TRANSACTIONS OF SOCIETY OF ACTUARIES
1974 VOL. 26 PT. 1 NO. 76

FUTURE FOR THE LIFE OFFICE ACTUARY IN CANADA

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THIS paper is intended to be a supplement to the excellent paper presented by John M. Bragg at the twenty-fifth anniversary meeting of the Society of Actuaries. Although Mr. Bragg deals in scholarly fashion with the future of the actuarial profession for life office actuaries in the United States and Canada, it will perhaps be interesting and informative to add some further comments related to Canada.

The very interesting material presented in the opening pages of Mr. Bragg's paper, intended to describe the social-historical context within which the work of our profession is to be conducted, applies to Canada as well as to the United States. In order to elaborate on possible developments in the near future in Canada, a brief summary of recent actuarial and life office history might be appropriate.

By the end of World War II there were a number of actuaries clubs in Canada. In 1946 the Actuaries Club of Toronto was converted into the Canadian Association of Actuaries. This change was intended to express an intention to have an actuarial organization with Canada-wide memberships, without interfering with the work of local actuarial clubs. In the years that followed, membership of the Canadian Association of Actuaries expanded rapidly to include representation of consulting, government, and life office actuaries in Canada. Although there was some experimentation with character and frequency of meetings, very few papers were presented at the meetings. Membership in the Association was first used as a method of describing to the public a qualified Canadian actuary as recently as the early 1960's.

On March 18, 1965, the Canadian Institute of Actuaries was incorporated by a private act of the Parliament of Canada, with the equivalent French name Institut Canadien des Actuaires. The Canadian Institute of Actuaries is representative of all qualified actuaries in Canada, including casualty as well as life actuaries. Since 1965 the Canadian Institute of Actuaries has been successful in obtaining accreditation by the federal government and by the provinces, with the result that, wherever it is necessary to define the term "actuary" in legislation, the definition is to the effect that an actuary is a Fellow of the Canadian Institute of Actuaries.

In 1965 the membership of the Canadian Institute of Actuaries consisted of 454 Fellows, 146 other members, 45 correspondents, and 72 students, a total of 717. Of these actuaries, 385 Fellows, 110 other members, and 69 students were resident in Canada, a total of 564. The corresponding figures according to the most recent available data as of July 3, 1974, shows 785 Fellows, 52 other members, 58 correspondents, and 265 students, for a total of 1,160. Of these actuaries, 588 Fellows, 42 other members, and 262 students, or a total of 892, were resident in Canada. Not only has the Canadian Institute of Actuaries grown remarkably in total membership during its short life, but also the membership resident in Canada has grown even faster. It is important to note that, during the first ten years of the Institute's history, the growth in its resident membership has been accelerated and greatly influenced by a rapid increase in the number of Canadian francophone actuaries. Although a number of distinguished francophone actuaries antedate the formation of the Canadian Institute of Actuaries, and although these actuaries by and large are graduates of universities in the Province of Quebec, it was in the early 1960's that Laval University in particular dramatically built up its actuarial courses and began to produce sizable numbers of outstanding actuarial students. As of today, the resident membership of the Institute includes approximately 80 francophone members, which represents 13 per cent of the total resident membership. However, the number of francophone students is approximately 62, that is, 24 per cent of the total number of students; likewise, francophone new Fellows in 1974 represent about 25 per cent of all resident new fellows. This growth in francophone membership has been recognized by the Institute by the introduction of simultaneous translation at its membership meetings and by sincere conscious efforts to make the Institute bilingual in both written and spoken word. The recent decision to set up the Institute's own administrative office in Ottawa is related to these developments.

Some interesting patterns in the migration of Canadian actuaries have developed. Naturally, there are individual actuaries intrepid enough to be exceptions to the general patterns of migration. However, it is a realistic statement that to date the francophone actuaries have tended to remain in the Province of Quebec or in certain special bilingual areas, such as Ottawa. There has been a definite trend on the part of some of these actuaries to work for a few years in anglophone Canada—for example, in Toronto—and then to return to the Province of Quebec or to move to a special bilingual area. It is interesting to speculate how much longer this pattern can continue in light of the number of actuaries being produced by francophone Canada in comparison with the number of positions available to them in francophone Canada. On an international basis, it is also realistic to say that migration by Canadian actuaries to the United States, a major pattern years ago, has been greatly reduced. This development is due in part to changes in the United States immigration laws, in part to the development of greater opportunities in Canada, and in part to contrasts between the two societies. It is interesting to speculate on whether or not this dramatic reduction in migration to the United States is a temporary phenomenon.

In Canada there are 17 Fellows in the service of various governments, federal and provincial. These Fellows comprise 3 per cent of the total number of resident Fellows. The work done by these actuaries in government service is challenging and interesting, and the numbers of actuaries in government service may be attributed to this fact plus the fact that salaries in government service in Canada are reasonably competitive with those in business and industry.

The Canadian Institute of Actuaries will be holding its tenth anniversary meeting in Montreal in March, 1975. In recent years there has been a marked upsurge in the presentation of high-caliber papers at the Institute's meetings. This is one facet of the process of maturing of the Institute as the national professional body for actuaries in Canada, a process that is accelerating rapidly. Among the membership there is much interest in the education and training of actuaries, particularly in attaining an educational system that will give adequate recognition to all facets of the profession in Canada.

During the ten years of the Institute's life, many things have happened that have an important impact on the work of life office actuaries. Major developments have occurred in social security, taxation, variable products, consumerism, experimentation in marketing, and nationalization of insurance.

In the same year in which the Institute was chartered, the Canadian government enacted the legislation to introduce the Canada Pension Plan for residents of nine provinces, the corresponding Quebec Pension Plan being introduced at the same time for residents of that province. These major social security programs provide retirement benefits, disability benefits, and survivorship benefits. The retirement benefits are in addition to the pensions universally available under the Old Age Security Act. From the point of view of the life office actuary, these social security programs brought some bad news and some good news. Their advent definitely affected adversely for a few years the development of employer pension plans in Canada. For most pension and disability income plans, it is customary to use some form of integration between social security and the employer's plan. Because retirement and disability pensions provided by the Canada (Quebec) Pension Plan are indexed, integration presents special problems related to the conflicts that can arise between the employer's philosophy on costs and the employees' attitude on fairness to retirees. On the other hand, in the field of individual life insurance and annuities, it is a realistic view that these social security programs provide a sufficient base on which, in conjunction with employers' group insurance and group pensions, many employees can now use individual policies to build an adequate program of protection in case of death, disability, or retirement. Similar comments apply to self-employed people, who in general will have to use individual policies for larger amounts to complete their programs, unless they also have access to some form of group insurance. In contrast, before the introduction of these social security programs it was difficult, and in many cases impossible, for people to afford a completely adequate insurance program, because they could not manage to pay the required premiums.

During the late 1950's and early 1960's, provincial governments in Canada made use of federal legislation on cost-sharing to introduce government-operated programs of hospital care and doctors' care available to all residents. Although these programs have a history of rapidly increasing costs, in many cases financed from general taxation revenues, they are generally well liked by the people, and are, therefore, unlikely to be curtailed. Rather, it is probable that they will be extended to cover the costs of some dental care and of prescription drugs. In some provinces there are already some benefits for the costs of dental care and care by other healing arts practitioners. Although these developments led to the disappearance of individual and family health care policies, group health care premium income continued to increase for many companies.

In 1971 short-term income replacement benefits during disability or maternity were added to the Canadian unemployment insurance program.

In 1969 the Canadian government imposed business income and investment income taxes on stock and mutual life insurance companies. Until that date, the mutual life insurance companies had not been taxed by Canada, and stock life insurance companies had been taxed only on amounts transferred to the shareholders' fund. The introduction of these new Canadian taxes has had a marked effect on the financial results of the Canadian operations of life insurance companies. Their impact is still being studied and explored, and the actuaries of the companies are still busy analyzing the taxation statutes with a view to improving the financial planning of their companies. Such improvement will be necessary because the introduction of these taxes has made it more difficult for a company to maintain its accumulation of surplus at a level required to guarantee the solvency of its operations.

Insurance companies in Canada have had the power to issue variable life insurance and variable annuity contracts since 1961. Many companies began to offer group variable contracts in the early 1960's for the accumulation of pension plan moneys. However, it was not until 1968 that individual variable contracts began to be offered by a sizable number of companies. Variable contracts are subject to supervision and regulation by both federal and provincial insurance departments in the manner traditionally associated with fully guaranteed contracts. In addition, in some provinces variable contracts have come under the jurisdiction of the provincial securities commission. In Canada there is no federal securities commission.

In Canada, as in the United States, there is much experimentation in methods of marketing life insurance and other forms of insurance, this experimentation being to some extent a response to the growing importance of activities related to consumerism in Canadian society. Moreover, three provinces—British Columbia, Manitoba, and Saskatchewan—have created government corporations to enter the business of insurance. In each case the corporation was created initially to enter the field of automobile insurance. At the present time, at least two of these government corporations are in the process of expanding their activities into various lines of general insurance, in addition to automobile insurance. Moreover, the charters of these government corporations would allow them to conduct a life insurance business, and there are signs that at least one province is giving consideration to entering the field of life insurance and annuities. It will be very interesting to see whether these developments become a trend in Canada. It would seem logical that actuaries, particularly those qualified in nonlife as well as life, should have a part to play in guiding the affairs of these government corporations.

In addition to the developments described above, Canada has experienced and is now experiencing a number of developments parallel to those in the United States. For example, between 1948 and 1974 there has been an unprecedented increase in yield rates on investments. For some life companies in Canada, net portfolio rates dipped below 3 per cent in 1948. Most net portfolio rates in 1974 are well in excess of 6 per cent, and some are over 7 per cent. New-money rates are at an all-time high, with interest rates on residential first mortgages currently between $11\frac{1}{2}$ and 12 per cent per annum. During the same period there has been a continual rise in expenses, and in recent inflationary times the increases in expense rates have been remarkable. These two trends have tended to produce marked distortions in dividend scales and have had a significant impact on gross premiums. Since 1969 the additional impact of corporate taxation has tended to inhibit the growth in surplus. During this period there have been marked advances in technical equipment, especially computers. The use of computers has pretty well eliminated the need for many of the traditional actuarial forms of calculation and approximate methods. From this point of view, computers must have a big impact on the education and training of actuaries. They are now used to facilitate so many of our activities, such as the construction of models and projections, the calculation of gross premiums and nonforfeiture values, the printing of ratebooks, and the calculation of and printing of dividend illustrations.

What developments in the near future can be anticipated by projecting these trends of recent years? The experimentation in marketing systems will need to return to the first principle of service to the public and may have to place less stress on increases in sales and profits. Government-operated activities related to insurance have by and large been created in Canada because people were not satisfied with the service being received from existing sources. This comment applies in the fields of hospital care, doctors' care, and automobile insurance. This points up the importance of maintaining our service to the public at such a level that there will be no motivation for a movement to a government-operated program. Moreover, because it has usually been found practically impossible to compare the true costs of the two approaches to insurance, it will be all the more important to perform well on the basis of service.

With a view to increasing and improving their services to the public, a number of life companies have moved and are moving to diversify their products and services. In addition to the introduction of variable as well as guaranteed products, some of the companies have created organizations to provide such services as data processing and actuarial consulting services. This trend is likely to continue.

Further developments are likely to occur in social security. In Canada much attention is currently being directed to consideration of the proper relationship between social security and private insurance benefits. This is an area where the actuaries have a contribution to make.

These developments in Canada will certainly have their impacts on the actuarial profession. Matters of accreditation will increase in importance, and it may be necessary to consider provincial licensing. Activities of auditors and accountants in connection with financial reporting may lead to questions of the independence of the actuary. Funding of pension plans is typical of a kind of activity that will require a more careful enunciation of actuarial principle. These developments will present the Canadian Institute of Actuaries with a series of important challenges in the years immediately ahead. In order to meet these challenges, it will be necessary for the Institute to mature quickly so that it may truly become the national professional organization for actuaries in Canada.