

RECORD, Volume 28, No. 2*

San Francisco Spring Meeting

June 24–26, 2002

Session 14OF

Valuation Issues For Long-Term-Care Insurance

Track: Long-Term Care

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Summary: This session focuses on issues that actuaries must address as long-term-care insurance becomes a material portion of a company's business. These issues can be categorized in the areas of IT problems, setting assumptions and reserves, surplus strain and capital requirements.

MR. ABRAHAM GOOTZEIT: Why do we care about valuation issues for long term care insurance? I think that there are a few reasons why we care about this. We care about it because it has a lot to do with the profitability of new and existing business. Profitability, of course, is important for us, mostly because of reliability of future earning projections. We would like to make sure that the earnings that we are projecting for our organizations and stating for our organizations are reliable. With everything that is going on today, this is a very important topic.

It's also important when you do due diligence. A lot of the larger long-term-care blocks, or really any size long-term-care block, may come up for due diligence in a sales situation. The reserves need to be stated appropriately in those circumstances—also for data collection and experience monitoring. In order to establish appropriate reserves, we need to make sure that we are gathering the right kinds of information and looking at the right kinds of material. The last item is professionalism. We are actuaries. We're supposed to be setting up liabilities that make good and sufficient provision for our liabilities, and it's important that we do that well.

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Note: The chart(s) referred to in the text can be found at the end of the manuscript.

Who are our panelists today? The first one is Mike Francescone. He is with New York Life Insurance Co. He spent six years before that at UnumProvident. He was VP of group product valuation six years before that with Paul Revere Insurance. He went to Manhattan College. Mike will talk about reserves and setting assumptions for reserves and what can happen to reserves, depending on how the assumptions vary with emerging experience.

John Heins will go next. He is from PolySystems. He has been there for the past four-and-a-half years. He markets, installs and supports valuation and projection software, and he specializes on the health side. The previous three years, he was with Milliman USA. Before that he was with Banker's Life & Casualty Co. for 13 years. And he graduated from the University of Illinois.

Then we have Mark Litow, who has been with Milliman USA for the past 27 years, which is his entire career. He went to Ball State for his master's degree and the University of Wisconsin for his undergraduate degree. He says that he only does about one-third of his work in long-term care. He does a lot of health-care reform, especially overseas. He also does defined contribution plans. And he was involved with the establishment of medical savings accounts (MSAs). On the long-term-care side, he's the chairman of the Society of Actuaries' Long-Term-Care (LTC) Valuation Committee, charged with putting together the morbidity tables.

I am Abe Gootzeit. I have been with Aon Consulting for a few months. I joined the insurance-consulting-services practice. I spent 15 years with Tillinghast-Towers Perrin, 10 years with American General, and then three years with Unity Mutual Life Ins Co.

MR. MICHAEL FRANCESCONE: Today, I'd like to talk about LTC reserves, the impact of experience on those reserves, and how those reserves, in turn, impact the financials. More specifically, I'd like to talk about the major drivers of LTC experience. What are the drivers that determine whether the business is profitable or unprofitable? I am talking about morbidity, more so than expenses or commissions or anything like that. I am going to concentrate primarily on policy reserves, rather than claim reserves. And I will use the terms policy reserves and active-life reserves interchangeably, so bear with me.

The second thing that I'm going to talk about is the impact of LTC assumptions on policy reserves, and how the policy reserves change as we change the assumption. I will spend most of the time on policy reserves at issue, although I will talk briefly about policy reserves one would use in a gross-premium valuation. Next, I will talk about the experience on the financial results. Once the policy reserves are set, how does that roll through the financials? Next, management information reports. How do you sort through all of the data and get information that is useful in understanding the business? And lastly, I will just touch a little bit on other reserving issues, once again, primarily reserving issues dealing with policy reserves.

First, I will talk about LTC experience drivers, and there are primarily four drivers for LTC. The first one is policy termination. This one has been in the news lately, or on the minds of LTC actuaries lately. The termination rates are lower than were anticipated several years ago. It is probably the biggest issue facing the long-term-care industry today.

Claim incidence—The number of claims that are actually coming in the door, when combined with claim-termination, results in the claim costs. These have been generally more favorable than most individuals were expecting several years ago.

Finally, I will talk about asset yields. As you know, this is a long-duration business, and the change in interest rates can affect the reserves fairly significantly—not so much at issue, because the net premiums can change, but later on there can be a fairly significant impact.

First, policy terminations. As most people know, the premiums are payable for life. Except for a few policies, in which there are accelerated payment options, most of them are payable for life. It is a lapse-supported policy, which means that there is a certain assumption as to how many individuals will leave the plan before they reach the high-incidence durations later on in the life of the contract. And lower terminations significantly increase both the ultimate amount of incurred claims and the policy reserves.

Chart 1 shows a set of assumptions. We ran some policy reserves, and the bottom line shows a 3 percent ultimate lapse assumption, actually it is 3 percent in all durations. We changed just the lapse assumption from 3 percent to 1.5 percent. The incurred claims went up rather dramatically. The area underneath the top line is about 35 percent higher than the area under the bottom line, which shows you just how much the incurred claims can go up with just a change in lapse rates. The net premium is up about 15 percent, the difference being the interest rates and also the annuity factor changes significantly when you change the persistency. I'm not factoring into this analysis any relationship between policy termination and morbidity. It's assumed to be independent.

Chart 2 shows incidence rates. There's a relatively steep incidence curve for long-term care, however, not as steep as life-insurance mortality. If you take the same age and project out, the mortality rate generally is steeper than the long-term-care incidence. The incidence does increase claim costs but less than proportionally. What happens with high incidence is that you start taking people out of the insured population, so your exposure comes down. Even though you have more claims, as time goes on, it has a smaller and smaller impact. It is more of a factoid than a number with any financial impact, because it happens pretty far out. Chart 2 shows the impact of incidence on incurred claims. The bottom line, once again, is the baseline. And then in the top line, we increased the incidence rate by 10 percent. It is a little bit higher, and it crosses below the lower incidence in the later years. And

that is, once again, driven by the lower exposure, but it is too far out to have any real financial impact.

Chart 3 shows claim termination. In this business, claim durations are relatively short, at least versus some of the really long-tail liabilities, like individual disability. The impact on policies is fairly similar to incidence. Chart 3 shows that. In this graph we have 100 percent termination on the bottom, and then we have dropped that to 90 percent. The incurred claims are about 10 percent higher. Believe it or not, it actually increases with time. The opposite impact is at play here. With terminations, the more people you put back into the active lives, the greater your exposure gets. So, it actually gets a bigger and bigger difference, percentage-wise at least. Once again, it is pretty far out. It does not have too much of a financial impact, at least that dynamic does not.

The last major contingency is interest discount, and these are long-duration policy reserves. However, the changes in the discount rate have a relatively minor impact on the reserves at least at issue, because you can change the net premium with the interest rates. Once a policy has been in force for a while, the impact can be fairly significant. As I will discuss later, it is fairly important to track that.

Chart 7 summarizes what I just said. It depends on the assumptions that you use, but this shows that if you change the lapse rate by 1.5 percent only, from 3 percent to 1.5 percent in this case, benefits go up by about 28 percent, the net premium by about 15 percent. Incidence has a 10 percent change; net premium, about 8 percent. A claim termination results in about the same thing—a little higher, nine percent. It depends on your overall assumptions, but it should be fairly close to this. And interest is a little bit higher on the benefits than on the net premium. The takeaway from this is that the policy termination has a fairly large impact on the overall policy reserves. This is only a 1.5 percent variance. If I had gone from 5 percent to 1.5 percent, it would be significantly higher than that.

Chart 5 is a policy-reserve graph for the baseline assumptions. This is the standard graph. It comes up and back down. This is what a typical individual health-insurance product without cash values would look like. In Chart 6, I have graphed the change in lapse from 3 percent to 1.5 percent. On the top, you can see the impact. It's fairly significant. In Chart 7, I then have shown the change in interest rates from 7 percent to 6.5 percent. Once again, you can see that the lapse has a much larger impact than the interest does on this.

In Chart 7, I have added in incidence and claim termination. They are all kind of lumped together. The one that is closest to the lapse is the claim termination, but that lapse is the big impact here, at least on policy reserves. Depending upon what assumptions you put in there, if you change the incidence or termination by 20, then they are obviously going to be higher. But once again, the lapse is only a point-and-a-half. So that's a bigger impact.

Table 1 shows how a set of assumptions rolls through your financials. Once again, we have our baseline incidence, recovery-of-claim termination, and 3 percent policy termination. I think it was a 7 percent interest rate. This shows what the financials look like if all your assumptions are met. So, you start out with an active-life-reserve change. And in this case it assumes that you are priced at around a 60 percent loss ratio. So, your active-life-reserve change is around 57 percent the first year, incurred claims is around 7 percent, and the gross-loss ratio is 64 percent. You can see that the gross loss ratio climbs in time, from 64 percent to 83 percent to 111 percent to 147 percent. Active-life-reserve change goes up, and it starts coming down a little bit as the incurred claims kick in. But once you net the tabulated reserves interest, you get a smooth loss ratio over time, 60 percent. This is the way things should work.

Table 1

Long Term Care Reserves

Projected Financial Results - 1 Issue Year
Baseline

Pol.Yr.	ALR Change	Incurred Claims	Tabular Interest	Gross Loss Ratio	Net Loss Ratio
1	57%	7%	(-4%)	64%	60%
5	60%	23%	(-23%)	83%	60%
10	50%	61%	(-51%)	111%	60%
15	17%	130%	(-87%)	147%	60%

Table 2 shows a situation where, once again, the lapse rate is off by a point-and-a-half. The incidence is 10 percent higher. The 65 percent was 60 percent on the last graph. That's driven primarily by policy terminations. The termination affects the active-life-reserve change. The incurred claims went from 7 percent to 8 percent, and from 23 percent to 25 percent. That's driven primarily by the incidence. The incidence has no impact on the active-life-reserve change. The gross-loss ratio is up from 66 percent to 90 percent. Those numbers were 64 percent and 83 percent. And the net starts climbing—from 62 percent to 67 percent. The important point, though, is that it is ultimately going to be 74 percent. Since the policy reserves are locked, you are only seeing 67 percent five years out. So five years out, you are

only halfway to what your ultimate loss ratio is going to be. It is important to have some kind of mechanism to track that, which I will talk about later.

Table 2

Long Term Care Reserves

Projected Financial Results - 1 Issue Year
1.5% Lapse, +10% Incidence

Pol.Yr.	ALR Change	Incurred Claims	Tabular Interest	Gross Loss Ratio	Net Loss Ratio
1	58%	8%	(-4%)	66%	62%
5	65%	25%	(-23%)	90%	67%
10	60%	67%	(-51%)	128%	77%
15	34%	143%	(-87%)	177%	89%
Ultimate					74%

Table 3 assumes that you have an 8 percent growth in new business. You start weighting your loss ratios with more and more of the new business, which is at 62 percent. And five years out, you are only at 64 percent. So, your ultimate loss ratio is going to be 74 percent, but you are only at 64 percent five years out. Ten years out, you are only at 67 percent. The important point here is that it is very important to use something in addition to loss ratio. The number of companies that I have seen have used loss ratio to measure experience, and you run the risk of not knowing exactly what's going on. You need to split your experience by issue year and also by the individual contingencies.

Table 3

Long Term Care Reserves

Projected Financial Results - Multiple Issue Years - 8% Growth
1.5% Lapse, +10% Incidence

Duration	ALR Change	Incurred Claims	Tabular Interest	Gross Loss Ratio	Net Loss Ratio
1	58%	8%	(4%)	66%	62%
5	61%	15%	(12%)	76%	64%
10	62%	27%	(22%)	89%	67%
15	60%	40%	(30%)	100%	70%
Ultimate					74%

Table 4 shows the impact of several years, on a single year's issue. If you had missed your assumptions, the assumptions that I just spoke about—3 percent to 1.5 percent lapse, and 10 percent higher on the incidence—the reserve shortfall, five years out, is around 21 percent. It climbs to about 15 percent at 15 years out. I would mention that 15 percent of the 15th-year reserve is probably significantly greater than 21 percent of the five-year reserve, because, as you remember, the reserves do climb. So that can be a fairly large impact. The premium increases—and what I have done is I have assumed a re-couping of losses in the past. I have assumed no changes in expenses. And basically, Table 4 shows a fairly significant rate increase. Once again, this may not be realistic because these rate increases can grow fairly significantly over time.

Table 4

Long Term Care Reserves

Projected ALR Shortfalls and Premium Increases - 1 Issue Year
1.5% Lapse, +10% Incidence

Duration	Net Loss Ratio	ALR Shortfall	Required Premium Increase
1	62%	----	8%
5	64%	30%	15%
10	67%	12%	29%
15	70%	6%	64%
Ultimate	74%		

Next, I want to talk about management reports. This gets to the question of, with all this information, loss ratios, and all your assumptions, what does one actually look at to make some sense out of all the data that's being obtained? I think there are a number of reports. I have listed four that I believe to be fairly important ones—incidence, lapse, continuance and interest rates.

Incidence—I think it is important to track your actual incidence against what is assumed in your active-life reserves. Now, you can track what is in your pricing also, but you should be very certain that what you priced at is the same assumption that you are using to calculate your active-life reserves or your policy reserves.

The second report is the lapse report. Lapse primarily impacts your premiums and your active-life reserves. If you are doing GAAP, it also has an impact on your deferred-acquisition cost (DAC). So you might want to consider that also. But having a report that quantifies the impact of lapse on your premium and your active-life reserves is kind of important.

I will talk about continuance and claim-reserve runoffs a little bit more later. And interest—tracking your asset yields versus your discount rates is important. I will also talk about that a little bit.

Table 5 shows a sample chart of how to track your incidence versus your active-life reserves. In the middle row, there is the expected claim cost, coming off of an active-life-reserve system, calendar year by calendar year. And then I have what

the actual claim costs are, and this would be for claims incurred in 1998. It is kind of developed as you go down.

What you would do is track what is coming. What are you seeing for your claim costs, as opposed to what you are expecting for claims? And then, this would develop over time. In this case, you see that the experience is a little bit higher than what is in your active-life reserves. Someone has to determine what impact that has on your active-life reserves and on your ultimate profitability. This has a little bit of a combination of both incidence and claim continuance in it. You may want to have a report that just tracks the claims that are actually reported and paid, as opposed to claims as they close over time.

Table 5

Long Term Care Reserves

Actual to Expected Claim Costs

		Calendar Year		
		1998	1999	2000
Actual Claim Costs	1998	12,431		
	1999	12,679	19,340	
	2000	13,060	19,920	21,184
Expected Claim Costs		11,873	18,617	19,985
A/E Ratio	1998	105%		
	1999	107%	104%	
	2000	110%	107%	106%

Table 6 is a report that shows the impact of a policy termination on loss ratios. We have anticipated the beginning of each calendar year. What do we think our premium will be at the end of the year? What will the reserve change be? And what's the loss ratio? This gets a little bit complicated if you are trying to add in new business, but there are ways to get around it, and then track what the actual numbers are. In the case with lower-than-expected or unfavorable policy termination, you are getting higher premiums and higher reserve change, which is increasing the loss ratio by about a point. It gives an idea of what impact policy termination is having on your ultimate loss ratio, and tracks it year by year. In long-term care, generally the policy reserves exceed the premiums fairly quickly. So, you may see poor experience relatively early, in the early durations, for this kind of business.

Table 6

Long Term Care Reserves

Impact of Policy Termination Variance on Financials

Premium	Expected		Premium	Actual	
	Reserve Change	Diff.		Reserve Change	Diff.
169.1	101.2	59.8%	171.7	104.4	60.8%
162.3	101.1	62.3%	164.8	105.9	64.2%
155.6	97.3	62.5%	158.0	103.6	65.6%

The next item is claim-reserve runoffs, and this basically tracks your claim continuance. I think that the first thing here is to know whether the claim-reserve assumptions are the same as what you have built into your policy reserves. If they're not, then you've got to think about what that says about your policy reserves. It is important to check the appropriateness of the incurred-but-not-reported (IBNR) claims, and also consider claim mix when doing this, because for a given type of claim, the persistency may remain constant. But if the mix is moving from one to another, your runoffs may get better or worse. And it is important to know that and figure out what impact that has on your policy reserves. Check runoffs by duration. Frequently, you can have very favorable runoffs, but they are favorable in your early durations with losses in the later durations. And that can indicate a claim-reserve problem.

The next report is interest margins. Here I think that it is important to track the asset yields versus the reserve-discount rates. And convert that spread between your yields and your discount rates to a dollar margin so that you can tell over time what impact changes in yields are having on your financials. They do not generally get booked in your financials, but at least you will know what the hidden gain or loss is. Getting a report showing the asset and liability durations is important. Reconcile that to the cash-flow testing that you do once a year or twice a year. Also, if you have any kind of cash flows that are being hedged, know how that is taken into account in these reports.

Finally, I want to just touch on a few other things and most of these apply to policy reserves. The first is premium waiver. A lot of companies put a load on their policy reserves— 2 percent, 3 percent, 5 percent, whatever. It is important to know how that is calculated, how that is handled in your reserving. And it is possible, if you calculate your reserves appropriately, when anybody goes on claim, you stop the premiums and you have only the actual paid premium payments, then you do not need to hold a waiver reserve. But it should be taken into account as to how that is handled in the reserving.

The second one is conditional receipt. This is a case in which a policy comes into underwriting, there's coverage offered, but the effective date is months in the future. There is basically a period of time when the policy reserve is not covering it, but you need to consider whether you need a reserve for that and how to calculate it.

Unearned premium reserves—the big thing there is whether they are gross or net. And there are arguments both ways. I will not get into them now, but know how are you holding it, and are you comfortable with the reserve you are holding?

The last item is claim expenses. Claim expenses need to be held for claim reserves. They also should be held in your policy reserves. In your present value of future benefits, you should have the present value of future claim expenses built in. Occasionally they are looked at. And it can have a significant impact, especially as the claim or block gets larger.

MR. GOOTZEIT: And Mr. Heins, not surprisingly, being with PolySystems, is going to talk about data collection and what kinds of things you should try to collect, and whether to establish assumptions and experience for reserves.

MR. JOHN HEINS: When I took on this assignment, I had hoped to put together answers to the questions, to provide some guidance on how to solve all of your data problems. But as I researched it, wisdom in that area seemed to be lacking. So as an alternative, I'll share some stories with you of things I've run into over the years, highlight some pitfalls that people run into with data, and hopefully amuse you while we are at it, and ideally, actually enlighten you as to what things you might want to avoid as you go forward.

What are the data issues that we're talking about? Dearth—not death, dearth—I use that word on purpose, meaning scarcity. Sanity and diligence, those two things relate to what you do with the data you have. Experience is also important, meaning the experience that we all have as actuaries in growing with the long-term-care business, rather than data experience, per se. And progress, I will actually enlighten you with something that has happened in real life, toward the end.

One thing that I want to say is that I do not want to embarrass any of my actuarial brethren. Many of the things I will be talking about today involve things that really happened. And I am going to highlight the absurdity of some of them. We all run into things that, when we look back on them, do not look as great as we thought that they did at the time.

So, what data? I presume, by the fact that you are all sitting in the room, that none of these items that enter into a valuation will surprise you. I will be talking about some but not all of them.

Sanity—I have got to set this one up a little bit. Once upon a time, I was working with a client who wanted some help in setting up a long-term-care valuation, and we discussed what products they had and how big of a block of business it was. It was a sizable block of business. It was not overwhelming, but it was a good-sized block of business. And after some time, the client started sending me the assumptions that he wanted to use in the valuation. The first thing that I got was an e-mail that had a zipped file of about three or four dozen claim-cost files ... reasonable. And subsequently, I got a file that showed me the seven different parameters that adjusted the claim-cost files that he had sent. In the context of what I was doing, I needed to convert all of those parameters into individual tables that adjusted the files. We ended up with, I believe, 6,000 tables that were adjusting the claim-cost files.

This is one of my personal favorites. This is one of their reserve-adjustment numbers. Now, understand that this adjusts the values for one of about 4,000 plan codes. If hypothetically, the combined reserves on this plan code emerging from the calculation were \$10 million, the precision on this value would adjust it to the precise penny. So I guess, in terms of sanity ...

This was a company that had acquired several different blocks of business, and some of the things that they were doing in the best way they could, were out of control with them. I think that the point to make here is that, as much as we like to balance precision with materiality, we need to balance precision with efficiency, as well. If there's actually any validity to some of these numbers, I was not privy to where they came from. It is wonderful that, as their mix of business changes, it is all kind of self-adjusting. But as we discussed after the fact, moving forward, as anything changes in the block of business, as you are trying to do different things, it is like having a 400-pound paperweight. And you want to put it on a different set of papers. It does a grand job of holding the papers down, but doing anything else with it is next to impossible.

There is actually an epilogue to that particular story. After we discussed the current setup, the job that we had was to come in and essentially reproduce what they had been doing, and they were aware at the time that it was not the most efficient way of doing it. So we went through that process, and we talked about what we were going to do with it. We came to some agreements. And some weeks later, I

received from them a zipped file with their new claim-cost tables. We were going to correct a lot of these problems. And upon unzipping the 90,000 claim-cost tables that they had put together, it dawned on me that perhaps I had not been clear about what I was trying to explain to them. This one also gets better because I subsequently received the six parameters that adjusted the 90,000 claim-cost tables. We did get rid of all the reserve adjustments, as far as I know, but again, it is not an exact science. It has never been an exact science. We are trying to predict the future to some degree, and there is only so far we can go with that.

Experience lapse rates—how low can you go? This is a really short story that I am borrowing from a colleague of mine who worked with a client quite a few years, back in the relative infancy of long-term care. They started out like almost everybody did. They estimated lapse rates at something along the lines of 30 percent for the first year, 25 percent for the second year, and 15 percent for years three to five, and 10 percent ultimate. Of course, they got some experience, and they noticed that those were high estimates. So they revised them downward. They used 25 percent for the first year, and 15 percent in years two to four, and 8 percent thereafter. And they got some more experience, and they revised them downward again. And after a while, as my colleague explains, the actuary he was working with finally just threw up his hands, and he said, "You know what? This is crazy. We just can't catch up to it. You know, we're just going to start now. We're going to establish an ultimate lapse rate of 4 percent, just to be sure that we're on the low side." And since then, they have experienced 2 percent lapse rates.

Diligence—this was another engagement that I had some time back. I was putting together a valuation for a company. They came to me and said, "You know, we have a very complex way of assigning commissions. I mean it doesn't really lend itself very well to some finite number of commission scales, you know, 30/20/10, 40/15/5, whatever." It really did not work that way. So, we discussed it with them and came up with a way that we could do the commissions on a seriatim basis. We just tapped into their commission system to find out, for each policy, what the commissions were on it and calculate them that way. That worked out pretty well. We had several meetings. We got people involved that were familiar with the commission system, and some IT people, and a couple of actuaries, and we sat down with them and talked through what we could expect in terms of the commissions coming off the commission system. After a few hours of discussion, we were pretty comfortable with what was going on. We decided that this was going to work.

It was at that point that I said, "This is great. That was the hard part." We really needed to access, among other things, the modal premiums and the premium mode, which I presumed were on the commission system. And they said, "Yes, they are, but we don't think they're right." How did they pay their agents? I take for granted that they were paying their agents what they owed them, because I hadn't been reading in the paper about people going to jail. So they went to work on that, and we prepared the module for them that was going to do the seriatim valuation.

They stopped using it some time later, because they could not get the premiums and the premium modes right on their commission system. They had to have those numbers somewhere so that they could pay the agents, but to this day, I am unaware of why they could not access the data. The point I am trying to highlight is that this was another company that acquired a lot of variant blocks of business. And in doing so, their philosophy was to bring on whoever previously administered the block of business for as long as they needed them, (and they told them that this was a temporary deal, a fairly short-term thing). And in doing that, they were acquiring so quickly that they got to a point where nobody knew where anything was. They did not know whether the stuff was right or not. The diligence aspect of this is that once you acquire data, continue to monitor it constantly to make sure that you know what it is, that it's right. If you find an error in it, go to the trouble of figuring out how to correct it. This company, to this day, is using techniques to determine their DAC, which are somewhat volatile, because they are not able to do a seriatim DAC calculation.

Progress—this is going to relate to morbidity. A couple of years ago the Society of Actuaries published the Long-Term-Care Inter-Company Experience Study, which was created by the Long-Term-Care Experience Committee. It covered data from 1984 through 1993. There were two reports created off of that data. The first one was in 1995, and the last one was in January of 2000. Both reports are considered developmental, meaning that we've got a lot of the analysis done, but we don't have it all done, and we've got more data coming in. These two reports, as they claim, are the only publicly written experience reports based on privately insured lives, and that is significant. That was one of the big elements missing from the morbidity aspect of long-term-care data for so long, and hopefully that will enlighten us in many ways when we have finished the work of breaking down that data.

Some summaries on the source of the data: There were 14 insurers that comprised roughly 60 percent of the in-force premium in 1993. There were more than a million-and-a-quarter exposure records, and more than \$400 million in paid benefits, 91.5 percent of those benefits for nursing homes, 8.5 percent for home health. That surprised me a little bit. I would have expected that not to be quite so skewed. But for many of you, that may not be surprising. Eighty-one percent of the claims were of one duration year or less. Data characteristics—48 percent of the records studied were in the first year. Seventy-three percent were individual associations or a pseudo group, which I take to mean a conglomeration of anything that was not part of a real group. Mr. Litow, is that fair?

MR. MARK LITOW: It was still underwritten business.

MR. HEINS: Twenty-seven percent came from an employer group. Sixty-one percent were female. The average issue age was 66, and the average attained age was 77. Some of the surprising findings: Male and female results were more similar than expected for incidence and length of claim. Claim continuance increases with

age, up to age 85, and then levels. Seventeen percent of the claims closed due to death, the surprising element is, I presume, that it would have been expected that more would close due to death rather than recovery or entry into some other form of care. Females have significantly greater prevalence of injury claims, and voluntary rates increase by issue age. I wasn't entirely sure what voluntary rates meant. Can you fill me in on voluntary? Is that voluntary lapse?

MR. LITOW: I would assume so.

MR. HEINS: Not so surprising results: Incidence rates rise markedly with attained age. Underwriting selection is apparent in early durations. Anti-selection occurs for unlimited policies and higher daily benefits. Continuance rates increase with elimination period. Other results are not too surprising. The most costly claims were Alzheimer's and central-nervous-system disorders. Voluntary lapse rates decreased with duration. Cancer and injury claims, while frequent, were the least costly. And in the aggregate, disabled life mortality was 15 times higher than active life.

What's next? Well, according to the 2000 report, that is the last development activity. Future reports are anticipated to be more regular and up to date. And it is expected that there will be more credibility in the findings as the volume of data studied increases. There is a valuation table in development. As I understand it, there were some delays in getting that rolling. I take it for granted that we will not be seeing anything in the next year. Do you have an idea of when we might see something published?

MR. LITOW: Well, we are trying for an initial draft one year after we get the new experience from the Experience Committee, which was supposed to be last September. But they have been having trouble, and I hear that it is any day now. I have not seen it yet.

MR GOOTZEIT: And now, Mr. Litow's presentation.

MR. MARK LITOW: Well, one of the things that I know that we are supposed to do in these sessions is to answer more questions than we throw out. But that is not going to be the case, I do not think, with this particular session. I have a lot of questions. And I want to talk about the vision for long-term care, where we are going, and a number of the issues. I hope that does not mean that you get a negative Continuing Education credit if there are more questions than there are answers.

We set reserves and pricing, and then we lock into them. Why do we do that? It does not really make a lot of sense if you have a block of business in which things are changing rapidly, and we really do not know that much about the assumptions, and it creates a lot of difficulties. In fact, if you think about major medical and Medicare supplement, what happened to those? We used to have policy reserves on all of them, and they all moved to attained age, right? And a lot of the reasons

were cost issues and other problems with that on both lines of business. And now, here we are again.

And what does "good and sufficient" mean? I have had companies and regulators lately ask me what is the confidence of my claim-reserve estimates on long-term care. You know, try that one out, and if they want a 95 percent or 99 percent confidence, instead of 75 percent or 80 percent, what does that mean for you? Another big question that we have been grappling with on our valuation committee and within our firm is, we always have this assumption that ultimate claim costs mean that they are the same at some point in time after you get 10, 15, 20 years from issue. A lot of our experience is showing that, in fact, we do not think that is the case. There are a lot of issues that long-term care is raising, and a lot of it relates very directly to the margin issues, and so forth.

I have made a few projections here, with some help from Al Schmitz and others in my firm. In terms of looking at it on a statutory, GAAP, and a gross-premium-valuation basis, the intent here is more for illustrative purposes—what is happening to the long-term-care business? I have some concern regarding where the industry is going. I think that we are putting ourselves in a predicament. There are a lot of companies out there that would like to get into this business that have not because of cost-of-capital issues. Surplus strain is so heavy. And the long-term picture is getting worse, because we have locked ourselves into some situations in which I do not think that we would be in if we could go back and revisit them.

And with that as a lead-in, I gave a presentation to the NAIC in Philadelphia a couple weeks ago. I have been encouraging them to open up and take a hard look at statutory-reserve standards on long-term care and to change it. I was pleasantly surprised that they have agreed to do that. They have set up a committee of five or six states to look at that. They have actually asked me to help serve on the committee. There are no promises within that, other than that they are going to take a hard look at that statutory basis that is coming out.

Well, what is the current situation on long-term care? I think that everybody in this room who works on long-term care knows that the cost of capital in this business is very high. In fact, it keeps getting higher because of some of the things that we're seeing in the experience, and this is causing major, major ramifications. I think that there are a lot of companies that are saying, "Maybe we don't want to be in this business long-term, because we're having trouble getting our returns. And our profits, assuming we think that they're there, are getting more and more back-loaded all the time."

Risk-based capital—there is a committee that is studying that. Several of you in this room, I believe, are on that committee. And there is really a formula mis-match. You know, the risk-based capital (RBC) for long-term care was very controversial when it was developed. If you look at it now, does it make sense to have—for a lot of companies, it depends on your situation—but 25 percent of premium with 5

percent of claim reserves, one point on assets ... Does that make sense anymore, given what we know about the risk, and given how those were established? I do not think that they make a lot of sense, but there is also the issue of bringing that together with the reserve requirements on a statutory basis. So, you bring that all together. You get a high surplus strain on this business, as we will see in a few of the charts.

But what is happening in the environment out there? We know that persistency has been improving. And so, if we just run that through our models, it looks pretty bleak. But there are a couple of issues to consider. Number 1, who is to say that, as you get better persistency, morbidity does not come down? That is because the healthier people are staying in the block, and we are running things on a static basis, and there is a problem again when we are locked into assumptions. Think about what happens if our morbidity improves. And, in fact—my second point—I think that morbidity seems to be coming down. How much of that is due to risk selection? How much is due to that morbidity improvement? These are great questions. We do not know. But the morbidity appears to be coming down, as the persistency is improving. We have two things going in opposite directions. And what do our reserve standards cause us to do in that situation? Well, we have to recognize persistency on active life reserves. The policies in force are the policies in force. So, we have more policies, higher active life reserves, and yet our morbidity is improving. So, we get all this back-loaded profit (assuming that is correct), and we are holding all this capital.

What are our investment earnings rates—6 percent, 7 percent? This tends to be dropping these days with the lower interest rates, and yet companies want 12 percent, 15 percent returns on expenses, returns on investments. So the cost of capital keeps growing, and we are putting ourselves in a great predicament. Why? Because we have locked into a set of assumptions that are no longer realistic. We know it. At least we think that we know it. Maybe they will swing back. But we think that is where it is headed, and it is causing everything to be so back-loaded that we have a lot of margins that we never contemplated in this business, and it is costing us a lot of money. We have got the investment incomes that we were talking about. That's low. I'm sure that will swing back up, but who knows? And then, of course, you still have the expense variables.

I do not think that persistency and morbidity are independent of each other. If you start to make assumptions, this business gets very complex, as John's table showed, very quickly. You can have all kinds of runs. The other assumptions are expenses, which certainly are somewhat dependent on your volume and your risk-selection processes. Investment income is probably somewhat more independent than the others are.

If you change your benefit-period mix, you change your issue ages (Table 7). Of course, younger issue ages have a much bigger buildup of reserves than do older issue ages. The statutory and the GAAP of the gross-premium valuation,

essentially, recognize the surplus strain on the business, but only to the extent that we do not allow negative reserves to flow through in total. So, at 6.5 percent, we run it through this discount. And it's a fairly young block. The claims at that discount and interest rate are 52.3 percent. So, if you ran it at 4.5 percent, you would be very close to 60 percent as your minimum loss ratio. This is individual business.

Table 7

Illustrative Lifetime Projection of Profit at 6.5% Discount Rate

	Statutory	GAAP*	GPV*
Premium	100.0%	100.0%	100.0%
Investment Income	26.1	20.5	19.2
Claims	(52.3)	(52.3)	(52.3)
Expenses	(37.5)	(37.5)	(37.5)
Change in ALR	(21.8)	(16.3)	(14.1)
Change in Target Surplus	(2.9)	(2.8)	(2.7)
Pretax Profit	11.6	11.6	11.6
FIT and DAC	(6.4)	(4.4)	(4.0)
Post-tax Profit	5.2	7.2	7.6
* Substitutes GAAP or GPV reserve basis into statutory projection (Reserve Minimum = \$0)			

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If we run through expenses over the lifetime, commissions—I think that 37.5 percent is probably a fairly typical number in a brokerage market. But some companies are a little higher, some lower, with a pretty big buildup of active-life reserves and change in target surplus, those are the profits that you are looking at. There are pretty big tax rates on this business. That is creating a lot of problems. So, it's 5.2 percent for statutory, up to 7.6 percent on the gross-premium valuation.

Now we run that at a rate of return of 12.5 percent, and of course, the statutory should drop to zero, which it does (Table 8). The GAAP and the gross-premium valuation drop a lot less. But this shows you what is happening on statutory. You get a big back-loading, so that cost of capital between the 6.5 percent and 12.5 percent in this model is significant. Most of it is occurring in the active-life reserve (ALR) line.

Table 8

Illustrative Lifetime Projection of Profit at 12.5% Discount Rate

	Statutory	GAAP*	GPV*
Premium	100.0%	100.0%	100.0%
Investment Income	18.7	13.7	12.5
Claims	(37.0)	(37.0)	(37.0)
Expenses	(43.1)	(43.1)	(43.1)
Change in ALR	(28.4)	(19.2)	(17.1)
Change in Target Surplus	(4.7)	(4.5)	(4.5)
Pretax Profit	5.5	9.8	10.8
FIT and DAC	(5.5)	(3.7)	(3.3)
Post-tax Profit	0.0	6.1	7.5
* Substitutes GAAP or GPV reserve basis into statutory projection (Reserve Minimum = \$0)			

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Tables 9, 10 and 11 show what happens at one, two, and three years. In the first year, all three methods, because of the way that we are reserving for GAAP and gross-premium valuation, we have a 62 percent loss, and this is a policy year. Again, this is a high-commission-brokerage type of product. And then we go to the second year, and look what happens to the profit. We only make 10.1 percent, whereas the GAAP and gross-premium valuation were up from 62 percent to 63 percent on those. And again, the ALR line is affecting that, it's a big effect. Then we go to year three, and they are much more level. What that is saying is that we are very back-loaded on all of our profits.

Table 9

Illustrative Policy Year 1 6.5% Discount Rate

	Statutory	GAAP*	GPV*
Premium	100.0%	100.0%	100.0%
Investment Income	1.0	1.0	1.0
Claims	(7.1)	(7.1)	(7.1)
Expenses	(136.8)	(136.8)	(136.8)
Change in ALR	(0.0)	(0.0)	(0.0)
Change in Target Surplus	(31.7)	(31.7)	(31.7)
Pretax Profit	(74.5)	(74.5)	(74.5)
FIT and DAC	12.6	12.6	12.6
Profit	(61.9)	(61.9)	(61.9)
* Substitutes GAAP or GPV reserve basis into statutory projection (Reserve Minimum = \$0)			

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Table 10

Illustrative Policy Year 2 6.5% Discount Rate

	Statutory	GAAP*	GPV*
Premium	100.0%	100.0%	100.0%
Investment Income	4.0	2.3	2.3
Claims	(11.1)	(11.1)	(11.1)
Expenses	(22.0)	(22.0)	(22.0)
Change in ALR	(52.7)	(0.0)	(0.0)
Change in Target Surplus	2.4	3.5	3.5
Pretax Profit	20.6	72.7	72.7
FIT and DAC	(10.5)	(9.9)	(9.9)
Profit	10.1	62.8	62.8
* Substitutes GAAP or GPV reserve basis into statutory projection (Reserve Minimum = \$0)			

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Table 11

Illustrative Policy Years 3+ 6.5% Discount Rate

	Statutory	GAAP*	GPV*
Premium	100.0%	100.0%	100.0%
Investment Income	29.0	22.8	21.3
Claims	(56.8)	(56.8)	(56.8)
Expenses	(18.4)	(18.4)	(18.4)
Change in ALR	(17.9)	(18.5)	(16.0)
Change in Target Surplus	1.3	1.3	1.4
Pretax Profit	37.2	30.5	30.5
FIT and DAC	(7.9)	(5.7)	(5.2)
Profit	29.3	24.8	25.3
* Substitutes GAAP or GPV reserve basis into statutory projection (Reserve Minimum = \$0)			

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This is on a static model. Now think of the fact that your persistency is likely better than you assumed in this pricing. Think about morbidity being better, and that we are locked in on those on that active-life-reserve line on both statutory and GAAP because of the lock-in principle. Again, our persistency is coming through and our morbidity is not coming through. If it was reversed the margins would probably be inadequate, although it depends on what you define to be adequate and inadequate. The point is that they are not very realistic at all.

Chart 8 shows a graphic depiction of the same thing, and you can see the margins in the statutory reserves and how they build up over time versus the GAAP reserves versus the gross-premium valuation. My concern with all of this is the realism of the numbers that we are coming up with. We do a number of valuations on different companies, and if you look at those types of things, the margin comparisons are so different. I just consider them, even on GAAP, not to be very realistic anymore, because we have much better assumptions today, at least I hope we do, than we did five years ago. I think that we are going to be a lot better off in five more years, because the truth of the matter is that we know a lot about nursing-home claims, because there have been a lot of them over the years. We do not know that much about home-health claims yet. We keep coming down on our morbidity, and we keep doing the same thing on persistency.

Table 12 shows comparisons on the three bases again. This is for 1,000 policies sold annually— assuming 10 percent growth for 20 years. These are just the annual

book profits. These are not cumulative. So on the statutory basis, we are still losing money, until around the 15th year. Cumulatively, if you sum that up, you are way past 20 years. So, all the major carriers in the long-term-care business are still showing statutory losses, and probably will be showing statutory losses for a long time. Does that make sense?

Table 12

Sales of 1,000 Policies Annually with 10% Growth
for 20 Years

Annual Book Profit Including Required Surplus

Year	Statutory	GAAP*	GPV*
1	\$(1,034,992)	\$(1,034,992)	\$(1,034,992)
2	(950,164)	(214,795)	(214,795)
4	(990,950)	463,440	827,632
6	(846,758)	680,247	1,127,857
8	(758,726)	947,875	1,366,020
10	(645,973)	1,258,685	1,680,666
12	(417,713)	1,601,745	2,452,945
14	(169,290)	1,996,675	2,245,945
16	101,035	2,476,657	2,993,788
18	389,262	3,051,145	3,659,449
20	701,573	3,756,579	4,476,124
* Substitutes GAAP or GPV reserve basis into statutory projection n (Reserve Minimum = \$0)			

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Well, if they are losing money, it probably does make a lot of sense, but if they are not (and I think that a lot of the carriers feel that they are doing pretty well), they are locked in for a long time, and it raises a lot of doubt and concern. As an investor, do you want to pour money into those lines? I think that we have two issues going on here. What is the balance between what the regulators need and what is reasonable for margins in the business? That is the one side of it ... tough issue. The other side is, what is reasonable from the investor perspective. And we have got to find some balance. Right now, I look at these types of numbers versus the GAAP and the gross-premium valuation, and I think that we are out of balance. We are way out of balance.

Table 13 shows the cost of capital in these particular examples at different rates of return versus the present value of statutory book profits. When you get over to that top 12.5 percent, you can see that the cost of capital uses up the whole profit versus what it is at 6.5 percent. So you have got this comparison of rates of return on this business, and what we are doing with reserve requirements, and especially considering what is happening in the environment, is a huge issue. Then you have got the ability of companies to raise rates—a very controversial issue—and what do you do with your policy reserves on that basis?

Table 13

Sales of 1,000 Policies Annually with 10% Growth for 20 Years

Cost of Capital Analysis (in millions)

	6.5%	9.5%	12.5%
PV Statutory Book Profit	\$21.0	\$9.8	\$4.5
PV Statutory Book Profit Including Required Surplus	\$17.6	\$5.2	\$0.0
Cost of Capital	\$3.4	\$4.6	\$4.5

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And our Valuation Committee has identified three methods. Many of the companies do not change. I have been through some states where that clearly is the case. When their morbidity is worse, they raise the rates. Some companies increase it with the size of the rate increase. Some companies use an incremental method, which is probably the best. Nobody typically lowers his or her reserves. We are not suggesting that. In theory, if you have some bad experience, your losses clearly show what you expected and in fact, you have expensed a lot of reserves when you raise rates. It could give, in some cases, a much flatter and different slope partly because their underwriting is not as good.

If you have very good underwriting, your slope and morbidity tend to be very steep. If it tends to be fairly poor—and companies back from older issues in the '80s and '90s, some of which are built-in RBC tables have that problem—it creates a flatter morbidity slope. In some cases, if you look at it realistically, you can argue that the need for reserves is less than what you started out with, once you have accounted for the deficiency reserves in those numbers. Those are very tough issues. When you go through these rate increases, and you make changes in the rates, what happens to your net-valuation premiums when you set your reserves and your margins? This all relates back, to the lock-in principle. These are basic problems that we are having in the industry. They are affecting the margins in your business dramatically. Of course, they are also causing surplus strain. They are important issues to deal with.

And so where are we in all this? I do not think that anybody in the room would disagree that this is a very, very capital-intensive business. I have never worked in life. I know that it tends to have some of the same characteristics with the steep morbidity. But at least we have had improving morbidity over time, and that has helped some other things. In this business, we have got a number of variables going on. We certainly have great uncertainty. We have got a high degree of variation. Where do we go with this? I think that it is time that the profession pushes the NAIC on this issue. I do not know the answers.

If we do not push, and we let this go, my fear is that more companies will be getting out of this business than getting into this business. Given the demographics of the country, with all the people needing long-term care, the baby-boom situation, and the number of workers coming up, if we do not tackle this issue, and the system starts to collapse, where is that going to put us? We hear every day about stories of nursing homes going under, home-health agencies going under and quality-of-care issues there. Personally, I see this as interrelated. I do not mean to depress you. I may have, but I think the issue here really is that we need to take a hard look and think about these issues.

MR. GOOTZEIT: There are three issues that the panelists brought up. One of them is, do the accounting conventions appropriately allow for the statement of earnings? Another one might be that the emerging experience could deviate materially from pricing assumptions, yet it will be really hard to identify, at least for many years in the future. Finally, data collection, experience monitoring, industry tables—all of those things are incomplete. So it takes a lot of our professional judgment to be able to do our jobs.

MR. DENNIS O'BRIEN: Mr. Litow, when you talk to the regulators about the statutory reserves, are you sure that they did not think, "Oh, yeah, that's a good suggestion. We ought to go right now to increase the reserve requirements for statutory reserves for long-term care?"

MR. LITOW: Well, they brought that question up. In fact, several of them said, "Well, we are just worried about the fact that the reserves need to be adequate, and we see companies putting in rate increases, and we have concerns." That was before they voted. My response to that was, "Well look, those are legitimate concerns, but if companies start dropping out of the business, and there are not products available for consumers because there is too much margin and too much back-loaded profit, then we will not have to worry about reserves." Then they voted after that, and the vast majority thought that they needed to look at it.

MR. O'BRIEN: And I share your concern about the capital-intensive nature of the business, but I do not think that regulators really care. I mean, all they care about is ratcheting up the requirements for reserves. I think it only goes one way, typically.

MR. LITOW: You could be right.

MR. O'BRIEN: I hope that you have a lot of influence and can do something to help this.

MR. LITOW: I would not overestimate that.

MR. O'BRIEN: I just wanted to comment on the locking-in of assumptions, and I agree with you in theory. There could be better emergence of earnings, if conscientious actuaries had freedom to unlock the assumptions. But I am afraid that what would happen in the real world is that every time a company misses their earnings, the assumptions would come up for negotiation with management. I certainly do not relish that possibility. You talked about some of the things that affect the reserves, and I could just imagine management saying, "Let's look at the morbidity now, and then next year we will look at the lapses."

MR. LITOW: Are you an investor in the stock market? I think that is a concern. I think that one of the alternatives that we certainly could look at would be more of a Canadian type of system. There may be other, better alternatives, but in Canada the actuary or the company sets out what they think. Then they have to create certain margins for GAAP and further margins for statutory. So, that may be something to look at.

MR. O'BRIEN: Mr. Francescone, you talked about Milliman USA having a view that ultimate claim costs do not reach an ultimate level, but are moving in some way. I wonder if you would elaborate on that.

MR. FRANCESCONE: You mean that they are not increasing with attained age?

MR. O'BRIEN: No, we have this view on a block of business that was underwritten over 20 years ago, that at attained-age 82, it is going to be the same claim cost. I think that you were remarking that, and maybe I misunderstood it, that Milliman thought that it was moving. Could you elaborate on that?

MR. FRANCESCONE: I would not say that everybody in Milliman necessarily agrees, but I think that we have reached a consensus that at older issue ages, (and I don't know if that's 80+ or 75+) those issue ages actually appear to produce higher ultimate claim costs at the same attained age than do younger issue ages. So for example, if you took somebody issued at age 65 and somebody issued at age 80, and you looked at that at age 95, for the people at age 95, the claim costs for the age 65 issue would be lower than they would be for the person issued at age 80. And I think that the reason for that has been discussed. My personal opinion (and I am not going to put other people on the hook for that) is that it is almost impossible to reject enough people at the older issue ages at this point in time.

MR. O'BRIEN: My own opinion is similar to that. I think that there are effects of underwriting that are lasting. I think that to say that the business issued at the older ages just can not be underwritten tightly enough to reproduce what you can get at the younger issue ages.

MR. FRANCESCONE: We have changed, you know. Over years, we always made the assumption that they would get to the same place, and it is just from looking at experience, time and time again, even from older blocks that have issues, not on activities-of-daily-living (ADL) type policies, but on the hospital requirement policies and the gatekeeper type policies. If you look at the young issue ages for the older, they just do not appear to be moving toward each other quickly enough to ever suggest they would get there.

MR. O'BRIEN: Mr. Litow, you talked about improving morbidity, and I know that one of the things that keeps me awake at night is that we have seen an explosion in the delivery of covered kinds of services, particularly in assisted living. When you talk about improvements in morbidity, I wonder if you are talking more about improvements in ADL dependence or cognitive impairment, as opposed to the actual costs of claims.

MR. LITOW: We are starting to see the prevalence drop, but prevalence combined with incidence and length of stay, produces the claim costs, and those have to tie together. So we think that the claim costs are coming down. Again, also consider the combination of how much is improved due to risk selection and lifestyle underwriting. I almost look at it as an age setback. Life expectancy has improved about 4.5 years over the last 30 years, so 1.5 years every 10 years. It almost may be that a person at 75 now, is like a person 76 and a half 10 years ago. So, there is that improvement. Although our studies have tended to show that it is greater at the older ages and much less at the younger ages. So, it is a moving curve. But it is a very difficult area. Our Valuation Committee has talked about this issue quite a bit. I do not think that we have reached any conclusions. We are still in debate on it, but we would certainly welcome your thoughts on that.

MR. O'BRIEN: I do not have any experience to back it up, but one of the things that does concern me is that there is a lot of discussion of the fact that there are drugs for Alzheimer's now, and that is deferring the incidence of those claims, and maybe shortening their length. I wonder, as the kinds of covered care become more accessible and acceptable to the insureds, if it moves from an institutional kind of model to a disability model, in which everybody who can meet triggers is getting some kind of covered care over a long period of time. That would have a very dramatic negative impact on the cost of claims, as delivered under most policies that are written today.

PANELIST: The idea of having dynamic valuation, as the situation like there is in Canada, I do not foresee that happening in the United States. I think one of the reasons for that is, not only do the regulators distrust us as an industry, but I think

that we do not have enough qualified long-term-care actuaries throughout the system to make that viable at the moment. I think that is a limitation on our profession's ability to engage in that system.

MR. MARK NEWTON: When you are looking at loss ratios and how they evolve over time, if the experience is a little worse than expected, I believe that the point of the first presentation was that there will be a lag between when it is actually happening and when it will show up. Then, later on in the presentation, you talked about interest rates and looking at the spread between the earned rate and the cost of capital. I would like to point out that the same principle that applies to claims applies to interest rates. You will be investing for a relatively long time in long-term care, and because the spread is compressing, you will not be able to see that because of the long assets that you have already put on. If interest rates drop rapidly, it will be a long time before you notice that the aggregate rate on your portfolio is dropping.

So as actuaries, we are not just looking at what happens in the valuation methodologies or what is happening in the assumptions or even the basis, whether it is tax, statutory, or GAAP, but we also want to be able to understand the economic value of the business. When interest rates drop, as they occasionally will, sometimes rapidly, the economic value of the business on the books can change fairly rapidly. As far as the future goes, I am not sure what you will be talking about with the NAIC, but a Canadian model may be a relatively better one. I think that there is an international accounting group that is looking at standards across the planet for some kinds of insurance accounting. That work looks more like a Canadian methodology than a U.S. methodology, and maybe that is a direction that we can look at in the future.

On the inter-company study, I am on the committee, and I am not going to promise when the next report will be out, but it will be relatively soon.

MR. GOOTZEIT: Is that comment different than the comment you made in October?

MR. NEWTON: No, I'll shorten this by saying that there are a lot of complications between getting companies to produce something that is relatively accurate and getting something down on paper that we think reflects what companies have told us. I will not project how long it will take. I think it will be a small number of months, but I will not say when. I can tell you where we are right now. We do have data that we think has been relatively cleansed of errors and omissions in reporting. We have taken that data and put it into a set of tables, most of which look like they did before, but some of which are new, based on suggestions from various meetings. So, there will be some new tables this time. The first drafts of all the sections, all the commentary has been written now, and so there are conference calls going back and forth every three weeks to look at the commentary, to make sure that it makes sense. We have the other members of the

committee, who did not write each section, take a look at them to try to understand where there might be holes or problems or questions. So the basic drafts of the sections are written, and we are going through the peer review of those sections right now.

PANELIST: Mr. Newton, I would just add that I agree with you. I think the overall rates can change kind of slowly. I think it is important to check against the current new money rates, and periodic cash-flow testing with the current rates is also important.

MR. WILLIAM WELLER: I was in the Philadelphia NAIC meeting, and I have to admit that I was sort of surprised that the regulators voted to review it. Let me give you some reasons, and these comments come from working with the regulators for a fairly long time. The first is that I do not think that they have a great deal of trust in the numbers that you are reporting to them. Their reviews of the long-term-care experience reports have not suggested that you spend a lot of time to make sure that the numbers that you send to them are terribly accurate. As such, they have a great deal more faith in lock-in, than they do in constantly changing numbers. The second is, what is the basis for the change? Are you telling them everything about the basis, or are you telling only the things that you want them to hear? The third is, as I look at long-term care and the risks that we have; we as an industry, and certainly the actuaries, have not been supportive of providing information that gives them a good basis for saying what the risk is.

When we are looking at risk-based capital, the factors that we would want to apply something to are premiums or reserves. Those are the items that we use now, because those are the items that we have. The higher the premium is, the higher the risk-based capital is. It's not exactly logical, but that is the way it comes, because that is the number that we have as an exposure base. If we move to putting more on reserves, we are going to have the same thing—the higher the reserve, the higher the risk-based capital. If we cannot, as an industry, and the actuaries promoting that within the companies, come up with an exposure base that really reflects the risk, then adjusting the reserves is not going to happen. If we, as an industry, can come up with an exposure base that the regulators believe that we will report accurately, I think there is some willingness, on their part, to look at alternative valuation systems to the current statutory, with all of the controls that are in there. But we do have to do those two things—have accurate numbers that fully reflect everything, , and have an exposure base that says that this is the real risk, and the higher the reserve, the more credit you get against it.

MR. PHILIP J. BARACKMAN: I wonder if any of the panelists could comment on the role of mortality as part of the persistency problem. It seems like most of the mortality assumptions that we review assume that as soon as someone buys an LTC policy, their mortality became fixed back sometime in the '80s, whereas when interest assumptions were higher, one can argue that mortality perhaps was not all that sensitive. If any of you have not gone back and revisited mortality under a 1

percent or 2 percent ultimate lapse rate, you may be in for somewhat of a surprise. Our friends on the life-insurance side tell us about mortality improvement of 1 percent, 1.5 percent per year, with no end in sight for that, at least over the next decade or two. So, it strikes me that we inherently have an assumption that, at least up until now, has been locked into a liberal context. As long as we are starting to reflect improvements in morbidity, we should not be unilateral in terms of the impact on mortality. I would be interested in any comments about possible updates to the '83 group-annuity mortality (GAM) as a benchmark, whether that is still thought to be adequate or has conservatism worn it away by now?

PANELIST: Recently a projection that we did included mortality improvement. It is there. There is no question about that. I do not have a great answer for the second part, which was "What should be the current mortality?" I would ask that question of people that study mortality more regularly. Of course, there is also the issue in long-term care of, if we have an underwritten group, is the active life mortality a little better? That may have some effects as well.

PANELIST: I do not really have an answer for you, either. I just want to say that anecdotally, I have heard a few people echo what you are saying, that the '83 GAM is no longer adequate, because the mortality rates are just coming out too high.

PANELIST: I would just add that there is a data question here, in that it is difficult to track your lapses from your mortality. I think that you can probably check against Social Security tapes, if a company wants to go through that and determine that, but it is not usually done.

FROM THE FLOOR: Actually, Mr. O'Brien, I am kind of curious about what you have to say about that mortality.

MR. O'BRIEN: I think that one thing that needs to be considered is that companies have a wide variety of approaches to underwriting the long-term-care risk, and they can have different effects on the mortality. Depending on what kinds of risks are taken—for example a long-term-care company might be quite liberal on cancer risks, because they generally have low costs of claim but a very high morality. Another issue is that if companies put selection factors on top of the '83 GAM, it's unclear to me whether that is conservative or liberal when you get to be 95 years old. I mean, I know that some companies claim to have credible experience, and there may be stuff out there, but I have not seen anything published on that. I think the '83 GAM included an approximately 20 percent reverse loading against the underlying experience that was in the table, because it was constructed as a valuation table. Since it was an annuity table, it was reverse loaded by reducing the mortality rate. It is something that should continue to be looked at. I think that if companies are looking at the first five or ten years, the effects of selection could make it look like mortality is better. I think the question is unanswered, and it is unclear, but it ought to be looked at.

Chart 1

Long Term Care Reserves

Impact of Experience on Policy Reserves

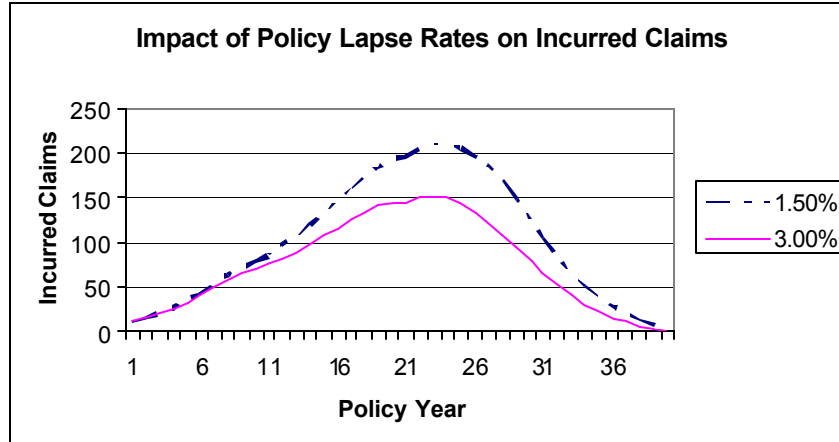


Chart 2

Long Term Care Reserves

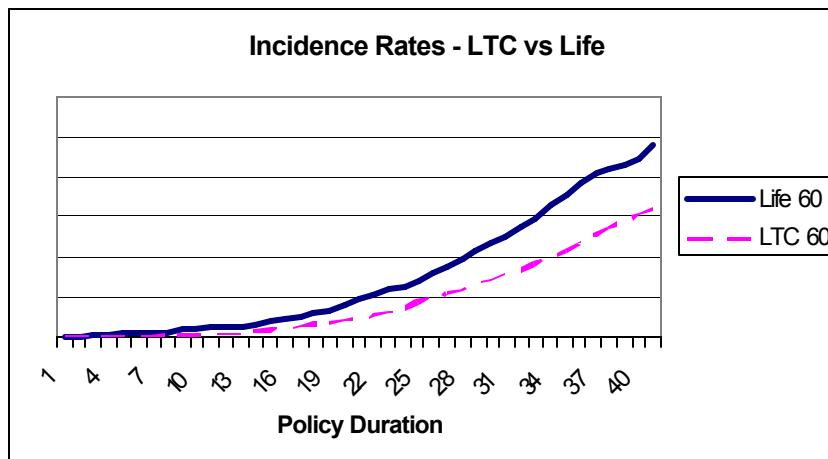


Chart 3

Long Term Care Reserves

Impact of Experience on Policy Reserves

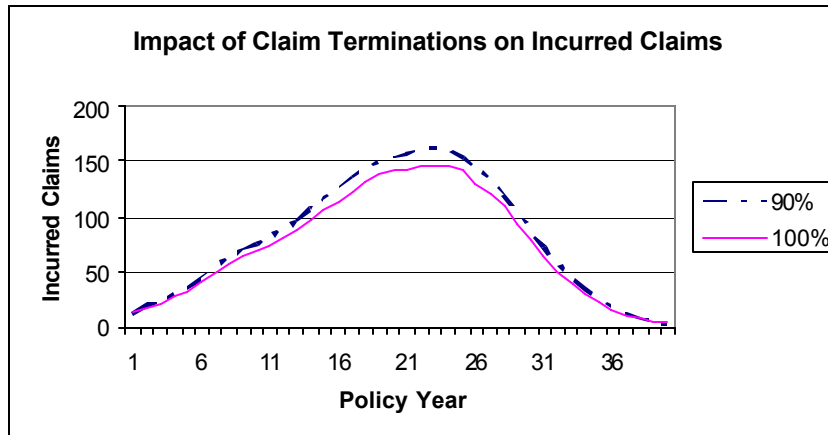
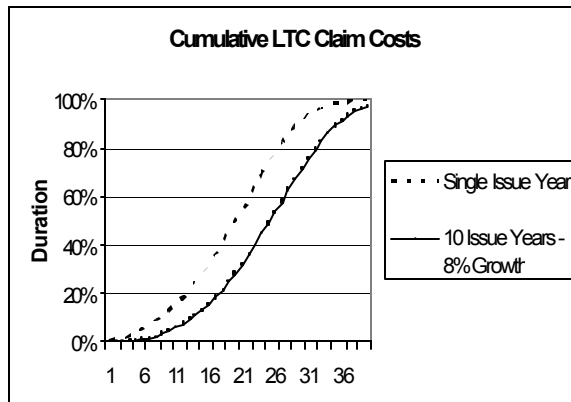


Chart 4

Long Term Care Reserves



- For a 10 yr old block of business, only 4.3% of total claim costs are known after 10 years.

Chart 5

Long Term Care Reserves

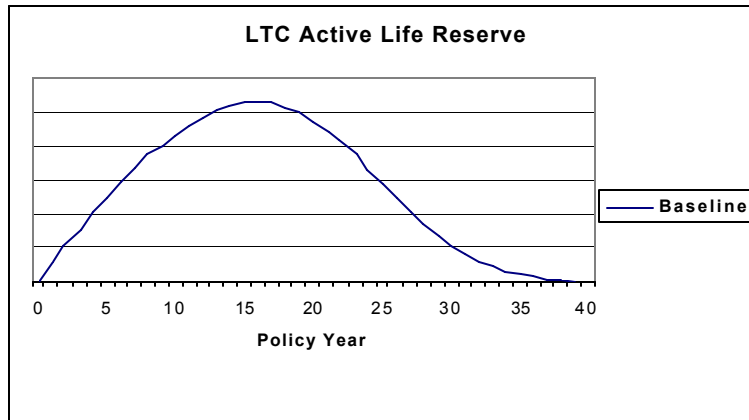


Chart 6

Long Term Care Reserves

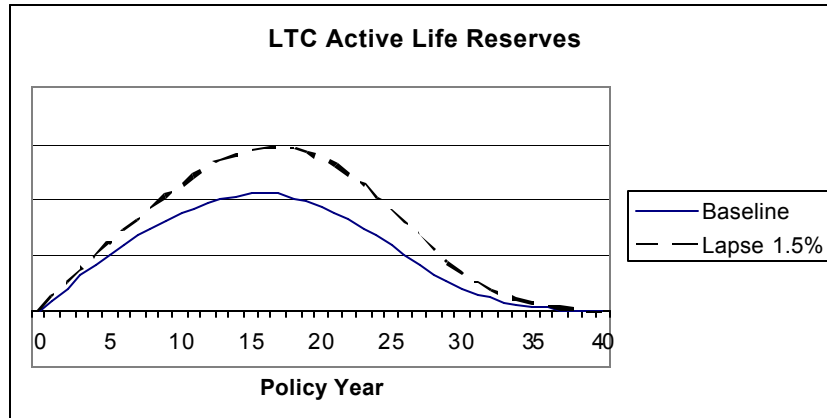


Chart 7

Long Term Care Reserves

Impact of Incidence, Claim Terminations and Interest of ALR's

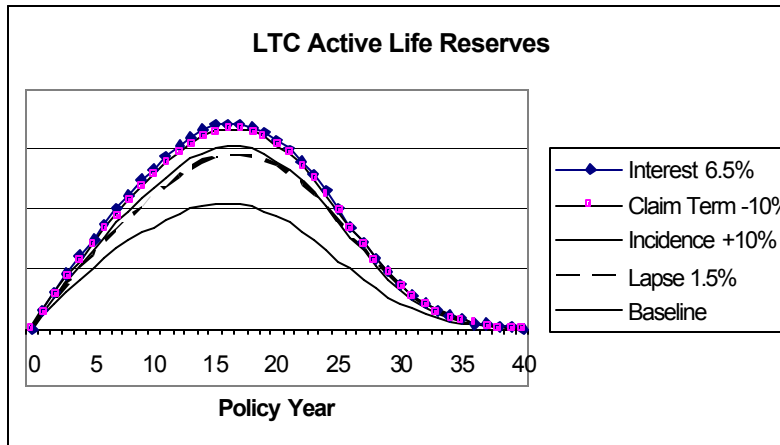


Chart 8

