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**MINIMUM PREMIUMS PROMULGATED BY NEW YORK  
FOR GROUP LIFE INSURANCE ISSUED  
IN CANADA—ACTUARIAL NOTE**

MORTON D. MILLER

**T**HIS actuarial note is in the nature of an addendum to the paper describing the development of the Commissioners 1960 Standard Group Mortality Table and the 1961 Standard Group Life Insurance Premium Rates based thereon (*TSA*, XIII, 586).

The Commissioners' Industry Advisory and Technicians' committees, which carried out the earlier work, directed their attention to business written in the United States without any consideration of the effect of the application of the table and the resultant scale of minimum premiums to group life insurance written in Canada. On representation that the 1961 scale of premium rates was at too high a level for Canadian business, the New York State Insurance Department, early in 1964, appointed an advisory committee to study the question and to recommend a modification in the 1961 scale for application to Canadian policies if they felt it was appropriate. The membership of the committee was as follows:

**DEPARTMENTAL ADVISORY COMMITTEE**

Morton D. Miller, *Chairman*  
Robert D. Carpenter  
Donald D. Cody  
Stanley W. Gingery  
Edward A. Green  
Harold F. LaCroix, Jr.  
Daniel W. Pettengill  
William S. Thomas

Mortality levels under Canadian group life insurance policies were not directly available, although the Canadian Association of Actuaries now has plans to accumulate the experience under such policies in much the same way as the Group Mortality Committee of the Society of Actuaries does for United States business. In the absence of experience data, the advisory committee felt that it was in order to look to population tables as a means of measuring the differences in group mortality between the two countries, since group insurance covers such a broad cross-section of

individuals. In fact, a population-table approach had been given some consideration in the development of the 1960 CSG table itself.

The population mortality of United States males was compared with that of Canadian males for the year 1960, the year associated with the CSG table. Male tables were chosen because group life insurance is so predominantly on male employees.

The results of the comparison are shown in Table 1.

TABLE 1  
DEATH RATES IN 1960  
(Per 1,000)

Age	United States Males	Canadian Males	Ratio
15 to 19	1.3	1.3	1.00
20 to 24	1.8	1.5	0.83
25 to 29	1.7	1.5	0.88
30 to 34	2.0	1.6	0.80
35 to 39	2.9	2.4	0.83
40 to 44	4.6	3.3	0.72
45 to 49	7.6	6.0	0.79
50 to 54	12.5	9.4	0.75
55 to 59	18.5	15.5	0.84
60 to 64	28.6	24.3	0.85
65 to 69	41.4	35.7	0.86
70 to 74	59.5	55.1	0.93
75 to 79	86.2	83.6	0.97
80 to 84	133.7	131.6	0.98
85 and over	211.9	237.8	1.12

Source—United States: Division of Vital Statistics, National Center for Health Statistics, United States Public Health Service; Canada: Dominion Bureau of Statistics.

It will be seen that the mortality of Canadian males runs from 80 to 88 per cent of that of United States males at the significant ages below 40, to a low of 72 per cent for the age group 40 to 45, and then rises gradually to approach United States mortality at ages 75 and over.

The advisory committee felt that it would be in order to retain without change the loading formula in the 1961 scale of premium rates, including the policy constant on the first \$40,000 of insurance and the scale of advance expense adjustments depending on premium size, since operating costs in Canada are much the same as in the United States. Accordingly, the advisory committee recommended simply that the above ratios be used to modify the mortality provisions in the 1961 scale to recognize the difference in mortality levels between the United States and Canada.

This was done by graduating the ratios, interpolating to produce values for individual ages, and then applying the ratios, age by age, to the tabular minimum premiums already promulgated as part of the 1961 scale and set forth on pages 605 and 606 of *TSA*, Volume XII. The new table computed in this way is identified as "Table B."

The New York department accepted the recommendations of its advisory committee, and after a hearing the superintendent, under date of August 13, 1964, promulgated an amendment to Regulation No. 32 (11NYCRR 155.1), "Minimum Premiums for Group Life Insurance." Table B was established as applying to policies issued for delivery in Canada as limited below; the previous table was designated "Table A" and remains applicable to all other policies.

The amendment limits the application of Table B to "group life insurance policies issued for delivery in the Dominion of Canada with premiums and benefits payable in Canadian currency and covering employees employed or members resident in the Dominion of Canada, on whose account the insurance provided by the group policy is not less than 90% of the total insurance provided by said policy." The promulgation states further that where such a policy "also includes employees employed or members resident outside the Dominion of Canada on whose account the insurance provided by the group policy exceeds 10% of the total insurance provided by said policy, Table B shall be applicable only to the insurance on the lives of employees employed or members resident in the Dominion of Canada and Table A shall be applicable to the balance of the insurance provided by the policy."

Application of the newly promulgated minimum premiums for Canadian policies to a sample of recent Canadian issues showed that initial gross premiums on the average are reduced by about 16.9 per cent in comparison with premiums for similar United States policies.

**TABLE B**  
**MINIMUM GROUP LIFE RENEWABLE TERM GROSS PREMIUMS**

Age Nearest Birthday	Annual	Semiannual	Quarterly	Monthly	Age Nearest Birthday
15	\$ 2.25	\$ 1.13	\$ 0.57	\$ 0.19	15
16	2.31	1.16	0.58	0.20	16
17	2.37	1.19	0.60	0.20	17
18	2.42	1.22	0.61	0.20	18
19	2.46	1.24	0.62	0.21	19
20	2.49	1.25	0.63	0.21	20
21	2.51	1.26	0.63	0.21	21
22	2.52	1.27	0.64	0.21	22
23	2.53	1.27	0.64	0.21	23
24	2.54	1.28	0.64	0.21	24
25	2.55	1.28	0.64	0.22	25
26	2.56	1.29	0.65	0.22	26
27	2.57	1.29	0.65	0.22	27
28	2.58	1.30	0.65	0.22	28
29	2.59	1.30	0.65	0.22	29
30	2.61	1.31	0.66	0.22	30
31	2.65	1.33	0.67	0.22	31
32	2.71	1.37	0.68	0.23	32
33	2.79	1.41	0.70	0.24	33
34	2.89	1.46	0.73	0.24	34
35	3.01	1.52	0.76	0.25	35
36	3.16	1.59	0.80	0.27	36
37	3.34	1.68	0.84	0.28	37
38	3.55	1.79	0.90	0.30	38
39	3.80	1.91	0.96	0.32	39
40	4.09	2.06	1.03	0.35	40
41	4.42	2.23	1.12	0.37	41
42	4.80	2.42	1.21	0.41	42
43	5.23	2.63	1.32	0.44	43
44	5.71	2.88	1.44	0.48	44
45	6.24	3.14	1.58	0.53	45
46	6.82	3.44	1.72	0.58	46
47	7.45	3.75	1.88	0.63	47
48	8.14	4.10	2.06	0.69	48
49	8.90	4.48	2.25	0.75	49
50	9.74	4.91	2.46	0.82	50
51	10.67	5.38	2.69	0.90	51
52	11.70	5.89	2.95	0.99	52
53	12.84	6.47	3.24	1.09	53
54	14.10	7.10	3.56	1.19	54

NOTE: To the foregoing rates a constant should be added on the first \$40,000 of insurance equal to \$2.40 per M annually, \$1.20 per M semiannually, \$0.60 per M quarterly, and \$0.20 per M monthly. The foregoing rates are exclusive of any reduction on account of premium size.

TABLE B—Continued

Age Nearest Birthday	Annual	Semiannual	Quarterly	Monthly	Age Nearest Birthday
55	\$ 15.49	\$ 7.80	\$ 3.91	\$ 1.31	55
56	17.02	8.57	4.30	1.44	56
57	18.70	9.42	4.72	1.58	57
58	20.54	10.35	5.19	1.74	58
59	22.55	11.36	5.69	1.91	59
60	24.74	12.46	6.25	2.09	60
61	27.12	13.66	6.85	2.29	61
62	29.70	14.96	7.50	2.51	62
63	32.50	16.37	8.21	2.75	63
64	35.55	17.91	8.98	3.01	64
65	38.89	19.59	9.82	3.29	65
66	42.56	21.44	10.75	3.60	66
67	46.60	23.47	11.77	3.94	67
68	51.05	25.72	12.89	4.32	68
69	55.95	28.18	14.13	4.73	69
70	61.30	30.88	15.48	5.18	70
71	67.16	33.83	16.96	5.68	71
72	73.55	37.05	18.57	6.22	72
73	80.50	40.55	20.33	6.81	73
74	88.04	44.35	22.23	7.45	74
75	96.20	48.46	24.29	8.14	75
76	105.01	52.90	26.52	8.88	76
77	114.50	57.68	28.91	9.68	77
78	124.70	62.82	31.49	10.55	78
79	135.64	68.33	34.25	11.47	79
80	147.35	74.23	37.21	12.46	80
81	159.86	80.53	40.36	13.52	81
82	173.20	87.25	43.73	14.65	82
83	187.40	94.40	47.32	15.85	83
84	202.49	102.00	51.13	17.13	84
85	218.50	110.07	55.17	18.48	85
86	235.46	118.61	59.45	19.92	86
87	253.42	127.66	63.99	21.43	87
88	272.48	137.26	68.80	23.05	88
89	292.84	147.52	73.94	24.77	89
90	314.71	158.54	79.46	26.62	90
91	339.03	170.79	85.61	28.68	91
92	366.84	184.80	92.63	31.03	92
93	399.07	201.03	100.77	33.75	93
94	436.82	220.05	110.30	36.95	94
95	484.52	244.08	122.34	40.98	95

NOTE: To the foregoing rates a constant should be added on the first \$40,000 of insurance equal to \$2.40 per M annually, \$1.20 per M semiannually, \$0.60 per M quarterly, and \$0.20 per M monthly. The foregoing rates are exclusive of any reduction on account of premium size.