

**TRANSACTIONS OF SOCIETY OF ACTUARIES
1991-92 REPORTS**

**II. MORTALITY UNDER CANADIAN
STANDARD ORDINARY INSURANCE ISSUES STUDIED
BETWEEN THE 1989 AND 1990 ANNIVERSARIES***

PREFACE

This report was prepared by the Committee on Expected Experience of the Canadian Institute of Actuaries. The Canadian Institute of Actuaries has given the Society of Actuaries permission to reproduce this report as part of the Society's expansion of its experience studies. Discussions of this report as well as of any experience study are encouraged. The Canadian Institute and the Society intend to cooperate in experience studies to benefit actuaries in both Canada and the United States.

INTRODUCTION

This is the forty-first annual report submitted by the Committee on Expected Experience on the intercompany mortality experience for Canadian standard ordinary life insurance policies. The CA 69-75 mortality tables are used to calculate the expected death claims separately for males and females. For data submitted without classification by sex, the male table was used.

The following tables comprise the results of the 1989-90 mortality study:

- Table 1 The total experience analyzed for the select period by groups of duration and by groups of ages at issue; for the ultimate period by groups of attained ages.
- Table 2 Table 1 classified by: (a) males and (b) females.
- Table 3 Select period of Table 2 classified by: (a) medical males, (b) medical females, (c) nonmedical males, (d) nonmedical females, (e) paramedical males, and (f) paramedical females.
- Table 4 Mortality ratios by amount for policy years 1982-83 through 1989-90.
- Table 5 The variation of the experience of the individual companies from the overall mortality ratio for the total intercompany experience.
- Table 6 Various classes in broad groups of policy years and ages at issue or attained ages.
- Table 7 Cause of death.
- Table 8 Smoking habits.
- Table 9 Type of insurance.

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Additional detailed data, showing mortality ratios by quinquennial age groupings, are available and can be obtained by writing to the chairperson of the Committee on Expected Experience of the CIA.

The 1989-90 study is based on the data of 18 contributing companies.

| <u>Contributors</u> | <u>Exposures</u> |
|----------------------|------------------|
| Aetna | 3.18% |
| Canada Life | 3.84 |
| Confederation Life | 2.98 |
| Crown Life | 2.61 |
| Desjardins | 1.00 |
| Equitable Life | 0.71 |
| Great-West Life | 5.20 |
| Industrial-Alliance | 9.73 |
| London Life | 15.41 |
| Manufacturers Life | 5.24 |
| Metropolitan Life | 2.83 |
| Mutual Life | 13.10 |
| National Life | 3.54 |
| North American Life | 5.75 |
| North-West Life | 0.56 |
| Prudential Assurance | 3.68 |
| Sun Life | 10.98 |
| Transamerica | 9.66 |
| Total exposures | 100.00% |

Sixteen companies contributed data to the cause of death study.

A comparison of total exposures and death claims with previous years is as follows:

| | 1987-88 Study | 1988-89 Study | 1989-90 Study |
|------------------|---------------|---------------|---------------|
| Exposures | | | |
| By Number | 6,163,896 | 7,019,046 | 6,415,057 |
| By Amount ('000) | 170,782,585 | 216,689,266 | 232,858,930 |
| Death Claims | | | |
| By Number | 33,144 | 37,258 | 33,675 |
| By Amount ('000) | 283,049 | 332,475 | 348,325 |

COMMENTS

In Table 1, the column entitled S.D. provides estimates of the standard deviation of the ratios of actual to expected numbers of deaths. These numbers measure the degree of confidence which may be placed in the ratios experienced. The formula used to calculate the standard deviations is as follows:

$$\text{S.D.} = \frac{(\text{actual \# of deaths})^{1/2}}{\text{expected \# of deaths}}$$

In Table 2, the average sum assured for the exposures has been steadily increasing as follows:

| | 1985-86 | 1986-87 | 1987-88 | 1988-89 | 1989-90 |
|----------|---------|---------|---------|---------|---------|
| Males | 25,700 | 26,493 | 30,927 | 34,538 | 40,507 |
| Females | 17,448 | 18,836 | 22,033 | 24,398 | 28,954 |
| Combined | 22,770 | 23,792 | 27,707 | 30,872 | 36,299 |

The following shows the trend in the average amount of claims over the last five years:

| | 1985-86 | 1986-87 | 1987-88 | 1988-89 | 1989-90 |
|---------------|---------|---------|---------|---------|---------|
| Average Claim | 7,875 | 7,940 | 8,540 | 8,924 | 10,344 |

In Table 4, the combined mortality rates have declined from 82.4% of expected to 1981-82 to 65.0% of expected in 1989-90.

Table 7 shows the percentage of death claims (by amount) for the main cause of death groupings:

| | Policy Years | | |
|-------------------------|--------------|-------|--------------|
| | 1-5 | 6-15 | 16 and over |
| Accidents and Homicides | 24.8% | 12.8% | 3.5% (89-90) |
| | 29.5 | 14.1 | 3.6 (88-89) |
| | 24.0 | 11.7 | 3.2 (87-88) |
| Heart and Circulatory | 15.2 | 20.6 | 34.2 (89-90) |
| | 16.7 | 24.4 | 33.3 (88-89) |
| | 18.1 | 21.6 | 32.1 (87-88) |
| Malignant Neoplasms | 27.5 | 40.3 | 30.5 (89-90) |
| | 30.7 | 36.5 | 29.2 (88-89) |
| | 27.7 | 35.3 | 27.8 (87-88) |
| Respiratory | 2.2 | 3.4 | 6.3 (89-90) |
| | 1.7 | 3.4 | 6.1 (88-89) |
| | 1.7 | 3.9 | 5.3 (87-88) |
| Suicide | 9.3 | 5.9 | 1.4 (89-90) |
| | 6.4 | 5.1 | 1.4 (88-89) |
| | 8.1 | 6.1 | 1.5 (87-88) |
| AIDS | 2.6 | 4.7 | 1.5 (89-90) |
| | 2.1 | 2.0 | 1.6 (88-89) |
| | 1.2 | 2.1 | 1.1 (87-88) |

In the ultimate column, there is a slight upward trend for malignant neoplasms.

In Table 8, the following select ratios for smokers and nonsmokers were extracted from the 1989-90 study (with the comparable ratios from the previous year shown in brackets). The expected table is select, smoker and nonsmoker combined.

| | A/E % | Expected Deaths ('000) |
|---------------------|----------------------------------|------------------------|
| Males (by amount) | | |
| Smokers | 97.8 (104.1) | \$ 39,838 (34,090) |
| Nonsmokers | 44.9 (48.2) | 155,196 (123,513) |
| Nonclassified | 63.2 (58.2) | 117,113 (120,669) |
| Females (by amount) | | |
| Smokers | 104.3 (99.2) | \$ 8,446 (7,207) |
| Nonsmokers | 54.4 (47.2) | 26,939 (21,602) |
| Nonclassified | 76.5 (70.9) | 22,954 (22,422) |
| | (Smoker A/E) / (Nonsmoker A/E) % | |
| | Number | Amount |
| Male | 251.6 (208.3) | 217.8 (216.0) |
| Female | 195.6 (196.6) | 191.7 (210.2) |
| Combined | 235.2 (205.2) | 213.6 (214.8) |

The unclassified data fell from 42.8% of total select exposures (by amount) in the last study to 38.0% in the 1989-90 study.

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TABLE 1
CANADIAN STANDARD ORDINARY EXPERIENCE BETWEEN POLICY ANNIVERSARIES IN 1989 AND 1990
MALES AND FEMALES COMBINED—EXPECTED CA 69-75 TABLES

| | Ratio A/E | | | Actual Deaths | | Exposures | | Expected Deaths | |
|--|-----------|------|--------|---------------|---------|-----------|-------------|-----------------|------------|
| | Number | S.D. | Amount | Number | Amount* | Number | Amount* | Number | Amount* |
| Policy Years 1 to 15 from 18 Companies | | | | | | | | | |
| Select Experience by Policy Year | | | | | | | | | |
| 1 | 66.6 | 3.69 | 51.7 | 326 | 20,610 | 466,563 | 37,667,938 | 489.69 | 39,828.09 |
| 2 | 73.7 | 3.74 | 50.2 | 389 | 21,134 | 472,955 | 34,999,193 | 527.84 | 42,105.18 |
| 3 | 82.5 | 3.79 | 57.0 | 474 | 24,107 | 453,718 | 31,021,845 | 574.53 | 42,300.80 |
| 4 | 91.5 | 3.73 | 58.2 | 601 | 23,655 | 427,671 | 26,274,835 | 656.75 | 40,667.95 |
| 5 | 83.1 | 3.52 | 64.9 | 558 | 26,161 | 400,238 | 22,656,517 | 671.71 | 40,284.90 |
| 6-10 | 81.8 | 1.69 | 62.9 | 2,335 | 79,731 | 1,315,834 | 53,304,363 | 2,855.29 | 126,722.91 |
| 11-15 | 79.0 | 2.15 | 73.6 | 1,343 | 28,405 | 665,682 | 12,630,529 | 1,700.58 | 38,584.87 |
| By Issue Age | | | | | | | | | |
| 0-4 | 51.0 | 4.61 | 56.2 | 122 | 3,167 | 522,083 | 10,875,953 | 239.35 | 5,631.44 |
| 5-29 | 74.8 | 2.37 | 69.4 | 999 | 37,337 | 1,745,587 | 73,989,398 | 1,336.44 | 53,778.88 |
| 30-44 | 70.3 | 1.68 | 57.2 | 1,750 | 91,877 | 1,421,755 | 105,906,501 | 2,490.42 | 160,711.85 |
| 45-59 | 83.0 | 1.84 | 57.8 | 2,036 | 72,039 | 438,807 | 25,568,155 | 2,452.85 | 124,527.68 |
| 60+ | 116.9 | 3.49 | 75.0 | 1,119 | 19,384 | 74,429 | 2,215,213 | 957.33 | 25,844.86 |
| Total Select | 80.6 | 1.04 | 60.4 | 6,026 | 223,804 | 4,202,661 | 218,555,219 | 7,476. | 370,495. |
| Policy Years 16 and Over from 18 Companies | | | | | | | | | |
| Ultimate Experience by Attained Age | | | | | | | | | |
| 15-29 | 73.2 | 4.85 | 66.8 | 228 | 1,236 | 311,041 | 1,760,825 | 311.41 | 1,849.90 |
| 30-44 | 82.0 | 3.20 | 75.9 | 657 | 5,117 | 472,287 | 3,624,225 | 801.21 | 6,738.93 |
| 45-59 | 71.2 | 1.24 | 68.8 | 3,318 | 25,133 | 697,128 | 5,429,328 | 4,659.63 | 36,512.23 |
| 60-74 | 79.0 | 0.75 | 72.3 | 10,984 | 52,603 | 562,599 | 2,916,736 | 13,897.92 | 72,723.71 |
| 75+ | 88.8 | 0.80 | 85.2 | 12,462 | 40,432 | 169,341 | 572,596 | 14,037.64 | 47,460.98 |
| Total Ultimate | 82.0 | 0.49 | 75.3 | 27,649 | 124,521 | 2,212,396 | 14,303,711 | 33,708. | 165,286. |
| Grand Total | 81.8 | 0.45 | 65.0 | 33,675 | 348,325 | 6,415,057 | 232,858,930 | 41,184. | 535,780. |

* Shown in \$1,000 units.

TABLE 2A
CANADIAN STANDARD ORDINARY EXPERIENCE BETWEEN POLICY ANNIVERSARIES IN 1989 AND 1990
MALE LIVES ONLY—EXPECTED CA 69-75 TABLES

| | Ratio A/E | | Actual Deaths | | Exposures | | Expected Deaths | |
|--|-----------|--------|---------------|---------|-----------|-------------|-----------------|------------|
| | Number | Amount | Number | Amount* | Number | Amount* | Number | Amount* |
| Policy Years 1 to 15 from 18 Companies | | | | | | | | |
| Select Experience by Policy Year | | | | | | | | |
| 1 | 71.5 | 52.0 | 245 | 16,620 | 270,033 | 25,606,718 | 342.73 | 31,969.56 |
| 2 | 72.4 | 44.7 | 275 | 15,556 | 273,998 | 24,085,471 | 379.90 | 34,782.42 |
| 3 | 79.4 | 53.9 | 332 | 18,980 | 263,237 | 21,467,531 | 418.03 | 35,245.07 |
| 4 | 90.7 | 56.2 | 440 | 19,132 | 248,776 | 18,168,518 | 484.88 | 34,056.56 |
| 5 | 76.3 | 60.9 | 377 | 20,758 | 234,355 | 15,882,488 | 494.24 | 34,082.94 |
| 6-10 | 79.0 | 61.6 | 1,636 | 66,894 | 772,069 | 38,456,983 | 2,069.83 | 108,560.30 |
| 11-15 | 75.5 | 74.1 | 945 | 24,799 | 407,766 | 9,417,143 | 1,251.11 | 33,450.57 |
| By Issue Age | | | | | | | | |
| 0-4 | 42.7 | 53.2 | 63 | 1,797 | 273,385 | 5,638,959 | 147.43 | 3,377.80 |
| 5-29 | 76.7 | 71.5 | 733 | 29,269 | 984,077 | 45,646,249 | 955.29 | 40,918.53 |
| 30-44 | 70.6 | 55.8 | 1,271 | 74,176 | 892,231 | 78,879,772 | 1,799.46 | 132,977.81 |
| 45-59 | 76.6 | 54.6 | 1,434 | 61,578 | 280,004 | 21,251,483 | 1,871.52 | 112,735.61 |
| 60+ | 112.3 | 71.9 | 749 | 15,920 | 40,537 | 1,668,388 | 667.03 | 22,137.67 |
| Total Select..... | 78.1 | 58.5 | 4,250 | 182,740 | 2,470,234 | 153,084,852 | 5,441. | 312,147. |
| Policy Years 16 and Over from 18 Companies | | | | | | | | |
| Ultimate Experience by Attained Age | | | | | | | | |
| 15-29 | 72.2 | 67.1 | 175 | 1,025 | 180,863 | 1,144,799 | 242.46 | 1,528.00 |
| 30-44 | 84.0 | 77.1 | 515 | 4,544 | 322,509 | 2,967,792 | 612.96 | 5,891.69 |
| 45-59 | 69.3 | 67.2 | 2,774 | 22,998 | 540,323 | 4,851,652 | 4,003.98 | 34,223.27 |
| 60-74 | 78.7 | 72.4 | 9,407 | 49,758 | 435,522 | 2,641,608 | 11,945.62 | 68,698.81 |
| 75+ | 90.1 | 86.2 | 10,341 | 37,222 | 128,757 | 504,398 | 11,482.49 | 43,188.41 |
| Total Ultimate | 82.1 | 75.3 | 23,212 | 115,547 | 1,607,974 | 12,110,249 | 28,287. | 153,530. |
| Grand Total | 81.4 | 64.1 | 27,462 | 298,287 | 4,078,208 | 165,195,101 | 33,728. | 465,678. |

* Shown in \$1,000 units.

TABLE 2B
CANADIAN STANDARD ORDINARY EXPERIENCE BETWEEN POLICY ANNIVERSARIES IN 1989 AND 1990
FEMALE LIVES ONLY—EXPECTED CA 69-75 TABLES

| | Ratio A/E | | Actual Deaths | | Exposures | | Expected Deaths | |
|--|-----------|--------|---------------|---------|-----------|------------|-----------------|-----------|
| | Number | Amount | Number | Amount* | Number | Amount* | Number | Amount* |
| Policy Years 1 to 15 from 18 Companies | | | | | | | | |
| Select Experience by Policy Year | | | | | | | | |
| 1 | 55.1 | 50.8 | 81 | 3,990 | 196,529 | 12,061,195 | 146.95 | 7,858.47 |
| 2 | 77.1 | 76.2 | 114 | 5,578 | 198,956 | 10,913,521 | 147.93 | 7,322.19 |
| 3 | 90.7 | 72.7 | 142 | 5,127 | 190,478 | 9,554,055 | 156.50 | 7,055.15 |
| 4 | 93.1 | 68.0 | 160 | 4,495 | 178,888 | 8,105,669 | 171.83 | 6,609.22 |
| 5 | 102.0 | 87.1 | 181 | 5,403 | 165,879 | 6,773,794 | 177.46 | 6,201.59 |
| 6-10 | 89.0 | 70.7 | 699 | 12,836 | 543,754 | 14,846,196 | 785.40 | 18,157.90 |
| 11-15 | 88.6 | 70.2 | 398 | 3,606 | 257,915 | 3,213,335 | 449.46 | 5,134.11 |
| By Issue Age | | | | | | | | |
| 0-4 | 64.2 | 60.8 | 59 | 1,370 | 248,698 | 5,236,994 | 91.91 | 2,253.64 |
| 5-29 | 69.8 | 62.7 | 266 | 8,067 | 761,507 | 28,342,889 | 381.15 | 12,860.12 |
| 30-44 | 69.3 | 63.8 | 479 | 17,702 | 529,509 | 27,025,179 | 690.92 | 27,729.60 |
| 45-59 | 103.6 | 88.7 | 602 | 10,461 | 158,795 | 4,315,932 | 581.29 | 11,789.13 |
| 60+ | 127.1 | 92.7 | 369 | 3,435 | 33,890 | 546,771 | 290.26 | 3,706.14 |
| Total Select..... | 87.2 | 70.3 | 1,775 | 41,036 | 1,732,399 | 65,467,765 | 2,036. | 58,339. |
| Policy Years 16 and Over from 18 Companies | | | | | | | | |
| Ultimate Experience by Attained Age | | | | | | | | |
| 15-29 | 76.9 | 65.4 | 53 | 211 | 130,178 | 616,027 | 68.95 | 321.90 |
| 30-44 | 75.4 | 67.6 | 142 | 573 | 149,777 | 656,428 | 188.25 | 847.22 |
| 45-59 | 83.0 | 93.3 | 544 | 2,135 | 156,804 | 577,671 | 655.65 | 2,288.94 |
| 60-74 | 80.8 | 70.7 | 1,577 | 2,845 | 127,077 | 275,128 | 1,952.30 | 4,024.90 |
| 75+ | 83.0 | 75.1 | 2,121 | 3,210 | 40,584 | 68,198 | 2,555.16 | 4,272.57 |
| Total Ultimate | 81.9 | 76.3 | 4,437 | 8,974 | 604,420 | 2,193,452 | 5,420. | 11,756. |
| Grand Total | 83.3 | 71.3 | 6,212 | 50,009 | 2,336,819 | 67,661,216 | 7,456. | 70,094. |

* Shown in \$1,000 units.

TABLE 3
CANADIAN STANDARD ORDINARY EXPERIENCE BETWEEN POLICY ANNIVERSARIES IN 1989 AND 1990
EXPECTED CA 69-75 TABLES
POLICY YEARS 1 TO 15 FROM 18 COMPANIES

| Select Experience | Ratio A/E | | Actual Deaths | | Exposures | | Expected Deaths | |
|-------------------|-----------|--------|---------------|---------|-----------|------------|-----------------|-----------|
| | Number | Amount | Number | Amount* | Number | Amount* | Number | Amount* |
| Medical Males | | | | | | | | |
| By Policy Year | | | | | | | | |
| 1 | 47.1 | 23.5 | 18 | 2,052 | 16,494 | 4,640,958 | 38.19 | 8,725.93 |
| 2 | 52.2 | 25.3 | 25 | 2,425 | 15,847 | 4,064,774 | 47.86 | 9,600.16 |
| 3 | 99.1 | 58.5 | 68 | 6,368 | 17,465 | 3,945,657 | 68.60 | 10,876.52 |
| 4 | 74.2 | 46.8 | 59 | 5,240 | 17,371 | 3,407,141 | 79.53 | 11,194.87 |
| 5 | 77.0 | 49.8 | 67 | 5,778 | 15,685 | 3,017,794 | 87.02 | 11,598.18 |
| 6-10 | 81.9 | 60.2 | 374 | 25,247 | 64,974 | 8,274,951 | 456.84 | 41,909.38 |
| 11-15 | 73.0 | 70.2 | 340 | 12,402 | 65,896 | 2,994,457 | 465.97 | 17,669.33 |
| By Issue Age | | | | | | | | |
| 0-4 | 208.5 | 154.9 | 4 | 95 | 3,939 | 109,777 | 1.92 | 61.35 |
| 5-29 | 81.9 | 45.6 | 31 | 1,272 | 31,522 | 2,731,353 | 37.84 | 2,791.24 |
| 30-44 | 66.5 | 57.0 | 195 | 20,532 | 94,285 | 16,716,428 | 293.27 | 36,040.32 |
| 45-59 | 68.4 | 46.8 | 395 | 26,911 | 66,471 | 9,703,070 | 577.90 | 57,543.98 |
| 60+ | 97.9 | 70.7 | 326 | 10,701 | 17,515 | 1,085,104 | 333.07 | 15,137.48 |
| Total | 76.4 | 53.3 | 951 | 59,512 | 213,732 | 30,345,732 | 1,244. | 111,574. |
| Medical Females | | | | | | | | |
| By Policy Year | | | | | | | | |
| 1 | 42.4 | 40.3 | 5 | 382 | 7,248 | 860,562 | 11.80 | 946.15 |
| 2 | 109.1 | 88.5 | 15 | 758 | 6,944 | 630,558 | 13.75 | 856.00 |
| 3 | 185.0 | 110.3 | 34 | 962 | 7,033 | 568,978 | 18.38 | 872.08 |
| 4 | 97.3 | 26.7 | 21 | 228 | 6,579 | 471,101 | 21.59 | 853.90 |
| 5 | 159.1 | 192.3 | 30 | 1,469 | 5,144 | 358,471 | 18.86 | 763.64 |
| 6-10 | 111.8 | 62.0 | 134 | 1,732 | 21,343 | 881,370 | 119.88 | 2,792.80 |
| 11-15 | 115.5 | 66.8 | 135 | 912 | 20,297 | 384,762 | 116.86 | 1,366.20 |
| By Issue Age | | | | | | | | |
| 0-4 | 110.3 | 37.0 | 1 | 12 | 3,005 | 83,151 | 0.91 | 32.39 |
| 5-29 | 90.3 | 54.0 | 8 | 236 | 14,371 | 872,190 | 8.85 | 436.23 |
| 30-44 | 91.7 | 86.3 | 36 | 2,211 | 21,173 | 1,930,226 | 39.25 | 2,561.13 |
| 45-59 | 116.0 | 66.7 | 138 | 2,090 | 21,896 | 966,455 | 118.97 | 3,133.80 |
| 60+ | 124.7 | 82.8 | 191 | 1,894 | 14,143 | 303,780 | 153.14 | 2,287.22 |
| Total | 116.5 | 76.2 | 374 | 6,442 | 74,588 | 4,155,802 | 321. | 8,451. |

* Shown in \$1,000 units.

TABLE 3—Continued

| Select Experience | Ratio A/E | | Actual Deaths | | Exposures | | Expected Deaths | |
|--------------------|-----------|--------|---------------|---------|-----------|------------|-----------------|-----------|
| | Number | Amount | Number | Amount* | Number | Amount* | Number | Amount* |
| Nonmedical Males | | | | | | | | |
| By Policy Year | | | | | | | | |
| 1 | 78.8 | 67.6 | 173 | 9,319 | 213,791 | 14,309,493 | 219.56 | 13,775.71 |
| 2 | 76.0 | 57.8 | 179 | 8,697 | 221,303 | 14,367,068 | 235.59 | 15,039.09 |
| 3 | 82.5 | 58.2 | 206 | 8,952 | 214,955 | 13,358,445 | 249.80 | 15,375.98 |
| 4 | 102.6 | 67.0 | 314 | 10,409 | 206,600 | 12,023,700 | 306.11 | 15,544.38 |
| 5 | 75.9 | 62.2 | 224 | 9,801 | 196,737 | 10,784,258 | 295.11 | 15,751.70 |
| 6-10 | 78.8 | 63.2 | 822 | 25,034 | 610,736 | 23,352,560 | 1,042.75 | 39,582.55 |
| 11-15 | 78.1 | 74.6 | 401 | 6,519 | 293,195 | 4,757,062 | 513.55 | 8,739.86 |
| By Issue Age | | | | | | | | |
| 0-4 | 40.6 | 51.5 | 59 | 1,702 | 268,944 | 5,512,819 | 145.26 | 3,306.36 |
| 5-29 | 76.4 | 72.6 | 673 | 25,425 | 918,332 | 39,453,944 | 880.67 | 35,010.28 |
| 30-44 | 74.4 | 59.0 | 856 | 37,246 | 659,188 | 43,482,762 | 1,150.85 | 63,128.21 |
| 45-59 | 89.3 | 63.3 | 483 | 12,285 | 101,619 | 4,271,640 | 541.00 | 19,407.05 |
| 60+ | 171.4 | 70.1 | 248 | 2,072 | 9,234 | 231,420 | 144.69 | 2,957.37 |
| Total | 81.0 | 63.6 | 2,319 | 78,731 | 1,957,317 | 92,952,586 | 2,862. | 123,809. |
| Nonmedical Females | | | | | | | | |
| By Policy Year | | | | | | | | |
| 1 | 56.6 | 60.4 | 62 | 3,184 | 173,196 | 9,500,768 | 109.46 | 5,268.64 |
| 2 | 69.5 | 60.2 | 76 | 3,041 | 177,131 | 9,006,906 | 109.31 | 5,050.05 |
| 3 | 80.0 | 71.0 | 92 | 3,540 | 171,622 | 8,097,118 | 115.02 | 4,981.83 |
| 4 | 95.3 | 77.0 | 122 | 3,728 | 163,043 | 7,087,470 | 128.02 | 4,839.22 |
| 5 | 94.3 | 71.5 | 124 | 3,294 | 152,402 | 6,026,282 | 131.54 | 4,605.87 |
| 6-10 | 82.4 | 70.2 | 418 | 8,345 | 486,698 | 12,697,043 | 506.98 | 11,882.46 |
| 11-15 | 78.6 | 72.6 | 204 | 2,029 | 221,954 | 2,519,090 | 259.52 | 2,794.40 |
| By Issue Age | | | | | | | | |
| 0-4 | 63.8 | 61.3 | 58 | 1,358 | 245,291 | 5,140,428 | 90.87 | 2,215.64 |
| 5-29 | 69.5 | 64.6 | 254 | 7,749 | 734,624 | 26,519,123 | 365.31 | 11,987.64 |
| 30-44 | 68.5 | 64.8 | 403 | 13,511 | 471,237 | 21,575,969 | 588.16 | 20,840.35 |
| 45-59 | 113.4 | 102.0 | 300 | 3,977 | 87,229 | 1,617,345 | 264.63 | 3,900.20 |
| 60+ | 163.1 | 117.7 | 83 | 563 | 7,665 | 81,811 | 50.88 | 478.64 |
| Total | 80.7 | 68.9 | 1,098 | 27,159 | 1,546,046 | 54,934,676 | 1,360. | 39,422. |

* Shown in \$1,000 units.

TABLE 3—Continued

| Select Experience | Ratio A/E | | Actual Deaths | | Exposures | | Expected Deaths | |
|---------------------|-----------|--------|---------------|---------|-----------|------------|-----------------|-----------|
| | Number | Amount | Number | Amount* | Number | Amount* | Number | Amount* |
| Paramedical Males | | | | | | | | |
| By Policy Year | | | | | | | | |
| 1 | 63.5 | 55.4 | 54 | 5,249 | 39,748 | 6,656,267 | 84.99 | 9,467.92 |
| 2 | 71.3 | 42.6 | 67 | 4,220 | 34,854 | 5,471,286 | 93.92 | 9,910.90 |
| 3 | 59.4 | 41.5 | 58 | 3,660 | 29,575 | 4,045,431 | 97.57 | 8,810.73 |
| 4 | 68.0 | 48.0 | 67 | 3,483 | 24,445 | 2,706,820 | 98.53 | 7,259.00 |
| 5 | 76.7 | 76.9 | 86 | 5,179 | 21,931 | 2,080,086 | 112.11 | 6,732.70 |
| 6-10 | 77.2 | 61.4 | 440 | 16,614 | 96,359 | 6,829,472 | 570.25 | 27,068.38 |
| 11-15 | 75.1 | 83.5 | 204 | 5,878 | 48,675 | 1,665,624 | 271.59 | 7,041.39 |
| By Issue Age | | | | | | | | |
| 0-4 | 0.0 | 0.0 | 0 | 0 | 391 | 12,038 | 0.19 | 7.50 |
| 5-29 | 78.4 | 83.0 | 28 | 2,522 | 32,910 | 3,357,972 | 35.72 | 3,036.83 |
| 30-44 | 62.3 | 48.8 | 220 | 16,398 | 137,090 | 18,499,058 | 353.32 | 33,588.22 |
| 45-59 | 73.6 | 62.3 | 553 | 22,216 | 111,449 | 7,236,423 | 750.88 | 35,640.46 |
| 60+ | 92.7 | 78.3 | 175 | 3,147 | 13,747 | 349,495 | 188.82 | 4,017.99 |
| Total | 73.4 | 58.0 | 976 | 44,282 | 295,587 | 29,454,986 | 1,329. | 76,291. |
| Paramedical Females | | | | | | | | |
| By Policy Year | | | | | | | | |
| 1 | 54.5 | 25.9 | 14 | 425 | 16,085 | 1,699,841 | 25.68 | 1,643.64 |
| 2 | 96.9 | 131.5 | 23 | 1,779 | 13,364 | 1,188,024 | 23.73 | 1,353.33 |
| 3 | 71.9 | 54.1 | 16 | 626 | 10,891 | 830,804 | 22.25 | 1,156.73 |
| 4 | 77.3 | 59.8 | 17 | 538 | 9,038 | 532,413 | 21.99 | 900.84 |
| 5 | 99.7 | 77.0 | 27 | 641 | 8,333 | 389,041 | 27.07 | 832.08 |
| 6-10 | 92.7 | 79.2 | 147 | 2,759 | 35,713 | 1,267,782 | 158.54 | 3,482.64 |
| 11-15 | 80.7 | 68.4 | 59 | 666 | 15,664 | 309,484 | 73.08 | 973.51 |
| By Issue Age | | | | | | | | |
| 0-4 | 0.0 | 0.0 | 0 | 0 | 312 | 10,035 | 0.09 | 4.02 |
| 5-29 | 60.8 | 19.9 | 4 | 82 | 11,437 | 888,794 | 6.58 | 411.89 |
| 30-44 | 63.9 | 46.4 | 40 | 1,979 | 35,926 | 3,440,465 | 62.56 | 4,265.22 |
| 45-59 | 83.2 | 93.0 | 164 | 4,394 | 49,374 | 1,717,950 | 197.11 | 4,727.18 |
| 60+ | 110.5 | 104.7 | 95 | 979 | 12,039 | 160,145 | 86.00 | 934.46 |
| Total | 86.0 | 71.9 | 303 | 7,434 | 109,088 | 6,217,389 | 352. | 10,343. |

* Shown in \$1,000 units.

TABLE 4
 CANADIAN STANDARD ORDINARY EXPERIENCE
 COMPARISON OF RATIOS (A/E) BY AMOUNT—EXPECTED CIA 69-75 TABLES

| Combined Data | Grouping | Policy Year | | | | | | | |
|--------------------|---------------------|-------------|---------|---------|---------|---------|---------|---------|---------|
| | | 1982-83 | 1983-84 | 1984-85 | 1985-86 | 1986-87 | 1987-88 | 1988-89 | 1989-90 |
| Male and Female | Select and Ultimate | 79.6 | 74.9 | 82.4 | 80.3 | 76.5 | 71.8 | 66.0 | 65.0 |
| Male | Select and Ultimate | 78.7 | 74.3 | 83.2 | 80.5 | 77.0 | 71.4 | 65.9 | 64.1 |
| Female | Select and Ultimate | 84.8 | 74.4 | 72.9 | 75.4 | 72.4 | 72.8 | 66.7 | 71.3 |
| Male and Female | Select | 76.9 | 68.9 | 81.6 | 73.4 | 74.2 | 67.6 | 60.3 | 60.4 |
| Male | Select | 75.7 | 68.4 | 83.3 | 73.3 | 74.9 | 67.1 | 59.4 | 58.5 |
| Female | Select | 86.8 | 72.8 | 70.5 | 74.0 | 70.4 | 70.3 | 64.9 | 70.3 |
| Male and Female | Ultimate | 82.6 | 81.7 | 83.4 | 90.1 | 79.8 | 78.8 | 76.8 | 75.3 |
| Male | Ultimate | 82.1 | 81.0 | 83.2 | 90.0 | 79.9 | 78.1 | 76.9 | 75.3 |
| Female | Ultimate | 79.4 | 79.3 | 80.3 | 80.0 | 79.3 | 82.1 | 74.8 | 76.3 |
| Medical Male | Select | 74.1 | 65.9 | 95.9 | 70.2 | 76.8 | 64.0 | 57.2 | 53.3 |
| Nonmedical Male | Select | 80.9 | 65.1 | 73.5 | 75.0 | 78.3 | 76.2 | 62.0 | 63.6 |
| Paramedical Male | Select | 71.7 | 80.4 | 71.4 | 76.6 | 64.7 | 56.7 | 59.8 | 58.0 |
| Medical Female | Select | 129.3 | 79.3 | 60.1 | 86.8 | 90.5 | 73.2 | 67.0 | 76.2 |
| Nonmedical Female | Select | 74.1 | 70.2 | 72.6 | 70.9 | 63.8 | 63.3 | 64.6 | 68.9 |
| Paramedical Female | Select | 72.3 | 74.3 | 73.2 | 75.0 | 79.7 | 100.5 | 68.7 | 71.9 |

TABLE 5
1989-1990 EXPERIENCE RATIO BY DEPARTURE
FROM INTERCOMPANY EXPERIENCE RATIO BY AMOUNT
EXPECTED CA 69-75 TABLES

| Percentage Departure | Number of Companies | Actual Claims* | Percentage of Claims |
|----------------------|---------------------|----------------|----------------------|
| Within 5% | 1 | 38,613 | 11.1% |
| 5% to 10% | 3 | 56,196 | 16.1 |
| 10% to 15% | 3 | 112,322 | 32.2 |
| 15% to 20% | 3 | 28,734 | 8.2 |
| 20% and Over | 8 | 112,459 | 32.3 |
| | 18 | 348,325 | 100.0% |

* Shown in \$1,000 units.

TABLE 6
CANADIAN STANDARD ORDINARY EXPERIENCE BETWEEN POLICY ANNIVERSARIES
IN 1989 AND 1990
EXPECTED CA 69-75 TABLE

| | Ratio A/E | | Exposures | | Actual Deaths | |
|--------------------------|-------------|-------------|------------------|-------------------|---------------|---------------|
| | Number | Amount | Number | Amount* | Number | Amount* |
| Medical Males | | | | | | |
| Ages | | | | | | |
| 0-29 | 88.0 | 47.9 | 35,461 | 2,841,130 | 35 | 1,367 |
| 30-54 | 66.3 | 56.2 | 145,813 | 24,674,663 | 456 | 43,724 |
| 55+ | 89.1 | 46.6 | 32,458 | 2,829,939 | 460 | 14,421 |
| Policy Years | | | | | | |
| 1-5 | 73.8 | 42.0 | 82,862 | 19,076,324 | 237 | 21,863 |
| 6-15 | 77.4 | 63.2 | 130,870 | 11,269,408 | 714 | 37,649 |
| Total | 76.4 | 53.3 | 213,732 | 30,345,732 | 951 | 59,512 |
| Nonmedical Males | | | | | | |
| Ages | | | | | | |
| 0-29 | 71.3 | 70.8 | 1,187,276 | 44,966,763 | 732 | 27,127 |
| 30-54 | 76.5 | 59.4 | 747,643 | 47,238,867 | 1,205 | 46,625 |
| 55+ | 145.6 | 70.8 | 22,398 | 746,955 | 382 | 4,979 |
| Policy Years | | | | | | |
| 1-5 | 83.9 | 62.5 | 1,053,386 | 64,842,964 | 1,096 | 47,178 |
| 6-15 | 78.6 | 65.3 | 903,931 | 28,109,622 | 1,223 | 31,553 |
| Total | 81.0 | 63.6 | 1,957,317 | 92,952,586 | 2,319 | 78,731 |
| Paramedical Males | | | | | | |
| Ages | | | | | | |
| 0-29 | 78.0 | 82.8 | 33,301 | 3,370,010 | 28 | 2,522 |
| 30-54 | 64.3 | 52.8 | 223,141 | 24,712,924 | 554 | 32,200 |
| 55+ | 91.2 | 78.3 | 39,145 | 1,372,053 | 394 | 9,561 |
| Policy Years | | | | | | |
| 1-5 | 68.2 | 51.7 | 150,553 | 20,959,890 | 332 | 21,790 |
| 6-15 | 76.5 | 65.9 | 145,034 | 8,495,096 | 644 | 22,492 |
| Total | 73.4 | 58.0 | 295,587 | 29,454,986 | 976 | 44,282 |

* Shown in \$1,000 units.

TABLE 6—Continued

| | Ratio A/E | | Exposures | | Actual Deaths | |
|---------------------|-----------|--------|-----------|------------|---------------|---------|
| | Number | Amount | Number | Amount* | Number | Amount* |
| Medical Females | | | | | | |
| Ages | | | | | | |
| 0-29 | 92.2 | 52.9 | 17,376 | 955,341 | 9 | 248 |
| 30-54 | 100.6 | 81.0 | 36,529 | 2,667,965 | 114 | 3,839 |
| 55+ | 126.8 | 72.7 | 20,683 | 532,496 | 251 | 2,356 |
| Policy Years | | | | | | |
| 1-5 | 124.4 | 88.5 | 32,948 | 2,889,670 | 105 | 3,798 |
| 6-15 | 113.6 | 63.6 | 41,640 | 1,266,132 | 269 | 2,644 |
| Total | 116.5 | 76.2 | 74,588 | 4,155,802 | 374 | 6,442 |
| Nonmedical Females | | | | | | |
| Ages | | | | | | |
| 0-29 | 68.4 | 64.1 | 979,915 | 31,659,551 | 312 | 9,108 |
| 30-54 | 78.3 | 70.2 | 545,913 | 23,045,609 | 627 | 17,019 |
| 55+ | 154.8 | 105.6 | 20,218 | 229,516 | 159 | 1,033 |
| Policy Years | | | | | | |
| 1-5 | 80.2 | 67.8 | 837,394 | 39,718,543 | 476 | 16,786 |
| 6-15 | 81.1 | 70.7 | 708,652 | 15,216,133 | 622 | 10,374 |
| Total | 80.7 | 68.9 | 1,546,046 | 54,934,676 | 1,098 | 27,159 |
| Paramedical Females | | | | | | |
| Ages | | | | | | |
| 0-29 | 60.0 | 19.7 | 11,749 | 898,828 | 4 | 82 |
| 30-54 | 79.3 | 69.8 | 70,957 | 4,863,569 | 150 | 5,507 |
| 55+ | 95.1 | 90.3 | 26,382 | 454,991 | 149 | 1,845 |
| Policy Years | | | | | | |
| 1-5 | 80.3 | 68.1 | 57,711 | 4,640,123 | 97 | 4,010 |
| 6-15 | 88.9 | 76.8 | 51,377 | 1,577,266 | 206 | 3,425 |
| Total | 86.0 | 71.9 | 109,088 | 6,217,389 | 303 | 7,434 |

* Shown in \$1,000 units.

TABLE 6—Continued

| | Ratio A/E | | Exposures | | Actual Deaths | |
|-----------------------------|-----------|--------|-----------|-------------|---------------|---------|
| | Number | Amount | Number | Amount* | Number | Amount* |
| Males Combined (Ultimate) | | | | | | |
| Ages | | | | | | |
| 15-44 | 80.7 | 75.1 | 503,372 | 4,112,591 | 690 | 5,569 |
| 45-69 | 74.4 | 69.0 | 874,050 | 6,989,943 | 8,541 | 55,845 |
| 70+ | 87.6 | 83.0 | 230,552 | 1,007,716 | 13,981 | 54,133 |
| Total | 82.1 | 75.3 | 1,607,974 | 12,110,249 | 23,212 | 115,547 |
| Females Combined (Ultimate) | | | | | | |
| Ages | | | | | | |
| 15-44 | 75.8 | 67.0 | 279,955 | 1,272,455 | 195 | 783 |
| 45-69 | 81.0 | 79.4 | 251,826 | 795,903 | 1,492 | 3,937 |
| 70+ | 82.8 | 75.6 | 72,639 | 125,094 | 2,750 | 4,253 |
| Total | 81.9 | 76.3 | 604,420 | 2,193,452 | 4,437 | 8,974 |
| All Codes Select | | | | | | |
| Ages | | | | | | |
| 0-29 | 71.1 | 68.2 | 2,267,670 | 84,865,351 | 1,121 | 40,504 |
| 30-54 | 73.4 | 58.5 | 1,773,508 | 127,514,224 | 3,107 | 148,928 |
| 55+ | 107.7 | 60.8 | 161,483 | 6,175,645 | 1,798 | 34,373 |
| Policy Years | | | | | | |
| 1-5 | 80.4 | 56.4 | 2,221,145 | 152,620,327 | 2,348 | 115,668 |
| 6-15 | 80.7 | 65.4 | 1,981,516 | 65,934,892 | 3,678 | 108,136 |
| Total | 80.6 | 60.4 | 4,202,661 | 218,555,219 | 6,026 | 223,804 |
| All Codes Ultimate | | | | | | |
| Ages | | | | | | |
| 15-44 | 79.5 | 74.0 | 783,328 | 5,385,050 | 885 | 6,353 |
| 45-69 | 75.3 | 69.6 | 1,125,877 | 7,785,851 | 10,033 | 59,782 |
| 70+ | 86.8 | 82.4 | 303,191 | 1,132,810 | 16,731 | 58,386 |
| Total | 82.0 | 75.3 | 2,212,396 | 14,303,711 | 27,649 | 124,521 |

* Shown in \$1,000 units.

TABLE 7A
 STANDARD MEDICAL AND NONMEDICAL ISSUES FOR MALES AND FEMALES COMBINED
 DISTRIBUTION BY CAUSE OF DEATH OF AMOUNT OF DEATH CLAIMS FOR POLICY YEAR 1989-1990
 POLICY YEARS 1-5
 (AMOUNTS SHOWN IN \$1,000 UNITS)

| Age at Issue | Amount | Percentage | Amount | Percentage | Amount | Percentage | Amount | Percentage | Amount | Percentage |
|--------------|---|------------|--|------------|---|------------|------------------------------------|------------|----------------------|------------|
| | Infective and Parasitic Diseases (Tuberculosis, etc.) (01,03-17)* | | Malignant Neoplasms (18-33)* | | Diabetes Mellitus (37)* | | Nervous System and Mental Diseases | | | |
| | | | | | | | Vascular Lesions (53)* | | Other (41,43-47)* | |
| 0-9 | 0 | 0.0 | 641 | 13.0 | 0 | 0.0 | 20 | 0.4 | 215 | 4.4 |
| 10-19 | 28 | 1.3 | 205 | 9.5 | 0 | 0.0 | 10 | 0.5 | 0 | 0.0 |
| 20-29 | 100 | 0.6 | 1,556 | 10.1 | 25 | 0.2 | 20 | 0.1 | 290 | 1.9 |
| 30-39 | 23 | 0.1 | 7,195 | 21.4 | 0 | 0.0 | 421 | 1.3 | 120 | 0.4 |
| 40-49 | 518 | 2.0 | 8,892 | 34.7 | 0 | 0.0 | 698 | 2.7 | 469 | 1.8 |
| 50-59 | 454 | 1.8 | 11,092 | 43.1 | 104 | 0.4 | 581 | 2.3 | 626 | 2.4 |
| Total | 1,123 | 1.0 | 29,581 | 27.5 | 129 | 0.1 | 1,750 | 1.6 | 1,720 | 1.6 |
| | Diseases of the Heart and Circulatory System | | | | Respiratory Diseases Pneumonia and Influenza, etc. (56-63)* | | Diseases of the Digestive System | | | |
| | Arteriosclerotic and Degenerative Heart Disease (50)* | | Hypertensive and Rheumatic, etc. (49,51,52,54,55)* | | | | Cirrhosis of the Liver (70)* | | Other (64-69,71-72)* | |
| 0-9 | 65 | 1.3 | 440 | 8.9 | 100 | 2.0 | 125 | 2.5 | 0 | 0.0 |
| 10-19 | 15 | 0.7 | 15 | 0.7 | 0 | 0.0 | 0 | 0.0 | 100 | 4.6 |
| 20-29 | 486 | 3.2 | 496 | 3.2 | 225 | 1.5 | 0 | 0.0 | 50 | 0.3 |
| 30-39 | 1,866 | 5.6 | 1,230 | 3.7 | 688 | 2.0 | 30 | 0.1 | 1,634 | 4.9 |
| 40-49 | 3,438 | 13.4 | 1,194 | 4.7 | 539 | 2.1 | 135 | 0.5 | 343 | 1.3 |
| 50-59 | 5,076 | 19.7 | 2,027 | 7.9 | 818 | 3.2 | 64 | 0.2 | 563 | 2.2 |
| Total | 10,945 | 10.2 | 5,401 | 5.0 | 2,370 | 2.2 | 354 | 0.3 | 2,690 | 2.5 |

TABLE 7A—Continued

| Age at Issue | Amount | Percentage | Amount | Percentage | Amount | Percentage | Amount | Percentage | Amount | Percentage |
|--------------|--|------------|-------------------------------|------------|--|------------|--------------------|------------|--------------------------------|------------|
| | Genito-Urinary Diseases (Nephritis etc.) (73-77)* | | Motor Vehicle Accidents (88)* | | Other Accidents and Homicides (89-91,93-96,98)* | | All Other Diseases | | | |
| | | | | | | | Suicides (97)* | | Unknown Causes (Other Codes)** | |
| 0-9 | 0 | 0.0 | 848 | 17.2 | 942 | 19.1 | 457 | 9.2 | 1,084 | 22.0 |
| 10-19 | 0 | 0.0 | 1,055 | 48.9 | 250 | 11.6 | 420 | 19.5 | 60 | 2.8 |
| 20-29 | 0 | 0.0 | 5,287 | 34.3 | 1,924 | 12.5 | 2,627 | 17.0 | 2,327 | 15.1 |
| 30-39 | 60 | 0.2 | 4,665 | 13.9 | 5,602 | 16.7 | 3,725 | 11.1 | 6,306 | 18.8 |
| 40-49 | 125 | 0.5 | 1,215 | 4.7 | 2,771 | 10.8 | 2,406 | 9.4 | 2,879 | 11.2 |
| 50-59 | 344 | 1.3 | 719 | 2.8 | 1,425 | 5.5 | 377 | 1.5 | 1,476 | 5.7 |
| Total | 529 | 0.5 | 13,788 | 12.8 | 12,914 | 12.0 | 10,012 | 9.3 | 14,133 | 13.2 |
| | AIDS (02)* | | | | | | | | | |
| 0-9 | 56 | 1.1 | | | | | | | | |
| 10-19 | 100 | 4.6 | | | | | | | | |
| 20-29 | 846 | 5.5 | | | | | | | | |
| 30-39 | 882 | 2.6 | | | | | | | | |
| 40-49 | 369 | 1.4 | | | | | | | | |
| 50-59 | 500 | 1.9 | | | | | | | | |
| Total | 2,753 | 2.6 | | | | | | | | |

* 1980 codes for cause of death.

† (34-36, 38-40, 48, 78-83, 85-87, 99).

TABLE 7B
 STANDARD MEDICAL AND NONMEDICAL ISSUES FOR MALES AND FEMALES COMBINED
 DISTRIBUTION BY CAUSE OF DEATH OF AMOUNT OF DEATH CLAIMS FOR POLICY YEAR 1989-1990
 POLICY YEARS 6-15
 (AMOUNTS SHOWN IN \$1,000 UNITS)

| Age at Issue | Amount | Percentage | Amount | Percentage | Amount | Percentage | Amount | Percentage | Amount | Percentage |
|--------------|--|------------|--|------------|--|------------|------------------------------------|------------|----------------------|------------|
| | Infective and Parasitic Diseases (Tuberculosis, etc.) (01, 03-17)* | | Malignant Neoplasms (18-33)* | | Diabetes Mellitus (37)* | | Nervous System and Mental Diseases | | | |
| | | | | | | | Vascular Lesions (53)* | | Other (41, 43-47)* | |
| 0-9 | 50 | 1.9 | 643 | 24.5 | 0 | 0.0 | 0 | 0.0 | 5 | 0.2 |
| 10-19 | 10 | 0.4 | 234 | 8.7 | 0 | 0.0 | 20 | 0.8 | 64 | 2.4 |
| 20-29 | 224 | 1.8 | 2,905 | 23.9 | 19 | 0.2 | 171 | 1.4 | 327 | 2.7 |
| 30-39 | 368 | 1.6 | 7,934 | 34.0 | 15 | 0.1 | 253 | 1.1 | 290 | 1.2 |
| 40-49 | 340 | 1.1 | 14,114 | 47.2 | 0 | 0.0 | 518 | 1.7 | 378 | 1.3 |
| 50-59 | 132 | 0.6 | 12,408 | 51.6 | 1 | 0.0 | 744 | 3.1 | 749 | 3.1 |
| Total | 1,124 | 1.2 | 38,238 | 40.3 | 35 | 0.0 | 1,707 | 1.8 | 1,812 | 1.9 |
| | Diseases of the Heart and Circulatory System | | | | Respiratory Diseases | | Diseases of the Digestive System | | | |
| | Arteriosclerotic and Degenerative Heart Disease (50)* | | Hypertensive and Rheumatic, etc. (49,51,52,54,55)* | | Pneumonia and Influenza, etc. (56-63)* | | Cirrhosis of the Liver (70)* | | Other (64-69,71-72)* | |
| 0-9 | 127 | 4.8 | 304 | 11.6 | 98 | 3.7 | 0 | 0.0 | 30 | 1.1 |
| 10-19 | 6 | 0.2 | 324 | 12.0 | 130 | 4.8 | 3 | 0.1 | 3 | 0.1 |
| 20-29 | 360 | 3.0 | 796 | 6.5 | 252 | 2.1 | 100 | 0.8 | 143 | 1.2 |
| 30-39 | 3,300 | 14.1 | 1,813 | 7.8 | 516 | 2.2 | 443 | 1.9 | 404 | 1.7 |
| 40-49 | 5,297 | 17.7 | 1,626 | 5.4 | 849 | 2.8 | 457 | 1.5 | 223 | 0.7 |
| 50-59 | 3,218 | 13.4 | 2,366 | 9.8 | 1,370 | 5.7 | 80 | 0.3 | 176 | 0.7 |
| Total | 12,309 | 13.0 | 7,230 | 7.6 | 3,215 | 3.4 | 1,083 | 1.1 | 980 | 1.0 |

TABLE 7B—Continued

| Age at Issue | Amount | Percentage | Amount | Percentage | Amount | Percentage | Amount | Percentage | Amount | Percentage |
|--------------|--|------------|-------------------------------|------------|--|------------|--------------------|------------|--------------------------------|------------|
| | Genito-Urinary Diseases (Nephritis etc.) (73-77)* | | Motor Vehicle Accidents (88)* | | Other Accidents and Homicides (89-91, 93-96, 98)* | | All Other Diseases | | | |
| | | | | | | | Suicides (97)* | | Unknown Causes (Other Codes)†* | |
| 0-9 | 0 | 0.0 | 572 | 21.8 | 525 | 20.0 | 147 | 5.6 | 126 | 4.8 |
| 10-19 | 5 | 0.2 | 798 | 29.6 | 389 | 14.4 | 590 | 21.9 | 116 | 4.3 |
| 20-29 | 0 | 0.0 | 1,628 | 13.4 | 1,734 | 14.2 | 1,871 | 15.4 | 1,649 | 13.5 |
| 30-39 | 45 | 0.2 | 1,520 | 6.5 | 1,830 | 7.8 | 2,065 | 8.8 | 2,559 | 11.0 |
| 40-49 | 73 | 0.2 | 1,369 | 4.6 | 1,070 | 3.6 | 813 | 2.7 | 2,789 | 9.3 |
| 50-59 | 139 | 0.6 | 579 | 2.4 | 169 | 0.7 | 133 | 0.6 | 1,799 | 7.5 |
| Total | 261 | 0.3 | 6,465 | 6.8 | 5,717 | 6.0 | 5,619 | 5.9 | 9,038 | 9.5 |
| | AIDS (02)* | | | | | | | | | |
| 0-9 | 5 | 0.2 | | | | | | | | |
| 10-19 | 55 | 2.0 | | | | | | | | |
| 20-29 | 446 | 3.7 | | | | | | | | |
| 30-39 | 1,687 | 7.2 | | | | | | | | |
| 40-49 | 2,235 | 7.5 | | | | | | | | |
| 50-59 | 63 | 0.3 | | | | | | | | |
| Total | 4,490 | 4.7 | | | | | | | | |

* 1980 codes for cause of death.

† (34-36, 38-40, 48, 78-83, 85-87, 99).

TABLE 7C
 STANDARD MEDICAL AND NONMEDICAL ISSUES FOR MALES AND FEMALES COMBINED
 DISTRIBUTION BY CAUSE OF DEATH OF AMOUNT OF DEATH CLAIMS FOR POLICY YEAR 1989-1990
 POLICY YEARS 16 +
 (AMOUNTS SHOWN IN \$1,000 UNITS)

| Attained Age | Amount | Percentage | Amount | Percentage | Amount | Percentage | Amount | Percentage | Amount | Percentage |
|--------------|--|------------|--|------------|--|------------|------------------------------------|------------|-----------------------|------------|
| | Infective and Parasitic Diseases (Tuberculosis, etc.) (01, 03-17)* | | Malignant Neoplasms (18-33)* | | Diabetes Mellitus (37)* | | Nervous System and Mental Diseases | | | |
| | | | | | | | Vascular Lesions (53)* | | Other (41, 43-47)* | |
| 15-19 | 0 | 0.0 | 132 | 33.5 | 0 | 0.0 | 0 | 0.0 | 15 | 3.8 |
| 20-29 | 0 | 0.0 | 101 | 11.6 | 20 | 2.3 | 10 | 1.2 | 12 | 1.4 |
| 30-39 | 42 | 2.4 | 343 | 19.7 | 10 | 0.6 | 14 | 0.8 | 16 | 0.9 |
| 40-49 | 100 | 1.3 | 2,403 | 32.1 | 18 | 0.2 | 77 | 1.0 | 163 | 2.2 |
| 50-59 | 306 | 1.6 | 7,455 | 39.8 | 40 | 0.2 | 474 | 2.5 | 210 | 1.1 |
| 60-69 | 437 | 1.4 | 11,004 | 34.4 | 24 | 0.1 | 1,134 | 3.5 | 894 | 2.8 |
| 70-99 | 1,213 | 2.5 | 12,175 | 24.8 | 138 | 0.3 | 2,829 | 5.8 | 1,148 | 2.3 |
| Total | 2,098 | 1.9 | 33,612 | 30.5 | 249 | 0.2 | 4,537 | 4.1 | 2,458 | 2.2 |
| | Diseases of the Heart and Circulatory System | | | | Respiratory Diseases | | Diseases of the Digestive System | | | |
| | Arteriosclerotic and Degenerative Heart Disease (50)* | | Hypertensive and Rheumatic, etc. (49, 51, 52, 54, 55)* | | Pneumonia and Influenza, etc. (56-63)* | | Cirrhosis of the Liver (70)* | | Other (64-69, 71-72)* | |
| 15-19 | 2 | 0.5 | 5 | 1.3 | 15 | 3.8 | 0 | 0.0 | 3 | 0.8 |
| 20-29 | 18 | 2.0 | 42 | 4.8 | 43 | 5.0 | 0 | 0.0 | 0 | 0.0 |
| 30-39 | 103 | 5.9 | 65 | 3.7 | 20 | 1.2 | 0 | 0.0 | 68 | 3.9 |
| 40-49 | 1,602 | 21.4 | 550 | 7.4 | 284 | 3.8 | 83 | 1.1 | 129 | 1.7 |
| 50-59 | 3,987 | 21.3 | 2,421 | 12.9 | 531 | 2.8 | 156 | 0.8 | 505 | 2.7 |
| 60-69 | 7,311 | 22.9 | 4,644 | 14.5 | 1,584 | 5.0 | 237 | 0.7 | 380 | 1.2 |
| 70-99 | 9,302 | 19.0 | 7,567 | 15.4 | 4,505 | 9.2 | 210 | 0.4 | 522 | 1.1 |
| Total | 22,325 | 20.3 | 15,294 | 13.9 | 6,982 | 6.3 | 685 | 0.6 | 1,607 | 1.5 |

TABLE 7C—Continued

| Attained Age | Amount | Percentage | Amount | Percentage | Amount | Percentage | Amount | Percentage | Amount | Percentage |
|--------------|--|------------|-------------------------------|------------|--|------------|--------------------|------------|--------------------------------|------------|
| | Genito-Urinary Diseases (Nephritis etc.) (73-77)* | | Motor Vehicle Accidents (88)* | | Other Accidents and Homicides (89-91, 93-96, 98)* | | All Other Diseases | | | |
| | | | | | | | Suicides (97)* | | Unknown Causes (Other Codes)** | |
| 15-19..... | 0 | 0.0 | 115 | 29.2 | 47 | 12.0 | 35 | 8.9 | 24 | 6.2 |
| 20-29..... | 0 | 0.0 | 216 | 24.8 | 168 | 19.2 | 156 | 17.9 | 86 | 9.8 |
| 30-39..... | 7 | 0.4 | 205 | 11.8 | 380 | 21.8 | 276 | 15.9 | 192 | 11.0 |
| 40-49..... | 61 | 0.8 | 430 | 5.8 | 453 | 6.1 | 454 | 6.1 | 666 | 8.9 |
| 50-59..... | 183 | 1.0 | 219 | 1.2 | 301 | 1.6 | 375 | 2.0 | 1,575 | 8.4 |
| 60-69..... | 349 | 1.1 | 337 | 1.1 | 447 | 1.4 | 203 | 0.6 | 2,965 | 9.3 |
| 70-99..... | 611 | 1.2 | 158 | 0.3 | 387 | 0.8 | 53 | 0.1 | 8,191 | 16.7 |
| Total..... | 1,211 | 1.1 | 1,680 | 1.5 | 2,182 | 2.0 | 1,552 | 1.4 | 13,700 | 12.4 |
| | AIDS (02)* | | | | | | | | | |
| 15-19..... | 0 | 0.0 | | | | | | | | |
| 20-29..... | 6 | 0.7 | | | | | | | | |
| 30-39..... | 107 | 6.1 | | | | | | | | |
| 40-49..... | 247 | 3.3 | | | | | | | | |
| 50-59..... | 410 | 2.2 | | | | | | | | |
| 60-69..... | 510 | 1.6 | | | | | | | | |
| 70-99..... | 401 | 0.8 | | | | | | | | |
| Total..... | 1,681 | 1.5 | | | | | | | | |

* 1980 codes for cause of death.

† (34-36, 38-40, 48, 78-83, 85-87, 99).

TABLE 8

CANADIAN STANDARD ORDINARY EXPERIENCE BETWEEN POLICY ANNIVERSARIES IN 1989 AND 1990
 EXPECTED CA 69-75 TABLES
 POLICY YEARS 1 TO 15 FROM 18 COMPANIES

| Select Experience | Ratio A/E | | Actual Deaths | | Exposures | | Expected Deaths | |
|-------------------|-----------|--------|---------------|---------|-----------|------------|-----------------|-----------|
| | Number | Amount | Number | Amount* | Number | Amount* | Number | Amount* |
| Male Smokers | | | | | | | | |
| By Policy Year | | | | | | | | |
| 1 | 103.5 | 64.9 | 73 | 3,341 | 59,443 | 4,603,339 | 70.52 | 5,151.55 |
| 2 | 130.7 | 89.9 | 96 | 4,714 | 56,411 | 4,147,247 | 73.46 | 5,246.41 |
| 3 | 134.6 | 90.9 | 104 | 4,716 | 51,938 | 3,552,018 | 77.28 | 5,188.88 |
| 4 | 178.2 | 89.5 | 221 | 4,556 | 52,505 | 3,061,686 | 124.02 | 5,092.35 |
| 5 | 136.0 | 116.0 | 123 | 6,020 | 46,484 | 2,696,273 | 90.44 | 5,191.36 |
| 6-10 | 116.0 | 112.8 | 377 | 15,165 | 133,532 | 5,441,554 | 325.13 | 13,445.84 |
| 11-15 | 128.9 | 86.3 | 12 | 450 | 2,298 | 126,269 | 9.31 | 521.45 |
| By Issue Age | | | | | | | | |
| 0-4 | 46.1 | 53.6 | 11 | 273 | 39,797 | 792,546 | 23.88 | 509.31 |
| 5-14 | 71.0 | 61.8 | 13 | 235 | 29,649 | 646,574 | 18.31 | 379.94 |
| 15-24 | 115.4 | 104.1 | 69 | 2,344 | 59,571 | 2,327,414 | 59.79 | 2,252.38 |
| 25-34 | 104.3 | 94.4 | 132 | 8,512 | 131,767 | 9,808,634 | 126.52 | 9,012.98 |
| 35-44 | 114.3 | 90.2 | 202 | 11,802 | 88,703 | 7,275,215 | 176.80 | 13,084.36 |
| 45-54 | 122.3 | 100.2 | 223 | 9,677 | 37,379 | 2,243,241 | 182.38 | 9,656.70 |
| 55-64 | 176.8 | 122.6 | 225 | 5,272 | 12,819 | 497,484 | 127.27 | 4,300.76 |
| 65+ | 237.3 | 132.1 | 131 | 847 | 2,926 | 37,278 | 55.21 | 641.40 |
| Total | 130.6 | 97.8 | 1,006 | 38,962 | 402,611 | 23,628,386 | 770. | 39,838. |

* Shown in \$1,000 units.

TABLE 8-Continued

| Select Experience | Ratio A/E | | Actual Deaths | | Exposures | | Expected Deaths | |
|---------------------|-----------|--------|---------------|---------|-----------|------------|-----------------|----------|
| | Number | Amount | Number | Amount* | Number | Amount* | Number | Amount* |
| Female Unclassified | | | | | | | | |
| By Policy Year | | | | | | | | |
| 1 | 69.5 | 67.7 | 44 | 1,721 | 87,483 | 4,076,331 | 63.31 | 2,540.05 |
| 2 | 67.5 | 65.4 | 40 | 1,423 | 86,056 | 3,585,871 | 59.25 | 2,175.03 |
| 3 | 102.6 | 87.5 | 63 | 1,707 | 81,567 | 3,062,712 | 61.42 | 1,950.67 |
| 4 | 86.4 | 74.2 | 59 | 1,409 | 78,197 | 2,725,381 | 68.32 | 1,898.23 |
| 5 | 109.8 | 125.2 | 81 | 2,211 | 69,704 | 2,204,030 | 73.76 | 1,766.23 |
| 6-10 | 92.5 | 72.8 | 412 | 5,549 | 305,796 | 6,695,593 | 445.20 | 7,623.56 |
| 11-15 | 89.1 | 71.0 | 397 | 3,550 | 255,956 | 3,151,901 | 445.33 | 5,000.45 |
| By Issue Age | | | | | | | | |
| 0-4 | 54.9 | 53.3 | 37 | 896 | 190,745 | 3,997,192 | 67.43 | 1,682.49 |
| 5-14 | 74.6 | 78.1 | 28 | 654 | 102,604 | 2,654,731 | 37.53 | 836.51 |
| 15-24 | 57.4 | 57.7 | 57 | 1,181 | 193,087 | 4,540,482 | 99.35 | 2,045.58 |
| 25-34 | 74.6 | 72.5 | 168 | 4,587 | 251,354 | 8,672,662 | 225.20 | 6,322.99 |
| 35-44 | 80.5 | 74.1 | 211 | 4,730 | 134,166 | 4,222,027 | 262.12 | 6,387.46 |
| 45-54 | 101.3 | 89.8 | 243 | 2,898 | 58,548 | 1,036,281 | 239.94 | 3,226.36 |
| 55-64 | 120.5 | 101.3 | 222 | 1,654 | 26,911 | 310,797 | 184.27 | 1,633.01 |
| 65+ | 129.0 | 118.1 | 130 | 968 | 7,344 | 67,649 | 100.76 | 819.83 |
| Total | 90.1 | 76.5 | 1,096 | 17,569 | 964,759 | 25,501,819 | 1,217. | 22,954. |

* Shown in \$1,000 units.

TABLE 8—Continued

| Select Experience | Ratio A/E | | Actual Deaths | | Exposures | | Expected Deaths | |
|-------------------|-----------|--------|---------------|---------|-----------|------------|-----------------|-----------|
| | Number | Amount | Number | Amount* | Number | Amount* | Number | Amount* |
| Male Unclassified | | | | | | | | |
| By Policy Year | | | | | | | | |
| 1 | 75.3 | 60.4 | 99 | 5,443 | 109,644 | 7,964,963 | 131.45 | 9,013.16 |
| 2 | 58.8 | 36.0 | 80 | 3,380 | 111,277 | 7,566,051 | 135.95 | 9,380.37 |
| 3 | 89.0 | 58.1 | 128 | 5,163 | 104,290 | 6,504,668 | 143.78 | 8,888.20 |
| 4 | 77.0 | 60.0 | 118 | 5,279 | 97,128 | 5,604,626 | 153.33 | 8,799.94 |
| 5 | 72.6 | 46.1 | 131 | 4,181 | 92,458 | 4,964,797 | 180.44 | 9,068.36 |
| 6-10 | 86.4 | 65.9 | 899 | 26,636 | 410,819 | 15,816,979 | 1,040.27 | 40,390.81 |
| 11-15 | 75.8 | 76.0 | 925 | 23,987 | 401,743 | 9,058,162 | 1,220.03 | 31,572.47 |
| By Issue Age | | | | | | | | |
| 0-4 | 39.9 | 53.4 | 44 | 1,349 | 210,537 | 4,293,872 | 110.24 | 2,527.59 |
| 5-14 | 53.1 | 52.1 | 52 | 1,053 | 117,413 | 2,986,183 | 97.97 | 2,022.30 |
| 15-24 | 82.9 | 80.0 | 213 | 5,937 | 247,982 | 7,382,858 | 256.89 | 7,416.60 |
| 25-34 | 70.3 | 58.9 | 379 | 14,981 | 391,608 | 21,549,312 | 539.37 | 25,452.64 |
| 35-44 | 73.1 | 54.6 | 522 | 20,067 | 228,356 | 15,235,409 | 713.78 | 36,725.36 |
| 45-54 | 77.9 | 72.0 | 536 | 20,211 | 92,999 | 4,866,949 | 688.43 | 28,089.95 |
| 55-64 | 99.5 | 60.8 | 448 | 7,358 | 32,175 | 1,038,689 | 450.20 | 12,106.37 |
| 65+ | 125.4 | 112.3 | 186 | 3,113 | 6,289 | 126,975 | 148.37 | 2,772.51 |
| Total | 79.2 | 63.2 | 2,380 | 74,068 | 1,327,359 | 57,480,246 | 3,005. | 117,113. |

* Shown in \$1,000 units.

TABLE 8-Continued

| Select Experience | Ratio A/E | | Actual Deaths | | Exposures | | Expected Deaths | |
|-------------------|-----------|--------|---------------|---------|-----------|------------|-----------------|----------|
| | Number | Amount | Number | Amount* | Number | Amount* | Number | Amount* |
| Female Smokers | | | | | | | | |
| By Policy Year | | | | | | | | |
| 1 | 73.7 | 67.5 | 21 | 925 | 40,704 | 2,274,911 | 28.49 | 1,368.99 |
| 2 | 142.7 | 174.5 | 39 | 2,166 | 39,567 | 2,028,466 | 27.33 | 1,241.44 |
| 3 | 135.7 | 128.2 | 37 | 1,454 | 36,212 | 1,684,924 | 27.27 | 1,133.58 |
| 4 | 142.4 | 84.5 | 51 | 952 | 35,997 | 1,473,983 | 35.82 | 1,126.27 |
| 5 | 153.5 | 97.2 | 48 | 1,042 | 33,057 | 1,249,551 | 31.28 | 1,072.11 |
| 6-10 | 116.0 | 90.0 | 130 | 2,214 | 92,518 | 2,249,374 | 112.10 | 2,460.47 |
| 11-15 | 68.8 | 131.9 | 1 | 56 | 906 | 23,420 | 1.45 | 42.76 |
| By Issue Age | | | | | | | | |
| 0-4 | 77.2 | 71.0 | 12 | 242 | 36,169 | 724,706 | 15.54 | 341.17 |
| 5-14 | 36.9 | 27.8 | 3 | 47 | 26,244 | 562,347 | 8.14 | 168.46 |
| 15-24 | 123.7 | 101.0 | 28 | 817 | 57,450 | 2,150,078 | 22.64 | 808.80 |
| 25-34 | 86.3 | 81.4 | 44 | 2,123 | 83,619 | 4,693,267 | 50.99 | 2,607.39 |
| 35-44 | 96.0 | 100.4 | 62 | 2,648 | 46,399 | 2,189,259 | 64.60 | 2,637.71 |
| 45-54 | 161.6 | 179.8 | 86 | 2,181 | 19,697 | 512,708 | 53.21 | 1,212.86 |
| 55-64 | 190.8 | 98.3 | 64 | 507 | 7,626 | 133,615 | 33.54 | 515.50 |
| 65+ | 185.6 | 158.2 | 28 | 243 | 1,757 | 18,650 | 15.08 | 153.73 |
| Total | 124.0 | 104.3 | 327 | 8,808 | 278,961 | 10,984,630 | 264. | 8,446. |

* Shown in \$1,000 units.

TABLE 8--Continued

| Select Experience | Ratio A/E | | Actual Deaths | | Exposures | | Expected Deaths | |
|-------------------|-----------|--------|---------------|---------|-----------|------------|-----------------|----------|
| | Number | Amount | Number | Amount* | Number | Amount* | Number | Amount* |
| Female Nonsmokers | | | | | | | | |
| By Policy Year | | | | | | | | |
| 1 | 29.0 | 34.1 | 16 | 1,345 | 68,342 | 5,709,953 | 55.15 | 3,949.43 |
| 2 | 57.0 | 50.9 | 35 | 1,989 | 73,333 | 5,299,184 | 61.35 | 3,905.73 |
| 3 | 61.9 | 49.5 | 42 | 1,967 | 72,699 | 4,806,418 | 67.81 | 3,970.90 |
| 4 | 73.9 | 59.5 | 50 | 2,134 | 64,694 | 3,906,304 | 67.69 | 3,584.72 |
| 5 | 71.8 | 63.9 | 52 | 2,150 | 63,118 | 3,320,213 | 72.42 | 3,363.25 |
| 6-10 | 68.8 | 62.8 | 157 | 5,074 | 145,440 | 5,901,229 | 228.10 | 8,073.87 |
| 11-15 | 0.0 | 0.0 | 0 | 0 | 1,053 | 38,014 | 2.68 | 90.90 |
| By Issue Age | | | | | | | | |
| 0-4 | 111.8 | 100.7 | 10 | 232 | 21,784 | 515,096 | 8.94 | 229.99 |
| 5-14 | 39.5 | 30.0 | 2 | 35 | 15,324 | 375,051 | 5.07 | 116.83 |
| 15-24 | 52.2 | 57.1 | 19 | 990 | 94,083 | 4,632,070 | 36.37 | 1,735.18 |
| 25-34 | 45.2 | 43.6 | 48 | 3,216 | 173,077 | 12,857,074 | 106.19 | 7,379.01 |
| 35-44 | 48.7 | 49.7 | 75 | 4,741 | 113,609 | 7,819,021 | 153.88 | 9,543.80 |
| 45-54 | 68.8 | 74.9 | 83 | 3,585 | 47,067 | 2,093,602 | 120.67 | 4,784.77 |
| 55-64 | 75.7 | 51.4 | 64 | 1,141 | 19,243 | 574,674 | 84.56 | 2,219.57 |
| 65+ | 129.0 | 77.4 | 51 | 719 | 4,492 | 114,728 | 39.52 | 929.66 |
| Total | 63.4 | 54.4 | 352 | 14,659 | 488,679 | 28,981,316 | 555. | 26,939. |

* Shown in \$1,000 units.

TABLE 8-Continued

| Select Experience | Ratio A/E | | Actual Deaths | | Exposures | | Expected Deaths | |
|-------------------|-----------|--------|---------------|---------|-----------|------------|-----------------|-----------|
| | Number | Amount | Number | Amount* | Number | Amount* | Number | Amount* |
| Male Nonsmokers | | | | | | | | |
| By Policy Year | | | | | | | | |
| 1 | 51.9 | 44.0 | 73 | 7,836 | 100,946 | 13,038,415 | 140.76 | 17,804.85 |
| 2 | 58.1 | 37.0 | 99 | 7,462 | 106,310 | 12,372,173 | 170.49 | 20,155.65 |
| 3 | 50.8 | 43.0 | 100 | 9,101 | 107,009 | 11,410,845 | 196.97 | 21,167.99 |
| 4 | 48.7 | 46.1 | 101 | 9,298 | 99,143 | 9,502,206 | 207.52 | 20,164.27 |
| 5 | 55.1 | 53.3 | 123 | 10,557 | 95,413 | 8,221,418 | 223.36 | 19,823.23 |
| 6-10 | 51.1 | 45.9 | 360 | 25,093 | 227,718 | 17,198,450 | 704.44 | 54,723.65 |
| 11-15 | 36.7 | 26.7 | 8 | 362 | 3,725 | 232,712 | 21.78 | 1,356.65 |
| By Issue Age | | | | | | | | |
| 0-4 | 60.1 | 51.2 | 8 | 175 | 23,051 | 552,541 | 13.31 | 340.90 |
| 5-14 | 51.8 | 58.9 | 6 | 162 | 16,984 | 440,224 | 11.58 | 275.02 |
| 15-24 | 59.5 | 59.4 | 68 | 3,646 | 114,132 | 6,310,940 | 114.28 | 6,134.50 |
| 25-34 | 65.8 | 56.9 | 158 | 13,405 | 250,934 | 25,273,533 | 240.13 | 23,563.34 |
| 35-44 | 47.6 | 44.8 | 190 | 21,302 | 199,209 | 25,289,725 | 399.32 | 47,576.93 |
| 45-54 | 40.8 | 39.4 | 186 | 18,499 | 96,056 | 10,854,212 | 456.41 | 46,899.79 |
| 55-64 | 53.7 | 38.7 | 182 | 10,134 | 34,807 | 3,015,158 | 338.75 | 26,158.04 |
| 65+ | 72.1 | 56.2 | 66 | 2,388 | 5,091 | 239,886 | 91.54 | 4,247.77 |
| Total | 51.9 | 44.9 | 864 | 69,710 | 740,264 | 71,976,219 | 1,665. | 155,196. |

* Shown in \$1,000 units.

TABLE 9
 CANADIAN STANDARD ORDINARY EXPERIENCE BETWEEN POLICY ANNIVERSARIES IN 1989 AND 1990
 EXPECTED CA 69-75 TABLES
 POLICY YEARS 1 TO 15 FROM 18 COMPANIES

| | Ratio A/E | | Actual Deaths | | Exposures | | Expected Deaths | |
|----------------|-----------|--------|---------------|---------|-----------|-------------|-----------------|------------|
| | Number | Amount | Number | Amount* | Number | Amount* | Number | Amount* |
| Permanent | | | | | | | | |
| By Issue Age | | | | | | | | |
| 0-29 | 72.1 | 70.4 | 1,010 | 28,149 | 2,034,038 | 58,496,932 | 1,401.20 | 39,980.38 |
| 30-54 | 78.9 | 67.4 | 2,437 | 69,084 | 1,233,390 | 48,923,259 | 3,090.34 | 102,522.37 |
| 55+ | 111.9 | 66.5 | 1,605 | 21,561 | 133,359 | 3,197,800 | 1,434.66 | 32,436.95 |
| By Policy Year | | | | | | | | |
| 1-5 | 86.8 | 64.7 | 1,850 | 57,146 | 1,678,686 | 73,134,243 | 2,131.35 | 88,351.73 |
| 6-15 | 84.4 | 71.2 | 3,202 | 61,648 | 1,722,101 | 37,483,748 | 3,794.84 | 86,587.98 |
| Total | 85.2 | 67.9 | 5,052 | 118,794 | 3,400,787 | 110,617,990 | 5,926. | 174,940. |
| Term | | | | | | | | |
| By Issue Age | | | | | | | | |
| 0-29 | 61.6 | 57.5 | 77 | 6,157 | 155,940 | 14,186,918 | 125.04 | 10,714.68 |
| 30-54 | 58.3 | 52.5 | 553 | 61,144 | 440,905 | 58,623,554 | 948.66 | 116,532.46 |
| 55+ | 74.6 | 46.2 | 95 | 7,368 | 15,294 | 2,032,940 | 127.33 | 15,956.69 |
| By Policy Year | | | | | | | | |
| 1-5 | 58.7 | 49.9 | 327 | 42,883 | 385,018 | 55,453,646 | 557.23 | 85,977.40 |
| 6-15 | 61.8 | 55.5 | 398 | 31,786 | 227,121 | 19,389,766 | 643.79 | 57,226.43 |
| Total | 60.4 | 52.1 | 725 | 74,669 | 612,139 | 74,843,411 | 1,201. | 143,204. |
| Term Rider | | | | | | | | |
| By Issue Age | | | | | | | | |
| 0-29 | 0.0 | 72.7 | 0 | 4,507 | 0 | 8,336,621 | 0.00 | 6,203.31 |
| 30-54 | 0.0 | 60.4 | 0 | 12,971 | 0 | 12,519,672 | 0.00 | 21,489.18 |
| 55+ | 0.0 | 59.0 | 0 | 1,250 | 0 | 270,417 | 0.00 | 2,119.90 |
| By Policy Year | | | | | | | | |
| 1-5 | 0.0 | 52.0 | 0 | 8,232 | 0 | 14,201,945 | 0.00 | 15,840.32 |
| 6-15 | 0.0 | 75.1 | 0 | 10,497 | 0 | 6,924,766 | 0.00 | 13,972.07 |
| Total | 0.0 | 62.8 | 0 | 18,729 | 0 | 21,126,711 | 0.00 | 29,812. |

* Shown in \$1,000 units.

TABLE 9—Continued

| | Ratio A/E | | Actual Deaths | | Exposures | | Expected Deaths | |
|----------------|-----------|--------|---------------|---------|-----------|-----------|-----------------|-----------|
| | Number | Amount | Number | Amount* | Number | Amount* | Number | Amount* |
| Permanent Term | | | | | | | | |
| By Issue Age | | | | | | | | |
| 0-29 | 91.9 | 73.5 | 17 | 1,224 | 27,841 | 2,509,296 | 18.49 | 1,664.40 |
| 30-54 | 63.6 | 39.7 | 92 | 5,079 | 68,944 | 6,564,812 | 144.65 | 12,778.13 |
| 55+ | 91.0 | 70.2 | 95 | 4,167 | 12,341 | 665,679 | 104.35 | 5,934.45 |
| By Policy Year | | | | | | | | |
| 1-5 | 83.0 | 49.4 | 137 | 6,487 | 84,435 | 7,763,311 | 164.97 | 13,137.72 |
| 6-15 | 65.4 | 55.0 | 67 | 3,982 | 24,691 | 1,976,477 | 102.51 | 7,239.26 |
| Total | 76.3 | 51.4 | 204 | 10,469 | 109,126 | 9,739,787 | 267. | 20,377. |
| Other | | | | | | | | |
| By Issue Age | | | | | | | | |
| 0-29 | 54.7 | 55.1 | 17 | 467 | 49,851 | 1,335,584 | 31.06 | 847.55 |
| 30-54 | 52.3 | 51.5 | 25 | 650 | 30,269 | 882,926 | 47.84 | 1,262.96 |
| 55+ | 107.8 | 51.5 | 3 | 26 | 489 | 8,809 | 2.78 | 51.29 |
| By Policy Year | | | | | | | | |
| 1-5 | 50.8 | 48.9 | 34 | 920 | 73,006 | 2,067,183 | 66.96 | 1,879.75 |
| 6-15 | 74.7 | 79.2 | 11 | 223 | 7,603 | 160,136 | 14.73 | 282.04 |
| Total | 55.1 | 52.9 | 45 | 1,143 | 80,609 | 2,227,319 | 82. | 2,162. |
| Unknown | | | | | | | | |
| By Issue Age | | | | | | | | |
| 0-29 | 0.0 | 0.0 | 0 | 0 | 0 | 0 | 0.00 | 0.00 |
| 30-54 | 0.0 | 0.0 | 0 | 0 | 0 | 0 | 0.00 | 0.00 |
| 55+ | 0.0 | 0.0 | 0 | 0 | 0 | 0 | 0.00 | 0.00 |
| By Policy Year | | | | | | | | |
| 1-5 | 0.0 | 0.0 | 0 | 0 | 0 | 0 | 0.00 | 0.00 |
| 6-15 | 0.0 | 0.0 | 0 | 0 | 0 | 0 | 0.00 | 0.00 |
| Total | 0.0 | 0.0 | 0 | 0 | 0 | 0 | 0.00 | 0.00 |

* Shown in \$1,000 units.

TABLE 9—Continued

| | Ratio A/E | | Actual Deaths | | Exposures | | Expected Deaths | |
|-----------------------|-----------|--------|---------------|---------|-----------|------------|-----------------|-----------|
| | Number | Amount | Number | Amount* | Number | Amount* | Number | Amount* |
| Permanent (Ultimate) | | | | | | | | |
| By Attained Age | | | | | | | | |
| 15-44 | 80.1 | 74.5 | 875 | 5,465 | 772,468 | 4,748,899 | 1,091.98 | 7,336.54 |
| 45-69 | 75.5 | 70.2 | 9,807 | 53,728 | 1,088,263 | 6,610,075 | 12,987.14 | 76,539.24 |
| 70+ | 86.8 | 82.4 | 16,716 | 57,987 | 302,786 | 1,123,449 | 19,253.25 | 70,363.43 |
| Total | 82.2 | 76.0 | 27,398 | 117,180 | 2,163,517 | 12,482,423 | 33,332. | 154,239. |
| Term (Ultimate) | | | | | | | | |
| By Attained Age | | | | | | | | |
| 15-44 | 19.4 | 16.5 | 3 | 60 | 7,563 | 168,410 | 15.46 | 364.74 |
| 45-69 | 70.5 | 68.5 | 163 | 3,016 | 28,052 | 562,171 | 231.32 | 4,400.45 |
| 70+ | 135.9 | 67.4 | 5 | 18 | 62 | 595 | 3.68 | 26.68 |
| Total | 68.3 | 64.6 | 171 | 3,094 | 35,677 | 731,176 | 250. | 4,792. |
| Term Rider (Ultimate) | | | | | | | | |
| By Attained Age | | | | | | | | |
| 15-44 | 0.0 | 80.6 | 0 | 618 | 0 | 399,635 | 0.00 | 766.77 |
| 45-69 | 0.0 | 56.9 | 0 | 2,037 | 0 | 479,339 | 0.00 | 3,581.38 |
| 70+ | 0.0 | 110.4 | 0 | 361 | 0 | 6,467 | 0.00 | 326.95 |
| Total | 0.0 | 64.5 | 0 | 3,016 | 0 | 885,441 | 0. | 4,675. |

* Shown in \$1,000 units.

TABLE 9—Continued

| Select Experience | Ratio A/E | | Actual Deaths | | Exposures | | Expected Deaths | |
|---------------------------|-----------|--------|---------------|---------|-----------|---------|-----------------|----------|
| | Number | Amount | Number | Amount* | Number | Amount* | Number | Amount* |
| Permanent Term (Ultimate) | | | | | | | | |
| By Attained Age | | | | | | | | |
| 15-44 | 291.7 | 195.1 | 3 | 181 | 574 | 52,450 | 1.03 | 92.98 |
| 45-69 | 41.7 | 71.1 | 14 | 728 | 2,559 | 98,206 | 33.56 | 1,023.21 |
| 70+ | 0.0 | 0.0 | 0 | 0 | 128 | 1,883 | 5.21 | 78.32 |
| Total | 42.7 | 76.1 | 17 | 909 | 3,261 | 152,539 | 40. | 1,195. |
| Other (Ultimate) | | | | | | | | |
| By Attained Age | | | | | | | | |
| 15-44 | 96.4 | 103.1 | 4 | 29 | 2,723 | 15,657 | 4.15 | 27.80 |
| 45-69 | 70.9 | 81.8 | 49 | 273 | 7,001 | 36,058 | 69.11 | 334.07 |
| 70+ | 84.0 | 82.9 | 10 | 19 | 215 | 416 | 11.91 | 23.19 |
| Total | 74.0 | 83.4 | 63 | 321 | 9,939 | 52,131 | 85. | 385. |
| Unknown (Ultimate) | | | | | | | | |
| By Attained Age | | | | | | | | |
| 15-44 | 0.0 | 0.0 | 0 | 0 | 0 | 0 | 0.00 | 0.00 |
| 45-69 | 0.0 | 0.0 | 0 | 0 | 2 | 1 | 0.02 | 0.01 |
| 70+ | 0.0 | 0.0 | 0 | 0 | 0 | 0 | 0.00 | 0.00 |
| Total | 0.0 | 0.0 | 0 | 0 | 2 | 1 | 0.00 | 0.00 |

* Shown in \$1,000 units.

