	9	6,895,918	28,143	38,602	72.9	28,336	99.3
1978	8	7,511,223	24,555	40,586	60.5	29,475	83.3
1979	7	8,866,891	24,771	44,199	56.0	31,981	77.5
1980	6	10,655,413	31,736	48,055	66.0	35,177	90.2
1981	5	13,681,465	36,268	54,186	66.9	40,628	89.3
1982	4	20,209,347	42,768	73,064	58.5	52,392	81.6
1983	3	28,201,901	52,370	91,678	57.1	64,873	80.7
1984	2	28,226,950	40,301	70,953	56.8	49,663	81.1
1985	1	29,934,320	31,260	54,901	56.9	39,271	79.6
All Years of Issue		\$186,101,433	\$467,618	\$763,631	61.2%	\$558,393	83.7%

The aggregate medical mortality ratio for the period from 1985 to 1986 anniversaries was 83.7 percent on the 1975-80 Select Basic Table. The 1985-86 result is a sharp decrease of 6.8 percentage points from the medical mortality level of the 1984-85 study for male and female lives combined. For female lives the mortality ratio is 102.9 percent, little change from the 1984-85 experience, but still sharply above the 81.7 percent for male lives. The exposure for female lives was relatively small (about \$23 billion compared to \$163 billion for male lives).

#### *Paramedically Examined Issues*

The 1985-86 paramedical experience includes exposures of \$173 billion and actual deaths of \$281 million (from 20 contributing companies). The volume of paramedical business increased from exposures of \$169 billion and actual deaths of \$262 million in 1984-85 (from 23 contributing companies). The limited experience at durations 12-15 should be noted carefully in comparisons with medical and nonmedical results.

The experience by age group at issue is included in Table 3, and the experience by year of issue is shown in Table 4. The detailed data by age group at issue for male and female lives separately are not shown in this report but are available from the Society Research Department.

The aggregate paramedical mortality ratio for the period from 1985 to 1986 anniversaries is 91.8 percent. As the table on page 5 shows, the overall paramedical ratio decreased from 94.3 percent in 1984-85.

TABLE 3  
STANDARD PARAMEDICALLY EXAMINED ISSUES OF 1971-85  
MALE AND FEMALE LIVES COMBINED  
EXPERIENCE BETWEEN 1985 AND 1986 ANNIVERSARIES  
BY AGE AT ISSUE  
POLICY YEARS 1-15 COMBINED  
(Amounts Shown in \$1,000 Units)

Ages at Issue	Exposed to Risk	Actual Deaths	1965-70 Select Basic Tables		1975-80 Select Basic Tables	
			Expected Deaths	Mortality Ratio	Expected Deaths	Mortality Ratio
0-9 .....	\$ 375,529	\$ 50	\$ 240	20.9%	\$ 134	37.4%
10-14 .....	282,209	25	198	12.6	200	12.5
15-19 .....	747,799	706	673	104.9	687	102.8
20-24 .....	3,972,774	3,696	3,218	114.8	2,866	129.0
25-29 .....	15,822,573	8,430	13,484	62.5	11,893	70.9
30-34 .....	36,013,859	22,899	42,186	54.3	33,279	68.8
35-39 .....	43,901,652	37,431	68,839	54.4	53,737	69.7
40-44 .....	30,970,585	49,318	74,722	66.0	54,319	90.8
45-49 .....	19,239,879	50,278	69,071	72.8	52,111	96.5
50-54 .....	11,869,251	43,562	61,848	70.4	40,640	107.2
55-59 .....	6,841,463	38,153	45,694	83.5	33,243	114.8
60-64 .....	2,408,802	17,240	23,280	74.1	15,407	111.9
65-69 .....	648,836	6,951	8,709	79.8	6,226	111.6
70 and over .....	152,860	2,608	2,312	112.8	1,851	140.9
All Ages .....	\$173,248,072	\$281,346	\$414,473	67.9%	\$306,593	91.8%



TABLE 4

STANDARD PARAMEDICALLY EXAMINED ISSUES OF 1971-85  
 MALE AND FEMALE LIVES COMBINED  
 EXPERIENCE BETWEEN 1985 AND 1986 ANNIVERSARIES  
 BY YEAR OF ISSUE  
 ALL AGES COMBINED  
 (Amounts Shown in \$1,000 Units)

Year of Issue	Policy Year	Exposed to Risk	Actual Deaths	1965-70 Select Basic Tables		1975-80 Select Basic Tables	
				Expected Deaths	Mortality Ratio	Expected Deaths	Mortality Ratio
1971	15	\$ 140,559	\$ 668	\$ 964	69.3%	\$ 723	92.4%
1972	14	440,287	2,551	2,734	93.3	2,075	122.9
1973	13	1,033,973	4,114	5,924	69.4	4,510	91.2
1974	12	1,729,226	5,964	8,549	69.8	6,539	91.2
1975	11	2,615,059	8,259	11,886	69.5	9,050	91.3
1976	10	3,857,847	10,269	15,513	66.2	11,646	88.2
1977	9	5,282,059	13,102	18,698	70.1	13,983	93.7
1978	8	6,430,504	15,389	21,212	72.5	15,830	97.2
1979	7	8,255,867	20,043	25,134	79.7	18,834	106.4
1980	6	11,202,475	23,381	30,640	76.3	23,231	100.6
1981	5	14,253,334	26,742	36,873	72.5	28,381	94.2
1982	4	19,562,833	31,980	51,411	62.2	37,833	84.5
1983	3	28,356,248	48,283	71,686	67.4	51,747	93.3
1984	2	30,975,018	37,213	60,148	61.9	43,003	86.5
1985	1	39,112,783	33,387	53,102	62.9	39,208	85.2
All Years of Issue		\$173,248,072	\$281,346	\$414,473	67.9%	\$306,593	91.8%

### Nonmedical Issues

The 1985-86 experience during the first 15 policy years includes exposures of \$332 billion and actual deaths of \$256 million (from 20 contributing companies). The corresponding amounts in the 1984-85 study were \$321 billion and \$241 million, respectively (from 23 contributing companies).

As shown on page 5, the proportion of nonmedical business decreased (slightly) for the first policy year for the first time since 1980.

The experience by age group at issue is shown in Table 5 for the first 15 policy years combined. The experience by year of issue is shown in Table 6. The detailed unadjusted experience by age group at issue for each year of issue, for male and female lives separately, is not shown in this report but is available from the Society Research Department.

The aggregate mortality ratio for the period from 1985 to 1986 anniversaries was 92.4 percent on the 1975-80 Select Basic Tables. As the table on page 5 shows, the overall nonmedical ratio (on the 1965-70 Select Basic Table)

**TABLE 5**  
**STANDARD NONMEDICAL ISSUES OF 1971-85**  
**MALE AND FEMALE LIVES COMBINED**  
**EXPERIENCE BETWEEN 1985 AND 1986 ANNIVERSARIES**  
**BY AGE AT ISSUE**  
**POLICY YEARS 1-15 COMBINED**  
**(Amounts Shown in \$1,000 Units)**

Ages at Issue	Exposed to Risk	Actual Deaths	1965-70 Select Basic Tables		1975-80 Select Basic Tables	
			Expected Deaths	Mortality Ratio	Expected Deaths	Mortality Ratio
0-9 .....	\$ 32,024,989	\$ 8,960	\$ 24,482	36.6%	\$ 12,042	74.4%
10-14 .....	9,864,627	5,851	6,164	94.9	6,132	95.4
15-19 .....	20,675,430	16,363	17,666	92.6	17,584	93.1
20-24 .....	49,808,042	32,498	38,450	84.5	33,141	98.1
25-29 .....	81,304,768	44,525	64,275	69.3	54,931	81.1
30-34 .....	71,783,319	49,533	74,567	66.4	57,238	86.5
35-39 .....	40,597,859	40,938	56,167	72.9	42,300	96.8
40-44 .....	15,932,866	25,019	33,159	75.5	24,659	101.5
45-49 .....	6,241,154	13,411	18,191	73.7	13,959	96.1
50-54 .....	2,155,273	9,020	9,679	93.2	6,257	144.1
55-59 .....	1,229,071	6,176	7,264	85.0	5,208	118.6
60-64 .....	382,391	2,186	3,737	58.5	2,450	89.2
65-69 .....	92,525	1,092	1,349	81.0	965	113.1
70 and over .....	18,498	393	322	121.9	273	143.9
All Ages .....	\$332,110,814	\$255,965	\$355,473	72.0%	\$277,142	92.4%

**TABLE 6**  
**STANDARD NONMEDICAL ISSUES OF 1971-85**  
**MALE AND FEMALE LIVES COMBINED**  
**EXPERIENCE BETWEEN 1985 AND 1986 ANNIVERSARIES**  
**BY YEAR OF ISSUE**  
**ALL AGES COMBINED**  
**(Amounts Shown in \$1,000 Units)**

Year of Issue	Policy Year	Exposed to Risk	Actual Deaths	1965-70 Select Basic Tables		1975-80 Select Basic Tables	
				Expected Deaths	Mortality Ratio	Expected Deaths	Mortality Ratio
1971 .....	15	\$ 4,552,378	\$ 7,532	\$ 9,776	77.1%	\$ 7,643	98.6%
1972 .....	14	5,278,611	7,553	9,903	76.3	7,868	96.0
1973 .....	13	5,789,727	7,989	9,664	82.7	7,765	102.9
1974 .....	12	6,325,784	8,405	9,490	88.6	7,739	108.6
1975 .....	11	6,470,141	8,049	8,935	90.1	7,402	108.7
1976 .....	10	7,462,703	7,402	9,177	80.7	7,587	97.6
1977 .....	9	8,423,376	7,472	9,748	76.6	8,004	93.4
1978 .....	8	10,079,315	8,572	11,300	75.9	9,319	92.0
1979 .....	7	11,540,779	9,634	12,108	79.6	10,104	95.3
1980 .....	6	13,454,544	10,835	13,440	80.6	11,229	96.5
1981 .....	5	19,703,741	17,235	21,617	79.7	17,787	96.9
1982 .....	4	36,365,704	31,122	42,292	73.6	33,497	92.9
1983 .....	3	60,076,371	45,491	65,858	69.1	51,309	88.7
1984 .....	2	61,363,465	40,004	57,492	69.6	43,847	91.2
1985 .....	1	75,224,175	38,670	64,674	59.8	46,040	84.0
All Years of Issue .....		\$332,110,814	\$255,965	\$355,473	72.0%	\$277,142	92.4%

increased in the 1984–85 experience for the first time since 1972–73. The 1985–86 experience was at essentially the same level as 1984–85.

The mortality ratios in Tables 5 and 6 generally understate the mortality ratios for nonmedical business because, in calculating the expected deaths, no adjustment has been made to allow for differences in the average age of the exposure in each nonmedical five-year age group compared with the average age of the exposure in the corresponding age group used in developing the Basic Tables. The 1975–80 Basic Tables were based on combined medical, nonmedical and paramedical issues. Differences arise because companies generally change their nonmedical limits at ages 30, 35, 40, and so on.

Note that often nonmedical issues over age 50 arise from business issued under special circumstances such as pension trust and salary allotment plans. For other business, nonmedical limits extending to age 50, and in some cases for limited amounts above age 50, have been introduced in recent years. So-called policyholder's nonmedical, issued on the basis of a previous medical examination within 6 or 12 months, is also included in nonmedical issues for some companies; others include it in their medical or paramedical issues.

#### *Comparison of Medical, Nonmedical and Paramedical Experience*

Table 7 presents the experience on medical, nonmedical, and paramedical select issues between 1981 and 1986 anniversaries, based on the 1975–80 Table. The mortality ratios have not been age-adjusted to reflect the distribution of nonmedical exposures by age, which is likely to have a significant effect on issue-age groups 40–44 and higher. Table 7 indicates that, for policy years 1–15 combined, nonmedical mortality was actually less than medical for issue ages 20 through 24. A significant proportion of medical issues at these ages undoubtedly is on persons who were not acceptable on a nonmedical basis because of medical history.

Comparison of paramedical and nonmedical experience shows that paramedical experience is generally better except at issue ages 0–9 and 20–24. At these ages examinations are usually required only for large amounts and for histories of significant physical impairments. Comparison of paramedical and medical experience shows that again, the paramedical ratio is higher at 0–9. The paramedical ratios are also higher at issue ages 40 and above, reflecting the value of medical examinations at the higher ages.

TABLE 7

COMPARISON OF MEDICAL AND NONMEDICAL AND PARAMEDICAL EXPERIENCE\*  
 MALE AND FEMALE LIVES COMBINED  
 BETWEEN 1981 AND 1986 ANNIVERSARIES  
 BY AGE GROUP AT ISSUE AND POLICY-YEAR GROUP  
 (First Fifteen Policy Years)

Age Group at Issue	Policy Years									
	1-2		3-5		6-10		11-15		1-15	
	Medical	Non- medical	Medical	Non- medical	Medical	Non- medical	Medical	Non- medical	Medical	Non- medical
Mortality Ratios on 1975-80 Select Basic Tables										
0-9 .....	30%	77%	89%	70%	46%	79%	70%	89%	60%	78%
10-19 .....	88	87	78	90	87	93	87	101	85	93
20-24 .....	103	91	112	98	117	98	87	95	103	95
25-29 .....	83	75	79	90	93	96	85	95	86	87
30-34 .....	82	79	87	89	92	96	83	92	86	87
35-39 .....	88	96	113	95	78	102	83	105	89	98
40-44 .....	92	99	92	100	88	114	86	118	89	105
45-49 .....	79	98	91	101	97	111	92	90	91	100
50 and over .....	87	108	98	137	96	78	86	128	92	116
All ages .....	86%	86%	97%	95%	93%	96%	86%	98%	91%	93%
Ratio of Nonmedical to Medical Mortality Ratios										
0-9 .....	257%		79%		172%		127%		130%	
10-19 .....	99		115		107		116		109	
20-24 .....	88		88		84		109		92	
25-29 .....	90		114		103		112		101	
30-34 .....	96		102		104		111		101	
35-39 .....	109		84		131		127		110	
40-44 .....	108		109		130		137		118	
45-49 .....	124		111		114		98		110	
50 and over .....	124		140		81		149		126	
All ages .....	100%		98%		103%		114%		102%	

\*Exposures not adjusted for distribution by age within each five-year age group at issue.

### Comparison of Male and Female Experience

For the select period, each of the 20 contributing companies submitted medical, nonmedical, and paramedical data separately for males and females.

Table 8 shows the experience by sex and issue age group between 1981 and 1986 anniversaries for the first 15 policy years combined for standard medical, nonmedical and paramedical issues. For the purpose of comparing male and female mortality, the ratios of female to male mortality are based on expected deaths for females calculated on the male table. For all issue ages combined, the ratios of female to male mortality were 73.6 percent for medical issues, 55.8 percent for nonmedical issues and 70.1 percent for paramedical issues, on the 1975-80 Select Basic Tables. The greater difference in favor of females on nonmedical issues reflects particularly the generally lower ratios of female-to-male mortality rates at younger ages, largely due to the higher accidental death rate for males.

TABLE 7—Continued

Age Group at Issue	Policy Years									
	1-2		3-5		6-10		11-15		1-15	
	Medical	Para- medical	Medical	Para- medical	Medical	Para- medical	Medical	Para- medical	Medical	Para- medical
Mortality Ratios on 1975-80 Select Basic Tables										
0-9 .....	30%	152%	89%	206%	46%	12%	70%	0	60%	110%
10-19 .....	88	63	78	122	87	55	87	76%	85	83
20-24 .....	103	102	112	93	117	95	87	106	103	97
25-29 .....	83	79	79	85	93	89	85	77	86	84
30-34 .....	82	76	87	77	92	80	83	68	86	77
35-39 .....	88	75	113	78	78	77	83	92	89	77
40-44 .....	92	89	92	91	88	94	86	88	89	91
45-49 .....	79	87	91	101	97	108	92	120	91	99
50 and over.....	87	107	98	113	96	113	86	101	92	111
All ages.....	86%	90%	97%	94%	93%	96%	86%	95%	91%	93%
Ratio of Paramedical to Medical Mortality Ratios										
0-9 .....	507%		231%		26%		0		183%	
10-19 .....	72		156		63		87%		98	
20-24 .....	99		83		81		122		94	
25-29 .....	95		108		96		91		98	
30-34 .....	93		89		87		82		90	
35-39 .....	85		69		99		111		87	
40-44 .....	97		99		107		102		102	
45-49 .....	110		111		111		130		109	
50 and over.....	123		115		118		117		121	
All ages.....	105%		97%		103%		110%		102%	

The detailed select experience by sex for the period from 1985 to 1986 policy anniversaries by age group at issue for each year of issue is available from the Society Research Department.

Table 9 compares the experience between 1981 and 1986 anniversaries on medical and nonmedical issues, separately for each sex, for policy years 1-2, 3-5, 6-10, 11-15, and 1-15 based on the 1975-80 Select Basic Tables. The nonmedical mortality ratios shown have not been adjusted to reflect the distribution of nonmedical exposures by age, which is likely to have a significant effect on issue age groups 40-44 and over. For males, the ratios of the nonmedical to the medical mortality ratios were greater than 100 percent at all issue ages except 20-24 in policy years 1-15 combined. For females, the ratios exceeded 100 percent for issue ages 0-19 and 35-39 and 45 and over in policy years 1-15 combined.

Table 10 compares results for paramedical and nonmedical mortality. For males paramedical mortality is substantially higher at issue ages 0-9. For females lives paramedical mortality is higher for issue ages 0-29.

In Table 11 the pattern of ratios for male lives for paramedical compared to medical mortality is consistent with the pattern shown earlier in Table 7.

TABLE 7—Continued

Age Group at Issue	Policy Years									
	1-2		3-5		6-10		11-15		1-15	
	Non- medical	Para- medical	Non- medical	Para- medical	Non- medical	Para- medical	Non- medical	Para- medical	Non- medical	Para- medical
Mortality Ratios on 1975-80 Select Basic Tables										
0-9 . . . . .	77%	152%	70%	206%	79%	12%	89%	0	78%	110%
10-19 . . . . .	87	63	90	122	93	55	101	76%	93	83
20-24 . . . . .	91	102	98	93	98	95	95	106	95	97
25-29 . . . . .	75	79	90	85	96	89	95	77	87	84
30-34 . . . . .	79	76	89	77	96	80	92	68	87	77
35-39 . . . . .	96	75	95	78	102	77	105	92	98	77
40-44 . . . . .	99	89	100	91	114	94	118	88	105	91
45-49 . . . . .	98	87	101	101	111	108	90	120	100	99
50 and over . . . . .	108	107	137	113	78	113	128	101	116	111
All ages . . . . .	86%	90%	95%	94%	96%	96%	98%	95%	93%	93%
Ratio of Paramedical to Nonmedical Mortality Ratios										
0-9 . . . . .	197%		294%		15%		0		141%	
10-19 . . . . .	72		136		59		75%		89	
20-24 . . . . .	112		95		97		112		102	
25-29 . . . . .	105		94		93		81		97	
30-34 . . . . .	96		87		83		74		89	
35-39 . . . . .	78		82		75		88		79	
40-44 . . . . .	90		91		82		75		87	
45-49 . . . . .	89		100		97		133		99	
50 and over . . . . .	99		82		145		79		96	
All ages . . . . .	105%		99%		100%		97%		100%	

For female lives paramedical experience is generally substantially higher than medical except for issue ages 30-34 and 40-49.

#### *Comparison of Smoker and Nonsmoker Experiences*

Tables 1-6 were analyzed by using available nonsmoker/smoker data for the 13 companies that submitted any smoker/nonsmoker distinct data. Table 12 shows the available experience for the first five durations individually and 6-15 combined. The exposures by smoker and nonsmoker status are concentrated in the first five policy years. Although the reported experience continues to grow each year, the experience remains relatively small. This limited experience appears to account for some of the apparent anomalies such as a lower ratio, 65.7 percent, for nonsmokers on paramedical than on medical issues, 68.4 percent.

Table 13 shows the available experience by age at issue.

TABLE 8  
 COMPARISON OF MALE AND FEMALE MORTALITY EXPERIENCE  
 OBSERVED BETWEEN 1981 AND 1986 ANNIVERSARIES  
 BY AGE AT ISSUE—POLICY YEARS 1-15 COMBINED  
 EXPECTED DEATHS ON MALE AND FEMALE SELECT BASIC TABLES  
 (Amounts Shown in \$1,000 Units)

Ages at Issue	Exposed to Risk		Actual Deaths		Based on 1965-70 Basic Tables			Based on 1975-80 Basic Tables		
					Mortality Ratio		Ratio of Female to Male Mortality*	Mortality Ratio		Ratio of Female to Male Mortality*
	Male	Female	Male	Female	Male	Female		Male	Female	
Standard Medically Examined Issues										
0-9 . . . . .	\$ 5,853,849	\$ 3,558,575	\$ 1,739	\$ 483	45.8%	27.5%	45.8%	64.2%	49.9%	48.7%
10-14 . . . . .	2,883,806	1,438,955	2,438	810	95.9	128.3	71.3	89.7	139.3	72.3
15-19 . . . . .	5,123,077	1,562,843	4,778	228	86.6	27.0	15.8	83.9	32.7	15.4
20-24 . . . . .	23,063,518	3,272,639	20,136	1,523	89.5	74.8	58.4	102.7	101.4	56.1
25-29 . . . . .	72,121,612	8,392,187	57,031	4,336	71.4	65.7	78.3	85.7	91.8	73.3
30-34 . . . . .	147,959,558	16,665,454	148,481	12,240	66.8	65.1	82.3	85.7	91.0	81.2
35-39 . . . . .	181,862,149	20,301,806	271,804	19,189	70.6	59.6	66.9	89.9	81.3	66.4
40-44 . . . . .	161,562,868	18,595,349	346,707	38,415	62.3	94.6	94.5	86.9	110.7	94.4
45-49 . . . . .	117,752,362	15,906,112	411,693	44,913	65.4	88.5	75.1	90.1	101.1	75.3
50-54 . . . . .	85,739,564	12,945,618	403,343	42,483	62.6	69.6	63.9	93.0	94.2	63.8
55-59 . . . . .	50,786,423	8,802,961	316,553	46,018	63.1	104.3	77.4	84.4	119.4	76.6
60-64 . . . . .	23,519,292	5,420,213	208,761	34,732	62.7	84.1	69.1	93.7	112.7	68.9
65-69 . . . . .	7,224,002	2,479,705	90,766	24,576	61.2	95.1	79.3	78.7	140.3	79.4
70 and over . . . . .	1,571,432	810,022	36,890	10,873	85.9	72.0	60.2	113.7	124.7	59.3
All ages . . . . .	\$887,023,511	\$120,152,439	\$2,321,119	\$280,818	64.9%	82.2%	73.7%	89.0%	105.8%	73.6%

\*Female mortality ratios calculated on Male Select Basic Tables.

TABLE 8—Continued

Ages at Issue	Exposed to Risk		Actual Deaths		Based on 1965-70 Basic Tables			Based on 1975-80 Basic Tables		
					Mortality Ratio		Ratio of Female to Male Mortality*	Mortality Ratio		Ratio of Female to Male Mortality*
	Male	Female	Male	Female	Male	Female		Male	Female	
Standard Nonmedical Issues										
0-9 .....	\$ 77,472,815	\$ 61,375,233	\$ 28,243	\$ 13,215	43.3%	30.4%	54.7%	80.6%	74.0%	60.3%
10-14 .....	26,192,339	17,861,256	20,328	5,478	97.0	74.1	43.0	93.7	82.9	43.7
15-19 .....	70,018,891	38,020,786	72,389	15,105	98.3	75.3	38.7	93.5	92.8	37.7
20-24 .....	178,148,934	83,285,786	139,899	29,316	89.2	60.8	47.8	97.5	85.9	46.3
25-29 .....	239,514,187	109,825,466	168,928	40,253	81.6	53.2	57.6	88.5	79.3	55.1
30-34 .....	174,496,514	88,233,917	144,533	40,724	73.2	49.0	58.6	90.9	74.3	58.2
35-39 .....	87,914,235	46,279,835	105,895	34,483	80.5	59.7	61.7	102.8	87.0	61.2
40-44 .....	32,666,881	17,975,733	57,834	23,880	76.7	79.8	66.4	108.9	95.2	66.1
45-49 .....	13,435,017	6,020,362	31,083	10,149	72.6	90.8	73.9	97.0	109.2	73.6
50-54 .....	4,510,541	2,064,301	19,260	5,203	84.6	88.7	69.0	128.5	135.9	69.8
55-59 .....	2,495,968	1,200,016	13,481	4,464	79.8	120.9	78.3	111.7	155.3	78.8
60 and over ...	1,147,198	298,062	6,285	1,977	48.2	102.7	116.5	71.6	155.3	117.4
All ages ....	\$908,013,520	\$472,440,752	\$808,158	\$224,247	79.0%	57.8%	55.4%	94.9%	85.5%	55.8%

\*Female mortality ratios calculated on Male Select Basic Tables.



TABLE 8—Continued

Ages at Issue	Exposed to Risk		Actual Deaths		Based on 1965-70 Basic Tables			Based on 1975-80 Basic Tables		
	Male	Female	Male	Female	Mortality Ratio		Ratio of Female to Male Mortality*	Mortality Ratio		Ratio of Female to Male Mortality*
					Male	Female		Male	Female	
Standard Paramedical Issues										
0-9 . . . . .	\$ 1,012,110	\$ 679,808	\$ 460	\$ 135	73.3%	38.6%	42.1%	124.2%	78.8%	45.3%
10-14 . . . . .	847,004	506,386	492	15	74.6	7.4	5.5	73.2	8.2	5.6
15-19 . . . . .	3,003,869	1,135,194	2,790	630	88.7	107.8	60.1	81.5	136.0	59.3
20-24 . . . . .	20,809,257	4,088,193	15,163	1,883	88.6	83.0	65.2	94.3	119.8	64.0
25-29 . . . . .	76,958,002	13,476,908	47,719	6,201	77.1	69.1	79.0	81.8	102.1	76.8
30-34 . . . . .	149,204,162	28,963,949	105,682	12,991	63.8	47.6	65.9	78.2	71.6	65.6
35-39 . . . . .	154,731,670	31,603,973	142,530	22,077	60.7	55.5	77.9	76.4	81.8	77.4
40-44 . . . . .	99,622,253	22,337,392	158,885	24,885	65.2	69.6	70.0	92.2	84.0	70.1
45-49 . . . . .	60,136,062	15,326,499	165,010	27,643	74.4	79.3	62.5	100.3	94.8	62.4
50-54 . . . . .	35,116,558	9,911,538	133,570	25,179	71.7	71.8	62.3	110.3	104.2	62.5
55-59 . . . . .	18,609,976	5,702,634	97,168	24,020	73.8	115.8	75.9	103.6	137.8	75.4
60-64 . . . . .	5,368,648	2,348,505	41,274	11,795	72.9	87.6	63.4	112.7	124.1	63.4
65-69 . . . . .	1,211,828	721,069	13,754	5,425	72.7	90.8	64.5	99.0	143.1	64.0
70 and over . . . . .	230,148	181,874	4,626	2,477	123.2	114.6	63.0	142.6	167.3	64.3
All ages . . . . .	\$626,861,546	\$136,983,924	\$929,123	\$165,357	69.0%	72.7%	69.2%	92.3%	98.0%	70.1%

\*Female mortality ratios calculated on Male Select Basic Tables.

TABLE 9  
COMPARISON BY SEX OF MEDICAL AND NONMEDICAL EXPERIENCE\*  
BETWEEN 1981 AND 1986 ANNIVERSARIES  
BY AGE GROUP AT ISSUE AND POLICY-YEAR GROUP  
(First Fifteen Policy Years)

Age Group at Issue	Policy Years									
	1-2		3-5		6-10		11-15		1-15	
	Medical	Non- medical	Medical	Non- medical	Medical	Non- medical	Medical	Non- medical	Medical	Non- medical
Male Experience—Mortality Ratios on 1975-80 Select Basic Tables										
0-9 .....	43%	78%	75%	76%	62%	78%	69%	91%	64%	81%
10-19 .....	105	86	66	89	85	94	93	104	86	94
20-24 .....	88	92	120	101	120	100	87	97	103	97
25-29 .....	84	74	80	93	89	100	86	98	86	88
30-34 .....	84	83	82	92	92	102	84	96	86	91
35-39 .....	89	106	114	94	79	109	83	107	90	103
40-44 .....	84	104	91	107	88	121	85	116	87	109
45-49 .....	79	99	88	94	98	108	90	87	90	97
50 and over.	85	102	96	128	92	76	83	122	90	109
All ages..	84%	89%	95%	96%	91%	99%	85%	100%	89%	95%
Female Experience—Mortality Ratios on 1975-80 Female Select Basic Tables										
0-9 .....	0	76%	118%	59%	7%	81%	74%	82%	50%	74%
10-19 .....	4%	90	138	95	103	89	40	84	81	90
20-24 .....	242	87	34	83	84	89	93	84	101	86
25-29 .....	71	78	73	78	142	81	63	82	92	79
30-34 .....	52	64	141	80	86	81	75	79	91	74
35-39 .....	79	70	98	100	68	90	85	99	81	87
40-44 .....	192	84	103	84	95	103	91	121	111	95
45-49 .....	80	96	126	127	84	124	110	102	101	109
50 and over.	107	127	114	178	121	90	105	177	113	146
All ages..	108%	79%	113%	89%	105%	87%	100%	91%	106%	85%
Male Experience—Ratio of Nonmedical to Medical Mortality Ratios										
0-9 .....	181%		101%		126%		132%		127%	
10-19 .....	82		135		111		112		109	
20-24 .....	105		84		83		111		94	
25-29 .....	88		116		112		114		102	
30-34 .....	99		112		111		114		106	
35-39 .....	119		82		138		129		114	
40-44 .....	124		118		138		136		125	
45-49 .....	125		107		110		97		108	
50 and over.	120		133		83		147		121	
All ages..	106%		101%		109%		118%		107%	
Female Experience—Ratio of Nonmedical to Medical Mortality Ratios										
0-9 .....	0		50%		1157%		111%		148%	
10-19 .....	2250%		69		86		210		111	
20-24 .....	36		244		106		90		85	
25-29 .....	110		107		57		130		86	
30-34 .....	123		57		94		105		81	
35-39 .....	89		102		132		116		107	
40-44 .....	44		82		108		133		86	
45-49 .....	120		101		148		93		108	
50 and over.	119		156		74		169		129	
All ages..	73%		79%		83%		91%		80%	

\*Exposures not adjusted for distribution by age.

TABLE 10

COMPARISON BY SEX OF NONMEDICAL AND PARAMEDICAL EXPERIENCE\*  
 BETWEEN 1981 AND 1986 ANNIVERSARIES  
 BY AGE GROUP AT ISSUE AND POLICY-YEAR GROUP  
 (First Fifteen Policy Years)

Age Group at Issue	Policy Years									
	1-2		3-5		6-10		11-15		1-15	
	Non- medical	Para- medical	Non- medical	Para- medical	Non- medical	Para- medical	Non- medical	Para- medical	Non- medical	Para- medical
Male Experience—Mortality Ratios on 1975-80 Male Select Basic Tables										
0-9 .....	78%	142%	76%	288%	78%	7%	91%	0	81%	124%
10-19 .....	86	62	89	112	94	58	104	77%	94	80
20-24 .....	92	96	101	87	100	99	97	104	97	94
25-29 .....	74	73	93	88	100	85	98	75	88	82
30-34 .....	83	75	92	79	102	81	96	70	91	78
35-39 .....	106	73	94	77	109	76	107	93	103	76
40-44 .....	104	94	107	90	121	94	116	86	109	92
45-49 .....	99	89	94	100	108	110	87	126	97	100
50 and over..	102	104	128	110	76	113	122	102	109	108
All ages...	89%	89%	96%	93%	99%	95%	100%	95%	95%	92%
Female Experience—Mortality Ratios on 1975-80 Female Select Basic Tables										
0-9 .....	76%	170%	59%	41%	81%	25%	82%	0	74%	79%
10-19 .....	90	67	95	182	89	31	84	66%	90	100
20-24 .....	87	152	83	143	89	54	84	143	86	120
25-29 .....	78	139	78	60	81	123	82	104	79	102
30-34 .....	64	82	80	62	81	77	79	51	74	72
35-39 .....	70	86	100	81	90	78	99	88	87	82
40-44 .....	84	58	84	94	103	97	121	101	95	84
45-49 .....	96	74	127	105	124	102	102	93	109	95
50 and over..	127	124	178	130	90	114	177	97	146	122
All ages...	79%	94%	89%	101%	87%	99%	91%	92%	85%	98%
Male Experience—Ratio of Paramedical to Nonmedical Mortality Ratios										
0-9 .....	182%		379%		9%		0		153%	
10-19 .....	72		126		62		74%		85	
20-24 .....	104		86		99		107		97	
25-29 .....	99		95		85		77		93	
30-34 .....	90		86		79		73		86	
35-39 .....	69		82		70		87		74	
40-44 .....	90		84		78		74		84	
45-49 .....	90		106		102		145		103	
50 and over..	102		86		149		84		99	
All ages...	100%		97%		96%		95%		97%	
Female Experience—Ratio of Paramedical to Nonmedical Mortality Ratios										
0-9 .....	224%		69%		31%		0		107%	
10-19 .....	74		192		35		79%		111	
20-24 .....	175		172		61		170		140	
25-29 .....	178		77		152		127		129	
30-34 .....	128		77		95		65		97	
35-39 .....	123		81		87		89		94	
40-44 .....	69		112		94		83		88	
45-49 .....	77		83		82		91		87	
50 and over..	98		73		127		55		84	
All ages...	119%		113%		114%		101%		115%	

\*Exposures not adjusted for distribution by age.

**TABLE 11**  
**COMPARISON BY SEX OF MEDICAL AND PARAMEDICAL EXPERIENCE\***  
**BETWEEN 1981 AND 1986 ANNIVERSARIES**  
**BY AGE GROUP AT ISSUE AND POLICY-YEAR GROUP**  
**(First Fifteen Policy Years)**

Age Group at Issue	Policy Years									
	1-2		3-5		6-10		11-15		1-15	
	Medical	Para-medical	Medical	Para-medical	Medical	Para-medical	Medical	Para-medical	Medical	Para-medical
Male Experience—Mortality Ratios on 1975-80 Male Select Basic Tables										
0-9 .....	43%	142%	75%	288%	62%	7%	69%	0	64%	124%
10-19 .....	105	62	66	112	85	58	93	77%	86	80
20-24 .....	88	96	120	87	120	99	87	104	103	94
25-29 .....	84	73	80	88	89	85	86	75	86	82
30-34 .....	84	75	82	79	92	81	84	70	86	78
35-39 .....	89	73	114	77	79	76	83	93	90	76
40-44 .....	84	94	91	90	88	94	85	86	87	92
45-49 .....	79	89	88	100	98	110	90	126	90	100
50 and over..	85	104	96	110	92	113	83	102	90	108
All ages...	84%	89%	95%	93%	91%	95%	85%	95%	89%	92%
Female Experience—Mortality Ratios on 1975-80 Female Select Basic Tables										
0-9 .....	0	170%	118%	41%	7%	25%	74%	0	50%	79%
10-19 .....	4%	67	138	182	103	31	40	66%	81	100
20-24 .....	242	152	34	143	84	54	93	143	101	120
25-29 .....	71	139	73	60	142	123	63	104	92	102
30-34 .....	52	82	141	62	86	77	75	51	91	72
35-39 .....	79	86	98	81	68	78	85	88	81	82
40-44 .....	192	58	103	94	95	97	91	101	111	84
45-49 .....	80	74	126	105	84	102	110	93	101	95
50 and over..	107	124	114	130	121	114	105	97	113	122
All ages...	108%	94%	113%	101%	105%	99%	100%	92%	106%	98%
Male Experience—Ratio of Paramedical to Medical Mortality Ratios										
0-9 .....	330%		384%		11%		0		194%	
10-19 .....	59		170		68		83%		93	
20-24 .....	109		72		82		120		91	
25-29 .....	87		110		96		87		95	
30-34 .....	89		96		88		83		91	
35-39 .....	82		68		96		112		84	
40-44 .....	112		99		107		101		106	
45-49 .....	113		114		112		140		111	
50 and over..	122		115		123		123		120	
All ages...	106%		98%		104%		112%		103%	
Female Experience—Ratio of Paramedical to Medical Mortality Ratios										
0-9 .....	0		35%		357%		0		158%	
10-19 .....	1675%		132		30		165%		123	
20-24 .....	63		421		64		154		119	
25-29 .....	196		82		87		165		111	
30-34 .....	158		44		90		68		79	
35-39 .....	109		83		115		104		101	
40-44 .....	30		91		102		111		76	
45-49 .....	92		83		121		85		94	
50 and over..	116		114		94		92		108	
All ages...	87%		89%		94%		92%		92%	

\*Exposures not adjusted for distribution by age.

TABLE 12  
 STANDARD ISSUES OF 1971-85  
 SMOKER/NONSMOKER DATA  
 FOR MALE AND FEMALE LIVES COMBINED  
 EXPERIENCE BETWEEN 1985 AND 1986 ANNIVERSARIES  
 BY YEAR OF ISSUE  
 BASED ON EXPERIENCE FROM 13 CONTRIBUTING COMPANIES  
 (Amounts Shown in \$1,000 Units)

Year of Issue	Policy Year	Nonsmoker		Smoker		Status Unknown	
		Actual Deaths	Mortality Ratio	Actual Deaths	Mortality Ratio	Actual Deaths	Mortality Ratio
Standard Medically Examined Issues							
1985 .....	1	\$ 13,135	52.3%	\$ 4,283	110.3%	\$ 363	208.9%
1984 .....	2	25,065	78.5	6,879	142.5	303	127.6
1983 .....	3	26,376	71.3	7,491	131.7	355	92.1
1982 .....	4	21,144	72.9	7,748	165.1	1,565	129.7
1981 .....	5	9,485	63.1	5,343	171.5	12,931	116.3
1971-80 .....	6-15	5,400	59.2	2,954	102.7	172,215	85.0
All .....	1-15	\$100,604	68.4%	\$34,698	138.3%	\$187,731	87.0%
Standard Nonmedical Issues							
1985 .....	1	\$19,170	74.5%	\$ 9,000	155.9%	\$ 3,362	116.2%
1984 .....	2	19,500	74.7	9,736	166.8	1,632	66.8
1983 .....	3	20,517	75.4	9,777	149.4	2,634	113.0
1982 .....	4	12,130	72.7	8,949	190.4	3,052	111.1
1981 .....	5	3,617	73.2	2,392	145.7	8,096	100.4
1971-80 .....	6-15	620	55.1	170	49.0	62,954	99.1
All .....	1-15	\$75,554	74.2%	\$40,024	161.1%	\$ 81,730	99.6%
Standard Paramedical Issues							
1985 .....	1	\$16,282	66.5%	\$ 7,439	153.6%	\$ 1,271	252.2%
1984 .....	2	16,295	59.7	9,271	165.8	1,340	244.8
1983 .....	3	18,403	67.7	9,600	159.7	1,276	151.3
1982 .....	4	14,357	71.8	8,329	166.6	1,698	133.0
1981 .....	5	5,917	68.0	4,083	154.5	10,306	94.5
1971-80 .....	6-15	1,914	51.7	2,169	154.4	77,541	99.8
All .....	1-15	\$73,168	65.7%	\$40,891	160.4%	\$ 93,432	101.8%

TABLE 13  
 SMOKER/NONSMOKER DATA FOR STANDARD ISSUES OF 1971-85  
 MALE AND FEMALE LIVES COMBINED  
 EXPERIENCE BETWEEN 1985 AND 1986 ANNIVERSARIES  
 BY AGE OF ISSUE FOR POLICY YEARS 1-15  
 BASED ON EXPERIENCE FROM 13 CONTRIBUTING COMPANIES  
 (Amounts Shown in \$1,000 Units)

Ages at Issue	Nonsmoker		Smoker		Unknown	
	Actual Deaths	Mortality Ratio	Actual Deaths	Mortality Ratio	Actual Deaths	Mortality Ratio
Medically Examined Issues						
0-19.....	\$ 50	26.9%	0	0.0	\$ 476	36.5%
20-29.....	2,039	72.7	\$ 247	58.2%	7,570	97.1
30-39.....	20,064	74.6	6,342	150.4	29,857	73.7
40-49.....	31,006	63.7	10,827	129.4	67,555	97.6
50-59.....	31,950	73.4	11,657	146.5	56,888	82.9
60 & over....	15,496	61.9	5,625	139.0	25,385	89.5
All ages....	\$100,604	68.4%	\$34,698	138.3%	\$187,731	87.0%
Nonmedical Issues						
0-19.....	\$ 5,094	82.0%	\$ 867	94.3%	\$19,436	90.4%
20-29.....	23,034	72.5	9,657	142.0	27,208	95.0
30-39.....	28,556	74.6	13,231	137.9	22,513	101.8
40-49.....	12,138	68.7	10,096	193.0	9,019	120.6
50-59.....	5,300	92.9	5,095	273.6	3,114	170.4
60 & over....	1,433	66.7	1,078	248.6	439	96.0
All ages....	\$75,554	74.2%	\$40,024	161.1%	\$81,730	99.7%
Paramedical Issues						
0-19.....	\$ 60	48.5%	0	0.0	\$ 496	70.5%
20-29.....	2,353	46.6	\$ 777	104.4%	6,691	105.2
30-39.....	17,858	51.2	7,129	104.3	24,629	86.1
40-49.....	23,358	65.2	13,084	145.1	29,803	99.1
50-59.....	19,482	79.2	13,780	217.8	24,576	121.4
60 & over....	10,057	92.6	6,121	240.5	7,237	125.4
All ages....	\$73,168	65.7%	\$40,891	160.4%	\$93,432	101.8%

EXPERIENCE UNDER STANDARD ISSUES DURING THE SIXTEENTH  
AND SUBSEQUENT POLICY YEARS

The 1985–86 experience during the sixteenth and subsequent policy years includes exposures of \$117 billion and actual deaths of \$1.4 billion (from 20 contributing companies). The 1984–85 experience included exposures of \$123 billion and actual deaths of \$1.4 billion (from 23 contributing companies).

Table 14 shows mortality ratios by attained age groups based on (1) the 1965–70 and 1975–80 Ultimate Basic Tables, (2) the Commissioners 1958 Standard Ordinary Mortality Table, and (3) the Commissioners 1980 Standard Ordinary Mortality Table.

The aggregate mortality ratio for the period from 1985 to 1986 anniversaries on the 1975–80 Ultimate Basic Tables was 89.8 percent. The tabulation on page 5 compares this result with the results of previous studies.

*Comparison of Ultimate Medical and Nonmedical Experience*

Companies were asked to subdivide their ultimate data into medical and nonmedical if they could do so conveniently. Seventeen companies, or 81 percent of the total ultimate exposure, were able to subdivide their data (in whole or in part) in this manner. The experience between 1981 and 1986 anniversaries is shown in Table 15.

The pattern of this experience is generally similar to that in past years in that the nonmedical experience has higher mortality ratios than the medical experience at essentially all but the oldest attained ages.

No comparisons of ultimate experience for paramedical issues are shown because most of the experience is in the select years.

*Comparison of Premium-Paying and Fully Paid-up Ultimate Experience*

A comparison of the mortality on premium-paying and fully paid-up (excluding reduced paid-up) policies for the period from 1981 to 1986 anniversaries is shown in Table 16 for standard medical and nonmedical issues combined. Seventeen companies submitted their experience separately on premium-paying policies, and fifteen companies did so on fully paid-up policies. This could distort comparisons between premium-paying and paid-up experience as shown.

For all attained ages combined, the ratios of premium-paying to paid-up mortality was 97.7 percent on the 1975–80 Basic Tables. The ratios at attained ages 15–19 and 30–59 for premium-paying policies were significantly less than the ratios for fully paid-up policies.

TABLE 14  
 STANDARD ISSUES OF 1970 AND PRIOR\*  
 MALE AND FEMALE LIVES COMBINED  
 (INCLUDING DATA NOT SUBDIVIDED BY SEX)  
 EXPERIENCE BETWEEN 1985 AND 1986 ANNIVERSARIES  
 BY ATTAINED AGE  
 POLICY YEARS 16 AND OVER COMBINED  
 (Amounts Shown in \$1,000 Units)

Attained Ages	Exposed to Risk	Actual Deaths	1965-70 Ultimate Basic Table		1975-80 Ultimate Basic Table		Mortality Ratio	
			Expected Deaths	Mortality Ratio	Expected Deaths	Mortality Ratio	1958 CSO Table	1980 CSO Table
15-19 .....	\$ 1,549,642	\$ 1,285	\$ 1,235	104.0%	\$ 1,367	94.0%	53.7%	59.0%
20-24 .....	2,022,026	1,833	1,908	96.1	2,225	82.4	49.8	56.0
25-29 .....	2,480,950	3,024	2,313	130.7	2,535	119.3	61.7	77.4
30-34 .....	3,699,303	4,305	4,196	102.6	3,693	116.6	52.2	65.9
35-39 .....	8,374,501	11,184	13,741	81.4	10,607	105.4	47.4	56.2
40-44 .....	12,803,297	22,189	34,149	65.0	24,513	90.5	42.2	49.2
45-49 .....	14,122,209	42,180	61,809	68.2	45,619	92.5	47.7	57.3
50-54 .....	15,144,316	70,873	110,176	64.3	80,826	87.7	47.8	59.9
55-59 .....	16,845,005	130,737	200,159	65.3	144,802	90.3	50.8	64.4
60-64 .....	15,628,707	187,743	292,371	64.2	217,374	86.4	50.7	65.6
65-69 .....	10,410,757	200,308	303,831	65.9	231,622	86.5	52.3	67.1
70-74 .....	6,865,487	216,848	304,313	71.3	242,059	89.6	56.1	70.6
75-79 .....	4,010,071	195,813	277,577	70.5	222,588	88.0	59.3	68.0
80-84 .....	1,994,914	163,522	208,654	78.4	173,162	94.4	67.1	74.6
85-89 .....	715,043	89,005	111,139	80.1	94,526	94.2	71.1	74.0
90-95 .....	204,538	39,646	43,663	90.8	39,833	99.5	77.1	79.1
All ages...	\$116,870,765	\$1,380,493	\$1,971,234	70.0%	\$1,537,351	89.8%	55.7%	67.5%

\*Not including paramedical data. Based on data from 20 companies.



TABLE 15  
 COMPARISON OF MEDICAL AND NONMEDICAL EXPERIENCE\*  
 MALE AND FEMALE LIVES COMBINED  
 (INCLUDING DATA NOT SUBDIVIDED BY SEX)  
 STANDARD ISSUES OF 1970 AND PRIOR  
 EXPERIENCE BETWEEN 1981 AND 1986 ANNIVERSARIES  
 BY ATTAINED AGE  
 POLICY YEARS 16 AND OVER COMBINED  
 (Amounts Shown in \$1,000 Units)

Attained Ages	Exposed to Risk		Actual Deaths		Based on 1965-70 Basic Tables			Based on 1975-80 Basic Tables		
					Mortality Ratio		Ratio of Nonmedical to Medical Mortality*	Mortality Ratio		Ratio of Nonmedical to Medical Mortality*
	Medical	Nonmedical	Medical	Nonmedical	Medical	Nonmedical		Medical	Nonmedical	
15-19 . . . . .	\$ 609,245	\$ 5,314,984	\$ 247	\$ 3,993	47.8%	93.6%	195.8%	42.7%	84.5%	197.9%
20-24 . . . . .	1,259,628	6,181,966	1,023	6,077	84.0	102.7	122.4	71.4	87.9	123.1
25-29 . . . . .	1,785,125	6,723,297	1,903	7,122	111.6	111.2	99.6	101.1	100.8	99.7
30-34 . . . . .	2,492,627	10,746,498	2,774	12,052	95.4	96.1	100.7	108.2	109.5	101.2
35-39 . . . . .	6,173,374	24,461,683	7,738	29,996	74.2	74.7	100.6	96.6	96.6	100.0
40-44 . . . . .	14,807,903	30,853,151	23,522	54,524	57.8	67.0	115.9	81.5	93.4	114.7
45-49 . . . . .	24,535,568	26,624,366	67,322	78,653	60.7	68.7	113.0	82.9	93.0	112.2
50-54 . . . . .	36,307,981	19,986,395	171,539	103,331	63.0	73.0	116.0	86.3	99.3	115.0
55-59 . . . . .	46,478,889	13,752,098	359,713	122,677	63.7	78.4	123.0	88.6	107.7	121.5
60-64 . . . . .	44,077,622	7,307,243	546,402	107,294	65.4	80.9	123.6	88.3	108.8	123.2
65-69 . . . . .	28,049,196	2,225,335	551,338	52,272	66.4	82.8	124.7	87.4	108.7	124.5
70-74 . . . . .	17,870,122	974,940	577,205	36,077	72.2	84.5	117.0	90.8	106.1	116.8
75-79 . . . . .	10,301,594	551,803	528,415	31,919	73.6	83.6	113.5	91.7	104.0	113.4
80-84 . . . . .	4,875,808	236,636	391,434	20,033	76.5	80.7	105.5	92.2	96.8	105.1
85-89 . . . . .	1,675,552	60,128	212,114	7,656	80.9	81.3	100.5	95.1	95.2	100.1
90-95 . . . . .	413,915	15,449	82,233	3,022	93.0	91.4	98.3	101.1	99.3	98.2
All ages . . . . .	\$241,714,148	\$156,015,971	\$3,524,921	\$676,696	69.8%	77.1%	110.5%	89.9%	101.8%	113.2%

\*Based on data from 17 companies.

TABLE 16  
 COMPARISON OF MORTALITY EXPERIENCE  
 UNDER PREMIUM-PAYING AND FULLY PAID-UP POLICIES  
 MALE AND FEMALE LIVES COMBINED  
 (INCLUDING DATA NOT SUBDIVIDED BY SEX)  
 STANDARD ISSUES OF 1970 AND PRIOR  
 EXPERIENCE BETWEEN 1981 AND 1986 ANNIVERSARIES  
 BY ATTAINED AGE  
 POLICY YEARS 16 AND OVER COMBINED  
 (Amounts Shown in \$1,000 Units)

Attained Ages	Exposed to Risk		Actual Deaths		Based on 1965-70 Basic Tables			Based on 1975-80 Basic Tables		
					Mortality Ratio		Ratio of Premium-Paying to Paid-up Mortality	Mortality Ratio		Ratio of Premium-Paying to Paid-up Mortality
	Premium-Paying*	Paid-up†	Premium-Paying*	Paid-up†	Premium-Paying*	Paid-up†		Premium-Paying*	Paid-up†	
15-19.....	\$ 6,699,098	\$ 90,802	\$ 4,833	\$ 95	89.4%	133.8%	66.8%	80.6%	124.2%	64.9%
20-24.....	8,463,025	904,423	8,251	778	101.2	97.2	104.1	86.4	85.4	101.1
25-29.....	9,696,570	1,851,921	9,990	1,675	107.6	101.6	105.9	97.4	95.8	101.6
30-34.....	15,142,385	2,128,779	16,802	2,255	94.6	101.1	93.6	107.7	115.3	93.4
35-39.....	36,460,502	2,066,011	44,438	2,571	73.6	85.0	86.6	95.4	107.9	88.4
40-44.....	55,794,275	2,021,725	94,304	4,085	63.1	83.5	75.6	88.4	112.4	78.7
45-49.....	63,136,041	2,339,975	177,654	7,048	63.8	74.6	85.5	86.8	98.8	87.9
50-54.....	69,622,979	3,380,263	340,129	17,100	66.3	75.9	87.4	90.8	101.6	89.3
55-59.....	74,481,970	4,604,299	597,012	35,996	66.9	73.1	91.5	92.9	98.8	94.0
60-64.....	63,881,076	5,626,649	814,124	67,475	67.5	69.7	96.8	91.3	92.8	98.4
65-69.....	37,905,873	7,504,983	760,086	149,180	67.8	71.3	95.1	89.4	93.5	95.6
70-74.....	24,094,689	5,933,161	784,706	189,993	72.7	74.4	97.7	91.7	94.6	97.0
75-79.....	14,073,990	4,154,923	733,061	213,388	74.7	75.4	99.0	93.2	95.2	97.9
80-84.....	6,769,080	2,350,903	549,471	183,184	77.2	75.1	102.8	93.2	91.3	102.1
85-89.....	2,175,102	1,205,091	277,356	147,421	81.4	79.2	102.9	95.8	93.9	102.1
90-95.....	517,818	427,030	101,541	77,463	91.7	85.4	107.3	99.8	93.8	106.4
All ages ...	\$488,914,474	\$46,590,935	\$5,313,759	\$1,099,708	71.0%	75.4%	94.2%	91.9%	94.1%	97.7%

\*Premium-paying based on data from 17 companies.

†Fully paid-up based on data from 15 companies.

*Comparison of Male and Female Experience*

Table 17 shows the experience by sex and attained-age groups between 1981 and 1986 anniversaries for policy years 16 and over for standard medical and nonmedical issues combined. Eighteen of the twenty contributing companies submitted data (in whole or in part) separately for males and females for policy years 16 and over. As in Tables 7 and 8, for the purpose of comparing male and female mortality, the ratios of female-to-male mortality are based on expected deaths for females calculated on the male table. For all ages combined, the ratio of female mortality to male mortality was 62.5 percent on the 1975–80 Basic Tables, essentially the same as for the 1980–85 experience.

TABLE 17  
 COMPARISON OF MALE AND FEMALE MORTALITY EXPERIENCE\*  
 STANDARD ISSUES OF 1970 AND PRIOR  
 EXPERIENCE BETWEEN 1981 AND 1986 ANNIVERSARIES  
 BY ATTAINED AGE  
 POLICY YEARS 16 AND OVER COMBINED  
 EXPECTED DEATHS MALE AND FEMALE ULTIMATE BASIC TABLES  
 (Amounts Shown in \$1,000 Units)

Attained Ages	Exposed to Risk		Actual Deaths		Based on 1965-70 Basic Tables			Based on 1975-80 Basic Tables		
					Mortality Ratio		Ratio of Female to Male Mortality*	Mortality Ratio		Ratio of Female to Male Mortality†
	Male	Female	Male	Female	Male	Female		Male	Female	
15-19. ....	\$ 4,579,821	\$ 2,529,217	\$ 4,170	\$ 952	92.8%	77.4%	42.5%	80.2%	84.7%	42.5%
20-24. ....	6,538,812	3,190,460	7,698	1,532	103.8	85.3	40.7	84.5	91.4	40.8
25-29. ....	8,160,955	3,445,273	9,921	2,158	112.0	108.7	51.7	97.9	117.6	51.3
30-34. ....	13,365,643	4,105,059	16,820	2,481	98.6	81.1	48.5	111.4	95.2	48.2
35-39. ....	31,991,989	6,847,571	41,793	5,505	75.2	66.5	64.0	97.9	82.7	63.1
40-44. ....	50,559,528	7,161,539	89,758	8,865	64.0	63.9	71.6	91.2	75.6	71.6
45-49. ....	57,974,673	6,750,533	170,296	14,129	64.4	70.4	72.3	88.5	82.1	72.3
50-54. ....	64,522,715	7,469,274	324,825	26,633	65.7	79.7	71.3	90.5	93.8	71.3
55-59. ....	69,613,622	8,397,614	577,617	44,113	66.1	79.6	63.5	92.6	90.6	63.5
60-64. ....	60,325,855	7,591,470	797,773	59,333	66.8	77.7	59.2	90.7	89.9	59.2
65-69. ....	38,481,226	5,053,899	796,958	61,802	66.5	82.2	59.0	87.9	94.6	59.0
70-74. ....	24,315,347	3,660,497	823,913	72,231	72.0	75.3	58.0	90.0	98.1	58.0
75-79. ....	13,959,102	2,379,217	764,399	73,041	75.4	63.4	55.8	92.5	89.0	55.8
80-84. ....	6,566,123	1,275,400	559,252	70,339	77.9	70.4	64.5	92.7	91.0	64.5
85-89. ....	2,307,557	493,419	306,350	47,399	82.1	78.1	72.2	95.4	96.3	72.2
90-95. ....	605,780	146,133	121,189	23,883	91.8	82.9	81.6	97.6	106.3	81.5
All ages . . . .	\$453,868,746	\$70,496,575	\$5,412,732	\$514,396	70.8%	74.4%	63.5%	91.3%	92.5%	62.5%

\*Based on data from 18 companies.

†Female mortality ratios calculated on Male Ultimate Basic Tables.

APPENDIX A

PROPORTION OF TOTAL EXPOSURES BETWEEN 1985 AND 1986 ANNIVERSARIES  
CONTRIBUTED BY EACH COMPANY

Company	First Fifteen Policy Years			Sixteenth and Subsequent Policy-Years	First Fifteen Policy Years by Sex						Sixteenth and Subsequent Policy-Years by Sex	
	Medical	Nonmedical	Paramedical		Medical		Nonmedical		Paramedical		Male	Female
	Male and Female Combined (Including Data Not Subdivided by Sex)				Male	Female	Male	Female	Male	Female		
Northwestern Mutual . . .	16.7%	7.7%	12.6%	8.4%	14.9%	1.9%	4.7%	3.0%	10.2%	2.3%	7.4%	1.0%
New York Life . . . . .	11.9	15.4	15.1	11.7	10.0	1.9	10.0	5.4	12.1	3.0	8.4	3.1
Occidental . . . . .	11.2	3.4	3.8	0.8	10.1	1.1	2.2	1.2	3.2	0.6	0.5	0.1
Equitable . . . . .	8.2	7.6	4.9	6.6	7.2	1.0	4.9	2.7	4.2	0.7	5.8	0.8
State Farm Life . . . . .	6.5	12.0	9.5	2.9	5.6	0.9	8.0	4.0	7.7	1.8	2.5	0.3
Prudential . . . . .	6.2	20.2	13.3	20.3	5.3	0.9	12.6	7.6	10.4	2.9	17.1	3.3
Massachusetts Mutual . . .	5.3	2.8	7.6	4.7	4.8	0.6	1.9	0.9	6.4	1.1	4.3	0.4
New England Life . . . . .	5.3	2.5	3.7	2.3	4.7	0.5	1.8	0.7	3.2	0.5	2.1	0.2
Connecticut Mutual . . . . .	5.2	3.1	4.9	12.9	4.7	0.6	2.1	1.0	4.3	0.6	11.7	1.2
Phoenix Mutual . . . . .	5.0	0.6	1.7	1.2	4.5	0.5	0.4	0.2	1.4	0.3	1.1	0.1
Metropolitan . . . . .	4.0	10.1	7.3	9.3	3.4	0.6	6.1	4.0	5.7	1.6	8.0	1.4
John Hancock . . . . .	2.5	2.5	5.9	5.7	2.2	0.3	1.5	1.0	4.5	1.3	4.8	0.9
Travelers . . . . .	2.2	1.6	2.2	1.6	1.9	0.3	1.1	0.5	1.8	0.3	1.4	0.2
Continental Assurance . . .	1.9	0.8	1.1	1.0	1.8	0.1	0.5	0.2	1.0	0.1	0.9	0.1
Mutual of New York . . . . .	1.8	2.6	2.0	3.3	1.6	0.3	1.8	0.8	1.7	0.3	2.8	0.5
Penn Mutual . . . . .	1.8	0.7	0.7	2.4	1.6	0.2	0.5	0.2	0.6	0.1	—	—
Franklin Life . . . . .	1.8	3.5	1.1	1.7	1.5	0.3	2.3	1.2	0.9	0.2	1.3	0.4
Provident Mutual . . . . .	1.1	1.5	1.7	1.5	1.0	0.1	1.1	0.4	1.5	0.2	—	—
Sun Life . . . . .	0.6	1.1	0.4	0.8	0.5	0.1	0.7	0.4	0.4	0.1	0.6	0.1
Lincoln National . . . . .	0.6	0.3	0.6	0.9	0.5	0.1	0.2	0.1	0.5	0.1	0.7	0.1
	100.0%	100.0%	100.0%	100.0%	87.6%	12.3%	64.4%	35.5%	81.6%	18.3%	81.5%	14.2%

