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# CURRENT REGULATORY TOPICS AFFECTING LIFE INSURANCE AND ANNUITY PRODUCT DEVELOPMENT

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1. What is being considered by the NAIC Technical Staff Actuarial Group?

2. What is being considered by the NAIC Dynamic Interests and Related Matters Technical Advisory Committee?

3. What is being considered by other Society of Actuaries committees?

4. What impact could these changes have on product development?

MR. GREGORY J. CARNEY: The purpose of our session today is to discuss the current regulatory topics that will have impact on product development and provide you with an update on the status of these topics. We will use, as background information, the Newsletter that the Special Interest Section mailed out to its members last month.

Before discussing any of the topics specifically, I would like to explain the workings of the regulatory area from the actuarial side. The National Association of Insurance Commissioners, the NAIC, the body that promulgates model laws and regulations, is the most important insurance regulatory body. From the actuarial side, that group relies heavily on the Technical Staff Actuarial Group, chaired by Ted Becker of Texas and John Montgomery of California. TSAG, as it is affectionately known, is made up of State Insurance Department Actuaries and is the group that makes recommendations to the NAIC on actuarial matters. TSAG has a number of committees which report to it. In the Life area the most important committees are; (1) The Technical Advisory Committee, chaired by Charles Greeley, (2) The ACLI Actuarial Committee, chaired by Ray Biersbach and (3) The American Academy of Actuaries Committee on Life Insurance, chaired by Dick Robertson.

TSAG met in San Francisco on March 24, 1983 and discussed a number of topics. The topics that our panelists will discuss today are topics that TSAG has indicated have a number one priority. These four topics were not the only topics considered, nor were they the only number one priorities considered by TSAG.

One of the more controversial subjects was the topic "Cash Values Greater Than Reserves", which is item 15 of the Newsletter. The basic question is whether cash values for life insurance should be considered in the definition of present value of future benefits and any difference prefunded or whether the difference can be set up in Exhibit 8-G of the statement in the year it occurs. It was hoped that the Greeley Committee would be able to determine a reasonable solution to this problem.

The Greeley Committee was not able to reach agreement at its March 3rd meeting and communicated this result to TSAG. The Greeley Committee views the problem as requiring a legal interpertation which it is not qualified to provide. This is an area that has generated a great deal of theoretical discussion and has found actuaries split as to the appropriate valuation methodology. Look for some action to be taken in the near future either by TSAG as a group or the State of California specifically.

Another topic of importance that was discussed by TSAG is the valuation of Substandard Immediate Life annuities. This topic was considered by the Greeley Committee and a Task Force of the Greeley Committee, chaired by Howard Kayton of Security First Group, has been charged with developing a recommendation for a guideline by the Fall of 1983. Agreement exists that it is appropriate to utilize more liberal valuation mortality assumptions for substandard life annuities.

With regard to the topic of Annuity Non-Forfeiture Values, the ACLI Actuarial Committee was given the reponsibility of researching this topic and responding to TSAG with its recommendations. The ACLI Actuarial Committee has appointed a Task Force, chaired by Arthur Cragoe of Franklin Life, and it is anticipated that the Task Force will have a report ready for the ACLI Actuarial Committee on July 27th.

I will now turn this meeting over to our panelists. Dick Kling will provide us with an update on the Unisex issue.

MR. RICHARD W. KLING: "Unisex" is the topic I will be covering this morning. Right up front, I should tell you a few things. First, what is my position? I support cost based pricing. I believe gender is a valid risk classification factor. I oppose "Unisex" rating. One of my primary concerns is the potential domino effect of legislation aimed at cost based pricing. If gender is the target today, what is the next factor that is attacked? Age? Health? I don't think this is pie-in-the-sky thinking either. Somebody sent me a clipping from the San Francisco Chronicle, dated April 14, 1983. It was a picture of several overweight people demonstrating in front of the Metropolitan Life Insurance office, claiming that they are being discriminated against in both the availability and price of insurance coverage.

The primary bills introduced in Congress are HR100, the Non-Discrimination in Insurance Act, and S372, the Fair Insurance Practices Act. These bills are similar. Both require UNISEX rates for new business and for existing business. Both bills include the "topping up" provision, which requires increasing benefits to the level of the favored sex. For individual life insurance, this would mean increasing death benefits for males to the level the female premium would provide, and, in some situations, increasing cash values for females to level the male premium would provide. There are other bills being considered as well. S888, the Economic Equity Act, and its House counterpart, HR2090, are broad bills that include the "Unisex" provisions of HR100/S372. Several states are also considering legislation. Montana has passed a bill that is awaiting the Governor's signature.

What is the impact? Retroactivity has the most immediate effect. The estimated cost of "topping up" is in the billions of dollars. Some companies will be insolvent. Others will see their surplus substantially impaired. My company, which has $120 million of surplus, estimates that about 75% of our surplus would disappear. Pension plans, including public plans, will face severe problems. Obviously, "topping up" has onerous consequences.

What steps are being taken to oppose or influence legislation? Industry organizations, particularly the HIAA and NALC, are opposing the bill. Individual companies are doing significant lobbying. The major industry group, the ACLI, is in a unique position. The ACLI board voted to oppose retroactivity, but to support "Unisex" rates for new business. However, there was enough disagreement with this position that the ACLI member companies, led by the Phoenix Mutual, have requested a special meeting to reconsider the issue. This special meeting is schedule for May 11th. The mailing for the ACLI special meeting included a proxy with two choices: (1) support the ACLI position, or (2) to disagree with the ACLI position and ask the board to reconsider. If the board is asked to reconsider, an alternative position is obviously necessary. I am aware of at least one alternative that is being developed. A group of about 12 companies is in the process of developing a position that somewhat parallels the original ACLI CEO Task Force recommendation. This position has two major points: (1) equal contributions and benefits for employee benefit plans, and (2) maintaining gender based pricing for individual insurance (both for new and existing business).

What is the prognosis? Some say that "the train is on the track and is impossible to stop". Others say a concerned lobbying or educational effort could be successful in opposing legislation. There are some indications that retroactivity will not pass. The position of the ACLI, which is viewed as the major industry organization, could be quite important.

What are the pricing implications if new business needs to be rated on a "Unisex" basis? How do you project a reasonable male/female mix? One way is to use conservative assumptions, e.g., current male rates for life insurance, and female rates for annuities. Smaller companies will particularly be concerned with this issue. Companies that aim only at certain market segments, e.g., marketing life insurance to females, will also be faced with problems. It appears that the bottom line impact is going to be higher costs to the consumer for insurance.

MR. D. ALAN LITTLE: Thank you Dick. Greg has asked me to cover the recent regulatory issues affecting Universal Life, both reserves and non-forfeiture values. I think the two principal things that have happened in the last month are an ACLI release and the New York bulletin.

The ACLI release is General Bulletin 3324, dated March 24th. The bulletin proposes a NAIC guideline covering valuation and non-forfeiture requirements for adjustable cash value policies and valuation requirements for index linked products. The ACLI does not anticipate that the NAIC will do anything before December of this year.

Looking at the ACLI proposal first, I had some difficulty in understanding the proposed valuation and non-forfeiture requirements due to some unusual terminology. Basically what has been proposed for valuation of adjustable premium plans is a new definition of net level premium theory with an expense offset to arrive at CRVM reserves. The first step in the proposed reserve method is to calculate a level annual premium using the premium pay period in the policy, the policy guarantees, the scheduled maturity date and one of the following maturity amounts:

1). The initial amount of insurance where the death benefit is level except for minimum corridor or,
2). The specified amount where the death benefit is equal to the specified amount plus the account value or cash value.

The next step is to calculate durational guaranteed maturity values using the same techiques as step 1 to obtain the present values of future guaranteed benefits and using step 1 premiums. In this step, the valuation table and interest rate used are those specified in the Valuation Law.

The third step is to determine the CRVM expense allowance using the Standard Valuation Law for the scheme of benefits defined at issue by the premium in step one.

The next step is to determine a scheme of guaranteed future benefits at the current policy anniversary using the larger of the current account balance or the projected durational guarantee maturity value. This theoretical fund compared to the actual fund, whichever is larger, determines the future guarantee values which are in turn used to determine present values. So the preliminary reserve amount is the present value of the guaranteed future benefits, the present value of future level premiums and the present value of the expense allowance. The final step is to compare the account value to the projected theorical fund. If it is less, you are allowed to multiply the total by a ratio which is equal to the account value divided by the theorical fund. The way they have set the formulas in the proposed Valuation Law you keep multiplying each small piece by this "R" value, but I think I am right, that when you boil it all down, they multiply the total result by the "R" value. They do include, in the method, adjustment for changes in the death benefit option and/or the amounts of insurance, maturity dates and changing the premium payment dates. They treat each piece as in incremental item.

Basically, the proposed cash value method of the ACLI says the following: The minimum shall be the premium paid to date minus, and everything else is minus, the following items: (1) Benefit charges which include the mortality risk charges, and the charges for any riders, which are not paid for separately. (2) The averaged administrative charge for the first policy year which is defined as the administrative charges that would have been made in the first policy year using the actual transactions that occurred, based upon the arithmetic average of all the charges that are in the contract for 2nd through 20th year. Charges can be per premium payment, per dollar of premium, per thousand of insurance, or per policy charges. Let us go through a calculation. For example, if you have a $10 per year charge for the first 10 years, and $8 per year charges thereafter, you would then calculate it from years 2 through 10 and years 11 through 20 and divide it by the 19 years to get an average. That would be your average administrative expense for that particular item. So in the first year you deduct that item as one of the charges. (3) Actual administrative charges can be deducted in renewal years. (4) Actual initial expenses not exceeding the initial expense allowance can also be deducted. (5) Service charges and any partial withdraws can be deducted as well as an item called Unamortized and Unused Initial Expense Allowance. Let me talk about the initial expense allowance, because that seems to be the crucial item here. It is calculated using the Standard Non-Forfeiture Law and assuming a level benefit, level premium, endownment policy. The benefit equals the initial face amount. The premium pay period equals the highest age at which the premium can be paid and maturity is at the scheduled maturity date in the policy. The unamortized portion of the initial expense allowance then becomes that amount divided by an annuity factor of 1 for the premium pay period minus the actual initial expense which you deducted but not in excess of the initial expense allowance. Let us say your initial expense allowance was $40.00 and your actual initial expense was $20.00. That would leave you with $20.00 unused. My interpertation of this method is it would allow you to sell both front-end load and back-end load products. The unamortized initial expense allowance would seem to give that. In looking at it, I suspect the wheels are already turning in a number of companies to see how they can maneuver within that to maximize some things and minimize cash values. But it does bridge the gap between front-end load and back-end surrender charge type products. It would also seem to permit a renewal load contract or a front-end load contract combined with a surrender charge.

The New York bulletin permits companies to file Universal Life policies in New York. It covers a number of different topics, e.g., policy forms, filings, premium rates, actuarial memorandum, filing procedures, general requirements in policy forms and same requirements include indexed policies, both in the policy form and reserves on index products. One statement from the bulletin reads; "At this time some of the reserving procedures are indefinite and rules may be adopted as experience develops." That is an understatement.

Looking at the New York bulletin, they took a "bail-out" position on indexed products. The insurer must file a written description of how they are going to minimize the investment risk associated with the index at time of filing the policy. That statement must include a statement by a qualified actuary. I am not sure what qualified means in contend of minimizing investment risks yet. The bulletin also includes a requirement for an annual opinion by a qualified actuary, which provides for re-examination of the assets and a statement that the reserves make good and sufficient provision. That is going to be a tough area for all of us to live with and I know the Academy has a Task Force working on the more general problem of including that kind of statement for all products.

In the reserve and non-forfeiture value area they do do something which is appropriate. They set forth a procedure that, if followed, you will deem to have complied. In the reserve area, for example, you may set the reserves equal to the accumulated fund, without further justification, where not more than 100% of the gross premium is accumulated and the guaranteed interest rates are not more than the maximum value rate, assuming; (1) that the same percentage of gross premium is accumulated for all policy years after the first year, (2) that the guaranteed mortality costs are equal to those in the valuation mortality table permitted by Section 205, (3) that the first policy year-end fund is not negative, (4) that the initial pattern for premium is provided as level and (5) that the plan determined by the guaranteed factors and continuation of initial premiums in accordance with the method set forth in the policy is a less expensive plan than 20 pay life. If you follow that, you can use the accumulation fund as the reserve. Then they discuss long term guarantees. What happens when and if the long term guarantees are in excess of the valuation rate? They do not actually tell you how to deal with that. They do where it runs out, but for example, they have the same problem that California had in Bulletin 82-5. That was how to define what happens when you say you have an index product and you are not meeting that index.

In California Bulletin 82-5, they said the Insurance Department will come in after the fact and determine the period for you. I do not see that in the New York law, so it is not quite the same as California. But I am sure it is going to give us problems.

The New York bulletin also discusses surrender charges, expense charges and the cash value bases. They do allow charges outside the formula on non-forfeiture values for services provided. For example, on partial withdraws, they allow $25.00 if the partial withdrawal is at least $500.00. For partial withdrawal of less than $500.00 the charge can not exceed 5%. This covers the New York situation.

The one other item that I refer all of you to is a paper appearing for the Spring meeting of this year put together by two people from Occidental. It is a good paper and fairly readable in the formula areas.

MR. ANTHONY T. SPANO: Policies Without Guaranteed Cash Surrender Values: The disintermediation and cash flow problems that have confronted insurance companies in recent years have stimulated actions and proposals that would ameliorate and hopefully avert similar recurrences. A prime example was the speedy development of the model legislation authorizing a variable policy loan rate tied to current market rates and the high priority placed on the enactment of this legislation in the various states.

It was in this context that research began in early 1981 on the possibility of easing the risks faced by insurers in having to provide cash surrender values of a guaranteed amount upon policyholder demand. Such cash values have been required under permanent life insurance policies issued in the United States for substantially all of this century. This contrasts with the situation, for instance, in Canada and the United Kingdom, where guaranteed non-forfeiture benefits are not required.

The initial research on this project was undertaken by the NAIC Technical Advisory Committee on Dynamic Interest and Related Matters. This Committee reports to a group of State Insurance Department Actuaries known as the NAIC Technical Staff Actuarial Group. After considering a number of alternatives, the Advisory Committee recommended that companies be permitted to issue life insurance policies with no cash surrender values or loan values, though guaranteed paid-up insurance benefits (reduced paid-up or extended term insurance) would continue to be required. The Advisory Committee's recommendation has been discussed to some degree by the Technical Staff Actuarial Group, and is currently under very active study by an ACLI task force. I would now like to touch on some of the principal considerations that have entered into these discussions and then comment briefly on what the future may hold for this proposal.

Not surprisingly, the industry's reaction to the proposal has been generally favorable. A policy of this type would ease disintermediation pressures and increase incentives for long-term industry investment. The absence of guaranteed cash surrender values would obviously permit a lower premium rate.

These policies have been marketed successfully in Canada alongside comparable policies with cash values. Some have felt that these policies would be well suited for large amount sales to "sophisticated buyers" and in some business insurance situations. Others have felt that the appeal would be strongest in the small amount market, where cash values are small in any event and there is little emphasis on this feature of the policy or on loan utilization.

Furthermore, it is argued that there already exists a precedent for this type of arrangement in the United States; under annuity contracts, paid-up annuity benefits are required, but not cash surrender values or loan values.

Since it has remained under discussion and has not progressed to an "action" status, you have probably gathered, correctly, that there are reservations and questions about the proposal. I would like to outline some of these:

1.) On a general level, it is suggested that guaranteed cash surrenders and loan values should be an integral part of fixed benefit life insurance. As policy guarantees are deleted or weakened, the argument goes, it becomes more difficult to maintain that a life insurance policy is not a security. Fear that a policy might be so classified and therefore be made subject to securities laws and regulations has discouraged, for example, consideration of proposals to permit cash values with market value adjustments.

2.) The proposal would not preclude an insurer from "buying out" one of its policies, nor an insured from selling or assigning the policy to a third party for a consideration. While they would provide readily accessible cash options to a policyholder entitled to non-forfeiture benefits, these arrangements might raise public policy questions by encouraging speculation on the insured's health.

3.) What can or should be done to accommodate the insured who has reached an advanced age and has no further need for insurance protection?

4.) It is recognized that adequate disclosure of the absence of cash values is vital to avoid the serious consumer misunderstanding that might otherwise result. What special requirements need to be established to ensure this disclosure?

5.) Should there be a liberalization of minimum valuation standards for these policies to reflect the lower disintermediation risks and lower premiums? Specifically, should the dynamic interest rate weighting factors and/or the additional (deficiency) reserve requirements be modified for these policies?

6.) What size premium reduction is necessary in order that the product have sufficient marketing attraction to warrant its development?

This last question regarding the product's marketability provides a good transition to my concluding remarks. Having heard some of the history of this project, you are naturally wondering what we can expect at this point. What will be the fate of this proposal? My feeling is that it depends upon how genuine and strong an interest there is in the concept. Legislatively - and legislation will be necessary in each of the states - this proposal is a "tough sell". Something will be taken away from the consumer. For a long time, we have been telling the legislators that under whole life insurance the policyholder who gives up his policy after paying premiums for a number of years will get some of his money back. Now, we will have to tell them we want to be excused from having to do this.

Are the prospects for the product exciting enough to justify the large political effort that will be necessary? That is the crucial question. Some suggest that a product now on the drawing board, flexible premium variable life insurance, may provide a more satisfactory and less politically uncertain answer to some of the needs that would be met by a no-cash-value policy. In the one case where the political waters have been tested, an attempt to enact no-cash-value legislation in Nebraska has been met with a negative response by the agents, and consideration of the bill has been deferred until next year. I think that by next year we should have a fairly clear idea of whether this concept has any real future.

In any event, I feel that this dialogue has not only been worthwhile but also necessary. It is only through these careful studies that we can hope to answer the difficult and searching questions that will be asked regardless of whether or not this idea goes forward.

MR. PETER A. MARION: Report Of The Task Force On Smoker/Non-Smoker Mortality: Early in 1982, the NAIC Technical Advisory Committee on Dynamic Interest and Related Matters, acting on behalf of the NAIC Technical Staff Actuarial Group, asked the Society of Actuaries to gather the available experience on smoker and non-smoker mortality. The objective was to produce information which could be the basis for developing interim valuation standards for non-smoker ordinary business.

In response, the Society established the Task Force on Smoker/Non-Smoker Mortality. Since its inception, I have been its Chairman, and the other members have been Douglas Doll of Tillinghast, Nelson & Warren; Melvin McFall of Lincoln National; and Abbott Webber of Phoenix Mutual. The Task Force responded to its charge by comparing and contrasting the experience of five companies whose non-smoker mortality experience has been published in the Record or the Transactions. In the Exposure Draft of our report, Part I and Appendix A contain the results.

We attempted to highlight the differences among the mortality studies performed by these five companies. These differences should be taken into account when comparing the mortality experience of the five companies.

One significant difference from company to company is in the characteristics of the lives included in the "smoker" group. For two of the companies, the "smoker" group includes virtually no insureds who do not smoke cigarettes. However, two other companies included in their "smoker" group not only insureds who smoke cigarettes, but also insured non-smokers who did not receive non-smoker classification because their age or plan or amount of insurance made them ineligible. The fifth company included in its "smoker" group all applicants who were issued policies during the three years immediately preceeding that company's introduction of non-smoker discounts.

These variations by company in the "smoker" group (which probably resulted from data processing constraints) must be taken into account when comparing the mortality ratios of these companies. The Task Force estimated the mortality ratio among each company's true cigarette smokers from the non-smoker mortality ratio and the aggregate mortality ratio.

Last December, the Executive Committee of the Society amended the charge of the Task Force to include the division of the 80 CSO Mortality Table into its smoker and non-smoker components. The Task Force was now to actually develop interim scaling factors which would produce better valuations than not recognizing the smoker/non-smoker differential at all.

The Task Force split the 80 CSO Basic Mortality Table into smoker and non-smoker components using the same procedure as was used in the paper "Mortality Differences Between Smokers and Non-Smokers" by Michael J. Cowell and Brian L. Hirst. That paper, published in the 1980 Transactions (TSA XXXII, page 185), presented the mortality experience of both smoker and non-smokers insured by State Mutual Life. This procedure requires two assumptions at each age; (1) The proportions of smokers and non-smokers in the experience underlying the table, (2) and the ratio of the level of smoker mortality to non-smoker mortality. Once these two assumptions have been made, the solution of two simultaneous equations produces a division of one aggregate mortality rate into its smoker and non-smoker components.

The Task Force developed numerical values for these two assumptions from the experience referred to in Part I of the Exposure Draft, and also from studies contained in the 1979 Report of the Surgeon General. These numerical values varied by age and by sex. For males, the proportion of smokers in the data underlying the 80 CSO was assumed to be about 12% at age 15, increasing to 45% at age 35, and then decreasing to 10% at ages 95 and above. The ratio of the level of smoker mortality to non-smoker mortality was assumed to be 1.5 at age 15, increasing to 2.5 at age 45, and then decreasing to 1.0 at ages 95 and above. The corresponding assumptions for females followed similar patterns but at lower levels.

In order to produce tables apppropriate for valuation purposes, margins must be added to the separate smoker and non-smoker basic mortality rates. The Task Force added the actual margin contained in the 80 CSO to both the smoker and the non-smoker basic mortality rates. This ensured that the resulting loaded rates, when recombined using the assumed proportions of smokers and non-smokers, would reproduce the 80 CSO loaded mortality rate.

Part II and Appendices B through I of the Exposure Draft present the derivation of our mortality tables; male smoker, male non-smoker, female smoker, and female non-smoker. The Task Force then simply divided its loaded smoker and non-smoker mortality rates by the corresponding 80 CSO mortality rate to develop the scaling factors contained in Table 1 of the Exposure Draft.

This is a very quick overview of the work of the Task Force. We have included in the Exposure Draft a great deal more detail, including some sample premium and reserve calculations using the separate smoker and non-smoker tables. The Task Force found some relationships between smoker reserves and non-smoker reserves which we had not expected. For example, when the experience of two dissimilar groups (such as smokers and non-smokers) is combined into one aggregate mortality table (such as the 80 CSO), total reserves calculated according to the aggregate table will generally <u>not</u> be the same as reserves calculated according to two separate mortality tables, one for each of the two groups. This is true even if the actual distribution of lives in each group and the actual morality rates experienced by each group are <u>exactly</u> as assumed in the tables. An analysis of the effects of using either one aggregate table or two component tables for valuation purposes is contained in Appendix I of the Exposure Draft.

Regarding deficiency reserves, it has come to the attention of the Task Force that some people have the impression that using separate smoker and non-smoker valuation tables will substantially reduce, if not completely eliminate, deficiency reserves. This perception seems to have arisen from the fact that, using the 80 CSO, many companies have significant deficiency reserves on non-smokers but little or no deficiency reserves on smokers. While it is true that use of the non-smoker table will significantly decrease deficiency reserves on non-smokers for many companies, it is also true that the use of the corresponding smoker table will significantly increase deficiency reserves on smokers for many of the same companies. Each company's distribution of business and gross premium differential between smokers and non-smokers will determine whether the total dollar amount of deficiency reserves will increase or decrease.

This Exposure Draft has been presented to the NAIC Technical Advisory Committee, the NAIC Technical Staff Actuarial Group, and the Executive Committee of the Society of Actuaries. Since the initial reactions have been positive, it will be considered at the June NAIC meeting and possibly adopted at the December NAIC meeting as an alternative valuation standard for smokers and non-smokers.

This Exposure Draft is now being distributed to all Society members so that we might receive your comments. The Task Force would like to emphasize that our charge has been to develop interim valuation standards which will produce better valuations than not recognizing the smoker/non-smoker differential at all. There does not currently exist a large enough volume of mortality experience on insured non-smoker to justify a highly-sophisticated, time-consuming development of separate smoker and non-smoker valuation standards. We believe the Task Force has used procedures which are appropriate, given the limited availability of data and time.

Thus, our Exposure Draft is not the definitive statement with regard to separate valuation standards for smokers and non-smokers. Rather, it is an attempt to quickly produce interim standards, appropriate for use until more sophisticated procedures are justified by the existence of a significantly larger volume of data than is currently available. (Realistically, this will not occur for several years.) The Task Force on Smoker/Non-Smoker Mortality would like to ask you to keep this in mind when you send us your comments.

We believe that these separate smoker and non-smoker mortality tables will have only a minor impact on product development in the near future. To the extent that there is a shift in deficiency reserves from non-smokers to smokers, such shift probably should be reflected in the pricing process. But non-smoker insurance is not like other products, such as policies without guaranteed cash surrender values, where the development of new policies will follow a regulatory change. Rather, the development of the new product has preceeded, and in fact has made necessary, regulatory changes nearly twenty years after the new product was introduced.

MR. JOHN M. BRAGG: Non-Smoker/Smoker Mortality Tables: (1) The Bragg Tables, prepared by our organization, are based on a substantial block of actual insured experience data; these data are not in the possession of the Society (although we have offered to provide our material to the Society). The Bragg mortality rates (both select and ultimate) were constructed by classical methods, through observation of data. The Society mortality rates were inferred from the 1980 CSO rates through a formula based on (a) an estimated ratio of smoker to non-smoker mortality; (b) and estimated percentage of persons who are smokers; and (c) the assumption that the loading should be the same dollar amount (for both smoker and non-smokers) as in the 1980 CSO table. The Bragg select rates were obtained through observation of data and were loaded by the same percentage as the corresponding ultimate age; the Society select rates are to be obtained by the "selection factor" used with the 1980 CSO Table.

(2) Ratio of Smoker to Non-Smoker Mortality. We are able to compare our directly observed ratios with the ratios used by the Society. Significant differences exist. For example, at age 45 male (ultimate) our ratio is 1.80, versus the Society's assumption of 2.50. Corresponding female results are 1.49 and 1.90. At many ages, these ratio differences tend to make the Society smoker basic results too high, and non-smoker basic results low, in our view.

(3) Percentage of Persons who smoked during observation period. The insured data we are using includes such information, and we can compare it with the Society's assumptions. In general, the Society assumptions seem very low. For example, at age 55 male, our percentage is 48.3% compared to the Society assumption of 36.2%.

(4) Loading Formula. The 1980 CSO Table was loaded by a formula which varies inversely according to the expectation of life. Our ultimate tables were painstakingly loaded by determining the expectation separately for smokers and non-smokers and using this formula. Naturally, the dollar loading is lower for non-smokers, because they live longer. The Society's method, though easy, is not in accordance with this 1980 CSO loading principle.

(5) Selection Factors. The directly observed Bragg select mortality rates show, in general, that the effect of selection is greater for non-smokers than for smokers. This seems logical. The "1980 CSO Selection Factors" do not incorporate this result and also appear to involve discontinuties, etc.; the Bragg select rates were painstakingly constructed on an age-by-age basis in order to achieve desired consistencies.

(6) The Bragg Tables have extended term and age-last-birthday values; the Society Tables do not.

(7) The four technical problems (points 2 - 5) combine together to cause significant differences between the Bragg and the Society results. The Society Tables are a "construct", based on estimates of two ratios. Since our values are based on direct observation, by classical means, of actual insured data, we feel that our results are more likely to be accurate. The following is an illustration of the differences for male lives:

| | First Year Select Age 45 | | Ultimate, Age 45 | |
|---|---|---|---|---|
| | NS | S | NS | S |
| Bragg, basic | 1.04 | 2.07 | 2.34 | 4.21 |
| Society, basic | N/A | N/A | 1.96 | 4.91 |
| Bragg, loaded | 1.62 | 2.82 | 3.59 | 5.73 |
| Society, loaded | 2.16 | 4.08 | 3.32 | 6.27 |
| 80 CSO, for comparison | 2.96 | 2.96 | 4.55 | 4.55 |

In our view, the loadings in the Society's first year select rates are excessive.

(8) The Bragg Tables are freestanding tables constructed from their own data. However, they do blend together (using the principle source company's percentages of smokers for 1978 issues) to be in close agreement with 1980 CSO.

Blended Ultimate

BRAGG with Margins/1980 CSO

| AGE | MALE | FEMALE |
|---|---|---|
| 35 | 98% | 97% |
| 40 | 101 | 109 |
| 45 | 101 | 104 |
| 50 | 98 | 102 |
| 55 | 101 | 106 |
| 60 | 111 | 104 |
| 65 | 107 | 86 |
| 70 | 106 | 91 |
| 75 | 105 | 101 |
| 80 | 108 | 101 |
| 85 | 99 | 93 |
| 90 | 100 | 90 |
| Average | 103% | 99% |

(9) The Bragg Tables are now in fairly widespread use in the United States and Canada. They are also being used in Japan and Europe.

In a sense, therefore, they have been "exposed" to numerous actuaries. They are being used for various purposes such as product development, pricing, dividend calculation, GAAP statements, etc. They have been used with policy form filings of universal life - type insurance.

MR. MARION: As Jack said, he has seen our report and we have worked with Jack and his consulting firm. We are familiar with the Bragg tables. There are significant differences between our tables and Jack's tables. To some extent we feel that the differences do not mean either one of us is wrong. The charge of our committee was to split the 1980 CSO table into smoker/non-smoker components. Regarding for instance, loading, if we do not use the exact dollar loading that is in the 1980 CSO in separate smoker/non-smoker tables, then if we recombine those tables we would not reproduce the 1980 CSO. The Task Force felt that was a necessary condition of our tables. They must reproduce the 1980 CSO. So, we used the 1980 CSO actual dollar amount of loading. Regarding selection factors, Jack, you said you do have trouble with the 1980 CSO selection factors. To us that is irrelevant because, since they are the 1980 CSO selection factors, our committee is bound to them. You can make a case that they should be different for smokers and non-smokers. That is something that our task force simply did not have time to do in the two months that we went from absolutely nothing to this draft report. We hope between now and the fall to look into that, but still we are going to be constrained by having selection factors that must aggregate to the 1980 CSO selection factors.

Regarding the specific numerical values of the assumptions we made for the ratio of the mortality of smokers to non-smokers and also the proportions of smokers and non-smokers, there is certainly room for disagreement. There is certainly some inconsistency among companies. It is our opinion that there does not exist enough data to support any specific assumption 100 percent. We do feel that our numbers are reasonable. In our final report, the Task Force plans to respond more completely to all of Jack's points, as well as to any other comments we receive.

MR. CARNEY: When I started today I indicated that the Technical Staff Actuarial Group, TSAG, had a number of projects that it rated as top priority. It does not have as a priority project anything that is more important than the Marion Tables. The exposure of these tables to the Society membership for comments is very important and it is very timely for you to express your comments. Because this will be considered at the June NAIC meeting, it very likely may be an exposure draft presented by the NAIC in June for adoption at the December meeting. So it is very important that, as actuaries, we study this carefully and review it and make our feelings known.

MR. MARK P. ABRAHAM: Would the proposal that the ACLI Committee is looking at completely do away with cash values or would it require cash values, but allow for a market value adjustment?

MR. SPANO: It would do away with cash values, completely. In other words, there would be no guaranteed cash values.

MR. ABRAHAM: A couple of observations and questions: First, I believe level premium disability income policies do not require any cash values right now. Why should life insurance be any different? Second, among the reasons why people might contend that you have cash values is that, if you do not, those who lapse might be subsidizing those who persist. Third, is the Committee looking at alternative proposals, such as, perhaps having no cash values on term to 65 policies, or 20 year term policies? Another possible compromise is perhaps permitting no cash values for a period of seven or eight years or some period over which the life insurance company can completely amortize its issue cost, but thereafter requiring some cash values.

MR. SPANO: The work of the ACLI Task Force is not restricted to considering this one proposal; it is looking at the whole general subject. The Technical Advisory Committee that developed this proposal did consider a number of alternatives and recommended this one.

MR. ABRAHAM: I found it interesting that you said that in Nebraska the agents oppose this particular piece of legislation. Why?

MR. SPANO: I was told that they felt there was a considerable potential for consumer misunderstanding. They are naturally worried about selling a policy and not having the consumer realize fully what is going to happen. Another reason why agents may not care for it, is the loss of one aspect of the sales appeal for whole life insurance. One of the key arguments that an agent will make in trying to sell whole life insurance as opposed to term insurance is that, if you decide after a few years you do not want to pay premiums, there is cash available under the whole life policy. Also, if you ever want to take out a loan and the market interest rates outside are higher than the rate you would have to pay under a policy loan, just call me and I will get you a cheaper loan and you do not even have to go through a credit check.

MR. CARNEY: The proposal for not having cash values is not mandatory. In other words, the product design can be just as it is now, with cash values. However, it gives the company the right to develop a policy that does not have cash values but does have paid up and extended term benefits.

MR. ABRAHAM: Our subsidiary in Canada, Occidental of Canada, does sell level term to age 100 with no cash values. It is one of their best sellers.

MR. G. THOMAS MITCHELL: What is the battle plan now for the 1980 Tables if the Unisex legislation passes?

MR. MARION: In terms of smoker and non-smoker tables, (I can not answer the question for what the industry is going to do on the other tables), if someone were to develop a 1980 UNISEX CSO I would expect that our Task Force would be asked to split that into smoker/non-smoker components. I fully expect we could do that. I do not see any overwhelming problems.

MR. CARNEY: If the laws do change then we will have to develop "Unisex" tables, redo the 1980 CSO Table and probably the work that Pete's committee has done and the work that Jack has done.

On the topic of "Unisex", Dick Kling was talking about the retroactivity provisions and threw out a gross number of $86 million. That may stagger some of you. I work for a company that sells variable products and for all of our deferred annuities the clients have a choice of either annuitizing under a fixed option or variable option. Now, if I was to take a worst case study of our business and say that everybody was going to annuitize under the variable option where I do not have any interest margin and I have to use my guaranteed male and female rates, and therefore inflate the female benefits, i.e., top them up, I would estimate the cost on the worst case basis for my company at $150 million.

MR. SPANO: Dick Kling referred before to a disagreement within the ACLI membership as to political tactics and to what compromise position it should come forth with. Let me say that anytime something becomes controversial and it is very easy to accentuate the areas in which people do not agree and perhaps not give sufficient emphasis to the areas in which the individuals do agree. In that connection, I will mention that there is a very substantial amount of agreement within the industry regarding this legislation. One of the most important issues is that of retroactivity. The industry is completely united in opposing the retroactivity feature of this bill. The bill in its current form would require all future premiums and all future benefits, under both contracts in existence at the time the law becomes effective and contracts issued after the law becomes effective, to be on a "Unisex" basis. So, if you have individual life insurance policies in force with separate premium rates and possibly separate cash value scales for males and females, you have to adjust either future premiums or future amounts of insurance and also the cash values so that they are equal for both sexes.

The ACLI is trying very hard to come up with estimates as to how much it will cost the industry if the retroactivity feature is kept in the bill and we have asked our member companies to estimate the cost for their company. These are the figures to which Greg and Dick referred. I would encourage all of you that are with ACLI member companies to make sure that your company, if it has not yet done so, send its estimate to the ACLI Office as quickly as it can. The retroactivity feature is one that we simply have to get removed from the bill.

MR. A. ANTHONY AUTIN, JR.: I have a question for Tony Spano. On the matter of the retroactivity concern, what is the position with regard to mutual companies and their ability to recognize changes in cost in their dividend scales, i.e., lowering the general level of dividends ("Unisex" dividends) to help compensate for the increased cost that we have been discussing? How is that being treated in this question of topping up?

MR. SPANO: Certainly companies can reduce the general level of dividends. Dan, do you know if we have addressed this point more specifically?

MR. DANIEL F. CASE: In the ACLI survey we have just asked the companies to estimate the statutory reserve increase that would result from increasing the face amount in the male policies and, if they have different cash values for male and female policies, then increasing the cash values on the female policies. We have also asked the companies to tell us how much they paid in policyholder dividends in the latest year and, in the case of stock companies, how much they paid in stockholder dividends last year, because, obviously, the long-term impact is going to have to be softened by reductions in those dividends.

MR. AUTIN: As I understand the smoker/non-smoker tables, there is really something of a misnomer there. The way companies operate, there are people who are qualified for a non-smoker discount, and then there are all others. The all others catagory includes smokers as well as non-smokers. What is the implication of that in terms of utilizing of these tables?

MR. MARION: First, I would say the terms smoker/non-smoker in our tables are not a misnomer. The tables are meant to represent cigarette smokers and non-cigarette smokers. If a company has non-cigarette smokers and "all other", then their "all other" is not going to experience mortality rates comparable to our smoker table. But, our smoker table is in fact smokers. To more directly respond to your question, that question will not be answered by our committee. I think it is one of a number of very serious questions that have to be answered by the NAIC or its Technical Advisory Committee or the Technical Staff Actuarial Group. How do you use these tables? Do you use them prospectively, only? What do you do with a company that splits between smokers and non-smokers but in only certain ages? Or in the past has done it for males and not females? Or has different minimums for smoker and non-smokers? Or the definition of the non-smoker is: does not smoke cigarettes, has better than average build, has a good family history, and so on? In this case, the other group may have a large portion of non-smokers. I do not know how you will use the tables. It was very clear when we started to split mortality tables between males and females what the definition was. We do not have that on smokers and non-smokers, so it is a brand new question and we do not have the answer yet.

MR. MICHAEL WINTERFIELD: I would like to make a couple of comments on some of the "Unisex" issues. First, with regard to some calculations in the annuity area, we are estimating that our female immediate annuity reserve would have to be increased by about 30 million dollars. This represents about one half of the surplus that we have in the annuity and supplementary contract area.

I share Greg Carney's concerns about variable annuity settlements. Although I tend to be optimistic about our covering this risk. We are having much success in getting people to put money into a stock account where the individual is in a long accumulation period. However, the bulk of individuals who will use the stock account for accumulation purposes do not want to be subjected to the fluctuations of the market during the pay out period. Another protection in our case is that we have a 175 point asset charge which does cover a healthly bit of the difference. But, of course, I agree it is a risk that I wish we did not have to take. Perhaps, at sometime stock options will also be popular for retirement purposes.

The other issue I would like to comment on briefly is the basic ACLI position with which Dick disagrees. There are not many companies that think "Unisex" rates, even on a prospective basis, are a good thing. We are really dealing with a question of political tactics. The moving train theory mentioned earlier is exactly what the thinking is. I was not able to appreciate that point until I read some of the background to the Senate bill. I was really surprised to see how cleverly they have managed to tie in the male/female issue to the old black/white issue. The presentations they made of the differences in population mortality between blacks and whites are very striking. There are ways in which you can punch holes in the kind of data that they have put together but it is an awfully tough case to argue against.

MR. KLING: I think that starting with a compromise position is the worst position to be in. Mike's point is well taken, yet I happen to disagree that it is a political reality yet. It will be if we say to ourselves that it is. So again, I would urge you to speak up now.

MR. CASE: One of the questions that has been raised in the "Unisex" debates has been the following: What would be the observed differential between the sexes if the effect of factors such as smoking were eliminated?

MR. MARION: I would have to give you only my own impressions at this point. I would say there is still a significant difference between a male smoker and female smoker and between a male non-smoker and a female non-smoker. There is some indication that the difference between males and females is partly due to differences in smoking habits. One reason why female mortality is lower is because fewer women smoke and the women that do smoke tend, at least in the past, to have smoked fewer cigerettes per day. But, the difference in smoking habits could not likely explain 100 percent of the differential between males and females.

MR. BRAGG: The Bragg Basic Tables show in general that smoking has a greater effect on male mortality than on female mortality; this result was not surprising to us. There are numerous instances (both select and ultimate) where non-smoker male mortality is better than smoker female mortality, although female mortality is always lower than male mortality for the same catagory. Another interesting discovery was that the first year select mortality is almost the same for non-smoker men and non-smoker women in the age range 40-55 (although the two groups rapidly diverge as duration increases).

MR. CARNEY: I would like to close this session with a few remarks. Our industry is changing, our products are changing and our laws and regulations are changing. Significant research is being conducted on C-3 risk and surplus requirements. Considerations regarding non-book cash values and expansions of the actuarial opinion are topics of discussion. It is conceivable that radical changes could be made during the 1980's to the entire valuation and non-forfeiture laws. Our purpose today has not been just to update you on the current regulatory topics but to stimulate you and encourage your involvement and participation.

TSAG's next meeting is scheduled for June 12th in St. Louis. It will also meet on October 13th in Hollywood, Florida in conjunction with the Society of Actuaries meeting. The Greeley Committee will next meet on October 8th, also in Hollywood, Florida. Those meetings are all open meetings. The ACLI Actuarial Committee will meet on July 27th in Washington, D.C. and, if your company is a member of the Council, you may attend that meeting. We encourage you to closely review the Marion Tables presented here today and express your comments and views on them.

On behalf of the panelists, I would like to thank all of you for your interest and participation today. I would also like to thank personally the panelists for their excellent presentations. Thank you.