

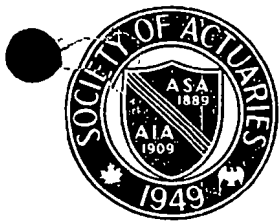


SOCIETY OF ACTUARIES

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EXAMINING DEPARTMENT EXAMINATIONS

Strengthening The Surveillance System, Final Report to the NAIC-McKinsey Co. Inc., New York.

by George Brummer

Supervision over insurance companies—or, as it is called here, a Surveillance System—is not something that can be lightly dismissed. Insurance is very much a “people” business and, consequently, supervision over it is in the public interest. Moreover, it is in the public interest that any supervision be efficient and, above all, effective.

Insurance supervision in the United States is nothing new. It has been with us for nearly 100 years, evolving and growing with time to its present state. Throughout, a major part of the supervision process has been the regular examination of each insurance company by State examiners under the direction of a State Insurance Commissioner. These regular examinations have never become standardized, but have nonetheless been expected to furnish the various state regulatory authorities with sufficient information to enable them to determine the solvency of insurers within their jurisdiction. In recent years, the process has been expanding to include supervision over certain marketing practices, such as advertising. Sometimes this expansion came after prodding by consumerist movements, but more often the impetus came from within the State Insurance Departments.

Unfortunately, the examination system is still not satisfactory. Recognizing this, the National Association of Insurance Commissioners, in 1973, asked McKinsey & Company, a well-known firm of management consultants, to review the system and recommend changes. The results of this review and the recommen-

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EDITORIAL BOARD CHANGES

Pressure of other duties has led Kenneth T. Clark to resign from the Editorial Board much to the regret of his colleagues. Ken has been an active Editor since November 1970 and his scholarly wit has enlivened the duties of the other Editors as well as the pages of *The Actuary*. The Society and *The Actuary* say “Thank You”.

We welcome to the Editorial Board, Colin E. Jack who will also act as our Canadian correspondent. We also welcome an addition to the Board, Jonathan L. Wooley.



20th INTERNATIONAL CONGRESS OF ACTUARIES

The papers submitted by the United States members for the Congress to be held in Tokyo in October 1976 are reviewed by a Committee from the United States section of the International Actuarial Association.

The members of this Committee are as follows:

- Newton L. Bowers, Jr.
- Thomas P. Bleakney
- Melvin L. Gold
- T. N. E. Greville
- Charles C. Hewitt, Jr.
- David G. Halmstad
- Paul M. Kahn
- William J. November
- Jerome A. Scheibl
- Donald B. Warren
- Robert J. Myers, Chairman

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THE ACTUARY AS A PROFESSIONAL

By John C. Angle

“Those uncertain actuaries,” as Fortune Magazine characterized us in 1965, still aren’t certain of their identity or professional standards. The words “identity crisis” leap out from Past President Morton D. Miller’s program introduction for the 1974 Annual Meeting. And John Bragg’s paper reminds us of our forlorn search for an acceptable definition of our profession’s brand name, actuary. Mr. Bragg tries again by saying we are experts. I give him credit for a good try, but “What do you do?” will continue to rank among the most difficult questions faced by an actuary.

Our persistent failure to cast a suitable definition of “actuary” can be accounted for, I suspect, by varied roles of today’s actuaries. We are, in fact, as fragmented as the French Assembly. Our common bonds are those of a scientific discipline which seems to be breaking into several subspecialties. Our cultural ties are those which unite the graduates of a single institute: only we took our studies by correspondence and wrote examinations in centers stretching from the Philippines to South Africa. But can the unity of education produce a unity of vocation? I will suggest that it cannot. While the president of a mutual life company and a consulting actuary can unite in scientific matters, to suggest that they share identical vocational obligations is to fall into the trap of those who consider alike all insurance men or all Texans or all New Yorkers.

From the birth of the Equitable in London in 1762, a company soundly guided by the work of Dr. Richard Price, to the founding of the Society of Actuaries, “actuary” has referred to an officer of a life insurance company.

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The Actuary as a Professional

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Robert J. Myers struck this note in his 1972 presidential address to the Society. "In North America," he said, "one important element in the definition of an actuary is the general characteristic of being a businessman—that is a policy maker and administrator."

Time, however, has altered the accuracy of this picture. During the 25 year life of the Society of Actuaries extraordinary changes have taken place in the work of the actuary and in the institutions he serves. Let me mention a few of these changes which today make it so difficult to precisely define the subject matter and work of an actuary.

1. The rapid rise of consulting practice. As noted in the Milliman-Eckler paper, consulting actuaries and brokers represented 24 percent of our 1973 membership. In 1950 the comparable figure was 7 percent. Between 1963 and 1973 the population of consulting actuaries grew by 11.4 percent a year while the number of insurance company actuaries grew by 4.9 percent a year and the Society's membership by 7.3 percent a year. Obviously we are becoming less homogeneous and I, for one, doubt that we can ignore the differences in company and consulting practice.
2. The changing face of the life insurance company. Forty years ago most life insurance companies issued only individual life insurance. Today life insurance companies are major underwriters of group life and health insurance, pension benefits, disability insurance, variable annuities, mutual funds, and are moving into the fire and casualty insurance field.
3. The increasing specialization of the actuary. We are becoming more specialized, often in fields, such as health insurance, where mathematics and traditional actuarial methods offer only rough guidelines to the problems at hand. Some fields of practice, including company management, are explicitly soft data fields more closely akin to the social sciences than to the more exact sciences.
4. The problems of size. In 1940 most actuaries worked for companies that would seem of moderate size by to-

day's standards in a remarkably compact geographic area bounded by Toronto, Montreal, Boston, Hartford, New York and Philadelphia. Today the companies are larger, split into many semi-autonomous divisions and actuaries are found across a large continent.

Because of these influences, the Society of Actuaries has come to resemble a map of the Balkans. The facts are that there exist pronounced differences in the interests and problems of actuaries in different employment situations, in different specialties and in different cities and countries. We have also seen the rise of the actuarial accrediting bodies, the American Academy and the Canadian Institute of Actuaries. Their rise has stimulated the officers of all actuarial bodies to a remarkable amount of political activity. One senses also a pervasive drive by our presidents for actuarial unity. This, it seems to me, sometimes obscures our need for more dissent and public disagreement.

Let us now turn to an even fuzzier abstraction, "professional." Now the term "professional," at least as used in the past denoted our ties to the discipline of actuarial science. From those scientific ties came a spirit of scholarship, a duty to the cause of learning, and a sense of duty to our employers, to the public, and to our colleagues. These are characteristic of an intellectual discipline and not merely the features of a guild or vocation that decided one day to proclaim itself a profession.

To expand upon this special sense of the term "profession" more fully, I shall argue from Professor Thomas S. Kuhn's studies of the development and flowering of science.¹ Professor Kuhn suggests that every science or intellectual discipline consists in its infancy of descriptions of what can be seen, felt or tasted together with a number of conflicting, often metaphysical explanations of the phenomena in question. Sooner or later a strong all-encompassing theory appears from the pen of a Newton, Galileo, Copernicus, Kepler or a Pasteur which sweeps away rival theories. At that point the amateur sport becomes a profession, one complete with specialist societies and learned journals. Thereafter the practitioners no longer concern them-

selves with the philosophy of first principles but concentrate on advanced problems within the narrow boundaries of their particular science or intellectual discipline.

For the names of the philosophers who brought about this watershed for actuarial science, I turn to William Morgan's introduction to the seventh edition of *Observations on Reversionary Payments*, published in London in 1812:

While "to Dr. Halley, Mr. DeMoivre and Mr. Thomas Simpson, and particularly the latter, we owe the first rudiments and improvements of this science, we must remember that for the more accurate knowledge of it we are indebted to Dr. Price."

While Morgan was scarcely impartial, being Price's nephew, I agree with his judgment. It is notable that Dr. Richard Price is remembered more for his writings on moral philosophy than for his role as the first man to put insurance on a sound mathematical foundation. Dr. Price was a dissenting clergyman with mathematical ability. In 1761 Price, going through the manuscripts of the deceased Rev. Thomas Bayes, F.R.S., found a problem in probability Bayes had imperfectly solved. Price's solution, a contribution to the "Doctrine of Chances," won him election to the Royal Society in 1765. A few years later Price wrote Benjamin Franklin offering "Observations on the Expectations of Lives"; the Price-Franklin letter appears in the 1769 *Transactions of the Royal Society*. It was followed in the 1770 *Transactions* by a paper on how to calculate "Reversions Depending on Survivorship," then by the book, *Reversionary Payments*, and his advisorship to The Equitable Society of London. Price supported both the American and French Revolutions and engaged in furious debate on the latter subject with Edmund Burke. The Americans so treasured his support and advice on public finance that Congress, after the American revolution, invited Price to become an American citizen. In 1782 Yale awarded honorary Doctor of Law degrees to two men: Richard Price and George Washington.

Scientific education, after the appearance of a Richard Price gains its power through intense concentration within a clearly defined, narrow field. While this

¹ *The Structure of Scientific Revolutions*, University of Chicago Press, 1970

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technique is powerful, Professor Kuhn calls scientific education narrower and more rigid than that of any other course of instruction save that of seminarians in orthodox theology. Furthermore scientific education proceeds from textbooks (read *Study Notes*) to concentrate the student's attention on the development of highly refined, particular skills. Little time is spent giving novices any insight into the premises of the field. Textbooks and even scientific papers are prepared according to the advice attributed to Louis Pasteur: "Make it seem inevitable." This may explain why scientists, actuaries included, find it more difficult to explain their work or relate it to other fields than to apply it to a problem.

In the debate over "Professionalism," the term "professional" seems to be defined to emphasize a practitioner's relations with clients and is undoubtedly stimulated by the ethical problems of consulting actuaries. The analogue for this sort of "professional" seems not to be that of the scientist but of the public accountant. The public accountant, it seems to me, is a sort of financial referee who can give investors, lending institutions and governments an independent, unbiased opinion about the accuracy of a firm's financial statements. In this role of financial referee, he abides by rules of statement presentation established through a quasi-judicial process within the accounting profession. Conformity to these rules rather than creativity seems the byword in accountancy.

Somehow I find the rule making of professionalism the antithesis of the scientific ethic which encourages all members to untrammelled debate over the quality and objectivity of any scientific work presented by a fellow scientist. At the heart of the scientific ethic, according to Jacob Bronowski, lies an almost religious worship of the value of truth. From this ethic, according to Bronowski, flow such other values characteristic of scientists as independence, originality, dissent, tolerance, freedom, justice, honor, and respect.

Not only are professional-vocational rules of conduct likely to stifle the iconoclastic spirit needed by a good actuary but they are apt to curtail his venturesomeness. After all, our science is not explicit enough to cover all situations in

which an actuary gives advice. Often we must reason by analogy from the simple models of life contingencies to the complexities of a large insurance company. In creating new coverages or new financing provisions our experience and mathematical skills may be all that we have to bear upon the problem.

Among all company officers the actuary seems uniquely insulated against that ultimate manifestation of unpopularity, the pink slip, by the apparently limitless demand of the marketplace for more actuaries. E. J. Moorhead suggested several years ago that actuaries cultivate a readiness to sacrifice. He recalled the words of George King who said, when accepting the Gold Medal of the Institute of Actuaries:

"Four times in my life I was out of a job, without knowing where I could earn the next sixpence, just because I would not accept conditions that seemed to me to be dishonorable or perhaps worse. I wish every person to know, the younger men especially, that I was never a penny the worse, and those whom I left were those who suffered most . . . My advice would be that a man should be sure that his position is right, and then go forward boldly with no fear of what might happen to him."

I conclude that the heritage of actuaries is the maverick-like freedom of thought characteristic of Dr. Richard Price rather than in the catechisms of some orthodoxy of practice. Attempts to put actuarial practice in a mold will be as doomed to failure as are business plans which take no note of changing times and consumer wants.

Furthermore, attempts to specify modes of practice are made more difficult by the balkanization of the actuarial profession in North America. Rather than creating a need for some new generalization, such as professionalism, I believe the situation cries for enough organizational fragmentation to stimulate new scientific theories, new debate and new extensions of our science to meet the needs of the actuaries of today.

The above is part of Mr. Angle's discussion of John M. Bragg's The Future of the Actuarial Profession as Viewed in A.D. 1974. □

Actuarial Meetings

- Feb. 11, Central Illinois Actuarial Club
- Feb. 13, Baltimore Actuaries Club
- March 3, Boston Actuaries' Club
- March 12, Hartford Actuaries Club, Springfield, Mass.
- March 13, Actuarial Club of Indianapolis
- March 13, Baltimore Actuaries Club
- March 14, San Francisco Actuarial Club

Examining Exams

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tive part in the deliberations regarding changes and in assisting regulatory authorities in the examination process itself, steps that should be possible through the formation of committees and panels of professionals by one or more of our organizations. We have the knowledge and the expertise, and we should make it available to assist in the outcome and to influence it to move in the right direction. Perhaps, through such participation, coupled with the strong support of actuaries in general, we will not find ourselves being once again in the position of onlookers that later must follow the dictates of others who played more active roles. It happened with the accounting for pension costs and the presentation of life insurance company financial results. The trend threatens to continue as economists become more heavily involved in social insurance programs and as cost accountants and various Federal government functionaries enter the pension arena. The actuarial profession must assert more leadership.

Our contribution must become more effective and our participation more influential. Whenever we can, we must speak instead of merely being spoken to. The McKinsey Report, its proposals and its recommendations provide just such an opportunity. □

Death

Valentine Howell