

## **RECORD OF SOCIETY OF ACTUARIES 1985 VOL. 11 NO. 4B**

### REINSURANCE SECTION MEETING

Chairperson: MICHAEL R. WINN  
Recorder: DENIS W. LORING

- o The annual business meeting of the Reinsurance Section.

MR. MICHAEL R. WINN: The Reinsurance Section has been active during 1984-85. In 1984, our section was composed of eight committees. During 1985, one of the first acts of the Council was to make the Special Topics Committee three small, more viable committees instead of one large committee. Those three committees are the Product Design Committee, the Underwriting Issues Committee, and the Financial and Tax Planning Committee. A questionnaire was sent out earlier in the year asking for those who wanted to volunteer for the different committees. The questionnaire was favorably received, and the responses forwarded to the various committee chairpersons.

The work of the committees is of primary importance in keeping us a visible Section. In 1985, we started a new concept called Council Liaison. As you are aware, there are nine Council members. Each Council member is assigned to one or more of the working committees in order to assure that there's a flow of work between the committees, that each committee is doing what it should do, and that the work is being put out on a timely basis. The Council Liaison is also to provide direction to the various committees.

During 1985, the Statistical Research Committee assisted the Administration Committee in developing the Guidelines for Reporting Self-Administered Reinsurance. In particular, it developed the statistical reporting section of that particular document. This committee has also continued the reinsurance experience study which was initiated several years ago by David Holland.

We feel very proud of the Reinsurance Mortality Study. The study was initiated at The Equitable. Many reinsurers were asked to submit tapes to The Equitable which would allow for the construction of reinsurance mortality experience. Once again, this is a project that in the future will be conducted by the Statistical Research Committee.

The Underwriting Issues Committee was formed in February 1985 and began functioning in April or May of 1985. It has a schedule of programs planned for the Boston meeting in May of 1986.

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Let's move on to the Administration Committee. Earlier this year the members of the Reinsurance Section received a draft copy of the Guidelines for Reporting Self-Administered Reinsurance. This was an extensive document on self-reporting. In addition, this committee conducted panel discussions at the St. Louis and Quebec City meetings in 1985, giving the participants an opportunity to explain the construction of the guideline document. This document has been well received, and we look forward to its future enhancement. Future work of this committee will be directed toward questions and answers to be used in reinsurance audits. The second topic that the Administration Committee plans to discuss is the electronic transfer of reinsurance administrative data. The third would be future enhancements to the Guidelines for Reporting Self-Administered Reinsurance.

The Program Committee was successful in conducting Section programs for the 1985 SOA meetings, including this one. The time schedules that this committee faces are extreme. The current chairman who is now stepping down is Bob Johnson, and I congratulate him. We appreciate his work.

Another committee is the Elections Committee. We have Section membership totaling 826 people, so naturally we sent out 826 ballots. We received 45 percent of the ballots back, and we encourage the participation of all members in the Reinsurance Section.

It's also the work of the Elections Committee to keep a tally on the incoming and outgoing Council members. This year we have David Hollad, Melville Young, Courtland Smith, and Monica Hainer retiring from Council positions. Our new Council members are Wayne Bidelman, Eugene Woodard, John Yanko, and Peter Patterson. Peter Patterson was elected to a one-year term; the other individuals were elected to three year terms.

The Newsletter Committee is one of the committees that I worked on initially. I strongly would encourage all of you in this room to submit articles or questions or whatever to the Newsletter Committee and to ask others in your respective companies to do the same. It is the hope that during the 1985-86 year the newsletter will be published at least three or four times, depending on the demand.

The Treaty Committee had a one-day Treaty Conference in New York and Salt Lake City in 1984, did some work in 1985, and in 1986, you'll be seeing more from it in the Newsletter.

The Education Committee continues to monitor the syllabus for any changes that may be necessary from a reinsurance standpoint. It also has some ambitious program plans for the Boston meeting in 1986.

Those of you who attended the breakfast and the reinsurance regulation session this morning can certainly understand that in 1985, 1986, and for years into the future, the Financial and Tax Planning Committee is going to have its work cut out for it. Next year it plans to have two programs; it's already on the program for Kansas City in 1986.

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I'd like to introduce the officers for the 1985-86 year. We have Johanna Becker as Treasurer, Denise Fagerberg as Secretary, Denis Loring as Vice Chairman, and myself as Chairman once again.

MR. DENIS W. LORING: We started this year with a balance of \$6,340. Income of \$7,994 came first from dues, second from charges to the annual meeting, and third from interest. We had expenses of \$5,829--primarily printing and postage plus the one function at the annual meeting, leaving us a fund balance of \$8,505, which means we've increased about 33 percent over the year.

For contributing to the Reinsurance Mortality Study: actual experience on reinsured lives, I would like to thank the following companies: BMA, CNA, Cologne, Frankona, General Re, Lincoln National, Mercantile and General, American National, General American, Score Re Life, American United, CIGNA, Munich, Phoenix, and Transamerica Occidental. We greatly appreciate the efforts of those companies in doing so.

The idea is that this is the first, but not the last, Reinsurance Mortality Study. This one was done by The Equitable under its own auspices, funded strictly by The Equitable. We intend to pass the baton to the Statistical Research Committee of the Reinsurance Section, which has as its goal the production of an annual Reinsurance Mortality Study. We hope to systemize it to the point that people can submit contributions each year in a fairly standard format, so the results can be compiled and issued.

Aaron Tenenbein is Professor of Statistics and Actuarial Science and the Chairman of the Statistics and Operations Research Department of the New York University Graduate School of Business Administration. He is a Consultant to the Equitable Life Assurance Society and was one of the members of the Task Force which was responsible for revising the curriculum of Part Three. Mr. Tenenbein has been heavily involved in the preparation of the Reinsurance Mortality Study.

MR. AARON TENENBEIN: Doing this mortality study was a great personal experience for me. Before I began work on this study, I found it hard to understand why the Society of Actuaries took so long to publish the results of the mortality studies which they undertake. After my involvement in this project, I find it hard to understand how they were able to get the results published so quickly.

There are several people I would like to mention without whose help this reinsurance mortality analysis would not have been possible. First and foremost there's Denis Loring himself, who initiated the study, solicited the data, and was extremely helpful to me at all stages of the study. Stanley Fox of The Equitable was the key systems person who made the data compatible for analysis. I also benefited greatly from suggestions from Roger Gaioni, George Waaser, and Arthur Auer at The Equitable.

With respect to the volume of the data, a total of 15 companies participated. That resulted in a total of 2,841 claims on male standard issues, which corresponded to a total of \$200 million in claim volume

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based on net amount at risk. Just as a comparison, the 1965-70 Basic Tables published by the Society of Actuaries had a total of \$1.8 billion in claim volume.

Some of the significant results of the study involve a comparison of the male standard mortality experience on reinsured lives with the 1965-70 Basic Tables experience; a comparison of mortality experience on automatic versus facultative issues for male standard lives; and a comparison of mortality experience on fully retained issues versus limited retention issues.

The first comparison I'd like to discuss is the comparison of male standard mortality experience on reinsured lives with the experience on the 1965-70 Basic Tables. Whether you look at the graduated select and ultimate rates in the main study, which is the bigger document, or you look at the revised version in the smaller document which is the addendum, one interesting fact comes through: the selection effect for reinsured lives seems to be much more pronounced, especially for attained ages 40 and above. What this means is that for low durations and higher attained ages, the select reinsurance mortality rates were less than the 1965-70 Basic Tables rates. However, the reverse is true for the ultimate rates. The ultimate reinsurance mortality rates, at least based on the graduated rates, were higher than the 1965-70 Basic Tables rates.

However, overall the actual aggregate claims for the reinsured lives were very close to the aggregate expected claims based on the 1965-70 Basic Tables rates. They were quite close; the actual to expected ratio was something like 100.7 percent. What seems to be happening is that the relatively lower mortality rates for reinsured lives at the low durations are balanced by the relatively higher mortality rates on reinsured lives at the higher durations.

The second comparison I would like to mention is the comparison of mortality experience for male standard issues between automatic issues and facultative issues. Because of data limitations, we graduated the combined rates for both automatic and facultative issues, but whether you compare the crude combined rates or the graduated combined rates, it is clear that the facultative rates were higher than the automatic rates except for attained ages about 70, where they were about the same. The ratio of the facultative to automatic graduated mortality rates increased from 125 percent for attained age group 30-34 to about 142 percent at age group 45-59, and then it steadily decreased.

The last comparison involves the mortality experience for male standard lives based on fully retained issues versus limited retention issues. The data here were extremely scanty. We're dealing with fewer than six hundred claims in total for both groups--only 150 in one of the groups. If you look at the crude combined rates in these two groups, in almost all cases the limited retention mortality rate is greater than the full retention mortality rate. This is an expected result. For attained ages above 30, the limited retention mortality rate varies from about 94 to 301 percent of the full retention mortality rate. Overall this ratio was 224 percent.