



SOCIETY OF ACTUARIES

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## ON THE SUBJECT OF SPECIALIZATION

by Arthur Pedoe

It was at a meeting of the Society of Actuaries in June 1955, during a discussion on *Selection, Education and Training of Actuarial Students*, that I held forth against specialization in the qualifying Fellowship actuarial examinations. I was against qualifying a man as "a pension actuary, a fraternal actuary, or other specialty."

Following the meeting, a member buttonholed me with the following story. At a diplomatic gathering watched by an old lady and her niece, a man in blue uniform with an abundance of gold braid was much in evidence. The old lady asked her niece to find out who he was. On her return she told her aunt that he was a Naval Surgeon. "A navel surgeon," exclaimed the old lady, "my, how they specialize these days!"

I was reminded of this incident at a meeting this year of the Younger Actuaries, in Toronto, which appeared to be a continuation of the discussion at the Society meeting in October 1966 on *The Future of the Actuarial Profession as It Appears to the Younger Actuaries*.

The speakers were all out for actuarial students being examined in Operations Research, of which a notable example was the running and designing of buses in London, also sampling techniques, consumer psychology, and particularly management science. One of the openers at the Toronto meeting suggested that a worthy subject for the Education Committee in their choice of reading might be *How to Become President of a Life Insurance Company*.

This was all most intriguing to one of the older members of the Society (I attended my first meeting in New

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## GOVERNMENT HONORS CANADIAN ACTUARIES

Five prominent members of the Canadian Institute of Actuaries—W. M. Anderson, J. G. Beatty, B. T. Holmes, Arthur Pedoe and N. E. Sheppard—were recently honored by the Government of Canada in being awarded Centennial Medals. These Medals were instituted as part of the celebration in 1967 of the Centennial of Confederation and were awarded to outstanding individuals in various walks of life for their contributions to the community.

All five recipients are members of the Society. Messrs. Anderson and Holmes are Past Presidents and Mr. Beatty a Past President of the American Institute of Actuaries. Mr. Pedoe is an actuarial author of renown on both sides of the Atlantic. Professor Sheppard has been for many years in the Department of Mathematics at the University of Toronto and many members of the Society are his former students.

The Society takes a proper pride in this recognition and tenders congratulations to the individuals so honored. □

## HEARINGS ON PROPOSED INTEGRATION RULES

by E. F. Boynton

Substantial opposition to the proposed new rules for integration of private pension plan benefits with Social Security was expressed by most witnesses at the hearings on proposed integration rules held on Sept. 16 and 17.

Under discussion were proposed amendments to the Income Tax Regulations, published on July 6, 1968, and a proposed Revenue Ruling which would implement this regulation, released as Announcement 68-49, on July 15, 1968. In addition to the oral testimony, of which no record was made except notes

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## THE HEALTH OF THE MATH OF FINANCE

by James C. Hickman

The study of compound interest and annuities certain is a declining activity in North American colleges and universities. The expulsion of the subject from departments of mathematics, except from those that feature work in actuarial science, has proceeded at a rapid pace. Even within collegiate schools of business, the subject is seldom taught as an independent course but instead appears in various disguises within courses in accounting and finance.

The impact of the influential Gordon-Howell report (*Higher Education for Business*, Columbia University Press, 1959), which stamped the subject as being "sub-collegiate", accounts in part for its reduced acceptability to colleges of business. A natural economic consequence of the declining market is that few substantial college text books on compound interest have been published in recent years. As a result of these trends, many actuarial students have found the portion of part 3 of the Society's examinations devoted to compound interest to be one of the most perplexing topics in the early part of the examination series.

## Impact of Technology

In a computer-oriented age, it is appropriate to inquire about the impact of the new technology on the study of compound interest. Traditional courses on the subject discuss two basic problems: (1) the determination of the value of a stream of payments given an interest rate, and (2) the determination of the rate of return defined by a stream of payments purchased by an initial investment.

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## Hearings

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taken by the panel, written comments were invited up through Sept. 27, 1968.

At the two-day hearings a total of 22 witnesses (including 10 members of the Society of Actuaries) testified.

They represented law firms, consulting actuaries, four life insurance associations (LIAA, ALC, AALU and NALU), employer associations (Chamber of Commerce, Council on Employee Benefits and others), trade unions and insurance brokerage firms.

Except for representatives of the AFL-CIO, who were interested in phasing out integration altogether, all the witnesses objected strongly to the proposed changes in the rules for integration of private pensions with Social Security on legal, mathematical, and practical grounds.

The testimony was generally divided into two groups. One approach attacked the underlying structure of the proposed rulings along the same lines as the criticism of Announcement 66-58 two years ago. Another group aimed at more practical and workable modifications of the specific rules now proposed. Since all suggestions for an approach to the problem different from that proposed in Announcement 66-58 have apparently been rejected, the general feeling was that I.R.S. is not likely to make substantial changes now after having had two years to consider the same arguments.

## Objections

Throughout the testimony there was a recurrence of several specific objections to the proposed regulations and ruling. Most witnesses stated that the old 37½% rule had not been shown to be discriminatory in practice and, hence, it was difficult to rationalize any change which disrupts existing pension plans.

Many felt that the so-called mathematical approach is not mathematically sound and is being used merely as a means to arrive at a predetermined number, particularly in view of the "rounding" of the arithmetically determined 27% result to 30%. There was unanimity, joined in by even the labor representatives, that the approach is unnecessarily complicated to meet the objectives of the law being implemented.

## ACTUARIAL MEETINGS

- Oct. 21, Michigan Actuarial Society, Detroit
- Oct. 21, Chicago Actuarial Club, Continental Mid-Day Club
- Oct. 28-30, Society of Actuaries (Annual), Washington, D.C.
- Nov. 14, Baltimore Actuaries Club
- Nov. 17-19, Casualty Actuarial Society (Annual), Washington, D.C.
- Nov. 18, Chicago Actuarial Club, Continental Mid-Day Club
- Nov. 21, Actuaries Club of Indiana, Kentucky, and Ohio, Louisville, Ky.
- Nov. 21-22, Southeastern Actuaries Club, The Riviera Motor Hotel, Atlanta
- Nov. 25, Columbus, Ohio, Actuaries Club
- Nov. 26, Canadian Institute of Actuaries, Toronto
- Dec. 3, Nebraska Actuaries Club, Lincoln
- Dec. 3, Actuaries Club of Hartford
- Dec. 16, Chicago Actuarial Club, Continental Mid-Day Club

Most speakers felt that the moving wage base is unrealistic for practical application and would lead only to further confusion, and that pension formula bend points should be allowed at any level below the current Social Security wage base.

## Other Areas of Agreement

Another area of almost unanimous agreement was that existing plans should be allowed to continue without change under a grandfather clause, either indefinitely or until a significant change is made in the benefit formula. Strong support was also expressed for a provision that would relax the integration rules for early retirement benefits. This would recognize the increasing use of subsidized early retirement benefits which represent a socially desirable goal and are not being used in a discriminatory way.

A number of witnesses felt that the change in the rules for final average pay unit benefit plans had no justification. The life insurance industry made a strong plea for a concession to be made in individual policy plans to avoid cancellation of many thousands of existing

policies to meet the new rules. By way of a possible compromise, a number of speakers agreed with the approach suggested by Jack Dyer, among others, that the integration limit be left at 37½% for a plan integrating at \$4,800, and grade uniformly downward to a 30% level at \$7,800 of earnings.

The hearings were conducted in a rather informal atmosphere with periodic questions by panel members, particularly William Gibb, Associate Tax Legislative Counsel of Treasury, and Mrs. Elizabeth Poston of the Actuarial Branch of I.R.S. Then, at the conclusion of the formal testimony there was some informal discussion and questioning of the panel. Particular interest was shown by the panel in the reasons why the moving wage base concept would be impractical, and a possible alternative of a fixed bend point between \$4,800 and \$7,800 was mentioned. There was an indication also that a straight \$7,800 excess plan would be permitted for all years of service, but the integration limit would be restricted to 20% for such a plan.

At the conclusion many observers felt that the panel showed little interest in the suggestions made by the expert witnesses testifying, except perhaps for some minor flaws in the drafting of the proposed ruling, and possibly an alternative approach to the moving wage base problem. The hearing adjourned without any indication as to when the next action from the Treasury on this integration problem might be expected. □

## Accreditation

We quote from a statement by Walter P. Reuther, President of the UAW, to the Joint Economic Committee of the Congress, December 1967, on the subject of Federal Legislation and Private Pension Plans:

"In any event it would appear that the implementation of a funding requirement will involve the judgment of competent actuaries, since they must determine the assumptions concerning future experience appropriate for the particular program. It, therefore, appears necessary for standards to be established in order to determine the qualifications of individuals offering to act as actuaries."