

# TRANSACTIONS

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## ADDRESS OF THE PRESIDENT

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**D**URING the course of my term of office as President, I have had occasion to travel rather extensively in connection with the Society's affairs. The special highlight of these travels was, of course, the rare privilege of joining with some three dozen other members of the Society last June in Edinburgh in attending the Centenary of the Faculty of Actuaries in Scotland. It is not my purpose at this time to attempt to describe the Centenary celebrations which were participated in by many hundreds of actuaries from all over the world but I should like to make special mention of the point that the Faculty honored the Society of Actuaries by choosing its President as one of the recipients of Honorary Faculty Fellowship. I am deeply conscious of the fact that this recognition relates to the Society as a whole and that I am merely the convenient vehicle by which it has been transmitted. In consequence I am most grateful to the Society's members who, in granting me the privilege of serving as President, saw fit to do so in this particular year.

While the trip to Edinburgh was the longest of my travels in point of distance, it was but one of more than twenty trips which I have taken on Society business. About half of these have related to meetings of the Society itself, the Board of Governors, the Executive Committee and other Society committees. On these occasions I have had ample opportunity to observe the extent of the generous cooperation given to the Society by its officers, Board members, committee members and others who have participated in the Society's activities. In addition, I have had occasion to view with satisfaction the loyal and efficient work of the Society's office staff. To everyone who has participated in the work of the Society within the past year I wish to express my hearty thanks for helping to make the job of the President a great deal easier than it might otherwise be.

### ACTUARIES CLUBS AND SPECIAL INTEREST GROUPS

The other half of my travels has consisted of a series of visits to the meetings of local and regional actuarial clubs throughout the United

States and Canada. In all, I have attended eleven such meetings in my capacity as President and it has been a most interesting and instructive experience indeed. One cannot help but be impressed with the degree of diversity which exists in the characteristics of the many actuarial clubs. The differences relate to membership requirements, frequency, length, and form of meeting, content of program and areas of active interest. However, the clubs are alike in the sense that they are flourishing because of the fact that, as autonomous organizations, they have been free to develop in the ways which have best suited the interests of their members. It is fortunate indeed that in the course of the Society's formation it was decided that the actuarial clubs should continue their independent roles but with recognition of the fact that they could usefully complement and supplement the Society's own activities. It is most interesting to observe that gradually this is occurring to an increasing extent and that there is recognition of the fact that in regard to many matters which are not of an essentially continent-wide character, the clubs of their own initiative can relieve the Society of responsibilities which could become increasingly burdensome as the Society's membership grows.

While the network of local and regional actuarial clubs has been predicated primarily upon geographical considerations and the consequent convenience of arranging meetings, a strong undercurrent of continuity of common interests is also present within each of the clubs. In recent years it has become increasingly apparent that there are other areas of continuity of common interests which have other than geographical boundaries. An example of this is the small company forum which has accompanied the western spring meeting for a number of years. Similar examples may emerge as a consequence of the simultaneous sessions to be held tomorrow afternoon. It is in the nature of things that groups of members with common special interests of a continuing character should find it useful to arrange to deal with their common problems. It is also desirable that the Society should offer encouragement to this process. However, I am of the strong conviction that it is preferable for these special groups to be formed of their own initiative and on an autonomous basis rather than having them come within the area of Society responsibilities. As far as I can see, this would not only relieve the Society of the necessity of diverting its attention from those problems which are essentially the concern of the profession as a whole, but it should also give the special groups themselves the opportunity of contributing on their own responsibility to the solution of some of these problems. The Special Committee on Organization and Procedure has given considerable study to the question of special interest groups within the Society's membership and

is making certain recommendations related to them. However, it should be observed that if autonomous action by these groups is in the best interests of the Society as a whole, such action must be spontaneous, since the implication of autonomy is that it must be self-developed rather than conferred from above. While the Society may favor and facilitate the development of autonomous special interest groups of actuaries, it should avoid going any further than this. In particular, it is undesirable for the Society to attempt to direct or control and I am quite convinced that the high sense of responsibility of all interested actuaries makes any such action unnecessary.

My reason for dwelling upon the virtues of autonomy in the case of both the actuarial clubs and the special interest groups relates to the desirability of confining the Society's activities to those which are essentially of a continent-wide character. I am of the view that these activities themselves are bound to grow in scope with an increasing membership and with the widening of our interests and responsibilities. Therefore, in order to keep the Society's own activities efficiently manageable, we should take every opportunity to encourage autonomous groupings involving Society members to assume responsibility for matters which we do not feel must essentially be handled by the Society itself.

Even if we are successful in avoiding too rapid growth in the Society's direct responsibilities, we will still be well advised to encourage the active cooperation of autonomous actuarial clubs and special interest groups in assisting the Society in its own activities. Such a process is to the mutual advantage of all and ensures that the Society itself can continue to devote adequate attention to the special responsibilities related to its whole membership. It also ensures that the Society can operate to broaden the area of interests and service of the profession as a whole whenever such action is desirable.

#### PROFESSIONAL CONDUCT

While I do not propose to review all of the problems with which the Society has to deal, there are a few which appear to me to be appropriate for comment at this time. One of these problems relates to the fact that our profession is not subject to widespread statutory recognition of the type relating to such professions as medicine, law and accounting, which are subject to licensing and regulation in the various state and provincial jurisdictions. Admittedly these other professions are very much larger in numbers than we are; moreover, the typical member works in a single jurisdiction alone, whereas many actuaries (perhaps in part by reason of our smallness in numbers) engage in activities in a number of states and

provinces as well as internationally in United States and Canada. In these circumstances one must conclude that any state and provincial system of licensing and regulation of actuaries would impose an intolerable and costly burden upon our profession. However, within the past year it has become apparent that there is considerable prospect of widespread legislation in the field of welfare fund regulation and other matters which will require the use of the services of actuaries for adequate implementation. Under these circumstances, methods of defining qualified actuaries will be imperative. By analogy with the other professions, the obvious method would be to use licensing and control (or self-control by the licensed profession itself under statutory authority). From our point of view, this would be a most unsatisfactory development. In the alternative our course of action must be such as to establish the point of view that direct recognition of Fellowship (or in some cases Associateship) in the Society of Actuaries may be relied upon in determining who is a qualified actuary for purposes required by legislation. However, it is not sufficient for us to so establish our qualifications. We must also place ourselves in the position of being able to control the actions of our members in the same manner that control exists in the case of other professions subject to the licensing laws.

You will recall that a year ago Walter Klem in his Presidential Address dwelt at length upon the pros and cons of a code of conduct for the Society membership. He did not take a position either way, nor would I have done so a year ago. However, I am now of the conviction that the necessity of avoiding a system of jurisdictional licensing and control makes it imperative that the Society move into a position where it has the power to control the professional actions of its own membership and adequate machinery to exercise this control whenever necessary. It seems to me that only in this way can we avoid the undesirable alternative of jurisdictional licensing and control. Furthermore, it would appear to be highly desirable that the process of control should be accompanied by a set of guides to professional conduct so that our members may be aware of the Society's views regarding the philosophy of control which it contemplates. Fortunately, if we are to control ourselves of our own volition, we may not need to contemplate a rigid code of conduct to which all members subscribe and of the character which has developed in the case of the other professions as a consequence of statutory control.

While the reasons which I have given for the necessity of control of professional conduct may seem negative in character, I am also of the view that the Society can suffer grievously in its public relations and prestige if it does not place itself in a position where it can deal adequately

with problems relating to the professional conduct of its members. It would appear that apart from a set of guides to professional conduct, we also require a broadening of the Society's statement of purpose and a more realistic set of procedures for the investigation and disposition of problems relating to professional conduct. While it is premature for me to refer explicitly to the work of the Society's Committee on Professional Conduct, I do wish to express my appreciation of the earnestness with which its members have approached the various problems with which the Committee has been faced.

#### THE EXAMINATION SYLLABUS

Another problem upon which I should like to comment relates to the scope of our own professional training in the Society's Education and Examination System. As you are all aware, our profession is somewhat different from others in that it does not confine itself mainly to those matters which are within the peculiar province of the actuary. In reviewing our Examination Syllabus and using examination hours as a rough indication of the degree of importance of each subject, we may estimate that only about one-quarter of the syllabus relates to subjects which are of major interest to actuaries alone. The remaining three-quarters of the syllabus intersects with the fields of at least a dozen other recognized professional disciplines and, indeed, may be said to transgress upon fields which are primarily theirs. As a result, the actuary has come to be a person who may be described as a man of business with broad and widespread knowledge and with the special aptitude of being able to make use of mathematical techniques for the purpose of carrying out business processes and engaging in business management decisions. On the other hand, the confines of the syllabus have largely restricted our activities to the life insurance business and to other private and public insurance and pension systems.

It would appear that there are two developments which may affect our Examination Syllabus in the future. In the first place the college courses which parallel certain of the subjects in the Associateship Syllabus may become sufficiently standardized so that we may be well advised to regard satisfactory college credits in such courses as prerequisites for our own examinations rather than insisting upon special tests of our own. In the second place the advent of electronic operation in data processing may relieve the actuary of the necessity for many of the skills which he has heretofore required in actual computational work. At the same time the electronic machines will also facilitate the development of quantitative illustrations predicated upon varying sets of assumptions so that the actu-

ary's responsibilities in the field of judgment and decision will be exercised against a background of information which is much more precise and detailed than has been the case in the past. Undoubtedly this second development will influence the scope and character of the Examination Syllabus in the future.

#### THE ACTUARY AND OPERATIONS RESEARCH

In connection with this prospective changing role of the actuary, I believe it is highly important for us to realize that within recent years a whole new science and profession somewhat akin to ours has been developing with astonishing rapidity. I refer to what is known as Operations Research or Management Science. While many of its fields of activity are far removed from ours, it is surprising to realize that a large part of the work involves reliance on mathematical techniques which are either those with which we are now familiar or others involving no greater degree of difficulty. A number of parts of Operations Research involve the quantification of management problems by means of mathematical models and the application of specialized mathematical techniques in order to determine the best solution of the problems as related to management objectives. A particularly important aspect is that, with problems of any degree of complexity, access to electronic machines is imperative if the methods of solution are to be practical.

My review of the development of this new science has led me to the conclusion that we, as actuaries, should be giving it active and continuing attention. Our profession shares with Operations Research the unique position of combining participation in management decisions, familiarity with mathematical processes and access to electronic machines. Furthermore, our own training has given us a broad view of many other disciplines, which is also a prerequisite of the Operations Research process and which is ordinarily achieved by teams of specialists.

Granting that we have the abilities to interest ourselves in this new science, the question may be asked what our purpose would be in doing so. The answer is twofold. In the first place there are already well-developed approaches in Operations Research to problems in our present areas of interest and there are direct opportunities for substantial savings through the application of Operations Research methods in the life insurance business itself. More importantly and from the longer term point of view, we can expect that familiarity with Operations Research methods will make actuaries interested in and valuable to lines of business which are now outside our field. This might occur first within firms of consulting actuaries but it could lead to substantial demands for actuaries by other

businesses. While it is true that we complain of perennial shortages of actuaries for our present requirements, the best long-term solution in the future may easily be a substantial broadening out of the demand for persons with the education and training which our profession can give. Perhaps it is the case that only such a widening horizon of opportunity in the future will produce the much enlarged body of students which we should like to have even now. Quite evidently, the glamour and potential of Operations Research has made itself felt in the colleges today, since ten universities are now offering graduate degree curricula while more than a score of others are providing one or more courses relating to Operations Research. Perhaps this development of itself has had some influence in restricting the size of our own student body in recent years.

While I am not prepared to make any specific suggestions as to how the Society might investigate the field of Operations Research, I do commend it as a subject requiring early attention. Perhaps it might be possible to prepare, as a first step, a selected bibliography for the use of actuaries who may be interested at this time. In this particular connection I was most pleased to learn that the Junior Branch of the New York Actuaries Club devoted a recent meeting to this subject and it may be that as a consequence certain information will be brought to the attention of the Society by the New York actuaries themselves. In any event I hope that we may be able to assess the possibilities of taking an active interest in certain parts of the field of Operations Research at an early date.

#### GENERAL PROBLEMS

Unfortunately time does not permit me to discuss in detail certain general problems which are of interest and concern to the Society and its members. However, I do wish to draw attention to the fact that the total relationship of the institution of life insurance to the economy at large is one which is deserving of more integrated consideration than that which we have been inclined to give it in the past. Actuaries have maintained a continuing interest in this relationship under such headings as social security, insurance taxation, general taxation, the level and pattern of saving, investment channels, interest rates, the movement of price levels and wage rates, and the trend of productivity and living standards.

Today the financial intermediaries as a whole are playing an increasingly important part in the functioning of the economy. Life insurance is not only one of the principal financial intermediaries but it alone engages in the process of altering radically the form of saving as it comes from the community before returning it for investment. When this fact is considered, together with the inherently long-term nature of life insurance obli-

gations, there is reason to conclude that the total relationship of life insurance to the community in the economic sense is of vital importance to the private system of life insurance and annuities and to the continued well-being of the community itself. Accordingly, I suggest that the problems in this area to which we give continuing attention are deserving of more closely integrated consideration. Furthermore, I am confident that we as actuaries are competent to move in this direction. I do not suggest that others are not as greatly interested as we are in these related problems, but I am of the view that our own special background and training give us a responsibility to take a concerted approach towards their solution. Certainly, this responsibility is of at least a continent-wide character and as such it rests squarely within the context of the Society itself in so far as it relates to actuaries. Moreover, it presents an important opportunity to enhance the good opinion in which the Society and the actuarial profession is now held. If we can achieve success in our consideration of these related problems, I am sure that the life insurance business itself will benefit greatly and, as well, that we shall have performed a most valuable service for the community as a whole.

#### CONCLUSION

In conclusion, may I summarize by expressing the conviction that a high standard of professional conduct, a continent-wide solidarity combined with a major reliance upon responsible autonomy, a broad growth in areas of activity and in membership, and a concerted approach to the major community problems which concern us, constitute a set of ingredients which are essential if the Society is to attain increasingly high levels of achievement in future years. Furthermore, I am confident that the capacity, enthusiasm and industry of our membership ensure a prospective record of future achievement which will be a compatible projection of the splendid accomplishment in the past.