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## Session 65PD

### Unified Mortality Approach: Rebuilding The Mortality Castle

**Track:** Reinsurance

**Moderator:** ALLEN M. KLEIN

**Panelists:** DAVID G. W. BRAGG†  
STACEY GILL‡  
THOMAS E. RHODES

*Summary: A unified mortality approach is an effort to get all individual life insurers to submit mortality data in a unified approach for the SOA, allowing actuaries to concentrate on their study and reporting significant mortality results. Attend this session and understand the necessity to build a defense of studying the individual life insurance mortality that is the defining characteristic of life insurance—rebuilding the mortality castle.*

**MR. ALLEN M. KLEIN:** Insurance company profitability is coming under closer and closer scrutiny these days. Mortality is one of the biggest drivers of life insurance profitability.

We need mortality experience, as you know, to both price and value our products. I realize that there are some significant resource issues today. However, with the technology available, I really believe that gathering and analyzing mortality data should be easier than ever before. There are several new approaches to collecting mortality data underway.

If you currently contribute to mortality studies, please continue to do so. We really appreciate it. If you're not currently contributing, please find a way to do so. Our speakers are going to discuss some of the ways that you can contribute fairly

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easily. Also the proprietors of each of the mortality studies that are going on right now would be more than happy to help you find a way to contribute. No matter how small or big a company you represent, we welcome and need your data.

By way of introduction, I am Al Klein. I am the chairperson of the Preferred Underwriting Task Force of the SOA. That group is working on trying to put together a mortality study, which I am just going to touch on.

The mortality study that we're putting together is really the ultimate mortality study. We're going to be discussing some watered-down versions, to try to make it easier for you to contribute. But I did want to just touch on the study that we're working on. It's called the FIRST mortality study. FIRST stands for Factors in Risk Selection Techniques.

In the FIRST study, we're trying to capture data that is used in the underwriting process. So any type of element that is looked at for issuing a policy, we're going to collect on our database. All of the laboratory information, all the paramedical information, attending physician statements (APs), motor vehicle records (MVRs). Our plan is to collect all that information in one huge database. Then, we will be able to study either individual factors or multiple combinations of factors. Now as I said, this is the ultimate mortality study. We're going to be talking about a simpler approach to get you started, but hopefully we can eventually come to this approach.

Tom Rhodes works for Rhodes Consulting. Tom graduated from college at Overland College and he did his graduate work in actuarial science at Temple University. He has 25 years of actuarial experience, ranging from pension plan work, pricing, dividend calculations and mortality studies to company examinations of annual statements. Tom is also the chair of the Life Experience Studies Committee.

**MR. THOMAS E. RHODES:** We're talking about the unified mortality approach, which is taking every possible way of contributing data. I'm going to be concentrating on a simplified way to contribute mortality data and I'm using Jack Bragg's analogy of rebuilding the mortality castle. We're in the life insurance business; mortality is extremely important and mortality studies have been through a period of decay. Now is the time to rebuild our mortality castle for the future.

The first thing I want to make extremely clear to everyone is, contribute data to the SOA. If you're doing it in any fashion, keep on doing it. We're not introducing some change to throw you a curve. We're looking at a simpler way for companies to contribute to the SOA studies.

There are great expectations about what we can do with mortality studies, ranging from inner companies' variations to preferred studies. We can solve this using a unified mortality approach to submitting data.

Today I will talk about companies just starting to contribute to the SOA study. You can simply strip the data from your data file and send it to us. For example, we will not require you to calculate duration if you cannot give your computer programmer time to do programming for it. Just give us the issue age and issue date. The SOA's computer resource, the Medical Information Bureau (MIB), will calculate the duration.

The SOA has used a summarized format. For example, a grouping of issue ages 20–25. If we get summarized data from different companies, not all of them have an average issue age of 22. Maybe some have an average issue age of 23 or of 24. To be precise, you need to know the average ages of each of the summarized blocks. This data, along with the data that John M Bragg and Associates contributed has been extremely valuable and is still useful.

The Seriatim approach, which is a policy-by-policy approach that we currently use, looks at each record individually. Therefore, we don't have any problem with, for example, figuring out what duration or issue age people are at. This also was an advance in that it contained smoker/non-smoker data, which was utilized in the 2001 CSO. The other thing I should have mentioned is I was an architect of the 2001 CSO table.

The FIRST approach that AI had talked about combined with the Uniform Mortality Format allows companies to contribute as much data as they can. One can contribute the minimum amount in the FIRST approach or do a full-blown contribution using the FIRST approach. What we're studying is a simple, yet expanded format that you can simply use to strip data off the file and give us, the MIB, authorization to take pre-formatted lab data and put it together in what I'm calling the uniform mortality format.

You have a limited number of contributors. It's been decreasing. We had around 20 companies for the 1990-95 study, which was the basis for the 2001 CSO table. John M. Bragg and Associates contributed extra data to that, as did the Veteran's Administration for older male ages. Right now we have 10 companies for the 1996 study. We want more. We currently have plans to boost that number so we can get out reports.

But if you only have ten companies, it's difficult to get out statistically accurate results. So we've been lagging in the production of reports and this is part of our effort, within the Individual Life Experience Study Committee, to turn it around.

There have been great expectations of how we're going to get mortality and the advances we can make with that information. In all of the many committees leading up to the 2001 CSO table, people thought we could do individual life mortality by formula.

If you want to project mortality improvement into the future, just stick a factor into this wonderful formula. You want inter-company variation; well, there will be other parameters for that.

For preferred underwriting, one would need a more refined formula to do that. Unfortunately, it doesn't happen that way. There isn't yet a proven formula valid over different sets of data, which has been expanded to a multi variant form, with which you can just plug in values. But you can get all these things, mortality improvement, inter-company variation and preferred underwriting effects, by data analysis on contributed data. Therefore, we can fulfill these great expectations by using the data that companies contribute.

For mortality, there are mortality improvements due to both secular improvement and underwriting. There's the secular improvement over time for mortality improvements for people born before the World War II generation compared to the current generation. Mortality has shown a secular improvement. Also, there are underwriting advancements leading to lower mortality such as AIDS blood testing. But there are practical limits. We already have low levels of mortality. As mortality has declined, a 10 percent decrease in mortality from what it was in the 1975-80 table is not as meaningful as a 10 percent increase here. So we have to be very cautious about showing mortality improvement over time.

I should also mention that you cannot double count secular improvement in mortality over time and combine it with the effect of improved underwriting. There's a great danger of double counting there.

There are also inter-company variations in mortality. Different companies have different underwriting. I've seen companies that don't have smoker/non-smoker differentiation. That's actually quite common on the older policy forms that we study. Some companies have a preferred class or multiple preferred classes. Also, the type of field force that you have is important. Some companies have a reputation for strict preferred underwriting and the field force will tend to give their business there and give their other business to other companies.

Also in the 1990-95 SOA contributors, there was a greater than 200 percent ratio from the company with the highest overall mortality to the company with the lowest overall mortality. This means among companies contributing to the 1990-95 study that one company had twice the mortality of another company. This didn't surprise me at all; it's typical in all the inter-company studies that I worked on in the past. John M. Bragg and Associates report the same thing in their studies.

So it wasn't much of a concern to me, however, in the 2001 CSO review, it was a great concern to the regulators. You're going from the 1975-80 table to the 1990-95 Basic Table. You're also going from 50 percent mortality loading in the 1980 CSO to 15 percent loading in the 2001 CSO. Therefore, inter-company variations in mortality are more of a concern to regulators due to lower mortality margins.

So not all companies will have their mortality covered by the 2001 CSO. If we want to have inter-company variation reflected in valuation, this is something the industry will have to watch out for.

There's no standard meaning of preferred underwriting. Preferred in one company can be a different set of criteria than the preferred criteria used by another company. Even within the company, preferred can have many meanings. Additionally, a standard class that is split into preferred class leaves a residual standard class, which should be studied separately.

So how can we attack this preferred risk? One way is the way we're currently doing it, looking at face amount bands. That's a practical way to do it. The higher-amount bands get the better underwriting and should be the more preferred business. But in the future, the key is lab test data. This is available in a standard LabOne format.

Al Klein has been instrumental in arranging this. The SOA and the major labs have an agreement that you can get your data in a standard LabOne format from the five top lab companies. This is available in addition to regular company use and it's available in the standard format, free of charge.

If you sign a form and work with them, I think it will be very easy to give this data to the studies. We can come up with a refined preferred format, which can be standardized across the industry.

So if you study submitted data, it addresses the following things. Mortality improvement, if we do year-by-year studies, it is quite simple to figure out what's the mortality improvement by year. We can study inter-company variation, which was a huge hot button issue in the 2001 CSO. It is also useful in studies of preferred underwriting. Currently we can address it to the higher amount bands, but with the lab data, we can make even more advances.

So what is the uniform mortality format? It would be used to make it easier for companies to contribute. The uniform mortality format allows companies to do a minimal contribution using the FIRST format to a more complete contribution under the FIRST format. Many companies don't have the information technology (IT) resources. So the SOA wants to make it so you could simply go to your data file and make it easy for IT to strip off data without doing calculations.

Also, I wanted to expand the usefulness of the report, simply by your authorization to give us the LabOne data. We're also working on rapid turnaround of data into reports. The SOA research committee has been quite helpful for that and all of the people presenting this session are involved in this effort.

So what do I mean by easier to contribute? Fewer data items and only essential data are requested. There is a list of mandatory items. The mandatory items include issue age, issue date and MIB will do the calculations before we ask for

something called duration, which doesn't commonly exist on computer records. It requires you asking your IT department to do a calculation, which will require more than one pass.

So the idea here is that you're able to go, and directly from your files, ask your IT people just to take off the data and we'll do a lot of the calculations.

For the lab test data, the LabOne format is already pre-formatted and being stored for you, waiting for your authorization. The MIB will assist you in that. What you need to provide is some method, such as a policy number to link up the data. The SOA will work with new contributors.

So I want to expand the usefulness of this study. We're retaining the medical, paramedical and non-medical for historical reasons. People are quite comfortable with that. We have more durations of smoking data, which are now increasingly valid and very important to your work. Face amount bands address preferred mortality, and with the lab data, we can lead to a unifying preferred class study.

The goal is to have rapid report turnaround. Recently we had a special 2002 Individual Life Experience Study meeting, in which we worked on the new format. We talked it over and eliminated even more items than in our first go-around. This will be finalized at the annual meeting and then distributed. There is a commitment from MIB to work with this. We also have support from the SOA research committee on this. We're going to continue working with everyone possible, including the individual life experience study meeting committee, MIB, and I'm confident that John M. Bragg and Associates will continue their assistance.

So I want to conclude and say that the most important thing is, I'm not introducing anything new. If you're already submitting data to the SOA, keep on doing it in that format. The idea is to have a uniform mortality format to make it easier to contribute and use the pre-formatted lab data. There is an SOA commitment to help, both from the committee that I'm chairing and also from the SOA research department.

With the uniform mortality format, the concept is to be able to go to your IT people, just have them strip off the data off the file, send it to us and we'll do calculations such as duration. So you don't have to ask the IT people, which are a scarce resource, to do it, send us authorizations to use your pre-formatted lab data, which is available for free. This is a great entry into the SOA studies.

Hopefully, once you get involved with it, you may choose to remain at that level or go to a more advanced format. The SOA is committed to help all of you.

**MR. KLEIN:** David Bragg, from John M. Bragg and Associates, graduated from Georgia State University and he was a history student. He tried to avoid the actuarial program until 1978 when he was brought into the business and has been

there ever since. So David is going to talk about how the unified format is going to benefit you.

**MR. DAVID G. W. BRAGG:** First of all, let me say that Tom and Al deserve considerable commendation for the effort that they've put into this whole situation over the past several years. Tom especially has taken a very public role and has represented the profession in some of the more difficult forums lately, with the NAIC and in other places.

Our small firm Bragg and Associates, was founded in 1978 by Jack Bragg. We specialize in experience studies.

It really isn't true that companies aren't looking at mortality. They are doing so in a very robust and rigorous manner these days, because of consolidation in the business. The real playing field is the reinsurance market.

There are some small companies that may not have the resources available to analyze their experience and measure profitability. But there's been a shakeout in the business recently where many companies have demutualized. They are now focusing again on internal mortality investigations as a way of maximizing profitability.

A simple study can be done from year-end valuation records and a list of death claims. Jack Bragg has produced a method to do these investigations on a calendar year or policy year basis.

It's the kind of method that is practical and can be implemented by actuaries. It is an approach that will produce results management needs to function and does not require allocation of large resources. It produces exposure amounts by issue age and duration groups and uses a list of death claims. Contact us and we will provide a description of the method.

The real measure of statistical value in mortality studies is the number of death claims. We regard 35 death claims as statistically significant. If you split those groups into specialized data blocks, it's going to take a while to accumulate sufficient death claims.

The simplified method is needed for several reasons. Valuation, cash flow testing and obligations to provide data for future tables are things that the regulators are going to be increasingly focusing on. It's been my experience, as an observer of the scene for several years, that the regulators are becoming more vocal in expressing their concerns. This was not true ten years ago.

We believe that there has been a shift in the industry. It has to do with concern over consumer-based lawsuits. Race-based underwriting is probably the most visible example today. Effective mortality investigations rely on context and

continuity—context meaning understanding where a particular underwriting class fits into the greater puzzle of overall mortality and continuity meaning how mortality is trending of time. If you can anticipate trend you can maximize the value of pricing.

Bragg Associates develops lasting relationships with its data contributors. We think it is the most effective way to bring the information into the process. We think there is room in the industry for a mortality consultant, an agency that can function as a neutral and independent organization that only studies mortality and makes the results available to all parties.

Our approach is to pull those pieces together, put them in a matrix that is meaningful, and make the results available to as many people as possible. I think a database that could be accessed by independent actuarial advisors would benefit the profession and enhance the stature of the Society in the long run. Work with exotic subclasses such as various types of preferred, policy size groups, guaranteed and simplified issue classes are of considerable interest to many.

Enhancing the actuarial profession's undisputed stature is my last point. Actuaries are people of conviction, and they are idealists. Product ratings, health expectancies and consumer advocacy are some of the functions that the insured public will regard as useful in the future.

**MR. KLEIN:** Stacey Gill has almost 20 years of insurance industry experience. The last 15 years have been with MIB group and suburban Boston. Stacey currently leads MIB's Knowledge Services group, which compiles industry experience studies on behalf of the SOA, in addition to performing mortality studies for individual companies.

**MR. STACEY GILL:** You heard Tom, in his remarks, mention MIB a couple of times. I'll just give a little background, because we always assume people in the industry know what MIB is and what MIB does.

MIB is principally an information provider to the life insurance underwriting activity side. We are an industry-owned association. We have a shared medical impairment database as our core service that we serve out to our membership. Our membership is made up of about 530 life insurance companies in the United States and Canada.

The core function for MIB is to detect and deter fraud at the time of underwriting. Now, the business model for that lends itself to things like what we do in Knowledge Services.

In the Knowledge Services Group, we leverage the industry positions MIB by doing a compiler. We are a central neutral third-party agency that can take experience study data and other data and produce studies for the benefit of the industry.



We've worked with the SOA for 20 years now as an organization in performing this service in the experience studies area.

The group, Knowledge Services, was formerly known as a very catchy name, the Center for Medical Actuarial Statistics. We got a new CEO a couple years back and he took one look at that name and he thought it wasn't very market friendly. He suggested that we change that, so we came up with Knowledge Services.

I'd like to build on some of the things that Tom has said and that David has said about rebuilding the mortality castle. I've had a little fun with the mortality castle metaphor. I want to talk about why it's important to rebuild. Tom has made some statements and David has made some statements about why it's important from a regulatory or management standpoint. It's also timely; there are things going on in our environment today that make consideration of mortality experience very important.

In the how do we build mortality area, I want to talk about some of the things that companies can do if they haven't built their own mortality packet. To get some early wind in the process, demonstrate some commitment in a very cost-effective way, in ways that show both early successes and long-term commitments.

I will then just talk a little bit about some of the things that Tom touched on and particularly on what are some of the elements or the dimensions that have become important that the traditional industry studies don't support very well.

Well, why do we build? Tom told you, we have the castle ruins and we're asked to compile these individual life studies for the SOA. We have seen first hand the decline over time in the number of companies that can support this industry activity in a meaningful way.

The timeliness is interesting. There was actually an article in *USA TODAY* recently. It stated that there are only eight AAA-rated publicly traded corporations in America. That was kind of shocking to me. What I found kind of interesting was that three of those have significant insurance activities.

American International Group (AIG), Berkshire Hathaway and GE are three of the eight companies. Out of all the publicly traded companies in the United States today, only eight have AAA bond ratings. When you have three out of eight that do include insurance (with AIG, insurance is their core mission), I think that says something about insurance, specifically as a stable financial services platform.

That coincides with David's remarks at the end about stock analysts and financial engineering, the stability of the insurance business and the life business in particular, is extremely important. It is recognized in some ways in the market and not in others. Valuations, for instance, of life companies are way below those of similar sized other financial services companies.

On May 6, 2002, in the *Wall Street Journal*, on the front page of the business section, there was an article that mentioned five insurers in the March quarterly reporting cycle had mentioned specifically negative earnings attributable to adverse mortality experience in that quarter. It was on the order of \$0.04-0.05 a share for several of these companies, and that's very significant. It's not often that you see mortality experience make it on the front page of the section of the *Wall Street Journal*.

The point is that now other people are starting to look at mortality. Two days later a research company organized a conference call among their clients and others. They spent 90 minutes addressing this issue, just to give people an orientation about when you're evaluating life insurance as an equity analyst, what is mortality? It's peculiar to life insurance, and what is adverse mortality? The one question that I liked is, isn't all mortality experience adverse?

They had two actuaries serving as subject matter experts on the conference call. The answer to the question isn't all mortality adverse was a variation on the definition of comedy. The answer was, "When mortality happens to me—that's adverse. You know? But when it happens in a life insurance portfolio, it's not necessarily adverse." And of course, the definition of comedy is when something bad happens to you that's funny, but if it happens to me, well that's not very funny.

There were almost 80 people on this conference call, which surprised me, that's a pretty big number. It was interesting to hear how much these people, most of whom had responsibility for evaluating life insurance company stock valuations and pricing and making recommendations, didn't know what the basic mechanics of mortality experience and experience analysis were. They didn't know what those fundamentals are. They had some very basic questions.

So there's an education effort that needs to go on to get people comfortable. But, there is such a thing as mortality experience. It's not adverse, that's been priced for, that is performing at the expected level. So there's a real perception out there as these negative earnings surprises keep bubbling up. For one company, it was the third such surprise in the last five quarters. Negative earnings are contributable to mortality. That's troubling. For that company, and in general, mortality and understanding mortality experiences is at least as important as ever.

With respect to preferred risk product design and pricing, understanding the mortality is key. With respect to reinsurance pricing or reinsurance negotiation, understanding mortality is key. David mentioned the changing regulatory environment where the regulators are becoming much more focused on some of these performance metrics, mortality being one of them.

There was an earlier session at this meeting on the XXX update where two regulators shared some thoughts that they had about what some of the moving parts ought to be, in understanding mortality and setting the 0 and X factors. In the

XXX world it all starts with understanding your own mortality.

Many companies understand their own mortality. Some companies think they do, but they are relying on systems that are a part of their legacy infrastructure that haven't been migrated as they've moved their business system into newer architectures.

So, you really want to get up in front of these things that are happening on Wall Street. They don't have to ask the question, what's going on with mortality? They don't know how to process the answer. So, having a solid understanding of one's own mortality experience as a company permits the people like the CFO and the chief actuary, who have to deal with these analysts, to address them in terms that they can understand, by having that solid understanding of their own experience.

Since this is a hot topic, one should use the current climate to establish this priority. An analogy that I would use is, in our shop, at MIB, we're an electronic information services provider. We do 160,000 electronic transactions a day, in and out of our shop. Business continuity and the disaster recovery of critical management issues and making sure that our systems are up all the time is critical.

Now, when September 11 happened, that brought that element, business continuity and disaster recovery, right up the level of our board of directors. We had disaster recovery planning and we had done some of the best processes that a transaction processing company does. In terms of having off-site, remote locations, data storage, recovery fail type capabilities and an IT infrastructure that supports that, they were all in place.

We had already seen it as something that we had to do as a basic chore. It was part of our basic management at the senior level to make sure that we had resources for that. Our board spent quite a lot of time, since it was the first time the processes went into effect, reviewing those disaster recovery plans in the wake of September 11.

The point is that we have a climate today that is focusing on mortality, on understanding mortality, on taking the traditional mortality methodologies and growing them out to be more sophisticated and more robust.

So, that's an important point in the steps you take internally to improve and get your own systems in order. As you begin to construct the systems that you need to create when leveraging the current interest in mortality, you need to consider the sophisticated analyses that some of the Wall Street analysts are going to be wondering about and so forth. Creating a contribution to the industry studies is key. That's an early deliverable that demonstrates commitment, that helps this process and it's sustainable.

As Tom said, there are methods of doing so that are much less costly than previous

data collection efforts that have on for these industry studies. The very first thing to do, obviously, is see what you have now, see what systems are in place, and see what data you have. If you have data warehouses, or data modules, see what's in there.

We talk to a lot of companies in the course of doing what we do, and many of them have systems or modules attached to systems that do their mortality analysis and they have data that feed those systems. Frequently the quality of that data and the ability of those systems to actually deliver the answers that they need are not well understood. We find that out when we get data contributions for industry studies. We go through our data sorting process and find problems and issues. It's not unusual for us to be the first ones to tell these companies that they have some issues with their own systems.

Consider what you have now and then see how you can improve these and how you can get some of that early momentum going on where the industry needs to go. Also, look at how we can frame the discussion for continuing to improve these industry studies.

As you go through your own process, call on the sources of expertise and the sources of data. The SOA has a tremendous amount of very valuable historic data that can help you get an understanding of where you're stand, where you stood. The Bragg life scale is a very important resource in the industry in understanding a company's own position relative to the industry on a basis that is somewhat different than the SOA methodology and therefore, useful as a different perspective.

We'll try to tie the underwriting function in with the actuarial function. That's extremely important when you're trying to design and create preferred products and preferred pricing, and of course there are a lot of others.

The Individual Life Experience Study Committee is a group of people, SOA members and interested parties, who are extremely knowledgeable and dedicated in promoting these industry studies.

MIB, as I say, we're an industry organization ourselves. We have a support infrastructure for helping companies work with their own systems to produce the types of results that they need. John M. Bragg and Associates and many others out there can also assist you.

Now, the question is, what should we rebuild? We have the traditional methodology and the traditional view of the industry studies. What other things require our attention? We also need to find a way to develop the ability to measure the experience of preferred classes and the residual class, as Tom mentioned. We need to understand the experience of different distribution channels. Tom touched on that in terms of how a brokerage channel, for instance, might segment its own

production based on its own preferred criteria, preferred classes.

We must set and manage mortality expectations from an actuarial product standpoint and from a CFO industry analyst's standpoint. The CFO point might be that you know what quarterly estimates of mortality experienced are by their nature extremely volatile. The analysts didn't understand that, so it took some explaining by the two actuaries on the call to say, "Basically, what we're trying to do in mortality analysis is create a one-year horizon, typically. Sometimes more, but typically one year, that's sort of the base unit in the time dimension."

Now, what the world requires companies to do on quarterly reporting requirements is take out one year and try and segment that. How are the claims going to come in? What's the mortality experience going to look like in any given quarter? There's a tremendous amount of just latent volatility there. Understanding that and being able to explain that can save a lot of trouble where you have a quarter where you do have adverse mortality.

Now, the metrics or the analytics to develop that are outside of the traditional scope and are measured in robustness. David mentioned rule 32 that says if you have 32 deaths in a cell, you can have statistical credibility. Now, you can't always have 32 deaths in a cell. To achieve that statistical credibility, unless you want to create bands and groupings that are so broad as to lose some of their management or analytic capability, is impossible.

Measuring the robustness, including measuring the variance and volatility, is very important as you think about developing the next generation of your own mortality analysis.

Develop processes that you can monitor on an ongoing real-time basis and that you can improve on an ongoing real-time basis. Be sure that you can plug in new data elements, new data points. That's very important.

Last, you want to create the analysis that you use internally and we can use it as an industry for setting these expectations and commenting on things like inter-company variation and mortality and those kinds of things. Cause of death for instance, is an extremely important, yet very difficult analytic dimension to capture. When that feeds right back into the underwriting process it has tremendous value in improving your business process.

**MR. KLEIN:** I want to talk a little bit more about the FIRST study and summarize everything that we discussed here. Tom had mentioned, and I completely agree, that every company has different preferred standards and preferred criteria. Within the company, they're different as well. We realized that early on when we were designing the FIRST study. So, what we did is just ask for actual readings, so that when the study is done, it would be able to give specific data.

It's probably the most comprehensive mortality study ever undertaken, and it covers everything from super-preferred to sub-standard and everything in between. If you are interested in learning more about it, there is a special web page devoted to it on the SOA Web site. So you can read more about it, and you can even see all the data that we are trying to collect.

If you have the resources right now, I would recommend trying to go to this format. To summarize this presentation, the most important thing is to start contributing. We felt a lot of companies couldn't do the older approach, and that's why we've developed this simplified approach as well. So, again, the most important thing is to try to start contributing in any way you can.

**MR. ROBERT L. BARTHOLOMEW:** Is there an effort or is there encouragement with other actuarial societies internationally to build similar castles elsewhere? The need will probably be established for companies that are in the United States and in foreign countries as well?

**PANELIST:** Yes, we're concentrating in particular the United States. The mortality experience from other countries have been included on the SOA website. If you are referring to the SOA table manager, it has a range of experience from other countries as well, including South America, Asia and other places. There you have to take into account that it's not the same market or the same mortality of the United States or equal. We're familiar with the fact that some of the interrating techniques there go back 40 years, so there will be different mortality risks there.

It's inevitable that certain marketplaces will become available. Life insurance isn't sold worldwide, or it hasn't been in the past, for protection. But it will be soon enough, and just understanding how that fits into the broader picture soon will be very important.

**PANELIST:** The only thing I would add is among things that we do is we produce books on medical terms and underwriting risk factors. Those publications are produced with a tremendous amount of support from our salespeople in the overseas market.

**MR. MARK ROSA:** I have two questions or comments. A list of contributors goes from 20 contributors at the beginning, down to 10. I was wondering when you say you went from 20 to 10, do any of the 10 include more than one of their groups that are consolidated? For example, does MetLife include the New England data in the data they send you? If you look at it that way, it might not be as bad as it looks initially.

**PANELIST:** The answer is, sometimes. It depends on which company. Just using the example that you mentioned, the problem is that you have this capital difference and you use that band with or initiative within the acquired company to continue to support the data contribution effort. If you don't have that, the parent

company is driving it and laying everything into an integrated system or permitting the acquired company to continue with its commitment. That is how some of these members do fall off. So, the numbers actually do, getting to your point, in a consolidating world, your numbers should go down.

**MR. ROSA:** There is one other comment I had when I received the inter-company study. It showed how all the companies are coded. You get letters so that you know which company is yours, but you don't know any of the others. That was fascinating. One of the problems that I had is that I was showing it to other people in my company, but without knowing who those other companies are, you don't know if you should be concerned with the trend that or be happy about the trend. You don't know who the other companies are that you are being compared to.

I know you can't tell us the size of the other companies or what the other companies are. However it might be helpful if you said, okay this is the trend for the top five companies. Don't tell who is in the top five companies, the five largest versus the five smallest, but just say this is what the top five companies are doing collectively, versus the bottom five.

That way if you're in the top five or you know you're in the bottom five, you can see how you're doing compared to similar companies in the industry versus just looking at yourself and not knowing anything. You don't know how credible the data from those other companies are or how comparable it is to your own company.

So, it's just a thought, but it might make the study a little more usable to people who are receiving it.

**MR. KLEIN:** I think that's a good idea as well, but I leave that up to Tom who is in charge of it. We might want to look at it by category size and try to group those within a certain size together, rather than specifically saying five or so,. So it might be four and six rather than five and five.