

**TRANSACTIONS OF SOCIETY OF ACTUARIES
1993-94 REPORTS**

**REPORT OF THE INDIVIDUAL LIFE SECTION
OF THE COMMITTEE ON EXPECTED EXPERIENCE
OF THE CANADIAN INSTITUTE OF ACTUARIES**

**MORTALITY UNDER CANADIAN STANDARD
ORDINARY INSURANCE ISSUES STUDIED
BETWEEN THE 1990 AND 1991 ANNIVERSARIES***

PREFACE

This report was prepared by the Individual Life Section of the Committee on Expected Experience of the Canadian Institute of Actuaries (CIA). The CIA 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 CIA and the Society intend to cooperate in experience studies to benefit actuaries in both Canada and the United States.

INTRODUCTION

This is the forty-second annual report submitted by the Individual Life Section of the Committee on Expected Experience on the intercompany mortality experience for Canadian standard ordinary life insurance policies. The CIA 1982-88 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 1990-91 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 1986-87 through 1990-91
- Table 5 The variation of the experience of the individual companies from the overall mortality ratio for the total intercompany experience

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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.

Additional detailed data, showing mortality ratios by quinquennial age groupings, is available and can be obtained by writing to the vice-chairperson of the Individual Life Section of the Committee on Expected Experience of the CIA.

The 1990-91 study is based on the data of 18 contributing companies.

Contributors	Exposures
Aetna	3.48%
Canada Life	3.75
Confederation Life	2.98
Crown Life	2.39
Desjardins	1.05
Equitable Life	.78
Great-West Life	5.38
Industrial-Alliance	9.35
London Life	14.97
Manufacturers Life	5.19
Metropolitan Life	2.41
Mutual Life	13.98
National Life	3.55
North American Life	5.92
North-West Life	.60
Prudential Assurance	3.31
Sun Life	10.86
Transamerica	10.05
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:

	1988-89 Study	1989-90 Study	1990-91 Study
Exposures			
By Number	7,019,046	6,415,057	6,401,701
By Amount ('000)	216,689,266	232,858,930	254,726,308
Death Claims			
By Number	37,258	33,675	33,263
By Amount ('000)	332,475	348,325	397,132

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:

	1986-87	1987-88	1988-89	1989-90	1990-91
Males	26,493	30,927	34,538	40,507	44,037
Females	18,836	22,033	24,398	28,954	32,637
Combined	23,792	27,707	30,872	36,299	39,790

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

	1986-87	1987-88	1988-89	1989-90	1990-91
Average Claim	7,940	8,540	8,924	10,344	11,939

In Table 4, the combined mortality rates have declined from 99.7% of expected in 1986-87 to 88.9% of expected in 1990-91.

In Table 7, 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	21.9%	9.9%	3.0% (90-91)
	24.8	12.8	3.5 (89-90)
	29.5	14.1	3.6 (88-89)
Heart and Circulatory	16.5	21.2	29.6 (90-91)
	15.2	20.6	34.2 (89-90)
	16.7	24.4	33.3 (88-89)
Malignant Neoplasms	30.6	32.7	29.1 (90-91)
	27.5	40.3	30.5 (89-90)
	30.7	36.5	29.2 (88-89)
Respiratory	1.1	9.9	5.9 (90-91)
	2.2	3.4	6.3 (89-90)
	1.7	3.4	6.1 (88-89)
Suicide	7.4	3.6	1.0 (90-91)
	9.3	5.9	1.4 (89-90)
	6.4	5.1	1.4 (88-89)
AIDS	2.2	2.1	1.5 (90-91)
	2.6	4.7	1.5 (89-90)
	2.1	2.0	1.6 (88-89)

In Table 8, the following select ratios for smokers and nonsmokers were extracted from the 1990-91 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	88.6	(86.6)	\$57,452 (44,982)
Nonsmokers	77.8	(73.6)	129,630 (94,685)
Unclassified	93.5	(84.0)	65,953 (88,177)
Females (by amount)			
Smokers	80.6	(98.6)	\$12,554 (8,935)
Nonsmokers	76.3	(89.7)	24,150 (16,385)
Unclassified	166.6	(100.5)	14,544 (17,478)
	(Smoker A/E)/(Nonsmoker A/E) %		
	Number		Amount
Male	121.6	(137.7)	113.9 (117.7)
Female	108.9	(109.7)	105.6 (109.9)

The unclassified data fell from 38.0% of total select exposures (by amount) in the last study to 24.2% in the 1990-91 study.

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TABLE 1
CANADIAN STANDARD ORDINARY EXPERIENCE BETWEEN POLICY ANNIVERSARIES IN 1990 AND 1991
MALES AND FEMALES COMBINED—EXPECTED CIA 82 88 TABLES

	Ratio A/E			Actual Deaths		Exposures		Expected Deaths	
	Number	S.D.	Amount	Number	Amount*	Number	Amount*	Number	Amount*
Select Experience by Policy Year									
1	93.4	5.34	76.7	305	20,076	482,158	41,065,834	327	26,162
2	88.0	4.86	64.2	327	19,123	420,215	35,116,542	372	29,788
3	101.6	4.85	87.5	438	27,831	426,133	31,725,903	431	31,798
4	103.3	4.60	90.3	503	28,804	414,994	28,177,291	487	31,905
5	106.4	4.18	89.9	647	28,355	397,318	24,368,065	608	31,552
6-10	94.0	1.84	84.9	2,590	99,798	1,426,251	65,168,528	2,754	117,541
11-15	94.3	2.54	118.7	1,371	42,180	660,216	14,077,821	1,454	35,543
Total	96.1	1.22	87.5	6,181	266,167	4,227,285	239,699,985	6,432	304,289
Select Experience by Issue Age									
0-4	86.8	8.20	82.8	112	2,646	512,062	11,790,450	129	3,196
5-29	93.6	3.05	85.0	939	37,367	1,705,442	79,133,731	1,004	43,983
30-44	96.4	2.28	98.4	1,777	119,034	1,462,702	117,589,997	1,843	120,980
45-59	94.7	2.03	79.0	2,162	84,698	463,062	28,577,327	2,283	107,236
60-74	101.7	2.98	78.2	1,159	22,082	82,899	2,586,007	1,140	28,250
75-89	93.2	16.4	52.7	32	339	1,118	22,473	34	644
Total	96.1	1.22	87.5	6,181	266,167	4,227,285	239,699,985	6,432	304,289
Ultimate Experience by Attained Age									
15-29	101.1	6.92	92.1	213	1,252	298,226	1,835,209	211	1,359
30-44	121.1	4.57	109.2	700	5,594	461,517	3,786,213	578	5,122
45-59	90.3	1.61	88.6	3,118	25,408	681,600	5,736,363	3,451	28,663
60-74	92.7	0.897	89.3	10,663	55,640	560,234	3,057,465	11,505	62,279
75-89	98.5	0.929	96.3	11,222	39,895	166,456	594,086	11,392	41,448
90-99	92.5	2.70	91.3	1,166	3,176	6,383	16,988	1,261	3,480
Total	95.4	0.579	92.0	27,082	130,965	2,174,416	15,026,324	28,398	142,352
Grand Total	95.5	0.52	88.9	33,263	397,132	6,401,701	254,726,309	34,830	446,641

* Shown in \$1,000 units.

TABLE 2A
CANADIAN STANDARD ORDINARY EXPERIENCE BETWEEN POLICY ANNIVERSARIES IN 1990 AND 1991
MALES ONLY—EXPECTED CIA 82-88 TABLES

	Ratio A/E			Actual Deaths		Exposures		Expected Deaths	
	Number	S.D.	Amount	Number	Amount*	Number	Amount*	Number	Amount*
Select Experience by Policy Year									
1	84.9	5.97	71.9	202	15,461	273,791	27,238,508	238	21,489
2	89.6	5.82	65.2	237	15,843	240,502	23,682,340	264	24,283
3	105.0	5.87	86.8	320	22,641	242,266	21,361,958	305	26,092
4	109.5	5.66	93.0	374	24,336	236,924	19,103,147	341	26,166
5	107.3	4.98	90.2	462	23,408	228,807	16,616,737	431	25,959
6-10	93.4	2.19	85.5	1,806	84,351	827,072	45,890,256	1,933	98,704
11-15	94.6	3.04	90.2	964	27,363	396,900	10,361,999	1,019	30,341
Total	96.3	1.45	84.3	4,365	213,404	2,446,262	164,254,945	4,532	253,035
Select Experience by Issue Age									
0-4	93.7	11.1	86.0	70	1,503	267,138	6,074,623	75	1,747
5-29	95.0	3.63	87.4	682	29,267	942,918	47,309,285	718	33,469
30-44	98.5	2.74	90.1	1,287	89,174	898,195	85,547,625	1,306	98,993
45-59	91.8	2.34	78.9	1,533	75,155	292,548	23,407,283	1,669	95,257
60-74	104.3	3.74	78.3	776	18,086	44,970	1,902,363	744	23,099
75-89	88.6	21.4	46.7	17	219	493	13,766	19	470
Total	96.3	1.45	84.3	4,365	213,404	2,446,262	164,254,945	4,532	253,035
Ultimate Experience by Attained Age									
15-29	101.7	7.80	95.4	170	1,085	172,218	1,180,086	167	1,138
30-44	126.0	5.44	103.4	535	4,503	311,054	3,056,932	424	4,354
45-59	90.1	1.76	88.9	2,595	23,556	524,054	5,092,096	2,881	26,503
60-74	93.2	0.981	89.4	9,007	52,191	432,784	2,771,578	9,666	58,399
75-89	99.9	1.03	95.3	9,391	36,335	125,879	526,094	9,400	38,136
90-99	91.6	3.02	90.6	917	2,806	4,735	14,660	1,001	3,097
Total	96.1	0.638	91.5	22,615	120,476	1,570,724	12,641,445	23,539	131,627
Grand Total	96.1	0.59	86.8	26,980	333,880	4,016,986	176,896,390	28,071	384,662

* Shown in \$1,000 units.

TABLE 2B

CANADIAN STANDARD ORDINARY EXPERIENCE BETWEEN POLICY ANNIVERSARIES IN 1990 AND 1991
FEMALES ONLY—EXPECTED CIA 82 88 TABLES

	Ratio A/E			Actual Deaths		Exposures		Expected Deaths	
	Number	S.D.	Amount	Number	Amount*	Number	Amount*	Number	Amount*
Select Experience by Policy Year									
1	116.1	11.4	98.8	103	4,615	208,367	13,827,326	89	4,673
2	83.9	8.84	59.6	90	3,280	179,711	11,433,826	107	5,502
3	93.3	8.58	91.0	118	5,190	183,867	10,363,944	126	5,706
4	88.8	7.82	77.9	129	4,468	178,068	9,073,985	145	5,739
5	104.4	7.67	88.5	185	4,947	168,508	7,751,048	177	5,592
6-10	95.5	3.41	82.0	784	15,447	599,169	19,277,397	821	18,834
11-15	93.5	4.63	284.8	407	14,816	263,314	3,715,759	435	5,202
Total	95.6	2.24	103.0	1,816	52,763	1,781,004	75,443,285	1,900	51,249
Select Experience by Issue Age									
0-4	77.4	11.9	78.9	42	1,143	244,924	5,715,826	54	1,449
5-29	90.0	5.61	77.0	257	8,100	762,522	31,824,286	286	10,514
30-44	91.4	4.12	135.8	490	29,861	564,496	32,041,452	536	21,985
45-59	102.6	4.08	79.7	629	9,543	170,510	5,169,745	613	11,978
60-74	96.7	4.94	77.6	383	3,996	37,927	683,269	396	5,147
75-89	99.1	25.5	68.9	15	120	625	8,707	15	174
Total	95.6	2.24	103.0	1,816	52,763	1,781,004	75,443,285	1,900	51,249
Ultimate Experience by Attained Age									
15-29	98.8	15.0	75.2	43	163	126,006	655,111	44	221
30-44	107.4	8.35	141.9	165	1,091	150,459	729,265	154	769
45-59	91.6	4.00	85.5	522	1,848	157,543	644,256	570	2,161
60-74	90.0	2.21	88.9	1,656	3,449	127,449	285,882	1,840	3,880
75-89	91.9	2.14	107.5	1,831	3,560	40,576	67,987	1,992	3,312
90-99	96.0	6.08	96.6	249	370	1,648	2,328	259	382
Total	91.9	1.37	97.8	4,466	10,484	603,681	2,384,829	4,859	10,725
Grand Total	92.9	1.17	102.1	6,282	63,247	2,384,685	77,828,114	6,759	61,974

* Shown in \$1,000 units.

TABLE 3A

CANADIAN STANDARD ORDINARY EXPERIENCE BETWEEN POLICY ANNIVERSARIES IN 1990 AND 1991
MEDICAL MALES—EXPECTED CIA 82-88 TABLES

Select Experience	Ratio A/E			Actual Deaths		Exposures		Expected Deaths	
	Number	S.D.	Amount	Number	Amount*	Number	Amount*	Number	Amount*
By Policy Year									
1	38.5	12.1	59.6	10	3,034	17,060	4,562,702	26	5,087
2	84.8	15.4	68.3	30	4,674	15,013	4,331,079	35	6,844
3	81.5	13.5	50.7	36	3,752	14,113	3,594,595	44	7,399
4	96.8	12.3	65.0	61	5,199	15,603	3,425,313	63	7,995
5	87.0	10.9	56.9	63	4,880	16,073	3,077,848	72	8,572
6-10	89.3	4.58	85.6	380	31,341	63,809	9,218,541	426	36,609
11-15	95.1	5.11	85.9	345	13,726	54,946	3,087,458	363	15,970
Total	89.9	2.95	75.3	925	66,605	196,617	31,297,535	1,029	88,476
By Issue Age									
0-4	206.6	146.0	63.5	2	23	3,172	108,811	1	35
5-29	100.2	20.0	113.2	25	2,440	28,190	2,842,721	25	2,156
30-44	97.7	7.34	86.1	177	21,045	84,698	17,097,221	181	24,451
45-59	87.2	4.34	68.2	403	31,615	62,216	10,061,673	462	46,342
60-74	88.6	5.03	74.9	310	11,374	18,116	1,178,179	350	15,177
75-89	79.3	28.0	34.3	8	108	225	8,930	10	315
Total	89.9	2.95	75.3	925	66,605	196,617	31,297,535	1,029	88,476

* Shown in \$1,000 units.

TABLE 3B

CANADIAN STANDARD ORDINARY EXPERIENCE BETWEEN POLICY ANNIVERSARIES IN 1990 AND 1991
MEDICAL FEMALES—EXPECTED CIA 82-88 TABLES

Select Experience	Ratio A/E			Actual Deaths		Exposures		Expected Deaths	
	Number	S.D.	Amount	Number	Amount*	Number	Amount*	Number	Amount*
By Policy Year									
1	118.6	39.5	60.9	9	346	8,344	1,041,908	8	569
2	83.2	26.2	62.1	10	537	6,711	819,434	12	866
3	85.6	22.8	167.7	14	1,405	6,619	590,344	16	838
4	105.8	20.7	43.9	26	389	6,759	536,559	25	886
5	86.8	17.0	84.3	26	777	6,277	447,390	30	922
6-10	119.2	9.19	108.0	168	3,440	21,855	1,080,279	141	3,184
11-15	92.5	8.62	800.3	115	11,453	18,491	398,684	124	1,431
Total	103.4	5.39	211.0	368	18,348	75,056	4,914,598	356	8,695
By Issue Age									
0-4	209.1	209.0	112.7	1	25	2,575	87,788	0	22
5-29	122.5	43.3	67.4	8	251	14,671	1,087,811	7	372
30-44	128.2	21.3	674.2	36	12,959	21,726	2,270,923	28	1,922
45-59	107.7	9.55	79.5	127	2,568	21,073	1,101,460	118	3,231
60-74	96.0	7.05	80.9	185	2,441	14,635	360,290	193	3,015
75-89	108.9	32.8	78.6	11	104	376	6,327	10	132
Total	103.4	5.39	211.0	368	18,348	75,056	4,914,598	356	8,695

* Shown in \$1,000 units.

TABLE 3C

CANADIAN STANDARD ORDINARY EXPERIENCE BETWEEN POLICY ANNIVERSARIES IN 1990 AND 1991
NONMEDICAL MALES—EXPECTED CIA 82-88 TABLES

Select Experience	Ratio A/E			Actual Deaths		Exposures		Expected Deaths	
	Number	S.D.	Amount	Number	Amount*	Number	Amount*	Number	Amount*
By Policy Year									
1	89.0	7.71	71.8	133	7,277	217,343	15,568,141	149	10,136
2	92.8	7.78	70.9	142	7,042	187,905	12,871,386	153	9,937
3	114.4	8.07	124.4	201	13,600	194,247	12,571,428	176	10,933
4	115.3	7.73	100.9	222	11,429	193,219	11,908,397	193	11,324
5	120.0	6.66	125.6	324	14,764	189,712	11,026,480	270	11,754
6-10	101.3	3.24	91.1	976	34,846	665,520	29,162,228	963	38,249
11-15	95.5	4.86	102.0	386	7,696	290,016	5,272,320	404	7,543
Total	103.3	2.11	96.8	2,384	96,654	1,937,962	98,380,381	2,308	99,876
By Issue Age									
0-4	92.3	11.1	86.8	68	1,480	263,478	5,947,544	74	1,706
5-29	94.3	3.76	86.8	627	24,741	880,869	40,412,530	665	28,509
30-44	101.6	3.41	97.8	884	47,627	671,342	46,730,214	870	48,682
45-59	103.3	4.45	108.1	538	18,961	112,157	5,005,143	521	17,543
60-74	150.7	9.32	113.1	261	3,757	9,999	281,932	173	3,322
75-89	114.8	46.8	76.4	6	88	117	3,017	5	115
Total	103.3	2.11	96.8	2,384	96,654	1,937,962	98,380,381	2,308	99,876

* Shown in \$1,000 units.

TABLE 3D
CANADIAN STANDARD ORDINARY EXPERIENCE BETWEEN POLICY ANNIVERSARIES IN 1990 AND 1991
NONMEDICAL FEMALES—EXPECTED CIA 82-88 TABLES

Select Experience	Ratio A/E			Actual Deaths		Exposures		Expected Deaths	
	Number	S.D.	Amount	Number	Amount ^a	Number	Amount ^a	Number	Amount ^a
By Policy Year									
1	110.2	13.1	87.7	70	2,829	182,199	10,856,480	64	3,226
2	86.8	11.1	62.9	61	2,121	157,122	8,891,350	70	3,370
3	92.7	10.5	75.9	77	2,793	162,968	8,522,192	83	3,678
4	84.9	9.49	86.9	80	3,301	160,052	7,692,030	94	3,800
5	107.9	9.49	87.1	129	3,314	153,221	6,776,629	120	3,806
6-10	94.9	4.38	76.6	468	9,211	539,331	16,725,219	493	12,022
11-15	98.0	6.63	92.8	218	2,435	226,730	2,916,405	223	2,623
Total	96.2	2.89	80.0	1,103	26,004	1,581,623	62,380,305	1,146	32,526
By Issue Age									
0-4	76.3	11.9	78.6	41	1,118	241,951	5,612,053	54	1,423
5-29	89.2	5.71	76.2	244	7,417	734,168	29,464,404	273	9,739
30-44	89.7	4.42	80.3	411	13,405	501,129	25,226,845	458	16,683
45-59	112.4	6.32	92.2	316	3,625	95,757	1,967,107	281	3,930
60-74	114.0	12.0	59.0	89	433	8,556	109,064	78	733
75-89	133.2	94.2	35.9	2	6	62	832	2	17
Total	96.2	2.89	80.0	1,103	26,004	1,581,623	62,380,305	1,146	32,526

* Shown in \$1,000 units.

TABLE 3E

CANADIAN STANDARD ORDINARY EXPERIENCE BETWEEN POLICY ANNIVERSARIES IN 1990 AND 1991
PARAMEDICAL MALES—EXPECTED CIA 82-88 TABLES

Select Experience	Ratio A/E			Actual Deaths		Exposures		Expected Deaths	
	Number	S.D.	Amount	Number	Amount*	Number	Amount*	Number	Amount*
By Policy Year									
1	94.4	12.2	82.4	59	5,150	39,255	7,088,786	62	6,248
2	85.5	10.6	55.1	65	4,127	37,502	6,467,238	76	7,492
3	100.4	11.0	69.9	83	5,289	32,021	5,019,818	83	7,570
4	103.5	11.0	109.8	87	7,351	26,873	3,651,436	84	6,696
5	85.6	9.88	67.5	75	3,765	22,627	2,475,756	88	5,576
6-10	82.7	3.89	76.3	450	18,164	97,593	7,495,339	544	23,821
11-15	92.6	6.06	87.2	233	5,942	51,864	1,998,577	252	6,814
Total	88.5	2.72	77.5	1,052	49,787	307,735	34,196,949	1,189	64,217
By Issue Age									
0-4	0.0	0	0.0	0	0	372	13,771	0	4
5-29	107.3	19.9	74.6	29	2,035	32,439	3,939,458	27	2,727
30-44	87.9	5.88	78.7	223	20,195	140,314	21,509,737	254	25,656
45-59	86.6	3.55	78.7	592	24,579	117,657	8,292,509	684	31,221
60-74	93.1	6.50	64.7	205	2,955	16,802	439,656	220	4,568
75-89	77.4	44.6	58.8	3	24	151	1,819	4	40
Total	88.5	2.72	77.5	1,052	49,787	307,735	34,196,949	1,189	64,127

* Shown in \$1,000 units.

TABLE 3F
CANADIAN STANDARD ORDINARY EXPERIENCE BETWEEN POLICY ANNIVERSARIES IN 1990 AND 1991
PARAMEDICAL FEMALES—EXPECTED CIA 82 88 TABLES

Select Experience	Ratio A/E			Actual Deaths		Exposures		Expected Deaths	
	Number	S.D.	Amount	Number	Amount*	Number	Amount*	Number	Amount*
By Policy Year									
1	137.0	27.9	164.3	24	1,440	17,740	1,920,963	13	876
2	76.2	17.4	49.2	19	621	15,824	1,718,021	25	1,262
3	103.7	19.9	87.0	27	991	12,855	1,165,840	26	1,139
4	78.1	17.4	36.6	20	372	10,342	789,315	26	1,017
5	109.5	19.9	100.5	30	855	8,777	511,839	27	851
6-10	79.3	6.52	77.2	148	2,796	37,897	1,467,999	187	3,624
11-15	84.0	9.76	81.0	74	929	18,055	399,880	88	1,147
Total	86.3	4.66	80.7	342	8,005	121,490	7,973,857	396	9,918
By Issuc Age									
0-4	0.0	0	0.0	0	0	292	12,270	0	3
5-29	93.9	41.9	112.8	5	432	12,554	1,203,906	5	383
30-44	81.8	12.9	92.9	40	3,091	40,398	4,457,267	49	3,328
45-59	87.1	6.38	70.0	186	3,351	53,377	2,086,082	214	4,789
60-74	87.3	8.36	80.7	109	1,122	14,683	212,790	125	1,390
75-89	57.2	40.4	40.5	2	10	186	1,543	3	25
Total	86.3	4.66	80.7	342	8,005	121,490	7,973,857	396	9,918

* Shown in \$1,000 units.

TABLE 4
 CANADIAN STANDARD ORDINARY EXPERIENCE
 COMPARISON OF RATIOS (A/F) BY AMOUNT—EXPECTED CIA 82-88 TABLES

Combined Data	Policy Year Grouping	Policy Year				
		1986-87	1987-88	1988-89	1989-90	1990-91
Male and Female	Select and Ultimate	99.7	93.2	86.6	85.9	88.9
Male	Select and Ultimate	100.3	92.6	86.4	84.6	86.8
Female	Select and Ultimate	95.4	95.9	87.9	94.4	102.1
Male and Female	Select	100.8	90.9	82.3	82.7	87.5
Male	Select	101.5	90.0	81.1	80.2	84.3
Female	Select	97.0	96.4	88.5	96.0	103.0
Male and Female	Ultimate	98.1	96.5	94.0	92.1	92.0
Male	Ultimate	98.8	96.3	94.6	92.5	91.5
Female	Ultimate	91.0	94.3	85.9	87.8	97.8
Medical Male	Select	102.4	83.7	76.3	71.9	75.3
Nonmedical Male	Select	106.3	103.1	84.8	87.4	96.8
Paramedical Male	Select	90.2	77.9	83.2	81.0	77.5
Medical Female	Select	106.2	84.2	76.0	86.9	211.0
Nonmedical Female	Select	92.8	91.5	93.2	99.1	80.0
Paramedical Female	Select	103.0	129.3	87.9	94.8	80.7

TABLE 5
 1990-1991 EXPERIENCE RATIO BY DEPARTURE
 FROM INTERCOMPANY EXPERIENCE RATIO BY AMOUNT
 EXPECTED CIA 82-88 TABLES

Percentage Departure	Number of Companies	Actual Claims ^a	Percentage of Claims
Within 5%	2	70,258	17.7
5% to 10%	6	125,527	31.6
10% to 15%	2	7,260	1.8
15% to 20%	3	73,863	18.6
20% and over	5	120,224	30.3
	18	397,132	100.0

* Shown in \$1,000 units.

TABLE 6
CANADIAN STANDARD ORDINARY EXPERIENCE BETWEEN POLICY ANNIVERSARIES IN 1990 AND 1991
EXPECTED CIA 82-88 TABLES

Select Experience	Ratio A/E			Actual Deaths		Exposures		Expected Deaths	
	Number	S.D.	Amount	Number	Amount*	Number	Amount*	Number	Amount*
Medical Males									
By Policy Year									
1-5	83.0	5.86	60.0	200	21,539	77,862	18,991,536	241	35,897
6-15	91.9	3.41	85.7	725	45,067	118,755	12,305,999	788	52,579
Total	89.9	2.95	75.3	925	66,605	196,617	31,297,535	1,029	88,476
By Issue Age									
0-29	104.1	20.0	112.4	27	2,463	31,362	2,951,532	26	2,191
30-54	90.5	4.34	72.5	433	41,301	132,484	25,365,808	479	56,956
55-89	88.6	4.10	77.9	465	22,842	32,771	2,980,195	525	29,328
Total	89.9	2.95	75.3	925	66,605	196,617	31,297,535	1,029	88,476
Nonmedical Males									
By Policy Year									
1-5	108.6	3.39	100.1	1,022	54,112	982,426	63,945,832	941	54,084
6-15	99.6	2.69	92.9	1,362	42,542	955,536	34,434,548	1,367	45,792
Total	103.3	2.11	96.8	2,384	96,654	1,937,962	98,380,381	2,308	99,876
By Issue Age									
0-29	94.1	3.56	86.8	695	26,221	1,144,347	46,360,074	739	30,216
30-54	101.2	2.82	94.9	1,282	59,113	768,866	51,141,284	1,266	62,264
55-89	134.3	6.65	153.0	407	11,320	24,749	879,022	303	7,397
Total	103.3	2.11	96.8	2,384	96,654	1,937,962	98,380,381	2,308	99,876
Paramedical Males									
By Policy Year									
1-5	93.9	4.89	76.5	369	25,682	158,278	24,703,034	393	33,582
6-15	85.8	3.28	78.7	683	24,106	149,457	9,493,916	796	30,635
Total	88.5	2.72	77.5	1,052	49,787	307,735	34,196,949	1,189	64,217
By Issue Age									
0-29	106.9	19.8	74.5	29	2,035	32,811	3,953,229	27	2,732
30-54	86.2	3.52	78.8	598	38,548	230,297	28,627,250	694	48,891
55-89	90.8	4.40	73.1	425	9,204	44,627	1,616,471	468	12,594
Total	88.5	2.72	77.5	1,052	49,787	307,735	34,196,949	1,189	64,217

* Shown in \$1,000 units.

TABLE 6—Continued

Select Experience	Ratio A/E			Actual Deaths		Exposures		Expected Deaths	
	Number	S.D.	Amount	Number	Amount ^a	Number	Amount ^a	Number	Amount ^a
Medical Females									
By Policy Year									
1-5	93.9	10.1	84.7	85	3,455	34,710	3,435,635	90	4,080
6-15	106.7	6.33	322.7	283	14,893	40,346	1,478,963	265	4,615
Total	103.4	5.39	211.0	368	18,348	75,056	4,914,598	356	8,695
By Issue Age									
0-29	128.4	42.8	70.0	9	276	17,246	1,175,599	7	394
30-54	103.4	10.4	358.4	97	14,207	36,285	3,110,912	94	3,964
55-89	102.7	6.34	89.1	262	3,865	21,525	628,087	255	4,337
Total	103.4	5.39	211.0	368	18,348	75,056	4,914,598	356	8,695
Nonmedical Females									
By Policy Year									
1-5	96.8	4.74	80.3	417	14,359	815,562	42,738,680	431	17,880
6-15	95.9	3.66	79.5	686	11,646	766,061	19,641,624	716	14,645
Total	96.2	2.89	80.0	1,103	26,004	1,581,623	62,380,305	1,146	32,526
By Issue Age									
0-29	87.1	5.16	76.5	285	8,536	976,119	35,076,457	327	11,162
30-54	92.9	3.72	81.2	622	16,192	583,123	27,015,941	670	19,930
55-89	131.2	9.37	89.1	196	1,277	22,381	287,908	149	1,433
Total	96.2	2.89	80.0	1,103	26,004	1,581,623	62,380,305	1,146	32,526
Paramedical Females									
By Policy Year									
1-5	98.8	9.01	83.2	120	4,280	65,538	6,105,978	121	5,146
6-15	80.8	5.42	78.1	222	3,725	55,952	1,867,878	275	4,772
Total	86.3	4.66	80.7	342	8,005	121,490	7,973,857	396	9,918
By Issue Age									
0-29	92.9	41.5	111.9	5	432	12,846	1,216,175	5	386
30-54	84.1	6.98	82.7	145	5,529	77,801	6,178,098	172	6,689
55-89	87.9	6.34	71.9	192	2,044	30,843	579,584	218	2,842
Total	86.3	4.66	80.7	342	8,005	121,490	7,973,857	396	9,918

* Shown in \$1,000 units.

TABLE 6C

CANADIAN STANDARD ORDINARY EXPERIENCE BETWEEN POLICY ANNIVERSARIES IN 1990 AND 1991
ALL EVIDENCE CODES COMBINED—EXPECTED CIA 82-88 TABLES

	Ratio A/E			Actual Deaths		Exposures		Expected Deaths	
	Number	S.D.	Amount	Number	Amount*	Number	Amount*	Number	Amount*
Males Only									
Ultimate Experience By Attained Age									
15-44	119.2	4.48	101.8	705	5,588	483,272	4,237,018	592	5,491
45-69	92.1	1.02	88.3	8,059	57,749	852,689	7,324,520	8,754	65,372
70-99	97.6	0.829	94.0	13,851	57,138	234,763	1,079,907	14,194	60,763
Total	96.1	0.638	91.5	22,615	120,476	1,570,724	12,641,445	23,539	131,627
Females Only									
Ultimate Experience By Attained Age									
15-44	105.5	7.31	127.0	208	1,257	276,465	1,384,376	197	990
45-69	88.2	2.31	86.7	1,447	4,025	251,287	868,537	1,641	4,645
70-99	93.1	1.75	102.2	2,811	5,201	75,929	131,916	3,020	5,090
Total	91.9	1.37	97.8	4,466	10,484	603,681	2,384,829	4,859	10,725
Males and Females Combined									
Ultimate Experience By Attained Age									
15-44	115.7	3.83	105.6	913	6,845	759,743	5,621,422	789	6,481
45-69	91.5	0.937	88.2	9,507	61,780	1,103,979	8,193,068	10,395	70,018
70-99	96.8	0.749	94.7	16,662	62,340	310,694	1,211,833	17,214	65,853
Total	95.4	0.579	92.0	27,082	130,965	2,174,416	15,026,324	28,398	142,352
Select Experience By Policy Year									
1-5	99.8	2.11	82.1	2,220	124,189	2,140,818	160,453,635	2,224	151,206
6-15	94.1	1.49	92.7	3,961	141,978	2,086,467	79,246,349	4,208	153,083
Total	96.1	1.22	87.5	6,181	266,167	4,227,285	239,699,985	6,432	304,289
Select Experience By Issue Age									
0-29	92.8	2.86	84.8	1,051	40,013	2,217,504	90,924,181	1,133	47,180
30-54	94.2	1.66	88.2	3,183	175,601	1,832,647	141,792,572	3,379	199,097
55-89	101.4	2.29	87.1	1,947	50,553	177,134	6,983,232	1,920	58,012
Total	96.1	1.22	87.5	6,181	266,167	4,227,285	239,699,985	6,432	304,289

* 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 1990-1991
 POLICY YEARS 01-05
 (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) ^a		Malignant Neoplasms (18-33) ^a		Diabetes Mellitus (37) ^a		Nervous System and Mental Diseases			
							Vascular Lesions (53) ^a		Other (41, 43-47) ^a	
00-09	150	2.7	1,164	21.1	0	0.0	98	1.8	70	1.3
10-19	0	0.0	302	7.2	0	0.0	50	1.2	93	2.2
20-29	25	0.2	2,074	14.4	0	0.0	204	1.4	99	0.7
30-39	111	0.4	5,517	18.1	92	0.3	575	1.9	690	2.3
40-49	25	0.1	9,997	32.2	0	0.0	597	1.9	70	0.2
50-89	95	0.3	16,242	54.6	26	0.1	521	1.8	278	0.9
Total	406	0.4	35,297	30.6	118	0.1	2,045	1.8	1,301	1.1
	Diseases of the Heart and Circulatory System				Respiratory Diseases		Diseases of the Digestive System			
	Arteriosclerotic and Degenerative Heart Disease (50) ^a		Hypertensive and Rheumatic, etc. (49, 51, 52, 54, 55) ^a		Pneumonia and Influenza, etc. (56-63) ^a		Cirrhosis of the Liver (70) ^a		Other (64-69, 71-72) ^a	
00-09	71	1.3	683	12.4	0	0.0	12	0.2	983	17.9
10-19	201	4.8	13	0.3	0	0.0	0	0.0	0	0.0
20-29	670	4.7	487	3.4	47	0.3	0	0.0	0	0.0
30-39	3,322	10.9	1,627	5.3	340	1.1	170	0.6	261	0.9
40-49	4,255	13.7	2,307	7.4	293	0.9	237	0.8	741	2.4
50-89	3,472	11.7	1,898	6.4	544	1.8	98	0.3	268	0.9
Total	11,990	10.4	7,015	6.1	1,224	1.1	517	0.4	2,252	2.0

TABLE 7A—Continued

Age at Issue	Amount		Percentage		Amount		Percentage		Amount		Percentage	
	Genite-Urinary Diseases (Nephritis, etc.) (73-77)*		Motor Vehicle Accidents (88) ^b		Other Accidents & Homicides (89-91, 93-96, 98)*		All Other Diseases					
							Suicides (97)*		Unknown Causes (Other Codes**) ^b			
00-09	0	0.0	428	7.8	1,115	20.3	75	1.4	655	11.9		
10-19	100	2.4	1,707	40.5	560	13.3	461	10.9	735	17.4		
20-29	0	0.0	3,274	22.8	2,486	17.3	2,961	20.6	2,054	14.3		
30-39	16	0.1	5,986	19.6	2,457	8.1	3,125	10.3	6,182	20.3		
40-49	0	0.0	3,926	12.6	2,427	7.8	1,090	3.5	5,104	16.4		
50-89	37	0.1	655	2.2	316	1.1	878	2.9	4,429	14.9		
Total	152	0.1	15,975	13.8	9,360	8.1	8,590	7.4	19,157	16.6		
	AIDS (02)*											
00-09	148	2.7										
10-19	0	0.0										
20-29	347	2.4										
30-39	742	2.4										
40-49	423	1.4										
50-89	851	2.9										
Total	2,511	2.2										

* 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 1990-1991
 POLICY YEARS 06-15
 (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)*	
00-09	21	0.7	1,054	36.2	0	0.0	17	0.6	129	4.4
10-19	64	3.2	272	13.6	35	1.7	25	1.3	23	1.1
20-29	75	0.7	1,791	15.6	91	0.8	276	2.4	108	0.9
30-39	170	0.5	12,269	35.4	85	0.2	481	1.4	592	1.7
40-49	366	0.8	12,011	27.8	50	0.1	472	1.1	807	1.9
50-89	175	0.5	14,237	42.8	61	0.2	1,190	3.6	456	1.4
Total	871	0.7	41,634	32.7	322	0.3	2,462	1.9	2,114	1.7
	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)*	
00-09	5	0.2	307	10.5	32	1.1	25	0.9	50	1.7
10-19	48	2.4	110	5.5	146	7.3	0	0.0	10	0.5
20-29	894	7.8	988	8.6	118	1.0	0	0.0	100	0.9
30-39	2,847	8.2	4,866	14.0	901	2.6	335	1.0	534	1.5
40-49	2,738	6.3	4,259	9.9	10,592	24.5	897	2.1	182	0.4
50-89	5,394	16.2	4,464	13.4	804	2.4	223	0.7	143	0.4
Total	11,926	9.4	14,995	11.8	12,593	9.9	1,479	1.2	1,019	0.8

TABLE 7B—Continued

Age at Issue	Amount	Percentage	Amount	Percentage	Amount	Percentage	Amount	Percentage	Amount	Percentage
	Genito-Urinary Diseases		Motor Vehicle Accidents (88)*		Other Accidents & Homicides (89-91, 93-96, 98)*		All Other Diseases			
	(Nephritis, etc.) (73-77)*						Suicides (97)*		Unknown Causes (Other Codes)**)*	
00-09	40	1.4	269	9.2	544	18.7	250	8.6	169	5.8
10-19	10	0.5	391	19.5	388	19.4	190	9.5	291	14.5
20-29	138	1.2	1,342	11.7	2,217	19.3	1,373	12.0	1,952	17.0
30-39	6	0.0	2,250	6.5	1,987	5.7	1,941	5.6	5,412	15.6
40-49	73	0.2	951	2.2	1,573	3.6	665	1.5	7,562	17.5
50-89	251	0.8	394	1.2	244	0.7	125	0.4	5,099	15.3
Total	519	0.4	5,596	4.4	6,954	5.5	4,544	3.6	20,487	16.1
	AIDS (02)*									
00-09	0	0.0								
10-19	62	3.1								
20-29	837	7.3								
30-39	924	2.7								
40-49	291	0.7								
50-89	540	1.6								
Total	2,653	2.1								

* 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 1990-1991
 POLICY YEARS 16+
 (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) ^a		Malignant Neoplasms (18-33) ^b		Diabetes Mellitus (37) ^c		Nervous System and Mental Diseases			
							Vascular Lesions (53) ^d		Other (41, 43-47) ^e	
15-19	28	9.1	41	13.3	0	0.0	0	0.0	15	4.9
20-29	0	0.0	103	11.7	16	1.8	4	0.4	28	3.2
30-39	31	1.5	503	23.8	23	1.1	87	4.1	44	2.1
40-49	142	2.0	2,417	33.9	31	0.4	146	2.0	66	0.9
50-59	158	0.9	5,812	31.6	81	0.4	545	3.0	321	1.7
60-69	571	1.8	11,838	37.6	153	0.5	1,001	3.2	444	1.4
70-99	1,125	2.0	12,837	23.3	154	0.3	3,121	5.7	1,969	3.6
Total	2,056	1.8	33,551	29.1	458	0.4	4,903	4.2	2,887	2.5
	Diseases of the Heart and Circulatory System				Respiratory Diseases		Diseases of the Digestive System			
	Arteriosclerotic and Degenerative Heart Disease (50) ^f		Hypertensive and Rheumatic, etc. (49, 51, 52, 54, 55) ^g		Pneumonia and Influenza, etc. (56-63) ^h		Cirrhosis of the Liver (70) ⁱ		Other (64-69, 71-72) ^j	
15-19	5	1.6	0	0.0	0	0.0	0	0.0	0	0.0
20-29	32	3.6	48	5.4	43	4.9	0	0.0	7	0.8
30-39	170	8.1	90	4.2	26	1.2	2	0.1	33	1.6
40-49	967	13.5	805	11.3	178	2.5	64	0.9	164	2.3
50-59	2,516	13.7	2,691	14.6	560	3.0	176	1.0	178	1.0
60-69	4,712	15.0	4,943	15.7	1,257	4.0	171	0.5	470	1.5
70-99	7,433	13.5	9,734	17.6	4,739	8.6	113	0.2	509	0.9
Total	15,834	13.7	18,310	15.9	6,802	5.9	525	0.5	1,361	1.2

TABLE 7C—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 & Homicides (89-91, 93-96, 98)*		All Other Diseases			
							Suicides (97)*		Unknown Causes (Other Codes**)*	
15-19	0	0.0	108	35.0	69	22.4	12	3.7	31	10.0
20-29	0	0.0	169	19.2	90	10.2	162	18.3	181	20.5
30-39	3	0.1	339	16.1	157	7.5	195	9.3	406	19.2
40-49	8	0.1	203	2.8	387	5.4	410	5.7	1,151	16.1
50-59	105	0.6	161	0.9	901	4.9	208	1.1	3,958	21.5
60-69	468	1.5	195	0.6	326	1.0	109	0.3	4,827	15.3
70-99	596	1.1	188	0.3	193	0.3	59	0.1	12,419	22.5
Total	1,180	1.0	1,364	1.2	2,124	1.8	1,154	1.0	22,972	19.9
	AIDS (02)*									
15-19	0	0.0								
20-29	12	1.4								
30-39	167	7.9								
40-49	231	3.2								
50-59	415	2.3								
60-69	408	1.3								
70-99	479	0.9								
Total	1,712	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 1990 AND 1991
EXPECTED CIA 82-88 TABLES

Select Experience	Ratio A/E			Actual Deaths		Exposures		Expected Deaths	
	Number	S.D.	Amount	Number	Amount ^b	Number	Amount ^c	Number	Amount [*]
Male Smokers									
By Policy Year									
1	80.7	10.7	86.4	56	4,986	69,453	5,797,829	69	5,771
2	102.3	11.0	54.2	85	3,520	61,244	4,859,153	83	6,499
3	119.5	11.1	83.5	114	5,657	59,324	4,336,783	95	6,778
4	125.5	11.0	133.1	129	8,816	53,565	3,588,834	103	6,623
5	122.4	8.38	89.0	213	6,080	54,711	3,215,950	174	6,830
6-10	90.8	4.07	88.8	495	21,239	177,935	8,137,811	545	23,917
11-15	95.1	21.2	60.4	20	624	5,539	217,331	21	1,033
Total	101.9	3.05	88.6	1,112	50,921	481,771	30,153,691	1,091	57,452
By Issue Age									
0-4	132.6	28.9	94.8	21	412	57,453	1,444,271	16	435
5-14	87.3	21.8	61.5	16	285	41,284	1,173,632	18	463
15-24	130.7	14.3	105.4	83	2,806	66,799	2,909,587	63	2,663
25-34	94.2	7.61	89.7	153	11,183	152,395	12,327,055	162	12,469
35-44	99.8	6.49	88.6	236	15,907	103,986	9,023,588	237	17,961
45-54	87.7	5.54	83.6	250	12,614	42,414	2,670,921	285	15,091
55-64	104.4	6.91	94.1	228	6,778	14,322	559,309	218	7,203
65-89	137.1	12.2	80.1	125	936	3,118	45,329	91	1,168
Total	101.9	3.05	88.6	1,112	50,921	481,771	30,153,691	1,091	57,452

* Shown in \$1,000 units.

TABLE 8—Continued

Select Experience	Ratio A/E			Actual Deaths		Exposures		Expected Deaths	
	Number	S.D.	Amount	Number	Amount*	Number	Amount*	Number	Amount*
Male Nonsmokers									
By Policy Year									
1	77.1	9.21	68.0	70	8,057	117,262	16,545,999	91	11,842
2	90.0	8.95	73.3	101	10,181	109,551	14,673,011	112	13,892
3	95.2	8.38	78.3	129	12,073	113,670	13,427,153	135	15,423
4	96.4	7.84	73.4	151	11,620	114,991	12,298,137	157	15,828
5	86.5	7.20	85.9	144	13,201	108,526	10,577,891	167	15,368
6-10	77.6	3.29	78.4	555	42,830	339,928	27,376,894	715	54,608
11-15	98.5	17.6	107.5	31	2,868	9,977	856,820	31	2,668
Total	83.8	2.43	77.8	1,181	100,830	913,905	95,755,906	1,409	129,630
By Issue Age									
0-4	150.8	50.2	160.2	9	255	23,647	592,315	6	159
5-14	81.8	30.9	85.9	7	182	17,433	479,015	9	212
15-24	108.3	10.7	104.6	102	5,794	133,072	8,030,710	94	5,539
25-34	82.3	6.34	77.4	168	16,801	318,142	34,941,069	204	21,696
35-44	91.8	5.61	88.1	267	31,472	253,217	33,925,083	291	35,734
45-54	75.7	4.54	59.6	277	22,268	118,797	13,850,716	366	37,336
55-64	78.5	4.90	84.3	256	20,137	42,753	3,618,641	326	23,892
65-89	84.4	8.65	77.4	95	3,920	6,844	318,356	113	5,062
Total	83.8	2.43	77.8	1,181	100,830	913,905	95,755,906	1,409	129,630

* Shown in \$1,000 units.

TABLE 8—Continued

Select Experience	Ratio A/E			Actual Deaths		Exposures		Expected Deaths	
	Number	S.D.	Amount	Number	Amount ^a	Number	Amount ^a	Number	Amount ^a
Male Unclassified									
By Policy Year									
1	97.7	11.2	62.4	76	2,418	87,076	4,894,680	78	3,875
2	73.8	10.3	55.0	51	2,142	69,707	4,150,176	69	3,891
3	104.3	11.8	126.2	77	4,911	69,272	3,598,022	74	3,891
4	114.7	11.8	105.0	94	3,901	68,368	3,216,176	82	3,715
5	116.5	11.3	109.7	105	4,127	65,570	2,822,896	90	3,762
6-10	112.4	4.08	100.5	756	20,283	309,209	10,375,551	673	20,179
11-15	94.5	3.12	89.6	913	23,871	318,384	9,287,848	966	26,640
Total	102.0	2.24	93.5	2,072	61,653	1,050,586	38,345,349	2,032	65,953
By Issue Age									
0-4	75.6	11.9	72.4	40	835	186,038	4,038,038	53	1,153
5-14	92.5	12.1	76.9	58	1,048	104,189	2,798,279	63	1,363
15-24	86.6	7.26	84.2	142	3,600	194,190	5,215,205	164	4,278
25-34	103.5	5.79	91.7	319	11,353	288,313	12,818,752	308	12,379
35-44	101.8	4.97	101.7	418	18,009	168,093	9,214,935	411	17,704
45-54	103.7	4.62	89.4	502	15,212	74,524	3,317,942	484	17,019
55-64	106.6	5.22	104.7	416	9,854	28,790	822,699	390	9,409
65-89	111.5	8.38	65.8	177	1,741	6,449	119,498	159	2,647
Total	102.0	2.24	93.5	2,072	61,653	1,050,586	38,345,349	2,032	65,953

^a Shown in \$1,000 units.

TABLE 8—Continued

Select Experience	Ratio A/E			Actual Deaths		Exposures		Expected Deaths	
	Number	S.D.	Amount	Number	Amount*	Number	Amount*	Number	Amount*
Female Smokers									
By Policy Year									
1	113.6	21.4	86.6	28	1,157	51,317	3,183,030	25	1,336
2	61.0	14.0	37.8	19	592	44,271	2,566,070	31	1,568
3	105.5	16.8	153.6	39	2,467	43,708	2,307,012	37	1,606
4	79.9	14.1	63.1	32	949	38,632	1,806,686	40	1,503
5	108.6	13.3	81.9	66	1,298	38,754	1,611,958	61	1,586
6-10	88.4	6.51	74.1	184	3,575	127,491	3,691,248	208	4,825
11-15	78.8	39.3	57.8	4	75	3,018	64,873	5	130
Total	91.5	4.74	80.6	372	10,113	347,191	15,230,876	407	12,554
By Issue Age									
0-4	52.6	19.8	73.2	7	288	52,740	1,372,885	13	394
5-14	163.2	47.0	168.0	12	332	36,932	1,061,542	7	198
15-24	69.0	16.7	72.3	17	708	65,276	2,789,036	25	978
25-34	65.8	10.0	59.7	43	2,116	101,065	6,221,024	65	3,543
35-44	76.3	9.32	88.0	67	3,235	56,729	2,912,746	88	3,676
45-54	103.0	10.5	100.4	96	2,150	23,348	674,921	93	2,142
55-64	107.9	11.5	73.1	87	887	9,065	170,649	81	1,213
65-89	125.1	19.0	96.9	43	398	2,036	28,073	34	410
Total	91.5	4.74	80.6	372	10,113	347,191	15,230,876	407	12,554

* Shown in \$1,000 units.

TABLE 8—Continued

Select Experience	Ratio A/E			Actual Deaths		Exposures		Expected Deaths	
	Number	S.D.	Amount	Number	Amount ^c	Number	Amount ^c	Number	Amount ^d
Female Nonsmokers									
By Policy Year									
1	121.5	19.9	105.4	37	2,451	84,776	7,880,976	30	2,325
2	78.6	13.6	58.7	33	1,707	75,606	6,520,674	42	2,909
3	77.8	12.3	61.1	40	1,911	79,967	5,972,717	51	3,128
4	85.6	11.8	80.9	52	2,637	79,401	5,372,695	61	3,262
5	84.1	11.5	73.7	53	2,244	71,311	4,427,361	63	3,044
6-10	82.0	5.62	79.6	213	7,324	220,110	10,119,787	260	9,201
11-15	48.7	28.1	50.1	3	141	4,214	218,878	6	280
Total	84.0	4.04	76.3	431	18,415	615,385	40,513,088	513	24,150
By Issue Age									
0-4	158.0	55.8	117.1	8	165	22,384	559,766	5	141
5-14	124.0	61.9	88.0	4	70	15,825	414,697	3	80
15-24	87.7	16.8	78.7	27	1,270	112,280	6,124,416	31	1,614
25-34	81.6	9.61	71.8	72	4,751	226,809	18,515,821	88	6,619
35-44	105.1	9.76	104.4	116	7,445	147,522	11,054,450	110	7,129
45-54	71.3	8.22	51.0	75	2,116	59,749	2,869,451	105	4,148
55-64	70.1	7.98	43.8	77	1,291	24,563	803,034	110	2,944
65-89	85.9	11.9	88.5	52	1,307	6,253	171,453	61	1,476
Total	84.0	4.04	76.3	431	18,415	615,385	40,513,088	513	24,150

* Shown in \$1,000 units.

TABLE 8—Continued

Select Experience	Ratio A/E			Actual Deaths		Exposures		Expected Deaths	
	Number	S.D.	Amount	Number	Amount*	Number	Amount*	Number	Amount*
Female Unclassified									
By Policy Year									
1	113.2	18.3	99.5	38	1,007	72,274	2,763,320	34	1,012
2	111.4	18.0	95.7	38	981	59,834	2,347,082	34	1,025
3	102.4	16.3	83.6	39	812	60,192	2,084,215	38	972
4	101.3	15.1	90.5	45	881	60,035	1,894,604	44	974
5	123.6	15.2	146.1	66	1,405	58,443	1,711,729	53	962
6-10	109.6	5.57	94.6	387	4,547	251,568	5,466,363	353	4,808
11-15	94.4	4.71	304.7	400	14,601	256,082	3,432,008	424	4,792
Total	103.3	3.24	166.6	1,013	24,235	818,428	19,699,321	980	14,544
By Issuic Age									
0-4	75.2	14.4	75.4	27	690	169,800	3,783,175	36	915
5-14	47.8	15.1	36.2	10	183	92,033	2,530,713	21	504
15-24	97.0	12.1	105.1	64	1,313	157,437	3,352,361	66	1,250
25-34	90.7	7.92	76.0	131	2,627	204,058	5,931,154	144	3,456
35-44	106.6	7.85	402.8	184	13,911	111,052	2,957,779	173	3,453
45-54	101.7	7.08	92.7	206	2,206	51,110	818,334	203	2,381
55-64	124.8	7.62	135.7	268	2,301	25,291	261,058	215	1,696
65-89	99.9	9.00	112.8	123	1,004	7,647	64,747	123	890
Total	103.3	3.24	166.6	1,013	24,235	818,428	19,699,321	980	14,544

* Shown in \$1,000 units.

TABLE 9

CANADIAN STANDARD ORDINARY EXPERIENCE BETWEEN POLICY ANNIVERSARIES IN 1990 AND 1991
 MALES AND FEMALES COMBINED EXPECTED CIA 82-88 TABLES

Select Experience	Ratio A/E			Actual Deaths		Exposures		Expected Deaths	
	Number	S.D.	Amount	Number	Amount ^a	Number	Amount ^a	Number	Amount ^a
Permanent									
By Policy Year									
1-5	105.0	2.54	87.9	1,705	58,229	1,577,643	75,535,075	1,624	66,274
6-15	96.4	1.64	101.0	3,452	87,009	1,809,264	46,719,887	3,581	86,120
Total	99.1	1.37	95.3	5,157	145,237	3,386,907	122,254,962	5,205	152,394
By Issue Age									
0-29	95.5	3.08	87.2	957	27,433	1,972,768	62,597,054	1,002	31,447
30-54	96.7	1.95	101.1	2,444	86,416	1,269,313	55,940,445	2,528	85,514
55-89	104.8	2.50	88.6	1,756	31,388	144,826	3,717,463	1,675	35,433
Total	99.1	1.37	95.3	5,157	145,237	3,386,907	122,254,962	5,205	152,394
Term									
By Policy Year									
1-5	77.8	4.43	74.4	308	46,192	387,017	59,812,180	396	62,113
6-15	78.9	3.98	83.8	393	39,369	233,092	21,672,283	498	47,006
Total	78.4	2.96	78.4	701	85,562	620,109	81,484,463	894	109,119
By Issue Age									
0-29	73.4	8.97	87.1	67	7,544	153,520	15,248,399	91	8,656
30-54	81.9	3.45	77.2	562	66,541	450,615	64,065,288	686	86,247
55-89	61.9	7.29	80.7	72	11,477	15,974	2,170,776	116	14,215
Total	78.4	2.96	78.4	701	85,562	620,109	81,484,463	894	109,119
Other									
By Policy Year									
1-5	74.6	11.9	66.4	39	976	82,010	2,307,544	52	1,469
6-15	114.6	26.2	110.4	19	407	12,312	302,020	17	369
Total	84.2	11.0	75.2	58	1,383	94,322	2,609,563	69	1,838
By Issue Age									
0-29	68.0	17.0	58.6	16	394	59,618	1,606,685	24	673
30-54	99.8	15.4	89.3	42	989	34,134	993,127	42	1,108
55-89	0.0	0	0	0	0	570	9,751	3	58
Total	84.2	11.0	75.2	58	1,383	94,322	2,609,563	69	1,838

* Shown in \$1,000 units.

TABLE 9—Continued

Select Experience	Ratio A/E			Actual Deaths		Exposures		Expected Deaths	
	Number	S.D.	Amount	Number	Amount*	Number	Amount*	Number	Amount*
Term Rider									
By Policy Year									
1-5	0.0	0	61.5	0	6,536	0	13,928,032	0	10,634
6-15	0.0	0	80.3	0	9,713	0	7,931,953	0	12,095
Total	0.0	0	71.5	0	16,249	0	21,859,985	0	22,730
By Issue Age									
0-29	0.0	0	73.6	0	3,627	0	8,524,726	0	4,928
30-54	0.0	0	74.5	0	11,939	0	13,093,116	0	16,017
55-89	0.0	0	38.2	0	683	0	242,143	0	1,785
Total	0.0	0	71.5	0	16,249	0	21,859,985	0	22,730
Permanent Term									
By Policy Year									
1-5	110.0	8.48	114.4	168	12,256	94,148	8,870,805	153	10,715
6-15	86.6	8.79	73.1	97	5,480	31,799	2,620,207	112	7,494
Total	100.1	6.14	97.4	265	17,736	125,947	11,491,011	265	18,209
By Issue Age									
0-29	68.3	20.5	68.8	11	1,015	31,598	2,947,316	16	1,476
30-54	109.5	9.42	95.1	135	9,716	78,585	7,700,596	123	10,212
55-89	94.9	8.69	107.4	119	7,005	15,764	843,099	125	6,521
Total	100.1	6.14	97.4	265	17,736	125,947	11,491,011	265	18,209

* Shown in \$1,000 units.

TABLE 9 *Continued*

Ultimate Date:	Ratio A/E			Actual Deaths		Exposures		Expected Deaths	
	Number	S.D.	Amount	Number	Amount ^a	Number	Amount ^a	Number	Amount ^a
Unknown									
By Attained Age									
45-69	0.0	0	0.0	0	0	2	1	0	0
Total	0.0	0	0.0	0	0	2	1	0	0
Permanent									
By Attained Age									
15-44	114.9	3.85	106.1	889	5,832	749,135	4,939,966	773	5,498
45-69	91.8	0.952	90.8	9,297	56,012	1,064,380	6,807,831	10,128	61,659
70-99	96.8	0.750	94.7	16,644	61,919	310,199	1,199,581	17,193	65,360
Total	95.5	0.583	93.4	26,830	123,764	2,123,714	12,947,378	28,095	132,517
Term									
By Attained Age									
15-44	143.4	34.7	94.7	17	303	7,642	200,073	12	320
45-69	75.6	6.34	75.9	142	3,130	30,192	702,523	188	4,123
70-99	93.6	54.0	110.6	3	45	73	1,098	3	41
Total	79.9	6.27	77.6	162	3,478	37,907	903,693	203	4,484

* Shown in \$1,000 units.