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CONSULTING ACTUARIES IN CANADA AND THE UNITED STATES—1974

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I. INTRODUCTION

Although most members of the Society of Actuaries are employed by life insurance companies, a significant minority of the membership is engaged in public practice as consulting actuaries. This minority has been increasing steadily and there is good reason to expect the trend to continue.

When the Society of Actuaries came into being twenty-five years ago, by the merger of the Actuarial Society of America and the American Institute of Actuaries, 7 per cent of the active members of the new body were in public practice. Currently nearly 25 per cent are so engaged (Table 1). It may be of some interest to note that the number of members of the Society now engaged in the consulting field is about the same as the total number of members of the Actuarial Society of America, the larger of the two antecedent bodies, at the time of the merger.

This growth in relative importance of the segment of the Society's membership engaged in public practice warrants a review of the consulting actuarial field. Accordingly, this paper will endeavor to describe the consulting segment of the actuarial profession as it now exists in the United States and Canada, the environment in which it has developed, and some of the unresolved problems and possible future developments that the authors perceive.

What is a consulting actuary? For the purposes of this paper the term "consulting actuary" refers to any actuary who provides actuarial calculations, opinion, or advice to a public for compensation and who is a member of at least one of the following organizations:

- Society of Actuaries
- Casualty Actuarial Society
- Conference of Actuaries in Public Practice
- Fraternal Actuarial Association
- Institute of Actuaries
- Faculty of Actuaries
- Canadian Institute of Actuaries
- American Academy of Actuaries

The question of the extent to which the public interest might properly require that standards of education, experience, and conduct should limit the right of an individual to hold himself out to the public as a qualified consulting actuary will be considered later.

In both the United States and Canada most consulting actuaries work either primarily or exclusively in connection with employee benefits plans, principally pension plans. In addition, however, a substantial amount of consulting actuarial work is done for insuring organizations of various types. Some consulting actuaries also do some work in the following areas, which, although still relatively minor, appear to be increasing in importance: financial projections, noninsurance problems involving probability and interest calculations, management consulting where actuarial knowledge is useful, systems analysis and computer work, and actuarial evidence in court cases.

TABLE 1

MEMBERS OF THE SOCIETY OF ACTUARIES IDENTIFIED AS CONSULTING ACTUARIES AND BROKERS*

YEAR	FELLOWS		ASSOCIATES		TOTAL	
	No.	% of Total†	No.	% of Total†	No.	% of Total†
1950	44	7%	31	8%	71	7%
1953	56	8	55	11	111	9
1963	170	15	152	18	322	16
1973	474	23	461	25	935	24

* 1950 figures tabulated from *1950 Year Book;* 1953 figures from table "Analysis of Membership by Type of Employment," first published in *1969 Year Book;* 1963 and 1973 figures tabulated from *List of Members by Business Connection* (Society of Actuaries) for those years.

† Except for 1950, retired members and those with no known business connection are excluded from totals in determining percentages.

The needs which give rise to the use of consulting actuaries may be either temporary or ongoing. Temporary needs for the services of consulting actuaries may arise:

1. During the developmental period of a new kind of insurance entity when the number of organizations recognizing the need for actuarial services may exceed the number of available actuaries with appropriate education and experience. This was the situation during the early stages of development of legal reserve life insurance and appears to be the current situation in the United States with respect to various types of health insurance organizations.
2. When a newly organized company enters a developed line of insurance. Characteristically such companies rely upon the service of consultants until they are large enough to employ full-time, in-house actuaries.

3. When established insurance companies are faced with peak work loads or need assistance with specialized problems, for example, assistance with the problems of entering a new field, such as group insurance.
4. When an employer wishes an independent investigation or review in connection with his employee benefit program.

Organizations regularly requiring actuarial services may rely upon consultants in the following circumstances:

1. Where the operation giving rise to the need for actuarial services is peripheral to the user's main business, for example, valuation of pension funds and guidance in connection with self-insurance.
2. Where the user desires or needs an independent appraisal and certification of the actuarial items in financial statements, for example, certification of reserves for a publicly held stock life insurance company.

II. SOME CURRENT CHARACTERISTICS OF CONSULTING FIRMS

In order to describe better how the consulting segment of our profession is organized and operates, the authors distributed a questionnaire to consulting actuarial firms in the United States and Canada. This questionnaire was sent to each firm with offices in these countries that the authors were able to identify as employing one or more actuaries who were members of the Canadian Institute of Actuaries, the American Academy of Actuaries, or one of the four bodies that sponsored the organization of the American Academy of Actuaries. Usable responses were received from 243 actuarial firms employing 1,123 actuaries.

Well over 80 per cent of the firms to whom questionnaires were sent responded, and these firms probably account for over 90 per cent of the consulting actuaries practicing in the United States and Canada. Some idea as to the representativeness of the survey results can be gained from the comparisons (Table 2) between the number of consultants reported as such in the yearbooks of certain organizations and the number of members of these organizations represented by the survey responses. The comments in the following paragraphs are based upon these survey responses.

The distribution of firms by country and size group is shown in Table 3. The size categories are referred to as "solo practice," for firms involving only one actuary; "small," for firms with two to five actuaries; "intermediate," for firms with six to twenty actuaries; and "large," for firms with more than twenty actuaries.

Fifty-five per cent of the respondents to the questionnaire were in solo practice, while an additional 32 per cent were in the small category. The remaining 13 per cent, with six or more actuaries apiece, were almost evenly divided between the intermediate and large categories. As might be expected, the seventeen large firms, with an average of thirty-six actuaries per firm, employ a substantial proportion (55 per cent) of the total number of consulting actuaries.

The size profile differs noticeably between the United States and Canada. A smaller proportion of the consulting firms in Canada are in solo practice than is the case in the United States. This may be due partially to the lesser importance in Canada of actuarial consulting work for

TABLE 2

NUMBERS OF CONSULTING ACTUARIES REPORTED IN RESPONSES TO SURVEY COMPARED WITH AVAILABLE TOTALS FOR INDICATED ACTUARIAL ORGANIZATIONS*

A. Members of Society of Actuaries	
1. Included in survey:	
United States	780
Canada	156
Total	936
2. Classified as consulting actuaries as of July 1, 1973, in *1974 Year Book*	929
B. Members of American Academy of Actuaries resident in U.S.	
1. Included in survey	748
2. Classified as "consulting and insurance brokers (U.S.)" in September 12, 1973, *List of Members by Business Connection*	812
C. Members and students of Canadian Institute of Actuaries resident in Canada	
1. Included in survey	156
2. Classified as consulting actuaries as of October 17, 1973, in CIA *Yearbook*	144

* Survey responses reflect status at time of responses—roughly May and June, 1974. Other numbers are as of dates indicated.

insurance companies. On the other hand, there are proportionately fewer large firms in Canada but proportionately more intermediate ones. One might speculate that this is simply a result of the smaller population in Canada.

About one-third of the Canadian consulting firms, employing about one-half of the consulting actuaries in that country, are firms that are affiliated with or subsidiaries of United States or United Kingdom organizations (Table 4). No parallel to this exists in the United States. It should be observed that, for convenience, any firm that had actuaries resident in both the United States and Canada was counted as a firm in both countries without regard to whether the Canadian operations were, in fact, conducted through a separate corporate entity.

TABLE 3

CONSULTING ACTUARIAL ORGANIZATIONS CLASSIFIED BY SIZE AND COUNTRY

No. of Actuaries	United States		Canada		United States and Canada		Percentage Distribution of Number of Actuaries		
	No. of Firms	No. of Actuaries	No. of Firms	No. of Actuaries	No. of Firms	No. of Actuaries	U.S.	Canada	Combined
1 (solo practice)	127	127	6	6	133	133	13%	4%	12%
2–5 (small)	68	200	10	27	78	227	21	17	20
6–20 (intermediate)	7	55	8	91	15	146	6	58	13
Over 20 (large)	16	585	1	32	17	617	60	21	55
Total	218	967	25	156	243	1,123	100%	100%	100%

Most consulting actuarial firms are organized as corporations. In Canada, 85 per cent of the responding firms are in corporate form. The substantially lower percentage for the United States (52 per cent) is attributable mainly to the relatively large number of solo practice firms in that country and the fact that about two-thirds of such firms are sole proprietorships. The partnership form of organization is relatively uncommon in both countries.

This survey confirms statistically the common understanding that most consulting actuarial firms and most consulting actuaries work with pension and other employee benefits programs (Table 5). Forty-two per cent

TABLE 4

CANADIAN CONSULTING ORGANIZATIONS CLASSIFIED BY SIZE AND LOCATION OF CONTROL

No. of Actuaries	Wholly Owned by Canadians			Affiliated with or Subsidiaries of U.S. or U.K. Firms		
	Firms	Actuaries		Firms	Actuaries	
	No.	No.	%	No.	No.	%
1 (solo)	5	5	6%	1	1	1%
2–5 (small)	8	23	30	2	4	5
6–20 (intermediate)	4	49	64	4	42	53
Over 20 (large)	0	0	0	1	32	41
Total	17	77	100%	8	79	100%

of the responding firms (51 per cent of the actuaries) substantially confine their practice to this field, while an additional 31 per cent of the firms (41 per cent of the actuaries) practice in the fields of both employee benefits and insurance. While no precise figure is available, there is reason to believe that at least one-third and perhaps as much as one-half of the activity of these combination firms is in the field of employee benefits. One might reasonably presume, then, that at least two-thirds, and probably more, of the work of consulting actuaries in the United States and Canada is in the employee benefits field.

An appreciable proportion of firms (18 per cent) are engaged in consulting in the insurance field only. By and large these are relatively small firms, most of them being in the solo practice category (Table 6), and, in the aggregate, accounting for only 5 per cent of the total number of consulting actuaries.

Twenty per cent of the firms offering consulting actuarial services either have some other principal business or are controlled by an organization that has some other principal business. As shown in Table 7, this characteristic is relatively more common among intermediate and large firms than among small and solo practice firms. Forty-one per cent of the large firms and 25 per cent of the intermediate firms are subject to such nonactuarial control.

TABLE 5

CONSULTING ACTUARIAL ORGANIZATIONS CLASSIFIED BY FIELDS OF PRACTICE AND BASES OF COMPENSATION AND COUNTRY

FIELDS OF PRACTICE	BASES OF COMPENSATION					
	Fees Only		Fees and Commissions		Total	
	No. of Firms	No. of Actuaries	No. of Firms	No. of Actuaries	No. of Firms	No. of Actuaries
Employee benefits only:						
U.S.	52	323	39	172	91	495
Canada	5	6	6	72	11	78
Total	57	329	45	244	102	573
Employee benefits and insurance:						
U.S.	52	368	9	14	61	382
Canada	10	48	4	30	14	78
Total	62	416	13	44	75	460
Insurance only:						
U.S.	38	48	5	6	43	54
Canada	0	0	0	0	0	0
Total	38	48	5	6	43	54
Computers:						
U.S.	11	22	0	0	11	22
Canada	0	0	0	0	0	0
Total	11	22	0	0	11	22
Miscellaneous:						
U.S.	12	14	0	0	12	14
Canada	0	0	0	0	0	0
Total	12	14	0	0	12	14
All fields:						
U.S.	165	775	53	192	218	967
Canada	15	54	10	102	25	156
Total	180	829	63	294	243	1,123

TABLE 6—CONSULTING ACTUARIAL ORGANIZATIONS CLASSIFIED BY FIELDS OF PRACTICE, SIZE, AND COUNTRY

Fields of Practice	Size of Actuarial Organization						
	1 Actuary	2–5 Actuaries		6–20 Actuaries		Over 20 Actuaries	
	No. of Firms	No. of Firms	No. of Actuaries	No. of Firms	No. of Actuaries	No. of Firms	No. of Actuaries
Employee benefits only:							
U.S.	46	34	98	3	25	8	326
Canada	5	2	4	3	37	1	32
Total	51	36	103	6	62	9	358
Employee benefits and insurance:							
U.S.	28	21	65	4	30	8	259
Canada	1	8	23	5	54	0	0
Total	29	29	88	9	84	8	259
Insurance only:							
U.S.	36	7	18	0	0	0	0
Canada	0	0	0	0	0	0	0
Total	36	7	18	0	0	0	0
Computers:							
U.S.	6	5	16	0	0	0	0
Canada	0	0	0	0	0	0	0
Total	6	5	16	0	0	0	0
Miscellaneous:							
U.S.	11	1	3	0	0	0	0
Canada	0	0	0	0	0	0	0
Total	11	1	3	0	0	0	0
All fields:							
U.S.	127	68	200	7	55	16	585
Canada	6	10	27	8	91	1	32
Total	133	78	227	15	146	17	617

TABLE 7

NUMBER OF CONSULTING ACTUARIAL ORGANIZATIONS CLASSIFIED BY SIZE, COUNTRY, AND REPORTED PRINCIPAL BUSINESS OF FIRM (OR OF PARENT ORGANIZATION IF FIRM IS CONTROLLED BY OTHER ENTITY)

Principal Business of Firm	1 Actuary	2-5 Actuaries	6-20 Actuaries	Over 20 Actuaries	Total
Actuarial:					
U.S.	104	59	6	10	174
Canada	5	10	5	0	20
Total	109	64	11	10	194
Insurance sales:					
U.S.	7	1	0	3	11
Canada	0	0	2	1	3
Total	7	1	2	4	14
Computers:					
U.S.	4	5	0	0	9
Canada	0	0	0	0	0
Total	4	5	0	0	9
Benefit plan administration:					
U.S.	2	2	1	0	5
Canada	1	0	0	0	1
Total	3	2	1	0	6
Financial:					
U.S.	3	2	0	0	5
Canada	0	0	0	0	0
Total	3	2	0	0	5
Accounting:					
U.S.	1	0	0	2	3
Canada	0	0	1	0	1
Total	1	0	1	2	4
Management consulting:					
U.S.	3	0	0	1	4
Canada	0	0	0	0	0
Total	3	0	0	1	4
Miscellaneous:					
U.S.	3	4	0	0	7
Canada	0	0	0	0	0
Total	3	4	0	0	7
Total:					
U.S.	127	68	7	16	218
Canada	6	10	8	1	25
Total	133	78	15	17	243

The relationships involved are quite varied, as are the mechanisms that have been developed in at least some of these firms to protect the actuaries involved in the exercise of their professional duties and judgments.

The most common principal business where such nonactuarial control exists is insurance sales. Several organizations in this category are fairly substantial in terms of the number of actuaries employed. Judged by number of firms, computer services is the next most common nonactuarial business, but most of these organizations have only a few actuaries.

Perhaps the type of nonactuarial affiliation or control that has aroused the most interest among consulting actuaries is that involving accounting firms. While the survey includes only four such situations, two of these are classified as large actuarial firms, and one is of intermediate size.

Among the other areas of nonactuarial affiliation or control are benefit plan administrators, management consulting firms, investment firms, and insurance holding companies.

Most consulting actuarial firms are compensated on a fee-only basis. However, 43 per cent of the firms that confine their practice to the employee benefits field do receive part of their compensation from commissions. For many such firms, commissions constitute probably a small and diminishing proportion of their total income for consulting actuarial services. Surprisingly, five of the forty-three firms that restrict their practice to the insurance field state that they receive part of their compensation from commissions as well as from fees.

III. PROFESSIONAL ORGANIZATIONS AND THE CONSULTING ACTUARY

The professional needs of consulting actuaries are, in some areas, identical with those of actuaries employed by insurance companies. In some other areas there is a difference in emphasis, while in still others consultants have unique needs. By and large these needs are met by the existing major actuarial bodies on this continent. The Society of Actuaries and the Casualty Actuarial Society, within their respective fields, serve the educational and examination needs of all actuaries of both the United States and Canada. The American Academy of Actuaries and the Canadian Institute of Actuaries are designed to serve uniquely national needs, such as those of dealing with regulatory bodies. The Conference of Actuaries in Public Practice was organized to serve certain needs of consulting actuaries that, at the time of its organization, were not adequately served by other bodies.

All actuaries must have a good command of the mathematical and statistical tools used in making actuarial calculations. The actuary also must have the analytical ability to derive and interpret pertinent information so that these calculations will serve properly the purposes for which they are intended. In addition, the actuary should be familiar with the precedents and practices in the areas in which he applies his expertise. Both consulting actuaries and insurance company actuaries have relied and, doubtless, will continue to rely primarily upon the Society of Actuaries and the Casualty Actuarial Society for training in these areas.

These organizations, because of the relatively small size of the profession, have borne the major burden of developing and maintaining the body of knowledge used for the education of actuaries. This has resulted in the development of a unique and effective educational and examination program for the training of those entering and for the continued education of those who are already in the actuarial profession.

Because both the Society of Actuaries and the Casualty Actuarial Society are international organizations, the function of representing the interests of actuaries in achieving legal recognition of the profession is handled more appropriately by bodies that are national and that encompass all or substantially all professionally qualified actuaries practicing in the respective countries. Consultants, perhaps even more than actuaries employed by insurance companies, are vitally concerned with the problems of legal recognition of their profession. Consequently, all consulting actuaries practicing in Canada are members of the Canadian Institute of Actuaries, while most consulting actuaries practicing in the United States, if they can meet the experience requirements, are members of the American Academy of Actuaries.

To a very substantial degree, man's quest for financial security through insurance and pension programs is dependent upon the mathematical calculations of actuaries. But more importantly it is dependent upon the judgment and integrity used by these actuaries in selecting the various probabilities and factors upon which their calculations depend. Consequently, the actuarial profession is charged with a high degree of public interest. It is particularly appropriate, therefore, that those actuaries who hold themselves out to the public as consulting actuaries not only should be qualified to do so through appropriate education, training, and experience but also should be subject to an appropriate code of professional conduct. This code should be susceptible of enforcement and actually enforced, when necessary, by appropriate disciplinary procedures. This, of course, is the situation that exists not only for the Society of Actuaries but also for its companion organizations—the Casualty Actuarial Society, the American Academy of Actuaries, the Canadian Institute of Actuaries, the Conference of Actuaries in Public Practice, and the Fraternal Actuarial Association. All have adopted substantially identical guides to professional conduct, and their bylaws do indeed make provision for appropriate disciplinary procedures.

The guides to professional conduct and the various opinions thereon apply equally to all members of the several actuarial organizations. A consulting actuary offers professional actuarial services directly to the public, and therefore many of the provisions in the guides have particular relevance to him. In his work with clients, he exposes the entire profession to the public and accordingly has a special responsibility to be concerned about not only his own reputation and honor but also those of the actuarial profession as a whole.

The guides and opinions obligate him to be sensitive to questions such as conflict of interest, qualification to do the work requested, unfair or unprofessional promotion, competent work, and full disclosure of methods, data, and assumptions used in his reports. They were designed to meet the unique conditions surrounding actuaries and particularly consulting actuaries in the United States and Canada: that is, the prevalent corporation structure of the firm and frequent affiliation with businesses such as brokerage and accounting. These opinions are reviewed constantly and revised to meet new conditions.

The one professional body on this continent organized specifically for the purpose of representing the interests of consulting actuaries is the Conference of Actuaries in Public Practice. The Conference was organized in the same year as the Society of Actuaries. The reasons for its organization were stated by Edward D. Brown, Jr., A.S.A., one of the charter members of the Conference, at a Society meeting in Denver in May, 1951, as follows: "The basic purposes of the Conference are to have an organization through which consulting actuaries may meet to discuss their problems, to establish certain standards to be observed in public actuarial practice, to cooperate in every possible way with the Society of Actuaries and local actuaries' clubs, and to educate the public to the value of actuarial service."

It is worthy of note that only five of the seventy-seven charter members of the Conference were members of the Society, and that there were only seventy-five members of the Society who at that time were identified as consultants. With the passage of time and the increase in the numbers of consulting actuaries this situation has changed materially. Currently 53 per cent of the members of the Conference are also members of the Society (Table 8). Membership in the Conference is not restricted to those who are consultants (government actuaries may qualify for any class, and company actuaries may qualify for the Associate class of membership), so that not all Society members who are also members of the Conference are consulting actuaries.

Despite the substantial increase in the number of Society members who are members of the Conference, probably less than 30 per cent of the consultants who are members of the Society are also members of the Conference. Undoubtedly the substantial experience requirements of the Conference[1] have served to hold down the number of consulting actuaries who are members of both the Society and the Conference.

While the Conference of Actuaries in Public Practice is not, itself, an examining body, for all practical purposes an actuary can, at this time, become a member of the Conference only if he is a member of the

TABLE 8

ANALYSIS OF MEMBERSHIP OF CONFERENCE OF ACTUARIES IN PUBLIC PRACTICE BY STATUS IN OTHER ACTUARIAL ORGANIZATIONS (SPRING, 1974)

Class of Conference Membership	Members of Society		Nonmembers of Society Who Are		Total Conference Membership
	Fellows	Associates	Members of Academy	Not Members of Academy	
Fellows	101	58	102	3	264
Members	31	26	32	1	90
Associates	51	21	85	29	186
Combined	183	105	219	33	540

American Academy of Actuaries. In turn, an individual currently can become a member of the Academy only by meeting the examination requirements set forth in the Bylaws of the Academy. The indirect effect of this provision is to require that any new member of the Conference, other than one admitted to the Academy under its grandfather provisions (which expired in 1970), must have demonstrated his educational qualifications by meeting the examination requirements of the Academy.

[1] The current requirements for admission to the Conference include an experience requirement for Fellowship of "not less than twelve years of experience in responsible actuarial work, not less than five of which have been in full-time consulting practice or in full-time work as an actuary of a federal, state, or local governmental unit." For the Member category the experience requirements are five years of responsible actuarial work, three of which must have been in consulting or government employment, while the Associateship category has simply a requirement of five years of experience in responsible actuarial work.

When the Conference of Actuaries in Public Practice was organized, the statement was made that the "Society of Actuaries [did not] devote any special attention to the consulting field." This, no doubt, was a fair description at that time, since both the control and activities of the Society, by and large, reflect the fields of interest of the membership. With the increase in the relative numbers of consultants in the Society, the attention given to subjects of interest to consulting actuaries has, indeed, increased—doubtless to the benefit of all members of the profession.

Representation of the unique interests of consultants at the policy-making level of the Society has also increased. Special care has been taken for a number of years to insure reasonably proportionate representation in the election of officers and members of the Board of Governors of the various geographic and occupational classifications within the membership of the Society. Overall this process has been successful at the Board level, but not until the proportion of consultants became relatively substantial did this process come close to being effective at the officer level. This may be due, in part, to the relatively small number of consultants who have participated in the past in those Society activities that normally lead to the participants being favorably known to the membership at large. This circumstance is a natural result of the relatively small size of the professional staff of the average firm offering consulting actuarial services. There are obvious difficulties involved for members of the Society in such smaller firms in devoting the time necessary to participate in the activities of some of the more demanding Society committees, notably the Education and Examination Committee. Despite this handicap, it is interesting to note that about 16 per cent of the members of the Education and Examination Committee are with consulting firms and about 18 per cent of members of other Society committees are with consulting firms.

IV. DEVELOPMENTS INFLUENCING GROWTH

The dramatic increase in the number of consulting actuaries during the past twenty-five years has been due in large part to the growth during this period in qualified pension plans and to the boom, at least in the United States, in the organization of new life insurance companies.

The tax shelter given to both employer contributions to and investment earnings of qualified pension plans, combined with labor union pressure and wartime excess-profits taxation, gave a substantial impetus to the adoption of pension plans in the United States. Self-insured pension plans became increasingly popular for a variety of reasons, including the rigidity of insurance company mechanisms, the inflexibility of insurance company investment policies, the failure for many years of insurance companies to reflect investment performance on new moneys, as well as the additional costs, such as premium taxes and commissions, of insured plans.

These aspects of insured plans were capitalized upon by financial institutions competing for the management of pension funds. The opportunities and demand for consulting actuaries increased in step with the increased popularity of self-insured pension plans and the increased volume of pension plans in general. Some degree of polarization developed for economic reasons between consulting actuaries, who tended to be identified with self-insured plans, and company actuaries, who, of course, were identified with insured plans.

The consulting actuary's involvement with pension plans is influenced by the problems that the employer or plan trustees face in complying with pertinent statutes. In the United States the primary statutory requirements have grown out of the tax laws. Substantial additional compliance problems, with which consulting actuaries inevitably will become involved, will result when pension reform legislation is enacted in the United States.

The war and postwar growth in pension plans in Canada and the relative popularity of self-insured plans paralleled those of the United States, with some differences. There were comparable tax shelters, union pressures, wartime excess profits tax, and so forth. In Canada, however, the tax shelter extended to employee contributions, and registered retirement savings plans perhaps had a greater influence on pension development there than H.R. 10 plans had in the United States.

However, two other developments in Canada had a marked effect on pension development, and both occurred at about the same time in the mid-1960's. These were the start of the Canada and Quebec Pension Plans and the enactment in four Canadian provinces—Alberta, Saskatchewan, Ontario, and Quebec—and in Canada, for employers under its jurisdiction, of pension benefit legislation that required actuarial solvency, minimum vesting, and other items for all pension plans within these jurisdictions. It is difficult to say whether these two developments had a positive or negative effect on the growth of pension plans—probably negative, but clearly they increased greatly the need for actuarial services.

The bull market and the general economic climate following World War II were conducive to the organization of new life companies. The number of life insurance companies in the United States grew from 473 at the end of 1945 to over 1,800 by 1970. Since then the number of life companies in the United States has stabilized substantially. Most of these new companies were, of course, stock companies. This proliferation in the number of companies had an obvious effect upon the demand for the services of consulting actuaries. Rarely would a new life company have a qualified actuary on its staff or even one qualified to do many of the routine actuarial tasks necessary in the management of any life company. Consulting actuaries were, therefore, relied upon in most circumstances to perform many if not all of the normal actuarial functions of developing and pricing the new company's portfolio, setting up appropriate procedures for valuation and statistical purposes, and supervising the preparation of actuarial items for financial statements. In addition, the consulting actuary often was called upon to advise management in connection with administrative and marketing problems and sometimes to participate in making management decisions.

As the life insurance business became more complex and companies were faced with pressures to enter new fields such as group insurance, health insurance, and casualty insurance, even companies that had qualified actuaries on their staffs not infrequently turned to consulting actuaries for assistance. This occurred in connection either with a company's entry into a new field or with the emergence of operating problems and financial losses after the company had entered the field without adequate research and an experienced staff.

The boom in the formation of new life companies has been followed, perhaps inevitably, by an increase in the number of sales, mergers, and consolidations of life insurance companies. Since actuarial evaluations are critical to the determination of values under such circumstances, and since obviously it is in the best interests of the parties involved that these evaluations be made by one who has no conflict of interest, the services of consulting actuaries are commonly involved in such transactions.

The growth in the number of stock life insurance companies stimulated the development of a wider market for life insurance company stock. The financial reports required by regulatory authorities do not furnish, directly at least, a satisfactory measure of either earnings or value of stock life companies. This situation, combined with the increasing importance of life insurance company subsidiaries of conglomerate and other general business corporations, has led to interest in applying generally accepted accounting principles to life insurance companies. This interest culminated in 1972 in the preparation of a new draft audit guide entitled "Audits of Stock Life Insurance Companies" by the American Institute of Certified Public Accountants. Due to the specialized nature of life insurance companies and the characteristics of their liabilities, it is necessary, particularly with respect to reserve requirements, to draw on the expertise of the actuarial profession to restate earnings in conformity with this guide. In 1973 and 1974 this fact led to a major increase in the work of consulting actuaries dealing with life insurance company problems. It also stimulated interest on the part of accounting firms in developing in-house actuarial competence.

V. CURRENT RANGE OF ACTIVITIES

As noted earlier, most consulting actuaries are working primarily or exclusively with retirement plans and other employee benefits programs. In most cases a consulting actuary's clients are single employers, but a variety of different types of entities may employ actuarial services in connection with employee benefits programs. These include, in addition to single employers, employer associations, multi-employer trusts, labor unions, labor-management trusts, professional associations, and governmental entities. Although the technical actuarial problems are substantially the same regardless of the character of the employer, the pressures upon the consulting actuary may vary appreciably depending upon the nature of his client. For instance, it is not uncommon for two sides in a labor-management trust situation to retain separate actuaries. In such circumstances there frequently is pressure upon the actuary to act as an advocate of his client's interests. While appreciable differences in actuarial estimates are not unknown under such circumstances, it is a credit to the actuarial profession that such differences have not created more apparent controversy.

The establishment and administration of pension plans calls upon a wide range of expertise, including that of the actuary. The plan's primary concerns are with the interrelated questions of how well the plan will meet its needs and what it will cost. It must also be concerned with compliance requirements and should be concerned with the problems of investment, communication, and administration.

The unique role of the actuary is that of estimating the probable cost of pension benefits and, frequently, recommending methods that relate to the timing and sharing of such cost. To handle this function properly, the actuary must be familiar with the problems and techniques of plan design, drafting, administration, and compliance. In addition, because of the interrelationship between costs and benefits, the pension actuary must be well informed on questions of benefit design and applicable regulatory and compliance restrictions. However, these are not areas in which the actuary has unique expertise. Depending upon the circumstances, individuals from other disciplines may take on the primary responsibility for some or all of these functions. As a result, nonactuarial organizations interested in pension plans, notably insurance brokers and pension plan administrators, have, with more or less success, sought to employ individuals with actuarial expertise. By the same token some consulting actuarial firms have broadened their capacities by including nonactuaries to handle these related functions.

In his role as the expert best equipped to measure the cost implications of alternative plan features and administrative and investment policies, the consulting actuary normally is relied upon in the design of new plans, the revision of existing plans, the valuation of pension plan liabilities, and the preparation of tax qualification information. Detail was furnished by some respondents to the questionnaire indicating their distribution of activity in general areas. As might be expected, the solo practice and small actuarial firms specializing in employee benefits devote substantially more of their efforts to the development of new plans and the revision of existing plans, typically between 30 and 50 per cent for the firms with five or fewer actuaries. Typically, large firms (over twenty actuaries) spend a smaller proportion of their time, between 15 and 25 per cent, in connection with the development and revision of plans.

The percentages shown in the accompanying tabulation have been

REPRESENTATIVE PERCENTAGE DISTRIBUTION OF ACTIVITY BY FIRMS SPECIALIZING IN PENSIONS AND OTHER EMPLOYEE BENEFIT PLANS

	Small Firms	Large Firms
Development of new plans	25%	5%
Revision of existing plans	20	10
Administration of plans	2	5
Periodic actuarial valuations, cost studies, and projections	50	60
Miscellaneous	3	20

selected as more or less representative of the distribution of activity among consulting actuarial firms specializing in pension and other employee benefits plans. Among the implications of these differing profiles of activity are that a large firm will have more of a backlog of existing business than a small one and is more involved in providing ancillary services for its clients. In this latter regard the function of communications and employee statements was mentioned relatively more frequently by large firms than by the smaller ones.

The range of problems dealt with by consulting actuaries in their work for insurance companies is substantially as broad as the range of actuarial problems dealt with by actuaries working full time for insurance companies. Characteristically, however, an individual consultant will have a greater variety of problems to deal with over a period of time than his company counterpart, particularly those employed in larger insurance companies. This is so because the consultant serves a number of clients and because his clients tend to be understaffed actuarially even when they do have qualified in-house actuaries. This situation can be both stimulating and frustrating—stimulating because of the variety of new problems with which he must deal, frustrating because he seldom has the time and sometimes lacks the facilities to research such problems to the extent that he would like.

While no two individual consulting actuaries or separate consulting actuarial firms can be expected to have precisely the same pattern of practice, some light on the distribution of consulting activity for insurance companies was revealed by the questionnaire returns. The amount of detail available was limited by the practical necessity of using a limited number of descriptive categories in the questionnaire and the fact that relatively few of the respondents showed a percentage distribution of their activities. However, the following could be considered more or less typical:

Development of new products	20%
Preparation of ratebooks	5
Statement preparation including maintenance or verification of policy reserves	25
Application of generally accepted accounting principles to insurance companies	20
Management	20
Miscellaneous	10
Total	100%

Prominent among the items classified as miscellaneous are (1) evaluation of business in connection with acquisition or merger transactions, (2) tax planning, (3) actuarial assistance in insurance department examinations, and (4) marketing problems and projections of life insurance company financial operations.

There are very few life insurance companies in Canada without full-time in-house actuaries, and most of the medium and large life companies have enough actuaries to satisfy most of their needs. Consulting actuaries in Canada have not spent as large a proportion of time on life insurance company work as those in the United States. Most of their work has been with new companies and very small companies and on special assignments for other companies, involving such areas as mutualization, stock valuations, income tax, mergers, and so forth.

Compared with the number of consulting actuaries involved in the life insurance and employee benefits plan fields, there are relatively few actuarial consultants in the casualty insurance field. The cross-fertilization between life and casualty companies is tending to change this situation. Fifteen of the United States respondents to the questionnaire that were engaged in consulting in the insurance field have members of the Casualty Actuarial Society on their staffs. Traditionally the major areas of involvement of consulting actuaries in casualty matters have been verification of reserves and assistance to workmen's compensation funds. With the inclusion of casualty insurance companies in financial conglomerates and control of insurance interests by noninsurance people, both demand and opportunities for consulting actuaries competent in the casualty field are increasing.

The Blue Cross and Blue Shield organizations have become a major factor in the health insurance business in the United States. There has been an attitude of suspicion and distrust on the part of the management of these organizations toward those connected with the life insurance business. As a result, this industry has tended to develop its own specialists, some of whom have acquired a fair degree of actuarial expertise. A number of these individuals who were not members of one of the organizations that sponsored the formation of the American Academy of Actuaries were admitted to that organization under its grandfather provision.

There has been a growing tendency for the Blues to recognize the need for actuarial analysis, advice, and assistance. This has been stimulated in part by the desire of such organizations to develop viable plans and alternatives to cope with the problems that can be expected to develop for them in the event of the creation of a national health insurance program by Congress. In addition, recent legislation in the United States encourages the establishment of health maintenance organizations (HMO's). Blue Cross and Blue Shield organizations, as well as other entities interested in the delivery of health care, are exploring the feasibility of participating under the provisions of this legislation. The training, analytical ability, and experience of actuaries equips them well to assist in the financial planning and rate-making for such organizations. As a consequence, many consulting actuaries are currently actively involved in work for Blue Cross and Blue Shield organizations and for other groups interested in acting as HMO's.

VI. EXPECTED FUTURE ACTIVITY

In order to obtain some concept of what consulting actuaries expect to be doing in the future, these two questions were included in the questionnaire: (1) In what areas of work do you think the greatest growth and demand for consulting actuaries will occur during the next ten years? (2) What major new fields of application of their expertise do you think may develop in the future for consulting actuaries? Over 80 per cent of the respondents replied to the first question and about 55 per cent replied to the second. Not surprisingly, many areas of activity were mentioned in responses to both questions.

About two-thirds of the United States replies to the first question suggest that the greatest growth in demand for the services of consulting actuaries can be expected in the employee benefits plan area. The problem of compliance with expected legislation and regulations in the United States was a frequently mentioned factor. As stated in one response, "The enactment of pension reform legislation by the present Congress will result in a major increase in work of actuaries to (*a*) revise pension plans to conform to new standards; (*b*) comply with funding requirements; (*c*) measure vested benefit liabilities, total and unfunded, in connection with plan termination insurance premiums; and (*d*) prepare actuarial reports for the regulatory agencies." A few respondents, while anticipating a surge in demand for actuarial assistance to pension plans during the next several years, suggest that the demand may thereafter actually decrease because of either "a lessening of interest in private plans as government plans become more significant" or "the limited flexibility allowed by the government."

A wide variety of activities aside from those in the compliance area were mentioned in both the United States and Canada as expected reasons for increase in activity of consulting actuaries in connection with employee benefits plans. It was suggested, for instance, that consultants will become involved in the development of new types of employee benefits such as legal expense, casualty insurance, and scholarship benefits. Several respondents expect that pension consulting actuaries will become more involved in the design of over-all compensation and fringe benefit programs. Others suggest that consulting actuaries may undertake to represent plan participants and work for employee or public interest groups. In somewhat the same vein, but in a different perspective, it was suggested also that consulting actuaries may be retained to make independent studies of pension funding reasonableness for boards of directors concerned with outside director liability.

A number of respondents expect increased activity with pension and other employee benefits plans in connection with: (1) investment fund performance, (2) self-funding of employee benefits plans other than pension plans, (3) communicating benefits to employees, and (4) integrating benefit plans of multinational organizations.

It is not surprising, in the light of the widespread activity of consulting actuaries in the United States in implementing the application of generally accepted accounting principles to the life insurance industry and the current interest in this subject in Canada, that matters related to financial reporting and analysis were the areas of involvement with insurance company problems in which most respondents to the questionnaire expected increased activity in the foreseeable future. Closely related areas that were mentioned included assistance to regulatory bodies in developing and implementing more effective methods of supervision of the financial condition of insurance companies, including: (1) development of standards of minimum surplus; (2) analysis of earnings by source; (3) tax planning; and (4) long-range planning.

A number of respondents expect increased activity on the part of consulting actuaries in the casualty insurance area due, in part, to the increase in the number of insurance companies, holding companies, and conglomerates that have become involved in both the casualty insurance area and the life insurance area. As one respondent put it, "The separation of life and casualty actuaries is already obsolete. Since associated groups write insurance across the board and staffs are becoming integrated, actuaries must prepare themselves to deal with all lines. This is true for consultants as well as in-house actuaries."

The prospect of enactment within the near future of some form of national health insurance legislation in the United States, together with the recently enacted health maintenance organization legislation, apparently led a number of respondents to foresee a substantial increase in the amount of work for consulting actuaries in the health insurance area. This expectation was hedged in some situations. As one respondent said, "Unless a monolithic governmental health insurance system is established, which now seems improbable, there will be a great expansion in need for actuarial staffs to lay foundations for fixing premiums for and analyzing experience of the large numbers of organizations which will be engaged in health insurance activities."

Some respondents foresee more use of consulting actuaries by "life companies with inadequate in-house actuarial staffs" or by "large companies in their [the consultants'] areas of specialty."

A substantial proportion of respondents foresee a trend to apply the expertise of consulting actuaries in areas which, while certainly not wholly new to the actuary, are also not unique to the actuary. Some foresee the entry of the consulting actuary into, for instance, "full-fledged management consulting [other than for insurance companies]." A more common viewpoint is that the consulting actuary will become involved, as one respondent suggests, in "extension of contingency—evaluation and financial—discounting skills beyond the insurance industry," or, in the words of another, in the "application of probabilistic techniques in financial forecasting of corporations and governments."

Closely related to this viewpoint is the expectation that consulting actuaries will become involved with the application of operations research in noninsurance areas. (On the other hand, one respondent expressed a fear that operations research specialists will make inroads into the fields of actuarial specialties.)

A number foresee increased utilization of consulting actuaries in matters involving the public interest. For instance, "Consulting actuaries may be called on to aid government and private planners in all areas relating to demographic projections. This area will become vital due to increasing shortages of many raw materials crucial to mankind's future development." In a related vein, "I expect that as governments realize the expertise of actuaries more use will be made in areas of government trends and financing. A similar result could be achieved in the fields of consumerism and health hazard appraisal." The possibility of increased involvement of consulting actuaries in areas of consumerism was indicated by one respondent as follows: with "growing concern with air, water, and soil pollution and their impact on life and health there will be increasing need to devise sophisticated measurements of effects of various forms of pollution on human health and longevity. Actuaries can, should, and one hopes will make major contributions toward measuring pollution effects and the effectiveness of various types of control."

VII. CURRENT UNRESOLVED PROBLEMS

The consulting branch of the actuarial profession is faced with several unresolved problems and unanswered questions. These include appropriate public recognition of the profession, relationships between the actuarial profession and other professions, and the question of how the interest of consulting actuaries may be represented most effectively. Some of these problems necessarily concern the entire profession, while others are of concern primarily to the consultants.

The actuaries' desire to have appropriate public recognition of their profession led to the establishment of the American Academy of Actuaries in the United States and the Canadian Institute of Actuaries in Canada. By the very nature of their relationships with the public, consulting actuaries are vitally interested in the matter of accreditation of actuaries. Public recognition of a profession through statutory or regulatory means is justified when, and only when, members of the public may suffer when they utilize the services of improperly qualified individuals who purport to be members of the profession but who do not have the appropriate training and/or experience necessary to qualify them to practice in that field.

The damage that may be inflicted upon the public as a result of inadequate funding of pension plans is apparent to any student of the subject. Since adequate funding is founded upon a proper understanding of the likely size and incidence of the required payments under a pension plan —and this is information that can be determined only by actuarial calculations—the public's interest in the soundness of pension plans must lead to concern that only qualified actuaries be permitted to make actuarial calculations in connection with such plans.

This matter has been resolved in an appropriate manner in Canada, where the various pension benefits acts and regulations require an actuary's report for almost every pension plan within the jurisdiction of the acts, and an actuary is defined as an F.C.I.A.

The passage of the Employee Retirement Income Security Act of 1974 has laid the foundation for resolution of this matter in the United States. Under this act most private pension plans will be required to submit to the secretary of labor periodic actuarial statements prepared by "enrolled actuaries." Responsibility for determining the standards to be met by those who seek to become enrolled actuaries, within broad guidelines set forth in the act, rests with a board authorized under that act. As of October, 1974, these standards had not yet been promulgated.

At the state level the problem of recognition of the actuary primarily grows out of the interest of state insurance commissioners in the qualifications of the actuaries responsible for the determination of policy reserves and other actuarial items included in insurance company statements filed with them. Membership in the American Academy of Actuaries has been recognized as evidence of qualification by the seventeen states that so far have adopted specific regulations for this purpose. One may reasonably expect a slow but steady expansion of this form of recognition at the state level.

In Canada, only F.C.I.A.'s may certify the annual statement reserves of life insurance companies, fraternal societies, and the noncancelable sickness and accident business of casualty companies.

By the very nature of the problems with which he is concerned, the consulting actuary must work in a multidiscipline environment. In order to be effective he must have a good understanding of other fields that impinge upon actuarial responsibility and, at the same time, recognize the limits of that which is uniquely actuarial. Specifically, consulting actuaries commonly work closely with lawyers, accountants, those in the investment field, and, on occasion, insurance salesmen and brokers. The development of appropriate working relationships which preserve the integrity of the actuary and at the same time recognize the integrity of others is a problem with which all consulting actuaries must deal.

Because actuaries are involved in the development of new insurance products, which ultimately must be reduced to contract language, and, in a parallel manner, the design of pension programs, which likewise must be described carefully in plan language, it is common practice for actuaries to draft the documents that express the contractual relationships involved. Although this is an appropriate and practical procedure, every consulting actuary learns early in his career that these documents are legal instruments and that the responsibility for them should be taken by an attorney. Attorneys knowledgeable in these fields quickly learn to respect the expertise which the qualified actuary brings to the problems of adequately and precisely expressing the relationships involved in insurance contracts and pension plans. As a result, in most situations, consulting actuaries have developed good working relationships with their counterparts in the legal profession with whom they must collaborate in the development of these documents without raising serious questions as to professional jurisdiction.

Actuaries and accountants are now involved in developing a corresponding relationship between their professions. The preparation of financial statements for insurance companies requires the talents of both professions. Yet there are very few individuals who have received professional training in both fields. As a consequence both actuaries and accountants are finding it necessary to develop a clearer understanding of the interrelationships between their respective professions and to recognize the appropriate limits of their own areas of expertise. The increased recognition of the importance of pension plan liabilities to the determination of the earnings and the financial condition of business enterprises in general brings the two professions together on a broader front.

In order to cope with these situations some accounting firms have employed actuaries to assist their clients either in establishing and maintaining pension plans or in auditing life insurance company statements. This has led, in some instances, to the development of consulting actuarial organizations within or subsidiary to accounting firms, which offer substantially the same range of actuarial services as independent consulting actuarial firms.

Several insurance brokerage firms, presumably initially because of their interest in insured employee benefits, have established consulting actuarial organizations specializing in the pension and employee benefits plan areas. In addition, some insurance companies have established subsidiary organizations offering consulting actuarial services to the public.

A variety of questions inevitably arise from these interrelationships between actuaries and those in other disciplines. From the standpoint of the actuarial profession the overriding concern should be that, whatever the relationships, no condition should be established that restrains the actuary in the independent exercise of his professional judgment or impairs the access of the client to the actuary.

The question of independence of the actuary is receiving current attention from a joint committee of the various actuarial organizations. At issue is the question of the degree of financial and organizational independence that should exist on the part of an actuary certifying to the actuarial items in insurance company statements. The interest of consulting actuaries in the resolution of this question is obvious.

At present no one actuarial organization adequately represents the specialized interest of the consulting segment of the profession. This is so, in part, because consultants are a minority (a growing minority, it is true) of the members of the Society, and, in part, it is due to the division of loyalties that exists in the minds of many consultants between the Society of Actuaries and the Conference of Actuaries in Public Practice.

The fact is that no one organization includes all qualified consulting actuaries in both the United States and Canada. Both the Canadian Institute of Actuaries and the American Academy of Actuaries are essentially national organizations. The Society of Actuaries, while it has the largest number of consultants in its membership of any of the national or international actuarial bodies, does not include in its membership an appreciable number of qualified consulting actuaries who are members of the Academy or the Conference of Actuaries in Public Practice. On the other hand, less than a third of the members of the Society of Actuaries who are employed as consultants are members of the Conference of Actuaries in Public Practice.

It appears that most, if not all, of the educational and examination requirements for consulting actuaries are met by the Society of Actuaries and the Casualty Actuarial Society. Indeed, the needs of consultants might be better served if the educational and examination structures of these two organizations were further consolidated.

In the sense that the discussion of new developments and other exchanges of ideas that occur at periodic meetings of actuarial organizations are part of the continuing educational process, the meetings of the

Society serve the interests of consultants as well as actuaries of insurance companies.

The American Academy of Actuaries in the United States and the Canadian Institute of Actuaries in Canada are structured to serve the needs of all actuaries in these countries in dealing with governmental agencies on accreditation questions. As such, they appear to serve effectively the interests and needs of consulting actuaries.

However, there is serious question as to whether all of the unique interests of consulting actuaries are or can be represented adequately within the existing structure of the various actuarial organizations. Under the circumstances it seems wise to review again the structure of the professional actuarial organizations with the objective of developing some consolidation and restructuring that would better serve the needs of all elements of the profession.

VIII. CONCLUSION

The relatively rapid growth of the consulting segment of the actuarial profession that has been observed during the first twenty-five years of the Society of Actuaries can be expected to continue into the foreseeable future. The forecasts made by the Society's Committee to Encourage Interest in Actuarial Careers—referred to in some detail in Mr. Bragg's paper—indicates an expectation of an 85 per cent increase in the number of actuaries needed in the consulting field in the five-year period from 1973 to 1978. The corresponding expectation for actuaries employed by insurance companies is 56 per cent. Whether or not these growth rates will be achieved, the fact is that the consulting segment already is an important component of the profession and can be expected to become even more so.

For this reason it can be expected that the actions of the Society of Actuaries, as the largest organization representing the actuarial profession, will give increasing recognition to the professional problems of consulting actuaries. This can be accomplished effectively, of course, only if those members who are consultants carry their share of the load and participate fully in the activities of the Society at all levels, including committee activities, preparation of papers and studies, and representation in the elected board and officer positions. There is reason for optimism that this will be done.

DISCUSSION OF PRECEDING PAPER

ROBERT J. MYERS:

Messrs. Eckler and Milliman have made a very valuable contribution to the actuarial literature in presenting a vivid portrait of present-day consulting actuaries on the North American continent.

One area in which increased activity of consulting actuaries may occur is that of representing the participants in employee benefit plans. I have always had a strong belief that pension actuaries should, in all cases, represent such participants to a very considerable extent, even though the employer is the client of the actuaries. In the same way, I have the belief that actuaries employed by insurance companies, whether stock or mutual, should have the interest of the policyholders at heart. Similarly, the government actuary should not consider himself as being solely responsible to, and under the control of, the particular political party in power.

The authors quite correctly point out that the consulting actuary must have a good understanding of other fields which impinge upon the actuarial responsibility. However, in listing these various other disciplines, they make no mention of economics. This subject is a very important area and one that too often is neglected by actuaries, particularly in the fields of health insurance and social insurance. There is a very grave danger that economists will displace actuaries in the field of social insurance cost estimates, especially in the area of national health benefits.

From long experience and acquaintance with economists, I am convinced that, on the whole, they do not have the technical competence and experience to prepare adequate long-range cost estimates for social insurance programs. The possibility of economists' acquiring such responsibilities is related to the unfortunate tendency in Washington to seek advice more and more from Ph.D.'s rather than from persons with practical experience.

CHARLES BARRY H. WATSON:

The deep gratitude of all members of the actuarial profession is due the authors of this paper, which they have written on the occasion of the twenty-fifth anniversary of the Society of Actuaries. The idea of writing on the subject of the consulting profession was indeed an excellent one, and Messrs. Eckler and Milliman have developed this idea into a distinguished contribution to the literature dealing with our profession.

I say that the idea of the paper was a good one for two reasons. First, it is indeed true that consulting actuaries over the years have become an increasingly important segment of the profession. As is well documented in the paper, their numbers have grown astronomically, as has the scope of their assignments. This is indeed a striking development. The second reason is, however, to my mind more important. The presentation of this paper gives us the opportunity to reflect upon the nature of our profession and its relationship to consulting.

There seems little doubt that over the lifetime of the actuarial profession, at least here in North America, the great majority of actuaries have viewed themselves as working for a particular insurance company. They have regarded their relationship to that insurance company as in the typical employer-employee mold.

I would argue, however, that this is a profound misconception of the relationship between an insurer and an actuary—so long as the actuary is a *professional*. A professional renders advice, not service. This is at the heart of the reason he is a professional and not a tradesman. Moreover, since advice can be taken or not, it must be rendered to a client. One renders service to an employer, advice to a client. Hence an actuary who works for an insurance company is really a consultant with one client, that company. We actuaries, if, and to the extent that, we are professionals, are all consultants.

In this regard, it is striking that the Royal Charter granted in 1868 to the Faculty of Actuaries—the earliest charter of an actuarial body—stated that "the profession of Actuary is largely called into requisition, in the same manner as that of Advocate or Barrister, in advising and directing the public in regard to a great variety of pecuniary interests." Actuaries were to render advice, in a manner comparable to that of the legal profession. Advice to clients, not service to employers.

It is entirely possible to exaggerate the practical implications of this distinction. The actuary, and in particular the actuary who works for an insurance company, is in practice a hybrid creature—part employee and part professional. Undoubtedly most of the time he works as an employee, carrying out particular acts of service requested by his employer. However, on occasion (and these occasions come more often than one might initially suspect) he is asked to give advice to his client/employer in matters which require the exercise of his actuarial judgment. On these occasions he acts as a professional, and his employer is then his client.

This hybrid nature of an actuary's relationship to his client/employer is, I believe, found in other professions. It is intensified, however, in our profession because historically so many of our members have worked for insurance companies. For this reason the distinction between employer and professional has never seemed too important in practice.

It is, of course, important in principle. A professional must preserve a certain distance of independence between himself and his client. Obviously, if the client is his sole employer, the independence cannot be economic. It can, however, be psychological and judgmental—and real.

What this means is that the actuary must retain professional responsibility for his advice. In the past this has not been too difficult to do, for several reasons. His advice could always lean on the side of safety. If he gave this advice to an insurer, he was sheltered by the arms of the regulators, whose prescriptions were commonly viewed as overly conservative. If he gave it to a pension plan sponsor, he knew that the sponsor was interested most commonly in making certain that there was enough money in the plan; pension plans were not yet viewed as profit centers. Perhaps more importantly, reliance on his advice normally was restricted to entities who did, or could, understand the implications of his advice—insurance companies, pension plan sponsors, and the like.

Today, however, the situation has changed. To err unreflectively on the side of conservatism is no longer permitted under generally accepted accounting principles or under the new United States pension legislation; the actuary must choose his assumptions consciously and responsibly. His advice no longer will be given only to his direct clients; stockholders, policyholders, pension plan participants, and the public at large are now viewed as being affected by his arcane calculations. Today the responsibility of the actuary for his advice is both deeper and broader than formerly.

An actuary owes his clients both high professional ethics and sound actuarial practice. Our profession has long had a satisfactory code of ethics and wise interpretations of this code. It remains imperative for the code and interpretations to be expanded and modified in the light of changing developments and obviously, to be rigorously enforced.

Until very recently it has not seemed necessary, in part for the reasons given above, to codify proper actuarial practices. That day is past. If our profession is to retain the confidence of our clients and those other publics that rely upon us, it will be necessary for us to develop "generally accepted actuarial practices." Hence I welcome efforts of those committees established by our profession which are promulgating recommendations as to sound actuarial practices in the areas of financial reporting principles and pensions. These activities are essential to the health, even the survival, of our profession and deserve the widest possible attention and support of all actuaries.

Messrs. Eckler and Milliman have charted well the history of the consulting actuary and have thrown much light on his present condition and future prospects. The future is bright, provided that all professional actuaries, recognizing that they are indeed consultants under the skin, work together to maintain and improve the ethics and practices of our common profession. To this task, the paper by Messrs. Eckler and Milliman, and the entire program of the Society's twenty-fifth anniversary meeting, have made a notable contribution.

(AUTHORS' REVIEW OF DISCUSSION)

SAMUEL ECKLER AND WENDELL A. MILLIMAN:

We have received two discussions of our paper. Robert Myers urges us in our consulting actuarial work to regard as our client not the employer and not the insurance company, if that is our employer, but the beneficiaries of the employee benefits system or insurance company system that we are advising. He also asks that we play our role in social insurance planning and in pension planning and that we resist, to some extent, the incursions of the economists into some of the roles that he thinks the actuary should be playing more strongly. Barry Watson concurs. He also feels that the actuary working for an insurance company should regard himself in a sense as a consultant there as well. Finally, he agrees with the paper's position on the critical need to develop recommendations for written actuarial principles for pension plans and for insurance operations.

We wish to thank Messrs. Myers and Watson for their discussions of our paper.