



SOCIETY OF ACTUARIES

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NEWSLETTER OF CBMS

by Cecil J. Nesbitt

CBMS is the abbreviation for the Conference Board of the Mathematical Sciences of which the Society of Actuaries is an affiliate member. The Conference Board maintains a Washington office, publishes reports and surveys concerning mathematics and mathematical education, is studying computer education in high schools and a national information system for the mathematics sciences, and is developing a Newsletter which it proposes to issue quarterly.

The May 1970 issue of this Newsletter is in booklet form and contains 28 articles in its 28 pages. One of these concerns the changing job market for new Ph.D.'s and may indicate a source for some future actuaries broadly educated in mathematics. Another article, "The Mathematical Community and Its Professional Societies," gives capsule information concerning the ten professional societies in CBMS. The article, "Graduate Education and the Draft," may be of interest to actuarial recruiters. A review of Aspects of Professional Work in the Mathematical Sciences (Volume III of the Report of the CBMS Survey Committee) outlines the studies made of the supply and demand for mathematical manpower. Mathematics Education (69th Yearbook of the National Society for the Study of Education, University of Chicago Press 1970) is reviewed in an article, "A New Survey of the New Math." Another piece, "Accreditation and Certification in Mathematics" discusses some steps being considered in those matters.

Copies of the May Newsletter were sent to the officers of the Society, members of the Board of Governors and to various Committee members who might have interest in what is going on in the mathematical community. Copies of the May and future issues will be sent to the Society Library. Individual subscriptions at \$2 for Society members, and at \$4 for persons not belonging to any of the ten CBMS organizations will be available through the CBMS office, 834 Joseph Building, 2100 Pennsylvania Avenue, N.W., Washington, D.C. 20037. The October issue will contain an article about the Society of Actuaries.

AMERICAN STATISTICAL ASSOCIATION MEETING

Two sessions will be devoted to actuarial subjects at the forthcoming 130th annual meeting of the American Statistical Association, to be held in Detroit, December 27-30, 1970. Both of these sessions are programmed for the morning of December 30. The first session, scheduled for 8:30-10:30 a.m., will deal with *Life Table Construction* and will be chaired by Professor Donald A. Jones of the University of Michigan. Three papers will be presented:

1. "Some Actuarial Views of Life Table Construction" by James C. Hickman of the University of Iowa.
2. "Inferring Probabilities from Rates: the Multiple Decrement Case" by Nathan Keyfitz of the University of California, Berkeley and East-West Center, Honolulu.
3. "Construction of the U. S. Life Tables" by Thomas N. E. Greville of the Mathematics Research Center, U. S. Army, University of Wisconsin.

The discussion will be led by Frank A. Weck of the Metropolitan Life Insurance Company.

The second session on the *Present Status of the Stochastic Theory of Risk* is scheduled for 10:30 a.m.-12:20 p.m. It will be chaired by Professor Cecil J. Nesbitt of the University of Michigan, and the following papers will be presented:

1. "Some Comments on Risk Theory" by Professor Hilary L. Seal of Yale University.
2. "Ruin Function Approximations" by Professor John A. Beekman of Ball State University.
3. "New Directions in Risk Theory" by Dr. Paul M. Kahn of the Equitable Life Assurance Society.

The discussion will be led by Professor Newton L. Bowers, Jr., of Drake University.

Those desiring to participate in these sessions should get in touch with the office of the American Statistical Association, 806 Fifteenth Street, N.W., Washington, D. C. 20005.

Medicare

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in this program details are pertinent. To assemble so much information in a single readable volume is a significant achievement. While the book is quite long and might be considered heavy reading, each section is not. It is a handy reference for anyone with a professional interest in the field.

The actuarial cost estimates of Medicare treated in Chapter 10 illustrate to actuaries not deeply involved in health insurance, how the basic elements of estimating costs of social insurances need to be continually reviewed and revised. Costing hospital benefits in 1952 proposals compared to the revised estimates of 1967, 1968, and 1969 reveal what a changing base of factors must be dealt with. Hospital utilization rates and average daily costs, which might appear to be two determinable basic elements, are neither precise nor static. In fact, the author's description of them shows that they become quite conjectural because expanded coverage was suddenly made available to older people for the first time. The taxable wages "premium base" was once naively expected to offset the effect of future hospital cost trends. The author's description of using these parameters for estimating indicates how intricate such forecasting can be for the actuary estimating health benefit costs.

Current developments and possible trends with respect to both of these massive programs call for much more attention by many more actuaries. Even though the viewpoint of the insurance industry is better expressed these days, the relative effectiveness of health insurers' techniques of estimating, administering, and revising benefits is far from being fully understood. *Medicare* gives important background information for putting the insurance industry's role in proper perspective. In Mr. Myers's words—"It remains to be seen whether, in the medical-care costs field, the private sector will be the first line of financial defense for the working, self-supporting population or whether social insurance will take over the role, with public assistance being the second line of defense in either case . . ."