



SOCIETY OF ACTUARIES

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**DEATHS**

Peter R. Lane ASA 1978  
 Carroll E. Nelson FSA 1929

**SOLUTION MANUALS —  
 PROBLEM WORKSHOP**

Solution Manuals by Dr. Ralph Garfield are now available:

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Order through, or get further information from, Actuarial Study Materials, Box 522, Merrick, NY 11566.

**Workday Problems**

(Continued from page 2)

to her. She could hardly be expected to be aware of the fine print in her certificate issued many years ago, and we gave her no warning of this provision when her claim was first filed.

3. If we insist upon the offset, she will ask the pension insurer to reverse her earlier decision to claim benefits early, and make the pension effective at age 65. Once this reversal occurs, we will have no claim to an offset.

This claimant has not consulted a lawyer, and says she will not do so; but she seems to have an actuary with LTD experience advising her.

Given this situation, what should our decision be? Should we hold to our initial position, give in to hers, or work out something in between? □

**BRAGG 1986 NONSMOKER AND SMOKER MORTALITY TABLES AND UNDERWRITING REPORT**

By W. Allan Keltie

John M. Bragg has published the results of an inter-company study of the effect of cigarette smoking on Ordinary Insurance mortality. A questionnaire distributed in the Spring of 1985, to companies whose Ordinary business-in-force aggregated one-half of all such business in the United States and Canada, indicated an urgent need for information about non-smoker and smoker mortality for males and females separately and other relative information.

The new mortality tables represent the 1980-1984 experience of 15 small, medium and large companies who submitted data for analysis. With over 4.4 million policies exposed and 6,159 reported deaths, the study should give a reliable measure of current Ordinary mortality.

The 67-page report contains select (15 years) and ultimate mortality rates for individual ages 15 through 65 (anb and alb) at issue, males and females separately for nonsmokers and smokers.

In addition to mortality rates the report covers:

1. An analysis of the data.
2. Methods of construction of tables.
3. Closeness of fit of data to published rates.
4. Trends in smoking habits.
5. Effect of misrepresented smoking habits.
6. Defenses against such misrepresentation.
7. Comparison with other mortality tables.
8. Causes of death nonsmokers vs. smokers.
9. Underwriting Guide supplement (22 pages).

With the February 1986 deadline for companies to submit their experience, the publishing of the complete report on July 21, 1986 must be a modern record for a comprehensive inter-company research project of this magnitude. The tables will be updated as experience becomes available.

Copies of the report, protected by copyright, are now available to other companies at the same rate charged original subscribers to the project. □

**SMOKER / NONSMOKER ERRATA**

By Robert J. Johansen

In the report of the Committee on Smoker/Nonsmoker Mortality Tables, TSA 1982 Reports, p. 343, there is a discrepancy between the Appendix E and Appendix F mortality rates for ANB Male Nonsmoker age 71. Appendix E, which develops the Smoker and Nonsmoker rates, shows 38.31; Appendix F shows 38.91 or a 1.6% difference. Because the difference is so small and the Appendix F figures had already been adopted by the NAIC, the NAIC Life and Health Actuarial Task Force decided that no action need be taken.

Unfortunately, the corresponding Appendix F ANB CET mortality rate

and the ALB age 70 and 71 CSO and CET rates were based on the Appendix E figure, 38.31. Thus, they are not obtainable by formula from the Appendix F figure. Again, the differences are small, as shown by the table below.

In a letter dated August 26, 1986, addressed to the Chairman and Vice-Chairman of the NAIC Life and Health Actuarial Task Force, I called attention to the discrepancies and suggested that, in view of the smallness of the differences, either the Appendix F figures or the formula figures be acceptable. The NAIC Task Force agreed and will recommend to the NAIC that the discrepancy be noted and that either value be acceptable for all regulatory purposes.

Table	Age	Based on Appendix E	Based on Appendix F	Differences
CSO ANB	71	38.31	38.91	0.60
CSO ALB	70	36.44	36.73	0.29
CSO ALB	71	40.39	40.70	0.31
CET ANB	71	49.80	50.58	0.78
CET ALB	70	47.37	47.75	0.38
CET ALB	71	52.51	52.91	0.40