

He said: Honourable senators, this is a bill to incorporate the Canadian Institute of Actuaries. Very briefly, it may be said that its purpose is to provide for the same recognition by the Parliament of Canada of the actuarial profession as has been given to other professions by act of Parliament from time to time.

The Oxford dictionary describes an actuary as an expert on insurance who calculates risks and premiums. If the dictionary were revised I think that definition might be considerably expanded today. It is true that that is one function of the actuary. In connection with that function, the actuary must analyse and prepare statistics both in respect of events or occurrences which are the subjects of the premiums and reserves. His statistics will include not only the events which are the subject of the premiums and reserves, but also the expenses likely to be incurred in connection with the transaction, and the rate of earnings on any amounts generated for investment.

At this stage I think I should disclose my interest in this matter, though I will not refrain from voting. I am an Associate of the Society of Actuaries, but lest any honourable senator be under any misapprehension let me say I took my examinations many years ago, when I was going to university and when the requirements were much less severe than they are now. I would not want to write my bar examinations now either!

A fully qualified actuary today must be qualified in, among other things, advanced mathematics with particular emphasis on the theory of probabilities, the theory of risk, the theory of statistics and the theory of finance; simple and advanced accounting; cost accounting; finance, economics and investment; impact of medical, mental and physical impairments, environment, occupation and human behaviour on duration of human life and ability to work; impact of environment, structure, weather and human behaviour on rate of damage to or loss of property from any and all causes; financial impact of human illness and injury and of damage to or loss of property. He must also have some of the characteristics of a lawyer in that he must be qualified in the drafting of certain types of contracts.

As I say, the day was many years ago when these requirements were very much simpler.

Most universities or colleges in Canada and elsewhere offer courses in pure mathematics; and a few in Canada, such as Queen's University and the Universities of Toronto, Western Ontario, Manitoba, British Columbia and Laval, offer courses in the special

mathematics an actuary is required to use in his work. However, no educational institution in Canada, or elsewhere, provides instruction in some of the subjects in which a person is required to be proficient in order to qualify as an actuary. As a consequence there have grown up in most countries organizations comprised of qualified actuaries which prescribe courses of study, and conduct written examinations for qualification for membership in the organization. The information a student has to study to complete the examinations is available in textbooks, professional journals, etc., prescribed by the respective organizations and most likely written by the members themselves. In England the organization is known as the Institute of Actuaries. In Scotland it is known as the Faculty of Actuaries. Both of these organizations were founded by royal charter and, while their memberships are drawn largely from Great Britain, many members of the two organizations are to be found in Canada, in other countries of the Commonwealth and in the United States.

The two pre-eminent actuarial organizations in the United States are the Society of Actuaries, composed mainly of actuaries serving the life insurance business, governments and consulting actuaries, and the Casualty Actuarial Society, composed mainly of actuaries serving casualty and property insurance companies. In addition there is the Fraternal Actuarial Association and the Conference of Actuaries in Public Practice. The Fraternal Actuarial Association is composed mainly of actuaries serving fraternal organizations, and the Conference of Actuaries in Public Practice is composed mainly of consulting actuaries retained on a fee basis to install and supervise pension and welfare plans. A number of the members of these last two organizations are members of the Society of Actuaries.

The Society of Actuaries in the United States is incorporated and holds a position in the United States similar to that held by the Institute of Actuaries in England and by the Faculty of Actuaries in Scotland. None of the other actuarial organizations in the United States is incorporated, although at present all four organizations there are co-operating in a proposal to apply to Congress for an act to incorporate an organization to be known as the American Academy of Actuaries which will be designed to establish minimum qualification standards that are common to each of the four organizations, that is, qualification up to the level where the actuary is finding it increasingly necessary to specialize in one of the branches served by the respective four organizations.

The earliest actuaries in Canada and the United States were members of the Institute