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VARIABLE LIFE INSURANCE

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MR. IAN M. ROLLAND: The actuarial literature is filled with material describing different approaches to the design of a variable life insurance (VLI) product. Actuaries certainly have shown their ingenuity in developing a variety of products. Very likely this innovation will continue for some time to come as actuaries attempt to remedy what they see as deficiencies or flaws in the early product designs.

Unfortunately, the regulators do not appear to be viewing this innovativeness with a great deal of pleasure. In fact, it appears that the possibility of innovation has caused the regulators to react with proposed regulations that will restrict greatly the flexibility of companies in developing VLI products. The original draft of the NAIC model variable life regulation restricted VLI products to only two types—the premium-paying addition design originally developed by the New York Life and a paid-up whole life addition design originally developed by the Equitable. The second draft of the model regulation added a third design which would involve a combination of paid-up term additions and paid-up whole life additions. This third design is identified with the Lincoln National. In any case, it appears that the regulators have decided, at least in the early stages of the offering of VLI, that the alternative benefit designs would be greatly restricted. It is, of course, the hope of most people in the industry that more flexibility will be permitted at a later date, so that innovation can take place in the development of VLI products.

At the present time, ten VLI registration statements have been filed with the Securities and Exchange Commission. In my discussion of alternative benefit designs, I have decided to explore the types of products described in these ten registration statements. Two of the filings with the SEC include two types of variable life products, and thus there is a total of twelve benefit designs on file with the SEC. Four of these are based upon the paid-up addition approach developed by the Equitable; four are patterned after the premium-paying addition approach of the New

York Life; one is based upon a combination of paid-up term and whole life insurance as developed by the Lincoln National; two follow the approach developed by Mr. Guy Fairbanks, Jr., which is described in the *Transactions* (XXI, 400); and one uses the design described by Charles Baughman (*TSA*, XXI, 379).

1. *The premium-paying addition design.*—The distinguishing feature of this product is that the excess earnings of the VLI separate account are applied to cause the face amount to vary under the constraint that the reserves and cash values per dollar of variable face amount are equal to the reserves and cash values per dollar of face amount under a similar fixed-dollar policy. This is equivalent to using the excess interest earnings of the separate account to purchase positive or negative premium-paying VLI additions. This approach is, of course, the basis for the paper authored by Messrs. Fraser, Miller, and Sternhell (*TSA*, XXI, 343).

2. *The paid-up whole life addition design.*—The distinguishing feature of the paid-up addition design is that the excess interest earnings of the separate account are applied to cause the face amount to vary through the periodic purchase of fully paid-up whole life additions. These additions may be either positive or negative. The face amount at any point in time may be expressed as the sum of a level initial amount of insurance plus or minus the accumulated amount of the paid-up whole life additions purchased by the excess earnings up to that point of time. The reserves and cash values are equal to the sum of the reserves and cash values under the pieces making up the face amount of the policy.

3. *The combination paid-up term and paid-up whole life addition approach.*—Under this product design, a portion of the excess investment return of the separate account is used at the early policy durations to purchase paid-up term insurance additions, while the remaining portion of the excess interest purchases permanent whole life additions. Approximately 15 per cent of the first month's excess investment earnings purchase one month's paid-up term insurance. This percentage decreases to zero at the tenth policy year. This approach gives the design additional responsiveness to the investment experience of the separate account at the early durations, while sacrificing relatively little at the later durations.

4. *The Fairbanks design.*—This design is based upon the concept of viewing the death benefit under a fixed-dollar policy at the end of year t as composed of (1) a fully funded portion equal to the amount of paid-up insurance divided by the reserve and (2) an unfunded portion equal to the difference between the face amount of the policy and the amount of paid-up insurance provided by the reserve. In applying this concept to VLI, at the beginning of each year t, one-year term insurance of P_x/P_{x+t} is purchased in the general account, and a piece of fully paid-up VLI is purchased in the separate account with the increase in reserve. The initial amount of variable paid-up life insurance purchased each year matches the current year's reduction in the amount of fixed-dollar one-

year term insurance. Thus the total death benefit is equal to P_x/P_{x+t} plus the current-year death benefit under the outstanding pieces of fully paid-up VLI. The net level premium always is exactly sufficient to purchase the fixed-dollar one-year term insurance and the new piece of fully paid-up VLI.

5. *The Baughman design.*—This is a design for an n-payment life policy under which, at the beginning of each year during the premium-paying period, $1/n$ of the original face amount is converted into fully paid-up VLI. The unconverted portion of the initial face amount is funded through the general account. Thus the total death benefit during the premium-paying period is equal to the then current value of the fully paid-up VLI plus the amount of the unconverted death benefit funded in the general account. Therefore, at the beginning of each year, a transfer is made from the general account to the separate account in an amount sufficient to purchase the recommended amount of paid-up VLI benefits. If the net level premium exceeds this amount, the excess goes into the general account, but if the net level premium is not sufficient to purchase the variable paid-up additions, the deficiency is withdrawn from the general assets of the company.

Another important feature of the VLI design is the frequency with which benefits under the contract will be changed. The ten filings to date include three which contemplate annual changes in benefits, three which contemplate monthly changes in benefits, and four which use a daily change. Of the ten filed thus far, nine are on a nonparticipating basis while only one contemplates the payment of dividends.

An additional point of diversity in the product design involves the policy loan provision. It is contemplated that the model variable life regulation will require some form of policy loan feature, and it is likely that the type of loan permitted will be restricted to some extent. Four of the ten filings provide for a fixed-dollar loan to be secured by the cash value of the VLI policy. These loan provisions require generally that the policy will be converted automatically to a fixed-dollar policy if the loan exceeds a given percentage of the cash value. If such a conversion takes place, the fixed benefit will equal the variable benefit on the date of the change. The premium payable for the fixed benefit policy will equal the premium for the variable benefits times the ratio of the fixed benefit to the minimum sum insured under the variable contract. Cash values on the fixed basis equal tabular cash values times the ratio of the fixed benefit to the minimum sum insured. Four of the SEC filings use a provision for partial surrender of the policy either in lieu of or in addition to a specific policy loan privilege. Under the partial surrender, both the benefits and premiums under the policy are reduced to reflect the portion of the policy surrendered. The surrendered portion may be reinstated subject to evidence of insurability. One of the filings includes a variable loan provision. Under this approach the amount of the loan varies to reflect the investment experience of the separate account. Thus the policyholder may have to repay either more or less than the amount of the original loan depending on investment performance. One advantage of this loan provision is that the loan may be repaid without evidence of insurability. Two companies adopted another approach to the loan provision. Under this approach the individual policyholder's investment return is calculated as a combination of the interest the company receives on the loan plus the separate account investment return on the portion of the cash value not under the loan. Thus every policy with a loan will have a unique cash value and death benefit depending upon the portion of the assets loaned and the time at which the loan was taken out.

These ten registration statements most likely will undergo some change as a result of the final adoption of the NAIC regulations and as a result of SEC review of the filings. It is apparent, however, that there is already a definite tendency for companies to innovate and develop their own approaches to VLI.

MR. JOSEPH R. PICKERING: I suppose that everyone here knows that on January 30 of this year the SEC issued its ruling that regulation of VLI was to be left to the states, on the grounds that states know best how to regulate insurance products and insurance companies. VLI contracts were held to the securities, however, and the SEC retained jurisdiction over disclosure of the material information about the contract and jurisdiction over the selling of securities. Specifically, the ruling provided that VLI would be subject to the 1933 Securities Act (known as the "truth in securities" act) and subject to the 1934 Securities Exchange Act (requiring sale by licensed broker-dealers). Neither the contract nor the separate account nor the company was to be subject to the 1940 Investment Company Act or to the 1940 Investment Advisers Act.

Looking first at disclosure problems, the chairman of the SEC suggested that the industry work with the SEC staff on developing guidelines for the prospectus. Accordingly, an ad hoc group of the American Life Insurance Association developed proposed guidelines which were submitted to the SEC in March.

The ruling mentioned several examples of items which must be disclosed. The disclosure must cover, for example, the operation of the contract, the investment policies of the separate account, the extent of the policyholder's participation in the investment experience, the nature of the investment risk borne by the policyholder, and a clear discussion of such costs as sales charges, administrative and mortality charges, risk charges, and management fees. This seems to cover all costs of the life insurance contracts and is the area that created the most work and controversy.

There is no way to determine such costs on an individual basis in a life insurance contract. As we actuaries know, all the costs of the life insurance company are averaged together in a reasonably equitable manner to produce a premium rate. Since no individual person is or can be precisely average, the disclosure of average costs would be meaningless to a particular customer. It was finally agreed that the only information meaningful to an individual would be the disclosure of what he pays and what he receives. Consequently, the proposed guidelines for the prospectus recommended that two tables be included in the prospectus. Table A would show, for ages 25 and 40, the premium rate per $1,000 for a $10,000 contract for a standard risk, with death benefit and cash value calculated for hypothetical performance rates of 0, 4, and 8 per cent. Table B would show, for mutual companies, numerical information regarding dividends on the same hypothetical performance rates. Furthermore, the guidelines suggest that such information be furnished for the applicant's own age if he so desires. To date there has been no formal response from the SEC regarding these proposed guidelines. I have heard informally that the SEC may suggest that these tables be prepared for specific premiums—say $300 for age 25 and $500 for age 40—rather than per $1,000. All the companies whose prospectuses I have seen have followed the guidelines.

In granting exemption from the 1940 Investment Company Act, the SEC made it quite clear that they felt it particularly important that state regulations provide contract-holder protection in the following areas:

1. Portfolio securities should be valued in a uniform manner.
2. Contract holders should be furnished annual statements containing information similar to that in the annual reports and proxy statements of regulatory investment companies.
3. Safeguards should be provided against unauthorized and improper changes in investment policies.
4. Transactions with affiliates should be restricted.
5. Safeguards against excessive management, administrative, and sales charges should be provided.

Moving on then to state regulation, the executive committee of the NAIC asked each state to withhold approval of VLI contracts until its C4 Subcommittee had developed a specific regulation. The C4 Subcommittee held several meetings—some open to the industry and some closed—culminating on July 24 when a first draft of a regulation was circulated. In the meantime, many ALIA groups had been working on recommendations as to the five specified areas. Also the industry advisory committee to the C4 Subcommittee was working on the problems.

The July 24 draft regulation, like most first drafts, was far from satisfactory. The industry had less than two weeks to develop written responses before the C4 Subcommittee met on August 8. Since that meeting, a second draft has been prepared which, although vastly improved, still has, in my opinion, several poorly thought-out requirements.

The first of these is that VLI is defined quite narrowly, thereby limiting its future development. It is my understanding that this was done deliberately by the subcommittee so that the NAIC would have time to better understand VLI.

Another undesirable feature of the regulation is that it requires disclosure of all commissions to all agents for each policy year. This may not seem too bad at first glance, but in my opinion such disclosure will be misleading to the policyholder.

A third unfortunate feature is a requirement to disclose the ratio, year by year, of the amounts going into the separate account as a percentage of the gross premium for the policy. This again sounds sensible until it is examined. Comparisons between participating and nonparticipating contracts on this point certainly will favor the stock company.

A fourth requirement, by far the most unfortunate, is that during the first policy year the policyholder can lapse his policy or request termination and be entitled to receive back 50 per cent of accrued premiums and 100 per cent of unaccrued premiums. This requirement comes very close to sounding the death knell for VLI. It invites replacement, may force deferral of commissions, and may even force deferral of the variability of VLI. Furthermore, it does not address itself to regulation against excessive charges.

An actuarial recommendation (which was given to the NAIC subcommittee through its industry advisory committee) was a three-pronged approach. First, in order to answer the question of overselling, it was recommended that there be a ten-day-free-look requirement for VLI. Second is the proposal that policyholders who terminate within eighteen months be given an opportunity to change to a fixed-dollar contract. Third, and most controversial, is the proposal that if the premium rate for a given policy exceeds a specified amount, adjustments must be made to the cash value of the policies. The specified premium amounts were defined to be consistent with the minimum-multiple test in the SEC ruling but were made plan-specific. The adjustment to the cash value was such that, if a company charged an excess premium, then the present value of all future excesses at the time of surrender would be added to the cash value. This is a severe penalty for charging an excessive premium, and it created substantial disagreement among various companies.

Other important aspects of the draft regulation which should be mentioned are the following:

1. A flat limitation of 1½ per cent on all asset charges exclusive of tax charges. The 1½ per cent applies to the total asset charges to the customer's account, including charges made by a registered investment company if the insurance company takes the unit investment trust approach.
2. An elaborate procedure which must be followed before the investment policy of the separate account can be changed. The procedure involves clearance with the insurance commissioner of the domiciliary state, notification to all policyholders, a state-supervised hearing regarding proposed change, and finally an escape valve for policyholders who disagree with the proposed change. Such policyholders must be permitted the option to convert to a fixed-dollar contract as of the original age, subject to payment or receipt of the difference in cash values and further subject to restriction that the net amount at risk cannot increase.
3. The great variety of reports which must be furnished to applicants, policyholders, and insurance departments.
   a) To applicants—a mini-prospectus, including some items which are also in the federal prospectus. It is not clear yet whether duplication will be required or whether one form can cover both state and federal requirements.
   b) To the policyholder—an annual report to the policyholder, furnishing numerical information about the status of his particular policy and an annual report about the operation of the separate account as a whole. These may be required to be in two separate mailings, or, hopefully, a combined mailing would be permitted.
   c) To the insurance department—annual statement of the business of the separate account, copies of forms of the material given to applicants and policyholders described above, and copies of all advertising material and changes in advertising material concerning VLI. This last means *all* advertising material, including even prepared sales talks for agents' use. This material must be filed with every state in which a company does any VLI business.
4. The policy form must describe the benefit base to which excess performance is applied to determine the variation in the death benefit payable.
5. The separate account will not be permitted to hold real estate and certain other items as qualified investments.
6. An automatic premium loan or withdrawal provision will be mandatory.
7. Any riders such as waiver of premium, accidental death, term insurance riders, and the like, must be on a fixed basis only.
8. At least one of the nonforfeiture options must be on a variable basis.

9. A policy loan or withdrawal provision must operate in such a way that the premium payable on a policy is not affected.
10. Variable premium, variable benefit policies are prohibited. In fact, the policy must provide for a fixed basic premium throughout the premium-paying period.
11. Apparently only three types of VLI will be permitted. These might be described as a premium-paying design, a paid-up whole life design, and a paid-up term insurance and whole life design.

The 1959 Federal Income Tax Act for life insurance companies was developed in order to tax companies on their gain from operations. However, it was recognized that mutual companies could declare dividends of such amount that, if a full deduction were allowed, they would pay little or no tax. This was considered unacceptable because not enough tax revenue could be produced. Then, because of the essentially tax-free buildup in reserves for policyholders, the income from investments of the mutual companies would escape tax altogether. Consequently, Subchapter L provides for a limitation on the amount of the deduction for policyholder dividends. The limitation works in such a way that mutual companies essentially pay tax on the investment income not credited to policyholders in reserves.

With this background, consider VLI where investment income including capital gains is credited to policyholder reserves. One construction of the existing code would indicate that no tax would be payable by mutual companies issuing VLI. This would so reduce tax revenue that the Treasury could be expected to oppose this construction.

Former Internal Revenue Service Commissioner Johnnie M. Walters stated in a public address that there were some possible problems with VLI. This speech raised for the first time some question as to policyholder taxation with respect to income, estate, and gift tax. This was quite a surprise to industry people, and it is believed that upon explanation of VLI the question will be easily resolved. There was also some question as to the tax treatment at the company level. Clearly, clarification of law or regulation is called for.

Now let us consider why the present code structure does not necessarily fit VLI. Basically, there is a difference in the nature of the income behind VLI. Generally, it is thought that VLI will produce income that is not traditionally taxable in fixed-dollar insurance, that is, the benefits will be based in some large measure upon unrealized as well as realized capital gain items. In addition, contrary to the present tax treatment of fixed-dollar insurance, the present taxation of marginal investment income not needed for reserves would have no counterpart in VLI, since there is no marginal investment income that is not credited to the contract. These are differences both in concept and in results. One additional conflict is in the gain or loss from operations. An anomalous result can be obtained in the deduction for reserves when, for instance, the market goes down. When this happens, reserves go down, with a resulting increase in gain from operations; conversely, when the market goes up, the deduction goes up, producing a smaller gain from operations.

All the foregoing leads to the conclusion that certain adjustments need to be made, and they should meet the general criterion that a tax be developed that will correspond to fixed-dollar taxation and produce satisfactory revenues for the Treasury; finally, no odd results should arise from unique characteristics of the VLI product. Some possible ways of approaching the problem would be the following:

1. For federal income tax purposes, require each company separately to calculate a single investment yield and company's share thereof for all of its variable life separate accounts (VLSA's), which accounts would be segregated from all of its other accounts.
2. Include in the gross investment income of the VLSA all realized net capital gains (including net long-term gains), prohibiting the merger of VLSA realized gains or losses with those realized in other company accounts and providing for a three-year carry-back and a five-year carry-over within the VLSA of any year's net capital gains
3. In determining a company's taxable investment income and its gain from operations, exclude from income a percentage, designated as "policyholders' share," of each item of VLSA investment yield, as follows:
   a) For VLSA investment yield allocated to qualified pension or profit-sharing reserves, 100 per cent.
   b) For VLSA investment yield allocated to nonqualified reserves, a policyholder's share calculated in the same manner as for fixed life insurance, with some possible modification.
4. Allow the dividends-received deduction with respect to the nonexcluded (that is, "company") share of dividends credited to VLSA reserves.
5. In calculating a company's gain from operations for each year, prevent any reflection in the increase or decrease in reserves of either appreciation or depreciation in the value of VLSA assets (whether or not realized), other than net realized gains included in investment yield.

As of this time, efforts along these lines are beginning, and review with governmental staff people has just begun, so that a start at least can be made on possible solutions.

MR. ROLLAND: Joe, do you want to comment on the effect of these unresolved tax questions on the handling of registration statements?

MR. PICKERING: It seems quite clear that we should be able to tell the policyholder before we sell him a policy what the effect would be on his tax. This question needs to be resolved and, in my opinion, should be resolved before we can in good faith offer a VLI policy. Taxation on the company is a slightly different problem. There I think the tax question does not have to be resolved before the first policy is sold. The customer should be told whether a tax charge will be made and, if there is one, what it will be.

MR. PAUL R. FLEISCHACKER: With the advent of VLI, a myriad of administrative problems has been created because of the nature of the product itself—that is, the marriage of life insurance and equities—and because of the regulatory requirements and constraints which will be, or are unlikely to be, imposed by the state insurance departments, the SEC, and the National Association of Securities Dealers (NASD). Many of the administrative problems, such as reinstatements, reserves for the minimum death benefit guarantee, nonforfeiture benefits, and the like, relate to the product itself and will not be discussed in this session. My remarks will be concentrated in the area of marketing administration.

The SEC, in its January 30, 1973, ruling, held that VLI contracts are securities and are subject to the 1933 Securities Act and the Securities Exchange Act of 1934. This latter act will regulate activities associated with the marketing of VLI.

What are these requirements of the 1934 act as it relates to VLI?

First, VLI contracts must be sold through a broker-dealer registered with the SEC. The broker-dealer can be either the life company itself or a subsidiary of the life company.

After registering with the SEC, the broker-dealer has the choice of being regulated on a day-by-day basis by either the NASD or the SEC itself (SECO). Since I am more familiar with the operations of the NASD, my remarks will be geared to regulation of the broker-dealer by this organization rather than by SECO. However, it is my understanding that the rules and regulations adopted by SECO are very similar to those of the NASD.

Under NASD regulation, those individuals who are actively engaged in the management of the broker-dealer, such as officers, managers of offices of supervisory jurisdiction, and directors of the corporation, are designated as "principals." These principals must be registered with the NASD and must pass a qualification examination for registered principals. Likewise, the VLI salesmen and the assistant officers and supervisors in the broker-dealer company are designated as "representatives," who must be registered with the NASD and must pass a qualification examination for registered representatives.

Under the NASD Rules of Fair Practice, certain record-keeping and supervisory procedures are required:

A. Record-keeping

1. Books, accounts, records, memoranda, and correspondence must be kept and preserved by the broker-dealer according to the prescribed rules of the NASD. Records, such as articles of incorporation, minute books, and stock certificate books, must be preserved for the lifetime of the enterprise. Records necessary to reconstruct a trade—such as customer ledger accounts—must be preserved for a period of six years. General records, such as trial balances, checkbooks and bank statements, and financial statements, must be preserved for a period of three years.
2. Customer account records must be set up and maintained. At a minimum these records must show the name, address, and age of the customer, the signature of the registered representative introducing the account, and the signature of the registered principal accepting the account for the broker-dealer. Each application will have to be reviewed for suitability, that is, the VLI plan applied for must be suitable for the applicant.
3. Each office of supervisory jurisdiction (OSJ) must keep a separate file of all written complaints of customers and the action taken by the broker-dealer. An OSJ is any office designated as being directly responsible for the review of the activities of registered representatives in that office and/or in other offices of the broker-dealer.

B. Supervision

1. Each broker-dealer must establish, maintain, and enforce written procedures for supervising the activities of each registered representative and associated person.
2. A registered principal in each OSJ must be designated to carry out the written supervisory procedures, a copy of which must be kept in such office. However, final responsibility for proper supervision rests with the broker-dealer.
3. Each broker-dealer must review and endorse in writing all transactions and correspondence of its registered representatives pertaining to the solicitation or execution of any securities transaction.
4. Each broker-dealer must review the activities of each office, and the review must include the periodic examination of customer accounts. Each OSJ must be inspected at least annually.
5. The broker-dealer is responsible for investigating the character, qualifications, and experience of each of its members who are to be registered with the NASD.

The final area of compliance administration which I shall discuss is that dealing with sales literature. The NASD, as part of its self-regulation, administers the SEC Statement of Policy dealing with standards for sales literature. As a result, VLI advertising and sales material must comply with those standards and must be filed and approved by the SEC or NASD. Sales literature would include newspaper, radio, or television advertising; scripts; postal cards; and form letters. The broker-dealer must file this material within three days after first use or publication.

The above comments cover only a part of the total regulation by the NASD, but, as one can see, the regulatory requirements are extensive. In my opinion, for a company initially entering the equities market, the development of compliance administrative procedures should be given very high priority. Without good, sound procedures the company may very well find itself out of the equities business.

I would like to comment on the market potential for VLI as my first subject in the area of sales and sales training. I have heard the statement made that within five to ten years it is expected that VLI will account for 20–30 per cent of total new premium in the traditional ordinary life insurance market. At one time I agreed with this projection. However, now I think that the growth of VLI will be at a much slower pace. My reasons for this less optimistic projection are as follows:

1. Economic conditions: the consumer currently is not confident in the market; hopefully, this attitude will change by the time VLI becomes a reality.
2. Regulatory controls: under current and proposed rules and regulations we are limited in what we can offer to the consumer and to the agent. In particular, if some of the proposed NAIC regulations are adopted, the acceptance of VLI by the agent would probably be severely hampered.

I do think, however, that VLI will play an important part in the growth of the insurance industry and eventually, but over a much longer period of time, will reach the level of 20–30 per cent of total new premium. Even over the next five to ten years, I think that sales will reach the 10–15 per cent level, which is still a very significant portion of the total market.

What are the markets for VLI? In general, VLI will have a market appeal in all the traditional fixed-dollar benefit sales (with the exception of mortgage or other types of fixed-dollar debt funding). In addition, it should have a special market appeal created by the equity aspects of VLI. Accordingly, VLI may be used for all types of personal and business sales. In particular, I think that VLI will have a special market appeal in the "under 30 market" and in juvenile insurance sales.

Companies entering or considering entering the VLI market should devote careful study to the determination of what their agents' present philosophy is, what market areas their agents operate in most effectively, and what steps may be necessary to ensure that their agents have the confidence to operate in the equity market.

Sales training is the last item on which I wish to comment. One of the key concerns must be, first, to make certain that the sales force understands how this product differs from the traditional fixed-dollar policy. This will not be a simple task. It probably will be necessary for the agent to explain to the public both the fixed-dollar policy and the variable policy—how they differ, how they are similar, and where each might provide the potential benefit desired. The second step is to provide the agent with the training and sales tools necessary to communicate this different kind of benefit to the public.

I think that it is very important that the agent be trained to know and to be able to relate to the public not only what he is selling but also what he is not selling. The only benefit which has a minimum floor of protection is the death benefit. The cash values and the maximum death benefit depend upon the investment performance of the separate account.

MR. J. ROSS HANSON: I think it is fortunate that we have members of the staff of the Securities and Exchange Commission in attendance today. The life insurance business has embarked on the development of VLI, and it seems essential that we have a good dialogue with the regulatory authorities so that the best possible regulations come into being for all concerned.

In reference to Mr. Fleischacker's comments, I agree that VLI may turn out to be very popular among the younger insuring public. I know of some marketing research which seems to support that possibility. I do not share Mr. Fleischacker's opinion that VLI development will be very slow. The research I have done assures me that VLI is a superior product for the consumer and a profitable one for the industry. Once the insuring public discovers this, there should be rapid growth in VLI sales.

I would like to make a suggestion about disclosure. The important thing about disclosure is that we do, in fact, tell a prospective insured enough about our product so that he can judge in a reasonably short time whether or not it would serve his interests to buy it. The crux of the matter requires us to know when we have told him enough, even though we may not (knowingly) have told him all. This is a judgment decision, of course.

Disclosure to the proposed insured is one part of the matter. The other part is that the issuer of a VLI product ought to disclose to the regulatory authorities whatever they need to know about the product and the corporate structure which sells and administers it, so that they can regulate in the best interests of the public.

My suggestion, therefore, is to require the 1933 act registration statement to include two prospectuses. One would be a complete documentation of all basic data, so that the SEC staff could ascertain whether or not the disclosure requirements of the law had been met. This prospectus would be delivered to a prospective insured only if he asked for it. The other prospectus would be a 4-page document which would describe briefly the product, the investment policy, and the company (so that the prospective buyer would know something about the people he was dealing with) and would give hypothetical illustrations of the way the policy operates, based on the appropriate age, sex, and plan combination. I see no reason in this day and age to illustrate such an important purchase by means of averages. This 4-page prospectus would be used in every situation whether or not the larger prospectus was requested.

If a short-form prospectus is used, I thoroughly agree with a "free look" period upon delivery of the policy. The policy form itself should be the best prospectus we can give. The policyholder might keep it for ten days (or even fifteen or twenty days for this particular product), so that he could decide whether its terms were represented properly in the prospectus. If he wished, he could return the policy and get his money back. I know that awkward administrative situations would be involved (transferring premium in and out of the separate account, for example), but in the final analysis, if VLI is going to be sold successfully, we are going to have to be sure that the insured has a good idea of what he has bought even though it probably is not necessary for him to understand all the mechanics involved.

SOCIAL, ECONOMIC, AND POLITICAL FORCES SHAPING PENSION PLAN DESIGN

Underlying factors which have led to such recent developments:

1. Social security integration
2. EEOC requirements
3. Early retirement provisions

CHAIRMAN PRESTON C. BASSETT: We plan to discuss first, in general terms, each of the aspects—political, social, and economic—influencing pension plan design. However, they are so interrelated that it is impossible to keep them separated. Following the initial presentation, we will take up the particular topics outlined in the program and discuss them from these three vantage points.

MR. HARRISON GIVENS: [Political] You may have heard enough about the Senate pension regulation bill to whet your interest, or to alarm you and cause concern. The country is changing, the structure of the work force is changing, and one cannot expect the rules to stay the same. While everything that has been said about the flaws of the bill is quite true, we have much to be thankful for. Not so very long ago it appeared that social security would be "the" method of providing retirement security, thereby squeezing private pensions into the very minor role of providing extra benefits for the elite. By severe contrast, the thrust of the present proposed legislation is to say, "Let us strengthen the private pension program. Let us correct any abuses and make it work as a major force in providing economic security." The private pension business, very likely, is going to survive, but the rules are going to be very different. Changes in the work force will produce a greater impact on us because of concern for discrimination, and social security is not going to stand still, so all these things certainly are going to affect and shape pension plan design.

MR. DILJIT JUNEJA: [Social] Pension plans and other employee benefits have reflected the paternalistic attitude of the business corporation: pensions are a reward for long and loyal service. Within this framework, employee benefits have been designed on the basis of assumed needs. The employer would decide what the employee or his beneficiaries needed and how far he could assist the employee in satisfying these needs.

This approach is changing as a result of social concerns at work in society at large. The main social forces shaping pension plan design are (1) the dramatically changing attitudes of modern man (and woman) toward his working life; (2) the increasing awareness of the business corporations of their social responsibility; and (3) the demand for an end to discrimination on the basis of sex, age, or marital status. There is a major trend toward early retirement. Pension plans have been criticized on the basis that they have been designed to force employees to stay in service to age 65 and that the reductions in pensions at early retirement have been large. Twenty years ago, employees wanted to have the option to work beyond age 65. Now they want the option to retire early.

At this stage, there are two groups who want to retire early. A large number of blue-collar workers having monotonous assembly-line jobs want to get out of the work force altogether and lead leisure-oriented lives. Another group, mostly middle and upper management or school or university teachers, consists of people who want the option to change the nature of their work in their fifties and take up a second career without reducing their standard of living. A good early retirement pension, combined with a modest income, can make this possible.

This trend will gather full momentum if (1) social security provides better benefits at early retirement; (2) younger employees accept putting more (rather than less) aside from their productivity for the benefit of older employees; and (3) vesting and/or portability improve in the pension plans. It appears that vesting and portability will improve, as will social security payments at early retirement. However, the attitude of the younger workers toward providing benefits for older workers may harden.

Coming to nondiscrimination, the Canadian equivalent of the Equal Employment Opportunity Commission is the provincial human rights codes which take into consideration employee benefits. The Ontario government has set up a task force to look into the application of their code in relation to nondiscrimination in the areas of sex, age, and marital status. This task force is in the process of finalizing its recommendation, which may result in legislation.

Social security is also going to be affected by current demands for nondiscrimination in benefits. The federal government of Canada is going to examine a number of proposed changes in social security, for example, nondiscrimination between sexes. Possibly, social security will take on the function of satisfying basic needs, while the private pension plans will concentrate on providing extra benefits that the employee chooses to suit his particular situation. Of course, cost limitations will remain a major factor.

The trend to early retirement, the interpretation of benefits as deferred compensation, the demand for equality, the restriction of employer right to assume needs, and the slow rebellion against the employer's paternalistic attitude eventually, I believe, will lead to drastic changes in pension plan design. In fact, if governments make sensible changes in the law, there will be no pension plans, only fully integrated compensation plans which will include compensation, deferred compensation, and all employee benefits.

The consulting actuary deals with the present and is very much concerned about the changes and likely changes as a result of recent, new, or proposed legislation. But it is important that he exercise the same amount of care in discerning long-term trends in the benefit design area as he does in developing actuarial assumptions, and that he not allow his concern with the present to obstruct his view of the future.

MR. JAMES CURTIS: [Economic] I believe that the pension area is going to be very dynamic and *very* costly in the future. Let me recommend a paper that suggests some of the directions employee benefits will be taking. I am sure that many here have read it: "Employee Benefits, 1970–1985," by T. J. Gordon and R. E. Le Bleu (*Harvard Business Review,* January-February, 1970). I have reread it many times and shall continue to do so, because many of the paper's forecasts are coming true.

A panel of twenty-two experts from a variety of backgrounds was assembled, and, by means of the Delphi technique—a method of controlled opinion feedback—consensus emerged on a variety of benefit-oriented topics. First of all, the panel isolated two forces exerting major influence on employee benefits: continued pressure from organized labor and increased leisure time (both a benefit and a stimulant for more benefits). A factor affecting the group's thinking was the strong correlation between union strength and the size of benefits. Another factor was the not surprsing fact that industries with the highest profit per employee were giving the highest benefits.

I believe that there are several basic economic forces influencing the future of pensions. First on anyone's list would be inflation and its resulting increases in cost of living. Negotiations with labor unions will continue to have tremendous effect upon the economic scene. Changes in social security, as well as increasing governmental control, will have their impact. Finally, such factors as actuarial experience and corporate profit desires must be considered in any assessment of economic factors that will influence the future of employee benefits.

SOCIAL SECURITY

MR. JUNEJA: The social security system in Canada is not undergoing any change at present, but there is a considerable amount of talk and consultation between the provinces and the federal government. One of the changes which Ontario suggested to the federal government was the introduction of actuarially reduced pensions at age 60. If that happens, it will give some impetus to the early retirement movement, because lack of social security coverage in this area is one of the deterrents to early retirement.

Any other changes which are taking place in Canada are largely in the area of increases in normal retirement benefits. Thus I do not see any major developments except the usual ones of increasing the benefits at normal retirement.

MR. GIVENS: If one is to recognize the impact of social security, he is led into other questions, such as whether it makes sense to have death benefits and disability benefits. Why waste the integration allowance on these? We could talk about the pros and cons of different integration techniques, but the main thrust would be to integrate.

CHAIRMAN BASSETT: Don't you think that one of the social objectives of the social security program is to keep the benefits at some minimum acceptable level? We are seeing the tremendous influence of the effect of inflation on social security benefits. The last amendment to the Social Security Act for the first time geared the social security benefits to accommodate to inflation. This, I feel, is one of the big social problems, not only in the United States but worldwide.

MR. GIVENS: I think that is very true. However, I have not seen any great excitement about "indexing" private retirement benefits to inflation. Very likely this development will come, but I would not expect any widespread movement to develop in this direction for five years. To a great extent it is going to depend on the amount of inflation in the near future.

MR. CURTIS: At the White House Conference on Aging several years ago, the delegates voted unanimously in favor of funding social security in part from general revenue. I feel strongly that if this happens, even in part, Congress then will set the level of benefits politically rather than on the basis of cost considerations. If that happens and social security benefits are increased at an unprecedented rate, where does that leave us in the private sector? I am recommending to my clients that they add a maximum benefit to their pension plans and do it quickly. Some consultants are recommending going back to the offset type of program, for example, a percentage of final pay minus half of social security. I prefer personally the offset expressed as a maximum benefit. For example, a typical provision would be "the maximum benefit from this plan which when added to one-half of social security cannot exceed 80 per cent of final salary."

We have been testing this maximum benefit very carefully under plans that we represent and have found that the 80 per cent total benefit test will not reduce benefits for any current employees under the present social security law and any projection of social security in the future on the basis of what we have seen in the past. Only if social security benefits "take off" at a very high rate would this formula come into play. One can handle the problem of maximum benefit providing too low a pension by putting a minimum benefit provision in the plan as well. This also solves the problem of the salaried employee who will receive less than his union counterpart. For example, a minimum pension of $10 per month per year of service could keep up with the union plans.

CHAIRMAN BASSETT: Before we leave the discussion of economic aspects of social security, I would like to pose a question. In the recent UAW settlement at Chrysler, the union negotiated for Chrysler to pick up the employees' contribution or tax for the health plan. This seems to be quite a breakthrough. What are the prospects that future unions will negotiate for companies to pick up other taxes? Specifically, what about the likelihood of negotiating for the employer to pick up the social security tax?

MR. CURTIS: That is not too unlikely. In fact, those of you who are from Mexico know that in that country one of the negotiable items in some collectively bargained contracts calls for the employer to pay the employee's income tax.

MR. ROBERT J. MYERS: It would be very undesirable if the example set by Chrysler in agreeing to pay the employee payroll taxes called for by proposed national health insurance legislation should carry over to social security taxes. If this were to happen, employees would feel much less cost-consciousness about the expansion of the social security program.

I believe, however, that such a trend is unlikely. There was a good reason for Chrysler to agree to pay any employee tax for national health insurance, because at present that company is providing very comprehensive health insurance on a noncontributory basis. Although the Social Security Act permits employers to pay the employee tax, labor has not sought this, since it has good strategic reasons for continuing the joint contributory financing. Labor can appear before Congress and propose benefit liberalization, while at the same time taking the position that it is willing to bear part of the resulting cost.

I should like to call attention to a recent legislative enactment that may have significant—even disastrous—effects on the provision of economic security through the private sector, and even on the social security program itself. The supplemental security income (SSI) program enacted in 1972 and effective next January is, in essence, a guaranteed minimum annual income plan for the aged, the blind, and the disabled. The present SSI benefit levels are, in essence, $150 a month for single persons and $215 for married couples (to increase to $160 and $230, respectively, for July, 1974). At these levels, the program can probably be considered a reasonable and desirable one.

The SSI program is financed out of general revenues and does not have the controlling and visible element of being financed by payroll taxes. Therefore, it is possible that Congress might easily raise the benefit level to a considerable extent, and then there would be little value in having private pensions or even social security. The reason for this is that, if the SSI benefit level is relatively high, the vast majority of persons may find that their other benefits are completely offset in determining the residual SSI benefit, and they will then have the same total income as if they had not had these other sources of retirement income.

Equal Employment Opportunity Commission

MR. GIVENS: Nothing particularly new on the subject of sex discrimination has been published by the EEOC since it issued its April, 1972, guidelines, which contained several controversial rulings. First, the head of household or principal wage-earner test was no longer to be used, a ruling which affects any spouse's benefits that did have such a test. Second, it was no defense to point out that benefits for both sexes were put in at the same cost. Third, maternity was a disability and was to be treated as such.

The EEOC now has the power to go to court and in a civil action claim that you are doing something wrong, and it is then up to the court to decide whether it agrees. The court case which many are hoping will decide the future of the principal wage-earner test is the *General Electric* case, which began in March, 1972. This is now a nationwide class case, and a ruling is expected in October or November, 1973.

In October, 1972, the HEW's Office of Civil Rights (OCR) issued a ruling which said that for their purposes, in surveying government contractors who must comply with antidiscrimination rules, they would follow the Labor Department's rule—which had been followed by everybody until April, 1972, when the EEOC published its guidelines. The ruling of the OCR stated that use of either equal benefits or equal contributions was acceptable practice. It is anybody's guess as to which view will prevail.

The EEOC now has a new chairman who is reported to favor vigorous enforcement of the present EEOC rules. There is nothing to do now but await the outcome. It is an untested area, and until some cases are decided, the situation undoubtedly will remain fluid.

MR. ARTHUR ANDERSON: Is not the traditional separation of mortality tables by sex only arbitrary? While it is known that mortality rates are correlated with sex, it is also true that they are correlated with economic status, occupation, locality, race, and several other factors, and yet we seldom make these distinctions in pension work. If the specification of mortality rates by sex is arbitrary, it seems to me that it is also politically provocative (no one would suggest, for example, that we provide for different mortality experience by race). If the sex distinction is arbitrary, could we not, simply eliminate this distinction, without significantly misstating pension costs, and thus avoid any possible conflict with federal EEOC regulations?

MR. HARWOOD ROSSER: The attitude of one commissioner of insurance may be of interest. He was prepared to notify the insurance industry that it could no longer offer different coverages for men and women, or charge different premiums, in the area of health insurance, especially loss-of-income coverage.

He was informed that this inevitably would raise the question of discrimination against males as to other coverages, such as life insurance and automobile insurance. Equalization of rates in one area would seem to call for the same in others, which would increase the rates for women. This did not seem to deter him. He felt that the issue could be compartmentalized. Accordingly, a somewhat experimental bulletin along the lines indicated above was sent out. It probably is too early to assess industry reaction.

A pending court case on this issue, filed on a class basis in the same jurisdiction, may well have triggered the commissioner's action.

Early Retirement

MR. CURTIS: I have very few clients who are not considering reducing or eliminating the actuarial reduction factor after age 60. The cost is a difficult one to assess. If you move off the actuarial reduction factor and if nobody retires early, you have no cost. But, if everybody retires at the first moment they are eligible, the costs are going to be very high. The true cost lies somewhere between the two. Many clients attempt to offset the additional cost through savings in salary by eliminating "deadwood." I doubt seriously whether this is a true savings.

CHAIRMAN BASSETT: Do you think that a company which moves from full benefits at age 65 to full benefits at age 60, for example, will find that its immediate experience shows few electing the early option but that, over a longer period, more and more people will elect early retirement? Doesn't this require a long-range view of the problem?

MR. CURTIS: I think so. Obviously, the experience is going to be a function of the size of the benefit. If a person could retire at 100 per cent of his salary, I would imagine that there would be more people retiring early. Also, if social security benefits keep increasing, and the retirement age is reduced to 60, I think that the combination could have a significant effect on the number of people who retire early.

We see instances now where an employee, when he retires, adds up what he is receiving from the pension plan and from social security, adjusts it for reduced income tax, and finds that his take-home pay is not too significantly different from his working salary. When the day arrives on which an employee's take-home pay is no more than it would be if he were retired, that is the day he is going to climb into that camper and go fishing. We will have to be prepared for that ultimate cost.

MR. JUNEJA: I was looking at some statistics for pension plans in the United Kingdom. For pension plans which had the traditional actuarial equivalent, only 5 per cent of the employees retired early, but for other pension plans which had better early retirement provisions, the average was 30 per cent. In some of the plans as many as 50 per cent were early retirees, so, if that is any indication, we may find that the costs are going to be higher than we imagine. Even so, I have no doubt that more and more plans are going to provide better benefits at early retirement.

CHAIRMAN BASSETT: It seems that more people take early retirement if the level of benefits becomes adequate. On the converse side, do you think the fact that we have been seeing inflation for the last ten years or more will deter people from taking early retirement on a fixed income? Will they be inclined to feel that inflation is going to cut into that income and that they are going to starve to death by the time they are 70?

MR. CURTIS: This is a very significant factor. I feel that cost-of-living plans will be considered much more seriously some years from now as more workers retire early. People are going to be much more worried about the erosion of the dollar. As to the method of providing early retirement, all of us undoubtedly have seen companies which encourage early retirement by supplemental early pensions that bring the total benefit up to the full pension. Another method which minimizes the period of supplementation is to allow an employee to retire early, defer his pension until age 65, and then pay him an amount equal to his pension, separate from the plan. One must be careful to provide some sort of widow's benefit in case the employee should die before age 65.

MR. ROWLAND E. CROSS: In connection with the subsidized early retirement provisions that are becoming increasingly popular, there are at least two areas in which, to my knowledge, certain intrinsic difficulties that arise have not yet been faced up to.

One of these comes about with respect to money-purchase pension plans under which, when an income settlement of some kind is elected in lieu of a lump-sum distribution, the individual in question receives the straight income equivalent of the lump-sum amount otherwise available. In such instances the income equivalent is usually established by the purchase price of a commercial annuity contract (group or individual, but in either case on a nonparticipating basis) corresponding to the age and sex of the prospective annuitant(s). It would seem that the same reasoning that leads to subsidizing early retirement factors under a definite benefit plan would also suggest doing something to augment the income benefit otherwise payable on the basis just described. This could be accomplished by an arbitrary percentage increase of the lump sum available or by some less obvious device, such as upward adjustment of the age of the annuitant before entering the insurance company rate schedule. I am not aware, however, of any such arrangement in effect at the present time.

The second question that arises has reference to the requirement in a qualified pension plan that makes early retirement contingent upon employer consent, in which event Internal Revenue Service regulations specify that full vesting must be available for those to whom such consent is not granted. In these instances the employee becomes 100 per cent vested in the full benefit accrued to date, but payment is deferred to his normal retirement age rather than commencing currently as an income. The implication of the IRS requirement, however, is that these two alternatives, that is, the full accrued benefit on a deferred basis and the actuarially adjusted income on an immediate basis, are of equal value, on the basis of the actuarial assumptions of the plan valuation.

Liberalizing the basis for determining the amount of immediate income thus would seem to necessitate a corresponding liberalization in the amount which the vested individual would receive on the deferred basis. This, in turn, might raise some questions with the IRS, since the individual would actually be receiving more than the accrued benefit to which he was entitled under the plan. Again, I would be interested to know to what extent (if any) this has in fact been a problem and what kinds of remedies may have been suggested for it.

MR. HOWARD YOUNG: Two aspects of early retirement that deserve further consideration are the following.

The growth of two-worker families (that is, families in which both spouses are employed) may result in a delay on the part of the spouse who has the first opportunity to retire. That is, as long as either spouse continues to work, the couple cannot realize many of the leisure-related advantages of retirement. Therefore, we may see a "joint" retirement phenomenon in which an individual's choice of retirement date depends on his or her spouse's retirement date.

We should look beyond the pension plan as a mechanism to meet the desire for leisure. For example, instead of early retirement, perhaps we can develop arrangements for partial retirement. Just as there are now experiments with flexible work hours, we should be able to work out procedures for partial work years. During the part of the year when the individual is not working, it would be appropriate to provide income comparable to the expected retirement income rather than to current wages. In this way the individual would have a more gradual—and perhaps more manageable—transition from full-time work to full-time leisure and from employment level income to retirement income.

MR. ROBERT OCHSNER: The comments of the preceding speakers seem to illustrate that pensions have come a long way, from being gratuities toward becoming a form of deferred compensation, in the thinking of actuaries and that of many other people connected with private pension plans. Howard Young's comments, relating to the use of pensions as a form of vacation and sabbatical allowance, indicate that in some instances pensions and compensation could be practically interchangeable if the tax laws permitted.

Another analogy can be made in the case of military and other uniformed service pensions payable at relatively young ages. While it is true that these really amount to resettlement subsidies rather than pensions in the social sense, in a financial sense they can be viewed as deferring a large part of the employee's total compensation until he has completed a specified period of service and then commencing to pay it to him immediately as soon thereafter as he retires. Without this arrangement, it is probable that many employees would begin to terminate midway through the specified service period, when they did not receive promotions or other rewards which they might have expected.

WHAT IS THE LEGITIMATE DEMAND FOR ACTUARIES?

1. What the Society is saying to educators and students on behalf of a career in the actuarial profession
   a) National Science Foundation Summer Institutes
   b) Speaker's kit for actuaries at high school programs
   c) High School Mathematics Examination
   d) The Society's Minority Recruitment Program
   e) Relations with colleges and universities
   f) Actuarial Aptitude Test
2. The actuary's image of himself
3. Interim manpower study report
4. Future fields of activity of an actuary

COCHAIRMAN WILBUR H. ODELL, JR.: This concurrent session, which has been prepared jointly by the members of the Public Relations Committee and the Committee to Encourage Interest in Actuarial Careers, has two objectives: (1) to provide information about what our Society is doing that will influence the demand for actuaries and (2) to receive comments from this audience concerning what actions the Society should be taking in this area.

I will share the chairman's function at this session with Mr. Walter S. Rugland, chairman of the Public Relations Committee. The charge of that committee is to give the public a better understanding of the work of the actuary; to provide local and national publicity for activities of the Society, that is, meetings, papers, discussion, reports, and the like; and to maintain liaison with other actuarial bodies in their public relations activities. The charge of the Committee to Encourage Interest in Actuarial Careers, of which I am chairman, is to promote interest in actuarial careers; to develop and maintain relationships with high schools, colleges, and universities; and to sponsor actuarial forums at National Science Foundation Summer Institutes. The committee is responsible for the design and use of actuarial aptitude tests. It maintains liaison with the Mathematical Association of America and other professionally related organizations.

The demand for actuaries will come from the public. It will depend on how the public sees us. To the generation of young people now growing up, perhaps the first image they receive of our profession is the one we project on campus. It is logical, therefore, to begin our session with a discussion of what the Society is saying on our behalf to educators and students. Both the secondary and college levels will be covered. Mr. Joseph P. McAllister, who heads up the efforts of the Committee to Encourage Interest in Actuarial Careers at the high school level, will introduce the topic.

MR. JOSEPH P. McALLISTER: My remarks will cover two distinct topics which relate to a common theme. The common theme is the delivery of information concerning the actuarial profession to groups of educators or students.

The first subject relating to this theme is the activity during the last several years of our National Science Foundation Summer Institute subcommittee. Each summer the National Science Foundation conducts a number of summer institutes at colleges throughout the United States. These are attended by high school teachers for the purpose of improving their competence in the subject matter of the courses they teach. Our NSFSI subcommittee was formed to organize one-day programs for the teacher-participants attending summer institutes in mathematics in order to acquaint them with the actuarial profession, particularly emphasizing its opportunities for their outstanding students. During the past several years this subcommittee has been most diligent in selecting appropriate institutes, presenting one-day programs, evaluating the results, and sending further information to teachers who request it.

In recent years government funds for these programs have been abridged. Also, several of the institutes are sequential in nature, leading to advanced degrees after several years; in these cases it is not feasible to conduct a program each year. For these reasons, the number of programs has dropped during the past few years. For 1974 the NSFSI subcommittee will be merged with the Subcommittee for Relations with High Schools, although it is intended to continue to present these programs whenever an appropriate institute can be discovered.

My second subject dealing with the general theme of providing information concerning actuarial careers is the development of a speakers' kit for actuaries. From time to time, any actuary may be asked or assigned to speak to a group concerning his profession. Normally, such requests come from mathematically oriented groups of educators or students. Of course, the NSF institutes represent one such opportunity. In addition, teachers' organizations and mathematics clubs frequently make such requests. Some of our area actuarial clubs (for example, in Texas and Iowa) have tried to publicize the availability of actuarial speakers to such clubs. The common denominator of all these efforts is the need to make known to students, and to those who influence them, the qualifications necessary for an actuarial career and the rewards associated therewith.

Quite commonly, the actuary confronted by a request that he face a group of students or teachers has not performed this function previously and is reluctant to accept. He may not consider himself a polished public speaker. He may not know exactly what would be appropriate to discuss with a particular group—what has proved interesting in similar situations and what has put similar audiences to sleep. Even though, through discussion with the person making the request, he is able to determine the sort of talk in which the group would be interested, he may not have ready access to material which includes the desired information.

In order to solve these problems and offer a guideline for the actuary who is invited to address a group concerning this profession, we are in the process of developing a speaker's kit. In the words of Bob Houser, who has been lobbying and working for such a kit for some time, our kit will not transform an inept speaker into an ept one, but we hope that it *will* prevent flagrant abuses of the speaking process.

The kit will consist of resource material and some suggestions for approaches which might be taken in talks to specified groups. Included in the source material would be the following information:

1. A set of the pamphlets normally mailed out by the Society when the office receives a request for information concerning the profession. There are four of these. One describes the preliminary examinations, one is a more detailed description of the syllabus, and the other two are more general descriptions.
2. A bibliography of the actuarial profession. This includes a list of various articles which deal with the profession. Several of these articles are particularly worthwhile, and we may end up including reprints of them in the kit itself rather than simply listing them in the bibliography.
3. A list of colleges providing actuarial programs.
4. A chronological history of the actuarial profession, compiled primarily from past presidential addresses and articles in *The Actuary*. Anyone having a particular date he would like to have included in this list is invited to submit it to me for screening.
5. Some figures concerning the insurance industry—insurance in force, pension benefits and assets, and the like.
6. Some mathematical problems to illustrate various actuarial principles. There probably will be a couple of approaches to this—one set of examples suitable as a brief description of the mathematics involved and another set suitable for use when the major emphasis of the talk is on mathematics.

   We have a few choices here. One approach would be to include previously prepared slides with the kit. It is more likely that we will include in the kit only the suggestions, since anyone can make slides with some cellophane and a grease pencil once they determine that an overhead projector will be available during their talk. Of course, in the absence of an overhead projector a blackboard would suffice. If the talk will be concerned largely with mathematics, a blackboard is probably preferable, since it accommodates audience participation more easily.

7. Various lists of interchangeable items. For example, there are a good many definitions (sober definitions) of the actuary, or attempts to summarize his activities fairly briefly. I propose that we include a list of these, so that the speaker can choose one or more for inclusion in his talk. Similarly, we will probably include a few actuarial jokes, and I solicit contributions to this list. I hasten to say that we will urge strongly that each speaker not use too many jokes, for two reasons:
   a) We want to promote the positive aspects of the profession, and presenting it as the butt of innumerable derogatory comments will not have this effect.
   b) There is some feeling among the members of our committee and the Public Relations Committee that actuaries are too willing to allow themselves to be belittled by the rest of the insurance business. However, we do not want to be sanctimonious about this, so we will make it possible for the speaker to inject a little humor into his presentation if he wishes to do so.

There will be a few other subjects on which some options will be available. For example, we probably will include descriptions of various jobs on which an actuary might work, from which list a speaker can choose those suitable to his talk.

In addition to all these resource materials, we will have a few speech outlines, or a general outline utilizing the "building block" approach. The outline will deal primarily with suggestions as to the type of speech that best fits a particular group. For example, few groups will be interested in a detailed description of the subjects covered on the advanced actuarial examinations. A group of teachers would be interested primarily in typical assignments, employment prospects, and possibly salary potential. A mathematics club might be interested in the same things but probably would be more interested in some actual arithmetic problems. The level of the mathematics would have to be tailored to the membership of the club—I have had very rewarding sessions with high school mathematics clubs but also have had failures by trying to cover too much material and not involving the students sufficiently. With a mathematics club, a semiparticipative tour through basic interest and probability, combining the principles into simple premium calculations after briefly discussing the mortality table, is a good hour's work. The speaker's kit will include a suggested approach to this type of talk. In most cases the speaker will want to make at least a few points concerning the social value of the protection offered by the insurance industry.

From these comments, you can gather that our kit is not in final form. In general, the resource material has been gathered, but the proposed speech outlines have not yet been written. Any of us on the committee will be happy to receive your comments concerning possible inclusions or exclusions, so that we can finish putting together a product which will reduce the actuary's trepidation when he has an opportunity to add to the public's knowledge concerning our profession but fears doing so because he does not know what to say.

MR. FRANK A. BROOKS, JR.: In the mid-fifties, concerned over the decreasing number of college graduates seeking careers in mathematics in general and in actuarial work in particular, the Board of Governors of the Society of Actuaries designated a committee to study the problem and to propose action which would counteract the trend. This committee concluded that the long-term answer to the problem was the stimulation of an interest in mathematics at the secondary school level, combined with a public relations effort which would inform students at that level of the career opportunities for the mathematically talented individual.

Members of the Society's committee became aware that a committee of the Mathematical Association of America (MAA) had been designated in 1955 to study a proposal that its national organization take over the administration of an Annual High School Mathematics Examination initiated in 1950 by the Metropolitan New York Section of the MAA. This activity had become more international than local in participation, the 1955 examination attracting 23,000 participants from 881 high schools representing nearly every section of the United States and parts of Canada.

Contacts between the two committees led to the joint sponsorship of the Annual High School Mathematics Examination by the Society of Actuaries and the MAA, starting in 1957. The administration of the annual contest is the responsibility of a Contest Committee, whose chairman and members are appointed by the MAA and which operates through an executive director. The Society of Actuaries has provided the additional financial support necessary to organize and promote the contest effectively on an international basis and is represented on the committee.

Although its financial contribution of $5,000 a year is important to the contest, the Society's principal contribution is the participation of its members in the work of the sectional and regional committees which administer the contest. The United States and Canada are divided into ten regions, each of which comprises several sections of the MAA. There are forty-eight sections, each with its own contest chairman and committee, who administer the contest within its boundaries. They issue invitations each year to all eligible secondary schools within a section, handle the registration of participating schools and their orders for contest booklets, distribute the examination materials to the participating schools, collect the results, check the answer sheets, determine prize winners, and arrange for the distribution of the prizes for the section. For the 1973 examination more than sixty members of the Society were official representatives of the Society to these committees, and ten were Contest Committee chairmen.

The stated purposes of the contest are to create and sustain interest in mathematics among secondary school students and to develop sound scholarship in the subject. Therefore, there is only a very limited emphasis on interscholastic competition. A bronze cup, a demonstration slide rule, and a set of mathematics library books are awarded to the schools in each region whose three-man teams score first, second, and third highest, respectively, except that a silver cup in place of the bronze cup is awarded to the one school whose team scores highest. For the individual, the prize is a lapel pin awarded to the student who attains the highest score in his school, with additional prizes, such as an individual slide rule or a subscription to *Mathematics Magazine,* awarded to the top ten students in a region. The primary emphasis is on the intramural contest, with recognition given to at least one student in every participating school.

The primary reason for the Society's interest in this contest is the encouragement of the mathematically talented student to consider career opportunities which require that talent, especially an actuarial career. The message about actuarial careers is included in a brochure distributed to the contestants, entitled *How about a Career with Mathematics?* This brochure includes a brief statement about the possibility of a career "as an actuary," as well as similar statements with respect to a career as a teacher, a statistican, an electronic data processing specialist, or a worker in applied mathematics. Through the contest these brochures were distributed during the last year to almost 340,000 students in about 6,800 schools throughout Canada and the United States.

Over the years other organizations interested in promoting mathematics have been granted cosponsorship of the contest, the most recent being the Casualty Actuarial Society in 1972. The other sponsoring organizations are Mu Alpha Theta, a national high school and junior college mathematics club (1965), and the National Council of Teachers of Mathematics (1968). The last two organizations have contributed only modestly toward the financial needs of the contest but obviously have a greater impact in the promotional aspects of the committee's work, since their members are in an excellent position to encourage school and individual participation.

While offering the opportunity to reach high school students and introduce the actuarial career possibility to them before they have chosen some other career is an important aspect of the contest activity, the opportunity to reach high school mathematics teachers and guidance counselors with our message is equally important. Since representatives of the other sponsoring organizations work more or less closely with Society representatives at the sectional committee level, the contest has provided ample opportunity for the delivery of our message to those we are trying to reach.

A recent development which is a derivative of the Annual High School Mathematics Contest is the U.S.A. Mathematical Olympiad. This is to be an annual event under the jurisdiction of a separate MAA committee. Designed to be a highly competitive examination with the competitors eligible only by invitation, its only connection with the annual contest is the selection of the contestants. The Olympiad committee intends to issue its invitations to the top one hundred or so scores on the regular examination each year.

While it is not possible to determine what proportion of the increased interest in the Society's examinations is due to its sponsorship of the Annual High School Mathematics Examination, this examination has certainly been effective in delivering career information to a large audience. Its success is, however, not without some problems. When students and teachers have negative feelings toward the examinations, they tend to transfer those negative feelings to the sponsors. The two problems which have been complained about most often are the level of difficulty of the examinations and the relatively complex scoring system. The latter problem will be eliminated with the 1974 examination. There is also a determined effort being made to reform the examination for 1974 and later years so that discouragingly low scores, often negative under the conditions of the past few years, will not be so prevalent. This is not to say that the examination will not be in total a truly challenging one, but it will be balanced so that teachers will not have reason to complain that some of their promising students have been completely disillusioned and discouraged from pursuing further studies in mathematics.

MR. ROBERT J. RANDALL: The Minority Recruitment Program has been reported to the members of the Society before, in the pages of *The Actuary* and elsewhere. I shall repeat briefly some of that historical material and add some observations and comments relevant to the theme of this session.

The program was started in August, 1969, by actuaries of seven large life insurance companies in the New York–Newark area, joined by the mathematics chairmen of seven leading black colleges. In April, 1971, it was approved by the Board of Governors of the Society as a Society-sponsored program, in response to recommendations from the Public Relations Committee of the Society and from the committee of New York area actuaries, which had until then supervised the program. The program has been supported financially by life insurance companies and consulting firms employing members of the Society, and by actuarial clubs and actuaries.

The Public Relations Committee in its recommendations said: "The Public Relations Committee recommends that the Board of Governors endorse, on behalf of the Society of Actuaries, programs for attracting students from minority and disadvantaged groups into the actuarial profession. The disproportionately small representation of these groups in the membership of the Society is typical of conditions prevailing generally in American society—conditions related to problems such as racial discrimination and inferior education. Industry and government have moved vigorously to combat these problems in recent years, the life insurance industry in particular." This sums up the objectives.

The programs, which until now have been directed almost exclusively to one minority—blacks—have several elements:

1. Visits by actuaries to campuses, primarily the traditionally black colleges, to talk to mathematics faculty and students.
2. The Actuarial Summer Institute at Lincoln University, which aims to prepare ten to fifteen students each year for Part 1 of the examinations and which has just completed its fourth year.
3. A new program of scholarships for graduate study in actuarial science.

We feel that we have made some progress and achieved some results, although, frankly, the degree of success has been disappointing. We are searching for new programs and ideas and improvements in the existing programs. But let us look at what has been accomplished. Our concentration until very recently has been on the predominantly black colleges—schools like Howard, Lincoln, Morehouse, and Hampton. In the last four years actuaries have visited more than twenty of these schools for lectures and seminars joined in by the mathematics majors and their professors. The profession as a career has been brought sharply to the attention of many who knew nothing or very little about it. This past year we decided that we should go beyond the black colleges and write generally to more than one hundred large universities throughout the country.

The main effort, however, has been the summer institute. The pass rate has not been good. The first institute had one successful Part 1 candidate from fifteen, the second two, and the third three. At least two others have since gained Part 1 credit after initial failures. We are hopeful that changes which have been made, or will be made, will improve things—stricter selection, more intensively examination-oriented classwork, and, especially, broader recruitment directed to minority mathematics students at all colleges and not only at the traditionally black colleges.

Perhaps a better perspective is gained by looking at these results from other viewpoints. Of the eight summer institute attendees who have succeeded on Part 1, all but one are as of now going forward in actuarial careers: four are permanent students at Blue Cross, Continental Assurance, Metropolitan, and Atlanta Life, and three were in summer actuarial student programs this past summer. The eighth is working for a graduate degree in mathematics. Two summer institute alumni are now in graduate actuarial study at the University of Michigan. My informal tally of black members of the Society showed six fellows (three as a result of the May examinations), five associates, and about a dozen students with at least one part, eight of them from the summer institute. The Minority Recruitment Program has a clear potential for making significant changes in these figures.

Another approach is to compare the Society's Minority Recruitment Program with comparable programs of other professions. I am not ready or able to make much of a comparison here, but I would like to mention at least the minority recruitment programs of two other professional societies, programs which are much more ambitious and costly and have shown more dramatic results. The American Institute of Architects has a scholarship program which is currently supporting more than seventy full-time students from minority groups in architectural schools. The program of the American Institute of Certified Public Accountants includes direct support to accounting students, support to business and accounting departments at black colleges, and, most significantly, hiring at a professional level of black accounting graduates. The number of minority employees at a professional level in major accounting firms—

mostly in apprentice status—has increased almost tenfold, to more than five hundred since their program's inception in 1969. Our professions are different in many respects, but I am sure that we can benefit from study of the accountants' and architects' experiences.

Finally, a few brief comments on attitudes among minority students and faculty. Students are interested but not very excited, and there is a difficult selling job to do. The apprentice aspect of an actuarial career, involving ten difficult examinations over a period of years, is usually looked on as a negative aspect. The long-term career possibilities are difficult to convey, as are the interest and importance of the actuary's job. Higher starting salaries in competing fields are much more convincing. At most black colleges there is no history or tradition of past students who have succeeded in the profession.

The mathematics chairmen and faculty have been most co-operative. They are interested in obtaining jobs for their students and in broadening the scope of their students' interest to business-related mathematics, including actuarial science. They are also looking for ways to attract good students to mathematics and to sharpen the interest and dedication of their students. Possibly, largely because of limits on time and staff, they have not done much toward specific preparation of students for the preliminary examinations.

I would like to close by asking each of you, "Are you and your company willing to commit the time and effort needed to make our Minority Recruitment Program a success?"

MR. CARL R. OHMAN: I would like to cover two aspects of this theme of actuaries talking to educators and students: (1) the work of the Subcommittee for Relations with Colleges and Universities and (2) the current status of the Actuarial Aptitude Test.

RELATIONS WITH COLLEGES AND UNIVERSITIES

The Subcommittee for Relations with Colleges and Universities has the assignment of maintaining and improving contacts with American and Canadian colleges and universities. For this purpose, the United States and Canada are divided into twelve areas. A member of the subcommittee is assigned to each area and is responsible for co-ordinating college contacts in his area. The scope of subcommittee activity varies from area to area but usually includes visits by actuaries to campuses, talks to groups of students or teachers, dissemination of actuarial literature, and promotion of the use on campuses of the Actuarial Aptitude Test.

In those areas where local actuarial clubs are active in college contact work, the subcommittee area man works with the clubs and frequently is himself actively involved in a club's college contact efforts. In other areas the area man develops his own network of contacts. Where possible, the work is co-ordinated with efforts of other subcommittees, particularly in such fields as minority and disadvantaged recruitment and contacts with high schools.

In addition to maintaining its network of contacts with colleges and universities, the subcommittee also maintains a list of schools offering actuarial programs and a list of schools with which we maintain ongoing relationships. Both lists are updated from time to time. The latest versions are available at the Society's office. In addition, the subcommittee is responsible for distributing, after each examination period, the list of unemployed candidates for Parts 1 and 2, indicating each candidate's school.

I might add that Lionel Potts has now taken over as chairman of the Subcommittee for Relations with Colleges and Universities. I am sure that he would appreciate any suggestions as to ways to improve the effectiveness of this important effort.

ACTUARIAL APTITUDE TEST

The Actuarial Aptitude Test was developed in 1961 by the Educational Testing Service for the Society of Actuaries. It was intended for use by college counselors and others as an aid in advising students who are considering actuarial work as a career. The development and validation of the test were handled by the Education and Examination Committee, while the Subcommittee for Relations with Colleges and Universities has been responsible for making the test materials available and promoting its use in colleges and universities.

To date, over 15,000 persons have taken the Actuarial Aptitude Test. It is interesting to note that fewer than one-third of these took the test at colleges, universities, or high schools. More than two-thirds were given the test by insurance companies. This suggests the possibility of the test's being used by employers as a screening device in selecting candidates for actuarial training—although the Society's purpose in developing and promoting the test has been to provide a tool for counseling students.

The test consists of two parts—a mathematical section and a verbal section. The mathematical test measures much the same aptitudes and insights as are required for success on Part 1, and success on the mathematical test may be related to eventual success on Part 1. The verbal test emphasizes the ability to understand word relationships and to comprehend what is read. It is difficult to relate success on the verbal test directly to success on the actuarial examinations.

The mathematics test has been validated from time to time by examining scores of students who took both the Actuarial Aptitude Test and Part 1 and correlating the scores on the two tests. The most recent validation was performed in 1966 and covers 1,966 students who took both tests. Statistics from this validation may be obtained from the Society office. An updated sample study has recently been completed which largely confirms the results of the 1966 validation.

During the past few months the Actuarial Aptitude Test has been the subject of a thorough review—both as to its purpose and use and as to the validity of the test itself. The Educational Testing Service and the Parts 1 and 2 Examination Committee have assisted the subcommittee in this review. We have concluded that the mathematics section is still a valid measure of potential performance on Part 1 but that the verbal section needs revision and updating. The Board of Governors has authorized revision of the verbal test, and the Educational Testing Service already has commenced work on this project. We also are revising the instruction manual that accompanies the test.

There are a number of questions concerning the use being made of the Actuarial Aptitude Test. To the extent that employers do use the test to screen applicants for employment, there may be questions of bias in relation to equal opportunity employment. Again, the Society's purpose in sponsoring the test has been simply to counsel students, not to set a basis for selection of persons for actuarial jobs.

The Actuarial Aptitude Test is currently available only in English. It has been suggested that the Society also should have available a French version for use in counseling prospective actuaries with French-speaking backgrounds, notably in Quebec. Perhaps there also should be a Spanish version.

I shall be co-ordinating the effort to revise the test and update the instruction manual. Any suggestions or comments relating to this work will be most welcome.

COCHAIRMAN WALTER S. RUGLAND: It is my contention that the actuarial organizations on this continent are myopic in their inward look on the profession, so much so that they miss the world as it goes by and have been missing it for the past generation.

We have focused on shop talk, on superficial niceties in our relationships, and on technical interests relating to certain preselected subject matter which is designed solely for *our* listening pleasure and appreciation. We have done nothing to recognize or to improve substantially our role in our various cultures, nor have we even gone so far as to take an inventory of the business or personal attributes that our examination and training system develops, let alone point out the strengths and weaknesses of them. We do say that many actuaries emerge as top management figures in life insurance companies, but even then we have not said why or what is peculiar about the profession that channels actuaries to this end.

We still seem incapable of timely response or evaluation of public issues. All this results from and leads to more focusing of attention inward addressing the easy problems and overtreating the superficial bruises. The net result is that we have missed opportunities, we are unknown quantities, and in many instances we feel that we are not professionals because we are not recognized with the esteem of the professional down the street. Most of North America does not even know who we are!

Personally, I find few actuaries who fit the "actuarial mold" when they are given a chance not to. This is especially true of those in the "under age 35" group. They are aggressive, smart, mod, articulate, outspoken, and demanding. But put them together in a closed room, and even they work hard to reinforce the "green eyeshade" image they hear in their offices everyday. They tell jokes about themselves, degrade each other, and pyramid negativism.

These are critical times for actuaries! We are on the brink of being either a "profession" or a "vocation." Today's environment will not allow us to be both. I am pleased to report that our Society leadership has recognized the crisis; in the last twenty-four months, significant advances have been made in the superstructure to enable the organization to address itself to the opportunity of the crisis rather than run away from it to search for more data. Additionally, our leadership is beginning to communicate its thoughts about it.

But leadership can only go so far! It needs evidence of the rush of people falling in place behind it, and that is not happening yet. By and large, North American actuaries do not relate to the crisis—be it problem or opportunity. To gain understanding, we need to have much more communication. Communication is a two-way thing, and the receiver must receive with open mind and commitment to response. To do this, we need to work on our own self-image as actuaries. If we perceive ourselves as employees of life companies, clerks for hire, or consultants dependent on justifying management's decisions, we will have a tough time rising to the crisis issue. To be professional, we have to act, talk, think, and imagine ourselves as professional—and this is an each-person and every-person job. The question is: How do we get it going?

MRS. ANNA M. RAPPAPORT: I suggest that we all make concerted efforts to discuss this topic with our peers within our own organizations. Also, we can appeal to our local actuarial clubs to make positive strides toward the enhancement of the actuary's professional image.

MR. CLAUDE Y. PAQUIN: We have an obligation to point out the disadvantages as well as the advantages of the actuarial profession when talking to college students. First of all, actuaries lack personal independence, in that there are very few self-employed actuaries. Also, we have not as yet acquired the legal stature of a profession. Although we talk of the mobility of an actuary with respect to job opportunities, he is confined generally to large metropolitan areas and does not have access to the small-town or rural American type of atmosphere. Finally, it should be emphasized that not all people attain Fellowship, and a transition to a new career initially may involve a substantial amount of personal anguish.

MR. STEPHEN F. KRAYSLER: The preceding comments have been too negative. We must emphasize the positive aspects of the profession. The true issue is the question of how to obtain professional recognition, and that is done only by issuing opinions and, if necessary, defending these opinions in the event of controversy.

MRS. DONNA KATZMAN: It is extremely unfortunate that a profession that is supposedly mathematics-oriented does not have a single mathematically oriented topic on the meeting agenda. The Society recruits only mathematicians, and then requires a series of nonmathematical examinations in order to attain Fellowship. The Society should encourage non–management-oriented people to use their mathematical proficiency and not penalize them for their lack of desire to become managers.

To this end, the examination procedure should differentiate between technical and management examinations, and we should not coerce the undertaking of the management examinations by those not so inclined. Successful completion of such realigned Associate examinations could signify professional competence, not just the halfway mark to Fellowship. Being an Associate in the Society of Actuaries would become a goal in itself.

MR. MICHAEL J. COWELL: During the 1960's the recruiting of actuarial students was difficult almost everywhere. Good potential candidates were being attracted to the exciting areas of space science and computer technology rather than to actuarial careers. Everyone also was aware of the great need for teachers at that time.

The Society of Actuaries and insurance companies responded to this competition with stepped-up recruiting efforts on campus, with mathematics contests and with other attempts to promote the actuarial profession. It was a good day even when a reasonably good student was hired without any actuarial examination credits, and many student positions were going unfilled because of the lack of applicants. Under these conditions, it was appropriate to point out to prospects, faculty members, and placement officers that the manpower needs of the profession were badly outstripping the supply. The possibility of oversupply did not appear to exist at that time.

More recently, it appears that the tide has turned. Expansion in the space and computer industries has pretty well halted, and the situation in teaching has become one of oversupply, with numbers of teachers looking for opportunity in other directions. The result is that the supply of applicants for actuarial work has increased substantially. This is certainly supported by the burgeoning pass lists for the early actuarial examinations. The latter may to some extent also reflect increased selectivity in recruiting, since many companies raised their standards to require credit for two or more actuarial examinations in order to qualify for employment consideration.

At the same time, the question arises as to the ongoing need for more actuarial recruits. The answer to this question is important in shaping Society efforts to develop actuaries and in properly advising prospective actuarial students regarding future employment opportunities. With this in mind, the Society is sponsoring a manpower study to evaluate present and future needs for Society members. In August, 1973, requests for information were sent to a large number of employers of actuaries in the United States and Canada. Responses have been coming in gradually since then. In order to obtain the maximum benefit from this study, we need all possible information, and it is requested urgently that all replies be completed and forwarded as soon as possible.

Actually, requests for information have been sent to employers of about 75 per cent of the Society's membership. Considering that over 10 per cent of the membership is unemployed (mostly retired) and approximately 5 per cent employed outside the United States and Canada, only about 10 per cent of the membership has not been covered. The total number of employers solicited for information is 560, and returns have been received from about one-third of this number. Additional returns are expected, and we intend to follow up on delinquents to obtain the greatest possible volume of data for study.

A brief review of the forms returned reveals some interesting statistics, as well as some curious sidelights on how actuaries respond to a request such as was sent out. Most importantly, the returns in hand indicate rather strongly that the need for more qualified actuaries continues unabated in the face of the increasing numbers of students taking actuarial examinations. As of January 1, 1973, indications were that there was a need for 12 per cent more Fellows, 17 per cent more Associates, and 15 per cent more students. Extending these figures from the returns received to the total Society membership and students, the immediate additional need appears to be 270 Fellows, 330 Associates, and 320 students. In total, therefore, there were over 900 positions waiting to be filled.

Looking ahead five years to January 1, 1978, and following the same approach, comparing positions currently filled with projected needs, it appears that positions to be filled will be over 4,000 in number. This takes no note of the fact that about 20 per cent more (approximately 800) will be needed to replace retiring actuaries and dropouts during that period. Actually, retirements may be more significant than is indicated, because a number of actuaries read "estimated future retirements" as "estimated future requirements." It is also surprising that, even with a reconciliation formula provided, some actuaries apparently were unable to balance their statistics.

Estimates of needs beyond January 1, 1978, show more modest increases in actuarial personnel—even no increases at all in some instances. All appear to recognize the difficulty of forecasting such needs and probably have taken a generally conservative view of the situation.

No further analysis has been made, because of the shortness of time between the latest possible cutoff date for returns and the meeting date, and the limited number of returns received up to that time. More reliable and more detailed results will, in due course, be published.

COCHAIRMAN RUGLAND: If we are to discuss knowledgeably an actuarial career as a profession, we should be able not only to discuss present activities but also to comment on the future fields of activity of an actuary. For example, in 1950, were we fully aware of the role that the actuary was to play in the next 20 years with respect to the following?

1. Income tax
2. Computer technology
3. Catastrophe coverage
4. Variable annuities and variable life insurance
5. Medicare
6. Operations research
7. Pension sophistication
8. GAAP earnings

What will actuaries be doing in 1985 that they are not doing today?

EDITOR'S NOTE: In response to this last question, the following possibilities were mentioned by various members of the audience:

1. Further involvement in operations research
2. Investment operations
3. Evaluation of investment return on dollars invested in a community's educational system
4. Further involvement in casualty insurance
5. Population resources
6. National disasters and their impact
7. Possible elimination of the use of a policy form as we know it today and its impact
8. Banking services responding to questions like "size of risk reserve needed with respect to outstanding loans"
9. Human resource accounting
10. Corporate planning models
11. Biostatistics
12. Financial projections of corporations
13. Morbidity studies of machinery
14. Health maintenance organizations
15. The need of a revised examination syllabus to prepare an actuary properly for our changing needs

COCHAIRMAN ODELL: The legitimate demand for actuaries comes from the public. It is based on the public's knowledge of the actuarial profession and the public's knowledge of what our profession can accomplish. This knowledge of the actuarial profession is conveyed to the public by actuaries.

There is, as has been pointed out, a considerable legitimate demand for independent professionals. I would reiterate that we cannot be both a trade association and an independent profession. To be a professional is, to repeat the words of our cochairman, "an each-person and every-person job."

GENERALLY ACCEPTED ACCOUNTING PRINCIPLES—INTERPRETING STATEMENTS

1. Preparation of statements
   a) Desires of stockholders
   b) Audit guide specifications
   c) Internal company considerations
2. Analysis of content
   a) Definition of acquisition expenses
   b) Amortization of acquisition expenses
   c) Interest assumptions
   d) Maturity for reserve approach
   e) Sources of gains
   f) Loss recognition
   g) Participating departmental earnings
   h) Acquisitions—goodwill and fair-value accounting
   i) Deferred federal income taxes
3. Format
   a) Disclosure
   b) Presentation of actuarial assumptions
   c) Income statement and balance sheet
   d) Reconciliation of statutory to GAAP accounting
4. Considerations for companies converting to GAAP
   a) Choice of starting assumptions
   b) Consistency with industry standards
   c) Credibility

CHAIRMAN FREDERICK S. TOWNSEND, JR.: Our assignment is to discuss the interpretation of statements prepared according to generally accepted accounting principles (GAAP) and the format of such statements. Unfortunately, it is almost premature to discuss this subject. Very few major stock life insurance companies reported on the GAAP basis at the end of 1972, although some additional companies have done so at midyear 1973. Those companies which will not be caught in a time scramble to complete their 1973 financial statements will have an opportunity to devote some time to the study of other companies' financial statements.

MR. IRWIN T. VANDERHOOF: Before I begin the discussion of the desires of stockholders in reading financial statements, I would like to make it clear that I am speaking from the point of view of the actuary of a small stock life insurance company. The desires of stockholders are relatively clear cut and simple. Stockholders want

1. A stock that increases in value.
2. Some dividends, preferably increasing.
3. Earnings that are high and have a tendency to rise over a period of years in a predictable manner.
4. An understanding of the company and confidence in its management.
5. A conviction of honesty of company operations.
6. No unpleasant surprises from a company in earnings, stock performance, dividends, sales, and the like.

The above is a frank statement of the desires of stockholders, and I would like to expand a little on our responsibility with respect to them. Employees of stock life insurance companies are hired to give stockholders what they want. Their salaries are based on the presumption that they are going to manage the company efficiently and increase the net wealth of the owners of the company. The actual price of the stock generally is not considered to be under the control of management—at least it should not be. Dividend distribution is an action taken by the board of directors, and, although this is usually a management recommendation, it is not specifically a management responsibility. Earnings and prospects for earnings increases are a management responsibility, and a stockholder properly can hold the management accountable for results.

Statements of earnings prepared in accordance with GAAP are a new kind of responsibility for the actuary and properly may not be subject to the same kind of considerations as the usual work of the actuary.

1. Solvency considerations are not involved. Statutory reporting still exists; it is the measure of safety, and it exerts the primary control over dividend payments. The actuary's traditional attitude of conservatism is not necessary in this area.
2. Many industrial companies are forced periodically to write down assets and to restate prior earnings upon changes of circumstances. GAAP accounting is intended to make life insurance company reports comparable to those of industrial concerns. An assumption that something could not go wrong is not intended, but only that it is unlikely that write-downs and restatements of earnings will occur in a particular year. Greater risks may be justified in this area than would be acceptable where the safety of policyholders was at stake.

The following are some specific reasons for liberal statement of earnings:

1. Liberal statements of earnings are actually safer for the policyholders. If earnings are favorably stated, capital may be raised more easily. A statutory loss without a favorable GAAP earnings picture makes capital difficult or

impossible to raise. Previous to GAAP reporting of earnings, a statutory loss by itself could be explained away. Obviously the ability to raise capital in the marketplace constitutes an important margin of safety for policyholders. In addition, simply from the point of view of stockholders, industrial companies that are known for very conservative accounting procedures, do not seem to get a large enough price-earnings multiple to compensate for the total loss in stock price as a result of lower earnings.

2. Companies can avoid making themselves attractive as take-over candidates by making a liberal statement of earnings. Not only does it help the price of the stock, but also it eliminates the possibility that after a merger the company's earnings will be restated to the new owner's basis and will therefore look more favorable after merger than before.
3. Both the management and the actuaries risk loss of confidence of the board of directors and the stockholders if it seems that they are being unnecessarily conservative in their estimate of earnings.

MR. ROBERT L. POSNAK:* It is tempting to say that what the audit guide has done for stockholders is to throw them into a state of confusion and that what it has not done for them is to raise stock prices. More positively, however, what the guide has done for stockholders is to remove some (but not all) of the mystique of life insurance accounting, add some measure of credibility to stock company financial statements, and provide a few new tools for evaluating companies.

On this latter point, for example, it is now feasible to calculate operating margins for life insurance companies—pretax profits expressed as a percentage of premiums. The nature of the adjustment process lends some significance to such ratios, although they must be evaluated with great care, since any such ratio is greatly affected by such factors as type of business and duration.

It is also feasible to calculate pretax profits as a percentage of adjusted stockholders' equity. Perhaps the weighted average for the industry, or for a given segment of the industry, constitutes a good starting point for analysis. These are the types of analyses that have not been too meaningful with respect to statutory statements, particularly for newer companies. All things considered, anything that promotes or facilitates comparative analysis is beneficial to stockholders.

One other thing the audit guide has done for stockholders is to make it impossible for management to hide behind statutory results. The day is long past when management can wax enthusiastic over hoped-for future profits while reporting huge statutory losses that no one believes. It is very difficult to explain away a GAAP loss.

* Mr. Posnak, not a member of the Society, is a partner, Ernst and Ernst.

What the audit guide has not done for stockholders is to resolve the issues of credibility and comparability. Thus the extent to which comparative analysis has been facilitated is really a matter of degree; improved comparability can be measured only by comparison with statutory statements. So far as comparability of adjusted statements themselves is concerned, we have a long way to go. It is disconcerting, for example, to read the annual reports of thirty companies and find sixteen sets of interest assumptions for new business, ranging from 6 per cent level to $6\frac{1}{2}$ per cent graded to $3\frac{1}{2}$ per cent.

Nevertheless, from the standpoint of stockholders the audit guide is a worthwhile first step to reasonable, believable financial statements prepared from their point of view. Implementation of the guide is unavoidably experimental at this point in time. I do not doubt that decisions are being made in all good faith that hindsight will prove to be wrong. There is going to be some uncertainty about financial statements until the necessary hindsight is acquired. But there are only two alternatives to this: hold to statutory practices, or impose arbitrary rules for adjusted statements. Statutory practices do not suit the needs of stockholders. Arbitrary rules simply are no substitute for sound professional judgment. Actuarial judgment is applied in such critical areas as pricing, which has a most significant impact on a company's well-being and, by extension, on the well-being of its stockholders. It seems logical to extend that judgment to the accounting process. To do otherwise is to denigrate the actuary's capability and ultimately to do a disservice to stockholders.

MR. ROLAND R. STRICKERT: My company, National Life and Accident, has long been known as a conservative one from virtually any point of view. As interest rates dropped during World War II, we embarked upon a reserve-strengthening program with complete approval of regulatory authorities. However, the annual amounts of reserve strengthening over the next twenty years were not reported in what is now Exhibit 8A of the Convention Blank, and reports to shareholders contained only a balance sheet until 1964. Needless to say, we achieved a reputation for ultraconservative accounting. This image did not seem to disappear when we announced that the reserve strengthening was completed, or when income statements and reconciliations of the surplus account were added to shareholder reports, or even in 1969 when we began the use of Commissioners Reserve Valuation Method reserves on new issues. In short, we could conclude only that our employment of any variation of statutory accounting principles would continue to be considered ultraconservative by the investment community.

Because we had serious technical reservations about the various rule-of-thumb methods of earnings adjustments, we did not officially endorse any of them. We supported the American Institute of Certified Public Accountants wholeheartedly in its efforts to develop a generally accepted method of presenting life insurance earnings on a "going concern" basis which is uniformly and scientifically applied to all stock life insurance companies. We viewed GAAP statements, as certified by reputable national accounting firms in conjunction with the work of independent actuaries, as the vehicle which would eliminate the credibility gap which existed formerly between stock life insurers and their investing publics. My company prepared to adopt the finalized GAAP accounting rules as soon as we were permitted to do so by the Securities and Exchange Commission, and our GAAP statements were completed on February 15.

With respect to format and content of our GAAP statements, we attempted to give clear and concise explanations of all required items of disclosure and of other pertinent items which we could provide conveniently by our February 15 deadline. Since ours was to be one of the very first major-company GAAP statements, we felt it especially important to emphasize quality and clarity of presentation of all pertinent information.

CHAIRMAN TOWNSEND: Bob, the definition of acquisition expenses is an area where you and various representatives of the life insurance industry have been engaged in extended debate. Could you please summarize for us what the AICPA position is with respect to this question?

MR. POSNAK: The audit guide defines acquisition expenses as those expenses which vary with and are primarily related to production. That definition seems simple, but it is not. What degree of variability is necessary? What criteria must be satisfied to demonstrate that a particular expense is primarily related to production?

The significance of acquisition costs is suggested by the aggregate net increase in unamortized acquisition costs for twenty-four companies that reported adjusted earnings in 1972. The net increase for all the companies combined was $111 million; pretax statutory earnings were $177 million. It follows that a company's interpretation of the audit guide's definition of acquisition expenses is also very significant.

CHAIRMAN TOWNSEND: In my personal contacts with various company managements I can conclude only that a wide range of practices is in effect, and the definition of acquisition expenses will be the least uniform position within the life insurance industry. On the very conservative side, one company defines acquisition expenses as only the cost of medical examinations and inspection reports and the excess of the first-year commission over the renewal commission rate. On the liberal side, one company merely plugged its historical asset share assumptions into its computer, and the "acquisition expenses deferred" in its financial reports include both first-year and renewal expenses. This is offset by "acquisition expenses amortized," which includes all renewal expenses and a portion of each prior year's first-year expenses.

Roland, can you tell us what types of expenses your company capitalized in its financial statements?

MR. STRICKERT: National Life and Accident capitalized the following individual insurance expense items: (1) first-year and early renewal commissions to agents in excess of ultimate renewal commissions; (2) overrides on new-business commissions; (3) medical and inspection report fees; (4) all other expenses which are classified as either "selection" or "issue" under the LOMA's functional cost definitions; and (5) fringe benefit costs and a portion of field trips and prizes deemed allocable to capitalizable commissions or salaries. We did not capitalize any group insurance expenses or any expenses categorized by LOMA definitions as overhead, direct maintenance, general maintenance, or selling, except for a portion of field trips and prizes.

CHAIRMAN TOWNSEND: Irwin, had your former company planned to take a different approach?

MR. VANDERHOOF: There is no great difference between the Standard Security approach and that described by Roland. The company is expecting to amortize expenses for medical, inspection fees, development allowance, ERA, first-year commission and nonlevel renewals, salary, and fringe benefits for underwriting and issue. Under examination are the questions of handling ratebook costs, agency meeting, special issue costs for unusual plans, and special calculations for new policies.

MR. POSNAK: The audit guide provides that acquisition costs should be allocated to lines and types of business with the degree of refinement necessary to achieve a proper matching of amortization and premiums. Amortization should be proportional to the recognition of premiums—the so-called sum of the year's premiums method. Either worksheets or factors are acceptable, although the guide seems to indicate a preference for factors. Amortization can be with or without interest, although again the guide seems to indicate a preference for amortizing with interest. Where actual terminations differ significantly from expected terminations, adjustment should be made, which is automatic when factors are used and a little more difficult under the worksheet approach. Where persistency is radically different from that assumed, factors (or worksheet amortization tables) are supposed to be recalculated, giving effect to the indicated revised persistency pattern. This represents a departure from the lock-in principle. I might add that, where experience is such as to necessitate a recalculation of acquisition cost factors or amortization tables, I believe that benefit reserve factors should be recalculated similarly to maintain consistency.

CHAIRMAN TOWNSEND: Page 108 of the audit guide presents a sample paragraph for the disclosure of information pertaining to deferred acquisition costs. Unfortunately, from the investment analyst's point of view, many companies are using this standard paragraph without adjusting the wording to reflect variations in individual company practices. For example, most companies seem to be using the standard cliché, "These deferred acquisition costs are being amortized over the premium-paying period of the related policies in proportion to the ratio of the annual premium revenue to the total premium revenue anticipated." If, in fact, a company is amortizing acquisition expenses only over twenty-five or thirty years, it may fail to state that fact. We have run into companies who are amortizing acquisition expenses over a limited period of time but continue to use the standard cliché, indicating that such costs are being amortized over the premium-paying period. We found this out only after our firm put out a comparison of companies, and some companies that were amortizing over a limited period of time but reported use of the premium-paying period appeared liberal in the comparison and called us to inform us of the more limited period in use. As a result of this experience, I would not be surprised to see most companies indicate the use of the premium-paying period at year end 1973 but modify subsequent financial statements to indicate a true shorter length if this is their actual practice. The reason for this is that the company which amortizes acquisition expenses over twenty or twenty-five years will appear to be more conservative than the company which is amortizing acquisition expenses over the premium-paying period. More conservative accounting methods command a higher price-earnings ratio in the stock market, and liberal or questionable accounting methods often result in depressed price-earnings ratios.

The audit guide permits the amortization of acquisition expenses without the use of an interest factor. Only one company, and a major company, has indicated that it amortized acquisition expenses without interest. It is to the company's advantage to so state, since this is a more conservative accounting practice.

Roland, what approaches did your company take with respect to amortization of acquisition expenses?

MR. STRICKERT: National Life and Accident decided to utilize the worksheet approach in its amortization of acquisition expenses. One set of worksheets was used to amortize the first-year expenses. Another set was developed for amortization of the excess of early renewal commissions over ultimate renewals. This separate renewal commission treatment permitted us to properly reflect agents' contract changes, many of which did not coincide with ratebook changes. It also demonstrated this item's material effect upon earnings. All worksheet assumptions as to interest, mortality, and withdrawal were consistent with those used in the calculation of benefit reserves.

CHAIRMAN TOWNSEND: Have any of our panelists experimented with the length of the amortization period? Is there any material difference between amortizing acquisition expenses over thirty years as compared with the premium-paying period of a block of business? Is there a significant difference between twenty-five years and thirty years?

MR. STRICKERT: Consistent with its benefit reserve assumptions, National Life and Accident limited the length of its acquisition expense amortization period to twenty years on its industrial life, industrial health, and ordinary health lines of business, and to thirty years on its ordinary life business. We made early tests to show the effect of shortening the amortization period to ten years. While amounts capitalized on the health and industrial lines were increasing at an average rate of 3.5 per cent per year, the adjustment to earnings (amounts capitalized less amounts amortized) determined under ten-year write-offs averaged 64 per cent of that under twenty-year amortization; the unamortized balances under ten-year assumptions were 54 per cent of those under twenty-year amortization. On our ordinary life line of business we have had a 10.5 per cent annual increase in capitalized amounts; the earnings adjustment ratios were 46 per cent in comparing ten- to twenty-year amortization and 82 per cent in comparing twenty- to thirty-year write-offs. The unamortized balance ratios were 60 per cent in comparing ten- to twenty-year write-offs and 86 per cent in comparing twenty- to thirty-year amortization periods. From these examples I believe it is obvious that the ratios are rapidly approaching unity and that further lengthening of the amortization period will achieve minimal change in results of operations.

MR. POSNAK: The audit guide provides that interest assumptions should be based on estimates of future average yields. In context, "average" refers to the average for a given year's issues, not the portfolio rate.

Adverse deviation has to be provided for; unfortunately, how to provide for it is not indicated. The guide makes a good case for conservatism, however; it states that selection of a rate is a "subjective judgment" which must contemplate "the long term nature of life insurance, the contractual obligations under life insurance policies, and the inherent inability to forecast the future with certainty."

We do not recommend how to choose the interest rate. Our role is to support the rate that is chosen. A simple opinion about future interest rates is not enough. Neither, for that matter, is an informed opinion; no one has proved himself particularly prescient with regard to future interest rates. Opinions have to be buttressed by a history of interest rates; the company's position in an interest rate cycle (to the extent that a cycle is determinable) and the likely trend of the cycle; models of cash flows, asset maturities, investment rollover, and liability maturities; and similar evidence. The burden of proof for not grading assumed new-money rates to a reasonable conservative value is always on the company that chooses not to use a conservative ultimate rate, and the burden is very heavy indeed.

MR. STRICKERT: Level interest rates as well as several patterns of graded interest assumptions were used in our tests of benefit reserves. As is demonstrated in Table 4 of Mr. Vanderhoof's current paper, we found some level interest reserves to be more conservative and others more liberal than graded interest reserves. However, we found that both the amount and the pattern of benefit reserves paralleled CRVM statutory reserves more nearly when level interest rates were used than under graded interest assumptions, particularly on industrial life insurance. Since level interest assumptions also facilitated greatly other GAAP computations, such as expense amortizations and supplementary benefit reserves, we adopted them for all GAAP calculations. Level rates of 4 per cent were assumed on current issues, except for $4\frac{1}{4}$ per cent rate on a special series.

MR. VANDERHOOF: My own views on interest rate assumptions are stated quite extensively in the paper I am presenting at this session. The methods described in the paper actually were applied by Standard Security Life. In the case of this one company, perhaps because I was both the operations and investment officer, these two phases of the insurance company operation were in fact integrated. Actual asset model calculations considering the flow of funds from the insurance operation to the investments and back again were run over the period of the next twenty years. On the basis of these calculations and consideration of the situation as it would have existed in 1968 and 1969, the company has decided to use interest assumptions for nonparticipating business of $4\frac{1}{2}$ per cent level for issues of 1968 and earlier and 6 per cent level for issues of 1969 and thereafter.

This is not to suggest that such rates are appropriate for every company or for many companies. However, since the operations and investment areas of the company have been integrated and the methods described in the papers have been applied, these rates are appropriate for the actual operation of this particular company.

CHAIRMAN TOWNSEND: The Joint Actuarial Committee, in its response to the December, 1970, exposure draft, took the position that "the Audit Guide should specifically sanction Benefit Reserves calculated on a basis which matures them for either the cash surrender value or the statutory reserve." The audit guide has never offered or mentioned this possibility. Why?

After all, if companies were to use original gross premium assumptions in computing benefit reserves, and if original assumptions included the assumption of maturity for reserve after a specified number of years, would it not be logical to mature the benefit reserve to the statutory reserve at the end of a specified period of time? Bob, would you care to respond to this question?

MR. POSNAK: The audit guide does not mention grading the adjusted reserve to the statutory reserve because it does not really need mentioning. Grading is appropriate only if the result is about the same as for not grading. The procedure is based on practical considerations. There is no apparent theoretical justification for grading.

CHAIRMAN TOWNSEND: Several companies have indicated that their GAAP reserves are equal to statutory reserves after twenty, twenty-five, or thirty years. However, Roland's company is in a unique position to date. It reported that its GAAP reserves equaled the cash value after thirty years. Roland, is your cash value equal to or different from your reserve after thirty years? If it is different, why did you mature the GAAP reserve rather than the statutory reserve for the cash value?

MR. STRICKERT: National Life and Accident's benefit reserves on limited payment policies are graded to mature for the GAAP paid-up policy benefit and expense reserves. On whole life policies we state that they are graded to cash values over twenty years on industrial and over thirty years on ordinary. These cash values are equal to net level reserves computed on original policy interest assumptions which were considered to be more appropriate for GAAP purposes than those of our strengthened statutory reserves.

CHAIRMAN TOWNSEND: Out of curiosity, Irwin, what is your former company planning to do?

MR. VANDERHOOF: Standard Security did not plan to set the benefit reserve to mature to the cash value or to the statutory reserve. The feeling is that this probably defers earnings unnecessarily and certainly distorts incidence as compared with the use of the natural reserve.

CHAIRMAN TOWNSEND: One of the more intriguing, and gratuitous, comments to come out of the Joint Actuarial Committee response was the statement that "we suggest that an actuarial analysis of gains by source should be specifically referred to in the Audit Guide as desirable, but not required, disclosure of significant information." Who can argue with this statement? Nothing would be more valuable to the reader of the financial statements than an actuarial analysis of gains by source. Unfortunately, it is extremely difficult to produce. Therefore, I was quite surprised when at least two major stock life insurance companies, including Roland's company, made reference to the weighted average interest rate for all benefit reserve calculations. If a company employs level interest rate assumptions, it is easy to derive this figure by multiplying aggregate liabilities by the level interest assumptions. If a company has graded interest assumptions, however, how is this figure derived? Roland, can you shed any light on this matter?

MR. STRICKERT: Since National Life and Accident employed a series of level interest assumptions, the calculation of weighted average interest rate was relatively simple. If we had instead been using graded interest rates, the computation of the weighted average current interest rate would not have been much more difficult in our case because of the availability of recapitulations of reserves by year of issue. I suppose that modeling techniques might otherwise have to be utilized.

CHAIRMAN TOWNSEND: I do not know whether the Committee on Papers would agree with me, but I believe that it would be a valuable exercise for a member of the Society to write a paper on how sources of gains could be derived for GAAP financial statements. If companies can find a way to report sources of gains, this will improve the quality of life insurance accounting and upgrade the credibility of the industry's financial statements. In turn, this should result in higher price-earnings ratios for the industry than would otherwise be the case. Would any of our panelists care to add any thoughts on this subject?

MR. STRICKERT: We have given serious consideration to the possibility of producing appropriate GAAP benefit reserve factors for each valuation cell included in our group total accounts. Statutory valuation programs could then be utilized to compute the GAAP benefit reserves, together with benefit reserves released by death and by other terminations. The computation of gains from mortality and gains from surrenders, as we have known them traditionally, thus would be quite simple. Recognition of gains or losses from loading might be less simple and would be affected significantly by individual company philosophy as to the definition and subsequent methods of amortization of acquisition expenses. Some companies might find it more expedient to include certain expense elements in their computation of gains from surrender.

Now that I have outlined a possible approach to determine sources of gains, I would like to make a point in opposition to their release to the general public. Over the years we have seen company reports of actual-to-expected mortality ratios of under 50 per cent, ratios of interest earned to required interest of well over 200 per cent, and so on. We as actuaries know that such statements, although based factually on conservative statutory valuation assumptions as to mortality and interest, do not present an accurate picture of the results achieved in comparison with the actuary's assumptions in the determination of nonparticipating gross premiums. Although sources of GAAP gains are not likely to be as misleading as we have seen on statutory bases, individual company approaches in computation of sources of GAAP gains or in the use of level versus graded interest rates will result in lack of uniformity for purposes of intercompany comparisons. I agree wholeheartedly that company actuaries should determine and analyze their sources of GAAP gains, and, although I concede that some credibility improvement might be achieved by publication of financial statements, I am not yet convinced that many investors or financial analysts can properly or meaningfully interpret this information. In my opinion, comprehensive actuarial study is required before widespread comparisons are published!

MR. POSNAK: I would add that developing an acceptable frame of reference for measuring gains by source is the real problem, and one that has been with us for at least seventy-five years, judging from the heated discussions the subject has aroused throughout the history of the Convention Statement.

Turning now to loss-recognition tests, there are really two types of tests that have to be made: at issue, and later, when experience on an entire line of business has deteriorated.

The test to be made at issue is the so-called recoverability test. Briefly, the test is made by comparing the valuation premium and the gross premium. If a "best estimate" valuation premium exceeds the gross, a deficiency is indicated; the present value of all such deficiencies is applied to reduce deferred acquisition costs. Generally the comparisons would be made with reference to fairly broad classes of business.

One other test that needs to be made is the reasonableness of the profit pattern associated with a particular set of assumptions. Even though the gross premium may exceed the valuation premium, if the operation of the reserve results in a peculiar profit pattern—for example, gains in the early years and losses in the later years—the assumptions presumably would have to be revised.

With respect to deteriorating experience for a line of business, the test is made by calculating a gross premium reserve (using for discounting purposes the assumed investment earnings rate) based on "best estimate" assumptions—that is, with no intentional margins for adverse deviations. To the extent that the gross premium reserve exceeds the financial statement reserve net of unamortized acquisition costs, the excess is applied to reduce unamortized acquisition costs of an immediate charge to income. There seems to be a reasonable degree of latitude in defining a "line of business" for loss-recognition purposes.

Whenever a deficiency situation occurs, calculations of the deficiency should exclude general overhead allocated to the line of business. Only those expenses that can be associated more or less directly with the line of business should enter into the calculation.

CHAIRMAN TOWNSEND: One of the companies for which I have analyst responsibility may be a textbook case of loss recognition. For seventeen years, from 1954 to 1970, the company wrote medical expense policies. Open-end coverages were sold from 1954 to 1964 and closed-end coverages from 1964 to 1970. Although the company has been applying for rate increases every year, and obtaining rate increases every year, the coverage remains underpriced, and the good as well as the bad risks renew their policies. The company enjoys a 93 per cent persistency ratio. No new business has been written since 1970, yet for each of the last five years the underwriting loss on this block of business has varied from $1.5 million to $2.7 million. Management never expects to see a profitable year on this closed book of business and at best is hoping to hold future losses to $1 million per year. Clearly, this is a case for loss recognition. Yet how would you estimate the present value of all future losses on this business? Would your accounting firm permit you to recognize all expenses allocated to this line of business?

Bob, can you indicate what the appropriate type of accounting treatment might be in a situation such as this?

MR. POSNAK: This is an extremely complex problem that perhaps is addressed best by the few companies which actually have the problem. However, perhaps a few general comments are feasible.

Some view this type of business as being in the nature of group insurance. Thus loss recognition would not be required. I have difficulty with this view. The noncancelable feature seems to lend guaranteed renewable business a character that differs substantively from the character of group insurance.

Some believe that the business should be treated in the same way as noncancelable business. Under this theory it is assumed that future rate increases will be absorbed by future claim increases, and the present level of premiums and the present curve of claim costs should be projected and any deficiencies measured in this fashion. I have some difficulty with this view, too. It appears to "freeze" the lag in rate increases into the reserves by assuming that all future rate increases, including the next one, apply purely to future additional claim costs. More important, perhaps, is the pattern of rate increases vis-à-vis the pattern of claim costs. Even assuming that the present value of the rate increases might equal the present value of additional claims, the incidence would probably not be the same, so profits might be distorted.

A variation of the foregoing approach is to revalue the block of business each time there is a rate increase and each time the outlook changes with respect to the benefit pattern. Conceivably the business could be revalued annually. This may be the most practical thing to do, although it could result in fairly violent effects on income.

Perhaps the purest thing to do is project future rate increases and future increases in claim costs and make one calculation covering the future in its entirety, revaluing only if experience completely invalidates the underlying assumptions. I hasten to add that I have no insight into how to do this properly.

There seems to be no firm guidelines, at least at this point in time, for calculating deficiencies on guaranteed renewable business. Surely this is an area requiring the keenest of actuarial judgment.

CHAIRMAN TOWNSEND: Irwin, your former company has had some difficulties with individual accident and health insurance. Has a situation for loss recognition ever occurred?

MR. VANDERHOOF: Standard Security has several blocks of unsatisfactory business: (1) some disability income, (2) major medical, and (3) older participating issues. In this last case the problem was in the underwriting practice of the company. The company has sold very substantial amounts of term insurance at low rates, and the underwriting department seemed to feel that if standard was available to a client at a very low rate on term insurance, then the high rate charged for participating life insurance should compensate for very substantial excess mortality on a different client. This attitude was not discovered for some time, and it led to a block of business with unsatisfactory mortality.

In all these cases it is necessary to determine a year in the past in which the fact that the business was unsatisfactory could have been determined and recognize the capitalized value of the future losses as having occurred in that particular year. It is true that some flexibility is allowed in both the determination of the loss year and the amount of such losses. Obviously, the larger the loss recognized in some previous year, the smaller the unfavorable impact that this business would have on the statement in years subsequent to the loss years. The amounts of these losses have not been determined at this time.

Although I have no reason to believe that the following applies in the case of Standard Security, this discussion brings up an interesting possibility. In theory the results of such a loss recognition could be that in the year in which losses were recognized the company had a negative surplus on a GAAP basis even though the statutory surplus was positive. If that occurred in some previous year, little could be done about it and the auditors might choose to ignore it. However, if loss recognition took place in the current year and the same situation resulted, a company could be in the anomalous situation of being solvent on a statutory basis and insolvent on a GAAP basis. In this case the auditors might have some problems in giving a "clean" opinion.

CHAIRMAN TOWNSEND: Certainly one of the most controversial items in the audit guide is the treatment of participating insurance written by stock life insurance companies. Both the ALC-LIAA committee and the Joint Actuarial Committee wrestled with this subject, and it is my understanding that some major life insurance companies are not satisfied with the audit guide in this specific area. Bob, would you care to summarize the position of the audit guide with respect to participating insurance written by stock companies?

MR. POSNAK: Where there are no stockholder charge limitations, the guide provides that dividends should be accounted for as if they were contractual benefits equal to the initial scale. It goes without saying that the reserve assumptions should relate reasonably to the dividend assumptions. For example, use of the nonparticipating interest rate that grades, say, to 3 per cent could produce apparent losses if the distribution rate is, say, 5 per cent.

Where there are percentage stockholder charge limitations, earnings are supposed to be calculated without regard for dividends, and the reciprocal of the stockholder charge percentage is applied to the indicated result; the resulting amount is recorded as a liability to which dividends actually paid are charged. I would add that, where this is done, the earnings inuring to shareholders should be the appropriate percentage of participating earnings calculated on a pro forma nonparticipating basis.

When the stockholder charge is limited to an amount per thousand, the amount per thousand is all that ends up in earnings. But the participating line is supposed to be adjusted anyway to avoid distortions of individual statement items. When the stockholder charge is based on the greater of a percentage or an amount per thousand, the adjustment is supposed to be based on the "phase" the company is likeliest to be in over the long term. This can be a very difficult determination.

There are many unanswered questions concerning the participating adjustment. A complete answer will probably have to wait until the matter of mutual company accounting is considered in depth.

CHAIRMAN TOWNSEND: In the case of companies writing participating insurance, and operating with a 10 per cent restriction on the amount of participating profits that can be transferred to the nonparticipating department, nearly all companies include only 10 per cent of the participating department profits in reported stockholder earnings. However, there are exceptions.

In summary, on the conservative side, some companies accrue only 10 per cent of the participating department profit to stockholders. In the case where only 10 per cent of such earnings are transferred, it will be interesting to note whether companies transfer 10 per cent of statutory earnings or 10 per cent of GAAP earnings for the participating department. On the liberal side, companies with participating restrictions apparently can obtain the opinion of legal counsel, and their respective accounting firms will then rely upon legal counsel to permit the reporting of 100 per cent of participating department profits, on a GAAP basis, in stockholder earnings.

Bob, can you give us some general background information about how accounting firms rely upon the opinions of other experts?

MR. POSNAK: Opinions of other experts are usually taken to be in the nature of important audit evidence. The auditor considers such opinions in forming his judgments. It is very rare to see a formal expression of reliance on an expert in an accountant's report.

CHAIRMAN TOWNSEND: Irwin, your former company is domiciled in New York State and writes both participating and nonparticipating ordinary life insurance. How did you plan to treat participating department earnings?

MR. VANDERHOOF: In the case of Standard Security, the participating department has shown losses. The company believes that it is appropriate to provide for adjustments to the statutory accounts up to the amount necessary to make the cost of the participating line to the stockholders zero, provided that such adjustments are justified on the basis of experience rates and so on.

CHAIRMAN TOWNSEND: Many people are becoming bored by attending conferences and meetings on GAAP. They feel that they have heard everything, and little or no new information is gained at each subsequent gathering. However, a new and interesting bombshell exploded on the scene when a weekly financial newspaper, *Barron's*, published an article in its May 14, 1973, edition about a major life insurance company which had been acquired by a noninsurance organization.

When a life insurance company is acquired for a price in excess of its net asset value, this excess is termed "goodwill" and is usually amortized on straight-line basis over a period not exceeding forty years. In addition to the goodwill adjustment, purchase accounting may require a "fair-value adjustment." Under purchase accounting, policy reserve liabilities may be restated to reflect a more realistic interest assumption. This will tend to increase the surplus of the acquired company. However, the bond portfolio and mortgage portfolio may also be revalued at a current interest rate which could result in a very substantial decrease in the reported surplus of the acquired company. The net effect of these two revaluations or fair-value adjustments will probably result in a substantial decrease in surplus. This creates a fair-value adjustment which must be amortized, in addition to the amortization of goodwill.

Bob, would you care to give us some of the accounting theory behind goodwill and fair-value adjustments?

MR. POSNAK: The theory behind the fair-value adjustment is that fair value of assets and liabilities is the best measure of what has been acquired. Any differences between what is paid and the net result of the valuation process is evidence of unidentifiable intangibles, such as superior earning power. This difference is usually called "goodwill."

CHAIRMAN TOWNSEND: One item which I would like to bring to your attention is the incidence of earnings created by fair-value adjustments. The net fair-value adjustment is not amortized on a straight-line basis over forty years. The positive and negative elements of the net adjustment are amortized independently. The policy reserve liability adjustment works its way off the books over the lifetime of the business. This results in a bell-shaped amortization curve which starts out with a low amortization charge, probably reaches a peak between the tenth and fifteenth years subsequent to the acquisition, and gradually is reduced in later years.

In the case of the bond and mortgage portfolio, the average maturity date might be only fifteen years into the future. The accrual of discount on these portfolios will creep into income over a short period of time, fifteen years, compared with the additional charges for policy reserve liabilities which are spread over the lifetime of the business.

The net effect of these two adjustments, in the case of the company studied in the *Barron's* article, was to benefit the earnings of the parent company by approximately $750,000 per year during the first five years after the acquisition, reducing to zero benefit in years 10–15 following the acquisition, and resulting in a charge to earnings in later years.

What concerns me is the fact that fair-value accounting is merely an accounting tool which does not reflect any fundamental strength or deterioration in an organization, but redistributes the incidence of earnings by duration following the acquisition of a life insurance company. Under today's economic conditions, applying fair-value accounting to a newly acquired life insurance company is likely to increase current earnings immediately at the expense of future earnings. In the case of a corporate management team which is interested in playing with numbers, fair-value accounting makes the acquisition of life insurance companies attractive beyond the fundamentals of the business itself. In addition to acquiring what may be an attractive going concern, the acquiring company also acquires a convenient accounting tool for increasing immediate earnings at the expense of future earnings. I am half-tempted to resign my current position and become an acquisition consultant for non-insurance corporations.

As we all know, treatment of deferred federal income taxes has caused one of the most heated debates between the accounting and actuarial professions. *Accounting Principles Board Opinion No. 11* prohibits discounting of deferred federal income taxes, and the life insurance industry believes generally that discounting would be particularly appropriate to its business. Although the life insurance industry has not yet won its argument on discounting, individual life insurance companies have been excused from reporting a deferred federal income tax liability if they can demonstrate that timing differences will not create additional taxable income when they reverse in the future. Most life insurance companies are reporting a deferred federal income tax liability; those few major companies omitting such liability presently are in a distinct minority.

Roland, your company reported a deferred federal income tax liability for year end 1972. Would you like to explain to us how your company read the audit guide, what your present and estimated future tax position was, and any other stockholder or corporate considerations which entered into the decision to establish a deferred federal income tax liability?

MR. STRICKERT: For all tax years through 1968, National Life and Accident was in audit guide category 4 or Fraser's tax situation D. Our 1969 switch to CRVM reserves on all new issues resulted in an immediate change to category 2 or situation A. As the long-range effects of the section 818(c) election diminished, we became a category 1 or situation B company. We project that we will just barely revert to category 4 or situation D by the end of 1973 and that we will remain in that status during the foreseeable future. The possibility of a Phase III tax is extremely remote.

When a favorable decision was reached at the conference level, statutory liabilities previously established for possible adverse disposition of a large revenue agent's deficiency were earmarked to cover deferred taxes on accrual of deep bond discounts earned to date. We established $93 million of additional GAAP deferred tax liabilities in accordance with Appendix C of the audit guide. The "net change method" of *APB Opinion No. 11* was employed in the "with-and-without" calculations for 1958 and subsequent years. Principal timing differences recognized in Phase I were accelerated versus book depreciation, cash versus accrual basis dividend income, and ten-year-spread rule effects of a recent mortgage discount accounting change. GAAP adjustments to benefit reserves and to deferral and amortization of acquisition costs were also tax-effected on page 2. We eliminated timing differences resulting from the runoff of December 31, 1957, unamortized acquisition cost balances and GAAP reserve adjustments. Section 818(c) adjustments constitute a significant portion of recent Phase II timing differences.

CHAIRMAN TOWNSEND: Bob, do you have any comments on the subject?

MR. POSNAK: I would like to repeat a point raised a few weeks ago by Mr. John M. Bragg of Life Insurance Company of Georgia and Mr. James C. H. Anderson of Tillinghast and Company. The point is that deferred tax accounting does not deal with Phase I taxes. But taxable investment income increases, while adjusted reserves operate to level it out as a negative expense. Under certain circumstances it appears that the assumed interest rate should perhaps be net of taxes on investment income. Such taxes could be thought of as an investment expense.

MR. JOHN M. BRAGG: For a company which expects to be in the $\frac{1}{2}(G + T)$ situation, the tax basically consists of 24 per cent of T plus 24 per cent of G—in other words, 24 per cent of excess interest plus 24 per cent of net gain including excess interest. Perhaps a historical note may be of some value here. When the present tax law was being constructed (1957–59), there were two camps in the life insurance industry;

one desired the tax to be based entirely on excess interest, and the other desired it to be based entirely on net gain including excess interest. The resulting law, although it was adjusted in many special respects, was basically a 50-50 compromise of the two approaches, as far as companies in this situation are concerned; such companies are taxed half on one basis and half on another.

The point of this discussion is as follows: The first part of the tax, namely, 24 per cent of T (that is, excess interest) is not an income tax but is basically akin to an investment expense which will be payable regardless of the size of such a company's net gain. Consequently, that part of the tax should be deducted as an investment expense before interest rates to be used for natural benefit reserve and other calculations are arrived at. In the case of a company which expects to be in the (T − \$250,000) situation, with all its tax based on excess interest, the proper deduction would be at the 48 per cent rather than the 24 per cent level. Very few stock companies should expect to be in the (T − \$250,000) situation.

In a very rare situation where a company expects to be in the G situation, no deduction would be necessary. In determination of the expected tax situation, long-term considerations should be used.

Although all companies except G situation companies would use lower interest rates than if this adjustment were not made, it appears that companies in the $\frac{1}{2}(G + T)$ situation would use higher interest rates than those in the (T − \$250,000) situation. For a given block of permanent business it would therefore appear that the former companies would have higher GAAP gains (before tax) in early durations than the latter companies (and the reverse in later durations). This leads to an interesting observation regarding the manner in which "deferred taxes" are handled under the audit guide. The "timing differences" which are taken into account appear to operate for practical purposes only on the G side of taxable income. In the early durations the former companies would tend to generate deferred taxes to offset those higher gains, but the latter companies, which do not have any G tax content, would not.

Income tax which is directly attributable to excess interest (at the 24 per cent level for some companies and the 48 per cent level for others) can be expected to be very high in later durations of permanent plan blocks, especially where high interest rates are being earned. These high taxes are not compensated for by the "timing difference" mechanisms of the audit guide (which operate only on G) and actually will be changed to GAAP earnings when they are incurred. It appears desirable, therefore, to make direct provision for these high taxes by lowering interest assumptions, so that the needed extra interest will appear at the same time as the tax actually is incurred and charged to GAAP earnings. Otherwise, GAAP earnings after tax may show a declining trend by duration (and may even become negative) rather than remaining level in proportion to revenue as called for by basic GAAP theory. This discussant wishes to reiterate the fact, known to everyone, that the federal tax law for life insurance companies is very complex; the GAAP timing-difference adjustments are also very complex. The tax offset which is referred to in this and the preceding paragraph has not been studied in great detail. Much more work along these lines needs to be done.

The company with which this discussant is associated expects to be in the $\frac{1}{2}(G + T)$ situation. The effect of the income tax adjustment (at 24 per cent of T) has been determined approximately as shown in the accompanying tabulation, assuming 3 per cent statutory reserves.

Interest Rate without Adjustment	Adjustment	Net Interest Rate
8%	0.96%	7.04%
7	0.67	6.33
6	0.43	5.57
5	0.24	4.76
4	0.10	3.90

MR. STRICKERT: I have some comments to make regarding considerations for companies converting to GAAP. Initial selection of GAAP assumptions on both old and new business will affect the posture which a company presents at the time of conversion to GAAP. Optimum company objectives would be to maximize current earnings, to ensure favorable growth of its earnings, and to present a stockholders' equity balance-sheet condition which will impress policyholders but will not appear too strong in the eyes of the general public. The degree to which combination or counteraction of these goals might be affected by initial assumptions varies. A young, rapidly growing company which defers acquisition expenses for more future years than it has been in existence should be able to meet all the objectives, at least for a number of years. However, improper use of GAAP by new companies can be curbed if independent accountants and consulting actuaries insist that very conservative assumptions be applied until actual experience permits a more realistic approach.

An old company with a record of modest or average growth has such a significant amount of old business in force that it is well advised to take a realistically conservative approach in the GAAP treatment of all its business. I believe that the over-all effect of attempts to manipulate earnings on new business will tend to be eroded or counteracted on old business.

When initially restating its financial reports on a GAAP basis, management has the only opportunity to establish some conservatism in its balance sheet without making a charge against current income. For example, realistic reserves for loan losses might be established. Since benefit reserves ultimately reach the same level, the establishment of conservative GAAP reserves on existing business will permit the emergence in future years of larger GAAP earnings than under less conservative assumptions. Statutory reserves might be employed advantageously in the valuation of old blocks of business, unless their use would materially affect earnings.

Conservatism in establishment of initial unamortized acquisition expenses also will result in improved future earnings. However, since accountants will insist on consistency in capitalization treatment of new and old business, any company which is conservative in its existing business assumptions will obtain only modest deferral of expenses on its new business. In summary, older companies with large blocks of existing business initially should choose realistic GAAP assumptions, with provision for the risk of adverse deviations, and then follow them consistently thereafter.

THE REPLACEMENT PROBLEM

1. What types of transactions are considered replacements? What problems do replacements cause, and to whom?
2. From the actuarial standpoint, what actions to control replacement by either the insurance industry or regulatory authorities are justified?
3. What are the scope and financial impact of replacement activity on insurers? Are recent increases in lapse rates due to replacements?

MR. RUSSELL R. JENSEN: A replacement, literally, is the acquisition of new insurance coverage at the same (or nearly the same) time as the cancellation of insurance coverage already in existence. Replacement is not illegal but is subject to regulation in many states. Misrepresentation is illegal, and replacement involving misrepresentation is commonly called "twisting."

This is not a new problem. In 1905 the Armstrong Committee and in 1912 the NAIC made recommendations to cope with the practice. In the boom years of the 1920's there were many replacements as policyowners were solicited to use cash values to buy stocks. Nor did the pace of replacement activity cease in the 1930's, since policyowners were burdened with heavily loaned policies and replacement was often recommended as a "way out."

In 1930 an industry replacement agreement was signed by twenty-five major companies (eventually ninety-four signed). Steps taken at that time included (1) a replacement question in the application to be answered by the applicant and agent; (2) notification of the original company; (3) delays in issuance of new policies; (4) keeping replacement records; and (5) educational steps with agents and policyowners. Then the 1940 Temporary National Economic Committee report took the industry to task for excessive terminations by lapse and surrender, which essentially were wasteful and produced losses for most policyowners. At the same time, the report also criticized those life insurance companies which, under the guise of replacement control, were seeking to prevent disturbance of all business in force. This action was considered, in effect, a restraint of trade. In 1944 the *Southeastern Underwriters* case held insurance to be subject to antitrust laws; intercompany agreements were then believed to be forbidden as a means of controlling replacements, and the need for state or federal regulation became apparent.

After some diminution in the 1940's, the level of replacement activity began to rise substantially. In answer to the problem, replacement regulations received a new impetus at the state level. After some early attempts (notably in Washington and Nebraska), the NAIC began work on a model replacement regulation, culminating with the approval of a model regulation in December, 1970. Thirty-two states now have adopted replacement regulations quite similar to the NAIC model, and several others have generally similar or other regulations.

Now back to the question of what a replacement is, in terms of the model regulation. In the terms of that regulation, a replacement occurs where new life insurance is to be purchased and it is known to the agent that, as part of the transaction, existing life insurance has been or is to be (1) lapsed or surrendered; (2) changed to paid-up or extended term insurance; (3) changed to a reduced amount or to run for a shorter period of time; (4) reissued with a reduction in amount such that at least half the cash value is released; or (5) assigned as collateral for a loan or subjected to borrowing of at least 50 per cent of the cash value, either at one time or in a schedule over a period of time. One exemption from this definition covers the situation where the new life insurance is issued by the same company under a policy change or a conversion provision in the existing policy. Other exemptions occur when the new insurance is provided under a group life policy, a policy paid for in whole or in part by the insured's employer or an association in which he is a member, certain mass-merchandising forms of insurance, or certain pension and profit-sharing plans, or, finally, if the existing life insurance is a non-convertible term policy, with five years or less to expiry, which cannot be renewed.

The model bill and the other replacement regulations require certain duties of the agent and of the insurance companies. Why are such duties imposed on agents and insurance companies in replacements? What problems do replacements cause, and to whom? We might begin that discussion by citing the purpose of the model replacement regulation, as stated in its preamble: "To protect the interests of the life insurance public by establishing minimum standards of conduct to be observed in the replacement or proposed replacement of life insurance policies; by making available full and clear information on which an applicant for life insurance can make a decision in his own best interest; by reducing the opportunity for misrepresentation and incomplete comparison in replacement situations; and by precluding unfair methods of competition and unfair practices." In short, the stated purpose of the regulation is neutral on the subject of the merit of a given replacement. It does not say that replacements in general are good or bad, nor does it seek to prohibit or encourage them. The regulation simply takes the position that there should be fair dealing and the customer has a right to the kind of information he needs to make this decision. Accurate, adequate, and relevant information should be made available.

Underlying this regulation is a premise, or a pair of premises: sometimes replacement of life insurance is in the best interest of the customer, and sometimes it is not; sometimes the customer has not received the accurate, adequate, and relevant information he needs to make a decision, and therefore regulation is desirable.

Is it true that sometimes it is in the best interest of the customer to replace his insurance and sometimes it is not? Indeed, I believe so, although I wish it were not. I wish it were not so because replacements lead to a higher cost of life insurance protection for the general public. The cost is higher primarily because in a replacement the insurance buyer pays distribution costs twice, but also because of a higher lapse rate arising from replacements throughout the industry. Those higher lapse rates cause a small increase in cost for each insurance buyer, but the double distribution costs cause significantly higher cost for that buyer who replaces his original policy because he finds that a new policy suits his needs better or offers a better value.

Is this really true? I think we all know that it is and have seen examples which illustrate the principle that sometimes replacement is to the policyowner's advantage and sometimes it is not. There are a variety of models for comparing costs and values of the old and the new coverage. The replacement regulations require that premiums, cash values, and dividends be set forth for both old and new policies. It is also usually required to disclose certain of the common disadvantages attendant upon replacement which may apply to the person considering the replacement: (1) the premium may be higher; (2) there is new acquisition cost; (3) the incontestability and suicide clauses run anew; (4) older policies may have more favorable contractual provisions; and (5) the existing policy often can be changed to help the insured reach his objectives, without the added sales costs of a new purchase.

It is clear that the buyer cannot tell whether a replacement is or is not in his interest without an analysis of the relevant facts. He then may find sometimes that it is to his advantage. The fact remains, however, that replacement adds to the cost of life insurance, particularly for the person who finds that replacement—with all its adversities and costs—may nonetheless be to his advantage in a particular situation.

What other kinds of problems do replacements cause, and to whom? An agent or a company whose policy is proposed to be replaced faces the question of whether or not the policy should be defended vigorously. To do so will be time-consuming, and often incentive in defending the case is disproportionate to the incentive for the replacing company and agent. The result is that many replacements are not opposed, and the consumer does not have the benefit of another point of view.

When the original company and agent defend the case, it is at the cost of considerable time. That cost, plus the cost of all efforts in complying with replacement regulation, eventually must be borne by the insurance-buying public.

I have heard it said, too, that regulators are vexed sometimes by the burden of dealing with replacement activity. Some may feel that they are burdened needlessly by the zealous efforts of companies to preserve their own business, whether that is in the best interest of the buyer or not. Others may feel that such a problem should never arise in the first place. Whether or not one agrees, it is a fact that the regulation of replacement is an added burden for the regulatory authority, either to be passed on to the taxpayers as a higher cost of the regulatory operation or to result in the diversion of regulatory effort from other concerns to that of replacement. We must concede that replacements do cause problems for the regulatory agencies and therefore for the general public. Nonetheless, I believe that this kind of regulatory burden is justifiable in dealing with replacement.

MR. WILLIAM A. WHITE: During my impressionable years as a student, one statement in our syllabus influenced strongly my attitude toward replacements and "twisters." It ran something like this: "For many life insurance agents, a first-year commission is more attractive than a renewal commission, particularly if that renewal is being paid to someone else." From that time until I entered regulatory work, I tended to regard twisters as greedy, unprincipled renegades, a step removed from used-car salesmen, who callously cheated insurance companies and the public out of millions of dollars of unamortized acquisition expenses by selling policyholders something they already owned.

About four and a half years ago I deserted the life insurance industry and suddenly found myself face to face and required to do battle with the accursed twisters. This provided a different perspective—one which I feel should be made a part of our discussion. During the next few minutes I will describe my impressions of the causes of replacement and twisting and the characteristics of agents involved. I will then relate some of the problems I have encountered in trying to regulate twisting. Finally, I will suggest what seem to me to be the most practicable approaches to a solution of the problem.

At the outset, I should emphasize that this represents the viewpoint of just one regulatory actuary. I do not pretend to speak for insurance regulators in general or the New Jersey Insurance Department in particular.

CAUSES OF THE REPLACEMENT PROBLEM

To begin with, I think most of us would agree that the institution of replacement is "as American as apple pie." Everyone is bombarded constantly with advice to replace: that dirty old gas-guzzling car that looked so good when it was new two years ago; that nasty old television set with hot, unreliable tubes; that unfashionable wardrobe that was so chic at the last style change; that obsolete third-generation computer that dominates our lives at microsecond, rather than nanosecond, speed. The success of the American economy is measured by the degree of our susceptibility to these messages. To the best of my knowledge, there are only three areas of the economy where replacement is considered illegal or unethical: in the stock market, where "churning" is frowned on; in real estate, where "blockbusting" is a crime; and in insurance, where we have "twisting." In the latter case we are speaking only of a relatively small part of the insurance field—permanent ordinary life insurance—since the property and casualty, group, and term life insurance lines generally are considered to be fair game for twisting.

For the agent, twisting often represents the course of least resistance. One of the agent's most difficult problems is persuading the prospect that he needs insurance or that he needs more insurance. The agent avoids this problem if, instead, he selects a prospect who has already been sold on the concept of life insurance and concentrates on selling him a different kind of life insurance. In terms of the life insurance industry's basic obligation to the public, this is unproductive effort, but the agent easily justifies this to himself as good business and "honest competition."

The nature of the life insurance product and the way it is marketed contribute greatly to the twisting problem. Most people do not understand life insurance—even life insurance they have bought. They probably can tell what the face amount is and what they pay (in cash) for their policies, but it is usually asking the impossible to suggest that they make an intelligent comparison between what they have and what they are offered by a twister. If the face amount is more and the cash outlay less, they usually will be convinced. Furthermore, life insurance usually is sold on the basis of the agent's professionalism and the force of his personality. Unfortunately, the twisters I have met are every bit as professional and personable as the average good, successful agent.

If we rule out the "desperate twister," there are basically two kinds of twisters that I have encountered. (The "desperate twister" is new to the business and intent on validating his new agent's allowance. He will replace his maiden aunt's endowment at 65 policy, purchased two years ago, with an identical policy at a higher premium, saying that his company is better and that he needs the business. A good general agent or manager will catch this and ease the agent out of the business a few months earlier than otherwise. If the manager does not catch it, we probably never will know about it, because the agent will forget to check off the replacement box on the application and his aunt will not complain.)

The first kind of twister transfers whole blocks of business from one company to another. The old company is the one he has just left, and the new company is the one he has just joined. This agent is usually in the general insurance business and handles his clients' auto and homeowners insurance. In general insurance the "agent owns the business," and it is an accepted practice to rewrite all one's clients when one changes carriers. He indicates "replacement" on the application and completes the necessary disclosure forms. When challenged, he says he discussed the matter fully with each of his customers and that all were willing to pay a little more to keep him as their insurance man. Unfortunately, this agent probably will become dissatisfied with his new company when it complains about twisting or when it does not treat him as well in the second year as it did in the first, so he will tend to be a chronic problem.

The second kind of twister is a firm believer in term insurance and mutual funds. He advertises himself as an "estate planner" or a "financial adviser," and his approach letter says, "Let me review your life insurance program at no cost or obligation." If his client is insurable and has cash values which have not been borrowed against, the client will be advised to take out maximum loans, change to the fifth dividend option, and go on minimum deposit. He suggests that the prospect then use the money he has found for him "in the market" to buy some additional insurance. This agent frequently uses our New Jersey required disclosure form as his sales presentation—"let us project conservatively an 8 per cent return on your mutual funds"—and occasionally has it prepared by computer. If more than 50 per cent of the cash value is involved in the loan on existing insurance, he will check "replacement" on the application for new insurance.

THE FRUSTRATION OF REGULATING REPLACEMENTS

It has been suggested that "regulators are sometimes vexed by the burden of dealing with replacement activity." This is probably true, although I would prefer the word "frustrated" to "vexed." There are several reasons for our frustration. First, most departments are not organized to handle replacement complaints effectively. In the life insurance sections of the typical department at least, the whole thrust is preventive rather than punitive, and we deal with companies rather than with individuals. Usually we do not have investigators or established hearing procedures, so the handling of replacement complaints is entirely foreign to our usual kinds of operation.

To compound the problem, the legal status of replacements, or twisting, is very unclear. Although most laws tell the agent what he may not do, they do not tell us what we may do if the agent does replace some business. Presumably, we could demand a fine or lift a license, but this requires a very thorough workup of the case, with the constant chance that we will be challenged in the courts as to our authority and/or our judgment and our time will have been wasted. For this reason even the most serious twisting complaints tend to result in a warning or a slap on the wrist and the empty feeling that one has not accomplished anything.

To make matters worse, most twisting complaints involve an interpretation of shades of meaning. Given a disclosure statement, what constitutes a material error or omission? How can we be expected to evaluate the relative merits of two entirely different insurance programs issued at different times when the industry and our profession cannot agree on a basis for comparing essentially identical policies offered at a single issue age? Unless the law can be changed to prohibit all replacements, instead of only those involving "misleading representations or incomplete or fraudulent comparisons," our job will remain one of imposing uncertain value judgments on disagreeing agents. I, for one, feel very uncomfortable in this position.

Virtually all our replacement complaints are lodged by agents against agents. As far as most consumers are concerned, the replacement problem does not exist. When policyholders are brought into twisting complaints, they tend to side with the twister, so we have what appears to be a victimless crime.

POSSIBLE SOLUTIONS TO THE PROBLEM

I am inclined to rule out both tighter control at the regulatory level and co-operative action at the company level as solutions to the twisting problem—the first as impractical, the second as illegal. If the problem is to be solved at the individual company level, then it should be viewed as part of the over-all embarrassment of poor persistency which plagues the life insurance industry. I see two lines of approach to this combined problem.

The first lies in disclosure and involves the method of sale of permanent life insurance. Companies must bite the bullet and let the buyer know how much he is paying to buy into a permanent program of life insurance. The harm of twisting is duplicated acquisition costs, and unless the buyer has some idea of their magnitude and of the amount he stands to lose at early termination or replacement, the problem will never be a public concern and the industry will never obtain the public co-operation it must have to solve the problem. Undoubtedly some sales will be lost as the result of such disclosure, but those lost sales will be, by and large, the poor persisters who should not have bought in the first place. The industry's acquisition costs are entirely reasonable, and we should not be ashamed to make them public. For the person ready to buy permanent life insurance, their disclosure should be no deterrent.

The second approach is to view all voluntary terminations, including replacements, as the result of successful competition for the policyholder's dollar. Most insurance companies stop competing when policies are sold. To keep those policies, they must continue to compete long after the sale. This, of course, means service. It is not sufficient to sit back passively and wait for one's policyholder to request service. Service must be active. It must anticipate the policyholder's needs and interests. It must be personalized and tailored to his problems. A company must continually resell the policy, refreshing the enthusiasm the buyer had when he first signed an application, and the buyer's appreciation of the value and flexibility of the policy must be enlarged. This degree of service will be expensive, since probably it cannot be provided by the agent. However, I feel that the ingenuity of management, together with the power of the computer, makes the necessary kind of service feasible, and the rewards, through improved persistency and sales produced as the result of greater satisfaction with the product, might make it profitable.

MR. JENSEN: Another observation is that the model replacement regulation imposes duties on the replacing agent and company. The agent, for example, must get all the facts on both the original and the proposed policy, and the company must review that material. There is no requirement that the company whose policy is the be replaced must furnish the current values and dividends on that policy, as needed for the standard replacement form. Those values are difficult to obtain for policies issued in past years, and consequently neither the replacing agent nor the replacing insurance company is in a position to use rigorous standards of accuracy. For example, it is not uncommon that dividends shown for the original policy are actually those for policies which the company is issuing currently and may be higher or lower than those for the policy which is proposed to be replaced.

As a result, the material on the standard replacement form may, to a degree, contain inaccuracies. Further, the nature of this form is such that if the original policy is for, say, $5,000 and the proposed is for $20,000, all the premiums and values are set down side by side for these two amounts. That is not really helpful to the insured in deciding whether to keep the $5,000 policy and buy $15,000 of new insurance or to lapse the original $5,000 and buy $20,000 of new insurance.

I believe there is a rather common view, and a correct one, that one of the primary beneficiaries of the model regulation and standard replacement form is the company or the agent that wishes to engage in substantial replacement sales activity. Once the agent and the company have complied with the requirements of the regulation and the standard form, they have fulfilled their obligations. As has been commonly observed, even at the time of the adoption of this regulation, the standard replacement form provides "a track to run on." I believe that the number of replacements is greater than would be the case if there were no such standard form. It is true that the standard form and regulation do provide the insured some protection and information, but there could be improvements in that regard. What the present regulation has achieved is the provision of a means whereby replacements can be legitimatized and whereby the agent, having fulfilled certain requirements, is protected substantially from criticism. As has been noted elsewhere, even if the agent does not fulfill those requirements, the regulation is silent on questions pertaining to means of enforcement or penalties for infractions.

MR. RICHARD A. LEGGETT: What are the scope and financial impact of replacement activity on insurers? Are recent increases in lapse rates due to replacements? It is very difficult to find any quantitative information about replacements, but I do have a few data which suggest the extent of the cost to the companies. One point to keep in mind is that it is the lapses associated with replacements that cause our concern. I have never heard of any company complaining about the new business involved. It is the termination of the original policy that causes the anguish. Replacements are only one segment of the greater lapse problem. Lapses or surrenders without replacement are even more costly to the industry as a whole.

I divide replacements into two classes, depending on the duration of the original policy. Those replacements of policies which are in their early years must result from reconsideration of the advisability of the initial purchases. It must be very difficult to determine that such a replacement is in the policyholder's interest, particularly if the recommendation depends on future dividend scales or on some assumption as to the future yields on the policyholder's investments. Perhaps it is here that the greatest attention by regulators, companies, and agents is necessary to be sure that the policyholder has all the facts.

Replacements of older policies are occurring also; in this case the lower premium rates of recent years combined with higher yields on alternative investments may result in a financial advantage to the insured through the replacement. Changing needs of the policyholder may be a factor. Here it may be possible to determine a more clear-cut benefit of replacement, and actuaries may be able to give a more objective opinion. Here too, however, the questionable future of interest rates necessarily introduces a subjective element into the opinion. Also, policy loans or a policy change may produce the same benefits without the need for incurring the initial expenses of a new policy.

One source of information having a bearing on replacements is a 1963 LIAMA publication on *Factors Related to Lapsation*. In two surveys of former policyholders who had lapsed between 1956 and 1960, the proportions who had lapsed in order to replace with another life insurance policy were 29 and 25 per cent, which to me are surprisingly high numbers. Furthermore, when asked whether they had replaced their lapsed policies subsequently, more than half of those surveyed indicated that they had done so. About half of all policyholders lapsing recognized a future need for insurance and subsequently repurchased. However, only about 10 per cent of those lapsing admitted that an agent had advised lapse and replacement.

Last year, in trying to develop a program for improving the persistency of our life business, we made a very small survey of people who had bought Travelers policies in 1969 and had already terminated, to see whether our experience was similar to that in the LIAMA survey.

Our results indicated that 33 per cent of these terminations had been for the purpose of replacing with another policy. Only 11 per cent of those lapsing had been advised to do so by an agent. Furthermore, 60 per cent of those who had lapsed, regardless of the reason, had already purchased new insurance.

I think that this is reliable evidence that lapse problems in my company and others are related to a substantial extent to the replacement of one policy with another, and success in controlling lapses associated with replacements can have a significant effect on a company's persistency. It indicates a substantial potential for reducing lapse rates.

I am unable to determine whether a recent increase in lapse rates is due to replacements, but I am inclined to doubt it. As a matter of fact, the LIAMA thirteen-month lapse analysis indicates that first-year lapses in 1972 for eighteen companies studied were not significantly higher than they were ten years ago or five years ago, and lapse rates of smaller companies seem to have improved. First-year lapse rates in 1972 were lower than in 1970 and 1971 but currently may be increasing somewhat.

Last year we made a comparison of lapse rates experienced by the Travelers Insurance Company in calendar year 1970 with experience of calendar years 1961–65. As far as I know, our current experience is not significantly different from that in 1970. Our experience shows that over a period of roughly ten years lapse rates have increased on permanent plans of insurance at all ages and durations but have increased especially in the first three policy years. On term insurance, lapse rates have changed very little in the last ten years. We did observe increases in lapse rates on term policies more than ten years old, and lapse rates on term are greater than on permanent, particularly at higher durations. Whether our less favorable experience is due to increasing replacement activity I do not know, but I think that the effects of high interest rates and the declining purchasing power of the dollar may be more influential than any increase in replacement activity.

Although we may be inclined to assume that replacements are always agent-induced, statistics from the studies I have mentioned suggest that more than half the time the lapse and replacement are not initiated by an agent. Admittedly it is the agent-induced replacements that get the attention because the replaced agent makes the noise about it, but an equal number of replacements apparently are the result of unassisted reconsideration by the insured. It is also interesting that about half the policyholders lapsing received no personal attention from agent or company to prevent the lapse. This suggests that greater conservation measures by the companies to avoid replacement could be more effective than action by regulatory authorities.

Apparently many policyholders lapse merely because they lack the discipline to keep paying premiums, and are not encouraged enough to do so by company or agent, but are sufficiently convinced of the need to buy again when an agent makes the effort to sell. Perhaps these are the lapses about which we should be more concerned, because the need for continuance of life insurance in some form is admitted by the insured.

Since a lapse almost always represents a loss to the company, it is perhaps surprising that more companies have not been successful in controlling lapses, particularly those where the insurance is later replaced. Certainly this problem deserves more actuarial attention.

Since the profitability of a life insurance company usually is the responsibility of the actuarial staff, keeping existing business on the books should be of great concern to actuaries. In a mature company the number of lapses and surrenders may be 50–100 per cent as great as the number of new issues. When one considers the amount of money which is spent necessarily to acquire new business, it is clear that the economic loss caused by policyholders who lapse and subsequently repurchase is a substantial one.

I suggest that company actuaries either have not been concerned enough about the problem to communicate it to the agency departments or have been unsuccessful in encouraging the agency departments to take adequate action. Improvement in the situation requires co-operative effort by the actuaries to provide the encouragement and incentive to the agency staffs, who must take the action necessary to improve persistency. Agency compensation generally does not provide much financial incentive for agents to be active in discouraging policyholders from lapsing but, on the other hand, may provide the incentive to encourage replacements. Much of the material requested by the questionnaires from Senator Hart's Subcommittee on Antitrust and Monopoly has been directed to this problem. It would appear that we can expect to hear much more from the subcommittee during next year.

What specific steps can actuaries take to reduce this problem? After talking about replacement with actuaries from other companies, I infer that there is no great amount of actuarial activity in either justifying or defending against specific replacement cases. Usually we are not likely to become involved except on request of the agent. However, I suggest that an analysis of replacements might be a fertile source of information as to why business does not have better persistency. It may develop that certain agents are overactive in this method of writing new business, and the old business may be that of their own companies. My limited experience tells me that the agent who is active in replacing insurance sometimes is not completely objective about the policyholder's interest and may also be cutting corners in other ways. At least it should be to the company's advantage to identify such agents. Second, since policyholder surveys indicate that lack of attention by agent and company contributes greatly to lapses, we must find ways to provide better renewal service, either by making it worthwhile financially for the agent or by using salaried staff for this purpose. Although this is not solely an actuarial decision, we should at least be active in analysis of the financial aspects of such changes in servicing the policyholder. However, we should also realize that a certain number of replacements are inevitable either because they are to the advantage of the policyholder or because the policyholder wants to make a change regardless of the financial aspects. Our responsibility in specific instances should be to provide the necessary information for his decision so that his action is not unreasonable.

I have heard concern expressed that future introduction of variable life may result in substantial replacement of ordinary insurance. It seems to me that it will be extremely difficult to determine whether this is to the advantage of the policyholder. Any replacement that is not clearly to the policyholder's advantage should be resisted. Company actuaries should review the replacement situation in their companies in anticipation of this problem.

In summary, the volume of lapsed policies which are replaced subsequently is of such substantial proportions in many companies that actuaries should devote more attention to the solution. These lapses with replacement always represent a financial loss to the original company and usually represent an extra expense to the consumer. There seems to be little recent information available on the extent of replacement activity. A study of replacements within one's company may provide enough interesting information on how, why, and by whom policies are being replaced to provide the means to improve the situation.

MRS. ANNA MARIA RAPPAPORT: I suggest that we attack the replacement problem from the product design end. Our products are designed in such a way that we expect the buyer to select at the time the policy is issued the pattern of benefits and premiums which will prevail for the life of the policy. In fact, the needs of most individuals do change. These changing needs provide an opening for the agent to try to replace existing coverages even though the policyholder will have to pay new acquisition costs.

I reviewed a policy form recently which has substantially more liberal change provisions than conventional policies. The change provisions in this policy allow it to be rewritten at any time for a new pattern of benefits and premiums without requiring the insured to pay new acquisition costs on the coverage he already had.

Even though most companies do allow changes either contractually or noncontractually, I doubt that policyholders are aware of the possibility of making such changes. Changes are also relatively complex to make. I suggest, therefore, that we design our products with more flexible change provisions and that we communicate to our policyholders our willingness to update their coverage.