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Session 38OF
Actuarial/Information Technology Partnerships

Track: Computer Science

Moderator: SUSAN M. LEE
Panelists: SUSAN M. LEE
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Summary: There is a fuzzy boundary between the actuarial area and the nonactuarial information technology (IT) departments at most insurance companies. Panelists share first-hand experience of working relationships between actuarial and IT departments and the problems they have encountered. At the conclusion of this session, participants understand how to build a strong working relationship between actuarial and IT areas.

MS. SUSAN M. LEE: I welcome you all to Session 38, Actuarial/Information Technology Partnerships. My name is Susie Lee. My co-presenter is Greg Smith, a consultant with Tillinghast-Towers Perrin.

Greg is going to serve a dual purpose. He is willing to take the consultant role in addition to his slotted role as vendor. Tillinghast is a vendor of a widely used projection system and some valuation systems.

I am an actuary with Allstate Insurance. I am going to represent the large red-tape-burdened company and discuss how to get the technology you need to do your job.

There is no structure to this session per se. It's an open forum designed to be like an Oprah session. Basically, the panel is here to answer questions you have about implementing technology in the work you do and leverage the presentation you had at lunch, which was on negotiation. Some of the key points I took out of that, hopefully, will filter their way through the conversation we have today.

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MR. GREGORY MARK SMITH: I have a question for the group. We all have valuation systems and administration systems. I work with some reinsurers that do projection work, and they will call their systems data warehouses because they're putting together lots of information from lots of companies. They then do data mining to figure out what pieces of information to pull out of their systems. I'm assuming that everyone in the room has at least that much of an information infrastructure.

What sorts of variance from this process do you have when you start thinking about putting together a projection model or are doing your monthly or quarterly valuation? What types of differences do you have from that process?

FROM THE FLOOR: I'm not sure that's a question I'd want to answer.

MR. SMITH: Well, I'm also fishing because I'm trying to think of what to say to break the ice and get us thinking about the topic and how we put things together, so let me elaborate a little more.

Here's a situation. The company that I'm thinking of has 250 reinsurance clients. Sometimes it gets seriatim policy data from the clients and, of course, there's a data lag because, after all, it's a reinsurer. The company then is faced with the task of how to create models to do embedded value or other kinds of financial projections for business plans, given that you can't possibly cover the universe of companies (and really even cover 80 percent). You've got to cover quite a lot of data.

So the company's process has been one of living with relatively big models. When it comes to putting together the data points, it will always group on quinquennial ages. It also has hard decision points in terms of rate classes and underwriting classes, and all of those things are hard-coded, if you will, in Microsoft Access or another database program. It makes financial projections based on the data warehouse it has, and out will come model points according to these rigid rules.

Now, the model points might not be what we all would like because some of them are very small. When you have rigid rules like that, some of the model points are going to be maybe 10 or 20 policies, and companies might never do a grouping like that consciously. But because they have so much data, they have to think of how they can collapse the information to a manageable level. What I have described is one approach that I've seen used.

I think the company has challenges when it comes to stochastic modeling, and I think we probably all have some challenges when it comes to stochastic modeling. But this is one of those data-mining approaches that seems to be happening. I'm curious to know if anyone else has taken the same approach, where they've decided, "Well, I'm going to have to live with bigger models because I just can't handle the administrative overhead of making a more compact model."

FROM THE FLOOR: (Due to technical difficulties, portions of the Q&A could not be transcribed. Panelist responses have been retained, as they may be relevant on a standalone basis.)

MR. SMITH: Okay. Well, it sounds like a little bit of the novel approach, so you can put that one in your bag of tricks. Take it away if you're ever confronted with that sort of challenge.

MS. LEE: I think Greg brings up a good point about stochastic modeling. That's something my company struggles with whether it's for cash-flow testing purposes or for the pending Actuarial Guideline MMMM. Allstate Life is a variable writer. How many variable writers do we have here? Six. So not quite half of the group here also writes variable.

The new regulations coming out are leaning toward increased stochastic modeling, for reserving as well as for the C-3 risk-based capital testing. I look at my models today, and I look at the computing power I have. In just forecasting for these regulations, I know I'm going to butt heads with my IT department. I need bigger, faster, more. Have you encountered that same issue? And with this session, it's about partnerships. How do you work with the IT department to address this need? I don't know what that need is currently because the regulations haven't been finalized yet. So how do you prepare yourself? You have to put in your budget today for something that won't take effect until later in the year or next year.

What are some things that you are doing at your companies to address the relationship that you have with your IT department to smooth the waters so that when the regulation comes into effect, you can get the machines you need, whether it's the speed, the RAM, or the number, or be able to go out and buy something totally unique that you haven't had before?

MR. BILL HANUS: We've taken the approach of getting the fastest machine that we can, of course. And, I think, we haven't gotten to the point yet where we're moving to less granular models. We're getting more and more detail in all of our modeling. So until we get to the point where the size of our model is so big that it's causing us run-time problems, I think we're going to stick with the size of our models, which I think are pretty granular.

We're doing quinquennial ages and multiple products. We just got, I think, two-gigahertz machines, and so the top speed on it is sufficient. But a lot of our problem is making the model something that we can use and that gives us the output that we can deal with. It's not so much getting the data in as much as getting the data out.

MS. LEE: As far as getting the data in, and this isn't necessarily directed to you, Bill, but just in general, are you finding it's a software issue or a hardware issue? Is it that you don't have tools that can consolidate it, or you don't have the machines,

or you don't have the skills in your actuarial or analyst-type resources to intelligently collapse that information to then produce reasonable results? Where are you seeing that barrier?

FROM THE FLOOR: We just recently converted our administrative system to a new system, and our big problem seems to be getting the data out of the administrative system to some mainframe systems. And our actuarial models are on PC-based systems, so we're having a problem with getting the data down. But we also seem to be having a problem with the IT people, in general, because they are very protective. They don't want to let go and maybe let us help them get the data down.

MS. LEE: One thing that we found in working with the IT department to address that "my environment versus your environment" attitude is cross-training—educating the other department on what your processes are, what your needs are and the financial impact to the company. Allstate, being a large company, is primarily driven from a technology standpoint from our claims department. Our claims department can get away with a 100-megahertz-speed processor and probably only 12 megabytes of RAM for what they do. So, what has driven a lot of our technology at Allstate is the lowest man on the totem pole because he's the biggest. If we can make deals there with the vendors, with Microsoft, IBM and some of the other companies, then, as a whole, it saves the company money.

But then what do you do with the actuarial group that's at the top of the pyramid? I think you're keying in on how IT is focusing on the needs of the many and missing the needs of the few. What we try to do is educate the department on how it can include the needs of the few in with the needs of the many. So we negotiate. We know what IT's criteria are and explain how we can fit into those criteria. If IT wants a three-year contract with Compaq or with IBM, I need to develop a cascade program so that I'm always bringing in new computers to give to the actuaries and then rolling them to the claims people, things like that. I don't have personal experience with the mainframe to PC end, and I don't know if you have encountered that.

MR. SMITH: I have talked with a few companies that have similar issues. The one thing that seems like a good way to get that negotiating process started is to look for a way to loan an actuarial student to the department for some period of time. Maybe you'd say, "Well, I'd like to have a student work in your area for three months, and here is my expectation: You're getting some free labor from me, so I would like you to train the student in SQL or a particular interface system, and this person can be my go-to person and learn about data."

So you put that first resource in there and have a successful experience, and then rotate in another person; after a while, you've rotated a few students through and have built a base of knowledge. That seems like it's a good way to get the fences

brought down because IT is such a different world — the programming world is centered around passwords, security and I don't know what else. Those peace offerings seem to be positive things because, in the end, the company does have actuarial resources who really understand how to get data off the system and know what all those fields mean.

MR. JEFF CURLEY: My experience with that process was at my previous employer, where I spent six months as what was called "systems actuary," which is basically a position sent to the systems area, ostensibly, to help systems with hard math questions — of which there obviously are going to be several, especially when anyone is being creative with new products — but also to develop the expertise in the actuarial area, and it was a relatively successful program.

Several people went through it and came back down with very good hands-on knowledge of exactly the way the administrative system and reporting systems worked and what you could and couldn't get out of the system quickly and easily. So I would agree that that is definitely something to follow if you have the resources to do so.

Where I am now, I'm actually at a three-actuary office, so obviously our little pricing group is not going to be able to loan anyone to systems, but there we have the opposite situation. We have someone in systems who has become an expert on every new hard calculation and knows that if he is wondering what's going on or what in the world we're asking for, he comes right up to our desk and says, "What in the world are you asking for?"

He knows to come to talk to us, and we know that if we have a problem, even if he's not the right person to ask, he's sort of become obligated by that relationship to become our contact person when we have a systems issue, and I find those relationships to be very handy. Even if they're outside the official chain of communication, the personal communication is just much more useful than sending it up through management and having it filter back down and not be what you asked for anyway.

MS. LEE: I think you brought up a good point about the rotation. It doesn't have to be one way. It doesn't have to be an actuary spending some time over in systems. It can be some of your systems programmers working on a project, a multitasking team in your area, so that they learn some of the aspects of the actuarial world and the financial world. One of the problems we encountered when we first attempted that was that the programmers coming over were concerned with career development. So it's very important, if you do start swapping resources, that you keep career development in mind for these folks. They aren't here to be actuaries. They want opportunities to expand their skills in the technology avenues, and we are trying to do that.

Similarly, for the actuaries that you send over there, if you use students, that can be incorporated into their professional development credits. I'm on the SOA Computer Science Section Council. The training they receive can count either as approved or nonapproved credit. Think of it as if they're doing a project. Maybe their project is to write a program that addresses a need you have. Maybe you need to build a bridge between your mainframe and your PCs to streamline the way you transfer the data. That's a great project for someone who is in the actuarial program at your company.

FROM THE FLOOR: I'll just mention we got a little bonus with our programmer that I was just speaking of. He's currently in night school for an M.B.A., so he really looks forward to having the actuaries to talk to, to get him help him through his statistics and finance classes. So we have this person who, since he is not entirely looking at being a programmer for the rest of his life, finds this relationship to his advantage, and that's strengthened that relationship considerably.

MS. LEE: We encourage the Life Office Management Association series of exams for the programmers. That's a very good way to introduce them not simply to the actuarial profession, but also to the insurance profession. Allstate also has a property-casualty side, so we're not simply dealing with life and annuity insurance; we're dealing with auto and homeowners and a whole range of insurance and financial services and products. That has helped us in our communication with our IT department. The programmers have some knowledge of insurance and financials, but on the flip side, we then have some responsibility to educate ourselves about their technology issues.

How many of you are familiar with the Microsoft exams or other accreditation exams? As an actuary, you can take those and get up to speed so you can speak the programmers' language. It gives you more credibility when you're in there negotiating with them. Notice I'm throwing out that negotiating term. Our luncheon and our keynote speaker this morning were heavily focused on that. This is key when you're working with the other departments, not just the technology department. Negotiation is important, and one of the things I feel is important is knowing who your opponent is. And so, for me, getting up to speed on the terminology, making sure I know what I'm asking for and why I was asking for it is important.

As our luncheon speaker mentioned, why are you telling this person this information? The reason I'm telling my IT department what my needs are is so that it will comprehend and get me the best deal and machines that can run my models, run my valuation in time for me to close my books and enable me to price my products effectively. That's the only information I give. I don't give any information beyond that.

The setup rule is important when you're dealing with the IT department. Don't give too much information. It might come back to haunt you when you come for your

next request. I find that I am requesting things from the programmers every year, whether it's processors for the valuation, PCs for the students doing the modeling or just general software that doesn't fit into their little pyramid. They say, "No, we don't have a license for that. If you want two licenses, it's going to cost an arm and a leg." I need to negotiate with them to obtain those licenses so that my folks can do their jobs. More comments, please?

MR. RICHARD CLAY: I have one comment and then a question. My comment is that I've worked with a lot of IT folks over the years and one of the main things in dealing with others is just common sense: Basically, just befriend them. For example, one of the programmers and I are both hockey fans. He's a Colorado Avalanche fan, and I'm a Detroit Red Wings fan. So we're having a great time right now. In fact, every time the teams meet in the playoffs, we always have a luncheon bet so the loser has to buy the other guy lunch. We go out to lunch after the series is over and have a nice time. Just getting to know these people on a personal level can get you miles and miles — it's unbelievable what that can do for you.

My question is for any of the folks who have outsourced their IT shop. We have. At Lincoln Annuities, it's all IBM pretty much, and so we can't rotate anybody through there. It's a different employer [from Lincoln National]. It's a different environment. We have our interface, which is basically the IT management. These people are linking employees, but they manage a relationship between the vendor and the end users. And, basically anything we want to do has to go through them — all the requirement sessions and that kind of stuff.

So now you have a middleman, so you've got three lingos going on. You've got the vendor language, the actuarial language and now this middle person, and it can get really messy. I was wondering if anyone else has a similar situation and what advice you would have in terms of trying to bridge some of the issues. Technically, I'm not supposed to go directly to IBM, although I do at times. So if anyone has any comments in that regard, I would appreciate it.

MS. LEE: I think it's very important to follow the protocol. That being, if you are instructed to go through someone and not contact IBM directly, I firmly believe in that because you don't want to jeopardize your relationship in the future by skipping that middle person and going to IBM. I personally don't have any experience working with a middleman. Maybe some other folks here do and can answer how they have addressed that issue.

MR. SMITH: I don't have direct experience with companies that have worked with a middleman, and I've also not been in that situation when I was working in a company. But I know when working with software programmers there may be a bit of a parallel. One of the things that's interesting about programming software, and taking the IBM point of view of the world, is that they're trying to figure out how to do something that is industry standard in the sense of creating a projection

product. They're trying to work out the standard industry way that something should be implemented.

What they find most helpful seems to be instances where they could get a mocked-up example. And so much comes back to their saying, "Gee, could you send me a spreadsheet that shows me the calculations in the special cases you've got," or in the general case, "Give me something to check my numbers against." It's interesting how many things come out of that process.

It's a demanding discipline because when a software person pushes back on a consultant, or the vendor says to a client, "Susie, you'd like to do something special. We'd like to help you do that. Could you show us how to do it?" It does seem to open up a lot of lines of communication. It also forces the discipline of that consultant by needing to sit down and figure out how to tell them to do it. They end up meeting them and making telephone calls to five, six or seven companies to find out what the industry standard is.

But, I guess, I'm thinking that may be a way to start to bridge the gap. If you do that kind of homework and start that dialogue, especially with the middle person — who, undoubtedly, has his own challenges in terms of understanding what the actuaries are asking for and then translating it — I would think that only good things could come out of that discipline.

MS. LEE: Is it possible to develop a long-standing relationship with your middleman so that he is in tune with your needs, therefore easing the next step to your outsourcing? Then maybe it's the middleman's responsibility to develop those relationships with the client companies that he's using to supply you with the equipment you need. You might be able to approach it in that fashion, as Greg was alluding to.

FROM THE FLOOR: We're working on new data warehousing and data mining, and it's just in its infancy. And we've got a go-between person, which seems to be working well. He's an organizational-type person and does all the chart work. He'll set up meetings between actuarial and IT, and that seems to be going smoothly. But I'd just like some input from anyone on stumbling blocks that you've had that we could possibly look out for since we're just starting out.

MS. LEE: I would ask, what's the experience of your middle person? When we were first implementing our valuation warehouse, we had the wrong middleman. He had some IT skills, but not the right skills for this project. So we floundered for almost a year with our first attempt. We didn't have the technology. We didn't have the software. So we had to take a step back because we weren't meeting deadlines. We weren't able to close our books in a timely fashion. When we were scrubbing the data, it was taking longer than we had hoped. So we got a different middleman with the right set of skills, and that was just wondrous.

Going in, we didn't know what that skill set was. I don't know how you decide what those skills are, but I would definitely look for experience in implementing this. We eventually got an outside firm. We tried not to do it in-house. Allstate's history was to build applications in-house, but now it's buy, buy, buy. It has shifted. That's what I would suggest. Make sure the middle person is an expert in the projects that you're trying to undertake. And negotiate the fee.

FROM THE FLOOR: (Due to technical difficulties, the Q&A could not be fully transcribed. Panelist responses have been retained, as they may be relevant on a standalone basis.)

MS. LEE: Make sure that he has experience in doing the type of work you're doing, bringing people together and outlining the requirements for the project you're trying to address; that he buys into the goals; that he buys into the time frame; that he's charismatic and can lead the development of this work; and that he can marshal it through.

FROM THE FLOOR: I have just gone through a project that had outsourced portions. Be very careful that you keep people on both sides of the team who are learning from this person. If that person quits and goes somewhere else, your project is down the tubes if you haven't built up some expertise in both your actuarial staff and your IT staff. You will have to bring some new middleman up to speed. God forbid, but it does happen.

MS. LEE: For the next project, you're more self-sufficient as well. That's a very good point.

MR. SMITH: I'm working on a project currently where the company we're working with is bringing in a consultant for just a subset of the skills. It would be, for example, to make sure that the company really does have a sound plan or that the deadlines are laid out correctly. And, for not that much money, the company has hired an outside expert that is good at that aspect of the project. So what I'm learning from that is that, as you wade into it and find that you have a weakness somewhere, it may not mean that you need to radically change the team. It may be an opportunity just to double-check that you have the right game plan. Find the right expert, bring him in to give you that piece of advice, and he doesn't have to hang around forever.

He can be invited back if he's good. This kind of person, with a very precise set of skills, will be able to come back into the project down the road, not be at sea, and be able to add value quickly. It's been an education for me. I would not have thought it would have worked in this particular circumstance because it's a software company and has the kind of hard-headed thinking that it's done everything before, so it's interesting.

I'll throw out a question. We all have a lot to do, and no matter who you talk with, they have to accomplish things through other people. At the same time, we tend to see actuarial students that seem to have a new desire maybe to do more programming or other tasks that are a little bit more technical than, perhaps, their boss would have signed up for. Are you seeing that this is the trend? Am I misreading something? Is this something that you find as you're managing your people that you're responding to? Or are you still processing it and learning how to integrate their interests into the jobs that you actually have for them?

FROM THE FLOOR: I view technical skills in two worlds. I've been in the profession for 18 years and grew up on mainframes basically. Mainframes don't scare me. I've programmed. A lot of the younger guys, or a lot of the older guys, have little to no mainframe skills or very few computer skills, but all the good data are on the mainframes. The newer guys are not really taking those classes at college. Or, if it's not a PC-based system, which is what everyone is selling these days, they don't grasp, or don't care to grasp, the mainframe world. I see that as serious. We rely on the IT guys to do all of our mainframe stuff — we, meaning the actuarial industry.

More than a decade ago, when I started my current role, the company basically wanted me to do an experience study. I said, "OK, where do you get data?"

"Well, you submit a request to these guys over here and wait three months."

I said, "What do I do between now and then?" I knew that whatever they were doing, I could probably do. So, basically, I bridged the gap myself, but I'm probably one in a million who would do that. Most would either submit the request or find some other way.

I don't know whether I answered your question, but I think there's a generational thing going on to some degree. So, even though we're not going to be programmers, to the extent that you could understand mainframes and understand what's in them or how the data are there, that will facilitate a much better discussion between you and those IT folks to isolate what you're trying to get.

I also had one point about the data-warehousing question. I was at an earlier session this morning. We had an unofficial data-warehousing project that didn't go well.

FROM THE FLOOR: Here's what you don't want to do. You don't want to bite off more than you can chew. One of the problems we had was that they identified 16 different source systems they wanted to bring in basically all at one time. Of course, we hired outside vendors to do all this and gave them no business experts to work with, to speak of. I would imagine that we should have given them at least three or more dedicated, 100 percent resources. They had zero who actually understood our business and what the end result needed to be. So my

recommendation would be to start out small with your cleanest system that you can tie back to, that you know what the answers need to be and can validate — have a finite set of steps or requirements. At the end of the day, you know exactly what it is you want to do, and make sure that people deliver on time and on schedule, and just take it kind of slowly.

MS. LEE: I have a question then related to that. You brought up the gap between us old folks here who have mainframe knowledge and the students coming out of college now, or who have even been out for a couple of years who have a lot of PC skills, but not necessarily mainframe skills. How can we bridge that gap? The technical skills have never been part of the SOA syllabus, so it's really relied on people like you. You said you went out and did it yourself. What's a way we can bridge that gap between the knowledge they need to do their job and the knowledge that they're getting through their current training? What are some suggestions?

FROM THE FLOOR: I'll answer your question first and from my point of view, and it ties in very much with Rich's comments and this example here. I've been at my company 18 years also and done a lot of mainframe stuff. Part of it is just to get them to realize that the good stuff is up on the mainframe. And unless you only go through this painful warehouse project, that's a lot of times where it's always going to sit. So that's maybe not the answer that they want to hear, but other than purchasing from vendors ready-built systems, that's pretty much what you're going to be working with.

MS. LEE: How about the SOA Computer Science Section? Should it do more as a body to promote education along those lines or to at least bring it up as a topic saying, "This has come up as an issue. Are others sensing it as well? Do you want the committee to address it?" I know it's getting off the topic here, but I think it's a partnership. You've got all this information on the mainframe where people that have the skills are the technology people. How do you transfer that knowledge to the actuarial body?

FROM THE FLOOR: My impression is the opposite of yours. The young kids today are, perhaps, less and less interested in the technology of it than in the project management part of it. I think the younger crowd has become much, much better at project management than I will ever be, simply because I think we're too willing — and this is not necessarily a good thing — to just sit down and do the work. That's the trade-off. Do you want to have people who can sit down and do the work or do you want to have people who can lay out a plan and turn over some requirements to the professionals. I don't consider myself a professional when it comes to IT.

I'll touch on a point you also made about the middleman. I worked in the actuarial department but currently am an actuary in one of our operations department, kind

of an underwriting department. I sit in a world where you have dedicated resources and get whatever you ask for. You even have your own little systems team in actuarial.

I just emphasize the fact that I think actuaries have it lucky, and for a good reason. Maybe these are things that need to get done. You need to do your valuation. You need to do all of these jobs. Some of it is not optional. The name for the middle people in our company is deputy portfolio directors. They are the gatekeepers in our IT departments who just manage the resources. There are limited resources in IT departments, at least in nonactuarial IT departments.

You asked for some helpful hints. One thing that has worked for us is to show that you have thought through competing projects and have prioritized in your mind what's the most important to you. Don't go asking for the five things that you have got to have. Go to this gatekeeper to IBM and say, "You know what? I've thought this through. This is a must-have, this is a nice-to-have and this can wait until next year."

FROM THE FLOOR: Earlier, we were talking about this mainframe knowledge hole. At our company, we still have this to some degree. One of the things that came out of an insistence by our chief actuary that an actuary be included in our mainframe conversion was the fact that I become that system person. I am an ASA rather than a student-student. And I've benefited a lot. As a matter of fact, I've become the person whom the whole actuarial department comes to when it has an IT problem.

I wasn't really sure I liked that because it does tend to push you more into a support role rather than a nuts-and-bolts actuarial role. But I wanted to throw that out for people who might want to consider that. I mean, it was kind of a side benefit, having somebody on the conversion that understood how the products worked. But if you understand the mainframe system you're working with, that really helps for product development and product management.

MR. SMITH: I have a follow up. One of the projects I worked on for a year and a half was a demutualization. The person who was leading the project had tremendous project management skills. He was very charismatic. He was a good leader. But what was interesting about his background was that he had a rotation where he had worked on putting up one of the main administration systems for the whole company. He understood plan codes! He understood things at a depth that everyone else in the room was trying to catch up on, but the IT people were right there with him, so he was great in that regard.

The other thing that I'm remembering about this project is they had engaged us to get involved in some seriatim calculations, that is, processing data on a policy-by-policy basis. This process involved applying factors that had been calculated using models and then putting those answers out on a tape that would be uploaded to a

mainframe and that would, ultimately, turn into a number of shares that would be distributed at the end of demutualization.

What was interesting was, it really took a long time. I don't think we would have had a prayer of jamming the time frame down. It took a year and a half. They had so many systems that were old and antiquated, some that they had purchased from other companies and some that they literally called "shoe boxes" (and I kind of believed they were). Processing and understanding all of that data was a tremendous challenge.

What we found as we were doing the data quality process was, when you're creating the models, you're very concerned that you understand the real meaning of the field that you're looking at. Is it the fund value, is it the cash surrender value or is it something else? That process of building the model came back; not to haunt us, but as something to be very aware of. As you went through the seriatim process, there was this big compression to build model points and to create factors at the model level. Well, when you want to apply those factors, you need to interpolate them out to all those individual policies that you just compressed. So it's like reverse-engineering the compression and then figuring out how to apply the factors. What was interesting was, we did all of our data-quality work and built models, and, as it turned out, it was very good work. They had an excellent systems team that worked hand-in-hand with us to make sure that we understood all the data.

Another one of the things we found was helpful was that, during the seriatim process, we had a third set of eyes come in completely outside of the project. The company's auditors provided a fair amount of systems consulting and were very knowledgeable about these systems.

The auditors came in at the last minute and, even though there was a consulting actuary working for the company and a consulting actuary working for the state insurance department both looking at data and thinking that they're understanding it, they brought in one more set of eyes at the request of the company's audit committee to validate that and sign off that we had the right helpers. So, for what it's worth, maybe that's another way that you could bring a new set of players to the table that, hopefully, has in-depth knowledge of your systems and could give you that kind of final sniff check and sense of comfort.

MS. LEE: What's your greatest technology barrier? Is it working with your IT department? What is it within that realm?

FROM THE FLOOR: (Due to technical difficulties, the Q&A could not be fully transcribed. Panelist responses have been retained, as they may be relevant on a standalone basis.)

MS. LEE: You need to make them aware when you're negotiating for your request. In this case, you wanted the data in a certain form, and noncompliance will result in a cost to the other party. So it's a very key point when you're trying to develop these partnerships. What are some barriers that you encounter?

FROM THE FLOOR: Without a doubt, the biggest challenge for me with IT is the very limited resources that we have in the IT department and fighting for my projects to be prioritized where I think they ought to be prioritized. Overall prioritization of projects within the entire enterprise to me is a huge challenge.

MS. LEE: Is it a greater barrier that your projects are falling in with all the other projects that the company has, or simply that there are not enough resources? Which do you mind more — that there aren't enough resources to do it or that you're being treated along with all of the other projects?

FROM THE FLOOR: The way in which the company ends up making decisions about which project to work on and which project not to work on. We recently had an internal focus group looking at that, so we recognize that as an issue, have made some changes and are putting together a unit we're calling Business Systems Analysts. This team basically does project management to help coordinate priorities overall for the company and force decisions to be made at higher levels than they're currently being made.
One interesting story came out of this internal focus group: One way to get your project worked on in IS is to bribe the programmers with cookies. That's not the way decisions should be made, but, unfortunately, that's often closer to the truth.

MS. LEE: At Allstate, we were faced with a similar dilemma. When you get projects from different departments, how do you weight those? What we did a couple of years ago was advocate a process or a methodology. We tried a series of methodologies over the years, and we're currently implementing is the Six Sigma methodology. I'm not sure how familiar you are with it. It was not developed by Allstate, but by another company. Six Sigma serves as a basis across the different departments because, remember, we have property-casualty and financial services.

It puts us all on the same page so that we are able then to allocate the resources we have more effectively. "Yes, although I think this project is a high priority, in the eyes of the president, it's not." When you look at it from an unbiased (or, supposedly, unbiased) methodology, it helps you. You don't have to use Six Sigma; there are other methodologies. I had a project that was near and dear to my heart, which I thought we had to get done because we had to get these reserves right, but was told, "Sorry, it's only going to save the company this much money, whereas, if we spend those resources that would have worked on your project over here, we're going to save the company, the policyholders and the shareholders billions."

And I can buy into that. We haven't yet addressed the next step. though, which is when do I ever get my project done? Who's in that boat? You've agreed with management's decisions, but then how do you do your work?

FROM THE FLOOR: (Due to technical difficulties, the Q&A could not be fully transcribed. Panelist responses have been retained, as they may be relevant on a standalone basis.)

MS. LEE: Have you tried grouping it with other projects? Have you ever tried tacking your project onto another project that you know is going to have smooth sailing? Build a relationship with the project manager and put yours in. There are a couple of items that I wanted for my modeling that I was never going to get in the warehouse. I just wanted the programmers to pass me some data. That's all I wanted so I could do some analysis, but they were never going to do it. It was cheap to do, but they were never going to do it.

So I had a longstanding relationship with the programmers in that area and said, "Well, you know, while you're in there already on project XYZ, you're going to be spitting out all this information. Can you also spit out my field? You're not going to be doing much more work. It's actually more effective by combining these projects into a single one." I got my data. I didn't have to wait two more years. I've been waiting three years already. So that's an alternative — the buddy system, partnering up with somebody else and consolidating your efforts to get through what you need done.

FROM THE FLOOR: I found that approach particularly effective one time when in an actuarial area I had the programming support for a specific project that was being done for the underwriting director who wanted to have a better handle on the effects of underwriting on mortality. He needed some actuarial reports because I had to do a mortality report. But we figured, "Wait a minute. If we built this huge Access database that will allow him to do that, what could that database allow us to do?" So we added a few extra fields to it and got Access licenses for about four people in the actuarial area, and it became a very powerful tool. We were at the point where we were doing quarterly mortality studies at the agent level for a period of time.

MS. LEE: Are there other challenges that you're facing from a technology perspective?

FROM THE FLOOR: (Due to technical difficulties, the Q&A could not be fully transcribed. Panelist responses have been retained, as they may be relevant on a standalone basis.)

MS. LEE: I think it's important to tell people only what they need to know — "I need this data to complete this project. This data fits into this project in this

fashion" — and then get back to your item. You then mention the cost of not having it and how it delays the project, so clear communication is important.

I can think of a number of projects where there was always one thorn, and it sounds like the programmer and the supplier you were working with might have been a thorn who just, for some reason or another, was reluctant to provide the information you needed. In that situation, you do have to work a little bit more at the relationship.

You have to develop a rapport with them, bring it down a notch as far as your working relationship with them to get them enrolled. And, unfortunately, I feel that that is your responsibility, not their responsibility, because you are the one needing the data, so you have to be the negotiator. You have to be the person to smooth the waters. You can't rely on them to give you what you need.

MR. SMITH: I would like to come back to something that you brought up, Bill, about the output side. I'd be curious to know what kinds of things you need to organize output that would make your job easier. I wonder sometimes if databases wouldn't answer a lot of questions for us, and if that's not really the way that most of us would like to see output from all kinds of systems. So maybe you'd like to elaborate a little bit on what sorts of slicing and dicing you're doing.

MR. HANUS: Well, until recently, one of our biggest problems was getting the data in the format that we wanted, but we have undertaken a data warehousing concept, too, and it's being driven very much by the actuaries. So, if you're thinking about doing some data warehousing and you want good data coming out, it's important for you to be a major supplier and major player in the construction. If you let the IT, accounting or whatever areas drive that, they're going to get whatever they want.

I work in the valuation area, and we do cash-flow testing, so it's very important for us to be able to get the information we need out of the data warehouse. This used to be very difficult to get out of multiple administrative systems, but now we're working toward getting a single source. And so I think it's getting a lot better getting the data in to us now because we're driving that quite a bit. That's one of the main things that has simplified the front end.

From the opposite end, we have PC-based valuation systems. We have PC-based modeling. And it seems like, at least on the valuation side, we're getting the information in a good enough form. But on the modeling side, you always want to do something else after you've run your models because of the reporting software. The reporting from that modeling tool doesn't exactly provide what you want. I don't know if it's still the way it was when I worked at LBL, but we had a gigantic process that took the FAS output and put it into Access, Excel or whatever, and did

lots of fancy things, but that was very cumbersome. I don't know if it's still going that way now.

MS. LEE: Allstate and its LBL subsidiary has expanded some of its technology to incorporate more recent developments. We still use a lot of our own in-house tools that actuaries have built. These aren't built by programmers; although now I do have a programmer. As Bill mentioned, my actual responsibility at Allstate has a lot to do with supporting the modeling that we do for cash-flow testing, for our FAS 97 deferred acquisition cost work, for economic value analysis and for strategic planning. It's my responsibility to support all of those financial projection processes, not simply from a software perspective, but also from the technology perspective, in making sure the employees have the PCs and the software they need to do their jobs.

So we've looked at ourselves as knowing what we want on the back end and going to develop the tool that we need to put the data in the format we want for analysis, because every company looks at the income statement slightly differently. Management may want something broken down in a bit more detail than you might see available from a vendor's projection tool, or they might want to roll up the information one way for one process and another way for a different process.

In my world, for cash-flow testing, we do it on a legal-entity basis, but that's not the way we manage the business. We manage it by distribution channel. So for most of our other processes, we're rolling the information up at a different level. So we've built bridges. We've built front-end bridges between our valuation warehouse and our modeling tools and back-end bridges between the results of our modeling tools into our presentation packages and streamlined that process. With a push of a button, we just feed results back in and out. And a lot of that comes from the creativity of the actuary.

You asked earlier whether students coming out now are more in tune with programming or less in tune, and I've seen both. Like Rich mentioned, some are just into project management and want to delegate to a programmer, but others are more inclined to say, "There's got to be a quicker, better way to do that." Those are the folks who work in my area. The project-manager types work down in pricing. That's how we've approached it . We might go out and buy vended applications, or work with consultants to come in on our warehousing projects for the big things, but we often do self-reliance for the smaller things to make life easier.

We are trying to encourage folks to get more Visual Basic and Excel exposure, not necessarily language exposure, but knowing the fundamentals of programming so that they know that A flows to B flows to C. I don't care if it's English, French, German or what have you, programming languages work the same way. You pick up one language and, if you understand the structure, you can do it any language.

It's more the concept of what can be done. Having more of that approach is what we've relied upon.

FROM THE FLOOR: (Due to technical difficulties, the Q&A could not be fully transcribed. Panelist responses have been retained, as they may be relevant on a standalone basis.)

MS. LEE: How many of you have a dedicated programming staff? Four. And those who have to compete? Nine. So the majority have to compete for the IT resources.

FROM THE FLOOR: I was with one company that went to the compete method, and it took about six months of actuarial requests before they realized, "Lets go back to giving actuaries their data and stop driving all of our programmers berserk, because they just don't have the time to learn this stuff."

MS. LEE: You got that? You guys who have to compete for the resources, inundate them with requests that are so high level and technical that they throw up their hands and say, "We'll give you programmers. We'll give you programmers."

FROM THE FLOOR: (Due to technical difficulties, the Q&A could not be fully transcribed. Panelist responses have been retained, as they may be relevant on a standalone basis.)

MS. LEE: There's no continuity, and that's why we distanced ourselves from competing for the resources. Within our three actuarial communities, we have dedicated programmers who do only actuarial work. But when we want something done on the administrative system because it's going to feed valuation, we're back into competition, so we've only sliced off a portion of it. And we have that issue of a person who had a skill not being there anymore. Turnover is very high in that field currently. There's a little surplus now with all the dot-coms going under. We can get enough programmers in to staff up. But then, for us, there are always budget issues. So we're not necessarily faced with a learning curve; we're just faced with dollars. The company doesn't want to spend more than X-amount on technology in a given year.

FROM THE FLOOR: (Due to technical difficulties, the Q&A could not be fully transcribed. Panelist responses have been retained, as they may be relevant on a standalone basis.)

MS. LEE: We do cost-benefit analyses. When you do your projects, are you required to do those? Everybody's familiar with them and has to do them. But, like I said earlier, we're using the Six Sigma process, so that puts all of our projects on the same playing field to help management make those decisions. The biggest issue for us is that all those high-priority projects cost X dollars, and they just don't want to spend X dollars, so you've got to cut somewhere. That's what we struggle with.

These are all valid projects, but this year, we just don't think we're going to have the income. It's just that profit margins are much tighter. We're watching our expenses.

MR. SMITH: I also heard you say something that I heard from other folks. A product will be put out on the street, but the back-office work that you need to support it isn't put in place until you reach some kind of critical mass. And when will that be? That's a very real problem, and I don't have anything to say except that I know you're not alone. I see people shaking their head here, too.

MS. LEE: Bill can relate to that. At LBL we did that. We put a bunch of products in the market and still don't have them fully integrated into our valuation systems, by the way.

FROM THE FLOOR: (Due to technical difficulties, the Q&A could not be fully transcribed. Panelist responses have been retained, as they may be relevant on a standalone basis.)

MS. LEE: I work with pricing actuaries, and they want to make all these programming changes and do the financial projections, and I wonder whether the company is ever going to sell this product design. For example, we sold three policies in a year-and-a-half, yet spent two months programming it into the system. I agree that critical mass is important. But then once you hit that critical mass, are you then backtracking because you didn't do it at the beginning and then trying to capture all that data that you lost?

FROM THE FLOOR: (Due to technical difficulties, the Q&A could not be fully transcribed. Panelist responses have been retained, as they may be relevant on a standalone basis.)

MR. SMITH: There are a couple of reactions. First, from the vendor's side, of course, vendors have economics. I started out as just another consultant at Tillinghast and then someone said, "Why don't you go out and work with the software and start doing the marketing and selling the software and help us get a better notion of how we can improve the service?"
One thing that's evolved in thinking about that is how to unbundle more services and structure deals differently that aren't so driven by the overall license cost of getting that down into the range that I need. Can you unbundle these pieces so there's a support piece that , perhaps, has something to do with an ongoing training component. Part of your budget should be, "Let's figure out how can we do some more on-site training because I am having rotational problems, and it isn't cost-effective in my particular case to send people elsewhere for training?"

I find myself thinking more and more about how we can work with, admittedly, a lot of contracts and a lot of clients to figure out how to unbundle and repackage some of the things that they're buying now. It gives more selection. The problem

from the vendor's point of view is that it's also harder to manage. It's harder to get the billing right. It's harder to get the billing on time. It sometimes involves a lot of negotiation and a lot of administrative work to put that in place. So economics are everywhere.

You can have this discussion internally within the software staff and it's eye-opening because they're very keen on cost-benefit analysis, too. "Okay, if you're talking about unbundling, you're going to make my administrative life more difficult. It's going to make billing harder. We have a bigger potential for making a mistake. Are you really willing to pay that price, and what is the price?"

The more that everyone entering the discussion asks, "Are we open to new ways of approaching relationships we've had? How can we change contracts to get something that meets the needs?" the better, because I would like to think that I'm selling satisfaction. So, if I'm selling satisfaction, I ought to be open to hearing what it is you need and figuring out a way for the system to respond.

MS. LEE: And if you are in a vendor relationship, you might be paying a maintenance fee. What are you getting for that maintenance fee? What does it encompass? Support. If you explain to the vendor that your expectation of support is not only answering questions, but also providing you with information on new technology and how to use its system so you're more effective. You can also turn it around and say, "I'm going to be a great spokesperson for your company." When I get that invoice for the maintenance fee, I say, "Yeah, I'll pay it. I'm getting my money's worth for this because I've had satisfaction." If you're not satisfied with the maintenance that you're getting and the vendor isn't providing you with what you're paying it for, go back and negotiate. You got that bad deal because somebody else, like me, is getting a better deal.

When it comes to vendor relationships, I am a stickler. I have a certain expectation of service and you, as the vendor, must provide that or I am not satisfied. It's not that I will bad-mouth you, but I have a certain level that I expect and, if I've communicated that to you, I expect you to deliver on it. And, in turn, as your client, you have certain expectations of me that, hopefully, I can live up to.

And that type of relationship is the same thing you're going to have with your own IT department. When you work with programmers, you treat them in a certain fashion. The same thing is true with an outside vendor. You have expectations. You have a contract, unlike internally, where you don't, but you can still fit within that contract to get your needs addressed.

When you came in today, you had some preconception in your mind of what this session was going to be about. Did that get addressed? If it didn't get addressed, I want you at the mike.

FROM THE FLOOR: (Due to technical difficulties, the Q&A could not be fully transcribed. Panelist responses have been retained, as they may be relevant on a standalone basis.)

MS. LEE: We've actually had one positive. We had quite a few examples of what you mentioned where, yes, there's a warehouse, and it's totally unusable for your purposes because it wasn't designed for them. For our valuation warehouses and our accounting warehouses, we are finding that we're getting people to say, "We're working on this project to analyze this to produce their economics, to kind of look at what agents are the best agents or cross-selling products to do penetration studies." Like I said, we have both property-casualty and life, and we're finding multiple uses now for these databases that we built to meet our needs. So now we've been turned around.

Before, we were the end user and now we're the supplier to all these other areas. We've had to draw the line at the number of requests that we'll take because we have an obligation to get our books closed by a certain time with our valuation information. We can't be handling all these requests.

The pendulum has gone the other way. We're now a supplier of information. That's been a positive aspect of getting our warehouse up and running, but it took time to get there. If you're in the infancy, wait two to three years. This is one of those things where you can't be impatient. What is the group's experience with that as well? Is it a two- or three-year endeavor you're getting into with these warehouses as far as getting things out? Heads are going up and down, so that's a yes.