**TRANSACTIONS OF SOCIETY OF ACTUARIES**
**1973 VOL. 25 PT. 2D NO. 73**

VOL. XXV, PART II MEETING NO. 73

# TRANSACTIONS

OCTOBER, 1973

## DIGEST OF DISCUSSION AT CONCURRENT SESSIONS

### NEW DEVELOPMENTS IN GROUP LIFE AND HEALTH PROGRAMS

1. Dental insurance
2. Administrative services only
3. International group programs
4. Canadian developments

MR. GEORGE L. BERRY [presented by Mr. Robert J. Dymowski]: In the past few years dental insurance has gained wide acceptance as a benefit under group coverage for employees and their dependents. While less than 10 per cent of the population now has some form of insurance protection against the costs of dental care, the rate of growth in number of lives covered has been significant, tripling over the last five years. Currently, dental insurance is an important element in several union negotiations.

The number of organizations offering this type of protection has also grown rapidly in recent years. It is provided by some labor union health and welfare funds, prepaid group practice plans, dental service corporations, Blue Cross and Blue Shield plans, and insurance companies. The number of insurance companies which provide dental insurance, for example, has more than doubled over the last ten years. Well over half of the states now have dental service corporations, and more and more Blue Cross and Blue Shield plans are actively developing dental prepayment programs.

Public awareness is reflected in current discussions of national health insurance. The National Healthcare Act sponsored by the Health Insurance Association of America makes provision for coverage of vari-

ous dental costs, as does the Health Security Act sponsored by Senator Kennedy. There is awareness of the fact that the administration proposal makes no provision for dental care.

Dental societies and individual dentists are becoming increasingly aware of the benefits and the drawbacks of dental insurance. The cost of dental materials, particularly gold, has been increasing dramatically. The delivery of dental care has been changing, increasing emphasis being placed on preventive care and the use of dental specialists, such as periodontists, endodontists, and pedodontists. New discoveries have been and continue to be made in understanding and controlling dental disease. The introduction of new dental techniques and more sophisticated equipment has tended to reduce the general fear of going to a dentist, particularly with respect to the younger generation. It seems clear that the result of all these forces will be continued growth in dental insurance coverage as well as greater use of dental facilities by the public.

Within this environment, what is our role? What should actuaries who work in the employee benefit field be doing in connection with pricing, benefit design, and related areas? I have discussed the subject of dental insurance with a number of actuaries, insurance companies, Blue Cross and Blue Shield plans, and dental service corporations. I have voiced the opinion that dental insurance, as it is viewed in the marketplace, violates all the basic insurance principles and is really a form of prepayment.

There are three questions which have been raised in almost all of these discussions:

1. How can we design benefits to control abuse and yet provide reasonably comprehensive coverage?
2. What are the factors which identify high-cost groups and low-cost groups?
3. Where can we obtain meaningful experience statistics?

As actuaries, we try to base our decisions and actions on facts. When facts are limited or are not available, we make assumptions which, hopefully, are a reasonable approximation of reality. Generally, the more facts we have, the more confident we are that our pricing and benefit design will result in the achieving of predetermined objectives.

The actuaries with whom I have discussed dental insurance have had many good ideas on pricing and benefit design. Almost all of them, however, have admitted that these ideas were based largely on impressions because of the lack of available factual information.

It seems to me that benefit design has been based largely on (*a*) experience with other health insurance coverages, (*b*) common sense, (*c*)

the demands of the marketplace, and (*d*) the limited dental insurance facts that are available. Thus we see most dental plans with the following features:

1. Building blocks or layers of coverage, moving from basic toward more comprehensive care.
2. Coinsurance provisions which tend to range from 80 to 100 per cent for basic, preventive, and restorative services and which are generally 50 per cent for more expensive services, such as prosthodontics, endodontics, and orthodontics.
3. Scheduled benefits, or usual, customary, and reasonable benefits with the development of maximum fees and profiles.
4. Deductibles, to reduce costs and control abuse, which tend to be more common with respect to the more expensive services.
5. Maximum benefit limits which may be applied over the lifetime of the insured or for each calendar or contract year.

Some special developments that have appeared in dental insurance are increasing or incentive coinsurance, increasing calendar-year maximum benefits, "initial only" deductibles, and dental benefits combined with major medical.

Underwriting and rating considerations tend to follow practices found in other health insurance forms, with some important differences. Thus consideration is given to the size of the group; the contributory or noncontributory character of the plan; the socioeconomic, age, sex, and dependent characteristics of the employees; the level of dental fees in the area; integration or nonintegration of the plan with major medical; and the possible use of pretreatment or preauthorization approval.

With limited facts available, initial pricing is likely to be too high so that the insurer is uncompetitive in the marketplace, or too low so that financial experience is unfavorable. Insurers also must contend with other insurers who have inadvertently priced their product too low or who are willing to combine unfavorable experience with the experience of other group benefits.

The larger groups are generally experience-rated. With a sound formula, confidence should increase with respect to the predictability of renewal experience. Unfortunately, dental experience is not always predictable. Factors such as advance announcement of the plan, degree of unmet dental needs, and general communication of benefits available will affect the relationship between first-year and renewal experience. Benefit design is also a factor. Restrictive benefits may control initial costs but increase future costs, since deferred dental care needs tend to increase with the passage of time since the last dental visit.

Most of you are familiar with these aspects of dental insurance. My purpose in mentioning them is to lay the groundwork for a couple of suggestions which may help actuaries to resolve some of the difficulties we have had with this coverage.

First of all, it seems to me that we need to develop a sound statistical experience base. The logical way to do this would be to undertake an intercompany experience study similar to those which have appeared in past *Transactions* of the Society for other health coverages. I understand that the Group Morbidity Committee already has this under review. My suggestion is that those of us who work for insurance companies encourage them to participate in such a study.

Second, I suggest that the Society form a small dental insurance committee or task force consisting of those actuaries who are particularly interested in identifying and resolving the problems associated with this coverage. This should result in a more concentrated effort by our profession to gain knowledge about dental insurance and dental care.

Finally, I suggest that this committee, should it be formed, meet with dentists to gain their co-operation and to learn in detail about delivery of dental care as it affects pricing and benefit design.

This is a challenging field. It is not only growing rapidly but also changing dramatically. As a professional body, I believe that we must learn as much as we can about it in order to fulfill properly our responsibilities. It seems to me that this will require some positive action on our part.

MR. MILTON F. CHAUNER: In reference to the suggestion that a group dental committee be formed, the Society Committee on Group Life and Health Insurance has given some consideration to development of intercompany experience on dental coverage, but no data have yet been collected. Some companies have been contacted regarding the availability of data for such a study.

MR. R. J. DYMOWSKI: Our primary source of data has been the experience published by the American Dental Association on its own dental coverage program. This has been published annually in the *Employee Benefit Plan Review* reports, and we have also received material from the ADA. We have also had access to data on costs and utilization based on surveys of state dental associations obtained by several of our clients. However, this information has not been published. We have also used the book *Insured Dental Care* by Helen H. Avnet and Mata K. Nikias as an additional reference.

MR. RICHARD S. HESTER: Do I understand from Mr. Dymowski's remarks that there is some emphasis on preventive dental treatment in current dental coverage programs? Is the assumption that such preventive care would lower over-all claim costs based on observed experience or on statements by the dentists?

MR. DYMOWSKI: We have had to rely on the dentists in this regard, since we have not been able to observe enough experience directly to establish this fact. Dentists have done the research in this area and are convinced that the early treatment of dental problems will prevent serious dental disease which requires more expensive procedures. The availability of preventive coverage in many plans is based on this assumption.

MR. ROBERT M. JOHNSTONE: "Administrative services only" (ASO) is a life insurance company product that only now appears to be emerging in the employee benefit plan marketplace. Actually this product had its origins, in some respects, back in the middle 1960's when Medicare was launched with the aid of benefit administration by insurance companies and Blue Cross/Blue Shield organizations. More recently, the offering by life insurance companies of a "service only" product for private plans was stimulated when, effective January 1, 1971, the Minnesota Mining and Manufacturing Company bought a "claim service only" arrangement from a life insurance company for its self-insured employee health benefit program.

Before continuing, I should point out that I will be reflecting my own views as to ASO. Further, since this product is new and is still developing, my views are based mainly on the experience of my own company, a large mutual life insurer domiciled in New York. I do not pretend to have extensive knowledge of product variation among carriers—which is fortunate, since, in the time allotted, I find it difficult enough even to cover the highlights of one company's practice.

### WHAT IS ASO?

ASO, is the provision of all or a portion of those services needed to run a self-insured plan adopted by an employer and sometimes by a section 501(c)9 association. Traditional insurance risk-taking in any sense and the collection and investment of funds are not involved. Common to almost all ASO arrangements is the provision of benefit payment administration; such normal insurance company functions as benefit

plan consultation, costing of proposed benefits, experience evaluation and cost projections, and the like, may or may not be included.

The foundation of ASO is an agency relationship between the employer and the life insurance company. The employer establishes a bank account (after consultation with the life insurance company) against which the life insurance company is authorized to draw drafts in payment of benefits. The employer is under obligation to deposit funds, on demand and without limit as to amount, as needed to cover benefits.

### NATURE OF ASO CONTRACT

Administrative services, of course, will be provided under the terms of an ASO contract between the employer and the life insurance company. Naturally, this contract must cover all business aspects of the arrangement.

Note in this connection that we are dealing with a new form of relationship between the employer and the life insurance company. As compared with the regular group insurance product, the employer will be buying most, but not necessarily all, of the services usually available to a policyholder. The contract will also reflect language that is not thoroughly "tested" in the legal sense and is not buttressed by a tradition of commonly accepted meanings. As a result, in my opinion, the coverage of the business aspects of the contract probably should be quite explicit and detailed.

A fundamental provision of the contract is the incorporation of the employer's plan document. The statements of covered charges, benefit formulas, eligibility for benefits, and exclusions must be as precisely stated in this document as they would be in a group insurance policy. While not a part of the contract, descriptive materials given to employees covering plan benefits must be consistent with the provisions of the plan document. To guard against potentially difficult and expensive disputes with claimants, the life insurance company should make sure that these materials are consistent with the plan document.

The terms of the contract must state clearly the obligations of the insurance company and of the employer for benefit payment administration. Who certifies eligibility? Does the claimant submit claims through the employer, or directly to the insurance company? Is transmittal of the claim draft and explanation of benefits to be direct to the claimant (or provider of service, in the case of the assignment), or through the employer? If direct, is a duplicate record to go to the employer? Does the life insurance company or the employer provide additional explana-

tions of benefits on request? Is the life insurance company authorized to reject claims or adjust charges to reasonable and customary levels? Who prepares federal disclosure D2 reports? The list could go on and on.

Where full administrative services are to be provided, the enumeration should go further and list the aspects of plan consultation, cost evaluation, plan and contract work, and other services of a like nature that are to be provided. Under a full-service arrangement, it may be possible to abbreviate somewhat the detailed enumeration of functions assumed by the life insurance company. However, because of the great variety of services that may be available under a group insurance arrangement, merely to state in the agreement that the insurance company will provide all those services normally available may introduce some undesirable ambiguity. Notable instances of ambiguity lie in the legal area. In contrast to the situation under an insurance contract, the life insurance company normally will not assume the obligation of determining for the employer whether his self-insured plan conforms to applicable law in relation to the state in which his covered employees are located. Also, the services provided normally will not include the initiation or defense of lawsuits on behalf of the employer in the plan. Explicit statements of these important points should be in the ASO contract.

The responsibility for the bank account must be covered. Does the life insurance company have the reconciliation obligation? Whose obligation is it to see that the employer deposits funds as needed and on a timely basis? What audit trails does the employer require? What audit reports? What experience reports, and when? Is the insurance company to file providers-of-service IRS information reports?

The contract should make explicit provision for the determination of price, the method of payment and billing, and, if appropriate, the terms of price "renewal" or the life insurance company's rights to change price. If a stipulated price or pricing formula is provided, the contract should make clear that the insurance company has reserved the right to change price because of a change of either benefits or eligibility in the employer's plan, particularly if the change is retroactive, or a change in regulation requirements. It is also prudent for the contract to hold the insurance company harmless for any claim against it for unanticipated taxes.

Last, the contract should cover adequately the respective obligations of the life insurance company and the employer on termination of the agreement. Who finishes claims in process? How are claims received after termination to be processed? Who handles continuation claims? What disposition is to be made of claim files?

PRICING

In my opinion the soundest basis for charging for ASO is one which stipulates beforehand as a matter of contract a guaranteed price or formula based on an evaluation of services to be performed. If a formula is to be used, it should be simple. For instance, the formula might be 5 per cent of the amount of claims paid, or it might be $20 per covered employee plus 2 per cent of claims paid.

On the other hand, some companies appear to price on a restrospective formula basis derived from their dividend or retrospective experience-rating formulas. I think that this basis is more likely to be adequate where the arrangement is to provide full normal insurance services rather than claim services only. However, even then, I think that the seeds for serious customer disputes are planted when this basis of charging the customer is used. ASO is not a group insurance arrangement subject to experience rating as to expense and profit. The board of director's authorized dividend or experience-rating formula may not protect the life insurance company against allegations that the finally determined price was arbitrary, unreasonable, unjustifiably different from that estimated at the outset, or included average charges for services available but not asked for or used. Another reason for explicit pricing in the contract is federal price controls. ASO is not a product coming under the controls and reportings applicable to health insurance. Rather, ASO comes under the federal controls for the sale of services, and it may be difficult to justify compliance on the basis of price determined under a process closely related to experience-rating practices.

This matter of pricing is troublesome in other respects. Pricing policy should adhere to corporate profit objectives. Pricing should not be done on a marginal basis—that is, on the basis of the additional direct costs incurred by the company in doing an ASO business. Good, detailed functional unit costs are needed to do a sound job—a more extensive grid of unit costs, perhaps, than the broad averages that may be satisfactory in making customary surplus distribution determinations. In other words, the company should expect to produce routinely reasonably accurate cost center profit and loss management reports. Aside from the obvious fact that it makes good business sense to be in this position, my reading of section 46A of the New York Insurance Law suggests that the accounting of this product's financial results must be almost as rigorous as if it were done through a separate noninsurance subsidiary.

I have chosen to concentrate on two rather narrow areas: the business aspects of the ASO contract and the pricing philosophy. A full discussion

of ASO would include such other interesting and important topics as underwriting, benefit and experience evaluation practices, and cost analysis techniques. However, the two I chose to discuss are, I believe, less like usual actuarial experiences and are more likely to present expensive pitfalls to the actuary of a company about to embark on ASO.

MR. JOHN C. ANTLIFF: Why should large employers want ASO from insurance companies?

MR. JOHNSTONE: A large group health insurer will have tremendous capability and resources in this area. It will have a nationwide network of claim offices—of interest to the national employer—and will have made the heavy investments involved in creating and maintaining the computerized claim-processing resources that are necessary to process and accumulate facts about plan benefit payments. The claim office network will be staffed with experts who have established relationships with the providers of health services and have access to a store of information about trends in health service developments at the national level. The insurer will have recognized expertise in pricing benefits, counseling on benefit trends, discussing the impact of planned new laws, and other aspects of plan consulting.

Employees should favor life insurance company administration of benefits. The life insurance company has a strong incentive for fair benefit payment practice in order to preserve its national reputation. Furthermore, the company's benefit administration under its insurance contracts is regulated heavily to ensure equitable treatment, and it would be unreasonable to expect any less equitable treatment under ASO. Somewhat related to the aforementioned is the protection against allegations of discrimination or unfair treatment afforded the employer by a life insurance company ASO contract. Today, with new laws that encourage class actions and with consumerism virtually a popular crusade, I believe that this protection should not be dismissed lightly.

Finally, using a life insurance company for ASO makes the transfer of employees from a self-insured to an insured status easier than would be the case otherwise. This is true not only for the employer who wishes to retain, for some reason, regular group insurance for some class (short-service employees, for instance) but who also may wish to provide individual insurance policies for issue to those employees who leave the employer plan and for whom the employer feels some obligation to provide for continuation of health benefits.

MR. DAVID E. MORRISON: Why should the ASO agreement, unlike a group deposit administration contract, incorporate the plan document?

MR. JOHNSTONE: The ASO arrangement requires the life insurance company to determine and pay benefits for the employer under the employer plan, and, therefore, precise statements of eligibility, covered charges, and benefit formulas are necessary restrictions on the agency powers given the insurance company. There is no objection to two documents, provided that the ASO agreement incorporates the plan document by reference.

MR. HAROLD GILBERT: Will insurance companies be forced to provide more competitive cost figures for retention business because of the pressure from ASO?

MR. JOHNSTONE: Retention business is already extremely competitive, particularly for large and jumbo accounts, and access to ASO should add little additional pressure. My company's pricing of ASO is on a basis consistent with costs for "retention" business, since we want to be in a neutral position as to the relative expense aspect of the client's choice between an insured and an ASO basis of benefit delivery.

MR. GILBERT: Do insurers allow customers to shop for services?

MR. JOHNSTONE: Perhaps somewhat more flexibility is possible under ASO, but conventional insurance products for a long time have included tremendous flexibility in the areas of administration, claim payment, communications to employees, and additional or nonstandard service availability.

MR. A. HENRY KUNKEMUELLER: My subject is new developments in international group programs. Perhaps it should be current developments, because there is very little that is really new in the international group area. Practically everything we see today is a new version of the same problems we were working with ten years ago.

One area that definitely is new and exciting is the group life market in Japan. One American company, American Life, has received authorization to write group life coverage on Japanese lives, so this is a market that is now open. Our group life product sold in Japan is very similar to the group life products sold under the New York State Minimum Rate

Regulations, in that the technical basis is prescribed for all companies. For groups we would normally call employer-employee groups in the states, with specified benefit scales, the rates in Japan are somewhat lower than the rates in New York. For instance, at age 30, the current New York regulations call for a monthly rate of 47 cents per thousand for a very small group, ranging down to about 18 cents per thousand per month for a very large group. The Japanese scale would range from 42 cents for a very small group down to about 15 cents for a very large group.

Accident riders are popular in Japan. This product provides indemnity for accidental death, plus a broad schedule of accidental dismemberments, including loss of toes and the like, and in-hospital indemnity for up to 120 days with a four-day waiting period. The premium rate is 21 cents per thousand per month. There is also interest in a parallel rider covering traffic accidents which provides similar benefits but only for traffic accidents. The monthly rate is 13 cents per thousand.

The Japanese regulations also provide for groups similar to those that we would call association cases. Specific underwriting rules are provided, and higher rates are required. There is no interest in group medical. This coverage is discouraged by the government on the ground that permitting insured medical coverage in addition to present social programs would cause overinsurance.

We are certainly very excited about the possibility of doing group business in Japan, one of the major insurance markets in the world.

Among topics which are current in the international field is the question of how to treat multinational cases. Combined experience rating is always one objective, and the question of how to handle currency exchanges arises. In the wake of the recent dollar devaluations and wide fluctuations in exchange rates, our company has adopted the approach of doing the experience rating in local currency rather than consolidating the experience rating in United States dollars. When a client wants a dividend paid in United States dollars, we purchase as many United States dollars as we can with the local currency at the time of the exchange. Consolidated reports converted to United States dollars may be given for information purposes.

We have taken the long-range view with respect to blocked currency that as long as one is doing a normal insurance business in a territory and expects to continue to do so, the fact that the currency happens to be blocked currently is no impediment to writing multinational group business.

With respect to risk charges, reducing risk charges by spreading the

risk over a multinational portfolio is a frequent objective. This is particularly effective when the individual territories comprising the multinational case contain only small units of coverage. Perhaps even more important, it is often possible actually to write a coverage which would not be justified by the local group standing on its own. This can arise when the client desires to provide the same coverage in an overseas territory that it provides for its employees in North America. Frequently the size or type of coverage could not be justified in the territory. However, we have been able to write the coverage by tapping back into the North American contingency fund of the client, using reinsurance.

An aspect of multinational cases which has attracted great interest in the past few years is the desire by North American companies to protect their relationships with domestic clients which have overseas subsidiaries. Several companies have attempted to form worldwide networks of subsidiaries or affiliated insurance companies to accomplish this but have found this solution quite expensive. Our own organization, which has entered most countries in the free world, still leaves some gaps where we are not represented by an entered company. In these cases we have found it most effective to work with an entered local company. We would suggest that, if your company is considering this, you consider the cost in relation to the objectives. The normal objective is to retain control over the international group requirements of the domestic client, and establishing a worldwide network may be a very expensive way to do this.

In the area of reinsurance there are many objectives, and once the objectives are established a satisfactory solution often can be found.

A current trend is toward decentralized benefit buying, where the local manager and local personnel department have a major voice in the local benefits. No longer is it sufficient to deal merely with the home office insurance department of a domestic client. As a result, we have increased our emphasis on contact at the local level. This leads us to consideration of the final area of current major concern in the international group area—how to train local nationals to do a capable job as group representatives. We have been placing great emphasis on this and find it a difficult, but essential, phase of our international operations. If anyone has some good solutions to this problem, we would appreciate hearing from him.

MR. GEORGE N. WATSON: Developments in group life and health programs in Canada follow along the lines of developments in the United States, with the single exception that, where there is government involvement, significantly different results appear. In Canada there is

massive government involvement in the field of hospital and medical services, and there is a very substantial involvement of government in the field of pensions and disability benefits, both short term and long term. It is interesting that, with all this government involvement, the health insurance premium income of Crown Life in Canada is greater now than it was before any of these developments occurred. The introduction of Medicare in Canada, commencing in 1968, certainly produced in the years following a substantial reduction in the premium income of most companies doing a health insurance business, but by 1973 some, including Crown Life, had recovered their former level of premium income through the sale of other types of health benefits.

The principal benefits for sale in Canada today, in addition to group life insurance and group pensions, are (*a*) weekly income insurance, (*b*) long-term disability insurance, (*c*) dental insurance, (*d*) supplementary health insurance, and (*e*) accidental death and disability insurance.

There is considerable interest in dental insurance, with many unions making this a part of their demands in current contract negotiations. Long-term disability and weekly income insurance are very much in demand, even though both of these have been affected by two separate government programs.

Although health insurance in Canada is a provincial matter, unemployment insurance was made a federal matter by a constitutional amendment. By a remarkable piece of interpretation, benefits payable to an employee by reason of sickness or accident were considered interruption of employment and therefore as properly falling into the area of unemployment insurance. In 1971 the Unemployment Insurance Act was changed to provide substantial benefits, that is, two-thirds of earnings, not to exceed $100 weekly, and these benefits would be payable in case of interruption of employment for any reason, including sickness or accident. These benefits commenced after a two-week waiting period and extended for a maximum period of fifteen weeks in the case of sickness or accident, but a longer period for unemployment for other reasons.

The legislation making these benefits available provided that an employer could, if he wished, maintain a plan of sickness and accident benefits already in effect and, if the benefits provided by such plan were at least as good as the benefits of the government-operated plan, would receive a credit against the cost of the unemployment insurance benefits otherwise provided by the legislation. This credit would go partly to the employer and partly to the employee according to a stipulated formula. Where this election was made by the employer, the unemployment insurance benefits of fifteen weeks would become payable at the end of the

maximum period specified in the private weekly income plan. Thus, if the plan provided benefits for, say, twenty-six weeks, an additional fifteen weeks of benefits would become payable after the twenty-sixth week. However, if the private plan did not provide a level of benefits equal to the unemployment insurance benefits, then the unemployment insurance plan would provide a supplementary benefit to bring the total benefit, private and public, up to the stipulated amounts provided by the Unemployment Insurance Act. This was called "topping up."

As it has developed, the majority of private plans were maintained in force, and only a minority were canceled. In the case of some of those that were canceled, we have seen a tendency to reinstate the private plan because of certain advantages, mostly the efficiency and the facility of claim payment that are accorded through the private insurer as compared with what is available, generally speaking, in Unemployment Insurance Commission offices across Canada.

The chief reasons why the insurance business was able to maintain such a large percentage of its business in force under these circumstances were that the duplication of costs was virtually eliminated, the companies' service was deemed superior, and, perhaps most important, the unemployment insurance benefits that the individual was entitled to were not impaired by reason of payments received through sickness or accident. By keeping the private plan in force, the individual was able to maintain intact the maximum coverage available to him under unemployment insurance, which in most industries, especially those that were prone to periods of unemployment, was deemed vital to the individuals concerned.

Although medical and hospital services are covered throughout Canada by provincial government plans, these plans do not provide coverage for all the services that are normally included in a major medical plan. For example, there is no coverage for prescription drugs, private duty nursing, the cost of hospital bills in excess of the public ward rate, vision care, and several other seemingly small items which in the aggregate form a necessary and important supplement to the provincial medical and hospital insurance programs. The premium developed and the experience of these benefits is most satisfactory and hence enables the companies to provide necessary services to the public and maintain a respectable and growing premium income.

Other major Canadian developments are likely in respect to the Canada Pension Plan, but these have not yet occurred. We are expecting a sizable increase in the yearly maximum earnings on which pensions are based, perhaps an increase of $2,000 or even more, and also changes,

principally in the widow's pension and disability pension, which will increase all these benefits very significantly. It is not expected that decisions in this regard will be taken by the federal government until later this year, but, when agreement is finally reached between the provinces and the federal government, these changes are likely to be most important indeed and will have a significant effect on the life insurance business in all areas.

In the field of group ordinary, companies are offering this product without the difficulties we have seen brought about in the United States by unfavorable IRS rulings. In fact, one company has been able to offer the two-policy approach in such a way that the group term insurance being paid for entirely by the employer is therefore not taxable in the employee's hands, and the balance of the premium, when permanent insurance is elected, is arranged as a registered retirement savings plan and thus is deductible from the employee's taxable income. This affords a rather powerful sales argument, because, by this arrangement, the entire permanent insurance premium is free of income tax to the employee.

The final development is in the area of the small plan. In Canada the tendency is to write group plans involving employers of small size because there are so many. One company will write a package plan of life and supplementary health benefits for as few as two lives. It is thought that it may become important in the years ahead to be able to establish that the life insurance business is able to provide group life benefits to an employer regardless of size and thus avoid a limitation that might invite government intrusion into the field.

## MARKETING INDIVIDUAL ORDINARY INSURANCE

1. Mass marketing
   *a*) What special products and practices are necessary?
   *b*) What are the most promising markets?
   *c*) What have been the experience and business characteristics of the different markets?
   *d*) What are the alternative distribution organizations?
   *e*) How important are automobile and homeowners insurance to the success of life insurance sales?
2. Marketing of pension trust products
   *a*) How do you provide training and incentives to agency operations to market the pension trust? What is the market?
   *b*) What special products and services are required? How does the underwriting differ from nonpension business? What are the side-fund outlets?
   *c*) What are the characteristics of the business produced, that is, its persistency, premium frequency, average size of policy, and so on?
   *d*) Is this business profitable in view of the continuing servicing obligations—for example, new federal and state regulations?
   *e*) How do individual policy pension trusts compete with group programs offered by the same company?
   *f*) How will the new federal pension legislation affect our market?
3. Marketing through a subsidiary or related organization
   *a*) What are the marketing opportunities for the stock life insurance company subsidiary of a mutual life insurance company?
   *b*) What are the advantages and disadvantages of competing sales organizations selling products of the same company?

MR. WALTER S. RUGLAND: At the time Connecticut General established its mass-marketing portfolio, we determined that special products were a requirement and that the over-all expense levels as well as the underwriting would be significantly different under the mass-marketed products as opposed to the individual ones. Our experience has shown this to be the case. The practices must be oriented toward payroll deduction with periodic, such as monthly, premium payment. Products must be simple and easy to understand and without frills or other types of options that make the final design and therefore the choice difficult. We debated the merits of money-purchase as against need-related amounts. The latter were chosen as being more responsible.

Our experience to date indicates that tightly controlled sponsor situations are the most promising market. Here we obtain the best return for

the effort expended. It also must be a situation where the sponsor wants to have the program available for the people he has contact with. He must make a commitment to the program in terms of time and administrative expense and must be interested in the results. In some instances the program is appropriate for small groups (under fifty), but it seems to fit best small to medium-sized groups (fifty to one hundred) where there is still some paternalism on the part of the employer.

What have been the experience and business characteristics of the different markets? We tried initially to eliminate lapse as a risk by establishing low going-in commission rates. This appears to have been conservative; our over-all persistency subsequent to the first payment has been within expectations. It is the not-taken rate that is the worst—and I would advise against paying commissions on a written basis. In medium-sized (one-hundred-life) situations the lapse experience has been good. We found some mortality antiselection, but we had expected it and built it into our mortality assumption. There appears to be a relationship between the endorsement of the sponsor and the degree of adverse mortality selection. Experience with nonsponsored markets is nil, since we have not attempted penetration into that market.

What are the alternative distribution organizations? Our experience shows that the individual career agent on his own is not a viable distribution facility for mass-marketed products. He needs motivation and support from a "salaried" representative or "wholesaler." Our group sales force has marketing responsibility for our mass-marketed life products and markets through our agents as well as through brokers. The career agent does not have sufficient contact with owners of medium-sized businesses to give him a spread broad enough to maximize an individual effort in this area. He also is uneasy when it comes to learning and testing mass marketing on his good clientele. We have had little success with large brokerage houses to date. They seem unwilling to expose their big clients to the product; union situations are a big factor here.

How important are automobile and homeowners insurance to the success of life insurance sales? Connecticut General's mass-marketing program encompasses the whole portfolio or insurance needs. This includes automobile and homeowners coverages. However, neither is a necessity to the sale of individual life. Life stands on its own, and we intentionally market it separately. Our estimates are that the buyer cannot handle more than one or two decisions at once, and to load him up with a package that includes everything on a less-than-meaningful-amount basis is not appropriate.

The automobile and homeowners coverages were by far the most suc-

cessful initially. The reason is an interesting study in marketing. Our success seems to reflect which coverages are bought by the public and which ones need some degree of selling.

MR. MARTIN L. ZEFFERT: The first question under item 2 of the program outline is, "How do you provide training and incentives to market the pension trust?" Aside from the usual incentives, such as money and recognition, we encourage our agents to write pension trusts by training every new agent in a financial planning process which often results in a pension trust as the answer to the problem. The point of the whole process is to obtain data from the client and to permit salaried specialists in the agency to prepare a proposal outlining what they think are the problems and solution not only for pension problems but also for certain definable situations when substantial amounts of personal life insurance are needed, as in stock retirement and keyman situations.

It is interesting to note that the average first commission in a mature operation runs close to $6,000, with a four- to six-month elapsed period from a preliminary approach on the telephone to the date of premium and commission payment. We stress that our market is the small corporation with fewer than two hundred employees but with more than $500,000 in sales. Another strong source of business is the small professional corporation or the unincorporated professional, where an analysis of the advantages and disadvantages of incorporation will often lead to a pension trust sale. Since pension trusts are close to 50 per cent of Fidelity Mutual's new business by premium volume, it is evident that our training process does seem to work.

What special products and services are required? Obviously a special policy series is needed, if for no other reason than to keep track of one's experience. Further, a servicing system, separate and distinct from the ordinary operation, staffed with people who do nothing but handle pension trust business is necessary. Multiemployer plans, prototypes, and proposal and renewal servicing systems on computers are all part of the operation. Although it is possible to integrate a small pension trust operation with ordinary insurance, one soon finds it necessary to take account of the special demands of this business.

We have not offered to fill out the various disclosure and other forms not required of the insurer—forms 4848, 4849, 990P, D1, D1S, and so on. We maintain that this is the responsibility of the employer's accountant, and, indeed, in most cases we are not in possession of adequate information to fill out these forms. We do furnish specimens of the forms, and for any particular case, on request, we will supply the pertinent data

we do have, but that is the position we have adopted and probably will continue to follow for the foreseeable future.

The September, 1973, issue of *The Actuary* contains an article suggesting that the insurer assume the responsibility for seeing to it that the employer receives qualified actuarial assistance. This sounds good in theory but overlooks the actual relationship between the insurer and the employer. In most instances the practical fact is that the insurer deals with the employer only through the agent or agency. And with most cases being split-funded and the side funds going in numerous directions, the insurance company's knowledge of the case often involves little more than a résumé of the policies in force within that company. We do prepare automatically a side-fund valuation on a theoretical basis with the assumptions clearly listed. If we are made aware of the value of side-fund assets, we will also give advice on future funding. But that literally is about as far as we are able to go in seeing to it that the employer and the trustee have adequate advice.

Pension trust underwriting must be specialized. We use a simplified underwriting approach, essentially spot checking on any other sources of information we have and occasionally asking for evidence.

Our basic simplified underwriting limits (SUL) rule is 1,500 times the number of lives for a maximum, where we reserve the right to set such maximum. This rule replaced two or three pages of complicated rules most of which had no effect on the outcome. We do go up to $50,000 on this arrangement and will add, in addition, $50,000 nonmedical. We have a man with underwriting background in charge of our pension division, and a fair amount of the underwriting goes through him and his associates. While we have not yet been able to check on the mortality of this class of business, it appears to us that it is satisfactory at this time and well within the Table B margins permitted by our pension series.

The SUL rule becomes less important when the average case is small, since the small case is usually accompanied by a high issue age and a much larger share of substandard business. There is a feeling among our marketing people that substandard risks are the most profitable source of business written by agents. We recently reduced our substandard premiums but also made an adjustment in commissions. We think that this will produce the same profit margins as our standard business.

We maintain a side-fund account in fixed dollars for trustees who wish to avail themselves of it. Since no commissions are paid on these funds except when they are withdrawn to purchase annuities at retirement, the activity is minimal. We will, if the case is large enough, issue a deposit

administration contract to cover these funds, using our "new money" allocation. We further offer our own two mutual funds, and many of our agents are licensed through our broker-dealer for a variety of other funds. Further, in certain specialized cases our agents are licensed to handle various more speculative investments, such as oil wells, cattle breeding, limited real estate partnerships, and the like, and side funds find their way into all of these. But here in the home office we have very limited knowledge as to what transpires.

The characteristics of the business produced are encouraging. With an average first commission of $6,000, the average premium per case runs in the neighborhood of $12,000–$15,000 of life insurance premium. In 1972 we stopped writing new cases on a monthly basis because of servicing problems, although we did continue to accept additions and increases on existing monthly cases. This means that well over 75 per cent of our cases are on an annual basis, and the persistency appears to be better than that of our regular ordinary business. This is not a completely fair statement, since pension trust does not include any term insurance. We have not been able to compare the persistency of this business with that of our regular permanent ordinary business, but I suspect that it is favorable. The average size of policy for new cases is pushing $30,000, and even the additions and increases on the older cases seem to run just over $10,000. The business is written largely on the small businessman, who considers the pension trust more or less in terms of personal benefits rather than regarding it as an employer typically views a pension plan.

Most of our plans are integrated with social security, and the existence of multiemployer and prototype plans does tend to introduce some degree of standardization. Certainly on these smaller plans the bulk of the coverage continues to go to the principals, which in many ways enhances the quality of the business, provided that the underwriting is sound.

Is this business profitable? We think that it is and that it is likely to remain so if handled correctly. Correct handling, in our view, involves maximum use of prototypes and other predrafted types of plans, extensive computer proposal and renewal servicing facilities, and people who specialize only in service of this class of business. It further involves the good sense to analyze carefully new demands placed on us by either federal or state regulations or, for that matter, requests by the employers' own accountants or attorneys, not to mention our own agents. Certainly it is not inconsistent for the life insurance business, which has had a long dialogue with the bar associations as to what constitute proper spheres of action for members of each, to insist that there are

aspects of a pension operation which legitimately must be performed by an accountant or an attorney employed by the trustee or employer and not by the insurance company. We have attorneys specializing in employee benefits, and our accountants are well versed in the code, but until now we have successfully drawn a line beyond which we will not go.

This does not mean that it is inconceivable that further legislation might impose unreasonable burdens on the life insurance company issuing pension trust policies; if that occurs, we will not hesitate to consider a fee basis for performing additional required or optional services much as in the system employed under the administration of group IPG contracts. I do know that already a number of our agencies employ a fee system for certain requested services not among those furnished with the usual run of our business, and, as the fee structure becomes more customary in what is otherwise a commission-oriented world, I am sure that this practice will spread. Nevertheless, it is mandatory that management monitor closely these additional service burdens, or what is now a fruitful source of activity could eventually be unprofitable.

How does pension trust compete with group programs offered by the same company? Our company has a typically ordinary-oriented field force. Group is only a minor part of our operation. We will, when we see a new case come in which can be handled better on a group basis, volunteer a group proposal to the agent and policyholder, but with new cases averaging under five lives and with definite needs for substantial amounts of permanent personal life insurance, one can make a reasonable case for a pension trust. Obviously, simply in providing a pension income, the group approach of a multiple employer trust plus group annuity often has a cost advantage, but this discounts any reasons for the existence of the pension trust other than the postretirement income.

Any pension trust operation must allow for the day when cases do become either too large or too diversified to be handled on an individual policy basis. Fortunately, we have a small but growing group annuity operation, and we are quick to suggest to our agents the wisdom of a transfer of reserves to a deposit administration contract whenever the case points in that direction. This wisdom was acquired by some very hard lessons, and, candidly, we still have to impart this wisdom to some of our field force who are slow to listen. Overall, I find an encouraging receptiveness on the part of the agents to do what is best for the client, since this usually seems to be best for them and for us as well.

How will the proposed federal legislation affect our market? There are so many versions of the new pension legislation coming through the Senate and the House that it is difficult to say what can happen. What

concerns me most, however, is the proposal for a federal pension bank. Certainly we can live with most of the recent suggestions, and some of them might well be good for us, especially mandatory vesting, which exists in most of our plans anyway, but a federal pension facility could be the beginning of the end of the private pension business. It does not take much imagination to see social security, escalating as it has, coupled with a subsidized federal pension bank, as providing the impossible competitor for the private pension industry. Since pension trusts have been running close to 50 per cent of our new business by premium and about 42 per cent by volume, this is a matter of great concern to our company. However, somehow we think that the eventual outcome will be one the private pension industry will be able to live with.

MR. PAUL D. HALLIWELL: With the increasing burden of work, I think it is evident that, even if pension trust has been profitable in the past, it is going to be less and less profitable in the future. Mr. Zeffert indicated that to some degree companies are trying to wash their hands of certain administrative duties in the home office, such as filling out the forms. If this is the case, then the agent who wants to do a decent job for his client will have to fill out the forms himself. If the insurance companies are not willing to offer these services, I suspect that eventually they will lose a large amount of business to the smaller consulting actuaries. Somebody has to do it! The accountants often do not want to prepare the forms, and the clients themselves are usually unable to prepare them. I think that the only one who can do an adequate job with the new legislation is the actuary. I do not think that there can be a dichotomy between the field and the home office. It is very important now for the ivory-tower actuaries to become involved.

MR. ZEFFERT: I agree that washing one's hands of these duties is inappropriate. We have simply resolved not to assume new functions beyond what we already furnish unless we are compensated. We will have to train our agents to sell more of a package of services than we do now, and I think we are moving in that direction.

MR. RUGLAND: At Connecticut General pension trust products are an integral part of the total portfolio which we offer to business-owner clientele.

In essence, pension trust products allow for the purchase of the needed amount of life insurance to meet estate liquidation problems with tax-deductible dollars. As such, they are applicable primarily to business

owners who have a small group of people who would be eligible for the pension plan—the total amount of dollars spent for the pension plan still may be a viable alternative to the cost of a nondeductible individual personal insurance solution. The average size of plan established by us in 1972 was about four lives.

We provide a great deal of sophisticated and intense training in the pension area, and this is integrated throughout our total agents' training program. There are no incentives in our agency operations with regard to the marketing of pension trust.

On the basis of our experience, we feel that a complete special products portfolio is appropriate for the pension trust market. The mortality, expenses, and persistency are significantly different. Services that are required are unique to the pension situation and should be provided by the agent of the underwriting company that is responsible for bringing up the idea.

Our underwriting philosophy is oriented toward completely underwriting the decision maker in the individual case. We have more lenient underwriting provisions for the other members of the plan, depending on the amount of insurance involved and the magnitude of their separation from the decision maker. One of the prime considerations here is the convenience that the company wishes to provide for the agent. We feel that little good pension trust business is sold on the basis of underwriting "give-ups"; basically, the reason for underwriting liberalization is to make the total delivery job more convenient for the producer.

The best side-fund outlet, as far as the agent is concerned, is the local bank. As the commission becomes more significant on an in-house side-fund opportunity, the agent becomes more interested in it. Side-fund outlets that can be developed in-house would be separate accounts, mutual funds, variable annuities, or fixed general account funds. If the side fund is in-house, the client demands some degree of co-ordination between it and his insurance program, and the company must be ready to provide this co-ordination either manually or mechanically.

What are the characteristics of the business produced? Pension trust persistency varies significantly from regular ordinary business. It can be broken into two parts, the decision maker and the employee segments. Decision-maker persistency is similar to that of regular ordinary business, with a slightly higher possibility of lapse in the later durations because of the added problem of discontinuance of the plan. Even retirement age persistency will follow regular ordinary characteristics. All other characteristics of the regular ordinary plan are appropriate to the decision maker. The employee group has better first-year persistency

than nonpension permanent business, in that here the employer is paying the premium. However, if the decision maker decides to terminate premium payments, he will carry the employee group along with him. In addition, the employee's persistency is affected by termination from employment, and therefore the persistency rate in the later durations is significantly higher than (about twice) that of our regular ordinary policies.

Premium frequency on our pension trust business is almost all annual payment. "Average size" assumptions need to be broken down to reflect policy sizes in the initial setup of the plan and sizes in the renewal years. The average size of policy of the decision maker in the first year of the plan is around $35,000, that of employees being around $7,500. In the renewal years the additional lives are added in the employee segment. Increases on the decision maker are rare and average about $10,000; employee increases average about $2,000.

The most significant characteristic of the business is that the plan is put in for the benefit of the business owner/decision maker as a way for him to provide his own personal insurance (usually estate liquidation coverage) on a more reasonable cost basis than if he provided it with nonbusiness after-tax dollars. The real characteristics of the plan will follow along with the desires of the business owner who made the decision to install the plan.

Is this business profitable? The expense limitations inherent in the life insurance premium structure require a continual close evaluation of the profit picture of pension trust business. The best approach, as we see it, is to try to isolate the service expenses from all other expenses and make sure that in each year there are enough allowances for such expenses. It is our estimate that in some future time special charges will need to be invoked for some of the additional services required by the government regulatory authorities. As creator of the pension concept for the client, we should provide the service. This is also true as it applies to actuarial valuation and certification.

It is important to remember that the pension business is extremely profitable to the agent, both in terms of the total number of commission dollars per unit of time expended in the case, because of the grouping, and in terms of the fact that the agent is getting commissions on 100 per cent dollars when the buyer is spending only 50 per cent dollars. In addition, the agent finds that his commissions on renewals—that is, additions because of increases in benefits for existing employees—are extremely valuable and in time can make up more than 50 per cent of

his compensation if he has developed a good book of pension trust cases over the years.

How do individual policy pension trusts compete with group programs offered by the same company? We have gone round and round on this particular issue for a number of years. Obviously they compete, but not as much as one might think. Each has its own applications, and it is appropriate for the business owner or his consultants to decide which is appropriate. Remember that the business owner is using the pension trust to solve his own personal problems; he probably will use the group pension approach to solve his employee retirement needs if that is his total motivation for a plan.

How will the new federal pension legislation affect our market? We think that the "official" recognition of pensions will enhance the value of the pension trust business in the agent's portfolio. However, it will probably soon become overregulated, and some of the peculiar and unique facilities of the agent, in designing pension plans to satisfy the business owner's unique planning requirements, will diminish. We may find that the pension trust approach to marketing of individual life insurance will be different in the future and less attractive from the agent's point of view.

MR. WILLIAM A. FARQUHAR: New England Life's penetration into the pension trust market began quite a few years ago when several of our larger agencies—particularly those in metropolitan areas such as New York—began marketing our individual insurance products, mostly retirement income policies, for small pension plans they had set up. At that time the home office offered no special pension products, services, or underwriting. These agencies established their own pension departments to service their plans. Today these departments operate independently of the home office, and accountants, attorneys, and actuaries are included on their staff. They have either purchased or developed computer systems to provide administrative services. The very large agencies look to New England Life only for our insurance products.

Our pension marketing base has been broadening. However, whereas in 1968 almost 75 per cent of our pension business was written by our twenty largest agencies, in 1972 the figure was about 60 per cent. If you considered only the business written on new pension plans, these percentages would be even less. We have taken the following steps to broaden our pension marketing base:

1. Our general agents are encouraged to train and support their agents in the pension trust market.

2. A basic pension school is run in the home office twice a year.
3. Regional seminars on pensions are held throughout the country.
4. An extensive amount of educational material is made available to our field force.
5. Pension trust sales promotion material is available.

We provide no special financial incentives; however, I would point out that in 1972 pension trust business accounted for 27 per cent of New England Life's new ordinary business. New England Life's market is predominantly the small (five-life average) corporate plan, either defined benefit or money-purchase/profit-sharing. In 1972 we wrote approximately 1,800 new plans, of which 1,350 were for corporations, including 450 professional corporations. In terms of face amount, we wrote approximately $450 million; this amount includes $175 million on new plans and $275 million on in-force plans. Professional corporations accounted for $60 million of this volume. Tax-sheltered annuity and H.R. 10 plans account for only a very small amount of our total business.

We have a separate policy series for pension trust business which includes ordinary life, retirement income, and term policies as well as various annuity contracts. However, 90 per cent of our business is written on an ordinary life basis.

Home office services are essential to our small and medium-sized agencies which are active in the pension trust market. In the home office we have a Pension Services Division staffed with seventy people of various backgrounds and skills to provide these services. The following computerized administrative services are available:

1. Cost proposals for both defined benefit and defined contribution plans.
2. Unified pension service system (UPSS) for renewal services, including the calculation of new business, auxiliary fund valuations, employer annual reports, employee benefit statements, and 1099 forms.
3. Defined contribution service system (DCSS). We are developing a service, comparable to UPSS, for defined contribution plans which will be available soon. This system will include an allocation service.
4. Subaccounting service for plans investing in our mutual funds. Fund shares are subaccounted for each employee; then employer and employee reports are prepared.

We provide legal support to the field in terms of making available prototypes and specimen pension plans. We also distribute "Pension Pointers," which are field communications dealing with subjects such as tax matters, government reporting forms, legislative developments, and other matters of importance to the field. A large number of questions on these matters are received from the field and promptly answered.

Our Pension Actuarial Services Department provides support for both the division and the field. This department includes one Fellow, two Associates, and one actuarial student, who work full time on pension trust matters.

All pension plans that are eligible for automatic issue are underwritten on that basis. We believe that in the aggregate our rules are the most liberal of any major insurer. Depending on the number of lives and the insurance volume, we offer an annual limit of up to $40,000. A cumulative limit, to provide for increases, is available up to twice the annual limit. Our rules will be further liberalized shortly.

I will list briefly those New England Life side-fund outlets that are available:

1. There is an auxiliary fund account which is invested in the general assets of the company.
2. NELESCO, our mutual fund distributor, offers the New England Life Side Fund, Inc., a mutual fund available only for qualified plans.
3. There are three group separate accounts available if the minimum deposit is met. They include an equity account, a bond account, and a mortgage and real estate account.
4. Loomis-Sayles, an affiliate of New England Life, will provide investment counseling for pension funds.

Our pension trust business has the following characteristics: new plans have a $26,000 average policy size, and new business on in-force plans averages $7,500; however, the latter figure includes both benefit increases and policies on new participants. As I mentioned before, 90 per cent of our business is written using the ordinary life policy. The annual premium mode is used for over 75 per cent of our business.

MR. JOHN T. BIRKENSHAW: What are the marketing opportunities for the stock subsidiary of a mutual company? I would like to refer to the report that one large mutual company made to its board of trustees, recommending the purchase of a stock company. Some of the principal advantages from a marketing point of view which were recognized in the report (and they have since been proved) were the following:

1. *Penetrating the brokerage market.*—The mutual company had never organized to have premium rates or servicing operations for the brokerage market. The stock company with its nonparticipating rates and approach to marketing had concentrated fairly extensively on the brokerage market. The mutual was now able to offer brokerage contracts and services and still keep the marketing within the mutual's family of companies.

2. *Broadening the product portfolio.*—There are obviously many instances in which a client is interested in such items as nonparticipating term insurance.

The acquisition of a stock company permitted the agents to offer these products without deteriorating the loyalty of the field force and thus improved the retention of agents. This is simply another manner of broadening the financial services of the life insurance agent.

3. *Extension to other lines of insurance.*—The mutual company had offered individual health on a participating basis in the past and was now able to offer it with a nonparticipating approach. Profits on this segment of the line are not required to be paid in dividends, but they can be used to offset losses in other segments and should provide returns to the life line which is financing the new line. Any losses on a line can be used to reduce the taxable income of a stock company but not of a mutual company.

4. *Experiments in marketing.*—A large mutual company has difficulty in experimenting at a reasonable cost with the marketing of new products. Since the stock company is much smaller than the mutual, it is possible to try out mass-marketing ideas, new commission contracts, or new concepts in financing agents, having the expertise of the parent company behind the experiments but not running the tremendous risk of upsetting the successful operations of the parent.

In addition, we have the standard reasons for joining forces, such as the cost savings and efficiencies developed by using advantages of scale in such areas as training of agents, investments, and the like. Also, with the two companies it is possible to take advantage of some tax savings which have to be looked at very carefully.

One additional advantage of having the facilities of both a stock company and a mutual company is that they provide a great deal of flexibility for operations in the future. For example, if it is decided to enter foreign markets, it can be decided, when the time comes, which company is in the better position to take on this venture, not only from the point of view of expertise but also from the point of view of future financial results.

I would like to make one point on the negative side, and that concerns the philosophical problem faced by the mutual company which has an agency force trained for years on the benefits of participating insurance; how is it possible to justify to the agents the marketing of nonparticipating insurance through effectively the same organization? This can be resolved by pointing out the large number of sales made through the medium of nonparticipating insurance and noting that it is in the best interest of our own mutual policyholders to capture that business through a subsidiary. In my own view, this is not nearly as difficult a problem as the one the industry as a whole faced when it entered the mutual fund business—after maintaining the position for many years that mutual funds were undesirable.

What are the advantages and disadvantages of competing sales orga-

nizations? Our experience cannot be classified as that of competing sales organizations selling products of the same company. In the United States stock and mutual companies are still kept independent of each other, with their own sales organizations and agency departments. Similarly, each company has its own actuarial department determining premium rate levels. Accordingly, it is difficult to say that these agency forces are competing with the same company products. On the other hand, as indicated previously, a significant advantage accrues from the additional product lines made available by having both a stock and a life company in the same corporate family.

Because of the interdependence of the two companies, it is incumbent on management to train both sales forces to take full advantage of the facilities of both companies, so that when agents find themselves in a position of having to act as brokers for business for a product they do not have, they will, instead, try to place this business through the subsidiary or through the parent.

In any merger of this kind, one of the major problems is to avoid undue distraction of the parent company's management from its primary focus on the affairs of the parent. Much as the parent might wish to offer management expertise, this can be to the detriment of both companies if not handled exceedingly carefully. Significant advantages lie in being able to provide new technical expertise and ideas which can be accepted or rejected by the management of the subsidiary. There is always the major risk of overmanagement by the parent.

Underwriting is another area of difficulty in marketing the products of two different companies. Although the actuary thinks of underwriting as a very technical and highly skilled field, in actual practice it is an art form. Field underwriters become very familiar with the ideas and idiosyncrasies of a particular home office underwriter. Generally speaking, the two have a mutual understanding of and confidence in one another. When submitting new business to a second company under the same financial control, field underwriters expect to have the same home office underwriter. However, I do not know of any two companies in which this is the case, and invariably this causes some hostility and unrest. The companies involved in my experience are no exception.

CHAIRMAN ROBERT B. GOODE: I would add a little to Jack Birkenshaw's comments on the advantages and disadvantages of competing sales organizations selling products of the same company. In the past, many companies granted exclusive geographically defined territories to agents. Today these are pretty well gone. In my company we

may have up to three sales organizations in the same town selling essentially the same life and health insurance products. These sales organizations have different commission agreements, depending upon their sales management setup and the degree of help and supervision they obtain from the company. It seems to work quite well. The idea of competition for a particular client or prospect in the individual insurance business has been acknowledged to be almost a myth. However, there does appear to be an emotional concern on the part of each sales organization that the other organization might be getting a better underwriting offer or a better commission arrangement.

# ACTUARIAL LITERATURE

Report from the Society's Advisory Committee on Means of Encouraging Preparation and Distribution of Actuarial Literature and Studies.

1. Present system—its history and current status
2. Reasons for change
3. The *Transactions*
4. *The Record* (a proposed new publication)
5. Proposed role of the director of publications and the publications board
6. The Committee on Papers
7. Prizes for papers
8. Printed books
9. Proposed new study note service
10. Intermediate publications
11. *The Actuary*

CHAIRMAN JOHN M. BRAGG: Last November the Society's Executive Committee appointed a new ad hoc committee and, in the customary fashion, gave that committee a very long name, as follows: "Advisory Committee on Means of Encouraging Preparation and Distribution of Actuarial Literature and Studies." Even with the use of initials it is impossible to shorten this title, and the term "Committee on Actuarial Literature" finally came into use. The committee has been working these past ten months and has a draft report. It is attempting to refine that draft report, and we hope that this audience here today will help us to do just that. In addition to our three panelists and myself, we have six other members on the committee. They are Kenneth T. Clark, K. Arne Eide, Walter N. Miller, Pierre E. Lemay, John A. Fibiger, and Jeffrey T. Lange. Mr. Lange is a liaison representative from the Casualty Actuarial Society.

MRS. ANNA M. RAPPAPORT: The Society of Actuaries is going to celebrate its twenty-fifth anniversary next year. Over the last twenty-five years the Society has responded in various ways to the needs of actuaries for literature. Table 1 is a summary of the actuarial literature we now publish.

The history has been one of response to needs for actuarial literature through the addition of new material to the catalogue of existing publications when these failed to meet the demands of our members. How-

TABLE 1

| | Reviewed by | Method of Distribution | Method of Response or Dialogue | When Published | Comments | Indexed |
|---|---|---|---|---|---|---|
| Papers | Committee on Papers | Galleys to all members prior to meeting; *Transactions* | Written and oral discussion at meeting | In *Transactions* after each meeting | Procedure affords maximum opportunity for review prior to publication; maximum chance for response through discussion | *TSA* Index |
| Session discussions | None | *Transactions*—at least six months later | None | In *Transactions* after each meeting | | *TSA* Index |
| Study notes | Education and Examination Committee | To students—sold to members on request | None | Revised when needed for exams | Good source of practical information; inaccessible | List of study notes |
| Books | Special assignment of reviewer | | None | | May be published by Society of Actuaries or outside publisher | |
| *ARCH* | None | By subscription | Can submit article or comment | Several times a year | Contains special interest material in research areas | Contents for each issue |
| *The Actuary* | Editors | All members | Can respond via letter | Monthly except for summer | | No |
| Special papers of Committee on Continuing Education | Committee on Continuing Education | All members | None | | Prepared on a special basis when needed | No |

ever, the efforts often were unco-ordinated. For example, the Education and Examination Committee did a very good job of providing study material for the students. However, members often failed to recognize that these same study notes might include material for which they were searching.

Some comments of the membership on actuarial literature are summarized in John Bragg's article in the April, 1973, issue of *The Actuary*. They are quoted below.

On the *Transactions* and the printed books:

"The decline of the actuarial paper is unfortunate for many reasons."

"The 'literature' is not really current."

"The pension literature is often out of touch with modern consulting practice."

"The literature which the Society publishes tends to be very specialized and academic."

"Many of our members, if they see any formulas, immediately brand a paper as 'technical' and not worth reading."

"Not sufficient material in the literature to research problems adequately."

"Much desirable information is not published at all."

On the Committee on Papers:

"Are the standards designed to maintain high quality too rigid?"

"We are discouraging submission of good work."

"Excellent papers were published elsewhere because of the difficulty of publishing in the *Transactions*."

"I was unable to justify to my satisfaction the reasons for the existence of the Committee on Papers. I think that the signature of any member of the Society should be a sufficient requirement for inclusion of an article in the *Transactions*."

"I believe the statistics on the percentage of papers which are accepted indicate that not all actuaries will present papers of high quality. I believe we must maintain at least one publication which is a scholarly one."

"A paper should not be published unless it is well written, accurate (although not necessarily uncontroversial), and represents a meaningful contribution to the literature."

"The Committee on Papers is charged with evaluating the papers submitted. It can do nothing about papers which are needed but which have not been written."

On the concurrent sessions:

> "At times one can find a subject which has been treated properly but is not current. Sometimes current information can be found, typically in the form of minutes from a concurrent session, but the information, due to its nature, is not thorough enough to be of much value."

On the encouragement of authorship:

> "There seems to be general agreement that we want and need more and better papers."
>
> "We need a committee that could actively solicit papers."
>
> "Writing research papers must be recognized as having value to the company."
>
> "We feel very provincial about the research and actuarial work that we have done thus far. We feel it would be inappropriate to share this information with others."
>
> "Unwillingness to share the results of research is a phenomenon known as the 'Cotton Curtain.' "

I have listed some of the attributes of the current system.

1. A wide variety of material is published.
2. No attempt is made except through the examination syllabus to see that any particular subject is covered.
3. The publications listed in Table 1 function essentially on an independent basis.
4. Some of the material is reviewed very thoroughly prior to publication, and some virtually not at all.
5. The members of the Society have a chance to respond to some types of material and, in so doing, to add comments and to disagree. For other types of material, there is no chance to respond.
6. Some of the material is in very accessible form; some of it is quite difficult for the practicing actuary to find.
7. The needs of students have been met very adequately; the needs of practitioners have been met much less adequately.
8. The system provides no mechanism for continuing dialogue on a subject.
9. The time available for discussion of a paper is extremely short.

A new system is needed so that the various types of material included in the literature can be co-ordinated better, so that the Society can have a means of encouraging literature, and so that we can be sure that various items are published in the appropriate place.

MR. WILLIAM B. WAUGH: The committee is recommending that, in addition to the *Transactions,* the Society publish a second journal to

be known as *The Record*. This new publication would contain not only all the material now normally found in the "D" pages of the *Transactions* but also various other pieces that are thought to be relevant.

A paperback copy of *The Record,* which would be published very soon after each meeting (including special meetings or seminars), would be mailed to each member of the Society.

*The Record* would complement the *Transactions* in that its contents would include items of current interest and value rather than material of a more permanent nature which would appear in the *Transactions*. For this reason, we propose that no clothbound copy of *The Record* be prepared.

I think that we would all like to have reports of Society meetings as soon as possible after the close of each meeting. Frequently, matters of great current interest are discussed at the meetings, but we must wait until some months have passed before the full transcript becomes available in the *Transactions*.

After the 1973 Philadelphia meeting the Society experimented with a special number of the *Transactions* prepared from typewritten copy, which enabled us to reduce both the cost of and the time required for publication. Personally, I was very pleased to have a copy of the *Transactions* available so soon after the close of the meeting. We propose to make permanent use of this procedure in publishing the material which will appear in *The Record*.

Material now in the *Transactions,* other than that which would appear in the new publication, *The Record,* would continue to be published in the *Transactions*. In addition, an index of material published in *The Record* would appear in the *Transactions*.

It is recommended that the publication of the *Transactions* be divorced from the meeting schedule of the Society. In other words, the *Transactions* would simply become a publication of the Society issued on a regular basis (annually, semiannually, or quarterly), not geared to a specific meeting. The *Transactions* would include reports from any meeting or meetings that had occurred since the preceding *Transactions*.

At present all papers approved are presented at a meeting of the Society, and galley proofs of them are sent out thirty days prior to the meeting. This procedure has resulted in peak loading and the forcing of unexpected material into the meeting programs at the last moment.

Two alternative procedures are the following:

1. Mail proofs of papers to members on a continuous basis as they are approved. Members would send written comments to the Society office, and the paper and comments would appear in the next published *Transactions*.

2. Simply publish a paper in the next *Transactions* and publish written discussions in the succeeding *Transactions*.

In either case the Program Committee might or might not include a paper in the program for the meeting. However, all authors would be recognized at the meeting.

This committee does not have a firm recommendation yet on this matter and would be interested to hear comments on it.

MR. GARY N. SEE: Somewhat related to Bill's presentation, in which he has just described *The Record,* is the committee's recommendation that a new constitutional officer be elected. The title of this officer would be "director of publications," and his responsibility would be twofold: first, to chair a publications board which would supervise all publications of the Society; second, to work closely with the many committees of the Society to encourage the development of actuarial literature.

It appears to the committee that with the number of publications of the Society which would exist, namely, the *Transactions, The Record, The Actuary,* other intermediate publications such as *ARCH* (*Actuarial Research Clearing House*) and a proposed study note service, a director of publications and a publications board are necessary to provide a consistent "overview" to the publication activities of the Society. It is envisioned that the publications board would be composed of the editors of all the publications plus certain other members who would be appointed with a view to geographical and organizational balance.

MR. WAUGH: The Committee on Papers is charged with evaluating papers submitted for publication in the *Transactions*. The procedure for review is set out in the *Year Book,* and the guidelines for acceptance were designed to ensure that the papers published in the *Transactions* are worth the members' attention.

The Committee on Papers consists of ten regular members and a number of committee chairmen who are ex officio members. Most reviews are made by regular members, but when the chairman feels that a paper is of such a nature that an outside review is desirable, he requests a review from an ex officio member. Last year 40 per cent of the papers reviewed had one or more reviews from the Committee on Continuing Education, the majority being on technical papers referred to the Committee on Research.

The Committee on Papers is effectively like an examination body and, as such, is subject to criticism, particularly from those whose

papers have been rejected. This criticism is not offset by praise from those whose papers have been accepted. The committee has been criticized for having too high standards, so that not enough papers are accepted, and at the same time for having too low standards for accepting papers of doubtful quality.

The committee also has been criticized for accepting too many technical papers. As I pointed out in a letter which I wrote to *The Actuary,* the reason that many technical papers are accepted is merely that many are submitted. Whether a paper is accepted or not does not depend on whether it is technical or not. We would like to receive a large number of nontechnical papers.

I believe that the Committee on Papers carries out well its function of ensuring that only papers of high quality are published. I would like to point out, as I have done before, that the committee reviews carefully papers that are written, but it has no responsibility to encourage the writing of papers that are required but have not yet been written.

The Society now awards one prize for a paper every three years. A member who has a paper published in the *Transactions* within five years of obtaining his Associateship is eligible to receive the Triennial Prize. Every three years the Committee on Papers selects the best paper from among those eligible. Usually only a few papers are eligible, and it is doubtful whether the prize is really sufficient incentive.

We believe that a positive encouragement for all members of the Society would be to have an annual prize for the best paper. We recommend an award of $500 for the paper published in the *Transactions* which is selected as best by the Committee on Papers.

We are not suggesting the abolition of the Triennial Prize. We believe that a new prize should be awarded each year in addition to the Triennial Prize.

MR. SEE: Another important vehicle for the publication of actuarial literature is the printed book. Quite frankly, the number of books by Society members has decreased in the past decade when, ironically, one would think that our more complex environment would lead to the writing of more books. Perhaps it is also a result of that complex environment that it is more difficult for a member to take the time to produce a book of literary quality and of permanent value to the profession.

One of the primary concerns of this committee has been to explore ways in which the writing of books might be encouraged. When it is recognized that a gap in our actuarial literature exists and that a book is needed, the committee recommends compensation for authors of books

which are published under the auspices of the Society. The committee's thinking is that such compensation might be in the form of one of the following:

1. A flat fee, a percentage of sales, or a combination of the two, payable to the author directly by the Society. In this event, the copyright would be in the name of the Society, and no royalties would be paid to the author.
2. Publication by an outside organization, with the copyright not owned by the Society, and with royalties paid to the author by the outside organization.

If course 1 is followed, financial arrangements would have to be approved by the Executive Committee, and tight controls would have to be utilized from the start of a book to its ultimate publication.

It is the hope of the committee that, with a more liberal attitude toward financial arrangements, a good flow of printed books can be encouraged, not only for the Education and Examination Committee but also for the continuing education of the members of our profession.

I would imagine that many recall this phrase from our student days: "The study notes are an important reference for this subject." When we finish the examinations, most of us have little inclination to read any more study notes. The truth of the matter is, however, that some of our most valuable actuarial literature exists in the form of study notes. In fact, a significant number of these study notes would have been accepted as papers for the *Transactions* had they been submitted as such. They can be a very useful reference for the practicing actuary who is no longer taking examinations.

Just to give an example, here are a few notes which are listed on Part 9E: "Group Dental Insurance"; "Survivor Income Benefits"; and "Multiple-Employer, Taft-Hartley, Professional Associations and Union Risks." As one can see, these are examples of vital topics that may or may not be covered elsewhere.

The basic recommendation of the committee is that we establish a study note service which would provide to the members, for a stated annual fee, study notes in an organized form, probably by topic. It is the feeling of the committee that such a service would be a valuable reference for the members and could be set up in such a manner as to not be an undue burden on the Society office or the Education and Examination Committee.

The study note service would be one of the publications under the publications board. One of the responsibilities, incidentally, of the director of publications would be to see that the important material in

the study notes found its way into a more permanent publication such as the *Transactions*.

MRS. RAPPAPORT: Publications such as *ARCH* should be continued and encouraged. These publications would concentrate primarily in specialty areas and on work that is in the development stage. *ARCH* is published by the Committee on Research. It is a collection of material submitted for publication and held until there is a sufficient volume to justify a mailing. Subscribers pay for the costs involved. There is virtually no editing of the manuscripts. The material is mailed out in the form of a collection of papers which have been duplicated from typewritten originals, with a cover sheet giving the index for each issue. There is no binding, but papers are in a form suitable for putting in a looseleaf book. The publication provides a suitable medium for a dialogue on the technical matters covered by it.

*The Actuary* would continue as at present. Published monthly, except during the summer, it is normally six or eight pages in length, and serves as a news vehicle. It includes short articles on topics of current interest, reports of actuaries' club activities, letters, editorials, book reviews, and short articles reflecting technical interest or curiosity. *The Actuary* can also be viewed as a useful communications medium. All of the members are encouraged to submit articles to *The Actuary,* and many have done so. Many critical comments in *The Actuary* have been of permanent value and deserve later publication in the *Transactions*.

MR. K. ARNE EIDE: The official journal of a professional, scientific, or learned society has an extremely important function in the life of the organization of which it is a part. It is the chronicler of the important events that transpire within the organization. Almost always it serves as a medium for the collection and subsequent dissemination of important research papers written by the society's members. In fact, some societies exist primarily to facilitate the publication of papers expressing the best thought its members can bring to bear on subjects within the sphere of their particular interest.

Such a journal also may focus attention on worthwhile literature pertaining to the society's interest through publication of reviews, digests, and bibliography. It may—or it may not—present a record of business and financial happenings pertaining to the society or publish résumés of its meetings. Official note may be taken of special happenings and the inevitable passing of its members be suitably recognized by publication of obituaries.

The aforementioned certainly is not all-inclusive in content, nor is any set pattern or format likely to be followed in the publishing of official journals in professional, scientific, and learned societies. However, one characteristic is the hallmark of a superior journal, whatever may be the physical form of the journal. That characteristic is the publication of literature of permanent worth. Few journals can boast of unbroken adherence to such a high standard of quality over long periods of time.

In the history of actuarial organizations some of the official journals have attained high levels of excellence; some have maintained such levels for considerable periods of time. I believe that the *Transactions* of the Society and the *Transactions* and *Record* of its predecessor organizations have, on the whole, adhered to high standards of excellence, and I would hope that efforts will continue to be made to maintain and improve the quality of the Society's chief publication.

From the rather limited vantage point of a single year's experience as Editor, I find two areas especially in which improvements can, and should, be made in the *Transactions* if it is to be a superior journal of a professional society.

First, greater opportunity must be given to present formal discussions that have had the benefit of sufficient time for discussants to engage in the most careful thought and preparation. Under present procedures, far too little time is available for preparation of truly worthwhile discussions. One month is too short a period of time to prepare a discussion of great depth. I have received numerous letters and telephone calls requesting extensions of time for preparation of formal discussions and have tried, whenever possible, to accommodate such requests. However, the ever present problem of deadlines often makes granting of such requests impossible. I do not believe that formal discussions should consist of platitudes and meaningless congratulatory remarks. Formal discussions should present sound, constructive criticism and contribute to the value of the paper under discussion.

Second, the very uneven quality of copy submitted from informal discussions leads me to the conclusion that it does not enhance the quality of the *Transactions*. Much of the material is of ephemeral value, and this fact has been recognized by the Committee on Literature. An inordinate amount of time and effort must be expended in the preparation of the material for publication, and oftentimes the published results are disappointing in spite of the work of all concerned —panel members, recorders, discussants, members of the Editorial Board of the *Transactions*, and the staff of the printers.

If the quality of the *Transactions* is to be maintained, I believe that we must continue to encourage the publication of papers which will make positive contributions to our actuarial literature. However, we should also encourage the presentation of fuller and more searching discussions of papers by affording more time for their preparation. One apparent solution is to permit formal discussions to be printed in the *Transactions* subsequent to publication of the paper. There are admitted disadvantages, but consideration should be given to this idea.

Informal discussions at the Society's meetings are vital to the stimulus of free interchange of ideas and viewpoints and should be encouraged. However, the value of such discussions may be more current than permanent. For this reason it may be more suitable to publish them separately from the *Transactions*.

Regardless of the course we take, the *Transactions* should continue to be the primary journal of the Society. Its high standards should be maintained.

MR. RALPH GARFIELD: I feel that despite the number of the actuarial publications in North America there is still a gap in our literature. I am referring to actuarial notes of a mathematical nature which, because they are isolated results and not part of ongoing research, do not belong in the *Transactions*.

Let me illustrate this by a personal experience. In 1969 I submitted an article to *The Actuary* entitled "A Note on Variable Annuities." The genesis of this was a practical problem put to me by another actuary. The initial enthusiasm of *The Actuary*'s editors was tempered by the fact that the printer was not geared to handle the fairly large number of mathematical symbols that I used to solve the problem. The cost of printing the note would have been high, and, as a result, the note died. Early in 1973 it was resurrected and published in a slightly different form in the Problems Page of *ARCH*. It is material of this sort for which there is no forum. I am not criticizing *The Actuary* because it cannot handle such work; I do not believe it was ever intended that it should.

Scores of short actuarial notes surely must be locked away in offices and homes. Many of these would be of wide interest and should be published.

I would like to see a new publication which would include notes of a mathematical, statistical nature and which would cater to the needs of the serious student on his or her way to Associateship and Fellowship.

MR. FRANK G. REYNOLDS: If one looks at the employment of the people producing papers for the *Transactions,* one notes that the academic community produces a disproportionate percentage of the papers. Further, the majority of their papers are of a mathematical nature. It is natural perhaps that the academic community should be active in producing papers, as the dictum "publish or perish" is well known—our salaries and promotions are tied tightly to publishing. However, perhaps the reason for the high percentage of mathematical papers from the academic community is less well understood. While my opinion is undoubtedly colored by the fact that my employer is a new, smaller university without an established program of actuarial research, I feel that the reason lies in the lack of contact with current problems and data to research properly areas of interest. Furthermore, when major studies or projects are undertaken, how often does one see involvement by the academic community?

A further problem also is experienced by those not working for a company, for example, consultants and professors. Any time needed to prepare a paper must come out of the time we spend in consulting work, and this results in a cut in our income. Further, we must pay from our own pockets the computer and other costs involved in preparing papers. For most academic research, funds are provided by government, industry, foundations (for example, the Heart Foundation), and professional bodies. Yet the actuary, unless he branches into other fields, finds most of these sources difficult, if not impossible, to tap. Possibly the Society could assist in this area.

I would like to suggest that a partial solution to the problems might lie in one or more of the following:

1. When the Society feels the need for a paper in a particular area, consider whether or not one of the academic members is qualified to prepare the paper.
2. Be prepared to provide data and assistance in obtaining access to the other background information needed.
3. Consider some mechanism for assisting the academic community in obtaining financing for relevant and significant projects.

Another acute question is the supply of good problems. A university atmosphere tends to be sterile, and the only areas in which problems are readily available to many of us are the theoretical areas, such as risk theory. The Society could perform a useful service by bringing together those with practical areas needing research for publication and those with the time and ability to do the work.

MR. CLAUDE Y. PAQUIN: The committee is to be congratulated for its democratic attitude in giving all members this clear opportunity to express their views on the subject it is charged to consider. Our approach to literature should be one which fosters "free speech" and avoids needless censorship. Good ideas, not unlike cream, tend to rise of their own merit and cannot always be discerned as being truly good when they first originate. The adversary system, which is the hallmark of our democratic system in elections, legislation, and adjudication, is to be fostered at practically all costs. Thus, it is important for this committee to identify and articulate the principles by which its work is to be guided. The rest is not mere ministerial detail and is important, but defining the "big objective" is primordial.

One basic principle (outside of the preservation of free speech) which this committee should not overlook has to do with our economic system of free enterprise. Whether an enterprise is worthwhile and to be encouraged is, in our system, determinable by the forces of supply and demand. If this committee believes that there is a need to be fulfilled in certain areas of actuarial literature, it should endeavor to see that this need is met in a manner consistent with our free enterprise system. While a laissez faire policy does not always work, the other extreme of "managing" our actuarial literature and of a policy of "from each according to his ability, to each according to his need" should not be undertaken. In other words, a system whereby some are expected to provide gratis what others expect to receive gratis is, in my view, un-American and socialistic, and it is unlikely to provide what is needed. No profession or occupation that I know of (except perhaps the military and, to a much smaller extent, the clergy) operates on the basis that the financial aspect of its educational process is beneath the profession's dignity to consider. We live in a society based upon the expectation of reward for its contributors, with the reward usually determined by the forces of the marketplace. This attitude promotes initiative and tends to the fulfillment of real, rather than imagined, needs. It should pervade the committee's work.

The foregoing philosophy leads me to make this practical suggestion concerning *TSA* papers: Let us have a Committee on Papers reviewing papers as now, but with the following distinctions. Papers should be submitted in a prescribed physical format. When a paper is approved, it should be printed (by an inexpensive offset process copying from the original without typesetting) and distributed to the membership in booklet form (one booklet to a paper) as soon as practicable. Written discussion could then be submitted within the current (calendar or fis-

cal) year (or the next one, if less than three months would otherwise be available for discussions), and an author's review of discussions within six weeks thereafter. Whenever 300 pages of articles on a subject category (say, life insurance company matters, pension matters, social insurance matters, and advanced mathematics and miscellaneous matters) have been accumulated, they (and the discussions thereon) would be typeset and printed in a permanent bound volume available for purchase by members (at some discount) and by nonmembers.

With respect to unapproved papers, the following financial arrangement could be made. The author could have his paper published, if he insists, provided that he pays for the costs of publication and distribution. He would then be eligible for a 90 per cent royalty on "demanded copies," rather than 50 per cent. This would help professors bitten by the "publish or perish" bug and others whose affection for their views surpasses that of the Committee on Papers.

Discussion booklets would be prepared once a year and distributed free to all members. Depending upon the volume of discussions submitted, each paper could have its own discussions supplement or share a supplement with other papers. In any event, the supplement, when available, would always be considered a part of the basic booklet when the latter was sold, and there would be no extra charge for it.

Booklets would always be available for individual sale. Bound books would be available alongside the booklets (at, say, half the combined price of the booklets) for persons interested in a subject rather than in a single paper. Unapproved papers would be eligible for inclusion in bound books only if and after a number of booklet copies equal to 10 per cent of the membership of the Society have been sold. The royalties on bound books would always be 50 per cent and would be prorated among authors according to the respective lengths of their papers.

This would promote free speech, but at one's own expense if the value of the speech were doubtful. It would help authors of practical or popular papers with their expenses. The author of a beautiful yet unpopular paper would be in the same situation he is in now. The author of a paper good and timely enough to be a study note could count on quite a few booklet sales to students. The whole system would, in my opinion, be very practical and fairly democratic. Publication of a paper will never, I believe, become a road to riches for an author under that system, but at least the negative incentive of a guaranteed loss from the nonrecovery of secretarial and other out-of-pocket writing expenses would be removed.

Time does not permit a fuller expression of my views on this committee's work, which, overall, I highly commend. So long as free speech is fostered and initiative is encouraged, our actuarial literature will serve us well.

MR. T. N. E. GREVILLE: For several reasons I welcome this discussion of actuarial literature. The membership of the Society of Actuaries has become large, and the interests of its members correspondingly diverse. For example, there is a group of members, small percentagewise but not insignificant in absolute numbers, who, like myself, are interested in applications of mathematics in actuarial science. Our *Transactions* has published some important papers along these lines. On the other hand, in the not distant past, a number of such papers were rejected on the ground that they would be of interest to few of the members. Some of the latter papers, however, were highly germane to topics included in the scope of our examinations, and contained information that would have been useful for reference purposes. Some also were submitted, with substantial expenditure of effort, by promising younger members, who were discouraged by their rejection.

One gathers from correspondence published in *The Actuary* (May, 1973, p. 4) that a substantial section of the membership feels that the *Transactions* already publishes too many "highly technical" papers. This attitude is understandable. Indeed, there is ample justification for limiting the number of mathematically oriented papers published. Such papers are particularly expensive to set up in type and publish. This expense is not justified when only a small proportion of the membership benefits.

On the other hand, it seems a little inconsistent for us to set examinations for membership having substantial mathematical content and then to avoid mathematics like a plague as soon as we have completed the mathematical examinations. As a matter of fact, an increasing proportion of the younger generation of members is not devoid of mathematical interests. Not all, but some, of the mathematically oriented papers submitted have lasting reference value. In such a case, even some of us who would not find a paper "interesting" might still be glad to have it available to refer to when the need arose. Mathematical results are sometimes laborious to obtain, and it would be unfortunate to duplicate such labor merely because one did not know it had already been performed by someone else. Perhaps one should not expect to be able to recall all the papers in the *Transactions*. As a practicing mathematician, I have long since become accustomed to the

incredible specialization in mathematics. I do not expect to be able to read more than 10 or even 5 per cent of the papers in a given journal. With our concurrent sessions, we actuaries too are moving toward such specialization, although at a slower pace.

There is also what may be termed a "public relations" aspect to this question. Speaking more precisely, it involves relationships between actuaries and workers in other scientific disciplines. For example, an area of intense research activity in current mathematics involves what are called spline functions. Actuaries played an important role in the early development of these functions. A paper by W. A. Jenkins published in 1927 in the *Transactions of the Actuarial Society of America* contains what is probably the first practical application of spline functions. Today this paper appears in numerous bibliographies on spline functions and is being read by many outside our profession. At the time it appeared, Jenkins' paper probably would not have been accepted for publication by any mathematical journal. Today several such journals would publish it. In the modern world co-operation is desperately needed. It is not desirable that we should back away from the mathematical community at a time when it is moving in our direction.

There are, then, conflicting considerations involved in publication policy regarding highly technical or mathematically oriented papers. In seeking reasonable answers to the questions raised, I think that there may well be a middle ground. The Committee on Research, with its excellent informal publication *ARCH,* has made a most valuable contribution. However, *ARCH,* being a collection of loose reproductions of typewritten manuscripts, is a little too ephemeral for those papers having permanent reference value.

I find it very heartening and encouraging that both the chairman and the vice-chairman of the Committee on Research have been added to the Committee on Papers. I am sure that this will result in more adequate review of the technically oriented papers submitted and a more judicious selection of those to be accepted for publication. However, I do not think that we should tread unnecessarily on the toes of a large section of our membership and increase publication costs by increasing substantially the proportion of technically and mathematically oriented papers published in the *Transactions.* I wonder about the feasibility of an "intermediate" publication—that is, intermediate between *ARCH* and the *Transactions.* The papers would be reproduced by a less expensive offset process, similar to that used in *ARCH,* but the standards for acceptance would be stricter and the papers would be bound together

in a form more suitable for retention in libraries, both public and private. This kind of format is being used frequently for publication of the proceedings of conferences and seminars.

Finally, I am enthusiastic about the proposed study note service. This seems an ideal way of making technical information available to those who need and desire it without burdening those who do not, and in a form strongly oriented toward practical applications.

MR. DANIEL F. CASE: I like the idea of divorcing the distribution of papers from the meeting schedule. Not only would it relieve some of the time pressure, but it would also make possible new ways of discussing papers at meetings. My impression has been that, when a paper is injected into a session or workshop that already has an agenda, some of the participants at the session have read the paper and some have not. This seems a poor environment in which to discuss a paper.

Also, the new way of distributing papers could enable the papers to receive more publicity than they now get. The present pattern seems to be that a press release is sent out for each Society meeting and that somewhere in the release the names of a few papers are given. If papers were distributed independently, they could be given separate press releases. It seems to me that if papers are one of our primary assets as a profession, they should be given good publicity. Dr. Greville has pointed out that specialists in other disciplines take an interest in some of our papers, and I wonder whether the public at large might also find some of them interesting.

On the question of whether the Committee on Papers should solicit papers, I imagine that one of the problems would be the question of what to do if a paper which had been solicited turned out not to meet the committee's standards for acceptance.

MR. ROBERT F. LINK: I have a couple of suggestions that the Advisory Committee might wish to consider. First, it might help if the Committee on Papers were to publish something indicating the criteria that are used to appraise papers for possible publication in the *Transactions*—for example, that the paper should provide new information, new insights on old information, or a helpful summary of existing information; the title of the paper should indicate accurately the subject matter; and so forth.

Second, the committee might let it be known that the vigor with which it applies these standards will depend on the length of the paper.

Two pages might get through easily; three to ten pages would be judged somewhat more strictly; and over ten pages would be judged quite strictly.

These steps might elevate the quality of major submissions. They might also encourage desirable pruning of proposed submissions; and they might encourage the submission of valuable short actuarial notes that now may often die aborning.

MR. ARTHUR W. ANDERSON: I think it would be a good idea to enlarge the scope of the Index to the *Transactions*. As it stands now, only authors, titles, and a few general subject headings are indexed, whereas it would be desirable to have all key words in a paper or discussion indexed. For example, recently I wanted to look up the Group Annuity Mortality Table for 1951 and found that it was not indexed under "Annuity," "Mortality," or "Pensions." Since the table appeared in an article whose title did not begin with any one of these words, it was very difficult to locate it.

MR. EIDE: I would agree that the Index to the *Transactions* is not complete, especially in the matter of cross-indexing. However, the logistical problems associated with the preparation of a complete, cumulative index are formidable, and the editorial board does not have at its disposal the facilities or personnel required to accomplish this task.

## INDIVIDUAL DISABILITY INCOME INSURANCE

1. The underwriting hazards of overinsurance and possible solutions to the problem.
2. Underwriting rules, reports, and procedures (issue and participation limits, use of inspection and medical reports, underwriting the female risk).
3. Current contractual definitions of total disability and partial disability. Underwriting techniques appropriate to each definition. The claim cost value of the definitions.

MR. DONALD R. SELSER: The extent of the underwriting hazard of overinsurance varies from company to company, depending primarily upon its markets. It also depends on the company's underwriting rules regarding other sources of income which would become available if the insured became disabled or which would continue during disability. For example, the hazard is much smaller in a company which sells primarily to high-income self-employed individuals than in a company which markets primarily to blue-collar risks. The hazard is also much greater in a company which ignores state cash sickness, short-term group, and other similar benefits in its issue and participation limits than in a company which counts such benefits as other insurance.

I would like to divide my discussion into four major parts. First, I will describe the sources from which overinsurance arises. Next I will comment on the current underwriting information gathered to determine the potential overinsurance hazard. Then I will illustrate some of the possible effects of ignoring what I consider to be sound underwriting principles regarding this overinsurance hazard. Finally, I will address myself to possible solutions to the hazard.

What are the potential sources from which the overinsurance hazard arises? I am sure that many of you are familiar with most of them. In both the United States and Canada the risk arises from other individual coverage, association group or franchise, regular group, salary continuance programs, workmen's compensation benefits, auto liability insurance, unearned income, misstatement of income, and state, provincial, or federal government social welfare programs. In the United States, we also have state cash sickness plans, disability benefits under social security, and no-fault auto insurance. In Canada there are the unique benefits provided under Canadian unemployment insurance and the Canada Pension Plan.

I have found from my research in this area that most companies rec-

ognize many of these sources of potential overinsurance, some recognize most of them, but few (if any) recognize all of them. For example, virtually all companies count other individual coverage, long-term group, and association group coverage and, at least to some extent, social security disability benefits. Most of the Canadian companies and those United States companies writing individual coverage in Canada have made the adjustment to the relatively new disability benefits under the Canadian Unemployment Insurance Act. I will concentrate, then, on those sources of other coverage of income which I feel that many of us tend to ignore or consider too lightly.

TABLE 1

SUMMARY OF CURRENT CASH SICKNESS BENEFITS PAYABLE AT VARIOUS INCOME LEVELS IN JURISDICTIONS HAVING CASH SICKNESS BENEFIT LAWS

| MONTHLY INCOME | JURISDICTIONS | | | | | |
|---|---|---|---|---|---|---|
| | California | Hawaii | Puerto Rico | New Jersey | Rhode Island* | New York |
| $ 300..... | $178 | $165 | $156 | $200 | $165–$217 | $150 |
| 400..... | 230 | 220 | 208 | 267 | 220– 272 | 200 |
| 500..... | 282 | 275 | 260 | 333 | 275– 327 | 250 |
| 600..... | 334 | 330 | 312 | 351 | 295– 347 | 300 |
| 700..... | 386 | 385 | 364 | 351 | 295– 347 | 325 |
| 800..... | 438 | 403 | 390 | 351 | 295– 347 | 325 |
| 900..... | 455 | 403 | 390 | 351 | 295– 347 | 325 |
| 1,000..... | 455 | 403 | 390 | 351 | 295– 347 | 325 |

* Benefits vary by number of dependent children.

First, let us look at short-term group and state cash sickness benefits (Table 1). Many companies instruct their underwriters to ignore these benefits in determining the amount of coverage which they will issue—presumably because such benefits are considered insignificant. In my opinion nothing could be further from the truth, even for workers earning as much as $1,000 per month. The unemployment compensation disability benefit payable currently in California to a disabled worker earning $1,000 per month is $455 per month, payable for up to twenty-six weeks. In fact, any California worker earning over $833 per month will draw $455 per month. If a company issues insurance up to a limit of 50 per cent of income and ignores state cash sickness benefits, it is insuring the California applicant earning $1,000 per month for 95.5 per cent of income at time of issue. This certainly exceeds take-home pay. For the individual earning $900 per month or less, application for the full issue

limit of 50 per cent of income would result in insurance exceeding 100 per cent of income during the first twenty-six weeks of disability. This is not an extreme example. In every jurisdiction having a cash sickness law (California, Hawaii, New Jersey, New York, Rhode Island, and Puerto Rico) maximum benefits of at least $295 per month are available, depending on earned income and the state in which the individual works. Typically, benefits average 50–55 per cent of income for the lower-income workers.

TABLE 2

ILLUSTRATIVE BENEFITS PAYABLE IN VARIOUS LIBERAL BENEFIT JURISDICTIONS UNDER WORKMEN'S COMPENSATION—1973 LAWS

| Jurisdiction | % of Wages | Current Maximum Monthly Benefit | How Long Payable |
|---|---|---|---|
| Alaska | 65 | $758 | * |
| Arizona | 65 | 650 | Life |
| California | 61⅔ | 455 | 240 weeks† |
| Connecticut | 66⅔ | 663 | Life |
| District of Columbia | 66⅔ | 724 | Life |
| Hawaii | 66⅔ | 487 | Life |
| Idaho | 60–90 | 483 | Life |
| Illinois | 65–80 | 472 | 8 years‡ |
| Nevada | 90 | 450 | 100 months§ |
| New Jersey | 66⅔ | 468 | Life |
| Washington | 60–75 | 514 | Life |
| Longshoremen | 66⅔ | 724 | Life |
| British Columbia | 75 | 475 | Life |
| Ontario | 75 | 563 | Life |
| Quebec | 75 | 563 | Life |

* Until $30,000 payable. Thereafter, benefit reduces to $493 per month payable for life.
† Reduces to $303 per month payable thereafter for life.
‡ Reduces to $368 per month payable thereafter for life.
§ Reduces to $291 per month payable thereafter for life.

However, the benefit formula in New Jersey reaches a level of 66⅔ per cent of income. Therefore, it is obvious that a company cannot write 50 per cent or more of income on top of such benefits for low-income workers without overinsuring them substantially. In spite of this, I have seen company manuals which permit issuance of benefits up to 60 per cent of income, ignoring benefits under state cash sickness laws. As I will illustrate later, the result of such underwriting practices can be disastrous.

Nearly all companies ignore the potential benefits under workmen's compensation laws in their underwriting rules (Table 2). Presumably, this is justified on competitive grounds and the assumed insignificance

of workmen's compensation benefits. But are workmen's compensation benefits really insignificant? I think not. In Connecticut benefits equal to two-thirds of wages but not more than $153 per week, plus $5 for each dependent (but not more than 75 per cent of wages in the aggregate) are payable for life. Thus a worker earning as much as $1,000 per month in Connecticut, if disabled from an occupational accident, would get over $650 per month, payable for as long as he lived and remained disabled. In Nevada the maximum weekly benefit is $103.85, payable for as long as one hundred months, and then $67 per week, payable for as long as a claimant lives and remains disabled. In Nevada benefits represent 90 per cent of wages for workers earning less than about $500 per month.

Workers covered under the Longshoremen and Harbor Workers Act may draw an amount up to $167 per week but not to exceed two-thirds of income for as long as they live and remain disabled. The most extreme example is workers covered under the Federal Employees Compensation Act. These workers can draw an amount up to $500 per week, but not to exceed 75 per cent of income, payable for as long as the employee lives and remains disabled. Admittedly, these are extreme examples. However, in virtually all jurisdictions, benefits exceeding 60 per cent of wages for lower-income employees are payable, and in most cases these benefits could be payable for life. I would suggest that your company obtain, if it has not already done so, a booklet entitled *Analysis of Workmen's Compensation Laws,* published annually by the Chamber of Commerce of the United States, Washington, D.C.

I think these examples demonstrate that current workmen's compensation benefits are not insignificant. In order to obtain an idea of what the future might bring in this area, I suggest that those who have not done so read the report of the National Commission on State Workmen's Compensation Laws published in the October, 1972, edition of the *Social Security Bulletin.*

An idea of the significance of workmen's compensation benefits was obtained through a review of our lifetime accident claims which showed that 60 per cent of such claims were caused by an occupational accident. The reserves for lifetime accident claims represent 24 per cent of our total reserves on claims exceeding two years' duration and nearly 12 per cent of total claim reserves on disability income policies as of year end 1972. Even in our best occupational class, occupational accident claims represent over 40 per cent of total lifetime accident claims. Occupational accident claims exceeded 50 per cent of total lifetime accident claims in our second best occupational class.

Turning to social security benefits (Table 3), it is my contention that this is a very serious source of the overinsurance hazard today. Social security benefits have risen much faster than any of us would have anticipated even as recently as five years ago. Originally, many of us looked upon social security as a floor of protection. With regard to disability, however, it can no longer be consider a floor. For the low-income, younger worker, it can be looked upon more as a ceiling, and in some cases it has actually gone through the roof. For example, for a worker earning $400 per month and currently aged 25, the maximum family benefit in the event of disability would be $414 per month.

TABLE 3

SOCIAL SECURITY DISABILITY BENEFITS COMPARED WITH CURRENT MONTHLY INCOME AVERAGE MONTHLY WAGE (AMW), PRIMARY INSURANCE AMOUNT (PIA), AND MAXIMUM FAMILY BENEFIT (MFB) BY AGE AND CURRENT MONTHLY GROSS INCOME

| | CURRENT MONTHLY GROSS INCOME | | | |
|---|---|---|---|---|
| | $400 | $600 | $800 | $1,000 |
| Current age 25: | | | | |
| AMW* | $389 | $584 | $775 | $825 |
| PIA | $230 | $303 | $360 | $370 |
| PIA as % of current income | 58% | 51% | 45% | 37% |
| MFB | $414 | $541 | $630 | $647 |
| MFB as % of current income | 104% | 90% | 79% | 65% |
| Current age 35: | | | | |
| AMW* | $304 | $456 | $588 | $615 |
| PIA | $196 | $253 | $305 | $316 |
| PIA as % of current income | 49% | 42% | 38% | 32% |
| MFB | $321 | $471 | $543 | $558 |
| MFB as % of current income | 80% | 79% | 68% | 56% |
| Current age 45: | | | | |
| AMW* | $250 | $375 | $489 | $511 |
| PIA | $175 | $224 | $266 | $274 |
| PIA as % of current income | 44% | 37% | 33% | 27% |
| MFB | $268 | $399 | $489 | $501 |
| MFB as % of current income | 67% | 67% | 61% | 50% |

SOURCE: "The Effect of Social Security Increases on Disability Income Payments," *Best's Review*, February, 1973. Joseph P. McAllister (vice-president and actuary, National Life and Accident Insurance Company).

* Based on estimated earnings history for specified current monthly gross income.

Even for a worker currently earning $600 per month and aged 35 at date of disability, benefits are significant. The maximum family benefit payable in such a case would be about $471, or 79 per cent of gross income. Even if current income is $1,000 per month, the maximum family benefit exceeds 50 per cent of current earnings for anyone aged 45 or younger at date of disability. It is obvious from these figures that the benefits can be ignored no longer in setting issue and participation limits.

What tools are available currently to the underwriter to determine the overinsurance hazard? Obviously, he has the application. Most applications that I have seen have questions regarding other disability income insurance in force. Many, but not all, ask questions relating to earned and unearned income. However, many applications do not elicit income information over the applicant's signature. Instead, this information is contained in the agent's report. We obtain inspection reports which are sources of information on net worth, earned income, and unearned income; information regarding job history and stability; and information regarding family status. As many of you know, the inspection reports are, at best, estimates of net worth and earned as well as unearned income. In many cases the employer is reluctant to give information of this type to the inspection company, and, in the case of the self-employed, typically the only source for the inspection company is the applicant himself or a member of his family. It is my contention that the information of a financial nature on which the underwriter is asked to determine whether the amount applied for is reasonable in relation to the need for disability income protection is woefully inadequate.

Historically, we have been able to get by on this inadequate information because of several factors. We have had inflation and increased productivity resulting in rising incomes. In the past we have had a social and moral climate different, I believe, from that which exists today. We also have had relatively full employment and a healthy economy. Group disability income coverage was relatively minor, and statutory benefits were insignificant in most cases. None of these conditions, in my opinion, exists today. Anyone who has ever examined the trend in earnings of major companies writing noncancelable disability income coverage, will see, as I have seen, that the margins which existed several years ago simply do not exist today. Another reason we got by with this inadequate information in the past was that our rates, particularly for long-term benefit period plans, were extremely high. Competition has forced these rates to relatively low levels. Competition also has forced us into what I consider insane definitions of total disability.

That is another subject, but the situation can also result in substantial overinsurance because benefits are not necessarily tied to income loss.

Ignoring other benefits or evaluating them too lightly can prove costly. Prior to 1970, we (Occidental Life Insurance Company) issued 50 per cent of income for income levels up to $2,000 per month and ignored short-term group and state cash sickness benefits. The decision to make the change and start counting short-term and state cash sickness benefits was based on an analysis of experience in California on our disability income plans compared with the experience in all other states combined (Table 4). We found that the loss ratios were 50 per cent higher on California business than they were in all other states combined for each year, regardless of basic benefit period. Since the age mixes of the business were comparable, we concluded that the difference in the experience had to be attributable to the fact that we were ignoring state cash sickness benefits in our issue and participating limits. In 1970 we changed our rule from (*a*) 50 per cent of income to (*b*) 60 per cent of income less $125 at income levels where state cash sickness benefits were significant. When we introduced our new ratebook in August, 1972, we made further cuts in these issue limits. We found that the original cut made in 1970 was not adequate to do the job of bringing the experience in the states having cash sickness plans into line with the experience in the other states. Also, between 1970 and 1972 there had been several significant increases in maximum benefits in the states having cash sickness laws. Currently we have reduced our issue limits in California to 25 per cent of the first $750 of monthly income. In Hawaii and Puerto Rico the limit is 25 per cent of the first $600 of monthly income, and in New Jersey and Rhode Island, it is 25 per cent of the first $500 of monthly income. By comparison, we will write $550 per month at an income level of $1,000 in other states where there is no short-term group coverage in force. That was another change in our rules. We now count short-term group as 50 per cent of income or $250 per month, whichever is less. As many may note, our issue limits in states having cash sickness laws are lower than those of many companies which recognize the cash sickness benefits as other insurance.

On the basis of the experience we had in California when we ignored the UCD benefit, we reacted quickly and changed our issue limits in Canada when cash sickness benefits became available under the Unemployment Insurance Act. We count statutory benefits in Canada as two-thirds of income or $300, whichever is less. The actual benefits payable under the act are two-thirds of income with maximum payments of $100 per week.

I would like to cite another such example. In the mid-1960's we had

very adverse experience on disability income business written in Canada. The poor experience seemed to be coming from the lower occupational classes. As a result, we made a decision to offer nonoccupational coverage only to occupational classes 3 and 4 in Canada. I might explain that our best class is basically class 1, and we use a four-class rating system. Since the experience in the United States was relatively favorable

TABLE 4

1966–72 PAID-TO-PAID EXPERIENCE: UNITED STATES

(Guaranteed Renewable Disability Income;
2-Year Benefit Period Plan—Males Only)

| Calendar Year | Premiums | Claims | Loss Ratio |
|---|---|---|---|
| | California Only | | |
| 1966 | $ 493,535 | $ 197,678 | 40% |
| 1967 | 546,686 | 220,471 | 40 |
| 1968 | 589,934 | 257,033 | 44 |
| 1969 | 648,792 | 312,119 | 48 |
| 1970 | 771,322 | 396,130 | 51 |
| 1971 | 842,247 | 485,323 | 58 |
| 1972 | 971,330 | 732,010 | 75 |
| Total | $ 4,863,846 | $2,600,764 | 53% |
| | All Other States | | |
| 1966 | $ 798,602 | $ 218,937 | 27% |
| 1967 | 905,997 | 253,607 | 28 |
| 1968 | 1,001,728 | 321,219 | 32 |
| 1969 | 1,108,184 | 374,026 | 34 |
| 1970 | 1,322,354 | 477,924 | 36 |
| 1971 | 1,427,279 | 571,863 | 40 |
| 1972 | 1,612,818 | 688,438 | 43 |
| Total | $ 8,176,962 | $2,906,014 | 36% |
| | Total United States | | |
| 1966 | $ 1,292,137 | $ 416,615 | 32% |
| 1967 | 1,452,683 | 474,078 | 33 |
| 1968 | 1,591,662 | 578,252 | 36 |
| 1969 | 1,756,976 | 686,145 | 39 |
| 1970 | 2,093,676 | 874,054 | 42 |
| 1971 | 2,269,526 | 1,057,186 | 47 |
| 1972 | 2,584,148 | 1,420,448 | 55 |
| Total | $13,040,808 | $5,306,778 | 42% |

overall, we never adopted this approach here. Restricting twenty-four-hour coverage to only the top two classes in Canada has done the job. When we made this change, the loss ratio in Canada was at least 10 or 15 per cent worse than in the United States. Recently, the loss ratio in Canada has been 5–10 per cent lower than in the United States. We feel that the turnaround has to be attributable to our tough approach in the lower occupational classes with regard to twenty-four-hour coverage.

I have attempted to depict how we evaluated the problem, what we found out by being forced to investigate it, and what we have done about it to date. Quite possibly some companies have not had similar

TABLE 5

GUARANTEED RENEWABLE DISABILITY INCOME
2-YEAR BENEFIT PERIOD PLAN: PAID-TO-PAID
EXPERIENCE BY OCCUPATIONAL CLASS

| Occupational Class | 1971 | | | 1972 | | |
|---|---|---|---|---|---|---|
| | Premiums | Claims | Ratio | Premiums | Claims | Ratio |
| 1..... | $ 925,435 | $ 297,954 | 32% | $1,004,743 | $ 390,919 | 39% |
| 2..... | 459,962 | 234,534 | 51 | 514,227 | 297,277 | 58 |
| 3..... | 759,996 | 406,750 | 54 | 895,877 | 553,300 | 62 |
| 4..... | 119,378 | 108,107 | 91 | 150,092 | 142,193 | 95 |
| Total... | $2,264,771 | $1,047,345 | 46% | $2,564,939 | $1,383,689 | 54% |

experience. Much would depend upon their markets. For example, if they are marketing primarily in the higher-income and better occupational classes, very possibly they are not even aware of the problems. On the other hand, marketing primarily in blue-collar markets may well be the reason for recent adverse experience if this has been the case. It may well be also that some have the problem but are not even aware of it. I know that many companies have never analyzed experience on disability income by geographical area, in spite of the fact that many do rate and maintain experience separately by state on medical care coverages. I have also found that many companies keep experience by benefit period only and do not obtain experience subdivided by occupational class. To date, we too have been unable to obtain actual earned to incurred experience by occupational class, but we have developed paid to paid by occupational class. The results were startling to us and may be to you (Table 5).

So much for the problem; what about the solutions? I would like to

list several possible solutions to the hazard. They are not to be considered as representing all the possibilities which exist. Obviously, each of us must evaluate the potential hazard on the basis of our own company experience and our own marketing philosophy and over-all company objectives. I will enumerate several solutions and then explain why I think these particular ones are important.

1. The underwriters and claim personnel should be made aware of the scope and extent of benefits available under social security, workmen's compensation, state cash sickness plans, and Canadian unemployment insurance benefits. I do not believe that underwriting and claim handling can be done by the book. Applicants cannot be handled by formulas; they are people, not abstract statistics. The underwriting rules adopted by any company cannot be comprehensive enough to cover each and every possible situation the underwriter encounters. Judgment is involved in determining the amount of benefit which should be issued in a particular case. Many people are not motivated sufficiently to return to work after disability, particularly if they find that they are drawing more in disability benefits from all sources than they would draw by immediate return to work. Disability can be as much a state of mind as a state of health. If the underwriter makes a mistake in issuing a benefit that is too high when viewed in relation to other income available to the insured if he were to become disabled, the claim man may well have to live with the mistake. Unless the claim examiner is aware of the scope and extent of the other benefits payable in addition to the individual policy, he will not be alert to the possibility of malingering.

2. The field force and home office agency people also must be made aware of the scope and extent of these statutory benefits. I believe that most agents honestly try to sell an applicant an amount which they feel will enable him to receive from 60 to 75 per cent of his take-home pay during disability. However, if the agent is not aware of the scope and extent of these statutory benefits, how can he do his job? Without this knowledge, the chances are that he will sell an amount which, when combined with these benefits, results in overinsurance, and a cutback by the underwriter in the amount. Many times when an agent complains about a case where the amount applied for has been reduced by the underwriter, it is because he does not understand the reason for the action. If he had been aware of the statutory benefits, perhaps he would not have advised the applicant to apply for such a large amount. I believe that it is up to the home office to inform its field force of these benefits and to keep the information up to date.

3. We should try to make the public aware of the extent and scope of the various statutory benefits available to them. In many cases I believe the result would be that the buying public would apply for benefits more in accordance with their actual needs. The question then becomes, how do we educate the public in this regard? The first step must be the education of the agents themselves. Next, we could bring these benefits to the attention of

the applicant at the time of application through material included with the regular sales literature. Designing our sales material to call for a fill-in of social security and other such benefits is helpful to the applicant. I refer here to the concept of programmed coverage, a concept which many agents have used for years in life insurance. Another possibility would be to prepare proposals in the home office showing with the financial information the data on statutory benefits and other sources of income which would continue during disability. I believe we have all been reluctant to do this because of fear that it would cut into sales. Undoubtedly it will, but it might also increase over-all profits.

4. We can obtain more detailed information through the application and/or the inspection report regarding work history, income of all types, and family status. For example, the disability income needs of an individual who has a working wife are less than the amount needed by an individual whose wife is at home. Nevertheless, few of us ask questions regarding the number of children, whether the wife is working (and, if she is working, what her income amounts to), or how long the individual has been with his current employer. In the case of an individual who shows job instability, the potential overinsurance hazard is tremendous. Few insurers ask for this type of information, and some do not even ask for the name of the employer in their applications.

5. Another action, which I would recommend strongly, is a review of underwriting rules to make sure that the issue and participation limits are reasonable where short-term group benefits statutory benefits such as state cash sickness, and social security benefits will also be payable in the event of disability.

6. Another partial solution is to take advantage of the policy language available, under present statutes, to control the overinsurance potential at time of claim. I know most of us feel that the optional "relation of earnings to insurance" clause is of little value and, because of this and competitive pressures, have removed this feature from our policies. I believe, however, that the clause is better than nothing. The clause also may be a possible solution to the problems occurring as a result of the use of separate policy forms for males and females. The reduction in benefits payable if the insured is unemployed at time of claim, which is a common feature in female policies, will have to be either dropped or adopted for both males and females. A better solution, in my opinion, is to adopt a "relation of earnings to insurance" clause. If this approach is taken, we can at least reduce our benefits to $200 per month in the event that the insured is unemployed at time of claim. Where the initial amount of coverage is $400 per month or more, we would pay less with the "relation of earnings" clause than with the standard reduction clause.

7. A commercial step-rate disability income policy could be developed, with the right to refuse renewal limited to cases where overinsurance exists

at time of claim. This would enable us to cancel the policy if the insured is unemployed. It would also enable us to reissue for a lower amount when the insured is still employed but the sum total of benefits available from all sources exceeds what we feel is reasonable in relation to total income. Many of you have probably seen, or at least heard about, the Prudential's new CHIP plan. This is the type of thing I have in mind here.

8. Another possible solution, but one difficult to achieve, would be legislation to allow co-ordination of benefits for individual policies similar to the group co-ordination of benefits provisions now in use. I believe that this effort would have to be an industry-wide rather than a company-by-company battle. I also believe that we have no chance with the various legislatures until we have educated them and the public which they represent to the need and desirability of such provisions.

9. I would suggest that we all start, if we have not already done so, to develop statistical data to measure the present effects of other coverages on our experience. I refer to studies comparing the average duration of an occupational accident claim with a nonoccupational accident claim and comparisons of the average length of sickness claims where state cash sickness benefits are also payable with average length where no cash sickness benefits are available. Also, as has been done at Occidental, it might be worthwhile to compare the experience in states having cash sickness benefits with states not having such benefits.

10. Serious consideration should be given to some form of nonoccupational coverage, particularly to the low-income blue-collar workers. To my knowledge, the only major company which has taken a step in this direction is the Travelers. I might add that we are giving very serious consideration to such an approach ourselves and hope to join Travelers soon in offering nonoccupational accident coverage in the United States. As I mentioned above, we are already doing so in Canada for our two lowest classes of risk.

We have seen and will continue to see many changes which will affect the potential overinsurance hazard and hence our future experience. If we wait until after the losses are incurred, we will never recover. Just one illustration of the changing nature of this risk: Many of you have undoubtedly read about the Chrysler settlement with the United Auto Workers. I do not know how many of you have paid attention to the fact that a worker can now retire at full retirement pay after thirty years of service regardless of age. Undoubtedly, many policies outstanding on auto workers are noncancelable and/or guaranteed renewable to age 65. If such a worker retires at age 55 on full retirement pay and subsequently has a disability, what would be the insurer's chances of getting off the risk as promptly as he might if the insured were still working and relying on his income from work for his continued economic good health? I think that the answer is clear.

The insurance industry has enjoyed relative prosperity on disability income coverages over the last twenty years or so. However, if we do not adapt to the changing moral, economic, and social climate around us, I contend that history will not repeat itself as far as profits are concerned in this business. It is more likely that we will see results such as were observed in the 1930's. Certainly in view of competition it takes courage to move in some of the directions that I have outlined today. However, if we do not face these problems now, I believe it inevitable, that we will experience losses on this business. We cannot do anything about noncancelable business on the books. On guaranteed renewable business, many of us feel we can adjust rates if losses result. However, this is becoming more difficult to accomplish. Even if it is accomplished, we often find that there is no way to catch up, once the rates have proved to be inadequate. It is much wiser to take the necessary steps now to avoid future losses than to wait until losses occur. It may well be that in the long run it takes more courage to ignore these hazards than to face up to them and develop sound financial underwriting rules.

MR. THEODORE N. VON WALLMENICH: We call our product "disability *income* insurance," which suggests that disability is the inability to earn income. Yet most contractual definitions of disability avoid the word "income." One important reason for this is that definitions of disability are written with hindsight, trying to mold the definition into what the courts and claim administrators have interpreted disability to mean. Closely related to this is the need to have the definition of disability fit the insured's expectation of what it means.

The definition of disability has evolved into a form in which disability means the inability to engage in an occupation, with occupation further defined to be the insured's own occupation for an initial number of years of disability (the "his occupation" period), and any occupation reasonably suited to the insured thereafter. The "his occupation" period exists because courts and insureds have expected that benefits not be cut off if the insured is rehabilitating himself in a new occupation. After the "his occupation" period, a reasonably suited occupation is indicated because courts and insureds have expected that the insured should not be forced into an occupation unacceptable or demeaning to him. This is usually accomplished by adding to the definition the words "with regard to his education, training, or experience."

The past few years have evidenced a flurry of activity with respect to the length of this "his occupation" period. Originally the period, true to its rehabilitative nature, lasted eighteen or twenty-four months. Now

it is not uncommon to see "his occupation" periods of five or ten years, and a few companies have extended this to the insured's age 65 or lifetime.

What has caused this recent flurry? Obviously, competitive pressures. My own company (National Life Insurance Company) entered this field three years ago and immediately became caught up in the whirlpool of "his occupation" period lengthenings. However, we did not enter this definition war without consideration of the probable consequences of long "his occupation" periods and a judgment that these consequences would be manageable.

We gave careful consideration to as many of the potential pitfalls of long "his occupation" period definitions as we could imagine. First is the moral risk regarding the insured's incentive to return to his own occupation, especially if he is earning a large income in a related occupation. Second, the risk of disability income policies being misused to fund early retirement becomes magnified when a long "his occupation" period is employed. Closely related to this is a third pitfall—the high probability of earlier normal retirements in the future. Incidentally, this trend should cause greater concern about the propriety of the continued use of disability income policies noncancelable to age 65 than about the propriety of long "his occupation" periods. The fourth danger is the risk of job obsolescence among professionals induced by rapid technological advancements. This is especially serious when the definition of disability covers the insured in his specialty occupation. After a period of prolonged disability, an insured may find his own prior specialty evaporated or at least so drastically modified that it is increasingly difficult for him to re-enter the field. Fifth, we were concerned with the unknown impact which government-mandated maximum fees under a national health plan might have on the motivation of the medical professionals. These five risks inherent in long "his occupation" period definitions are especially hazardous because each involves the element of class selection which could result in noticeably poorer morbidity experience.

We gave equally careful consideration to characteristics of the disability risk which mitigate these pitfalls. We realized that the longest "his occupation" periods would be reserved for a select group of occupations, composed primarily of the medical and legal professions, although some companies have expanded this group by the inclusion of business executives. The key factor here is motivation. There is a genuine feeling, although not substantiated by statistics, that membership in any one of these occupations is characterized by a strong desire to be in that particular occupation. This desire is based on ego satisfaction as well as

pocketbook satisfaction. If the desire to earn the large incomes of these occupations were the only consideration, then, for physicians, for example, government-mandated maximum fees might be a severe threat to this motivation.

An interesting note on this development is that increasing the length of the "his occupation" period has not stopped with the professional occupational class. It is not unusual for a company to have several "his occupation" periods, with different lengths for each occupational class. Thus definition of disability has joined price as a means of recognizing risk differences among occupational classes. It recognizes a significant feature of the risk—the motivation differences among occupational classes.

We respected the opinions of other companies who had examined their claim philosophies and practices and discovered that, in most cases, they would have interpreted their definitions of disability as if they included long "his occupation" periods. With just a handful of claims, we did not know what our claim philosophy and practices were going to be, but we wondered just how well we could enforce our "reasonably suited" language. The difficulty is that the words "with regard to his education, training, or experience" are not precise. It is exceedingly difficult to convince a disabled insured that he is reasonably suited to do anything other than what he was doing when he suffered the disability. If this is to be the expected experience, why not specify it in the definition of disability and get a sales boost out of it?

There is a general feeling that for most disabilities caused by accident or sickness and for most occupations, including the medical specialties, a disability severe enough to prevent an insured from engaging in his own occupation will prevent him from engaging in any occupation. We all hear stories of amputee dentists and arthritic surgeons, but that is just what they are—stories, conjured up to portray the worst that could happen under these long "his occupation" periods. However, heart attacks and auto accidents are not occupationally selective, and windfall profits due to fortuitous accidents and sickness are not expected to materialize in any great numbers.

We remembered that the most serious risk inherent in offering noncancelable disability income insurance is that the economy might sink into a severe depression. We tried to think what the impact of a long "his occupation" period would be in this situation and concluded that a severe depression would be equally disastrous for all noncancelable disability income insurance, regardless of the length of the "his occupation" period.

A more likely economic situation than depression is one of continuing

inflation, which affords some protection to the writer of long "his occupation" periods. What may seem like a large disability monthly income today might provide the insured a strong incentive to return to his own occupation ten years from now.

An important point to remember is that, theoretically, changes in the length of the "his occupation" period affect only the recovery rates and hence the disabled life annuity values, not the rates of disability. The policy would continue to require that disability be the result of an accident or sickness. None of the potential pitfalls emerges unless the disabling event occurs. To the extent that claim costs are dependent primarily on the rates of disability, the effect on the claim costs of a change in the length of the "his occupation" period is dampened.

Measurement of this theoretical consideration is impossible. Not only is the change in recovery rates indeterminate, but the base recovery rates themselves are of questionable validity beyond the second year of disability. Nevertheless, it is comforting to know that they cannot be reduced below zero. It was on this basis that we proceeded to do a bit of experimenting. Suppose that a disability policy provided that if the insured were continuously disabled for $n$ years, monthly income would be payable during the lifetime of the insured, but not beyond the end of the maximum benefit period. During the first $n$ years of disability, total disability would be defined in a normal fashion, with an $n$-year "his occupation" period. Thus the benefit provided would be a temporary disabled life annuity coupled with a deferred life annuity contingent on continuous disability during the deferment period. Such a policy could be priced, obviously, by modifying the assumed disability income morbidity to reflect zero recoveries after $n$ years of disability and some reduction in recovery rates during the first $n$ years of disability. This would anticipate the malingering inherent in this type of benefit as the life annuity looms nearer and nearer in the eyes of the disabled insured. Thus the results of this experimentation can be taken as a measure of the maximum cost increase of changing from an $n$-year "his occupation" period to a "to age 65" or lifetime "his occupation" period.

We determined the percentage increase in gross premium needed to accommodate the morbidity modification. The following examples are based on a policy with a thirty-day elimination period and a benefit period to age 65 issued to a male in our professional occupational class. For $n = 10$, full recovery rates for eight years, 50 per cent of the full recovery rate for the ninth year, and zero recoveries thereafter, the percentage increases in gross premium were only 4 per cent at age 25 and 1 per cent at age 45. For those who suspect that the malingering

assumption in this example is not conservative enough, at $n = 10$, full recovery rates for the first year, 50 per cent of the full recovery rates for years 2–8, 25 per cent of the full recovery rate for the ninth year, and zero recoveries thereafter yielded percentage increases in gross premium of 18 per cent at age 25 and 8 per cent at age 45. For those who would measure the maximum cost increase of changing to a long "his occupation" period from a five-year "his occupation" period rather than from a ten-year "his occupation" period, at $n = 5$, full recovery for three years, 50 per cent of the full recovery rate for the fourth year, and zero recoveries thereafter yielded percentage increases in gross premium of 12 per cent at age 25 and 4 per cent at age 45. Considering the *maximum* and therefore very conservative nature of this measure, we were encouraged by the small magnitude of these percentage increases.

Naturally, it is impossible to quantify all these pros and cons, but we felt on balance that a long "his occupation" period for the professional class was a manageable risk. What has happened is that companies are betting against severe sociological distortions in the future, just as they are betting against severe economic distortions by offering noncancelable disability income insurance.

The most serious argument that I have heard against long "his occupation" periods is that they ignore the principle of indemnity and do not follow the insured's actual economic losses. However, to define disability otherwise ignores the fact that the definition of disability should fit the insured's expectation of what disability means.

One recent development in the area of partial disability benefits is worthy of notice. The traditional partial disability benefit can be characterized by three severe shortcomings. First, the benefits run for a very short maximum duration, usually six months. Second, the benefit pays an arbitrary single percentage of the total disability benefit, usually 50 per cent. Third, the definition of partial disability is usually quite vague.

An important change that is taking place is the transformation of this benefit into one of significance, to the insured, by relating the benefit to the insured's actual earnings. The benefit pays off if, as a result of accident or sickness, the insured suffers a loss of earned income. The amount of the benefit is that proportion of the amount payable in the event of total disability that the loss of earned income is to the insured's average earned income prior to disability. Two alternative techniques are used to control possible abuse of this benefit. One technique is to make the benefit payable only following a period, say one year, of total disability payments. No definition of partial disability is then needed; the loss of earned income suffices. Another technique

is to allow benefits to be paid subject only to the elimination period, but at the same time employing a traditional definition of partial disability. The benefit usually is further limited by not recognizing loss of earned income of less than 25 per cent of the prior average earned income.

This benefit can be seen to be a step in the direction of returning disability income insurance to the principle of indemnity. No longer need the insured wonder whether his benefits will be cut off if he returns to part-time work. He knows that the benefits will be reduced, but proportionately, and that they will continue to supplement his earnings as he recovers.

In summary, I maintain that long "his occupation" definitions of disability are palatable, the risks involved in them having been largely exaggerated, and that they are necessary in order to meet the expectations of the insured. Their one glaring fault, namely, their all-or-nothing nature, can be overcome by combining them with meaningful and flexible partial disability benefits.

MR. RICHARD E. SWAGER: From the current trend under which even the most conservative companies are now offering "his occupation" definitions to age 65 or for lifetime, it is apparent that the competitive pressures to liberalize the definition of total disability have touched almost every company. Perhaps they will end when we reach lifetime plus one year.

Up to this point, my company (Lincoln National Life Insurance Company) has not offered a "his occupation" definition beyond ten years on its direct disability income products; however, we do reinsure under almost all the long-term definitions. On the direct side, we have what might be thought of as a modified ten-year "his occupation" approach. Full benefits are payable during the first five years of disability if the insured cannot resume his regular occupation, regardless of any outside income. We continue to pay benefits if he cannot resume his regular occupation during the second five years of disability, but we reduce the benefits by $0.50 for each dollar of earned income during a particular month. After ten years of disability, the insured must be unable to perform any occupation for which he is reasonably suited, in order to be able to collect any benefits at all.

Historically, it seems that insurers have felt that a period of "his occupation" definition was desirable because it guaranteed the insured that, should disability prevent him from engaging in his own occupation, there would be a period during which he could work and develop skills in another occupation without losing benefits. However,

companies offering rehabilitation benefits (or other methods of retraining the insured) have found that such an attempt at retraining on the part of the insured takes place during the first part of the period of total disability. It is probably for that reason that the "his occupation" period remained at two years for so many years. It would seem that the liberalizations in the definition of total disability have been, as most actuaries realize, the result of competitive pressures.

If we take a slightly different viewpoint, perhaps another aspect of the problem will be apparent. Many actuaries have felt that if we could avoid paying illegitimate claims, that is, those claims of people who are trying to bilk companies out of benefits by devising schemes to avoid working, the actuaries should be smart enough to price whatever definitions are appropriate.

Our pricing studies have led us to conclude that the cost of long-term definitions of "his occupation" is not insignificant. Perhaps outside forces are partially to blame. Although Ted von Wallmenich has alluded to the fact that abuses of "his occupation" definitions may be more assumed than real, I would like to call your attention to the May, 1972, case of *Niccoli* v. *Monarch Life*. In that case a gynecologist and obstetrician suffered a heart attack and was no longer able to deliver babies. He signed on as consultant for sex education and family planning with the hospital at which he had previously worked. The court held that the new position did not constitute the practice of medicine and awarded the insured full benefits under his disability income policy even though he was earning more money on his new job than he had earned as a doctor. In what might have been a precedent, the court also awarded the insured damages of 5 per cent of the monthly benefits for the legal research and for the mental anguish the insured had been made to endure.

The courts will play a very definite and important role in determining what the cost of long-term definitions of "his occupation" will be in the future. To ignore that fact, I think, might turn out to be a very costly mistake. At current issue and participation limits, the cost of one abused claim can be in excess of $500,000, a very large sum.

Before leaving the discussion of definitions of total disability, I would like to mention a concept which several companies have used recently —that of residual disability benefits. Basically, this is a form of the "partial disability" approach. Companies offering these benefits have felt that a policy which provides true loss of earnings protection and at the same time has none of the drawbacks mentioned for long definitions of "his occupation" is highly desirable.

Although Underwriters National is perhaps better known for return of

premium benefits, UNAC also pioneered the residual benefit concept in 1972. Most companies offering these benefits have followed UNAC in its approach and have limited the "his occupation" period to five years or less. The distinguishing feature of the concept is that, in addition to paying full benefits for total disability, the policy also provides benefits for residual disability, a disability which exists whenever the insured is no longer totally disabled but still suffers a partial loss of earnings. The residual disability benefit is a percentage of the total disability benefit under the policy.

The percentage of the total disability benefit which comprises the residual benefit would be determined by calculating the ratio of the loss of earnings to the insured's earnings at predisability level. This may be the major practical problem with this approach.

The timing of the residual benefit will depend on whether the insured returns to his own occupation or to some other occupation. If he is able to resume the duties of his own occupation, the residual benefits begin immediately upon his return to work. If the disability prevents him from returning to his own occupation, but he engages in some other occupation, he will be considered totally disabled and will receive full benefits until the end of the stated "his occupation" period; residual benefits begin after the "his occupation" period.

To help reduce costs, the residual benefits do not become operative unless total disability benefits have been payable for one year. Also, the residual benefits cease whenever the loss of earnings falls below some percentage of predisability earnings; typically, that percentage is somewhere between 20 and 25 per cent of predisability earnings.

Companies offering the residual disability benefit are strong proponents of it. They feel that the replacement of lost earnings really is the function of a disability income policy. The short "his occupation" period is consistent with the idea of providing the insured with a rehabilitation or retraining period, and the chances of abuse under the definitions are minimized.

We have heard that at least one company has considered elimination of the "his occupation" definition from at least one policy series. The premium rates would, of course, be reduced substantially, but the psychology of the sale might be a bit troublesome in the sophisticated markets. However, it does seem that an informed and intelligent buyer should have a choice. Should that choice be limited merely to the choice between companies, or should it be broadened to allow selection among various definitions of total disability, with quite significantly different premium levels?

## GROUP SURVIVOR INCOME BENEFITS

1. What are the principal variations in the form of benefits currently being offered?
2. What effect will the 1972 social security amendments have on survivor income benefit plans?
3. What unusual legal problems are encountered in connection with survivor income benefit plans?
4. Under what circumstances have survivor income benefit marketing efforts achieved success?
5. What are the major reasons for the general lack of success in marketing survivor income benefits? Has resistance to marketing survivor income benefits been encountered by group men, brokers, agents?
6. What is the profit potential of survivor income benefit plans as compared with (*a*) conventional group life insurance, (*b*) long-term disability insurance, and (*c*) ordinary life insurance?
7. What changes in the form of survivor income benefit plans are required in order to increase their popularity from a marketing standpoint?

MR. ERWIN A. RODE: Group survivor income benefits involve the payment of a stipulated monthly income to family members of the insured employee, commencing with the employee's death. Within this broad definition, there is considerable room for variation in the structure of the benefits, and I believe that most companies providing the coverage have found it necessary to make many variations available. Certainly this has been true in our case.

The purpose, and the appeal, of survivor income benefits is to relate the benefits to the financial needs of the employee's family survivors more closely than would be possible if all death benefits were paid on a lump-sum basis. By providing higher total payments where the need is greater and lower total payments where the need is less, a more effective job of meeting needs can be achieved for a given aggregate cost. This relating of benefits to need is reflected primarily in the determination of the amount of monthly income, in defining who are the eligible survivors, and in defining the maximum benefit period.

By far the most common plan involves a flat percentage of salary, usually 20 per cent, payable to the deceased employee's spouse to age 62 or age 65, but ceasing upon the spouse's prior death or remarriage, plus a lower flat percentage of salary, usually 10 per cent, in the form

of a children's benefit, payable until the youngest unmarried child attains age 23.

Variations in this most common plan are found in the factors affecting the benefit period:

1. Occasionally the remarriage termination provision is omitted. Although this can increase the cost significantly, some employers apparently are reluctant to include a financial incentive which discourages remarriage. Alternatively, a lump-sum amount equal to one or two years' installments can be paid at time of remarriage.
2. The benefit period sometimes is made subject to a maximum, such as five or ten years, in order to reduce costs. We have seen a case or two where the maximum benefit period is related to years of service, for example, five years for short-service employees, but building up with increasing service to an age 62 or age 65 plan. This length-of-service principle, however, runs counter to the needs concept. On the other hand, benefits have been written for the lifetime of the spouse, rather than terminating at age 62 or age 65. Sometimes the maximum period is limited to a minimum of five years, so that a spouse over age 60 has the opportunity to receive at least five years of benefits under an age 65 plan.
3. A children's benefit with a limiting age of 19 rather than 23 is fairly common. Sometimes the payment of benefits from age 19 to age 23 is conditioned on the child's being a full-time student.
4. Occasionally the spouse benefit is written with a certain period. A five-year certain period might be used to avoid significant benefit reduction when a one times earnings lump sum plus a 20 per cent spouse survivor benefit plan replaces a two times earnings lump-sum plan.

Variations are also found in the benefit formulas used:

1. The flat percentage of earnings is most common; about 60 per cent of the cases we have written are on this basis. While 20 per cent of earnings for the spouse benefit is used most commonly, other percentages in the 10–30 per cent range have been used.
2. Fixed dollar amount of monthly income plans, some with the amounts varying by salary brackets, make up most of the remainder.
3. Occasionally a higher percentage of salary will be used above some earnings point, for example, 20 per cent of the first $800 a month plus 30 per cent of the excess. In a rough way this takes into account social security survivor benefits. A more direct and precise way of recognizing social security is a plan which provides a higher, flat percentage of earnings such as 40 or 50 per cent, offset by actual social security benefits. However, this plan is much more complex to price and administer, particularly in determining imputed income to the employee for federal income tax purposes, and in computing valuation reserves, so that its availability is greatly limited.

4. Occasionally a spouse benefit will involve an offset of the widow's benefit under a pension plan.

Variations in the definition of eligible family survivors and some other aspects of plan structure are also found:

1. The most frequent variation is the elimination of any children's benefit. This is done probably not so much to reduce cost as to give rough recognition to the existence of the social security survivor benefits.
2. On rare occasions dependent parents are made eligible survivors.
3. Occasionally, instead of a children's benefit, there is an individual child benefit—for example, 5 per cent for each child up to a maximum of three.
4. A variation that is becoming increasingly popular is the joint and last survivor plan, for example, a 30 per cent benefit payable as long as there is an eligible spouse or child surviving; also, a plan paying 30 per cent as long as both spouse and children are alive and 20 per cent if only a spouse or child is alive.
5. Some plans, which perhaps should not be classified as a survivor benefit, have the income paid to the survivors for a fixed period. If there are no eligible survivors, or if the survivors die before the expiry of the fixed period, the commuted value of the remaining installments is paid to the insured's estate or to contingent beneficiaries. This is really a lump-sum benefit with a mandatory installment certain settlement.
6. A substantial volume of coverage is in force on the United Auto Workers plan. This plan includes a transition benefit, providing income for a two-year period of adjustment following the employee's death, and the bridge benefit, providing income to the spouse from age 50 (approximately the age at which social security family benefits cease) to age 62 (the age at which widow's benefits begin).

To summarize, substantial variation in benefit structure seems to be an inherent characteristic of group survivor income benefits, and almost any reasonable type of plan can be found among the cases that have been written. However, the availability of some variations, such as the social security offset plan, which involve substantial administrative complexity, is limited.

I do not expect the 1972 social security amendments to have a significant effect on group survivor income benefit plans. The higher social security benefits do reduce the amount payable on the few offset plans. Also, the higher percentage of the primary benefit now available to a widow at age 65 might tend to favor the selection of plans with termination age 65 instead of age 62. If the level of social security benefits increases faster than salaries generally, then, over the long range, there may be a tendency toward more plans with a dual percentage of

salary benefit formula—a higher percentage for that portion of salary above some designated point and a lower percentage below that point.

In the development of group survivor benefits, legal considerations have been involved, although I am not sure that all the items I shall mention are "unusual legal problems."

1. A number of states have $20,000/$40,000 type individual maximums applicable to group term life insurance. Are survivor income benefits a form of group life insurance subject to these limitations? We believe that all but one or two jurisdictions now feel that they are not.
2. Eligibility for group life insurance must be determined by conditions pertaining to employment in most states. Thus, in those states, family status is not a specifically recognized eligibility condition. Where survivor benefits are written without an underlying basic amount of group life insurance for which all employees are eligible, can eligibility be limited only to those employees with a spouse and/or children?
3. The question of whether survivor benefits are life insurance from a federal income tax standpoint has also arisen. An analysis of the type of plans generally written clearly supports the position that they contain all the important characteristics of, and therefore are, life insurance. We believe that such plans have been treated consistently as such for tax purposes. The present value of the survivor benefit is included with the lump-sum benefit for estate tax purposes and for the purpose of determining the amount of any imputed income to the employee under section 79 of the Internal Revenue Code. Also, insurers calculate the excludable amount for the beneficiary, upon request, for the purpose of determining the taxable interest income portion of his or her proceeds.
4. New York State has prescribed "minimum" interest, mortality, and remarriage assumptions for the present-value calculations used to determine the amounts of life insurance for group life conversion and first-year minimum premium rate purposes. If these prescribed bases produce higher values than those on a New York admitted company's regular basis, then special rate calculations are necessary for new cases subject to the minimum.
5. Problems involving a specific insured or claimant can arise under survivor benefits that do not occur under regular group life, but the incidence should be rare. As an example, we cover stepchildren if they are dependent upon the insured for support. This can raise the question of whether and when dependency exists. Another hypothetical example: if an employee divorces his wife after assigning his survivor insurance to her, the divorce operates to terminate the survivor coverage because the employee does not have a beneficiary eligible for the survivor benefits. Do rights under the assignment continue beyond termination of the survivor coverages, so that, if the employee remarries, he must get his former wife to enroll for the survivor coverage to provide benefits to his new wife?

MR. RICHARD C. MURPHY: I have been asked to discuss the profit potential for survivor income benefits as opposed to the profit potential for conventional group life, for group long-term disability, and for ordinary life. The use of the term "profit," however, causes a significant problem in communication between stock and mutual companies. For this reason I will discuss experience surplus, and I will make a few comments about distribution of this surplus by use of various experience-rating formulas.

Two factors affect the price of survivor benefits—the employee mortality and the plan present value. Let us look at the present-value assumptions used in developing the price for an age 62 survivor income plan, which Erwin indicated is one of the most frequently sold, and return later to employee mortality. In discussing the present value, it is necessary to consider the interest that will be earned on the reserves established for providing the survivor income benefit; the remarriage rate for recipients of survivor income benefits; and the life expectancy of these individuals. For purposes of discussion, assume a basic set of rates with $5\frac{1}{2}$ per cent interest, a remarriage rate equal to that of the 1962 Railroad Retirement Board table, and a recipient survivorship rate on the basis of the 1951 Group Annuity Table projected by Scale C. If the interest rate is changed from $5\frac{1}{2}$ per cent to $6\frac{1}{2}$ per cent, the effect on the present value under an age 62 plan is about 5 per cent. If the 1962 Railroad Retirement Board remarriage rates are reduced by 50 per cent, the present value will be increased by 10–15 per cent. Therefore, a 3 per cent margin would be required in our interest assumption to offset a 50 per cent remarriage rate reduction.

When a claim occurs and a reserve is established, it may be possible for us to determine whether our interest rate has been conservative or overly optimistic. It is not possible, however, to draw conclusions immediately about the remarriage rate experience; a great number of claims will be required to determine whether we have been conservative or overly optimistic. Therefore, in discussing the survivor income product, one must remember that the present-value assumptions are untested. If remarriage occurs at a rate only 50 per cent of that which we have assumed in our premiums, we may discover that even with a 2 per cent margin in our interest rate (assumption of 5 per cent versus yields of 7 per cent), our present value will be slightly inadequate.

Most group insurance products are experience-rated, with the employer assuming, to some extent at least, the risk resulting from the conservatism or optimism of the assumptions employed in the rate development. Usually in these instances we are able to measure the conservatism

or optimism within a period of one renewal year and adjust our rates accordingly. However, in the case of survivor income benefits and other products of like nature, where it will not be possible to determine the experience surplus for an extended period of time, the insurance company assumes a long-term risk not usually associated with group products. An insurance company has available a variety of approaches to this long-term risk. Each of these approaches will involve a different method of determining and distributing the experience surplus. I shall discuss only two approaches, and perhaps they are extreme.

An insurance company can be conservative and establish a present value for experience-rating purposes that reflects very conservative assumptions, or it can be more optimistic and charge the policyholder a lump sum equal to the present value of the claim determined from utilization of the premium assumptions and provide for no further experience rating after the initial incurral of claim. If an insurance carrier chooses to establish a very conservative reserve level and experience-rate the claim terminations as they occur, giving the policyholder credit for the claim terminations and the actual realized interest rate on the invested reserves, then the elements of interest and the remarriage and mortality of the recipient are not to be considered important elements of surplus to the insurance carrier, because, for the most part, differences from expected will be reflected directly in the rate established for the policyholder's benefit. This involves the implicit assumption that the group policyholder will be available throughout the claim period to absorb the experience deficits occurring as well as the surplus generated by the experience. With group policyholder mobility being encouraged by experience deficits, this assumption of persistency during poor experience periods is questionable. If, on the other hand, the present value of the benefit is to be charged on the basis of premium assumptions and if no further experience rating will be provided, then these elements are a more important source of surplus or deficits and must be considered more carefully by the carrier.

Experience surpluses generated by the present values will be realized over a long period of time. A more immediate and probably more important source of experience surplus is the employee mortality assumption. Up until quite recently a New York company quoting on a piece of business insured by a carrier other than itself necessarily would employ certain minimum rates for group term life insurance that met the standards set by the New York Insurance Department. These incorporate the employee mortality assumption of the New York minimum rates. A very significant experience surplus will result from use of the

rates because of (1) the conservatism in the development of the minimum rate scale and (2) the likelihood that the class of employee to whom the survivor benefit is sold (and I wish to exclude here transition and bridge plans) will experience lower mortality rates than were assumed in the standard group insurance risk for which the JF and the J rates were developed.

Even if the survivor income benefit quote is offered by the carrier issuing the group term, the credibility standards in conjunction with a conservative mortality table will produce a sizable experience surplus.

Let us turn now to a consideration of the experience surplus in the survivor income benefit as compared with group term life, long-term disability, and ordinary life. As discussed previously, the survivor income benefit plan has as its source of experience surplus the employee mortality assumption and the present-value assumptions. In conventional group term life insurance the primary source of experience surplus or loss is the employee mortality assumption. Assuming that most actuaries will be conservative in present-value assumptions on survivor income benefits, it is possible that ultimately the survivor income benefit will generate an experience surplus larger than that of the conventional group life product. However, it will be a long time before one can determine the adequacy of the present-value assumptions. The relative experience surplus of these two products will also depend on what approach is taken in experience-rating the survivor benefits.

The immediate source of experience surplus on group long-term disability is the rate-of-disability assumption, but ultimately the long-term disability experience surplus will be affected significantly by the recovery rate assumptions included in the long-term disability pricing. Recovery assumptions for long-term disability, however, are more capable of determination than are the remarriage assumptions of survivor income because of the availability of intercompany long-term disability statistics and, for many companies, statistics developed from internal studies.

Because of the nature of the risk—death in contrast to disability of an employee—the survivor income benefit must be considered as having greater potential for producing a more stable, but not necessarily a larger, experience surplus than the long-term disability coverage. We all recognize that to some extent the industry's long-term disability problems are caused not only by fluctuations in incidence rates attributable to economic circumstances (affecting the country or perhaps only the employer) but are attributable also to fluctuations in the rate of recovery (which some might argue also are attributable to economic cir-

cumstances). Will remarriage rates be affected by economic circumstances? It will be a long time before we are able to evaluate remarriage rates and their effect on experience surplus.

In considering the experience surplus of the long-term disability coverage, we must also examine closely the experience-rating approach to this product. Are refunds possible? How conservative are the present-value assumptions?

Up to this point I have been discussing the present-value assumptions and their effect on experience surplus. Present-value assumptions may have other effects. Assumptions used in the premium rate may result in the creation of an unacceptable surplus strain because of requirements with respect to interest rates on life insurance reserves. This is a new problem, normally not encountered by group insurance carriers. To a considerable extent it is a problem of survivor income benefits. Interest, however, is only one of three elements entering into the determination of the reserve and the present value used in the premium rate—the other two are remarriage rates and survivorship of the beneficiary. There are many recognized remarriage tables, two of which are the 1962 Railroad Retirement Board table and the 1956 OASDI table. Comparison of these two remarriage rate tables reveals that the 1956 table has remarriage rates about 50 per cent in excess of those in the 1962 Railroad Retirement Board table. The 1956 table is, in my estimation, much too optimistic to be employed in the premium rate assumption, but one would question whether it is too optimistic when coupled with a $3\frac{1}{2}$ per cent interest assumption for determination of reserves. Similarly, on beneficiary mortality the use of Projection Scale C certainly is reasonable when coupled with $5\frac{1}{2}$ per cent interest and a realistic remarriage rate, but is use of a projection scale appropriate in combination with a $3\frac{1}{2}$ per cent interest assumption?

If the assumptions in the base plan discussed previously ($5\frac{1}{2}$ per cent interest rate, remarriage rates according to the 1962 Railroad Retirement Board remarriage table, and beneficiary mortality rates of the 1951 Group Annuity Table with Projection Scale C) are compared with the New York reserve requirement of a $3\frac{1}{2}$ per cent interest assumption and we use the same remarriage and mortality assumptions, we would develop a surplus strain in the neighborhood of 20 per cent for a lifetime plan and a surplus strain in the neighborhood of 10 per cent for an age 62 plan. If the remarriage rates of the reserve table are adjusted to reflect the 1956 OASDI table instead of the 1962 Railroad Retirement Board table, the surplus strain can be decreased to 10 per cent for the lifetime plan and zero for the age 62 plan. Certainly, management would want to consider the effect of surplus strain on current earnings. A life insurance

company's group division often is oriented toward realizing current rather than ultimate profit.

What changes in the form of survivor income benefit plans are required to increase profitability? I think it is not so much the design of the product that requires change as its cost. This benefit is expensive, and, although it can be changed to lessen the cost by decreasing the maximum duration from one which runs to age 62 to one of perhaps five years, it will be recognized by both insurer and customer that the effectiveness of the benefit has been limited severely. In my opinion the current spending priorities of employers and employees are wages, dental care, pensions, and then, perhaps, survivor income benefits. Survivor income is not going to obtain its market share until some of these other requirements are met. Employee and employer are most interested in seeing an immediate utilization of additional fringe benefit dollars. Dental coverage does provide for immediate utilization of the dollar to improve the health care of the employee and his family. This kind of immediate gratification has much more appeal than talking about a death benefit provision for the employee's wife and child.

One packaging approach that might improve the salability of the product would be the utilization of survivor income benefits as an alternative investment mechanism in savings and thrift plans. Many such plans provide for alternative investment mechanisms—bonds, mutual funds, and stock of the corporation—and it may be possible to introduce an annuity certain or a survivor income plan as one of the mechanisms for the investment of funds. At least one of our large employers has done so, and the plan has been very profitable.

MR. GEORGE F. M. MAYO: I have a comment to add to what Mr. Rode has said concerning unusual legal problems. The beneficiary appointment is another legal difficulty. The employee could appoint someone other than the annuitant as beneficiary. A device used by National Life is an enrollment card with two beneficiary designations, one for life and one (preprinted) for the survivor income benefit. The inclusion of a common-law wife as beneficiary also may cause difficulties. When does a marriage exist?

Turning to the question, "Under what circumstances have survivor income benefit marketing efforts achieved success?" I would reply by saying that, if there were an easy answer, the next question to be discussed would not be asked! Success in selling seems to depend entirely on how well the prospect is geared to the idea of income protection. Thus it is easier to sell the survivor income benefit to a prospect who has

either a long-term disability plan or else a widow's benefit in his pension plan.

The best prospects of all developed in Canada last year when the Department of National Revenue cracked down on pension plans whose widow's benefit was more generous than the (stingy) maximum permitted. Anyone caught switched to the survivor income benefit—fast!

What are the major reasons for the general lack of success in marketing survivor income benefits? Has resistance to marketing survivor benefits been encountered by group men, brokers, agents? This is a loaded question. If you say marketing has been "unsuccessful," a long line of people (starting with Mr. Rode) are ready to tell you that their companies have been very successful indeed. If you say "successful," there is no question to answer.

Some clue to possible answers may be obtained from a study of the number of requests for quotations by size class. One significant fact, it seems to me, is that a large number, possibly even a majority, of large case requests in Canada now include some form of survivor income benefit. (This is not quite so true in the United States.) Very few small cases include it.

One possible reason the small cases do not ask for survivor income benefits may be that they cannot afford it. They also may not appreciate the value of continuing income. A two-times-salary lump-sum benefit could sound better than 25 per cent income. Another reason is that small cases are less likely to have long-term disability, so they may not be geared to income protection.

How do agents and brokers react to survivor income benefits? We are somewhat unusual in that very little of our business comes from our own agents. Some comes from the few group representatives we have, but the majority comes from brokers. We have no trouble at all in gaining acceptance of the idea from the brokers. They are very enthusiastic.

Where there is difficulty in selling the idea of the survivor income benefit, we have found one particular benefit design to be very acceptable. I mention this because it does not quite fit into any of Mr. Rode's variations. Our design might be more like a family income benefit. It pays for a term certain of twenty years or until the deceased would have been 65. A member dying at age 42 would leave a twenty-year income, and one dying at 52 a thirteen-year income. Frequently the benefit is designed to provide a five-year income in all cases of members dying at age 60 or over. This sounds like a weird benefit, but it is explained easily as being an income which should last "while the children are growing up." The twenty-year term will cover even a newborn child, while not too many children are born after the father is 45.

WRITTEN QUESTION: Will you pay commuted values to survivors who request them?

MR. MAYO: No. The employer who buys a survivor income benefit plan wants to provide continuing income to survivors. To pay a commuted value would be against his wishes.

MR. SIMONE MATTEODO: Remarriage and mortality antiselection would be severe if you paid commuted values.

CHAIRMAN JOHN G. TURNER: We will pay the commuted value of remaining certain-period benefits if the survivor dies or remarries during the certain period. We pay no other commuted values.

WRITTEN QUESTION: Is it possible to underwrite a plan with cost-of-living adjustments?

MR. MAYO: The Canadian armed forces survivor income benefit plan is similar to the Canada Pension Plan in that it provides cost-of-living increases, up to 2 per cent per year. A plan with no limit on the annual increase in benefits would be difficult, if not impossible, to underwrite.

CHAIRMAN TURNER: This would make a survivor income benefit plan more complex. It is already a very complex plan.

MR. MATTEODO: The Equitable has one plan in force with benefits increasing along with the consumer price index, up to 3 per cent per year. This plan increases pension and long-term disability benefits on the same basis. This indexing increases long-term disability costs by 25–30 per cent and would probably increase survivor income benefit costs even more.

MR. MURPHY: Aetna has quoted on a few plans which allow increases of up to 3 per cent per year. This requires a significant increase in premiums.

WRITTEN QUESTION: A survivor income benefit plan may favor married employees over single employees. Does this lead to legal difficulties?

MR. MURPHY: In states that require amounts of insurance to be based on conditions of employment, writing a survivor income benefit plan alone is questionable. We require that a survivor income benefit plan be written along with a group term life plan and have found that this avoids the problem. In states with no restrictions regarding conditions of employment, the survivor income benefit plan may be written alone.

WRITTEN QUESTION: Has anyone made a study of remarriage experience?

MR. RODE: Our ratio of actual to tabular remarriages has been running 50–60 per cent, where tabular is the 1956 OASDI remarriage rates, although experience is too small to be very significant. We use retail credit reports to find out whether a remarriage has taken place.

MR. MURPHY: Our claim department has used a questionnaire to determine whether remarriage occurred. Among four hundred claims in current payment status, there have been no remarriages. We plan to pursue this further, possibly using retail credit reports. Actuaries ought to become involved in policing remarriage provisions. Survivor income benefits are similar to long-term disability, in that, if actuaries had taken a closer look at claim procedures, they might have been able to prevent some large losses.

MR. JOSEPH DESIMONE: At Equitable, remarriage rates under insured survivor benefit plans are 80 per cent of those expected according to the 1956 OASDI remarriage table. However, our experience is quite small. We have about seven hundred and fifty life-years exposed on four hundred claims, and the experience is limited to the first three durations following death of the insured.

MR. JOSEPH MORAN: Who calculates imputed income for the employee's federal income tax? What are the assumptions?

MR. RODE: In most cases the employer does it, using criteria furnished by us. Most employees do not have any imputed income. The age of the spouse is considered, and the assumptions underlying the premium structure are used.

MR. MURPHY: The employer does it in our plans, using our table of commuted values by quinquennial age brackets of the spouse. Interest is at the same rate as that underlying the premium.

WRITTEN QUESTION: How is survivor income benefit experience-rated?

MR. MAYO: The employer may elect either (*a*) to charge statement reserves and experience-rate the survivor mortality and remarriage experience (this is more popular) or (*b*) to charge more realistic reserves when a claim is established and make no further adjustments for survivor mortality or remarriage.

CHAIRMAN TURNER: We have three experience-rating classes, by size of group: (*a*) small groups are pooled; (*b*) medium-sized groups are charged with reserves for each claim when it is established, and no adjustment is made for later survivor mortality or remarriage; (*c*) large groups are fully experience-rated. We charge statement reserves and adjust for survivor mortality and remarriage.

## GROUP LIFE AND HEALTH—EXTERNAL DEVELOPMENTS

1. Changes in social security
2. Credit insurance and group ordinary regulation
3. Wage-price control
4. Consumerism and national interest in health care

CHAIRMAN BRUCE W. BUTLER: Insurance has, for a long period of time, been very much on the public's mind, either in connection with the purchase of car insurance or in the evaluation of a form of individual insurance or group insurance. Group insurance in particular, since it provides a basic floor of protection for large numbers of groups and large numbers of people, is very much in the public's eye and increasingly is coming under scrutiny and regulation. In addition, there are other developments which have a large impact on the way in which we do business. Some of these external developments which are at work will now be discussed.

MR. CHARLES L. TROWBRIDGE: The 1972 social security changes which have recently taken place are, as indicated by the program outline, among the important recent external developments. The impact of the 1972 social security amendments is probably much greater in the pension area, but there is an appreciable effect on group disability and group health. I will try to list the effects as I see them.

1. The substantial increases in the primary insurance amount—over 50 per cent since 1969—mean that both the survivor and the disability benefits under social security are now very substantial. Group life insurance is not commonly "integrated" with social security survivor benefits, and the impact on group life is probably relatively minor; but the same cannot be said for group long-term disability. It is perhaps not fully appreciated that the social security disability benefit for a worker with dependents today can be as high as $600 per month, increasing with the consumer price index, and these benefits are free of tax—social security tax as well as income tax. There is not much room left for privately provided group long-term disability benefits for persons earning less than the social security wage base, if we are to be concerned about the level of "take-home" pay of disabled individuals.
2. The "waiting period" for social security disability benefits has been shortened one month. Whereas it was formerly stated as six months (and was

effectively about seven and one-half), it is now stated as five and is effectively about six and one-half. The fit with a twenty-six-week weekly income benefit, or with a long-term disability benefit with a six-month waiting period, accordingly has been improved. The definition of disability, and the eligibility for disability benefits, have not been changed (except for minor liberalization affecting only the blind).

3. Medicare now covers the long-term disabled, but coverage does not begin until a worker has been on the disability roles for two years, effectively two and one-half years after he quit work. Unless your group health policies now cover former employees who have been disabled for this long period, there would seem to be no duplication of coverage to be concerned about.
4. The new chronic kidney disease provision is a different matter. Nearly every person in the United States is now eligible for Medicare if he happens to have kidney problems best treated by renal dialysis or kidney transplant. We may need amendments to some group health policies to avoid paying twice for this expensive treatment.
5. The deductible under Part B of Medicare has been increased from $50 to $60, and the inpatient hospital deductible under Part A rises automatically with hospital cost increases. These will affect the level of claim payments under co-ordination of benefits provisions with respect to those aged 65 and older.
6. My final point is a very indirect effect of 1972 social security changes on group health. Because of a new incentive reimbursement system for Medicare benefits provided through health maintenance organizations (HMO's), the Social Security Administration has found it worthwhile to publish geographical indexes of per capita claim costs. Those of you who find area ratings a difficult part of group health rate-making may find the SSA publication very useful. The reference will appear soon in *The Actuary*.

MR. ROBERT A. BROWN: In the area of external developments affecting group insurance, credit insurance regulatory activities have to be among the more active. By credit insurance we mean insurance sold in conjunction with a loan, covering the unpaid balance of the loan. Both credit life and disability income insurance are common. The coverage is mass-marketed and is usually group, and generally there is no rate variation by age. The borrower is customarily charged the full premium, and the creditor receives commissions or dividends or retrospective rate credits.

Credit insurance is now a big business. In 1955 the credit life insurance in force was about $15 billion; in 1972 it was $109 billion, with over a billion dollars of credit life insurance premium and perhaps a quarter or a third of a billion of credit accident and health. Since

the borrower does not have alternative sources of low-cost credit insurance, he is a somewhat captive market. It has been held that this prevents normal competition from keeping the rates low and that, in fact, creditors may shop for the highest rates so as to obtain the greatest amount of reimbursement, a so-called reverse competition effect. Since the mid-1950's regulatory authorities have been concerned about these problems, especially keeping the price of credit insurance reasonable. In recent years Senator Proxmire has called for federal regulation in this area, and his actions have generated interest in regulatory activity among the states and within the NAIC.

The NAIC adopted a model bill in 1957 which gives a state insurance commissioner the authority to regulate premium rates, so as to keep the premium reasonable in relation to the benefit. Since the mid-1960's the NAIC has been wrestling and working with the model regulation to encourage uniformity of regulation and to provide more detail and refinement of provisions than many of the individual states would be able to develop. In June, 1973, the NAIC adopted a model regulation. At that time, in fact, all but about seven states were regulating the price of credit insurance in some fashion. Most states used the NAIC model bill or some variation of it, but all had credit insurance regulation of some type. Every state was different. The standard approach has been to establish a desired minimum loss ratio and then to specify so-called prima facie premium rates which are deemed to comply with that loss-ratio objective. Traditionally, the loss-ratio objective has been 50 per cent, which was adopted formally by the NAIC in 1959. Prima facie rates for credit life, which currently are deemed to meet the 50 per cent objective, range from 60 to 75 cents per hundred per year. Some states—for example, Connecticut, Pennsylvania, Massachusetts, New Hampshire, and Maine—have adopted standards above 50 per cent for credit life, and many states have done so for credit accident and health. The new NAIC model regulation suggests higher loss ratios for credit accident and health. Three states, New York, New Jersey, and Vermont, have a so-called decremental scale of rates which produces higher loss ratios on large accounts than on small ones. Most of the regulations regulate premium and not the charge to the debtor, although that charge generally is not allowed to exceed premium. On a case which is noncontributory, the premium normally is subject to the same regulations in spite of the fact that the cost to the borrower is zero.

Recent activity has centered on three areas. The first is questioning the need for a loss ratio as low as 50 per cent; the NAIC model bill has suggested that for credit accident and health an appropriate formula

would be 1.33 times the claim cost plus 65 cents, with a floor of 50 per cent. This would have the effect of raising the anticipated loss ratio very sharply, especially on plans with a short waiting period. Pennsylvania and New Hampshire recently have changed to lower rates and an anticipated loss ratio higher than 50 per cent on credit life. Another major activity is in the area of deviations based on case experience. The prima facie rates are based on average claim costs. Since most cases are experience-rated and must, therefore, be financially self-supporting, deviations above the prima facie rate have been allowed generally if the need for them on a particular account can be demonstrated. However, this leaves the better than average cases with a low loss ratio. The first approach in attempting to solve that problem was to put a so-called "cap on comp," limiting compensation to the creditor to a certain level. This often was expressed as a percentage of the premium and, therefore, did not really lead to pressure for lower premiums because that would lower the maximum allowable compensation. In any event, it did not seem to be particularly effective. Recently, there has been increasing interest in determination of rate based on examination of a case's own experience, and application of credibility factors to that experience. The third area of concern is certain practices which have been identified as abuses but which generally are not prohibited under current regulations. (One example of this is refinancing loans on a repeated basis so that the pre-existing conditions, exclusions, and the like, never terminate, since the loan is always within the first six months.) Many specific practices of this nature have been identified, and with each new edition of the regulations several more of them are prohibited.

Several years ago the NAIC decided to develop a model regulation. The goal was a set of regulations that would cover adequately all aspects of the problem—rules, abuses, credibility standards, and so forth. An industry task force was appointed to obtain answers to specific questions, such as, what are the correct credibility factors for a certain size case? All these refinements are incorporated in the new NAIC model regulation, which has been roundly attacked by much of the industry for its great complexity. It is an extremely complex piece of regulatory material. A good example is what was done on the application of credibility to a single case's own experience. This stems, as I said previously, from a desire to have downward deviations, to have rate reductions required on cases with unusually good experience, as well as allowing for upward deviations on cases with poor experience. What results is a requirement to follow the experience of each case of medium or large

size—about $16,000 of annual premium—and reporting that experience on a case-by-case basis to the regulatory authorities. Many states believe that if the reporting is not required, they cannot be sure that it is being handled properly. Then the following question was raised: If a downward deviation to below the prima facie rate is required, what is to prevent a creditor from changing insurance companies, reinstating the prima facie rate, and, in effect, never having the lower rate really applicable to that account for any length of time. This question was answered by added regulations so that a transfer of an account from one insurer to another has no effect on the rates allowed. The new carrier must use the previous carrier's maximum approved rate as the controlling rate and must use the previous carrier's claim experience in determining his maximum rate on subsequent renewals. Thus a relatively simple concept, namely, trying to keep loss ratios above a certain percentage, has become an administrative nightmare.

Among those states which have recently adopted or are adopting the new NAIC model regulation or some modification of it, there is still no real uniformity, at least not complete uniformity. The states which have gone over to regulations similar to those of the NAIC model are Pennsylvania, Wisconsin, and New Hampshire; Michigan and Texas are having hearings; Ohio and California have changed to regulations that resemble to some degree the NAIC model regulation. In addition, both Iowa and Louisiana have put in new regulations, and Kansas is holding hearings. This is all very recent activity, most of it within the last year; the rate of change in credit insurance regulation seems to be increasing, and, with the new NAIC model regulation, we can expect that to continue for some time.

Regulations are becoming tougher in terms of administrative rules, the maximum allowable rate is coming down, and there is a definite trend toward requirements for following case experience and rating individual cases on the basis of their own experience rather than on some over-all average, at least where such experience is credibly different from the average. It was pointed out to me that many group writers have only a small amount of credit insurance, mostly written as a concession to their group policyholders or because it fell in their laps, and that such companies have a way of not following the regulations extremely closely because they do not consider themselves to be "in the business." I believe that it is no longer feasible to ignore the regulatory activity on the ground that you are not really in the business. To the extent that an insurance company has any credit insurance at all, it has the obli-

gation to keep current on the relevant regulatory activity or, very likely, it will find itself in violation.

What we have seen over the years, really since the late 1950's, is that the simplest product we sell, one which has rates that do not vary by age and which is sold for a small amount, with no underwriting of the individuals, has become as complex as any of our other group lines.

CHAIRMAN BUTLER: Another very dramatic example of an external development which has had an impact on the development and growth of group insurance is the series of recent wage-price controls. Before we discuss the impact of these controls, a brief history of the various wage-price controls that have been in effect over the past few years would be helpful.

Phase I began in August, 1971, and lasted until November, 1971. No rate increases or wage increases could be implemented during that period of time. Furthermore, employer contributions toward the cost of employee benefit programs were to be considered part of wages and, hence, subject to the freeze on wages.

The second phase began in November, 1971, at which point guidelines were set up with respect to wage increases and with respect to price increases generally. Additionally, in late December, employer contributions toward the cost of employee benefit programs were removed from the wage restrictions, and separate guidelines for such contributions were established.

Although guidelines for price increases were promulgated in November, 1971, guidelines for the insurance industry were not received until January, 1972. These guidelines specified the manner in which applications for rate increases could be made.

In June, 1973, another price freeze was instituted. This freeze lasted 60 days—until August, 1973. At that time, new guidelines concerning the manner and implementation of rate increases again were promulgated. Generally, these guidelines were very similar in nature and effect to those promulgated in January, 1972.

What, then, are some of the major impacts of the wage-price controls as they have existed to date? There have been at least three. First, the impact of a freeze is very clear. That is, upon renewal of a case which would normally have called for a rate increase, the inability to implement a rate increase certainly has a substantial impact on the insurer's manner of doing business. The insurer is faced with the choice of allowing the case to continue to pay the same rates for another year or to pay the same rates on a month-by-month basis until such time

as the freeze is lifted. Naturally, neither step is wholly satisfactory. Second, the inclusion of the employer contributions as part of wages, an integral part of the Phase I guidelines, had a very major impact on the sale of new group insurance programs and on upgrading existing plans. The reason for this is that since wages were frozen, no new group insurance plans or upgrading of benefits could occur. Naturally, such a situation had a major impact on the volume of new business. Third, we now exist, and have existed for some time, with guidelines which specify the manner in which applications for rate increases must be filed and approved. The guidelines create, of course, the need for interpretation and implementation of the rules, which can be difficult at times.

In summary, it can be seen that there are several different aspects to the wage-price controls as they have existed to date and that the controls have had some effect on our manner of doing business.

MR. SIMONE MATTEODO: Consumers are people who use goods and services. Consumerism is a movement in which consumers band together, in a community of interest, in an attempt to seek changes in patterns of marketing and distribution of goods and services and to seek changes in the actual consumption of goods and services.

These changes take several forms as follows: (1) consumers seem to be looking for more information about the product or service they are buying, including quality, and (2) they seem to be looking for more information of the price disclosure type.

The best means I can use to indicate how this movement will affect us in group insurance is a review of some of the background and salient features of Regulation 62 of the New York Insurance Department. Regulation 62 was promulgated by the insurance commissioner of New York (as he was directed) under the Health Insurance Consumer Protection Act enacted by the state legislature in 1971. The title of this regulation is "Minimum Standards for the Form, Content and Sale of Health Insurance Including Standards of Full and Fair Disclosure." The preamble is brief but covers a wide scope:

Section 52.1 *Preamble.* Health insurance provides the mechanism through which most people purchase or pay for their health care. Good health care is facilitated by an insurance mechanism which helps the consumer make an informed choice as to the best coverage available to meet the health care needs of himself and his family.

At present, thousands of varieties of insurance policies, offering various kinds of insurance protection against the financial cost of sickness, accidents

and disability are sold by insurance companies in New York State. Many of these policies represent real efforts to improve coverage available to the general public, or represent policies that are "tailor-made" to fit the needs of particular policyholders. But others contain provisions which are simply advertising or marketing frills.

The insurance industry should be encouraged to provide new forms of coverage and new ways of reducing health care costs. But innovations should provide health care benefits of real economic value. Health insurance policies designed merely to produce superficial differences or play upon people's fears of particular diseases, and insurance policies which are unduly complex or unduly limited do not meaningfully expand consumer choice, but instead serve to confuse and make intelligent choice more difficult.

Some of these policies, by making benefits depend upon the existence of a particular disease, create argumentative claims situations where an unduly large percentage of premium is expended for claims investigation, and people's expectations of coverage may be frustrated by insurer denial of claims on legalistic grounds. Even where benefits are paid, such policies frequently provide inadequate payment for even the limited risk of the specified disease. Moreover, an unduly large proportion of the premium is expended for sales and administrative expenses, rather than to pay claims.

Certain of those coverages which are of no substantial economic benefit or are contrary to the health care needs of the public, and provisions which serve only to confuse or obfuscate, are herein prohibited.

In order to assist health insurance consumers in New York State to better understand and evaluate the benefits provided in the policies offered by licensed insurers in this State, insurers . . . *are* required to make a full and fair disclosure of policy benefits based upon standards . . . *contained herein.*

In addition, to facilitate the administrative supervision of this Part as well as other related insurance requirements, existing rules in the form of guidelines for the submission and approval of policy forms are (being) revised and (will be subsequently) incorporated herein.

Next, Regulation 62 contains several definitions. The noteworthy ones for group insurance are summarized below:

1. *Basic hospital insurance.*—An insurance policy providing coverage subject to no deductible in excess of $100 for a period of at least twenty-one days' confinement. Room and board benefits must be not less than the lesser of (*a*) 80 per cent of semiprivate accommodations or (*b*) $50 per day, except that the $50 can be reduced to $35 outside the Metropolitan area. Additional benefits must be not less than 80 per cent of charges up to $1,000, or ten times the daily room and board benefit, and must include a wide variety of typical charges such as operating and recovery rooms and equipment; intensive care; diagnostic and therapeutic items such as drugs, sera, intravenous; dressings; oxygen; any medical services and supplies customarily provided

unless specifically excluded by contract; and, finally, outpatient hospital services on the day surgery is performed or within twenty-four hours of an accident.

2. *Basic medical services.*—An insurance policy providing (*a*) surgical services not less than 80 per cent of reasonable charges or a fee schedule based on the state of New York certified fee schedule with a maximum of not less than $500, (*b*) anesthetic services not less than 80 per cent of reasonable charges or 15 per cent of the surgical benefit, and (*c*) in-hospital physicians' services of not less than 80 per cent of reasonable charges or $5 per day for not less than twenty-one days.

3. *Major medical insurance* (see hospital and surgical).—An insurance policy providing a maximum of not less than $10,000 a copayment not exceeding 25 per cent, a deductible not exceeding 5 per cent of the lowest overall maximum limit unless written to complement underlying hospital and medical, in which case the deductible may be increased by the amount of benefits provided by the underlying insurance.

The regulation also defines disability income insurance and accident insurance. Limited benefit health insurance is defined as an accident and health policy providing benefits other than those described above.

Thus the New York department neatly catalogues all forms of group accident and health insurance policies (other than accidental death and dismemberment and disability income) into one of four categories: basic hospital, basic medical, major medical, and limited benefit.

The regulation prohibits specifically policies with benefits for specified diseases. In addition, it prohibits policies with a return of premium or cash value except return of unearned premiums.

I shall forgo discussion of a fairly large part of Regulation 62 which specifies the exclusions that are permitted and of other sections which apply to individual policies. I will mention a portion of disclosure requirements found in section 52.54. This section states that no certificate covering residents in New York shall be used in conjunction with a group accident and health policy delivered or issued in New York unless it is accompanied by a synopsis of benefits, exclusions, and limitations and the appropriate disclosure statement as follows: "*Basic Hospital Insurance*—the insurance evidenced by this certificate meets the minimum standards for basic hospital insurance as defined by the New York Insurance Department. It does NOT provide basic medical or major medical insurance." Similar statements are prescribed, modified as necessary, for basic medical, major medical, limited benefits, disability income, and accident insurance (for this coverage there is an additional requirement in capital letters: "Important Notice—This policy does not provide coverage for sickness").

The following requirement is included under section 52.70:

(e) Group Insurance

(1) No group policy replacing a plan of similar benefits of another insurer or self insurer shall be written unless all persons of the same class insured under the prior plan are eligible without evidence of individual insurability or restrictions as to pre-existing conditions, except those contained in the policy from which transfer is made to the extent of the prior coverage or the coverage provided under the replacing plan.

I would like to footnote these remarks on Regulation 62 as it applies to group insurance.

1. It is commonplace for insurers to increase the offset on open long-term disability claims if social security is liberalized. Regulation 62 prohibits this provision. It imposes, in effect, a social security freeze.
2. Maximum premium rates are prescribed for group health conversions at ages 60 and over.
3. No accidental death and dismemberment policy shall predicate benefits on loss due to "violent and external means."
4. Experience rating is prohibited on groups with less than fifty persons at inception of the experience-rating period.
5. The minimum anticipated loss ratio prescribed is 65 per cent, except that for groups of less than fifty employees the minimum is 60 per cent.

Also, on the subject of consumerism, I would call attention to Regulation 64 of the New York department, effective February 1, 1973, which sets minimum time standards for acknowledging claims and prescribes standards for prompt, fair, and equitable settlements.

Another area in which the effects of consumerism are becoming evident is that of increased state activity concerning "group discontinuance and replacement." This activity is manifesting itself through state regulation. For example, quoting from a letter of the North Dakota Insurance Department:

It has come to our attention that, in certain instances, group coverage of accident and health insurance benefits has been transferred from one carrier to another in a manner such that only those persons with average or better-than-average health would be covered under the group insurance program of the new carrier. Thus, persons with poorer-than-average health may or may not be entitled to continuing coverage. We believe this practice to be discriminatory.

It is our firm belief that persons, with poorer-than-average health at the time of such transfer of coverage, should not be placed in the position of possibly losing their coverage on account of such transfer. Accordingly, as

and from this date, any such transfer of coverage must be negotiated on the basis of *all* eligible persons (currently covered under the present carrier's group insurance program) becoming covered under the group insurance program of the new carrier, irrespective of the present state of health of such persons.

New York, Wisconsin, and New Mexico also have promulgated regulations that bear on this subject, and the NAIC has adopted a model regulation. I believe that the thrust of this effort is to ensure that group insurance policies provide meaningful benefits, including making such benefits available to dependents, and that claims are not cut off at termination. From the foregoing it is clear that we are feeling the effects of consumerism as reflected in increased regulation.

Let us turn now to the subject of national interest in health care. Hardly a day passes without the appearance in the newspapers of some major article concerning health care. For example, a topic of current interest is the administration's programs dealing with the nation's health care problems. We have our former surgeon general talking about the lack of rational planning of health insurance at the federal administration level. We have important people at high levels of the administration resigning because there is not enough support for their programs of health care. Aside from these almost daily reports on various aspects of health care, ranging all the way from community health planning to HMO's and professional standards review organizations, there has been a considerable amount of legislative activity in the health care field.

I found it very difficult to come to a reasonably objective point of view in discussing the subject of health care, and for that reason I chose to follow a course of presentation that, hopefully, will provide thoughtful perspective in covering this controversial topic.

I have used the book *Setting National Priorities: The 1973 Budget*, published by the Brookings Institution, as a frame of reference to discuss health care. Chapter 7 of this 468-page book is devoted entirely to health care. In order to give you a perspective on its importance, it comes between chapter 6 on "Income Support Programs," and chapter 8 on "Child Care Programs."

The first paragraph discusses the problem of deciding upon an appropriate federal role and states that the problems of deciding these roles and creating a system to implement them are posing some of the most difficult problems in the area of social policy facing the government and electorate today.

The availability of medical services is critical to those who need it; the system that delivers these services is exceedingly complex and, to those who use it, often mysterious; the objectives that a federally subsidized insurance system seeks to accomplish often conflict with one another and inevitably must be compromised; and the clash of interests is sharp. Difficult substantive questions and acute political controversy combine to make health insurance an exceptionally thorny problem.

A discussion of some of the things that set health care apart from other kinds of goods and services that the consumer uses may be instructive. The following are some of the characteristics of health care and health insurance.

1. Although medical care is only one factor contributing to health, it is often essential, sometimes a matter of life and death.
2. Medical costs can take an excessively high portion of family income in two kinds of situations: for the poor, even when payments are spread over time and risks are shared through insurance, buying adequate health care is an excessive burden; for the middle class, average medical bills and standard health insurance coverage do not take an impossibly high share of income, but for those afflicted with major health catastrophes, medical expenses can bring financial distress or even ruin, and most private insurance does not offer adequate protection.
3. In the case of most goods and services the consumer polices the market by shopping around, searching for lower prices or higher quality and making decisions whether or not to buy marginally useful quantities of the goods or service, but if all medical bills are paid by insurance, the consumer has little incentive to play this role. His physician also is less inclined to use restraint in the treatment he prescribes or the fees he charges. As a consequence, prices can escalate and medical services can be used excessively and inefficiently.
4. The nature of health care imposes an additional deterrent to the consumer's acting as a market policeman. The consumer knows very little about the medical services he is buying, possibly less than any other service he purchases. He can choose a low-cost instead of a high-cost physician and, to some extent, can influence the physician's prescription of the treatment he is to receive on the basis of cost or preferences. However, a very large part of the decision-making is done by the physician—diagnosis, treatment, drugs, tests, hospitalization, frequency of return visits—all of these are substantially under the physician's control. Many basic choices are made not by the buyer but by the seller of medical services. Those who provide medical care can to a very great extent create a demand for their own services. While the consumer can still play a role in policing the market, that role is much more limited in the field of health care than in almost any other area of private economic activity.

5. To a greater extent than most other services that can be bought in the market place, medical care is available in widely varying amounts and quality in different parts of the United States. Although it may be difficult to secure high-fashion clothing in a small rural community, supplies of most really essential goods and services are available in almost all areas in the nation. Inexpensive housing in the suburbs and medical care are the chief exceptions. In the case of medical services, rural areas and those parts of urban areas with a high concentration of poor families have far fewer medical resources available than does the rest of the country.

These features distinguish health care services and the health insurance industry from most other goods and services and require the federal government to play a major role in improving the current system by which health care is provided and financed. Moreover, these same features make the choice and design of a specific federal program exceptionally difficult.

Numerous proposals have been advanced for expanding the federal role in medical care. Most of them are directed toward one or more of the following objectives:

1. Ensuring that the poor and the near poor are not precluded from obtaining essential medical services either for financial reasons or because medical resources are not available where they live.
2. Preventing financial hardship for middle-income families faced with extraordinarily large medical bills.
3. Checking a rapid rise in medical care prices.

Improving insurance programs is only one means for achieving these objectives. Other federal policies and programs are necessarily involved.

What is the current status of the nation's health care system? Who is covered now by private and public health insurance? What are the current distribution and availability of medical resources? What is happening to medical care prices? These and similar questions may be answered, in part, by reciting some pertinent statistics.

In 1950 personal health care expenditures in the United States were $10 billion; by 1970 they had risen to $65 billion. The share paid directly by consumers dropped sharply from 68 per cent in 1950 to 37 per cent in 1971, while the proportion paid by private insurance and by public programs, chiefly Medicare and Medicaid, rose very substantially.

Private health insurance paid 8.5 per cent of the nation's medical bills in 1950 and 25 per cent in 1971. In the latter year it paid for 41 per cent of the medical bills not covered by public programs. Hospital care is extensively paid for by private insurance (73 per cent of consumers'

outlays in 1971), as are physician services (48 per cent), while drugs and miscellaneous health services are only minimally covered (5 per cent).

These averages conceal many important deficiencies in coverage. The amount of health insurance coverage varies widely according to income. In 1968 only one-third of the 16.3 million poor had some private health insurance protection against hospital bills and surgical expense, compared with more than nine-tenths of the families with over $10,000 income. The disparity is even greater in the case of children. Fewer than one-fourth of the poor children had hospital insurance protection in 1968, compared with nine-tenths of the children from families with $10,000 or more income.

Another major deficiency in private health insurance is the limited protection it offers against catastrophic expenses. Most basic insurance policies place limits on the extent of coverage, such as thirty days of hospital care or $5,000 of expenses.

In 1970 only half the population was covered by major medical, which gives protection against very large medical bills. Even for persons with major medical insurance, limits on covered expenses such as $15,000 are frequently imposed, and such policies typically require the individual to pay up to 20 per cent of all expenses, regardless of how large they are, and to pay the full cost of such services as private-duty nursing, drugs, and dental care. Insured individuals, therefore, are faced with the possibility of extremely high out-of-pocket medical expenses.

The Medicaid program, which was initiated in 1966, is an important means for improving the access of the poor to medical care. Under this program the federal government and the states share the cost of providing medical care for welfare recipients and the medically indigent. These are the aged, the blind, and the disabled or families with dependent children. A few states without federal assistance extend medical care benefits to the working poor.

The federal, state, and local expenditures under the Medicaid program increased from $1.7 billion in 1966 to $6.5 billion in 1971 and to an estimated $7 billion in 1973. About 40 per cent of Medicaid expenditures are for hospital care, with nursing home care accounting for another 30 per cent. More than 19 million persons were eligible for Medicaid in 1972.

Although large sums of money are spent under this program, there is wide variation among states as to eligibility and coverage. These variations result from the federal-state nature of the program, which is patterned after existing welfare programs. Eligibility requirements based on income and assets vary widely from state to state. Only half the

states provide coverage for the medically indigent, and the income cutoff point for a medically indigent family of four ranges from about $2,500 in Oklahoma to $6,000 in New York. Thus near-poor families may have most medical expenses paid if they live in one state and may be completely unprotected if they live in another.

In addition to establishing the Medicaid program, the 1965 amendments to the Social Security Act created Medicare, providing for the elderly a basic hospital plan and a voluntary supplementary medical insurance program that covers physician's services and provides certain other benefits.

By 1970, 20.4 million persons were entitled to hospital insurance, and 19.6 million of these, or 96.2 per cent, had enrolled for the supplementary medical plan.

The Medicare program, which includes deductibles and coinsurances in its benefit structure, has been generally successful. However, the amounts paid for medical care by the elderly have continued to rise. Thus we find that before the advent of Medicare private payments for personal health care among the aged averaged $293 in 1966. In 1970 private payments of $257 plus the supplementary medical premium of $48 a year totaled $305 per capita, a slight increase in private cost for the elderly despite sizable benefits paid by the federal program.

Interestingly and very importantly, per capita health care expenditures for the elderly during the four-year period from 1966 to 1970 grew least rapidly for those services that are not covered or are covered to a very slight extent by the Medicare program. Per capita outlays for hospital care and physician's services which are covered rose by 108 and 93 per cent, respectively. On the other hand, expenditures for drugs and eyeglasses, which predominantly are not covered, rose by only 35 and 27 per cent. The degree of coverage under Medicare is by no means the only explanation of differences in the growth of per capita outlay, but it is an important one.

In summary, private insurance, Medicare, and Medicaid combined have taken over a substantial part of the nation's medical bills, but for the poor, public financing of health care varies widely among the states, and many poor and near-poor families that do not fall into one or another of the welfare categories are completely excluded. Most middle-income families are covered by some form of private health insurance but typically are exposed to the threat of financial distress and economic insecurity when they face very large medical bills.

The geographical maldistribution of medical resources is relevant to a discussion of national health insurance in several ways. On the one

hand, providing better medical insurance to the poor clearly is necessary, and more health care resources must be attracted to areas of scarcity. Medical personnel and facilities will not be available in areas where the bulk of the population cannot afford to pay for their services. At the same time, simply increasing the demand for medical care in these areas will not be enough to attract the supply of additional medical resources. Unless other means of improving supply conditions are provided, the benefits of expanded insurance coverage in areas of shortage may in part be limited by a lack of medical resources and in part dissipated by higher prices.

The uneven availability of medical resources in the United States is striking. In 1970 the 15 counties with the highest per capita income had seven times as many patient-care physicians per capita as did the 15 counties with the lowest per capita incomes, twenty-six times as many physician specialists per capita, and three times as many hospital beds per capita. The shortage of physicians is particularly acute in rural areas. In 1970, of the 3,100 counties in the United States, 132 had no active nonfederal physicians, an increase from 98 counties in 1963.

Very little evidence is available on how rapidly and how significantly the supply of medical resources responds to changes in demand. It is quite likely however, that supply responds slowly and in limited amounts. Most physicians are unwilling to move their practices once they are established. Those most affected by changing financial conditions would be the young doctors first entering practice. The report of the Brookings Institution goes into a number of alternatives for modifying the health care system in such a manner as to improve the distribution of medical resources. The several alternatives are as follows:

1. Providing financial incentives to medical students, such as interest-free loans, or forgiveness of parts of loans if they practice for a specified number of years in ghetto or rural areas.
2. Allowing physicians to practice in low-income areas in lieu of military service.
3. Placing federal health personnel in medically underserved areas.
4. Subsidizing medical schools to encourage the acceptance of minority students, in the expectation that a larger percentage of these students will return to low-income areas.
5. Training residents of low-income areas as paramedical personnel to supplement existing medical manpower.
6. Using guaranteed loans, interest subsidies, planning funds, and capital grants to subsidize group medical organizations, such as HMO's, neighbor-

hood health centers, and hospital outpatient facilities that locate in low-income areas.
7. Paying higher rates for medical care provided in low-income areas.
8. Providing adequate transportation.

Programs have been created recently to pursue a number of these alternatives. The Comprehensive Health Manpower Training Act of 1971 established numerous programs designed to improve the distribution of medical manpower.

The recently created National Health Services Corps will place an estimated six hundred health professionals paid by the federal government in approximately two hundred medically underserved areas. Many other programs give priority in funding to organizations that provide health services and that agree to be located in low-income areas.

The report next picks out medical care inflation as one of the main culprits in creating the national interest in health care. Medical care prices have increased much faster than those of other consumer goods and services. Inflation has been particularly acute in recent years, with the medical care component of the consumer price index increasing by 6.6 per cent annually from 1967 to 1971.

Inflation in hospital services, one of the heaviest medical expenses, has been particularly marked. Hospital prices, as measured by the daily service charge in the consumer price index, increased at an average annual rate of 13.25 per cent from 1967 to 1971. In 1970 average hospital prices exceeded $100 a day in five states—Alaska, California, Connecticut, Massachusetts, and New York—and in the District of Columbia and were, of course, much higher in many hospitals in those states.

Many causes for the inflation of medical care have been suggested. These can be classified into several categories that interact and reinforce each other. One factor has been a rapidly increasing demand for medical care associated with rising incomes, the growing spread of private insurance, and, after 1966, the introduction of Medicare and Medicaid. The sharp rise in demand impinged on a limited and slow-to-expand supply of medical resources, giving rise to large price increases.

Several special factors also intervened. The increase in demand speeded the adoption in hospitals and clinics of complex new medical techniques which often help save lives but are very costly. Starting in 1966, the wages of hospital workers began to rise sharply from a level that had been very low compared with that of other workers. The wages of municipal employees, which influence the pay scale of hospital work-

ers, began to increase rapidly after 1966. In 1967 minimum wage laws were extended to cover hospital workers. All of these cost factors contributed to large increases in prices.

Through the way it affects demand for medical care, health insurance plays an important role in raising prices.

1. To the consumer, insurance lowers the price of using medical care. If it is covered by insurance, a physician's visit, a hospital stay, or a diagnostic procedure costs the consumer far less than the amount of physician or hospital charges for the service. As insurance coverage is extended, the lower price to the consumer leads to an increased use of services and, given a limited supply, to inflation of medical prices. Moreover, the fact that most private insurance gives better coverage for hospital stays than for physician's visits encourages consumers and their physicians to use hospitals extensively rather than to use services outside the hospital that are not covered, a practice that tends to raise the over-all cost of health care.
2. A second explanation of how health insurance raises prices rests on the view that physicians take into account the financial situation of the patients in setting fees. As insurance coverage has been extended, physicians have been able to increase fees with less regard for the impact on the patients. As Medicare and Medicaid became operative, fees charged for services to the poor and the low-income aged, which were often lower than other fees, were raised substantially. Closely linked to this is the belief that, within limits, a physician can create demands for his services, since it is he and not the patient who often decides how much service the patient receives. The United States, for example, has twice as many surgeons per capita as does England, and twice as many surgical procedures are performed. It is unlikely that in England so much surgery is needed but not performed, or that citizens of the United States have ailments needing twice as much surgery as do the English. The market power of physicians to create the demand for their own services, combined with insurance that reduces the financial restraints against raising fees, has been an important factor in recent medical price inflation.
3. In the case of hospital and nursing homes the manner in which private and public insurance programs pay for medical services tends to encourage rising costs. Hospitals and nursing homes are reimbursed individually for the services they provide insured patients. Under the government and many private insurance programs, the amount each receives is based on the cost that is incurred. Even when reimbursement is not tied directly to costs, the fact that a third party, not the patient and not the hospital, pays the bills encourages an escalation of costs. As a result, there is little or no incentive for those who operate the institutions to hold down costs, to avoid excessive delivery and expensive services, or to institute more efficient management practices. Higher costs are passed on fully to the private

insurance company or the government. Since the provision of more technically advanced and expensive care raises the prestige of hospitals, doctors and administrators have a positive incentive to increase costs with private and public insurance paying the bill.

Several alternative means are available for reducing the rate at which medical care prices have been rising. Each of them is relevant to the design of the federal health insurance program. Some of these alternatives are the following:

1. Price controls.
2. Increase in medical care manpower. To the extent that there is a shortage, medical resources could be increased to try to overcome some of these cost inflation factors.
3. Health maintenance organizations. A proposal of this kind encourages the growth of HMO's which agree to provide comprehensive medical services for a defined population in exchange for a fixed annual payment for each person served. Under this arrangement, instead of reimbursement on a fee-for-service basis, the service would be reimbursed on the basis of a capitation fee which would be set annually. It is felt that this would have several cost-reducing effects. First, since the HMO has a greater return when its members are healthy than when they are sick, the HMO has an incentive to prevent illness and to treat illness in its early stages. Second, since the annual fee is fixed, and the HMO cannot charge for each service provided, it has an incentive to use minimum-cost combinations of medical resources, avoiding possible expensive types of care such as hospitalization and specialist treatment. Third, it is easier to budget in advance and to control medical care expenditures when reimbursement is on a fixed per capita basis than when it is on an uncontrollable level of provided medical services. Fourth, the promotion of HMO's may increase competition in the medical care market by providing alternatives to the current forms of care. Fifth, economies of large-scale operations may be effected through the promotion of group practice. Sixth, and finally, HMO's may improve quality of care and reduce costs by reducing fragmentation and discontinuity of services, by central record-keeping, and by integrating patterns of referral and consultation.

The administration has chosen to promote HMO's as its central strategy for reforming the manner in which health care is delivered and for controlling inflation in medical cost. It has proposed legislation to assist the establishment of HMO's through technical assistance, planning grants and contracts, direct loans, and loan guarantees. It is requesting $57,000,000 in budget authority for 1972 and $60,000,000 in 1973 to assist HMO's. These funds, it is hoped, will assist 284 HMO's

in 1972 with 8.5 million potential subscribers, and 340 HMO's in 1973 with 10.5 million potential subscribers. Priority in funding would be given to HMO's located in medically underserved areas. Funds requested would provide each HMO with an average of $200,000 or about $7 per person served.

Some supporters of the HMO concept, while agreeing with the administration strategy, question whether these funds will be enough to enable the planned number of HMO's to begin operating and to survive their difficult first years. Experience under the Medicare program indicates that the major saving to HMO's comes from a reduced use of hospitals in plans that have their own hospitals. Another major concern is that the HMO may contain incentives to downgrade quality of care.

The Brookings Institution report continues with a thoughtful presentation of steps that can be taken to restructure insurance coverage. They revolve around the problem that the consumer has when he has no incentives to consider the prices and the services that are required, because insurance coverage picks up the whole bill. The report suggests two lines of attack: (1) providing an incentive to consumers to avoid excessive use and to resist higher prices by requiring them to pay part of the costs and (2) providing incentives to suppliers of medical care to deliver health services efficiently and at reasonable costs.

If all services were free, then physicians would have no incentive to select lower-cost medical resources. Patients might prefer specialists when family doctors would be sufficient. Physicians might place patients in conveniently located, but high-cost hospitals, or they might hospitalize the patient who could be cared for adequately at a nursing home, or at home with the aid of visiting nurses.

The use of deductibles and coinsurance in insurance programs is the major device for giving consumers incentive to police the market for medical services. Under insurance plans with deductibles, the consumer might pay some initial part of the medical bill, for example, $50, before insurance coverage begins. Coinsurance requires the consumer to pay some percentage of the remaining bill. The Medicare program provides for deductibles and coinsurance on both doctors and hospital bills. The administration has submitted legislation adding a deductible and coinsurance to the Medicaid program.

Deductibles and coinsurance have two disadvantages as part of the federal health program. In the first place, American families tend to buy private insurance with low deductibles and coinsurance on normal medical expenses. When covered by a federal insurance program that carries higher deductibles and coinsurance, they tend to buy low-

cost supplementary coverage, which picks up deductibles and coinsurance on all but the largest medical bill. This has happened extensively under Medicare. Wide-scale purchases of low dollar coverage supplementary insurance would, of course, defeat the basic objectives of deductibles and coinsurance in a federally supported health program. In theory it would be possible to require, as part of the federal program, that consumers pay the deductible and coinsurance out of their own pockets, or to forbid the sale of low dollar coverage private insurance; whether either of these steps is politically feasible, however, is open to question.

The second problem with coinsurance and deductibles is that they have a much greater impact on the poor than on the well-to-do. The deductibles and coinsurance that might cause a $20,000-a-year white-collar worker to avoid excessive use of medical care would often be a major barrier preventing a $3,000-a-year janitor from obtaining essential services. Special provisions therefore must be included to adjust the deductibles and coinsurance to size of family income, reducing them to zero for the very poor.

The group insurance industry has been responsive to the problems created by large out-of-pocket medical expenses and catastrophic losses. For example, within the past few years a provision which might be considered to be a stop-loss arrangement has been found with increasing frequency in group plans. Under this provision, when medical expenses in a year exceed $5,000 of covered charges or out-of-pocket payments reach a limit such as $1,000, the group medical plan takes over all further expenses. Additionally, within the past year or so we have seen the growth of another provision in group insurance policies, namely, the very high maximum benefit amount. For many years group insurance policies contained benefit limits of $25,000, $35,000, or $50,000. Within the past year or so companies have brought to the marketplace maximum benefit amounts of $100,000, $150,000, $250,000, or even unlimited maximums. I believe that this is responsive to the problem of catastrophic losses.

Both provisions, stop-loss and high-maximum, tend in large measure to overcome some of the problems that the Brookings Institution cites regarding, first, large out-of-pocket requirements for medical expenses in moderate ranges and, second, unusually high medical expenses arising from catastrophic illness.

Another way of moderating the price-raising effects of health insurance would be to provide incentives for efficiency in the delivery of medical care. Delivering medical care through HMO's is one way, and its in-

centive features were described previously, but it is unlikely that HMO's will soon provide most of the medical care in the United States.

Independent hospitals and nursing homes will continue to provide much of the care. Therefore, it is important that the manner in which the government reimburses hospitals and other institutions be reformed to provide incentives to halt escalation of costs. Several suggestions have been offered. Instead of paying each hospital on the basis of costs incurred, the government could negotiate a prospective budget within which the hospital would be forced to operate. It could pay a certain amount per capita for meeting hospital needs of a given population. It could relate reimbursement of hospitals to the average cost of similar hospitals in a given region, penalizing the higher-cost hospitals and rewarding the less costly. Because experience with such innovative methods of payment is limited, it would be desirable to experiment with various techniques before imposing across the board reform.

In summary, the insurance industry comes in for criticism in this report on two counts, and they seem to be at cross-purposes. On the one hand, the report complains about large out-of-pocket expenses under insurance policies. On the other hand, it complains about the fact that there is so much coverage that neither the provider nor the consumer has an incentive to keep down utilization and prices. It seems to lack perspective in this regard.

I would like to mention two developments which are particularly pertinent to this subject. First, the administration is studying proposals to remove the tax deductibility of medical expenses, including medical premiums, and to add as taxable income any premiums for health insurance paid by the employer for his employee. It is estimated that this will generate $705 billion in tax income which can be used to defray the cost of a national health program.

Second, the recently settled labor negotiations between Chrysler and the UAW provide that, if a national health program is adopted, Chrysler agrees to maintain the negotiated level of benefits and pay the worker's share of any direct premium or tax related to the national health program.

MR. MORTON B. HESS: Regarding credit insurance, are you familiar with the innovations and the recent amendment to Regulation 27A, specifically in regard to mortgage life and accident and health? An important situation is one in which the group policyholder decides to discontinue its credit policy. In this case insurance is required to be continued either on a direct basis with the insurance company or by

some other carrier. This continuation of coverage is not extended to any other form of credit insurance, but it is something that possibly might be in the future.

MR. BROWN: I did not address my remarks to mortgage credit insurance specifically because it differs in many respects from other credit insurance, but since it has been the object of recent regulatory activity, I probably should have brought it in. Mortgage credit insurance presents unique problems. It is written normally for large amounts and normally is underwritten individually, at least to some degree. Normally rates vary by age, compensation to the creditor generally has not been nearly as high a percentage level as under normal credit insurance, and, because of the long-term nature, continuity of coverage plays a more important role. Mortgage credit insurance normally is not regulated under the same parts of the insurance law and regulations as regular credit insurance because the NAIC model bill limited creditor insurance to durations of five years or less. This was done specifically to keep mortgage insurance regulated by normal insurance law and subject to the normal competitive forces which are in play.

MR. ROBERT J. MYERS: I was very much interested in the quotations that Mr. Matteodo gave from the Brookings report. It seems to me that at least four points in the Brookings analysis were unsound. First, Mr. Matteodo mentioned that the dollar cost for medical care for the aged, despite Medicare, had stayed about the same. It seems to me that this is improper analysis on the part of Brookings, because they should consider the cost relative to the income of the aged. Over the period involved since the inception of Medicare, the income of the aged has risen very rapidly, so that the relative cost of medical care has gone down.

Second, the Brookings report makes a great point of how, since Medicare has gone into effect, medical costs have risen so much more rapidly than the general cost of living. This is, of course, true, but it is not pointed out that the same thing has happened for the last two or three decades. In part this is due to the higher quality of the product being furnished, and in part it is due to other elements. So this is not a new phenomenon.

The other two points are in regard to HMO's and I might say first that I am a supporter of HMO's, not as the only way of furnishing medical care but rather as a good, competitive way of getting everybody on their toes. However, I think that the Brookings report over-

glamorizes HMO's as do many of their Washington supporters who say how wonderful HMO's are and yet do not belong to HMO's themselves, although they could do so. I would raise the question: If HMO's are so good, and as I say, I think they are good in many ways, why do they need subsidies? If they can provide medical care better and more efficiently at less cost than other deliverers of medical care, why do they need subsidies? I can understand why they might need loans, but not subsidies.

The fourth point is that the report mentions that in an HMO there is an incentive to have more efficiency because income is limited. Of course, there is also the other side of the coin—that, having to live within a certain income, the HMO might give inadequate care because of financial restrictions—and I think this should be mentioned as well. Then, too, I think that there is a professional problem for a physician who works for an HMO group practice prepayment plan. This problem is the matter of professional ethics. To whom does the physician owe his responsibility and his loyalty? To his patient, or to the insurer?

MR. MATTEODO: I would like to thank Mr. Myers for his insight into all these points. He is very eloquent, and I do not think I can add anything to them.

MR. KEITH SLOAN: In the report that was quoted, there were several references to increasing medical costs, the per capita cost increasing faster than the rest of the cost of living. I am wondering whether this might not be an example of the effect that you discussed recently, that is, the existence of insurance actually pushing a cost upward.

MR. TROWBRIDGE: Yes, I think that the point you are trying to make is valid. Obviously, any time that the insurance mechanism covers costs that formerly were not covered, utilization of medical services is bound to increase. This has been happening in two different ways. It has been happening through the private insurance mechanism, and it has also been happening through the social insurance mechanism. Both of these things are occurring, and I think that all of us are interested in how much more utilization there is from a person who has to pay zero dollars for his medical services as compared with somebody who has to pay the entire cost. I have been interested, as some people know, in trying to find out what the antiselection is, so to speak, and there is not any very good information on this. I did publish a little actuarial note on the underlying theory, but without any empirical support. The

lack of empirical knowledge as to how people perform under these conditions is fantastic. We do not know anything about it, and I have seen only one or two studies that have any bearing on it at all. One of them is a study made by a University of Iowa economics professor on the length of stay in hospitals as it is affected by who is paying the bill. Certainly the implication that the insurance mechanism has driven up the utilization of medical services is unarguable.

MR. JOHN C. ANTLIFF: Mr. Trowbridge, you made the point that the social security waiting period of five months is the equivalent of six and one-half months under a typical insurance company contract, and I was not aware of that. Is it something about the administration that creates the lag?

MR. TROWBRIDGE: Yes. It is just a matter of how the timing works. Bob Myers could help me if I am wrong about this, but if a man becomes disabled in the month of April, the month of April is not counted but you do count May, June, July, August, and September. The man is paid for the month of October, but the first payment for the month of October actually is made November 3. Thus the fact that the month of disablement does not count adds half a month on the average, and the fact that the payment for the first month for which the insured is paid comes at the end of the month adds an additional month, so that the lag goes from five to six and one-half months on the average.

MR. ANTLIFF: The insurance company claims would be paid in arrears too, would they not?

MR. TROWBRIDGE: I think the only point I am trying to make is that, clearly, the social security waiting period is longer than it is purported to be; insurance claims might or might not be. While I have the floor here, I also want to make a point that occurred to me when I heard Mr. Matteodo. If I understood him correctly, he was saying that it was against public policy in New York now to sell dread disease policies. Have they told that to the Social Security Administration? One of the complaints I made in my paper "Social Security Amendments—1969–72" is that chronic kidney disease is exactly that—a dread disease. I am not in favor of the chronic kidney disease provision, but that is exactly what it is, and it has materialized in such a way that we hardly know it is there.

MR. HESS: It is illegal to sell a separate dread disease policy, but a dread disease benefit may be attached to basic coverage, so the Social Security Administration is not in danger of being outside the law.

MR. TROWBRIDGE: I think that for most people the chronic kidney disease provision is a separate one, because they are not covered under any other provision unless they are over 65. It is not attached to something separate as far as they are concerned.

MR. JAMES C. HICKMAN: In the June or July, 1973, issue of the *Journal of Political Economy*, a Harvard economist named Mart Belstein addressed himself to the question or remark that was made a bit earlier as to whether there has been a net increase in national welfare or a net decrease in national welfare caused by the massive institution of health insurance care, both private and public. That is, has this infusion of insured benefits increased the price so much as to actually result in a net decrease? His answer to the question was a tentative yes—that we have had a net decrease in public welfare and that the impact of price inflation has overcome the income transfer benefits of some of the insurance schemes. It is a very difficult paper; much of the first half of it consists of graphs of the kind that economists love to draw. The author does purport in the last part of it, however, to bring some empirical evidence to the support of his hypothesis. Outside the case studies to which Mr. Trowbridge referred, this is the most massive global study that I am aware of.

## PENSION PLAN FINANCIAL REPORTING

1. What have been recent developments in the United States and Canada relative to certification of actuarial reports on pension funds by qualified actuaries?
2. What are the respective viewpoints of the two professions, actuarial and accounting, as to what constitutes meaningful financial reporting for pension plans?
3. In preparing financial reports for the information of fund beneficiaries, what are the most appropriate methods for
   *a*) Valuation of assets?
   *b*) Valuation of liabilities?

CHAIRMAN WALTER L. GRACE: An increased interest in financial reporting of pension plans has come about as a result of the recent activity in the United States Congress on pension reform legislation. Among the major changes being considered are controls on funding and increased disclosure. Both of these areas involve the need for actuarial reports, and, if an actuarial report is required by legislation, the next logical questions are, what is to be in the report, and who will prepare it?

One thing seems certain—we are going to have new pension legislation—and this creates a number of questions. What role will actuaries play as a result of new legislation? Are there enough qualified actuaries? Will actuaries be licensed? Will there be any limitations on the actuary's freedom to select assumptions and cost methods?

Opinion S-4, amplifying our Guides to Professional Conduct, states that the actuary's responsibilities in the pension field involve, to a high degree, considerations affecting the public interest. If actuarial reports are required by legislation, will considerations of public interest increase the need to formulate a generally accepted set of actuarial principles as they apply to pension plans? And how will abuses within our profession be controlled—by a self-policing mechanism, or by restrictive governmental controls? These questions will be the first topic in our discussion.

Last spring an exposure draft of a document entitled "Audits of Pension Funds" was issued for comment by the American Institute of Certified Public Accountants Committee on Health, Welfare, and Pension Funds. This was a controversial document, setting forth the views of accountants as to what would constitute proper financial reporting for pension plans and what would be the respective roles of accountants and actuaries in the preparation of pension plan financial reports.

The American Academy of Actuaries actively opposed the proposals set forth in the audit guide, and the AICPA committee decided subsequently not to promulgate the audit guide in its original form. The question of the respective roles of actuary and accountant in preparing financial reports for pension plans has become an important issue and will be the second topic in our discussion.

One other feature of the exposure draft of the audit guide was that it appeared to require the use of the unit credit method in calculating pension plan liabilities. Also, it required that assets be valued at market. These two requirements, which are of serious concern to actuaries, will be the third topic discussed.

We will open this session with a discussion of the topics as they pertain to Canada. We should pay attention to what has been happening in Canada, because this may give us an excellent preview of the kinds of problems we may soon be facing in the United States.

MR. SAMUEL ECKLER: I propose to discuss those actuarial reports required under Canadian statutes and regulations. There are two sets of such public laws, one dealing with solvency and vesting and the other with the maximum deductibility of contributions for income tax purposes.

The provinces of Alberta, Saskatchewan, Ontario, and Quebec have pension benefits acts for employees in these provinces who are not under federal jurisdiction. The Federal Pension Benefits Standards Act covers employees under federal jurisdiction. Although they differ in many particulars, all of these acts concern themselves in a general way with ensuring the solvency of pension funds and with providing minimum vesting standards.

The federal and some provincial income tax statutes, regulations, and rules require actuarial reports and certificates under pension funds primarily to establish the maximum tax-deductible contributions. In the case of the Federal Income Tax Department, such a certificate must be prepared by a qualified actuary, and the recommendations contained therein must be approved by the minister of national revenue on the advice of the superintendent of insurance. These actuarial reports must include such information as a brief history of the fund, a description of the benefits provided by the plan, a statement of the actuarial bases used, detailed summaries of the data, and detailed summaries of the results of the valuation, together with a reconciliation with a previous valuation. Although the apparent intent of the actuarial report is to determine maximum deductible contributions for income tax purposes, the actuary must, in his certificate, state that his recommended contributions are

sufficient to discharge all the obligations of the plan with respect to the past service of employees.

RELEVANT PROVISIONS OF PENSION BENEFITS ACTS

In Ontario the regulations require the plan actuary to submit a report certifying

(a) the estimated cost of benefits in respect of service in the first year during which the plan is registered and a rule for computing such cost in subsequent years up to the date of the next report;
(b) the initial unfunded liability, if any, for benefits under the pension plan as of the date on which the plan qualified for registration; and
(c) the special payments required to liquidate such initial unfunded liability.

Triennially thereafter, the actuary shall help prepare a report certifying

(a) the estimated cost of benefits in respect of service in the next succeeding year and a rule for computing such cost in subsequent years up to the date of the next report;
(b) the surplus or the experience deficiency in the pension plan after making allowance for the present value of special payments required to be made in the future by the employer as determined by previous reports; and
(c) the special payments which will liquidate any such experience deficiency over a term not exceeding 5 years.

In addition, the regulations provide that, where the Pension Commission is not satisfied that the report has been prepared in conformity with generally accepted principles of sound actuarial practice, the report shall be amended so as to be acceptable to the commission.

The relevant provisions of the other pension benefits acts and regulations are substantially the same, with the following differences:

*Canada:* The actuary's report has to include a list of the assets in the pension fund, together with book and market values, and the Canadian regulation empowers the superintendent of insurance to require another report if he deems such a report to be necessary to ascertain that the requirements of the act and regulations are being fulfilled.

*Alberta:* The actuary's report must include the basis used in estimating the cost. The superintendent of pensions administering the act may not request an amended report as in the Ontario regulation.

*Quebec:* The actuary's report must include the actuarial method and assumptions used for the valuation of the plan, and the board administering the act may require additional actuarial reports similar to those required by the federal superintendent of insurance.

*Saskatchewan:* The superintendent of pensions administering the act may request additional actuarial reports but may not request that the original report be amended, as in the Ontario regulation.

I should like to stress a number of things in the regulations that are important to us.

1. There are no references whatsoever to actuarial costing methods or the actuarial assumptions that would be acceptable. The responsibility is left generally with the actuary preparing the report to select an appropriate costing method and actuarial assumptions, except for Ontario, where the Pension Commission may request that the report be amended. In the case of the federal and Quebec regulations, the authorities may request additional actuarial reports to satisfy themselves that the requirements of the legislation are being complied with, but not for the purpose of amending the original reports because the bases and methods used were not acceptable to the authorities.
2. It is required only that the actuary certify or represent in his report the amounts of the current service cost, the unfunded liability, and the experience deficiency, if any. One would expect, as a matter of professional responsibility, that the actuary would include in his report not only the actuarial assumptions and costing methods used but also the reasons therefor. Only Alberta and Quebec require that these be included in the report. Paragraph 4(b) of the Guides to Professional Conduct of the Society of Actuaries and Opinion S-4 dealing with actuarial principles and practices in connection with pension plans each emphasize the importance of appropriate assumptions and costing methods. Some of the pension authorities in Canada are concerned that these principles have not been followed in every case.
3. The actuary is not required to certify that, if the contributions and unfunded liability calculated by him were paid into the pension fund, there would be sufficient assets to discharge all its liabilities.

Under the Canadian and British Insurance Companies Act the actuary is required to certify that "in his opinion reserves make a good and sufficient provision for all unmatured obligations of the company guaranteed under the terms of its policies." Even though the situation for a pension fund is very much different from that for a life insurance company, it might still be desirable for the actuary to certify that the reserves calculated by him are sufficient to discharge pension liabilities, rather than merely certify as to their amount as presently required under the pension benefits acts in Canada.

## RECENT DEVELOPMENTS

In mid-1971 the Pension Commission of Ontario asked the Committee on Private Pensions of the Canadian Institute of Actuaries whether the assumption of 6 per cent interest in two different actuarial reports was in accordance with generally accepted principles of sound actuarial practice. The Committee on Private Pensions advised the commission that these two reports were prepared in accordance with such principles, after

obtaining the consent of the Council of the CIA. On further reflection, the council concluded that it would not be proper for the committee to give such opinions and thereby stand in secret judgment on the adequacy of reports to a governmental body that had been prepared by members of the Institute. The CIA advised the Ontario commission of this conclusion and also offered assistance in resolving this difficult question. Almost immediately thereafter, the CIA appointed a task force of three actuaries to study the problem. A report was completed in September, 1972, making a number of modest recommendations which were accepted by the CIA. These included a change in the wording of the Ontario regulations which empowered the commission to request an amendment to an actuary's report, the adoption of a Canadianized version of Opinion S-4 of the Society's Guides to Professional Conduct, an enlargement of the bylaws of the CIA dealing with the disciplining of its members, and the employment of commission actuaries to determine the acceptability of actuaries' reports.

This task force report was discussed at a CIA meeting in October, 1972, and then the problem was given to the Committee on Private Pensions. The committee met informally with the Pension Commission and presented a report on March 15, 1973, which was accepted by the Council of the CIA. This report included most of the recommendations made by the task force on professional standards and added the following important recommendations:

1. There is need for a stronger and more meaningful cost certification by the actuary, including an expression of his professional opinion. The CIA should develop and recommend an acceptable form of certificate language.
2. The CIA's Committee on Private Pensions has made a number of reports on the problems of private pensions and has provided assistance to the Pension Commission of Ontario on questions which have been referred to it. It is proposed that this service be continued.
3. It is also proposed that the activities of the committee be widened so that actuaries may submit reports or queries to the committee for review and comment by one or more individual members of the committee, under procedures which would be made known at a later date. A natural outcome of the committee's activities along these lines would be the eventual development of guidelines for the preparation of actuarial reports and statutory cost certificates.

### A FEW OBSERVATIONS

Should governments set down standards for valuing the assets and liabilities of pension funds and required contribution rates? If such standards are established, and they are specific ones—for example, that

the investment return rate should be 5 per cent—then the actuary acts really as a computer, albeit a highly sophisticated one. If, as is more likely, the standards are minimum standards, then the actuary does exercise a little more judgment. Where there are such standards, however, the actuary really does not make an independent judgment of the fund. Conversely, should the government rely entirely on the actuary's judgment as to the solvency and financial health of the pension fund? No standards whatsoever would then be laid down, but the actuary would have to lay his reputation on the line in certifying the solvency of the fund.

Difficulties are present in both approaches, and the problem undoubtedly will be resolved by taking a little bit of both. That seems to be the direction in which the situation is going in Canada. The difficulty with any standards laid down by government is that they become rigid. There is a natural conservatism on the part of public servants about changing standards, unless the most compelling reasons are advanced and unless all interested parties agree. On the other hand, I find it hard to envisage the government giving up its ultimate right to judge the solvency of pension funds. If a pension fund went bankrupt, the government rather than the actuary would suffer the voters' wrath.

The actuarial profession must continue to discipline itself vigorously, insisting at all times that actuaries do their work in a completely independent, professional, and honorable way, so that the frequency of bad reports will be minimized. Concurrently, the public will have to be persuaded through the profession's disciplining procedures and in other ways that an actuary's certificate or representation should provide adequate guarantees for the continuing financial health of pension funds.

MR. EDWIN F. BOYNTON: I think that in many respects the current situation in Canada is a forerunner of what we can expect will happen in the United States. We are probably two or three years away from the present state of developments in Canada. Obviously, there are some significant differences in the approaches taken by the respective government agencies involved. For example, I understand that the Canadian government specifically recognizes the Canadian Institute of Actuaries as the certifying body for actuaries under its statute. Attempts at this approach in the United States are met continually with the rebuff that it would be unconstitutional for a federal statute to give a private organization exclusive rights to such certification procedures. Despite these differences, I feel that there will be a great many similarities and that we can learn from the Canadian experience.

The principal contacts between the actuarial profession and the federal government in the pension field are with the IRS in matters concerning the deductibility of plan contributions and with the Labor Department in matters related to the disclosure acts. Neither of these agencies requires any type of certification by a qualified actuary, although many organizations, including my own, supply it anyway. I do know that the IRS actuaries and examiners have been hampered in the past by the lack of any standards for qualified actuaries.

I will open the discussion of the question of actuarial reports, from the United States viewpoint, by outlining current developments in Congress with respect to prospective certification requirements for actuaries.

### ACADEMY COMMITTEES

As most of you know, the accreditation/certification problem has been turned over almost completely to the Academy of Actuaries by the other legitimate professional actuarial organizations in the United States. Two current committees of the Academy have been very active in this effort, and a third one will soon become so if the proposed legislation becomes law.

The Accreditation Committee has been active through its Washington subcommittee since the middle of 1969. Its principal purpose is to acquaint legislators and their staffs and the executive branch staff with the actuarial profession and the need for certification of pension plan liability figures by qualified actuaries. The Committee to Study Certification Problems for Pension Plans, headed by Walter Grace, has also performed an important role in this area—first, by carrying out a comprehensive study relating the potential need for actuaries under proposed legislation to the supply of actuaries and, second, by reviewing specific certification requirements of proposed legislation and recommending changes therein to the staffs of the appropriate congressional committees.

The third committee, which was formed only recently, is the Academy Committee on Actuarial Principles and Practices in Connection with Pension Plans, headed by George Swick. Any agency which administers pension reform legislation undoubtedly will require more definitive statements of actuarial principles and practices than exist currently.

### BRIEF HISTORY OF DEVELOPMENTS RELATIVE TO CERTIFICATION

Since the formation of the Washington subcommittee of the Accreditation Committee, we have made slow but steady progress in seeking recognition of qualified actuaries, aided and abetted by our able Washington counsel, Dick Congleton. One of the first references to the need for qualified actuaries appeared in one of the early Dent bills, H.R. 1046.

This made no particular reference to the Academy but required that certain actuarial information be certified by an actuary "who meets such requirements for qualification as shall be established by regulations issued by the Secretary." The earlier Javits bills likewise had reference to the use of qualified actuaries. Then, in 1972, S. 3598, the original Williams-Javits bill, referred specifically to the necessity for qualified actuaries. The committee report accompanying the bill, which usually has much influence on regulation writers, stated: "The Committee is unaware of any significant licensing procedures for actuaries, at either the state or federal level, and this may to some extent explain inadequate funding procedures which have been found to exist. Generally speaking, the American Academy of Actuaries is regarded as the umbrella organization with the most rigorous standards for admission to membership, and the Committee intends that the Secretary should give due weight to membership in this organization or its equivalent as a basis for certifying actuaries under the Act." Similar language appeared in the 1973 committee report on S. 4, which was the successor to S. 3598 in the new Congress.

The first occasion for specific reference to Academy membership in a statute itself appeared with H.R. 2, submitted by Congressman Dent earlier this year, which states: "All statements required pursuant to this subsection [104(e)] shall be certified as being in conformity with accepted principles of actuarial practice by an actuary who is a member of the American Academy of Actuaries or who meets qualifications as the Secretary may establish by regulation." Under this section, the actuary would be certifying a number of actuarial items, such as the type and basis of funding, the amount of reserves (assets), the accrued liabilities (both vested and nonvested), the actuarial assumptions, and other miscellaneous items. In subsequent redrafts in response to suggestions by the Academy's certification committee, changes were made in the manner of presentation and, in addition, the actuary gives *his opinion* rather than making a certification. The word "certification" has always bothered me, since it implies an exactitude which generally does not exist in actuarial matters.

### H.R. 4200

The most interesting and most recent development regarding certification of reports by actuaries under federal legislation is the passage by the Senate on September 19 of H.R. 4200, the Retirement Income Security for Employees Act. The act represented a compromise between S. 4 and S. 1179 (the original Bentsen bill), which was reported out by the Senate Finance Committee on August 21. This bill and the accompanying report devote more space to actuaries than do any of the previous bills. They

contain the following features related to actuaries and certification of actuarial reports:

1. An enrollment of qualified actuaries would be made by the Internal Revenue Service (standards would be set by regulation), and this would be roughly equivalent to the present practice of the IRS for enrollment of persons to practice who are neither attorneys nor certified public accountants. The IRS could set its own examinations for such purpose, but the report does state that "at the Service's discretion, the examination may be conducted by actuarial professional organizations, and not by the Internal Revenue Service." In addition, the report suggests a type of "grandfather" clause for persons now practicing in the actuarial field who have demonstrated competence.
2. The IRS would have the power to suspend or cancel an actuary's enrollment for conduct unbecoming an actuary. Formal disciplinary proceedings might be held in the event of complaints against any enrolled actuary.
3. Under H.R. 4200, actuarial reports would have to be prepared at least once every three years and would have to include a description of the plan, the funding method, the actuarial assumptions used to determine the costs, and a certification by the actuary that the plan is being adequately funded. Broad discretion would be given to the secretary of the Treasury in establishing regulations to implement this provision. The actuary must certify that to the best of his knowledge the report is complete and accurate and that the actuarial funding method and assumptions are reasonable in the aggregate. Note here that the over-all test is for aggregate effect of the assumptions and funding method, so that the actuary would not have to defend each and every assumption independently as being reasonable, provided that the total package of assumptions produced reasonable results. Any change in the funding method would require separate approval of the secretary of the Treasury.
4. The committee report recommends the establishment of an actuarial advisory board to assist the secretary in implementing those provisions of the act relating to actuaries. Such a board would advise the secretary in such matters as the enrollment system for actuaries, reasonable standards and criteria for determining actuarial assumptions, and generally accepted principles of actuarial practice. Obviously, the Academy and the Society have a great interest in these matters, and, as indicated earlier, the newly formed Academy Committee on Actuarial Principles may well play a major role in the development of any regulations under the act.

In total, the bill represents the strongest endorsement of the need for qualified actuaries that has appeared in any bill or report to date. On the other hand, there are some aspects of H.R. 4200 which are troublesome and which I am sure will bother many actuaries.

In the first place, there is no specific mention of the Academy or the

Society in either the bill or the committee report. Second, there may be some cause for concern that the rather dictatorial powers granted to the secretary of the Treasury could well result in mandating minimum valuation standards and actuarial assumptions, which could end up being used as the standards for all plans.

In response to the first point, dealing with the lack of specific reference to the Academy, it is well to bear in mind that prior references of this type have all been in bills originating in the labor committees of Congress, whereas this bill has come out of the Joint Committee on Internal Revenue Taxation of the House and Senate. The attitude of the staff people in these agencies toward the endorsement of private organizations is admittedly different than that on the labor side. It is unusual for an act of Congress, or even a committee report, to endorse specifically a private professional organization as the only one that can handle certain requirements under an act. Obviously, we would have preferred to see the Academy mentioned specifically in the bill or report, but the omission does not mean necessarily that Academy or Society members will have to take an examination prepared by the IRS. I believe that we can demonstrate readily that the Society examinations themselves are more than adequate to meet the criteria established by the federal agencies.

With regard to the second point, the prospects of the IRS mandating minimum funding standards, it is much too early to predict with any accuracy how such things will work out ultimately, although I certainly would not deny the possibility of such standards. However, on the basis of conversations I have had with persons who drafted the legislation and the committee report, some of whom will be responsible for drafting the implementing regulations, there is no intent to dictate minimum actuarial assumptions. They believe that a qualified actuary should have discretion to select assumptions which will fit the particular case.

These attitudes may change with time and with different people in administrative positions, but if H.R. 4200 leads eventually to tight controls on actuarial assumptions for funding pension plans, my guess is that it will be a direct result of lack of self-policing on the part of Academy and Society members. If certain members of these professional organizations continually stretch assumptions to the limit and are unduly influenced by plan sponsors in selecting assumptions, then I would say that there is an excellent chance that assumptions and methods will be controlled. All I am really saying is that under such a bill the actuary is being given a great deal more responsibility than he has had heretofore. In accepting this responsibility, actuaries for pension plans will have to assume a much more independent position and not be as heavily in-

fluenced by wishes of the plan sponsors as they have often been in the past. The actuary will have to move away from his status of being an advocate for his client and move closer to the posture of the accounting profession, which maintains a high degree of independence in its audit function.

It is obvious from all this, as it was from Sam Eckler's remarks earlier, that the federal governments in our two countries are going to play an increasing role in the regulation and policing of the actuarial profession. I know this rankles many actuaries, including myself, who feel that the professional actuary should have complete independence to make his own decisions. However, the sooner we face up to the fact that actuaries are going to have to accept responsibility for certifying to actuarial liabilities in pension plans, with consequent restraints on their practices, the better off we will be. The price of legal recognition of the actuarial profession will be restrictions, hopefully modest, on the freedom of the actuary. If we do not accept such restrictions and do not do our best to work responsibly within them, the final result will be mandated actuarial standards for pension plans which will reduce the actuary to the role of a sophisticated clerk.

MR. JAMES F. BIGGS: Although unkind, it may not be too inaccurate to suggest that the viewpoints of the actuarial and accounting professions may be paraphrased along these lines. The actuarial profession, in the discussion paper distributed at last year's New Orleans meeting, seemed to be saying that this is a terribly sophisticated problem which our equally sophisticated committee has been working on since 1966, and we understand the complexities so well that it is very unlikely that we will ever reach a conclusion. The accountants, on the other hand, seem to have demonstrated in the proposed audit guide that they do not fully understand the problem, and, as a result, they have been able to arrive at a solution and the matter is settled.

The audit guide itself is a composite of instructions outlining procedures to be followed in conducting the audit, prescriptions for the content and format of the financial statement, and policy statements relating to the accounting treatment of certain items. The principal areas of actuarial criticism were three:

1. The use of fair market value for reporting of assets.
2. The apparent requirement for use of the unit credit cost method in determining liabilities.
3. The apparent assertion by the accountant of the right, duty, and capability to pass judgment on the actuary's work.

Traditionally, the actuary has been an adviser to management, and his reports have been directed to management. Reporting and disclosure to plan participants, to the public, and to various regulatory bodies have been by-products of this primary duty. The accountant, on the other hand, in his role as auditor, does not prepare the financial statements of his client. His role is to examine the statements which the client has prepared and to express to third parties a professional opinion as to whether they fairly present the financial position of the entity under examination.

The language used by an auditor in reporting on his examination is rather rigidly prescribed, as may be noted from an examination of the certificates in a number of financial reports. The auditor must indicate whether the statements were prepared in accordance with generally accepted accounting principles and whether these principles were applied in the current year on a basis consistent with the preceding year. He must disclose any change in accounting policy which had a material effect on the statement, including the nature and effect of the change.

Generally, three kinds of opinion can be expressed:

1. An unqualified opinion.
2. A qualified opinion, which (*a*) states certain exceptions, such as a limitation imposed by the client on the scope of the engagement, or a deviation from generally accepted accounting principles, or (*b*) is "subject to" future outcomes as to which there is great uncertainty, such as the recoverability of major research and development expenditures, the consequences of significant litigation, and the like.
3. An adverse opinion, in which the auditor finds that the statements do not fairly present the financial condition in accordance with generally accepted accounting principles.

Along with these, there is the disclaimer, or inability to express an opinion, because the uncertainties are too significant or material.

Here is, in one sense, the crux of the present problem. Auditors must rely constantly on the opinions of other professionals in reaching their conclusions. For example, they rely on the opinions of attorneys as to expected consequences of pending litigation. However, they must satisfy themselves as to the apparent qualifications of such experts, and the reasonableness of the opinions they have reached, in order to state an unqualified opinion.

In the past, auditors of life insurance companies and pension funds frequently have stated their reliance on the actuary in the opinion paragraph. However, the actuarial liabilities in both cases obviously are crucial to the validity of the statement. The AICPA, therefore, has concluded that, in the case of a life company, the auditor cannot qualify

his opinion by reliance on the actuary. Unless he can satisfy himself as to the reasonableness of the actuarial reserves, he must disclaim an opinion. The proposed audit guide seeks to expand this reasoning to audits of pension funds.

Another difference in viewpoint is with respect to matters of independence. The actuary can and does engage in a number of actions involving a variety of relationships. Consulting actuaries may invest in corporate clients, or even in client insurance companies. I have known some actuaries who took their fees from new ventures in stock. An actuary may represent an employer in collective bargaining one day and prepare certifications to the union or the employees the next. A home office actuary will give advice to a pension fund, although he is employed by a vendor to that fund. All of these functions may be entirely legitimate, but they involve relationships which could be questioned.

The auditor, on the other hand, takes great pains to avoid even the appearance of impropriety. He may have no financial interest in the affairs of a client. A partner in an accounting firm may not invest in the securities of any audit client of the firm, anywhere in the country. He cannot enter into any financial dealings with the officers of any such client. He cannot make any material unsecured loan from any financial institution if his firm audits all or any part of the institution. In short, every step is taken to give the public no opportunity to believe, however wrongfully, that the firm's opinion could be influenced by any partner's financial interest. Comparable restrictions apply to management and staff personnel.

A final area of contrast is in the establishment of professional guidelines and the expression of professional opinion. Actuaries are hesitant to pass rules for other actuaries and reluctant to give others the right to make rules for them. Accountants, on the other hand, have been engaged for a long time in efforts to codify both the principles and the practices of their profession in an effort to narrow differences in reporting practices and increase the understandability and comparability of financial statements. In part this may be a consequence of the relative size of the two professions. It is estimated that there are 150,000 certified public accountants in the United States, of whom 80,000 are members of the AICPA. A group this large may require more formal structure to co-ordinate its activities. Of course, it also provides a much larger manpower pool to do the job.

The audit guide on audits of pension funds is but one example of this activity. A number of such audit guides have been issued. Each one has been prepared by a specialized committee with particular competence in

the field involved. Each guide is submitted to the AICPA Committee on Auditing Procedure and thence to the Accounting Principles Board of the AICPA for final approval. When released, it constitutes a formal opinion of the specialized committee involved, and each AICPA member may be called upon to justify any departure from its terms.

Audit guides are concerned principally with procedural matters, although some accounting principles are usually set forth as well. Accounting policy on major topics normally has been set forth in *Opinions* issued by the Accounting Principles Board. Most of us are familiar with *APB Opinion No. 8*. These opinions were prepared by a committee appointed by the board and (like the guides) circulated to a wide range of interested persons and groups in exposure draft form for criticism and comment. Upon approval by a two-thirds majority of the board, these *Opinions* then become essentially binding on the members of the Institute.

The last step of these procedures has been changed in recent months. A new Financial Accounting Standards Board has been created to establish a clear posture of independence and public responsibility at the top. The board's members have resigned their business and professional affiliations in order to serve full time as members of the board. They will be responsible for the promulgation of standards and for the encouragement of adherence to these standards.

I am not suggesting that we follow the format of the accounting profession or that their procedures necessarily have produced a higher level of professional performance than our own, looser structure. I do believe that their approach increases their professional stature in the eyes of legislators, the SEC, and the public and therefore gives them a more authoritative voice in their field of competence than we seem to enjoy. I believe that it helps the individual member who is seeking to do a professional job in the face of heavy client pressure, and I believe that it helps in the process of disciplining the occasional member who may yield to these pressures.

Accountants and actuaries share the common goal of producing meaningful reports to management, shareholders, beneficiaries, and the public on the condition of pension funds. Unless the two professions proceed co-operatively toward that goal, neither of us is likely to get there.

MR. BOYNTON: Question 3 of the program outline is: "In preparing financial reports for the information of beneficiaries, what are the most appropriate methods for (*a*) Valuation of assets? (*b*) Valuation of liabilities?" To put this matter in proper perspective, consider the following background facts:

1. There are a large number of recognized funding methods in common use, many of which do not even define accrued liability, and all of these are strongly endorsed by one or more actuaries as the proper way of doing things.
2. There probably are as many methods of valuing assets as there are consulting actuaries—in fact, perhaps even a greater number, since I myself use more than one method and suspect that others do as well.
3. The Society of Actuaries has had a pension committee of one sort or another considering this and related questions for more than ten years without reaching any publicized conclusions.
4. The accounting profession, after probably ten or more years of study, attempted to answer these questions in the exposure draft of "Audits of Pension Funds," issued last spring. The proposals in the guide were objected to so strongly by both the business and the actuarial communities that the guide has been withdrawn at least temporarily and the project turned over to the Financial Accounting Standards Board.
5. The IRS has never been so brazen as to dictate a single funding method or method of valuing assets.
6. There probably are at least seventy-five actuaries in this room who are ready to disagree violently with any method I propose.

Considering all these factors, it would be very presumptuous of me to propose a single method of valuation of assets or liabilities as the most appropriate for informing fund beneficiaries. As a matter of fact, I doubt whether there *is* a method for defining these items which can be understood by plan beneficiaries.

The actuarial profession, however, is facing a problem of professionalism in connection with these two areas which has been more or less forced upon us by two other groups. First, the accounting profession has already promulgated one exposure draft regarding pension funds and is determined to promulgate some type of audit or accounting guide which will attempt to prescribe a balance-sheet format for pension funds, presenting both assets and liabilities in some perspective. Second, the Congress of the United States is deciding upon the form of pension fund regulation. It is certain that any such legislation will require some form of reporting of assets and liabilities to fund beneficiaries. Time is growing short for the actuarial profession to lend its expertise in the situation and come up with workable solutions to these reporting requirements.

With respect to the accounting profession, the audit guide as proposed by the AICPA required reporting of both vested accrued liabilities and total accrued liabilities, as well as the use of market value of assets, in presenting a balance-sheet approach to disclosure of pension fund assets and liabilities. The audit guide as drafted was not completely clear as to whether the accrued liabilities had to be determined using the unit credit

funding method, but many actuaries did read this into the guide. From subsequent conversations with the audit guide committee itself, we were assured that it was not intended to limit the funding method to the unit credit approach.

George Swick and I had a long session with the audit guide committee in San Francisco, and we were asked repeatedly to define a funding method that was appropriate for use in accounting statements. We could not speak for the actuarial profession, but we both felt that it was not desirable to prescribe a single funding method. Rather, the presentation of the assets and liabilities should be prepared by the actuary and put in proper perspective by him, with accompanying comments. The accounting profession, however, is very emphatic in its desire to have a uniform standard for all pension plans. Likewise, some of the committee felt strongly that there should be one uniform method of valuation of assets. In this case, market value won by default, since it could be justifiably argued that the original cost value becomes irrelevant after a few years, and the only other universally recognized value is market value.

The same audit guide committee has been meeting subsequently and exploring these two subjects in depth in order to pass on recommendations to the Financial Accounting Standards Board. One possible solution to the question of accrued liabilities is to allow them to be determined by the actuarial method in use, provided that the accrued liability shown would not be less than the single-sum value of accrued benefits (that is, minimum value = unit credit method value). I understand that this proposal will be given further consideration by the audit guide committee later this month, when it meets on the West Coast.

The other organization that will be looking for answers to these questions is the agency (or agencies) that will ultimately handle pension regulatory legislation. It now appears that this will be primarily the IRS. In any event, such legislation will call for display of many actuarial figures and liabilities and a description of the funding method. It appears at the moment that there will be no attempt to prescribe any particular type of funding method, either for minimum funding purposes or for disclosure purposes.

On the other hand, on the question of valuation of assets, H.R. 4200 as it passed the Senate requires the use of a five-year running average of market values in the determination of minimum funding requirements; that is, the Funding Standards Account (note that the initials of this are F.S.A., which I have been told was intentional) used to make this minimum test will be measured against a five-year running average of the

market value of the fund assets. It is still a little difficult to understand how the IRS could have come up with this particular choice of asset valuation method, since it is in use in only a small minority of pension funds in the country. The recent Chase Manhattan survey indicates that among large companies only 10 per cent or so were using a market-averaging approach. Among the smaller companies the percentage is much lower, and it probably approaches zero among the smallest companies.

It is unfortunate that the Congress, through its committee staffs, came up with this single method of asset valuation, apparently without any effort to seek advice from the actuarial profession. It is unnecessarily restrictive and will tend to force all funds into using this approach. I hope that before the bill clears Congress the provision will be changed to allow more flexibility and to let the secretary of the Treasury, after consultation with the actuarial profession, write regulations which will permit more flexibility in asset valuation methods.

My own feeling is that the actuary should be given considerable discretion in the presentation of the balance sheet of the pension fund, provided that whatever figures are disclosed in the way of actuarial liabilities or asset values are accompanied by an appropriate explanation. I do not believe that very many plan beneficiaries will really understand the implications of whatever figures are presented, and it may be even more misleading if a single method is prescribed. It is important, however, that the presentation by the actuary be reasonably complete and self-contained, so that a person with some knowledge in the field will have an understanding of the figures as presented. The insistence on a single method (by the federal government or by the accounting profession) which is inconsistent with the funding approach being followed by the company could lead to great confusion on the part of beneficiaries, resulting in cries that the plan is seriously underfunded or that the plan is significantly overfunded and that the benefits should be liberalized.

The program refers to the presentation of "actuarial liabilities," whereas most of the current questions arise in connection with defining "accrued liabilities" of one type or another. There is a secondary question (or perhaps it is the primary question) as to whether the total accrued liabilities or just the vested accrued liabilities should be shown.

Complications arise particularly in connection with plans that use the aggregate cost, frozen initial liability, or attained age normal cost method, where there is no accrued liability developed as such. In these circumstances it is probably misleading, and not very responsive to the information requested, to show the total present value of all future benefits as

accrued liabilities. Perhaps an alternate type of accrued liability could be calculated for reporting purposes, with the stipulation that the amount shown would be not less than the amount determined by the unit credit funding method.

I look upon the method of asset valuation as another actuarial assumption which the actuary must determine, along with the interest rate, salary scale, and so on, taking into account the type of plan, degree of funding, amount of unrealized appreciation, types of investment, and other factors. The method used by the actuary should be described as a part of the presentation of the actuarial balance sheet.

MR. DAVIS H. ROENISCH: Experience in state and local public retirement systems has led me to distinguish between the financing of a retirement program and the extent to which it is funded. A great many complex and technical judgments go into the determination of the financing requirement to maintain a system in sound actuarial condition. These include projections of future turnover, salary increases, and the choice of actuarial method. These judgments are dominated by the financing objective.

For example, quite frequently public systems wish to maintain the pension contribution requirement level as a percentage of payroll as between tax generations. In a program which bases benefits on final average earnings, this, in turn, virtually requires the use of the entry age normal level funding method.

On the other hand, the adoption of these financing techniques does not prevent the measurement of the success with which they are maintaining the system in sound condition by a common funding standard. Such a uniform standard is easily available, based on events which have occurred to the date of valuation.

A uniform minimum funding standard can be based on the value of the proportionate benefit payable at age 65, which is based on the member's earnings and service to date. The value of this benefit can be computed, using only mortality and interest assumptions. And, for purposes of making it explicable to the layman, the funding measurement can be described as the amount of money which would be necessary to purchase all the retirement benefits earned to date from an insurance company should the system be terminated at that point.

Experience has shown that legislators, taxpayers, and the membership can readily distinguish between the ongoing financing requirement as a level percentage of payroll and the minimum measure of the success of that financing program determined by relating the asset accumulation to

date to the unit credit obligation. This does not suggest that the unit credit method of financing should be used universally, nor need it invite pressure by unions or other covered groups, or a reduction in the contribution levels by the date of difference, provided that it is presented as a minimum funded position. Even if this happens, it is a separate problem from the question of demonstrating that the actuarial judgments on the financing question are working out in fact.

To state a simple analogy, a person does not have to know how the engineer created an adequate flow of water into a reservoir to be able to judge what the level of the water is and the rate at which it is filling up. Use of unit credit calculations based on events occurring to date has proved very useful in laying to rest questions concerning the adequacy of the funding program, without impairing the actuary's ability to have the program soundly financed on an ongoing basis, with assumptions and an actuarial technique which are appropriate to that plan and the characteristics of the membership group.

MR. LAURENCE E. COWARD: I find myself in substantial agreement with Sam Eckler's remarks but would like to add two comments.

The Canadian Institute of Actuaries Committee in 1971 found that two actuarial valuations using 6 per cent interest were acceptable. However, the committee declined to express an opinion on reports using higher interest rates (for example, $7\frac{1}{2}$ and 8 per cent), and the Ontario Pension Commission finally ruled these reports to be unacceptable in view of all the circumstances. It was after this incident that the CIA committee concluded that it was not proper to give opinions without the knowledge of the actuary concerned.

When the CIA committee made its recommendations in 1973, the Ontario Pension Commission indicated agreement insofar as the recommendations affected the commission. Accordingly, the Ontario regulation was altered to agree exactly with the last part of section 4(b) of the Guides to Professional Conduct. This clears the way for the CIA rather than the government to set the standards for actuarial valuations under this regulation. If, however, the CIA is to perform this function, it seems essential that more specific guidelines (quoting numbers) should be established, together with stronger and more meaningful certifications in actuarial reports.

MR. ROWLAND E. CROSS: Considerable attention has been given in the last year or two to the use of sophisticated cash-flow analysis techniques as a supplement to, if not a substitute for, the traditional actuarial

valuation. A description of this approach, written by Preston Bassett, appeared in the November-December, 1972, issue of the *Harvard Business Review*. Although the method as he presents it would perhaps need to be simplified to make it economically feasible for use in small or middle-sized situations, the idea of using these projections of future experience on various alternative assumptions should have wide applicability.

In attempting to establish a basis of common understanding with the accountants, actuaries might suggest this procedure, which would seem to be a type of analysis more familiar to accountants than traditional actuarial mathematics. Possibly this could prove to be a kind of bridge between the two professions and also serve to facilitate agreement on ways of presenting "actuarial" results in financial reports.