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NONFORFEITURE LAWS UPDATE

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This session will update actuaries on the current status of the proposed new standard nonforfeiture law for life insurance. Panelists will discuss the principles behind the proposed new law, the current status of the proposed legislation, and major issues with respect to the new law. Included will be discussion on potentially:

- *eliminating the minimum statutory nonforfeiture formula*
- *establishing a "plan" on a policy form basis*
- *having optional cash values*
- *having acturial certificates on "parity"*

MR. RANDALL P. MIRE: This is the panel discussion on the proposed new standard nonforfeiture law for life insurance. The program that was originally sent out had a broader definition of the nonforfeiture law update, but in light of the importance and the relatively rapid development of the new proposed standard nonforfeiture law for life insurance, it was decided that this session would focus exclusively on that subject.

Donna Claire and I will be the two panelists for this session. By my count, this is at least the fourth time that Donna and I have prepared a joint presentation on this particular subject. So it's going to soon be the Donna and Randy show.

For those of you that may not have been aware of it, there is a proposed new nonforfeiture law for life insurance in the works. The law in concept is dramatically different from the current law. Bob Wilcox has been quite active in the development of this whole process. He is the insurance commissioner of Utah, an actuary, and he is on the board of the American Academy of Actuaries (AAA). Bob has referred to this law as the most important piece of legislation involving life insurance products in this century. Not only is it a very important piece of legislation, but it is on a very fast track.

Donna is going to be our first speaker. Donna is a member of the Board of Directors of the Society of Actuaries (SOA). She has been on numerous Society and Academy committees. She is the head of her own consulting actuarial firm, Claire Thinking. Outside of perhaps certain full-time professional regulators, I don't know of anyone in the actuarial profession who is more involved and more knowledgeable with respect to the National Association of Insurance Commissioners (NAIC) issues than Donna Claire. In particular, Donna is the chair of the SOA Task Force on Life Nonforfeiture.

Let me just give you a brief overview of what Donna and I hope to do here. Donna, representing primarily the SOA, will cover the background and history of this proposed legislation, the extensive work done by the Society's Task Force, and the resulting report.

I will be representing primarily the AAA. I will attempt to cover some of the basic principles and premises that underlie the law, or the so-called paradigm shift. I'll cover certain key features of the law as it has currently evolved and then get into some tentative formulas, procedures, and actually some numbers. Actuaries must have some numbers, so there will be some sample calculations.

One of the primary goals that we have had in this process is exposure of this proposed law. And, of course, one of the main reasons we're here is to provide exposure to the profession. We want you to be aware of what's going on and what's happening in this area. We want and we very much value your input to this whole process. And we would like to have your input sooner rather than later.

MS. DONNA R. CLAIRE: The change in direction of life nonforfeiture in the U.S. has been described as a potential watershed event in U.S. regulation.

For those of you who have been following the debate, the Life and Health Actuarial Task Force of the NAIC has been working for over a decade to develop a new life nonforfeiture law. Products have become increasingly complex as companies have tried to respond to consumers' varying needs. The laws and regulations have also become more complex, but, at the same time, less effective, as more consumers are confused as to what they have bought and more multimillion dollar lawsuits are filed against insurance companies.

In December 1995, several courageous regulators finally said, "Stop—let's go back to basic principles and develop laws that make sense." The regulators came up with a one-page summary of what was important, e.g., to treat persisting policyholders as consistently as those who terminate, and to regulate the least amount to obtain the desired results. The thought was to eliminate minimum statutory formula reserves and replace them with a method of determining the policyholder's value based on the company's plan for that policy form. Another major shift would be to make cash values an optional provision.

The regulators then asked the professional actuarial bodies for help. I chair the SOA Task Force on Life Nonforfeiture.

One question is why should the SOA be involved in this effort? The answer can be seen in our mission statement:

> The Society of Actuaries is an educational, research and professional membership organization whose primary purposes are to promote high standards of competency and conduct among its members and to advance the state of actuarial science. Members of the Society of Actuaries are skilled in the evaluation of contingent events, in structuring models to describe and measure risk, and communicating the resulting implications. Representing its members, the Society of Actuaries is part of a worldwide actuarial profession.
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> General Objectives: The four general objectives listed below define the manner in which the Society of Actuaries should address its mission and highlight priorities for the development of strategies and programs.
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> - **Education**. Provide basic and continuing education in actuarial science and currently applied practice.
> - **Research**. Facilitate the conduct of theoretical and practical research.
> - **Membership Services**. Provide quality service to members.
> - **Development of the Actuarial Profession**. Promote the services of the Society of Actuaries and its members and support the members in

meeting their professional responsibilities to clients, employers and the general public.

The SOA task force is assigned with further development of the basic actuarial principles of life nonforfeiture. We have turned the regulator's one-page document into a 35-page draft report, expanding on the principles, exploring nonforfeiture history, doing research into what other countries are doing, and developing some actuarial formulas. This draft report is available on Actuaries Online. Extensive work has been done by Randy Mire and the Atlanta Tillinghast office in developing examples based on the SOA Task Force's work. Randy and I are also presenting the concepts to actuarial clubs this fall. We also did a presentation to the Actuarial Standards Board (ASB) recently, and we are scheduled to give a presentation to the Commissioner's Roundtable at the December NAIC meeting.

The natural question, with all this work is, are we done yet? The answer is no. Input from many sources has pointed out a number of areas where we had to rethink and revise our original thoughts. Randy's running of the practical examples has shown where additional thought needs to be given. There is also more education and interaction needed from a larger audience.

One question we keep asking, especially when we come to a particularly interesting question regarding the new approach, is, do we really need a new law? The answer continues to be yes. The life insurance industry in the U.S. is at a crossroads. Insurance products, in an attempt to handle varying consumer needs, are becoming increasingly complex. Regulations, in an attempt to handle these complex products by providing formula-driven answers, are becoming increasingly complex and burdensome, but, at the same time, are becoming less effective. The consumer, the person whom we should ultimately serve, is not being served because certain legitimate innovations in product designs are not permitted under current regulations. Also, by only requiring compliance with a formula (versus a principle of fairness), companies are permitted to stretch the bounds of reasonableness. Consumers may not know what they are is getting versus what is promised.

The insurance industry in the U.S. is under pressure. There are lawsuits being brought because the consumer is not getting what was expected from companies. Other institutions (e.g., banks) are competing to get the consumer's money, and restrictive nonforfeiture policies may limit the insurance company's ability to compete.

We also believe that the timing for additional reliance on the actuary is right. The valuation actuary concept, where the actuary certifies that the reserves are reasonable based on asset adequacy testing, has proven successful. The illustration actuary concept will also require the actuary to certify the values used by the company. The creation and expansion of the role of the ASB has given a method of establishing professional standards.

To determine what should be done for nonforfeiture, the SOA group also examined what was happening in other countries. Most do not require nonforfeiture values. There is disclosure of policy features required; actual nonforfeiture values paid are typically up to the company, and the actuary is sometimes required to certify as to their reasonableness.

The history of nonforfeiture in the U.S. should be familiar to most U.S. actuaries. Nonforfeiture values can be traced to Elizur Wright in 1860, who was concerned that there was no way for policyholders to stop paying premiums and get any values from their policies. This was reinforced by the Armstrong Investigation in the early 1900s.

There was a committee of the NAIC, known as the Guertin Committee, which issued a report in 1941. It established the basis currently used for nonforfeiture rules. The economy and life insurance products have changed dramatically in the past 50 years. The Life and Health Actuarial Task Force (LHATF) of the NAIC has been working since 1984 to revise the Life Nonforfeiture Law, but the starting point was the current law. It wasn't until December 1995 that they decided to go back to basic principles.

The LHATF developed a basic principle which stated that persisting policyholders should not be significantly advantaged or disadvantaged by terminating policyholders. The SOA task force has expanded this to state: "Nonforfeiture benefits are a means of maintaining equity among persisting and terminating policyholders in the same class. The standard of equity for a terminating policyholder is measured against the rights of persisting policyholders in the same class."

The above implies that nonforfeiture can be viewed from what a policyholder can expect. In absence of outside changes (e.g., interest rates), smooth nonforfeiture values would be expected. Company experience may affect the parity values. Minimum nonforfeiture values are not implied.

The major question about this new approach is how the plan concept would work. Our idea is that, for each policy form, there would be a plan that would describe how all nonguaranteed values would be calculated. This would be the basis for a deal with the consumer; therefore, illustrations would also depend on the plan. Any changes to the plan would mean there were changes to the deal with the consumer; therefore the plan can only be changed under limited circumstances.

A number of people have been concerned about the "plan concept" taking on too much. However, life insurance companies are already following a "plan concept" for nonguaranteed elements. Section 4.2 of *Actuarial Standard of Practice (ASP) No.1* states:

> In developing advice on nonguaranteed charges and benefits, the actuary requires a redetermination policy for the business... Such policy includes the client's solvency, marketing and profit objectives. In order to implement the policy, the client will seek to follow a set of operating practices (such as investment, underwriting, claims, sales, service, and administrative) which affect initial pricing and subsequent repricing actions.

This establishes that a company policy (or "plan") must exist for nonguaranteed elements. It also lists a number of factors that must be considered in developing a plan.

The basic formula that is developed from this concept is: the present value of future benefits minus present value of future premiums. This is consistent with treating terminators and persisters fairly. It represents what the policyholder would expect to receive as a "marketplace value" for his or her policy. For a contract guaranteeing only death benefits, the value would be the following: $A_{x+t} - GP\ddot{a}_{x+t}$.

There are some problems with using A_{x+t} - $GP\ddot{a}_{x+t}$, if one is viewing this from the policyholder's point of view. For example, what is the "policyholder" interest rate? What is the mortality rate?

The policyholder should expect that the company would cover expenses and risk charges, so they would expect that the rates would reflect this.

A solution to the problems of viewing the formula from a policyholder's point of view is to substitute insurance concepts, and view the same value formula in aggregate, with all amounts based on company experience:

> Present value of future benefits + present value of future company share - present value of future gross premiums.

This solves the problem of what interest and mortality rates to use—one would use the company's. It also explicitly recognizes that future margins that are not needed are ceded to the policyholder.

For products where the death benefit is the only guarantee, the formula becomes:

$$A_{x+t} + \Sigma v^s\, {}_sp_{x+t}\,(\text{Company Share})_{s+t} - GP\ddot{a}_{x+t}$$

where "company share" reflects expenses, risk charges and profit margins.

There are some products that would not be allowed under the definition of equity as defined above. For example, level premium "Term to 100," with no nonforfeiture is unlikely to be permitted. The formula of, $A_{x+t} + \Sigma\, v^s\, {}_sp_{x+t}(\text{Company Share})_{s+t} - GP\ddot{a}_{x+t}$ would likely produce positive values.

Also significant persistency bonuses would likely have to grade in nonforfeiture values. The natural reserve formula includes all benefits, so it would equal $A_{x+t} + v^r\, {}_rp_{x+t}\,(\text{Bonus}) + \Sigma\, v^s\, {}_sp_{x+t}(\text{Company Share})_{s+t} - GP\ddot{a}_{x+t}$.

Some people prefer to use a retrospective reserve formula. This type of formula equals the prospective reserve, if all assumptions made at issue are correct. It may be permitted as an alternative to prospective, as it is easier to calculate some product types on a retrospective basis. This is an example of a practical problem that the Academy group is addressing.

As with any contract, additional options are always possible. Assuming that there is a benefit provided that satisfied nonforfeiture equity, additional options are possible. These other optional benefits can be permitted (e.g., guaranteed cash values) without violating the equity embedded in the nonforfeiture benefit.

Any additional options may have additional cost. The principle of fairness is not violated as long as the additional cost of these options has been factored into the premiums.

Guesses are, if the ideas are adopted, there will be opportunities to develop a number of products that will fit certain consumer segments better. For example, one could develop a level premium "term" product that would only require pay-in-kind nonforfeiture benefits;

on the other hand, one might also develop products that provide a number of options to the policyholder.

The work is still ongoing, and it's on a very fast track. There will probably be a draft of the law released this December. We need input as soon as possible from as many of you that care about this subject. We are attempting to develop a methodology of bringing us into the next century.

Now I get to introduce Randy. We've been working together for about a year, and it has been a lot of fun. Randy has been with Tillinghast for over 20 years with primary emphasis on individual life insurance. He served as the managing principal for Tillinghast life and health consulting worldwide for over seven years. He has also been on numerous SOA and Academy committees.

Randy has a dual role. He is the chair of the AAA Committee on Life Insurance and he chairs the coordinating group, which is a group of Academy people that is concerned about the life nonforfeiture law. We have representatives on that committee from the Academy, the SOA, the regulators, and the ASB.

MR. MIRE: This is sort of an overview of what I'd like to cover in the remaining time that we have. And hopefully we'll have some time for questions at the end. I have a fairly detailed handout that represents the Academy work. It's actually the last report that we used at the last Committee on Life Insurance, (or COLI as it is commonly called), meeting. It is much more detailed than what I hope to cover.

Donna went over the history of the proposed law. As you're aware, for permanent life insurance some form of cash value or paid up insurance option has been required in policy forms in the U.S. since at least the beginning of this century.

And as Donna indicated, for approximately the last ten years (some people have managed to get to 12 years) there have been various regulatory and actuarial committees that have been involved in proposals that might be described as "refining" or "tinkering" with the current nonforfeiture law. That's the law that basically was developed in the 1940s. The most recent such proposal or refinement or tinkering came to a head late in 1994. This is something that was popularly referred to as the Montgomery version.

This particular proposal met resistance from both the industry, primarily for practical reasons, and from the actuarial profession, for theoretical, professional, and practical reasons. COLI spent many, many hours reviewing and commenting on the various incarnations of this latest nonforfeiture proposal.

In December 1995, the NAIC made a dramatic change in the whole approach to the possible revision of the law. This is Donna's reference to courageous regulators. The NAIC basically swept away all the basic refinements and tinkering that had been going on for the last ten years, and said, let's start with a clean slate. Let's develop a law that is designed to meet the basic objectives and principles of nonforfeiture legislation.

Basically what they wanted to do as a first step was to establish a statement of basic principles to serve as a guide for the new law. And indeed those were promulgated earlier this year. They then asked the Society, namely Donna and her group, to come up with a

methodology and principles to develop nonforfeiture values. Then they asked the Academy to assist in the development of the actual structure of this new dynamic law.

As we've said, in March 1995 the NAIC, or more technically the Actuarial Task Force, and I won't get into the whole long name of it, came up with a statement of basic premises and principles. I'll give you the flavor of what they said. One was to regulate at the least restrictive level to obtain the desired results. Regard that as a fairly dramatic change in attitude from past years. Another was that persisting policyholders should not be significantly advantaged or disadvantaged by terminating policyholders. This is the basic principle that Donna was referring to earlier, which has been the driving principle that we've used in most of the work that we've done.

The return of value must be available as a paid-up benefit such as extended term insurance, reduced paid up, and a life annuity option. There were several others but this sort of gives you the flavor. The NAIC also issued a report that recommended that certain features in a new standard nonforfeiture law be pursued.

The next COLI meeting was held in the spring and followed the NAIC meeting where these principles were published. The committee discussed incorporating these principles and these suggested features in a new law, which, as I indicated, are dramatically different from the various nonforfeiture proposals of the last ten years. These proposals and principles or these principles and premises were organized into something that has been called a paradigm shift.

Paradigm, as I'm sure you're aware, is sort of the latest buzz word of Harvard MBAs. It's a very trendy phrase. I'm sure you noticed that the keynote speaker, George Will, in his presentation, made a reference to the paradigm.

And actually the original author in this context of the paradigm shift for the new nonforfeiture laws is Andy Ware who is with the Northwestern Mutual, which we all know is a very sophisticated company. Well my ancestors are from south Louisiana. I am Cajun by descent, which at least partially explains my accent. Anyway for those of you who, like me, would have to look up in the dictionary what a paradigm is, I'll define it: it's a philosophical and theoretical framework of a scientific school or discipline within which theories, laws and generalizations or the experiments performed in support of them are formulated. In other words it's the basic working assumptions that we're using for the detailed development of whatever it is that we might be working on.

We've come up with six elements in the so-called paradigm shift. But I want to talk about each one of them.

Under the old paradigm or the old law or the current law, you have minimum nonforfeiture values prescribed by law, with emphasis on the word minimum. The company determines the total value with little regulatory control. And, of course, the total value would include things like excess interest on universal life and dividends on traditional whole life policies. For example, I believe Andy indicated that the Northwestern Mutual would estimate that something like one-half of the nonforfeiture values "that they pay out" would be in the area of nonguaranteed benefits. Under the new paradigm, the nonforfeiture law would apply to the total value, including nonguaranteed elements. So in essence, under the old law we had these very refined calculations to two decimals, in some cases a

lot more than two decimals, that apply to only one-half of the value and at least over the immediate past, would have relatively little real meaning to someone who actually received these.

Under the old law, the values were determined by a rigid statutory formula based on well-established and widely recognized companies operating on relatively high expense rates. That's from the Guertin report. And, of course, that implies the 1980 Commissioners Standard Ordinary (CSO), 5.5%, etc. with the various loads in there which are quite high. Under the new law, the values would be based on actual company experience rather than this one-size-fits-all policy.

Under the old paradigm, guaranteed nonforfeiture benefits are required. Under the new paradigm, guaranteed nonforfeiture benefits are optional so you can have them or not have them. But the actuary must certify that the actual total nonforfeiture values are determined according to nonforfeiture basic principles.

Under the old paradigm, you were required to have cash (emphasis on cash) surrender values. Under the new one, cash values are optional, but paid-up insurance and life payment options are required.

At the heart of the paradigm is the plan. Right now a plan for determining nonguaranteed elements does not need to be filed or made available to regulators. And there's actually no legal requirements per se for any such plan. As Donna indicated, *ASOP #1* does require that such a plan exist. Under the new paradigm, a plan for determination of total benefits would need to be prepared. It would have to be available to state regulators. The state would be notified each time the plan is changed. Each policy form filing would include an actuarial demonstration showing that the projected nonforfeiture values including all elements comply with the plan. And the actuary would also certify that the plan complies with "nonforfeiture basic principles" which we kind of alluded to and we will come back to. The actuary also has to certify annually in effect that the plan is being followed.

Finally, even with guaranteed cost and nonparticipating policies right now you just have minimum benefits and that's it. Under the new paradigm, you would have to have an actuarial certification, even for this form of insurance, that the nonforfeiture values are determined according to nonforfeiture basic principles.

So the basic situation now is you have rigidly complex regulations that cover only about half of the values. You basically have companies doing what they want to with respect to the total benefit. So much for the paradigm shift.

I do want to point out that in this work I've tried to count up the number of professional or regulatory bodies or committees that we've had to deal with. I got up to at least a dozen fairly quickly. So there are 12 or more professional or regulatory bodies or committees that are giving us input into this law and have some sort of function in all of this. One of the major points is that this particular outline I'm going through is not necessarily my personal plan or view. Not that I disagree with it, but my job is basically to distill and take in all this various input and try to put it together in a meaningful, professional form.

We have constructed an outline of a nonforfeiture law. It's just a basic skeleton. I will tell you that in addition to that skeleton we're working on an actual draft of the law. The law

is in very preliminary form; however, we hope to have something more final by the December NAIC meeting. The specifics of what will be in the law will depend on other decisions that need to be made. It's not in the form that's suitable for exposure now. In light of the limited time we have here, I do not intend to get into the details of how that law might actually be structured.

What are some of the possible implications of this new law? Or some people might say what are the reasons why the law is being developed? Well one purpose is that the law, as currently structured, would permit and encourage innovative consumer-oriented products in the market. I'm sure that many of you are aware that back in the early 1980s, Tillinghast (and myself in particular), was heavily involved in the introduction of the first universal life policies. I can tell you that it was considerably delayed because of great difficulty demonstrating that universal life complies with the standard nonforfeiture law. And here we are, 15 years later, and regulators in the industry are still struggling with how to demonstrate that universal life complies with the standard nonforfeiture law. It's a little ridiculous.

Hopefully, the flexibility that this sort of approach would lead to would mean that we would have a basis for encouraging the introduction of products like universal life and products that we haven't even thought about in the future and we'll have them approved without nit picking on the details of some nonforfeiture law. We could consider things like life insurance plus long-term care. I'm sure many of you have many other ideas that you would like to introduce, but you can't because of the restrictions of the nonforfeiture law.

I believe that this law would lead to improved regulator control—not more regulator control, but improved regulator control. For many companies this rigid formula is like a game. And if you can technically comply with the nonforfeiture law, even if you don't comply with the spirit of the law, then it's regarded as professionally correct.

To some extent you have maybe 50 fully qualified actuaries working for state insurance departments up against a couple of thousand professional actuaries working in insurance companies. There's just no way that they can keep up. So what we'd like to do, as with cash-flow testing, is to in effect convert the actuarial profession into the professional body that is supposed to help regulators put some controls on the sort of elements that we all want.

I believe this law would specifically remove what many see as abuses in the market, including tontine-type policies, lapse-supported-type policies, and things that involve large persistency bonuses, cliff surrender charges, etc. Donna has touched on some of these already. In effect, we believe that the law would require smoothness in values and prevent this sort of bait-and-switch, or as it's quite often been called, bait-and-stuck, where you illustrate one set of nonguaranteed benefits, change your mind in the future, and then the insured can't get out. I believe that under this law you're going to find that it's much more difficult to do. My feeling is that if the regulators are going to put an end to this, they can either do it on some sort of basis that has an underlying theoretical actuarial principle or they can do it with a meat ax. We kind of have a choice in how it gets applied.

From a consumer point of view, as Donna has pointed out, this is a change from basically trust me, to a specific plan which would involve disclosure. And there surely will be lots of disclosure if this law comes to pass.

Now I want to talk about methodology in terms of how we determine these nonforfeiture benefits. At first I thought it was great that we had a clean slate and could do what we wanted from basic actuarial principles. Well, that has its pros and cons. For the last 85 years, we've had nothing but these rigid actuarial formulas in the U.S. So there really are no models in the U.S. to look to as guidelines for how we should do this.

If you look overseas at advanced western nations—the U.K., Australia, Canada, etc.—you can see that, as Donna indicated, there are no nonforfeiture laws. I've traveled overseas quite a bit. In particular, I have dealt with a number of foreign actuaries as Tillinghast expanded overseas. If you would ask them something about their nonforfeiture laws, not only would they tell you that they don't have a nonforfeiture law, but they would ask you what a nonforfeiture value is. And, of course, when you explain to them what a nonforfeiture value is, they say, "Well why in the world would any professional actuary want to do something as stupid as that?" And it's a very difficult thing to explain. I mean we look at it from a fairly narrow point of view. I've heard quotes that the U.S. standard nonforfeiture law, when you get outside the U.S., is a source of embarrassment to the American actuarial profession.

Anyway in spite of the fact that we have little guidance in terms of what's been done in the U.S. or other places, Donna's group at the Society has been working on various theoretical and practical approaches. But it's not easy.

So what are some of the key features that are in this new proposed law? The basic principle, and you heard it once before, is that persisting policyholders should not be significantly advantaged or disadvantaged by terminating policyholders. That's the basic principle upon which much of the work flows. Notice it does not say that nonforfeiture values should provide a fair return to policyholders for premiums paid. It does not involve the concept of equity between classes of business. The above principle or whatever the final alternative is will be stated in the standard nonforfeiture law, or at least that's the marching order we have at this time. Another key feature is that nonforfeiture values will be based on individual company experience or anticipated future experience as we have discussed. Cash surrender values are not required but optional cash surrender values may be included. Benefits in kind (reduced paid up, extended term insurance, and life annuity options) are required.

The plan—there will be one plan for each policy form. A plan will be available but it will not be required to be filed with regulators, or at least that's the way its drafted now. The plan will definitely be confidential and will be available to regulators in all states in which the company operates. That's a question that has come up over and over again and, as a practical matter, I believe that's the only answer.

Each state in which the company operates will have the right to challenge the plan. Any new policy form filing must include an actuarial certification and demonstration. This is the same thing that was in the paradigm shift.

There are, in effect, three actuarial certifications that would be required. First, the company's plan for a particular policy form must conform to the standard nonforfeiture law. This would be required at the filing of the policy form. Second, the actuarial certification and demonstration must show that the nonforfeiture values do indeed follow the plan. Third, there must be an annual actuarial certification stating that all nonforfeiture values actually generated by the company for all plans do indeed follow those plans. There are many ways that you can put this together. But basically the actuary must certify that everything follows these basic principles.

As I've indicated, the calculations in the law apply to the total amount of benefit including nonguaranteed elements. All of this implies that two companies with identical policy forms may indeed have different nonforfeiture values. It further implies that two companies with identical policy forms and identical plans can also have different nonforfeiture values.

If you want to, some people like to think of this in relation to mutual funds, where you have certain fixed plans and guarantees. You only take out so much, and you only invest in certain things, or whatever. But what you actually wind up getting is a function of the performance of that mutual fund.

Now I want to talk a bit about methodology to get to the nitty gritty. Donna's 30-page report is on methodologies. We basically would permit two approaches—prospective or retrospective. Clearly the prospective is the preferred methodology from a theoretical point of view. What is still an open issue is under what circumstances a retrospective approach would be permitted. Assuming retrospective is fully permitted, different methods can be used for different plans within a company. As indicated, it's based on company experience. In general, since we're using natural reserves, we'd use zero lapses. We're going to find that it's a problem when we get into the detail of it. If you don't have your actual experience you could use industry experience. The assumptions would include a company share with provisions for expenses, risk charges, profit, etc.

The whole calculation centers around what we've called the nonforfeiture value. That's about the fifth word we've come up with for this. There's an intermediate calculation called the nonforfeiture value which, in effect, represents the value of the reduced paid up or extended term insurance or annuity options. And this value is based on company experience for these benefits, and you'll see how it's derived in a second. There is a constraint that this value has to be equal to zero at the time of issue. In a second, you'll see where that, in effect, means the profit goal equals the actual margin. The determination of the values in this nonforfeiture formula, is in effect, a test to see whether the actual nonforfeiture values that a company has meet the basic principles. It is not necessarily the way that the actual values are calculated.

Again, we lay out the general principle. The nonforfeiture value at the end of the year should be the natural reserve based on individual company experience. The value should be independent of lapse. And that general approach becomes complicated where theoretical negative nonforfeiture values are involved.

Here's the basic formula. This just puts down a bit more formally what Donna indicated earlier. The nonforfeiture value is just a present value of mortality benefits and all other benefits, plus the present value of the company share which includes expenses, risk

charges, and profits, less the present value of gross premiums. And this is basically the definition of a natural reserve.

We would not have to put lapses in here except in the whole theory of a natural reserve you find that at the early durations you get negative numbers. And if you take a hard look at the underlying theory, that means if somebody lapses they should be paying a negative value. And since they don't, you have to adjust the formula. I'm not going to go into all the detail of the formula right now, except to indicate to you that, at this stage, it is much more complex than we anticipated. It involves an iterative process because of the use of lapses where you have negative values. You probably don't want to get into that sort of detail at this first sort of introduction.

The retrospective method would look very similar to this, except, obviously, you would flip the signs. As I indicated, we are having discussions about when the retrospective method would be permitted.

TABLE 1
GUARANTEED WHOLE LIFE REDUCED PAID-UP VALUES PER 1,000
ISSUE AGE 35

Pol.Year	(1) Current Min. Non-forfeiture Values	(2) Fixed Premium Prem. = $8.50	(3) Lower Premium for 5% Profit Mgn. Prem. = $8.22	(4) Scenario 3 with the Mortality Assumption up 50% or year 6+	(5) Scenario 3 with Interest at 8% for year 6+	(6) Scenario 3 with zero lapse in all years
1	0.00	0.00	0.00	–	–	0.00
2	0.00	0.00	0.00	–	–	0.00
3	16.50	0.00	3.96	–	–	24.58
4	68.08	59.74	65.61	–	–	84.92
5	117.22	117.50	123.23	–	–	141.32
6	164.00	171.77	177.26	372.13	40.01	194.13
10	329.76	355.30	360.03	515.01	268.73	373.02
15	495.73	548.21	551.56	665.20	501.82	560.86
20	624.80	684.54	686.89	770.71	661.27	693.61
30	798.28	851.68	852.75	899.45	849.15	856.23
Omega	0.00	0.00	0.00	0.0	0.00	0.00

Scenario:

(1) Current Minimum nonforfeiture values were calculated based on 1980 CSO Male NS, age near, and 5.75%

(2) Profit margin—7.46%. Profit margin was treated as an expense to solve for the nonforfeiture values.

(3) Solved for premium that produces 5% profit margin on test product. Resulting premium was $8.22.

(4) Left originally targeted margin in as a percent of premium expense, and let change in mortality have its effect on results. Nonforfeiture values for years 1-5 are assumed to remain the same as column 3 since this is a prospective change.

(5) Left originally targeted margin in as a percent of premium expense, and let change in interest have its effect on results. Nonforfeiture values for years 1-5 are assumed to remain the same as column 3 since this is a prospective change. Discounting was done using the new earned rate.

(6) All assumptions other than lapse remain the same as the column 3. Profit margin—6.57%. The test nonforfeiture values were calculated by assuming a premium expense equal to 6.57%

Remarks:

- Lapse rates are used for policy years with "zero" values.
- Reduced paid-up values are based on the same mortality and earned interest as those underlying the nonforfeiture values plus a profit margin at 10% of the assumed mortality.

I have a couple of examples. I don't intend to go through these in any detail; I'll just give you the flavor for the sort of thing we're doing. We started out with a guaranteed cost whole life policy to try to calculate what some of these numbers would look like (Table 1). We chose it because we thought it would be so simple to calculate natural reserves on this,

but then we found out it wasn't quite so simple. These are just some sort of standard specifications for it.

We have in column one just the current minimum nonforfeiture values. We picked a premium of $8.50 as a typical marketplace premium for a product of this type and plugged the numbers I indicated into those formulas. You get the sort of nonforfeiture values indicated in the second column, which you'll notice are less than today's minimums.

The third column supposes I need a 5% profit margin, and solves for a premium. It turns out the premium is slightly lower. You'll notice that with a lower premium, you actually get higher nonforfeiture values.

I'll just touch on columns four and five briefly. Part of the idea is that this can be a dynamic nonforfeiture schedule. In column four we see the situation where mortality, for some reason, goes up by 50%. Some sort of flu bug comes up from South America so it hasn't affected our history. But it does affect our expectations. In that case, our expected mortality goes up, and you'll notice the nonforfeiture value goes up.

Some of us regard this as counterintuitive, things get worse for the insurance company, yet the nonforfeiture values go up. If you think about it, the contract now becomes much more valuable to the individual because the death benefit is worth much more. The same thing applies when you look at it from the company's point of view. I'm not going to go into all the philosophy except to tell you we've debated this round and round and that is the correct answer under the theories that we're working with.

The last column was an attempt to use no lapses.

So my colleagues indicated that we really shouldn't have been looking at nonforfeiture values. We should have been looking at reduced paid-up values and we wouldn't have obtained these wild fluctuations in columns four and five. This just demonstrates that even when you have reduced paid-up values, you get these sort of fluctuations. I realize that I'm covering in about ten seconds what we normally take a half-hour to go through. I just want to give you the flavor for some of the detailed calculational work that has been done.

We also did a universal life example (Table 2). We structured it as a whole life on the current benefits with similar calculations. The major point of this table is that if mortality goes up in the future, but you adjust your cost of insurance rates (which would happen in column five), you actually get values that are close to the values that you had under either the old minimums or under what you had before. So for those companies that would take this law and actually adjust their dividend scale and the cost of insurance rates or whatever for their anticipated future mortality, it would actually come back quite close to the value that they had before this adjustment.

This is just another table indicating what happens if you don't do the adjustments. Some questions have been asked about what the reaction to this proposed law is. We're still in the very early development stages.

When all of these concepts were first proposed, many people were asked what the possibility was of getting this through the current regulatory authorities. We have gone

through this proposal in a couple of major sessions at the NAIC. They've consistently come back and said, "We really like what we see, please go forth and do more." We've had relatively little exposure within the industry. That's one of the purposes for this. I'm hoping this presentation will at least give you some idea of what's going on. There are a lot of concerns about what's going on here. There are a lot of negatives, and it needs a lot of discussion within the forum. Our next steps are to move this forward in terms of the calculations, the formulas, the drafting of the law, and some actual drafting of some specific plans that we have outlined in a closer working relationship with the ASB.

TABLE 2
UNIVERSAL LIFE *
REDUCED PAID-UP VALUES PER 1,000
ISSUE AGE 35
ASSUMED PROFIT ON RPU TO BE 10% OF MORTALITY

Pol. Year	(1) Guaranteed Basis Reduced Paid-Up Values	(2) Current Basis Reduced Paid-Up Values	(3) Fixed Premium Prem. = $7.59	(4) Premium and Charges for a 5% Profit Mgn. Prem. = $6.60	(5) Scenario 3 with the Mortality Assumption up 50% for year 6+	(6) Scenario 3 with interest at 8% for year 6+	(7) Scenario 3 with zero lapse in all years
1	0.00	0.00	0.00	0.00	–	–	0.00
2	0.00	0.00	0.00	0.00	–	–	0.00
3	11.15	22.98	25.48	44.29	–	–	54.48
4	31.24	58.44	80.22	98.04	–	–	107.64
5	50.37	92.10	131.57	148.36	–	–	157.30
6	73.18	134.50	179.73	195.74	189.43	226.47	204.17
10	151.13	280.42	343.67	356.58	307.11	435.77	363.11
15	221.92	419.80	496.82	507.03	410.68	631.97	511.74
20	251.19	512.93	612.21	619.76	476.59	784.41	623.21
30	201.23	657.92	772.52	776.91	514.02	1,038.74	778.83
Omega	N/A*	0.00	0.00	0.00	N/A*	0.00	0.00

*Structured as WL at issue with current credited rate of 6%.

Scenario:

(1) Uses same premium as (3), but guaranteed COIs and interest (*Policy lapses in year 37).
(2) Premium was derived by solving for maturity at age 100.
(3) Profit margin = 15.53%. Profit margin was treated as an expense to solve for the test nonforfeiture values.
(4) Loads were eliminated entirely. Premium was also reduced to $6.60 per 1,000 to give a Profit Margin of 5%.
(5) Same as Scenario 3 except mortality was increased by 50% in years 6+. The COI rates were also increased by 50% years 6+. Nonforfeiture values for years 1-5 are assumed to remain the same as in Scenario 3 since this is a prospective change. (*Policy lapses in year 45.)
(6) Same as Scenario 3 except earned rate was increased from 7% to 8% in years 6+. Credited rate was increased to 7% in years 6+. Discounting was now using the new earned rate. Nonforfeiture values for years 1-5 are assumed to remain the same as in Scenario 3 since this is a prospective change. (Test values are over 1,000 per 1,000 in years 45+.)
(7) Same as Scenario 3 except zero lapses were used for all years (i.e. including years 1 and 2). Profit margin would have been 6.4%. The test nonforfeiture values were calculated by assuming a premium expense equal to 6.4%.

Remarks:

- Lapse rates are used for policy years with "zero" values.
- Reduced paid-up values are based on the same mortality and earned interest as those underlying the nonforfeiture values plus a profit margin at 10% of the assumed mortality.

For example, at this meeting there will be a joint meeting of the SOA task force and the AAA working group to attempt to address some of these issues that we've talked about here.

I know we've kind of had to rush through this. It's kind of difficult to cover most of the major points in such a short period of time. We have time for a few questions.

MR. HOWARD H. KAYTON: I have one comment and one question. Donna, you mentioned you're getting comments from Actuaries Online. I was brought up in an era where a new generation meant offspring not new releases. Please keep in mind that not all actuaries are online. I hope there's another means of getting comments from people like me.

MS. CLAIRE: Yes. You can write me or fax me.

MR. KAYTON: Yes, but I've got to know what you're writing. I haven't quite seen release six at this point.

MS. CLAIRE: Yes, if you can get on my mailing list, I will send you hard copies. But any comment you have on any draft, assuming they don't change that much, will definitely be appreciated.

MR. KAYTON: But I hope there's another means of getting comments.

MS. CLAIRE: Yes.

MR. KAYTON: The question I have is this: Suppose I issue a life policy. Let's make it a single-premium whole-life policy just to make it easy. It has book value cash values, and five years after I issue it interest rates go up dramatically. I suffer a lot of surrenders. Are you going to permit me to modify my plan to permit the company to make itself whole again, based on these surrenders? If so, how does that tie in with your general principle?

MS. CLAIRE: Yes. Again, you're getting to a dramatic shift. Basically, we need to develop a safety valve. And that's more the Academy as opposed to a principle.

MR. KAYTON: But I don't understand how you can allow for changing interest rate scenarios, or even changing mortality scenarios and still maintain this general principle. It means, in some cases, I have to go back and call up people who took their cash values and ask for some back.

MS. CLAIRE: Our basic principle is when you first designed those cash values, they did follow the principle of terminating/persisting being treated fairly. The thing is, five years from now something has changed. So therefore any changes would be made to both persisting and terminating at that point.

MR. KAYTON: But beyond that point, not in the past?

MS. CLAIRE: Yes. Beyond that point.

MR. KAYTON: So somehow I've got to recover that in order to keep the company whole?

MR. MIRE: Howard, I think you're aiming at one of the things we're struggling with right now. In theory you would develop nonforfeiture values, which you would adjust on

an ongoing basis such that you could never suffer the loss that you're talking about. Because when those people lapsed, they would have lapsed for the then natural reserve based on what you're projecting in the future. One of the big issues is can you have book cash values higher than those theoretical nonforfeiture values? And if you do, how do you allow for that in this whole procedure? That has not been resolved. That's a very difficult issue, and we've had several discussions on that subject.

I said earlier that we were going to talk about annuities. The annuity nonforfeiture law, on which a lot of work has been done, is basically on hold until this gets resolved. And once this either moves forward or whatever, presumably the annuity would get back on track.

MR. ROBERT H. DREYER: Two brief questions. Donna, I recently asked you about the ability to not have cash surrender values. Is this extended also to the extended term insurance, reduced paid up, and annuity payments? Also, it is true that you wouldn't have to have policy loans if you did not have cash surrender values?

Another question is aimed at correcting something that happened at the last session in this room. The smaller companies are not being heard soon enough. We have a very good, viable market, for small, guaranteed, nonparticipating whole-life policies. Is this going to take us out of the nonparticipating whole-life business?

MS. CLAIRE: The answer to the second one is easier. No, because basically when you've issued the policy, you have made a deal with the customer. You've guaranteed all the values. That would be your plan. These are the values that you will pay period, and there is no problem making that your plan. That's the deal with the customer. He or she totally understands it.

In response to your first question, in the U.S. we will have to have nonforfeiture values. That is one thing the regulators have told us.

MR. DREYER: I'm not asking about nonforfeiture values. I'm asking about policy loans. If you have policy loans, then, you have a cash surrender value.

MR. MIRE: I believe you do not have to have cash values. You do have to have an insurance nonforfeiture benefit. At least tentatively you do not have to have a policy loan.

With respect to down market, we have specifically recruited two people who represent companies who sell, almost exclusively, as down a market as you can get (they sell nothing but guaranteed cost, whole-life policies) to make sure that we get their input on that particular subject. And the conclusion we have tentatively reached, or they have reached, is that basically you can keep on doing what you've always been doing provided the guaranteed cash values you currently sell are not widely out of line. And even in that case it's not clear that the final version would forbid that.

MS. CLAIRE: We also have a representative of the SOA's small company section on our panel, too.

MR. ROBERT J. CALLAHAN: I would suggest some clarification of your handout. Your handout says "Proposed New Standard Nonforfeiture Law for Life Insurance, Randy

Mire." It doesn't say who proposes it. As far as I know, its not a proposal by any NAIC group at this time.

What I gather from reading Donna's paper, perhaps it may be the proposal of the SOA Task Force on Life Nonforfeiture. In which case then I wonder really what the connection is, because you are not listed as one of the members of the task force.

MR. MIRE: As we tried to explain at the beginning, the Life and Health Actuarial Task Force of the NAIC specifically requested the SOA to help them with certain questions, and Donna is the chair of that group. They specifically asked the AAA.

MR. CALLAHAN: I understand all that, but you have a handout here, and I felt as though the handout could be clarified. It says proposed new standard nonforfeiture law, but whose proposal is it? But there's some inconsistency, I believe, in that it appears as though a policy form filing must be made along with an actuarial demonstration that the values comply with the plan. How can that demonstration be made unless the plan is also filed with the regulator? Yet it says that the plan will only be available to the regulator and submitted only upon request.

The other thing is that the plan is supposed to be confidential. How is the policyholder supposed to know what to expect if he can't look at the plan?

Now there is one fundamental issue when you compare guaranteed cash values, or at least the option to have a cash value, with that of other countries. Are you opening up the door to the auctioning off of life insurance policies that have paid up values but no cash values? Are you then going to go out and sell this to the highest bidder, where the buyer of the policy will have no insurable interests? His only interest is in seeing that the insured dies as quickly as possible?

And then finally, you're continually adjusting these nonforfeiture values based upon economic conditions. Doesn't that subject you to the Securities Exchange Commission (SEC)? And don't we already have separate accounts for life insurance?

MR. MIRE: Bob, can you repeat the question please?

MR. CALLAHAN: Have you considered the public policy of auctioning off life insurance policies to the highest bidder? I mean life insurance policies that don't have cash values, but just have paid-up nonforfeiture benefits? Will they be sold to an individual that does not really have an insurable interest but whose only interest is that the insured die as soon as possible?

MR. MIRE: All I can say is that every "i" has not been dotted, nor has every "t" been crossed. You now have some indication of some of the flavor of some of the earlier meetings that we've had on this particular subject. Obviously there's not complete agreement with respect to all of the detailed aspects of this plan.