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EDITORIAL

THOSE fortunate enough to attend the 25th Anniversary Annual Meeting of the Society might find it interesting to compare the expectations aroused by the Program pubished before the meeting with the realities of the meeting. The terrifying size, extent and detail of the meeting which the booklet suggested may well have induced a fear of being overwhelmed. Nobody could attend all the meetings and therefore the appraisal of the meeting had to be composed of varying opinions derived from various sources. There seemed to be a consensus that this was a successful meeting and this is a tribute to the Program Committee who chose topics and speakers well.

But there was more to the meeting than a series of concurrent sessions, workshops, teaching sessions, etc. For this was the 25th Anniversary of the Society and this imparted an air to the proceedings that is not found in the regular annual meetings. This nebulous aura is not something that can be recorded in the pages of *Transactions* but it existed nevertheless and contributed to the success of the meeting. A record attendance and the presence of guests from far and near and from within and without the profession undoubtedly enhanced the occasion. There were so many memorable events that even the most capricious memory might be overtaxed to recall more than a few of them. Elsewhere there will be a record of this meeting — the business sessions and the social events and perhaps the historian will record that for the first time a Dixieland band (and a good one) enlivened the reception and that a replay of part of the New Orleans Mardi Gras delighted the banquet audience. All of this and more derived from the excellent arrangements made by the 25th Anniversary Committee under the Chairmanship of Mort Miller.

According to the Program Foreword the unifying theme of the meeting was "Professions and Professionalism." In the last issue we reported on the Exhibit showing Highlights of Actuarial History on the North American continent. This Exhibit, it seemed to us, bridged the past and the present and illumined the theme. At the meeting the profession was quite properly looking to the future but there is some comfort and even inspiration at looking at where we have been and in recognizing the achievements of the early practitioners in the actuarial profession.

We hope that the actuarial clubs and other interested organizations throughout North America will take advantage of the offer to arrange for the Exhibit being displayed at their meetings. It might even be possible to display the Exhibit at the Society meetings over the next few years. The members of the Society, unavoidably absent from New Orleans can capture some of the flavor of the meeting from the published reports and we hope from seeing the Exhibit with its excellent Catalog.

The Exhibit should remind us that actuarial history is still being made and along with those others who were in New Orleans we salute Mort Miller and his Committee for a memorable job well done — for the creation of another Highlight of Actuarial History!

A.C.W.

LETTERS

Question and Answer

Sir:

A number of guide lines, ambiguous and other, are available to John A. Stedman in answer to his request in the October issue for interpretation of the Standard Valuation and Nonforfeiture Laws.

Assuming the schedule of premiums and benefits is known and the plan determined, then the Standard Nonforfeiture Law is relatively clear. For valuation a 1948 NAIC "Proceedings" committee report states that the methods set forth by Menge in the *Record* Volume XXV are acceptable although not unique. Menge's procedures can be used with confidence.

The problem is then of plan definition rather than procedures. Concerning Mr. Stedman's example of a juvenile term changing to a whole life plan, this was covered in the 1946 meeting of the Hooker Committee which provided that if the change to the whole life plan is at the company's published rate at tl attained age of conversion, then the policy may be valued as two separate plans, a term and a whole life, otherwise it should be valued as one continuous plan, that is a life plan from issue with changing premiums.

Other situations seem to have been left undecided deliberately. This leaves today's actuary at the mercy of any Department which has its own valuation definition of plan. An adverse decision can be a source of embarrassment to the actuary, if not discredit as to his competence, potential embarrassment to shareholders, and even possible capital impairment of the company. A wide range of reserve amounts can be developed by varying plan assumptions.

A formal interpretation would seem to be a most urgent need in the profession. It is a most disturbing thought when signing an annual statement, to know that one is certifying to reserves computed in accordace with the Standard Valuation Law when there is no authority other than popular custom to justi the procedures used. The situation indeed dangerous to all members of the Society who make such certifications, and deserves consideration each time a certification is affixed.

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Letters

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Could the Society assist its members in laying down a foundation of actuarial principles, or the NAIC standardize state valuation procedures?

John T. Gilchrist

* * * *

Sir:

The letter by Mr. Stedman in *The Actuary* for October, 1974 touches on a question to which I can get no valid answer.

The Standard Valuation Law states that where a policy is other than a level premium level benefit life plan, the net premium shall also be a "fixed percentage" of the respective gross premium. What is the justification for this provision?

Let us start with an actual case of a double protection level premium policy for an initial amount of $1,000 decreasing to $500 at age 60. If the company later adds an extra loading to the first premium only, the reserve required under the Standard Valuation Law increases by about half the extra loading the first year. The increase runs off with duration. If, however, the extra loading is added to *all* the premiums, the required reserve under the standard valuation law would not change. Therefore, it cannot be said that the presence of the extra loading creates the additional reserve, because extra loadings all the way down the line create no additional reserve over the basic double protection level premium plan's reserve.

Consider for example a garden variety $1,000 Whole Life policy. If a company uses different non-level patterns of gross premiums for the same $1,000 level death benefit, the required reserves will all be different, yet the death benefit is the same in all cases. Basically, the purpose of the policy reserve is to support the death benefit; if there is no variation in the death benefit, why should there be a variation in the reserve just because loading patterns, and the resulting gross premiums, have different patterns from level?

The argument that the Standard Valuation Law is established to limit the amount of expense that can be "borrowed" from the first net level premium does not apply here, because these expense loadings are not borrowed from the net level premium; they are direct extra charges to the insured added to the net premium.

What I seek is some discussion of why the "fixed percentage" of the respective gross premiums is necessary or justified as a logical requirement, or a financial requirement, or an economic requirement, or a mathematical requirement in the Standard Valuation Law, for non-level premium policies.

John S. Ripandelli

* * * *

Sir:

Mr. Stedman has raised a question concerning the valuation and nonforfeiture laws. They require that the modified and adjusted premiums shall be a fixed percentage of the respective gross premiums. Mr. Stedman asks when this principle applies and when it does not? As an example of a "clear cut" case, he mentions a YRT policy to which the rule does not (apparently) apply.

Unfortunately, I don't believe that the situation is as "clear cut" as might be desired, especially when consideration of the nature and purpose of deficiency reserves is added to the picture. One possible attitude could result from viewing the purpose of the "percentage of gross premium" rule as a recognition of acquisition expense not considered in the calculation of full net level premium reserves. Hence, these last, (assuming they are clearly defined for YRT!) may always be considered as meeting minimum reserve standards. If reserves less than full net level are held, they must be at least equal to the minimum reserves computed as described in the valuation law. Similar reasoning would apply to cash values less than full net level and hence the percentage of gross premium requirement does not come into play.

For the specific example of a low (term to 25) premium to 25 and an attained age whole life premium thereafter, I can only offer the same logic suggesting either full net level reserves or application of the percentage to gross requirement.

I shall be interested to see what other comments are generated by Mr. Stedman's letter.

T. C. Sutton

* * * *

Sir:

The question asked by Mr. John A. Stedman in the October, 1974 issue is one for which I evolved certain criteria. There is no certainty that my approach is correct.

Both the form of the policy contract and the premium rates must support the position that the contract is severable, otherwise it is all one contract.

A contract written as One Year Term, renewable at the end of each year, at the gross premium rates then in effect for new contracts at the attained age, is obviously a succession of one-year contracts. I do not think that this position is spoiled if the gross premium rates are guaranteed in the contract, provided that they are applicable to One Year Term policies at the attained age. However, a contract written as Term to 65 with increasing premiums, even although those premiums are exactly the same as in the preceding sentence, is all one contract and it has to be tested under the valuation and non-forfeiture laws.

It would be an obvious subterfuge to write a contract as a succession of Term policies, at premium rates which remain level throughout, and happen to be equal to the Ordinary Life premium at the original age. It would be equally a subterfuge if the premiums increase with age, but are not in line with a policy issued at the attained age.

Coming then to Mr. Stedman's example, I would ask whether he would write the policy as one contract, or as a Term policy to age 25 converting to Ordinary Life. I see that the Ordinary Life portion is to have a proper premium for age 25.

J. Ross Gray

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From Actuarius to Actuary

Sir:

Young persons who might think it
could be great
To help an actuary actuate,
And might just do that if they only knew
Precisely what the fellows really do—
No longer need they falter to begin:
Their doubts, at last, can vanish, for
within
The silver book, by Mitchell, all is told:
It would have been more fitly bound in
gold!

R. Graham Deas

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Letters

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Actuarial Advisory Committee

Sir:

Section 15 of the Railroad Retirement Act provides for the appointment of an Actuarial Advisory Committee to review the actuarial work of the Railroad Retirement Board. One of these actuaries is appointed from recommendations of railroad labor, one from recommendations of railroad management, and one, appointed by the Secretary of Treasury, represents the public.

For your information, the following members of the Society of Actuaries have been recently appointed to these positions: (1) Robert J. Myers, represents railroad labor, (2) Thomas H. Jolls, Jr., represents railroad management, and (3) Cedric W. Kroll, represents the public. These individuals are all Members of the American Academy of Actuaries.

You might also be interested in the following which is contained in Section 15 (f) of the Railroad Retirement Act of 1974, Public Law 93-445:

"The actuaries so selected shall hold membership in the American Academy of Actuaries and shall be qualified in the evaluation of pension plans: *Provided, however,* that these requirements shall not apply to any actuary who served as a member of the Committee prior to Jan. 1, 1975."

James L. Cowen, Chairman
Railroad Retirement Board

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On Being An Actuarial Function

Sir:

In his article, in the October issue Ray Peterson says, ". . . when one gets a contract to receive a stipulated periodical sum so long as one shall live after retirement, the actuarial function a_x *comes alive* — a very personal and living thing — *you become the actuarial function!*"

It should be of particular interest to his many friends and former colleagues to learn not that he has become an "actuarial function," but that he has *come alive* — after retirement, prompting the logical question as to why it took him so *long!* Perhaps even he, during his working years, experienced difficulty in determining whether a particular actuary was alive or not.

He goes on to say, ". . . you are paid for merely existing . . ." It's not clear at this point if his reference is to actuaries *before* retirement, or *after* retirement; a strong case can be made in either event.

Over the years it has been my privilege, as toastmaster, to preside over numerous actuarial functions but, while Mr. Peterson was usually in attendance, I cannot regard myself as ever having "presided" over that particular "actuarial function." In fact, having worked for him in a certain well known insurance institution from 1930 through 1935, it would be more appropriate to say that *he presided* over *me* for five years. Accordingly, I'd say I deserve even more credit than he for just surviving, or existing, to date!

Mr. Peterson is so correct in acknowledging that, following retirement ". . . your *mere existence* is a financial asset that you possess." However, he fails to balance the books by explaining that what may be an *asset* to *him,* is a *liability* to his former employer; so what's new about that?

I trust that the "function" will continue "enjoying a deep breath of fresh morning air" for many, many years to come.

Milton J. Goldberg

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Elections

Sir:

Many of us are becoming concerned that the election process of the Society is more democratic in form than in substance and ought to be looked into again. What concerns us is that our elections have no issues, and the candidates' views on the problems of the profession are totally unknown to most of us. The presentation of papers and membership on Society committees are not, in my view at least, sufficient indicators of whether the candidate for an office in the Society would adequately represent the views of those who would vote for him.

The committee in charge of conducting elections is rather close-mouthed about the number of people who bother to vote or to suggest candidates. It would be interesting to have the committee open up and reveal publicly the full results of our elections (e. g., number of votes for each candidate). I fear fewer and fewer members now bother to vote because they figure "what's the use?".

It seems to be a function of the electoral process, and a most proper one too, to cause issues to be identified and solutions or courses of action proposed and debated before the electorate. Practically all nominated actuaries are "nice" and could be elected as "Mr. Nice." But when elections turn into mere popularity or name-recognition contests, it is time to take another look. Along with some colleagues with whom I have discussed this subject, I think it is time for another look at our electoral process.

Claude Y. Paquin

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Pension Index

Sir:

Another survey purporting to compare the actuarial assumptions used in valuing different pension plans has been published, this time by Institutional Investor Magazine in their continuing feature called "Pensionforum." Once again, the survey concentrated on investment return assumptions, but did also record salary projections although no correlation between the two was attempted. I recognize that the only real compariso between different sets of assumptions is to compare the results of complete valuations using the same data base. However, the profession must come up with some generally accepted simplified measuring device or continue to be plagued by comparisons focusing on the actuarial interest assumptions and expected investment return.

I would like to suggest that this subject be given consideration by the appropriate committee of the Society, and I would also like to outline a basis which would serve as a useful starting point.

First of all, it seems clear that the wide variety of actuarial methods in existence cannot be fitted into any simple index. *My* 'Entry Age Level' may be individually calculated, with pre-retirement Death and Disability benefits funded by term cost. *Your* 'Entry Age Level' may include all benefits and be determined in aggregate with the Normal Cost percentage developed from a calculation for hypothetical new entrants. But, this aspect does not seem too important to me since the different methods are only devices to determine the incidence of funding, and should not have too much bearing on the actuarial assumptions.

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Letters

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The next problem area is the non-economic assumptions such as mortality, disability, turnover, dependency status, remarriage, retirement age, and expense loadings, to mention the more common ones. My solution to differences in this area is somewhat cavalier. I think they should be ignored since presumably each actuary is using assumptions which reflect the expected experience of the participants in the plan. Now I will be the first to admit that you sometimes have to wonder whether the actuary has ever looked at actual experience. Do the Railroad Retirement statistics really have such wide general application? However, ERISA charges those of us who enroll with the responsibility of using assumptions expected to reflect experience so that some of the artificiality in this area will tend to vanish.

Having solved the really difficult problems by the process of ignoring them, I would now like to propose a Conservatism of Actuarial Packages Index (CAPI). This Index would be a function of three items, the interest rate used as a discount for future investment return, and the salary scale used to project benefits, and a comparison of annuity factors at retirement age. The base factor for a set of assumptions would be determined by the following formula, where y is the Normal Retirement Age:

$$100 \times \frac{S_y}{S_{y-20}} \times v^{20} \times \frac{\ddot{a}_y^{(12)*}}{\ddot{a}_y^{(12)**}}$$

*Post-retirement interest assumption
**6%

This calculation would use "male" assumptions if sex differentiated tables are used since I know of nobody using realistic assumptions of future salary progressions for females, and males still dominate the employment statistics after age 35.

An index of 100 would result for an assumption package using a 6% salary scale and a 6% investment return expectation. An old friend of simpler days long past, Unit Credit at 3½% with no salary projection, would develop an Index value of 60. A typical insurance company Deposit Administration assumption package of 5% interest with a 3% salary projection would develop an Index value of 73. Finally, the type of realistic assumption package we will probably all move toward, say 7% interest with a 6% salary projection, will generate an Index value of 78. All these values are for a Normal Retirement Age of 65.

This Index does not purport to measure the relative cost of a plan using different assumptions, and does need relatively careful analysis, especially if an automatic increment applies after retirement. For instance, if a 2% per year benefit increase after retirement is taken into account by reducing the interest assumption by 2% after retirement, then the correct denominator would be an annuity function at 4%. Using a 20 year discount period prior to retirement can also be challenged, but the liability for accrued benefits does tend to be concentrated in the later years.

The Index is also probably most useful for plans with a benefit formula which is a function of salary, and probably most valid for a Final Pay type formula. Dollar per month plans do get updated periodically, but it is virtually impossible to incorporate anticipation of these increases into a valuation.

I would again like to urge the Society to sponsor such an Index, and to sponsor a meaningful survey of private pension plan assumptions and methods, so that the over-simplified and much publicized surveys put out by the investment industry can be effectively countered. And, yes, I am a little tired of being viewed as a wild man when using 8% interest with a 6.5% salary scale, especially when criticism comes from a smugly "conservative" 6%/3% package!

Alexander Grieve

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Closing the GAAP's?

Sir:

As investment analysts, we found the review of LOMA's "Procedures for Adjusting Life Insurance Company Statutory Financial Statements to GAAP Basis" of particular interest. As most actuaries should be aware by now, GAAP has created a great deal of uncertainty among investors, contrary to its stated intent.

One of the critical problems, as LOMA's study documents, is the enormous latitude the actuary and accountant have in formulating GAAP assumptions with only a minimal amount of disclosure to investors required as to what those assumptions are. It is virtually an impossible task for the analyst to make sound qualitative comparisons of GAAP adjustments when he is generally confronted with such footnotes as "Withdrawal assumptions are based on company experience for the appropriate type of policy." The absurdity of such a statement being permitted to pass for disclosure is obvious.

Consider the problem of the analyst who knows a company's lapse rates are increasing — as many now are — and understands that GAAP earnings are much more sensitive to such lapse experience than are the earnings derived by the methods of the Association of Insurance and Financial Analysts. The analyst has no data with which to attempt a quantification of the possible effect on GAAP earnings of this lapse experience.

GAAP was adopted to an important degree in response to pressure from security analysts. We were lax, however, in attempting to obtain sufficient disclosure of assumptions to enable us to make meaningful analysis of the figures. The actuarial profession appears to be taking optimal advantage of our laxity by making minimal disclosure.

Companies that publish detailed statistical supplements which are useful to analysts in interpreting their GAAP figures and which are meaningful in projecting earnings are likely to evoke a warm response on Wall Street. But, the supplements we have seen thus far are not adequate for these purposes. How can we calculate earnings due to mortality profits, to investments, or loading with the data now made available?

GAAP is a step in the right direction but until the industry decides to make it possible for analysts to use the figures intelligently, life stocks are likely to continue to be widely regarded as an esoteric group best left to esoteric people.

*Carl Wright**
Jeff Liebmann

**Mr. Wright is an insurance stock analyst with a New York Stock Exchange firm.*

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The Soul of Wit

Sir:

I have looked up the reference D133 *TSA* XXV — what a pity the speaker wasn't Ed Lew!

William A. White