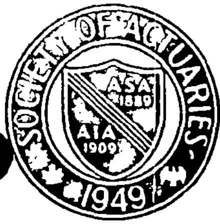

The Actuary

The Newsletter of the Society of Actuaries

VOLUME 8, No. 1 JANUARY, 1974

COMMITTEES

Editor's Note: This is another report on the operations of the Society's Committees. Mr. Munson is Chairman of the Committee on Cost Comparison Methods and Related Issues (Special).

Committee on Cost Comparisons

by Bartley L. Munson

Interest in the subject of life insurance cost comparisons has increased almost continually over the past several years. At the moment there seems to be no foreseeable lessening of that interest; rather, one can safely predict a heightening of activity and research on the part of regulators, consumerists, investigators, and industry-related groups.

In this climate the Board of Governors has appointed the Committee on Cost Comparisons. It seems only reasonable that the actuary, who prices the product, should be involved. This is a professional responsibility which should not be ignored.

In the 1974 issue of the Society's Year Book you will find the Committee added to the list of Committees, with the following brief description:

"This Committee is (1) to study the underlying actuarial principles involved in, and the problems arising from, different methods of comparing life insurance costs, (2) to explore related insurance issues, and (3) to develop recommendations based on the Committee's findings."

The National Association of Insurance Commissioners last June adopted the report of its Life Insurance Cost Comparisons Task Force. (A copy of that report is contained in 1973 Vol. II of the *Proceedings* of the NAIC, pages 532-543.) In addition to model regulations on cost comparisons and disclosure, the report contained a list of 12 research projects

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A BRIEF STATEMENT ON THE ACADEMY'S PROPOSED OPINION A-5

by Clayton A. Cardinal

Do you want to lose your right to act as a qualified professional actuary? If you would not be content to be simply a technician, then you had better concern yourselves with the substance of the Academy's proposed Opinion A-5.

Opinion A-5 purports to assist Academy members in interpreting paragraph 1*b*) of the *Guides to Professional Conduct* (the Guides). Paragraph 1*b*) states in pertinent part that a member of the Academy shall not give his actuarial advice as an expert in any field if he is unqualified therein. Opinion A-5 interprets 1*b*) to mean that a member shall:

(1) Accept only assignments for which he is qualified;

(2) Be prepared to accept the opinion of his peers on the validity of his judgment on his own qualifications; and

(3) Be deemed qualified if he has had experience and training in an assignment area, preferably having had successful repetition of work of a nature similar to that of the assignment.

Opinion A-5 is both undesirable and unnecessary.

Opinion A-5 is rightly construed as an attempt by the Professional Conduct Committee to create an "opinion," if you will, such that the environment for professional malpractice will be as nearly non-existent as possible. A professional body cannot eliminate malpractice by issuing regulations or opinions and it cannot preserve the integrity of its members by issuing rules prohibiting dishonesty. A profession has to rely upon the honesty and integrity of the individ-

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LIFE INSURANCE COSTS

by A. L. Buckman

At the June meeting of the NAIC, a Task Force Committee on Life Insurance Cost Comparisons recommended prohibition of any cost comparison system which does not recognize the time value of money. This step should be adopted immediately by all state insurance departments in my opinion.

The Committee went on to propose a model regulation entitled "Life Insurance Interest Adjusted Cost Comparison Index." This proposed regulation contains requirements which are bad for the public whom the regulation is intended to serve, and for the Commissioners themselves, who will be expected to enforce the regulation.

First of all, the use of the word "cost" is inappropriate; the concept should be called "Interest Adjusted Surrender Value Index." A policyholder will have to be told that the index applies only on premature surrender of his policy. The index does not apply if the policy is continued in force until maturity or death. Most insurance buyers are primarily concerned with what they will be paying for insurance if they continue their policies in force until death or maturity. They should not be led to believe that a measure of "cost" which depends on an abortion of their insurance program is an important measure of the value of the policy.

Secondly, given that the index is not of interest to most prospects, it would be a mistake to give it to all purchasers of insurance. If it is given to all policyholders, the importance of the index will be exaggerated. Hence, it should be given only on request.

The third bad feature of the proposal is that the index must be accompanied by a statement that a "low index number represents a better value than a higher one." It is not necessarily true that a

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The Actuary

Editor . . . . . . ANDREW C. WEBSTER

Associate Editors . . KENNETH T. CLARK
PETER L. HUTCHINGS
FREDERIC SELTZER

Correspondence should be addressed:
The Actuary
Mail Drop 13-2, 1740 Broadway
New York, N. Y. 10019

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EDITORIAL

THE December issue contained a very interesting letter from Mr. Dwight Bartlett on one aspect of professional conduct. It is not the intention of the Editor to dispute or agree with Mr. Bartlett's comments other than to suggest that the Codes of Conduct of most professions contain a reference to the profession's responsibilities to the public. The Society's Guides have two definite references, 1*a*) where the member is required to act in a manner to uphold the dignity of the actuarial profession and to fulfill its responsibility to the public and, 1*c*) where the member is required to refuse to provide actuarial service where there is an evident possibility that his service may be used in a manner that is contrary to the public interest. This does not preclude loyalty to one's employer, but the Code precludes the actuary from working for an employer engaged in an operation obviously designed to fleece the public.

Definite answers to all questions of the actuary's responsibilities to his various publics are hardly to be expected, because there are many gray areas. In recent years this question was discussed at several meetings of the Society. The discussions were interesting but provided more new questions than answers to the questions being asked. Perhaps these discussions and the Guides themselves are not as helpful as they might be to the company actuary. At one of the meetings Mr. Moorhead suggested that, unfortunately for the company actuary, the Guides are heavily concerned with the dilemmas faced by consulting actuaries, a shortcoming which he hoped would soon be remedied. Mr. Bartlett is actually raising many questions and we hope his comments will evoke more comments from our readers.

Eleswhere in this issue there is a critical comment on Opinion A-5 of the American Academy of Actuaries. This is another welcome letter on another aspect of professional conduct. These Opinions are constructed and published in good faith after careful discussion and review by the committee drafting the Opinion. Further the Opinions have the approval of the governing body of the organization before being issued. The operatives who have to work within the surround of the Opinion are entitled to have their say as to its appropriateness and practicality. Other comments are invited.

Times have changed since the Guides were first issued and even GAAP accounting has enlarged the area of public recognition of the actuary. Recognition of the profession has also been achieved with various State and Federal authorities. The actuaries must accept the liabilities as well as the assets of belonging to a recognized profession and as the general public becomes aware of the existence and skills of the actuaries they will expect a high degree of social responsibility in the profession. The Guides to Professional Conduct and the supplementary Opinions consequently become more important to each individual actuary and so deserve the serious and continual attention of all members of the Society.

A.C.W.

A GROUP HEALTH OUTLOOK

by Peter L. Hutchings

In the next few months, final figures for 1973 group health results will be available. All indications are that this will prove to be a very satisfactory year for all but a few companies. Many managers will smoke many cigars, and a number of people will be telling each other that "finally we've got a good handle on our group operation."

There are indications that the roller coaster is about to take another dive. On the cost side, the Cost of Living Council has markedly loosened controls on hospital costs; there is evidence of a great deal of pent-up-cost-price pressure in this sector, and a price blowout is clearly possible.

A complicating factor is that the legal basis for the whole price control machinery expires in April. There is little doubt that the health industry will be kept under controls even though it is not clear that the Administration has made all of the policy decisions in the wage-price area. One must also consider Congressional delays, and subsequent changes. It is even possible that provider controls will be kept and insurer controls dropped . . . although the provider controls appear to have been emasculated. Temporary regulatory chaos seems a good prediction.

As for utilization, it certainly is a hard concept to measure for anyone writing—say—major medical. However, there is macro-type evidence that utilization increase has been running slightly minus or zero for a year or two.

This is an important change since it was clearly a plus factor a few years back. Indeed, a 4% or 5% swing may have taken place; since this factor plays the identical role in the equation as inflation, this saving is equivalent to a straight deduction from inflation of the same amount. The question for the future is whether this utilization change will continue—whether it is a one time adjustment—or, even, whether it will turn around.

It is possible that we are in the early stages of a long-term utilization decline. One could identify ambulatory care, or PSRO's, or outpatient surgery in this context. On the other hand, there are counter-pressures that must be considered. Perhaps the most significant could be

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THE AUDIT GUIDE— MAJOR COMMENTS

by Gary Corbett

The Joint Actuarial Committee on Financial Reporting responded in detail to the December 1970 and to the August 1972 Exposure Drafts of *Audits of Stock Life Insurance Companies* prepared by the Committee on Insurance Accounting and Auditing of the American Institute of Certified Public Accountants. Many of our recommendations were incorporated in the final version of the Audit Guide published in December 1972. We strongly disagreed, however, with the treatment accorded two subjects in the final Audit Guide: Acquisition Expenses and Deferred Income Taxes. As the Committee representing the actuarial profession in the development of the Audit Guide, we considered it important to "go on record" with our major objections. Otherwise observers might believe that the actuarial profession acquiesced substantially in all the approaches outlined in the Audit Guide. Therefore, on May 8, 1973, we wrote a memo titled "Major Comments of the Joint Actuarial Committee on Financial Reporting on *Audits of Stock Life Insurance Companies.*" These Comments are reproduced below. Copies of our Comments were sent to the Presidents of our five sponsoring organizations with the recommendation that they be transmitted to the AICPA, the SEC, the NAIC, and any other concerned parties, in order that the views of the actuarial profession be made known. It was decided that the American Academy of Actuaries would be the best body through which to submit the Comments and accordingly, in November and December, the Comments were sent to the AICPA, NAIC, and SEC along with a covering letter by Mr. Morton D. Miller, the immediate Past-President of the Academy. These comments have not been published as were the Committee's responses to the Exposure Drafts and we therefore welcome the opportunity of recording them in *The Actuary* thereby making them known to a large segment of the actuarial profession. At our request—primarily in order to have only one committee representing the actuarial profession in the field of financial reporting—the Joint Actuarial Committee was officially dismissed by its sponsors in mid-1973. However, we did promise to prepare a final report summarizing the development of our Committee's views over the 2½ years of our existence and we hope to have this report in final form by the end of February. At that time all tasks assigned to, and assumed by, the Joint Actuarial Committee will have been completed and it can pass into history, its place therein determinable only by actuarial historians of the future.

Mr. Corbett is the last Chairman of the Joint Actuarial Committte.

Major Comments of Joint Actuarial Committee on Financial Reporting on *Audits of Stock Life Insurance Companies*

There are two items in the *Audits of Stock Life Insurance Companies* which the Joint Actuarial Committee on Financial Reporting strongly feels are at variance with basic actuarial principles of Life insurance. While there are other items contained in the Audit Guide with which we also do not agree (generally discussed in earlier Responses of the Committee), the two items discussed below are of such import that action to correct them should be initiated as soon as is reasonably possible.

A. Acquisition Expenses

All income and outgo associated with a life insurance policy must be comprehended in any reserving system which attempts to match costs with revenues. Further, any item of income and outgo must enter the reserve calculation as of a specific policy duration.

Maintenance and general overhead costs are recoverable from premiums received in the year the costs are incurred, while acquisition costs are recoverable from future premiums expected to be received from the policies acquired as a result of such expenditures. GAAP accounting requires that costs be matched against the revenues from which they are recoverable.

The Guide suggests that "only those acquisition expenses which both vary with and are primarily related to the production of new business should be deferred." The practical effect of this wording is as yet unclear. However, the Guide could be interpreted by a practicing auditor in such a manner as to create a third category of expense—non-deferrable acquisition costs," which would fall outside of the matching, or reserving, system.

It is the committee's opinion that such a narrow definition would result in an improper matching of revenue and expenses, in that such "non-deferrable acquisition costs" would decrease earnings in the year the costs are incurred, while the revenues from which such costs are recoverable would inflate earnings in subsequent future years.

There is certainly room for debate as to whether a given expense is properly classified as an acquisition or maintenance expense. However, once the classification is made, it is not consistent with either accounting or actuarial theory to remove some items of expense from the reserving system altogether and thus not match them with any of the revenue generated by such expenditures.

It is for these reasons that we urge that all expenses which are logically related to the production of new business be permitted to enter the reserve calculation at issue (and thus be "deferred") provided that such expenses are recoverable from the premiums conservatively projected to be received on such new business in future years.

B. Deferred Income Taxes

Restatement of statutory financial reports in accordance with generally accepted accounting principles usually requires calculating a provision for deferred income taxes. The Audit Guide states that any such provision should be made without discounting in order to recognize the anticipated time of payment of the tax. This approach is inconsistent with actuarial

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LETTERS

Hamlet Without the Prince?

Sir:

Recently, I read an item which made me wonder whether I wasn't witnessing still another instance where we actuaries and our various organizations are once again asleep at the switch.

On its front page, the Dec. 8, 1973 issue of *The National Underwriter* announced the completion of Phase I of a study on Insurance Department examinations being made by McKinsey & Company for the NAIC. According to the brief synopsis given in the article, the McKinsey report suggested the possibility of two separate examination systems. One would focus, through extensive use of Certified Public Accountants and CPA audits, on the insurer's financial condition. And the other would be concerned with the insurer's market conduct by reviewing the service and treatment accorded policyholders, the manner in which complaints are handled, and the like.

It seems very strange—to me, at least —that there was no mention whatever of the role played by actuaries in the Insurance Department examination process, an omission probably due to McKinsey's report having made either very few references to our profession or none at all. No one questions the unique ability of a CPA to determine that debits do indeed equal credits, that assets are properly accounted for, that expenses are properly reflected, etc. Nor is there doubt that most anyone with business experience and a little judgment can determine whether the insurer renders his services promptly and courteously, and, if a reasonable knowledge of the English language is also present, whether the insurer's letters are clear, correct, and comprehensible.

But only an actuary—in fact only an FSA or MAAA—can certify whether an insurer's valuation reserves are correct and render an opinion as to whether they are adequate, and these represent by far the largest and most important item on the liability side of the balance sheet. Nor is anyone as likely to be competent at evaluating whether policyholders are treated fairly and equitably with respect to various phases of normal operation such as, for example, accuracy of computations, interpretation of policy provisions, dividend allocations, underwriting decisions, and so on.

Having seen members of the legal profession assume the ultimate responsibility over the provisions in pension plan documents which they rarely understand and even more rarely apply in actual situations, and having seen the accounting profession assume virtual rule-making powers over pension plan funding and over representation of insurance company financial results, I would not want us to stand by and lose still another round to other professionals.

If there is a time to speak our piece, it is now. Somehow, McKinsey & Company must be made aware of the fact that the examination process has to involve actuaries from the very beginning to the very end. They may be actuaries who are employed by Insurance Departments; or they may be consulting actuaries who are retained by Insurance Departments; or—and this should be given careful consideration—they may be actuaries who are drawn from panels formed by the Society or the Academy which are prepared to lend professionals to Insurance Departments to participate in an examination where they would have no conflict of interest.

Perhaps through your columns in *The Actuary* you can generate the momentum to bring about some badly needed action.

George Brummer

Editor's Note: We are informed that the McKinsey Report referred to in The National Underwriter *was a preliminary draft and that the absence of any reference to actuaries has been noted and drawn to the attention of McKinsey & Company. Nevertheless, we publish Mr. Brummer's letter because it points up the need for actuaries to be aware of lack of recognition much closer to home than with the public at large.*

* * * *

Papers and Discussions

Sir:

I would appreciate the courtesy of your columns to remind contributors of papers and discussions to the *Transactions* that all copy submitted for publication should be typed and double spaced with one inch margins left and right. In this way the burden on the Editorial Board and the printers will be greatly lightened.

K. Arne Eide
Editor—*Transactions*

Women's Lib and Mortality

Sir:

Barnet N. Berin's article in the October 1973 issue of *The Actuary* serves to focus attention on two of the most important developments of the 20th century. In the United States, the ratio of male to female mortality rates has increased dramatically over the last half century, until now mortality differentials by sex exceed mortality differentials by race. In the last decade, the struggle for equal job opportunities for women has become a major issue, and carries with it the potential for profoundly altering our society. While I agree with Mr. Berin that the two phenomena are related, I see the relationship as much more indirect, and must also disagree with his interpretation of certain demographic data.

The work of A. J. Coale and P. Demeny (*Regional Model Life Tables and Stable Populations,* Princeton University Press, 1966) indicates that historically, regardless of the level of mortality, the female life expectancy typically exceeded the male. Consequently "male dominance" cannot be ascribed to "hitherto more favorable male mortality." During the childbearing years, say 15 to 45, female mortality may have exceeded male mortality, but it is highly unlikely that "with few exceptions" women in very high mortality populations "certainly must have died during first or second childbirths." According to Coale and Demeny's "West" model, with a female life expectancy at birth of 25 years and a fertility level just high enough to keep the population stationary, 57% of females reaching age 15 would survive to age 45, during which time each could be expected to bear about 5 children.

Mr. Berin's main point, however, is that female advancement in the labor force is to be expected because, by age 19, the lower mortality of females has produced more females in the population than males, despite the fact that males outnumber females at birth. To show that there are more females than males, U.S. Census figures for 1960 and 1970 are used. Unfortunately, Census figures are not very suitable for such a purpose because the Census has consistently undercounted males more than females (see, for example, H.S. Shryock,

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S. Siegel et al, *Methods and Materials of Demography*, U.S. Bureau of the Census, 2nd printing (rev.), Vol. 1, 1973, p. 226 ff). A better (in the sense that is less susceptible to data errors) approach to finding the age when differential mortality by sex erases the sex differential at birth is to use mortality rates in a life table format. If the male life table radix is 105,000 and the female radix 100,000 (for Whites, the sex ratio at birth is approximately 105 males per 100 females), the desired age will be the one where the 2 survivorship columns are equal. Based on U.S. Life Tables for Whites in 1969, that age is between 47 and 48 years. Since the sex differential in mortality has been increasing, the male advantage produced by the nearly constant sex ratio at birth is eroded more quickly by the mortality rates of the year 1969 than would be the case for any earlier U.S. birth cohort. Thus the age at which the number of females would exceed the number of males in any pre-1969 U.S. birth cohort would be even higher.

The progress of women in the labor force is not related to a rising numerical preponderance created by differential mortality, but rather to be a complex of demographic, social, and economic factors whose roles are by no means fully understood. Lower mortality has been associated with lower fertility, hence less work interference from pregnancy. Most jobs today do not involve large amounts of physical strength or have other "male" requirements. Furthermore, a number of forces have pushed more women into the labor force for longer periods. The "marriage squeeze" that made it more difficult for women born in the early "baby boom" years after World War II to find husbands of a suitable age led to an increase in the proportion of women remaining single and a rise in the age at marriage for those marrying. As a result more young women entered and remained in the labor force. In addition, rising divorce rates have compelled more women to seek work to support themselves and their families. Perhaps most important, many of the women who entered the labor force found that it gave them a sense of independence and self-fulfillment that a life limited to the home could not provide.

It will indeed be interesting to see whether there will be a continuing decrease in sex stereotypy and, if so, whether there will be a decrease in mortality differentials by sex. If there will not be plural marriages in the future, there already seems to be a marked trend toward "serial polygamy" that may signal fundamental changes in the nature of the American family.

Robert Schoen

* * * *

Cost Comparison Index

Sir:

I am one actuary who does not believe that an adequate and fair hearing has been given to the advantages and disadvantages of an index derived from the use of mortality and lapse factors as well as the interest factor, compared with an index derived from the use of the interest factor alone.

It is true that the computation itself would be somewhat more complicated. However, the larger companies have the facilities to handle this aspect, while the smaller companies would be able to avail themselves of suitable outside service facilities.

It is true that a non-actuary may find the three-factor index somewhat more difficult to understand than the interest-only index. It is my belief that the industry has a moral obligation to provide the prospective applicant with the most scientifically reliable yardstick with which to measure the measurable attributes of two or more similar life insurance policies he may be considering. It is not necessary that the prospective applicant, or for that matter the agent, have a detailed technical understanding of the index. There are numerous examples, in the sale of machines and other commodities, where a yardstick or benchmark or index is used by the salesman to indicate to the prospective buyer the position of his product compared with those of competing products. Typically, the buyer, and frequently the salesman, does not understand the technical or scientific basis for such yardstick, benchmark, or index.

Criticism of the three-factor index, or even of the interest-only index, on the basis of greater difficulty to compute and/or to understand is essentially a smoke screen. It is only proper that the prospective applicant be advised of (1) any limitations to the usefulness of the index and (2) other relevant attributes of the policy and other considerations that cannot be condensed to or represented by a simple index.

Another frequently heard criticism of the three-factor index is that a particular applicant will not die or lapse according to the mortality or lapse table that may be implicit in the index. A similar objection, also unjustified, could be directed toward the interest rate assumption in any index. It is not at all necessary that the mortality standard or the lapse standard or the interest standard used in computing the index apply specifically to a particular prospective applicant. The important objective is to measure the various measurable attributes of two or more policies against a stable yardstick that reflects common mortality, lapse and interest assumptions for all such policies being compared. If a particular company's experience is more or less favourable than the common assumptions implicit in the index, then, provided such experience has been reflected in its premiums, cash values and dividends, the resulting index of such company's policy will be more or less favourable in comparison with indices of other companies' similar policies. This assumes, of course, for purposes of illustration, that the experience of such other companies follows precisely the assumptions implicit in the index.

The traditional net cost method, the no-interest index, depends upon the cash value at a certain duration and the incidence of the dividend scale. It takes no account of the time element and as a consequence the resulting no-interest index may give an apparent though unwarranted competitive advantage. This is corrected to some degree by the use of the more accurate interest-only index, but the possibility of this type of distortion is not entirely eliminated. The 3-factor index, on the other hand, does practically eliminate such possibility.

It has been suggested, with respect to the interest-only index, that other tests be developed to assist in bringing to light such possible distortion. This obviously recognizes that the interest-only index is not sufficiently effective in this highly important area. This approach would be comparable to those charged with safety on the roads to require that all vehicles, other objects and pedestrians be shrouded with thick foam rubber, because the braking systems used in cars are inadequate. Obviously, the brak-

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ing systems should be improved to maximum efficiency, in this hypothetical situation. Likewise, it seems to me that the index, mandated to be used in life insurance cost comparisons, should be the most effective one that can be developed by the experts. It is my view that the most effective such index involves all three factors of mortality, lapses, and interest.

I realize that there is a place for diplomacy and compromise. However, it seems to me that the actuarial profession should come up with an answer at least as to what "family" of indices is the most scientifically sound to do the job. I believe that the industry and the regulatory authorities have a right to expect our profession to provide this answer in terms as clear and specific as the objective facts will permit. Then, those charged with the responsibility of actually formulating policy in this area will have to consider the views of others also, and, in arriving at a conclusion, it is conceivable that some compromise would be made. Such compromise, if such should be the final result, would be made with the knowledge of the considered majority view of our profession, unfettered by extraneous considerations.

William R. Burns

ARCH: Issue 1973.5

Collective Risk Probabilities, Random Walk, and Applications William B. Frye

Further Remarks on Global Kernels of Interpolation Formulas T.N.E. Greville

Stock Company Participating Insurance Donald A. Jones

Amortization of Loans with Step-Rate Amounts of Principal Stephen G. Kellison

Recapitulation C. J. Nesbitt

The Trouble About No Claims—A Plea for Help Hilary L. Seal

A Reformulation of the Theory of Mortality Classes in Terms of Markov Transition Matrices Richard W. Ziock and Edward H. Lezak

The issue also continues a flourishing *Problems and Solutions* section.

Subscriptions can still be sent to David G. Halmstad, Scientific Time-Sharing Corporation, P. O. Box 124, Ridgefield, Conn. 06877. □

Life Insurance Costs

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"low (surrender) index number represents a better value than a higher one."

In the Second Edition of *Shopper's Guide to Straight Life Insurance*, published by the Insurance Department of Pennsylvania, there is a table showing the ranking by interest adjusted surrender value indexes of the 20 largest stock companies selling non-participating insurance in the State of Pennsylvania. The chart below is taken from the *Guide* for ordinary life at age 35; the policies are non-participating in each case.

	Company A	*Company B*
Rank	1	10
Premium	$190.90	$190.90
Face Amount	10,000	11,277
20-Year Cash Value	3,730	3,338
20-Year Paid Up	6,498	6,333

If the insured were to die in the first 20 years, Company *B* works out $1,277 better. If after 20 years he were to put the policy on reduced paid up, Company *A* is $165 better on subsequent death. If he surrenders at 20 years, Company *A* wins. Which policy is the better value? Only the insured can answer this question which requires subjective evaluation of needs.

How would the Insurance Commissioner answer a complaint of a beneficiary who received $10,000 from *A* on death of the insured only to discover (1) that the insured did not buy the same plan of insurance from Company *B*, which would have paid $11,277, and (2) the insured was influenced to buy from Company *A* because he was informed in writing, on Commissioner's regulation, that Company *A*'s index number was lower and therefor a better value than Company *B*'s policy?

Most insureds with policies 20 years old continue to carry their policies in force. With a policy from Company *A*, the insured can continue to have only $10,000 of insurance at the end of 20 years, but, for the same premium, he can continue to have $11,277 of insurance with *B*. Moreover, the cash values of both policies come closer together in the later years, and Company *B's* policy ultimately has higher cash values than Company *A*'s policy. Again, which is the better value?

Clearly, the statement that a lower index indicates better value is wrong. Clearly, also, the ranking of companies by this index number is misleading. And clearly, also, the use of this index number as somehow measuring *cost* of life insurance should be minimized.

There is need to furnish meaningful information to the public about cost of insurance. What better measure of cost is there than an interest adjusted payment index? This index is simply the gross premium for a non-par policy, or, as recently suggested in a pamphlet entitled *How To Compare*, published by the Canadian Life Insurance Association, the gross participating premium less a level interest adjusted dividend which will accumulate at the end of 20 years to the then accumulated value of estimated dividends.

In summary, actuaries should advocate three changes in the proposed NAIC bill. The word "cost" should be prohibited; distribution of the interest adjusted net surrender value index should not be required; and, finally, the erroneous statement that "a lower index number indicates better value" should be deleted from the bill.

For the protection of the public and for meaningful information about costs of insurance, the NAIC bill should do three things:

(1) An interest adjusted net payment index should be defined. It should be quoted in writing to every policyholder. It should show the gross premium and the effect of the estimated dividends, if any, separately.

(2) An interest adjusted net surrender value index should be defined. It should be given only when requested by the policyholder, and it should be accompanied with a written warning as to its limited meaning.

(3) There should be prohibition of quoting either a net payment index or a net surrender value index without use of interest to provide for the time value of money. □

Erratum

The description of Graph B in the article *Management Principles of Group Medical Expense Insurance* in the December issue was unfortunately edited into incomprehensibility. It is the graph of the ratio of this year's incurred loss ratio to last year's incurred loss ratio, excluding business sold this year or last year. The expected mean is 1.00. Graph A which displays this year's loss ratios has a desired mean of around .8 for the company studied. Our apologies to Mr. Cardinal.

Comments on Audit Guide

(Continued from page 3)

methods used in determining the other liabilities of a life insurance company. Reserves for benefits and expenses are computed using present values which take into account the effect of interest. Provision for deferred tax should also employ present values with an appropriate interest discount.

The Audit Guide states (on page 156) that "application of discounting would be applicable only under the liability method of accounting for deferred income taxes, which method was rejected by the Accounting Principles Board in Opinion No. 11." We feel that this Opinion of the APB should be reviewed in light of the special nature of life insurance. A "liability method of accounting" is the accepted underlying GAAP method of accounting for life insurance reserves; this same method should also be used for computing deferred taxes. If not, the after-tax financial results of life insurance companies will not be fairly presented.

A more comprehensive agreement for discounting is contained in the Committee's May 1971 and September 1972 Responses to the draft Audit Guides. □

Committee on Cost Comparisons

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to be undertaken by various individuals and groups at the invitation of the NAIC. Our Committee is operating under a specific charge by our Board of Governors in response to the request of the NAIC that the Society undertake three of these research projects.

First, we will test different cost comparison methods using a data bank of policy premiums, dividends, death benefits and cash values. This data bank has been assembled in response to a questionnaire sponsored jointly by the NAIC and the Senate Antitrust and Monopoly Subcommittee. The questionnaire was sent approximately 200 life insurance companies, and the data covers both par and guaranteed cost individual ordinary life plans.

For the second project, we are to consider whether a single interest rate is practical or whether more than one rate should be considered (for those methods where an interest rate is utilized). We are also asked to consider the use of assumptions regarding mortality and persistency as they might relate to the cost comparison calculations.

In the third research project, the NAIC has asked us to summarize, in a paper, companies' philosophies ". . . in the computation and dissemination of dividend illustrations." This item, it seems increasingly clear, is a very important element of the cost comparison discussions and is an item upon which actuarial expertise very properly should be focused. We are preparing for distribution to some 200 insurers and consulting actuaries a questionnaire on this subject. We welcome the suggestion of the NAIC that we circulate a questionnaire on this philosophic topic, not only because it is an important input to the study, but also because there is a definite lack of actuarial literature on the subject.

Our present charge and resultant activities are centered around these three NAIC-requested projects. We continue to attempt to identify just what research can be helpfully and responsibly performed on the vast data bank which has been compiled. To that end we invite suggestions from members of the Society. The specific calculations and research analysis have only begun and undoubtedly will continue for some time; any and all responsible suggestions would be timely and welcome.

It is our hope that the results of each of the various aspects of our research will be available for musings by the Society membership and then for spirited debate and discussion at a Society meeting later this year.

The Committee members, in addition to the chairman, are Daphne Bartlett, Lee Kemper, Norm Peacor, Ian Rolland, and Don Schuette. Through Ian we have the considerable assistance of his Committee on Continuing Education and Research for Life Insurance and Annuities.

In addition to the three projects in which we are engaged, the NAIC has requested help from the American Life Insurance Association and the Institute of Life Insurance. With respect to the different cost comparison results on policies of different companies, the ALIA has been asked to comment on the possible effects of different markets served, policy features not reflected in the numerical comparisons, or other causes. They also are to comment on dividend histories *vis a vis* dividend illustrations and the usefulness of each to the buyer. The ILI is to prepare a paper on "the nature of the whole life contract, taking into consideration the assumption that it may be separated into protection and savings elements." They are also to do some fairly extensive market research on the present state of consumer knowledge, what he expects of life insurance, how his life insurance buying decisions are made and what types of information would be viewed by him as helpful or needed in the buying decision process. It is our understanding that all projects of the ALIA and ILI are in progress.

To people outside of the Society with whom we have been working, we have emphasized that we do not pretend to have a ready solution to the life insurance cost comparison challenges. The challenges and questions are many, the solutions either elusive, incomplete, or nonexistent. We hope that the comments we expect to see from the profession and the eventual research results will be helpful in understanding some of the specific cost comparison methods being suggested and some of the general underlying principles. Perhaps some new insights and even new comparison methods will emerge from these activities. In any event, the Committee welcomes suggestions on the methods, on procedures, and on any topic related to this study. □

DEATHS

Dorrance C. Bronson
Robert Eagle
William Macfarlane

Actuarial Meetings

Feb. 14, Baltimore Actuaries Club
Feb. 20, Actuaries' Club of Des Moines
Feb. 20, Seattle Actuarial Club
Feb. 25, Chicago Actuarial Club
Mar. 14, Actuaries' Club of Hartford
Mar. 14, Baltimore Actuaries Club
Mar. 18, Chicago Actuarial Club
Mar. 20, Actuaries' Club of Des Moines
Mar. 20, Seattle Actuarial Club