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ACTUARIAL OPPORTUNITIES FOR THE 1980's AND 1990's

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The business environment in which actuaries traditionally have worked is changing dramatically. What will that environment be like in five, ten or twenty years? What can we do to prepare as individuals and at an organizational level? Questions to be addressed by the panel include:

1. Will traditional opportunities be reduced?

2. What non-traditional opportunities are available?

3. What changes are needed in our educational process?

4. How do we make non-traditional employers aware of actuarial skills and their value?

5. What will actuarial work be like?

MR. ROY R. ANDERSON: The subject of our panel today is very similar to one that Fred Kilbourne and I served on at a joint meeting of our Society and the Casualty Actuarial Society. The panel entitled "Expanding Actuarial Horizons" met four years ago. At that meeting I suggested that our civilization was going through a period of historic transformation and that our institutions and our values were undergoing traumatic changes. I also made some observations about the nature of futurism and how to prepare for the future. We must learn to think and see things differently. To conserve time this morning, I will incorporate by reference the transcription of that panel that appeared in the Society's Record (vol. 4 no. 1).

During the past half-dozen years, I have begun to think differently about some of the concepts that are the tools of our trade. In our work, we must have specialized knowledge in three areas that are not generally well understood by non-actuaries:

- We understand probabilities.
- We understand interest and especially the nature of discounting.
- We understand the concept of systems or at least the operation of a very complex system such as insurance.

We must now learn to think differently about each of these three areas. What I will do in these brief minutes is to recommend a course of reading that might serve as a bibliography for a study in actuarial artistry.

Our first course would be on systems theory. Our present syllabus teaches us the intricacies of the many systems of insurance and security in which our profession is involved. However, all of these systems are now being impinged upon and are interacting with the other systems of our society. We need a deeper understanding of how systems relate to each other, how systems relate to supra-systems and to subsystems, and how people behave during all of the complex interactions among these systems.

I recommend three books by Stafford Beer:

- Platform for Change
- Brain of the Firm
- The Heart of Enterprise

The second course would be on interest. Our understanding of the nature of interest and of discounting is applicable to the kind of economic system under which our economy has operated for the last several centuries. It has become clear that none of the present economic theories are adequate to give us direction in the present turbulent times. For a course of reading that would provide a new and fresh insight, I would recommend the articles by Paul Hawken that have appeared in the issues of Co-Evolution Quarterly during the past two years and Hawken's book (as yet unnamed) on economics that is scheduled to be published in 1983.

The third course would be on probability. This course would lead us to a new area of study. As actuaries, we learned the concepts of probabilities with examples that dealt with the tossing of dice. Among scientists, Albert Einstein is known for his statement that "God does not play with dice". This observation characterizes Einstein's position with respect to conflicting theories on the nature of reality.

The concept of new and different perceptions of reality is a feature of all of the books that I am recommending for this course in actuarial artistry. One way to begin this course is to follow the path of the quantum physicists as they tried to find the smallest particle of solid matter and only learned that no such thing exists. All there is is a probability of existing. Reading material for course three might begin with The Tao of Physics by Capra or the March, 1982 issue of The Tarrytown Letter.

Course number four would be on the change that is occurring in our civilization. Dozens and dozens of books have now been published on this subject. However, the two that I recommend are An Incomplete Guide to the Future by Willis Harman and The Aquarian Conspiracy by Marilyn Ferguson. Incidentally, both of these books provide excellent bibliographies for other reading.

The final course, number five, would be on the future. Here, again, there is a wealth of literature. But the best I have found is Seven Tomorrows written jointly by Paul Hawken, James Ogilvy, and Peter Schwartz. It provides an excellent summary of where we are today, suggests seven possible alternative futures for civilization, and concludes with observations as to how we should meet the challenges ahead of us.

I have referred to the courses as part of a study in actuarial artistry -- not as a post-graduate course in actuarial science. All of these authors would state that the scientific method and the mechanistic perception of reality that has dominated our western civilization for centuries is no longer adequate to provide a perception of the realities of the present and much less able to equip us to face the challenges of the future. We must be capable of intuitive things in an interrelated and holistic perception of life. This is true with respect to the changes facing civilization, and it is no less true of the challenges we face in our profession as actuaries.

MR. FREDERICK W. KILBOURNE: One view of this panel is that it deals with "actuarial opportunities remaining, if any, during the twentieth century". The description of this session poses three background questions: What is the actuarial environment? How will it change in the years ahead? How can we prepare for it, both organizationally and as individuals? I view the actuarial environment as a field that is only partially cultivated. The field may be sectioned into four parts: life, casualty, pension, and virgin. As I described four years ago, its perimeter is the "evaluation of the current financial implications of future contingent events". I believe now, as does Leonard Bardsley, that "the work of the actuary is to evaluate, and sometimes to control, the financial consequences of uncertainty about the future". I see this as our field.

How can we best prepare for this environmental change? It is crucial that we unify as a profession, so that we think of ourselves as actuaries first and as hyphens second. This is essential when we deal with non-actuaries. By identifying our field and its perimeter, and by continuing and improving the educational process by which actuaries learn to till the soil, this may be best accomplished. As individuals, our job is to work the land and produce a harvest for ourselves and for others to enjoy. We will best do this if we recognize Roy's total systems approach and if we learn to see the forest as well as the trees.

Five specific questions are asked of the panel. Let's take a brief look at these questions.

Will traditional opportunities be reduced? Not necessarily. People will continue dying, getting old, and crashing their cars. Let's look at recent history as an aid to understanding the future. My actuarial career began with a life insurance company, I added pensions and consulting after a few years, and then I moved increasingly into the casualty arena. In some ways, this reflects a microcosm of the development of the profession, which now includes consultants and casualty actuaries as significant minority groups, though not necessarily as disadvantaged minorities! My prognosis for the remainder of the century is that traditional opportunities, broadly defined, will continue to exist. It seems less likely today than it did two years ago that government alone will deal with the financial consequences of dying, living, and crashing. And there is plenty of room for expansion in traditional areas by actuaries who are skilled at controlling, as well as at evaluating, the financial consequences of uncertainty about the future.

Consider now the non-traditional areas which may become available. I would first like to resurvey the field which I earlier described as having life, casualty, pension and virgin sections. What I really see is a cultivated quarter at most, with three-fourths that is virgin (well, maybe near-virgin). Taxpayers and stockholders are just two of the groups who desperately need the services of professionals skilled at evaluating the financial consequences of uncertainty about the future. They may be ready to recognize our capabilities as well as the economists.

Do we need changes in our educational process? Several, including more attention to communications and futurism and Bill Jewell. [Maybe even to Roy Anderson...] It is most important that we identify the common core of actuarial science and teach its mysteries in a cohesive way. At the risk of blowing our cover, I have spoken of this core symbolically as QAV, where "Q" refers to the contingent event, "A" its financial consequence, and "V" the time value of money. In this context, I naturally regret the recent decision by the CAS board to discontinue joint sponsorship of the part 4 exam. Those who voted favoring that decision had some good reasons for choosing to return to the days of separate but equal educational facilities, but I must confirm that there was at least one negative vote.

How can we let potential employers and clients know about our capabilities in the untold and untilled areas of our field? I, for one, have decided to start by incorporating as "Future Cost Analysts", subtitled "Independent Actuaries". Our corporate motto is "Up the creek, down the road". I have not yet had the courage to put it on our stationery. More than half our work remains more or less traditional casualty actuarial projects, but I fully expect to till new soil. One reason for this expectation is that more than half our clients are governmental bodies, and who better needs analysis of future costs than the government?

What will this new actuarial work be like? Well, we have just completed a project which involved some time in virgin territory. The client was a coal-producing state, and we were to investigate the cost of restoring the environment after surface mining operations. Our job was to evaluate the financing system proposed to cover these costs and it was challenging, productive, and even fun.

So I expect the environment to be loaded with opportunities for actuaries in the years ahead. Many of the troubles facing this country today can be traced to politicians who failed to look (or see) beyond the next election. Many of the others can be traced to business managers who similarly were blinded by the next quarterly earnings statement. The country needs us. So think not of new areas within our field as virgin land waiting to be despoiled. Think of them rather as fertile plots where we can help 100 flowers to bloom and grow.

MR. WILLIAM T. MCCALLUM: This is my first actuarial meeting in a very long time. For most of the past 10 years, I have been involved in our marketing operations and have viewed the actuaries as "the enemy".

While I am not sure that my business experience qualifies me to speak on future opportunities for actuaries, I guess no one has read tomorrow's newspaper. I will share some insights on the Canadian scene which may become more important regardless of where we live.

In preparing my comments, I looked to see what others had said. At the Anaheim meeting last year, George Dinney, one of my associates, noted:

> "We have been trained to work inwardly and to deal with problems in detail rather than to develop an outward view and to deal with problems in general."

That same year, in Ottawa, Robin Leckie commented:

> "The work of the actuary is heavily impacted by our social and economic environment."

Our training and our needs seem to be at opposite poles. I believe Mr. Leckie's comments are particularly significant in Canada.

We (Great West) are primarily in the business of income replacement. Our "franchise" is the mortality/morbidity contingency. Most of our businesses exist because legislatures have granted our products various tax preferences. These preferences presumably reflect the will of the people who see self-reliance and personal thrift as socially desirable traits to be encouraged.

In the United States today a lot of focus seems to be on the "rationalization" of the financial services industry. The insurance industry is increasingly seen as part of a larger business and not as an industry unto itself. Artificial regulatory walls are falling down; companies and individuals who seize opportunity in this period of confusion will do very well. Critical mass and specialization are the emerging watchwords.

In Canada, we are quietly experiencing another kind of rationalization. Our rationalization is an ongoing redistribution between the public and private sectors in meeting income replacement needs.

In this regard, Canada is fundamentally different from the United States, and I think it is becoming even more so. It is a "social democracy" heading every day toward more centralized planning and control through the increased use of federal taxation policy to achieve social objectives.

Canada is a vast, but sparsely populated, land mass bordering a giant, and some think, attractive neighbor. Successive federal governments have embarked on projects and policies designed to make our country more cohesive and to head off pressure for integration with the United States.

It all started with transportation -- a national railroad from sea to sea to bind the nation together. Broadcasting followed, as the Prime Minister of the day said:

> "Canadian control of broadcasting is needed so that the national consciousness may be fostered and sustained and national unity still further strengthened."

From these humble beginnings, we now have government-sponsored enterprise in all forms of business; spending by government is some 40% of our GNP, and our private sector is increasingly controlled by government regulation. The latest major development is our National Energy Policy which continues to be a high profile issue.

Our social democracy grants our citizens many "rights" in the area of personal financial security. Twenty years ago, the federal government's assets were 65% in transportation. Today it is down to 21%. At the same time, their share of assets in finance, insurance and real estate has grown from 20% to 54%. Coincidentally at the provincial level, this category has grown from 6.6% to 23.4% of assets.

If you want to have social programs, you will need cash and lots of it. When asked "Why do you rob banks?", a noted redistributionist named Willie Sutton answered, "Cause that is where the money is". Why is government increasingly involved in our business? We have traditionally had the money they now want, and we do not have a strong political base of support to slow them down.

As you know, Canada has national health insurance. We are now in the beginning stage of a debate on pension reform. At the end of this debate, I do not think government's role will be less; hopefully, it only will be a regulatory role.

In some provinces, we have nationalized automobile insurance written through public corporations. In at least two of these, the provincial government in power has an official party platform calling for a broadening of these public insurance corporations' activities into:

- Individual life insurance;
- Universal accident and sickness insurance; and
- Employee benefits.

Since they have access to our medical files and have a very effective premium collection technique, this broadening would not be too big a step.

We also have the beginnings of government operated dental care programs in some provinces. It does not seem so long ago that we were debating whether or not flouride should be added to the water supply.

In November last year, as most of you know, we were presented with a government paper on tax reform. Two elements of the reform called for:

- Tax on the accrual of value in an insurance or annuity contract; and
- Tax on the value of employer provided benefits.

The accrual tax on insurance is based on the premise that a "buck is a buck", and anything not taxed is a tax expenditure. Our officials believe in "buy term and invest the difference". They seem to believe the increase in cash value is a wealth-creating device. The concept of permanent solutions to permanent problems escapes them. Given their record in dealing with problems, that is probably not too surprising. This matter is, I regret to say, unresolved. We were advised on the annuity cash value accrual tax, that the annuity cash value accrual is appropriately part of the bigger question of national pension reform and would be dealt with in that context, i.e., forget it. An annuity is just another investment option in the growing school of thought based on the philosophy of tax expenditure.

The government's position on fringe benefit taxation is simply that if anything is not universal, it is discriminatory and, therefore, represents a value that should be taxed.

As this new ground is broken in Canada, you can bet there are people in Washington keeping a sharp eye on the proceedings. We are like Pogo in many instances:

- Our sales process focuses on splitting the policy into investment and insurance portions, yet we turn around and argue it is indivisible.

- o We talk about permanent solutions to permanent problems and then have organized companies to replace in-force business. Inadequate management does not help the situation.

- o The marketing pitch on Universal Life seems to be on high tax sheltered savings plus term insurance.

- o Annuities are marketed as an alternative to liquid, high yielding CD's.

Why shouldn't government look here to lower the deficit?

So while your rationalization involves the big and strong getting bigger and stronger, ours involves government usurping major fields of activity.

The other factor we have to contend with in Canada is branch banking. The size of our banks' retail networks make them unique in world banking. These retail outlets are a stable source of relatively low-cost deposits. They are presently making great investments in technology to gain a marketing leverage over Canada's savers and borrowers. Our five major banks have over 6,000 branches. We have a population of about 24 million.

To the extent that our government seems to be unconcerned about any debate on institutional economics (where each type of financial institution fills a specific need), we should expect any artificial barriers to crumble in Canada as they have in the United States.

With this very strong retail position and with the great advances being made by banks in the technological area, we must expect government to go after an increasing share of the savings market. Arguably, they could expand beyond traditional credit insurance into broader protection lines. The combination of government expanding social insurance programs and giant banks positioned to offer a wide array of savings products is a formidable challenge for our industry. The impact will be felt by most actuaries now in practice.

Beyond these two special Canadian factors, we have to face the issues impacting all businesses. These are covered from time to time at our meetings, and at meetings of all types of industry groups. The important factors would include:

- o <u>Consumerism</u> - Does your product work? How does it provide a better life for my family and me?

- o <u>Accumulation of scientific and technical knowledge</u> - Automation and cybernation will enthrone the technological elite within the financial industry. In Canada and some centers in the U.S., we have pilot projects in place whereby people can carry out a wide range of services - banking, travel arrangements, retail shopping - using their T.V. and phone.

- o <u>Biological manipulation</u> - Increased longevity will heighten inflation as a larger population pressures our already limited resources. This may lead to potential insolvency of companies with unbalanced books of annuity business.

- o <u>Institutionalization of change as a way of life</u> - This requires personal and corporate flexibility. As companies merge and as government grows, new management techniques will be needed to build flexibility into highly regulated and massive organizations. Special talents will be required to be a successful profit center manager. This kind of training is not found in our traditional courses. In these organizations, the "How" becomes more important than "What". The need is for clear thinking and effective communication -- a trend towards generality and away from specialization, i.e., the opposite of our very specialized education.

My own experience has been that I have gained most of my knowledge and business principles from other professionals -- actuaries and non-actuaries inside and outside of our corporate environment. The "apprentice, journeyman, intern, articling student" concept is popular in most professions and trades. It is where I have learned the most, and it is a direction we all should try to follow with younger actuarial personnel.

Today in Canada, over 50% of the actuaries are employed by insurance companies and another 25% by consultants. Also, over 50% have attained fellowship in the past 10 years.

This population will age as margin pressure forces us to cut back on staffing. A recent report in France indicated that 30% of the jobs in banking and insurance could disappear during the 1980's as work is consigned to computers.

Also as government takes on more programs, career opportunities decrease. Corporations will assume more risks to cut benefit plan costs. While consultants will see more opportunities here, corporations will audit billings more closely. Consulting firms will not be as likely to carry as many trainee types as immediate profitability will be required.

The real strength of our training is that we become <u>disciplined</u> problem solvers. This discipline that works in insurance and employee benefits is equally valuable in pricing all kinds of products and services. Perhaps the S&L's wouldn't be in the box they are in had more of their executives read some of our papers on immunization and matching 10 years ago. Perhaps some of our work in risk theory would enable consumer product companies to plan for and protect themselves against the financial impact of recalling millions of dollars worth of tires, toys, cars...

In assessing the future needs of our industry, York University has developed the following profile of the present and new CEO, who is really the profile of the corporation.

PRESENT	FUTURE
analyst	synthesist
operations-oriented, myopic, micro	strategic/far-sighted/macro
professional	businessman
pragmatist	pragmatist & visionary
decision-maker/minimal risk	risk-taker
low profile/clubby	public man
order giver	persuader

In a time of great uncertainty and change, managers who understand contingency and risk planning will be in great demand, provided he/she has well developed communication/personal relations skills.

MR. ALAN THALER: In order to discuss the topic of actuarial opportunities for the 1980's, it is necessary to review first the external environment that is likely to prevail and second how the environment will impact on the insurance business.

The External Environment

There is little doubt as to the mood of the majority of the American people. With the election of President Reagan, there was a clear-cut mandate for governmental fiscal responsibility. In listening to recent debates concerning the national budget, it is increasingly difficult to tell the Democrats from the Republicans. Each seems to be vying with the other to demonstrate his interest in attaining an ultimate goal of a balanced budget. For the first time we are seeing a determined review of welfare and entitlement programs which now account for such a major share of federal expenditures. Because of the seriousness of our economic problems and the continuing inroads of inflation and high interest rates, there is reason to believe that the mood of the public will not change soon. It would appear that the 80's will likely be a period of reprieve from further government inroads into the territory of the private sector, and for that reason the 1980's may be a unique opportunity for the insurance industry and other businesses to move forward aggressively. On the other hand, the problems that have brought about this reprieve will not go away. The fact that our nation has the burden of a national debt in excess of one trillion dollars binds us inexorably to inflation. There is likely to be some dampening of the flames of both inflation and high interest rates, but as the economy returns to fuller employment, those flames are likely to be rekindled. The insurance industry in the 80's will need to deal with varying degrees of both high inflation and high interest rates. We are likely to continue to see the roller coaster trends that we have observed in both the short and long term investment markets.

How does this Environment Impact the Insurance Business?

The unprecedented high interest rates and the erosion of the dollar experienced over the last few years did not come as a surprise to any thoughtful observer of our national economy. It was rather the inevitable result of years of spendthrift policies. Yet how did the insurance industry prepare for this eventuality? Until the dramatic collapse of the bond market in 1980, there was scarcely a ripple in the behavior pattern of nearly every insurance company. There has been strong resistance to changes in the traditional American agency system. There were passionate defenses of the traditional forms of permanent life insurance. But in 1981 we saw a virtual panic among insurers to find a game plan which would permit long-term survival. We now hear open acknowledgements that the agency system is expensive and inefficient. The long time defenders of the whole life policy have become quiet, and a variety of unbundled approaches to permanent life insurance are gradually surfacing. These new products, if not conceptually difficult to understand, are in fact more complex as they demand more sophisticated computerized systems and greater money management skills than insurance companies have heretofore been required to have. Full page newspaper advertisements are alerting the public to the fact that the insurance policies they now hold can be replaced with much better contracts. Last year's changes in the tax laws have stimulated the ability of banks, savings and loan institutions and investment brokers to compete more aggressively for the savings dollar.

In the group insurance area, the trend by employers both large and small towards self-insurance has greatly accelerated, and this trend no doubt will cause an increasing drain on the total group insurance marketplace.

From all of this it must be concluded that survival in the insurance business both by insurance companies and agents presents quite a challenge. Companies that continue down the old trodden paths are likely not to survive over the long term. Those that are prepared to move aggressively and independently may find that the new environment in the 80's has hidden opportunities from which they can prosper.

What are the Opportunities?

What I have portrayed is the gloomy side of the picture which is accentuated by the deep roots of tradition in which most insurance companies are imbedded. Prompt reaction has not been characteristic of most insurance companies, but such reaction is needed at this time. The basic needs for life and health insurance have not diminished, but the products which are needed to fill those needs are not the ones that have been marketed in the past. In addition, the techniques for selling and administering these new products are not necessarily the ones that worked in the past.

It is easy to speak in terms of broad generalities, but let me instead pinpoint some specific opportunities upon which insurance companies must focus.

1) Imaginative Product Design - There are many elements that make up the total design of an insurance product. Each requires careful thought so as to optimize the usefulness of the product for the needs that it aims to fill. Here are a few examples of questions which need to be addressed:

    a) Should a new product be an individual contract or a group contract? The answer to this question may not be obvious and may lie not only in how the product will be marketed but in considerations related to regulation and taxes.

b) Should the savings portion of the contract provide choices of the investment medium to the insured? Related to this question are problems of persistency, cash flow disintermediation, systems and taxes.

c) What product design alternatives will help to minimize net costs by deferring or avoiding unnecessary taxes? The answer to this question is most important and demands innovative structuring.

d) How should compensation be designed to achieve a balanced marketing and financial result? The answer to this question must be a function of the nature of the product. The best answer may demand a change in marketing methods.

2) Efficient Marketing - How a product can best be marketed is a matter which bears much closer examination than in the past. For example, insurance companies that have relied entirely on a captive agency force which sells entirely in the individual market must reorient itself so as not to exclude other forms of marketing such as:

a) Direct mail;
b) News print, television, radio and print advertising;
c) Marketing through large and small employers; and
d) Use of convenience locations, such as shopping malls, etc.

This list in no way implies that the high powered individual agent specializing in the sale of large amounts of insurance will not continue to function in much the same manner as before, but those agents will at least have to offer new products. In total they account for a small percentage of all insurance business written each year.

3) Use of Outside Investment Services - Investment results under an insurance or annuity contract have become of such importance to the success of a product that much greater expertise in investment management is now required. Only the largest insurance companies can afford to have such expertise within their own resources. This raises a serious question as to how the small and medium sized companies will compete in this new environment with respect to investment performance. It would be my best guess that this problem will be solved by use of outside investment services, possibly involving reinsurance mechanisms.

4) Standardized Software - For years most insurance companies have been developing their own software to service their insurance business. In recent years, some standardized software packages have been developed, and insurers have seen the wisdom of leasing or buying such software rather than continuing the pattern of each company reinventing the wheel. The complexities of these systems — systems which must consider varied methods for tracking investment results by choice and timing of investment and which must consider the kind of products that will be increasingly popular in the 80's — will require most companies to seek outside services and to use high technology software that will be marketed to many insurance companies rather than exclusively to one. In some instances, especially for smaller companies, it will be cost efficient to not only lease standardized software, but also to make use of outside administrative services.

5) Use of Reinsurance - In many cases, an optimum result may be achieved only through the use of reinsurance. This may involve one or more reinsurers, either unrelated to the ceding company or in some cases affiliated with each company.

6) Use of Outside Consulting Services - As an actuary in the insurance company consulting business, I have observed an increased trend on the part of even the largest insurance companies to make use of outside consulting services. It is one thing to understand and maintain an ongoing business, but most companies cannot afford the overstaffing that is required to modify existing or develop new product lines. The perspective of a consultant can often cut through the most myopic or even self-interested view of a company's own officers, and will work to obtain a result without the permanent overstaffing that is often implicit in in-house developed products.

Implications for the Actuary

Over the last five years, the number of fellows of the Society of Actuaries active in the profession has increased from about 2,500 to 4,100. These new fellows have been easily absorbed into the insurance and pension business as employees of insurance companies or as consultants. Only about 5% work in other fields such as government, and I see little change in that percentage during the 80's.

One must ask the question, "What will be the likely impact of the continued expansion of the ranks of actuaries at this rate of growth?" One can only speculate, but I would venture the following as a likely prognosis.

1) High technology will be affecting many operational areas of insurance companies along with other businesses during the 80's. The young actuary is a likely candidate in this new environment for more responsibility in diversified areas of the insurance company business that have not heretofore been traditionally associated with the job of the actuary: marketing, investments, systems and general management.

2) If this first prognosis is correct, it certainly has implications for the training of the actuary and suggests that a much broader management oriented base should be part of the educational syllabus for fellowship in the Society of Actuaries. At the present time, most actuaries have an advantage primarily by virtue of their technical training in mathematics relevant to the pricing of insurance contracts. However, the broader dynamics concerning the total operation of a successful business have been largely neglected in the actuary's training. Unless this is recognized by the Society, the next generation of actuaries will not be equipped to meet the new challenges of their profession.

3) Opportunities afforded by the 80's will create an increasing demand by insurance companies for services of outside consultants. It will become more difficult for even the large companies, let alone the middle and small sized companies to solve all the internal problems arising from rapidly changing regulatory, tax, marketing and systems environments. The bright, management oriented actuary is likely to find insurance company consulting a more interesting and, in many cases, a more lucrative field in which to concentrate.

4) The extent of growth in the need for consulting actuaries' services for retirement plans is unclear at this time. Other professionals, such as lawyers and accountants, are often competing to provide the same services as actuaries. The only area preserved for the actuary is the valuation of defined benefit plans. The future popularity of such plans versus alternative types of plans which require less of a long-term commitment is uncertain.

5) On the other hand, the trend toward self-insured health and welfare plans, especially among large employers, is likely to continue. The need for actuarial guidance in these areas will undoubtedly be increasingly recognized. Furthermore, the required informational data for such actuarial supervision will become more generally available and thus enhance the usefulness of the employee benefit actuary's services.

In many respects, the actuarial opportunities for the 80's are not dissimilar from those of the insurance business. The 80's will be a period of dynamic change. Those who understand the nature of these changes and who reach out with an appropriate response will thrive and prosper.

A Word about the 1990's

As has been discussed, the 80's will be a period of opportunities and pitfalls. One of those pitfalls may be a failure on the part of insurance companies to use that valuable time to assume a more consumer oriented posture in terms of life insurance, savings programs and health insurance. There is a much better understanding and awareness by the public of what they should expect by way of a return for dollars that they pay for insurance products. This is heightened by the aggressive competition from savings and investment institutions. If in the 80's the insurance industry fails to give greater recognition to its consumer obligations, the 90's are likely to see a resumption of government inroads into the insurance markets such as has been experienced in Canada. Those inroads began with the social need for medical care and spread into other areas.

In the U.S., we have seen the Social Security system grow from a concept that contemplated only subsistence level retirement income to one which also encompasses large amounts of survivorship insurance, disability benefits and medical expense insurance for the aged. The present trends towards retrenchment in these areas by government will give private industry a second chance to reassert itself in these areas of encroachment. Life insurance companies have in many cases not been willing to shoulder a full share of responsibility for preserving its marketplace. This has been particularly true in the medical expense and disability fields where many companies have remained aloof or have participated on a basis far below the level required to ward off federal or state intrusion. Perhaps the most important chink in the insurance companies' armor has been its failure to fill the gaps in medical expense insurance and aggressively shoulder its obligations for controlling the disproportionate incremental costs of that form of coverage. Filling those gaps will undoubtedly be the most challenging and difficult of the tasks that insurers face in the 80's if they are to look forward to a decade of growth in the 90's.

MR. FRANK G. REYNOLDS: The problems facing the actuary in the future remind me of an incident at a convention in Washington some years ago. Three of us arrived early to see the city. We rented a car, and I agreed to drive, provided someone else would "navigate". The first navigator did not last long. He insisted on seeing the street signs as they passed and then giving directions. He made no attempt to anticipate the future. Needless to say we took some interesting detours. His replacement tried to see a few blocks ahead. He was not always successful, but in general his procedure worked. To me, actuaries are always looking at the past and trying to cope with the present instead of looking ahead the few years that are already clear and trying to be ready for the future when it arises.

When I entered the insurance business in 1962, the dominant features in the work place were the clerks and those who could manage large clerical staffs. In the last two decades, the clerical staffs have decreased and the technician, particularly the computer technician, has become a dominant feature.

To me, we need to be looking not at 1965 but at 1990 as the future. By then, the technician's role will have begun to diminish as major data processing systems are in place and the routine technical work has been computerized. In that age, the need will be for broadly based professionals whose prime function will be making judgments based on the information contained in the data bases.

To cope with these changes, we must increase our numbers knowledge of economics, psychology, statistics, law, and common sense. We must compress the time taken to acquire the knowledge. Unless we stop regarding the current situation as the future and try to cope with the next decade, we are doomed as a profession.

MR. ANDERSON: Does anyone have this map of the future? One of my difficulties is that I do not think there is such a map. I believe that the most important thing about thinking about the future is to create different scenarios so that you will be better prepared to deal with future events.

MR. EDWARD J. SLABY: I regret that the leadership of the profession is not bringing us together. We seem to be busy erecting walls to keep each other out of the other's turf. At the same time those walls are keeping us in. My current situation is one of managing casualty and life actuaries, and it's a strange world when you have to tread carefully around your professional responsibilities as a life actuary when you are managing casualty people.

MR. ANDERSON: Your point is that as actuaries we are now not able to speak on another's turf?

MR. SLABY: If we build walls to keep the casualty actuaries out of the life field and vice-versa, we are limiting our opportunities. The leadership of our professions should work to bring us together rather than cause these walls.

MR. ANDERSON: I agree with you. I spent about a third of my career as a member of this Society, but pricing the property and casualty business. I might have been declared illegal if the present attitudes existed 25 years ago.

MR. KILBOURNE: It is important that we define what we consider to be the actuarial profession. That is why I decry the hyphenating that goes on so much. I am not sure that I consider the perimeter to be a wall, in the sense of something that has to be defended to keep other people out. It is also important to delineate where we are best able to serve the public and to recognize where another profession is better able. There are fields on the other side of this perimeter as well. The key to this question of perimeters is for us to define our profession. In the past, we have failed to serve the public as we might have, that is, the uncultivated field. At the same time, we have spent quite a bit of time haggling over who gets what furrow within the small portion that we have cultivated.

MR. ANDERSON: Incidentally, Fred and I have a basic difference of opinion. I believe in identifying the actuary, but I do not believe in identifying specialties to the point where these are the anointed and these are the non-anointed. Because changes are happening, we should not be building these walls in the actuarial profession.

MR. THALER: It seems to me that a good analogy on the subject of perimeters is the place of internal medicine in the medical field. We went through a period of time when the man who had a specialty in internal medicine restricted himself entirely to that specialty, like cardiology. If you went to that doctor, he was very likely to say, "Well, I will refer you to another doctor" and, of course, charge his fee for the visit. Now we see a return, a noticeable return, of the internist who is practicing general medicine. We are specialists in the insurance business, and we have to deal with all the ills of the insurance business, and we really cannot understand how those ills interrelate unless we are more generalists as far as understanding the insurance business. So when we talk about perimeters, we are in danger of creating walls that will prevent us from having a good understanding of the entire business.

MR. ANDERSON: I like the metaphor that Alan used, but I would carry it even further. I regard our system of medicine as being one devoted entirely to the sickness side of the paradigm and having very little to do with health. I would say to you that if I became ill and could seek out any man possible, the first I would choose would be an American-Indian medicine man. Next, I would go for an acupuncturist. The last is to go to one of our hospitals. So I am way beyond Alan as far as feeling that the medical profession has made a mistake in establishing its barriers separating the mind from the body. That profession needs to rethink its entire role in our society.

MS. BARBARA J. LAUTZENHEISER: As one of the leaders of the Society that is building those perimeters, one of my frustrations is that there is a controversy within the leadership of the Society itself as to what an actuary is or should be. The majority of the membership of the Society are analytical or left-brained as Roy would call them or worse yet, apathetic. That last piece is probably the piece that is even the toughest to handle. They just do not care. From that I would urge everyone of you who has that intuitive-giant-leap-concept to speak out. Express it. Because many of the other people are expressing the apathy or expressing "let's do it the way we have always done it". Make specific recommendations as to the educational program and how it can be changed to be able to develop all of these things we need. Keep talking and write to The Actuary. State your feelings, because without this small group of leadership moving and showing that that is the way the Society should go, the other side is going to prevail simply through apathy.