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Summary: Panelists discuss the manner in which retirement plans have been used to achieve specific corporate objectives and how these plans satisfied the perceived needs of specific groups. Various case studies are examined and used as models.

Attendees gain insights into the practical application of plan design theory.

Mr. Ira G. Kastrinksy: Bigger entities get broken into smaller ones, and then smaller ones combine back into forming larger companies. There is that kind of a cycle. The acquisition and divestiture activity over the last 15–20 years, which at times has been very intense, has given actuaries the opportunity to help their clients redesign their retirement programs. I have a couple of case studies. They're case studies that I've worked on in the last year. In both situations, either the merger of companies or the divestiture of companies was an opportunity and brought about a need for those companies to look at their retirement programs and to put together new designs to meet new needs.

In the first case study, I'll give you a little bit of background, and then we'll take a look at the current situation and look at the alternative for the qualified plan design. In the first case study, the company was the result of a divestiture. This is a fairly large company. It actually had a foreign parent in the U.S. In North America, it had fairly substantial operations in manufacturing and retail sales. At one time, it covered as many as 15,000–20,000 employees. Their retirement programs reflected the fact that they were a very large organization. They had a final-pay, a defined-benefit plan, and a 401(k) savings plan with a match (50% on the first 6%). It was a very traditional type of program. What was a little unusual, but not surprising was the fact that these programs reflected the size of the company.

The company felt it had to have plans that automatically complied. Given its structure, the kinds of employees it had, and given the kinds of data it was able to maintain, it didn't feel it could be subjected to annual testing. So the company designed its programs so that it automatically complied with the various nondiscrimination rules. For example, the pension formula for the pension plan was 0.9%, 1.55% final five-year average pay, with a maximum of 30 years. This plan meets the safe harbors under Section 401(a)(4), the differential is 0.65% and, frankly, it's a pretty safe type of plan design. The one unusual point is the way the company gets its early retirement commencement reductions. It had separate reductions for the base portion of 0.9% of the formula and the excess piece (0.65%). Generally, you reduce for commencement prior to 65, but this company had a special rule for people who had 75 points or more. The base portion, or the 0.9% portion of the benefit, had unreduced benefits once you had 75 points.

In any event, this retirement plan is a very good design, and it's a very safe design. There are no testing issues about it. On the 401(k) savings plan, the company did something that was somewhat unusual, but once again, it was not surprising. The company excluded all the highly compensated people. The plan covered no highly paid people. What that meant was the company didn't have to test because if you don't have highly compensated people, you automatically meet the nondiscrimination rules. For the highly paid people, it had a makeup arrangement outside the qualified plan; it was not a qualified plan at all. It was very simply a savings opportunity and the company tossed in some money in the form of a match, but none of it had any tax effectiveness. The point was this company needed to be assured that it would be able to pass the compliance rules.

On top of all that, it had a supplemental executive retirement plan (SERP). This is a nonqualified arrangement. It provided the lesser of 2% final average pay times service and 70% final pay minus Social Security. The 70% final pay is really just an attempt to cap the benefit to make sure it's not excessive. This is a very generous retirement arrangement for the executives. It wraps around their qualified benefits. Benefits under the SERP are reduced for commencement prior to age 60. Now this is a little bit different than the qualified plan. The qualified plan reductions as you might recall, provided unreduced benefits for people with 75 points or more and those benefits were available as early as age 55. So the retirement reductions with the retirement incentives in the qualified plan tended to be very much weighted towards the lower-paid people. Frankly, the retirement incentives for higher-paid people in the qualified plan were minimal. The SERP, however, has a fairly generous retirement benefit, but once again, they're pretty much focused at retirement at age 60.

That's a little background on the benefits. Let me give you a background on the current situation. First of all, this company doesn't look anything like it did. It divested most of its retail sales and its manufacturing operations. I told you at the beginning that there were approximately 15,000–20,000 people in the company at one point in time; today they have less than 100. The work force is relatively short-service; perhaps this was always true, but this is a much smaller group and, three quarters of the group have less than five years of service. That's an important point as we'll see later on when we talk about the plan design that we came up with for them.

Their SERP provides a large portion of the benefit for the executives. The SERP is unfunded so the SERP represents essentially a promise to pay in the future with no current funding being done. The SERP is fairly generous as I indicated to you. In addition to the 2% per year formula, there are very generous death benefits in that SERP. As I recall, there's a year certain and a joint-survivor automatic form. The point of all this, as Table 1 shows, is there are very large unfunded benefits for these executives. Table 1 shows four executives of different ages, but we're looking at some people who are very close to retirement or certainly at the point in their careers where they're looking at retirement seriously in terms of planning. As you can see, very substantial portions of their total retirement package are provided by the SERP and, therefore, unfunded.

TABLE 1
RETIREMENT PLAN DESIGN CASE STUDIES
OVERVIEW OF CURRENT SITUATION

Employee	Unfunded Benefits	
	Age 60	Age 65
A (“60/10”)	58%	46%
B (“60/25”)	49	44
C (“55/20”)	53	48
D (“45/5”)	59	58

This is the projected funded status of the retirement benefits for sample executives (Annual Pay= $150,000)

The company came to us and said it was looking to take care of these executive retirement benefits to better fund or secure them. They wanted to reduce the level of those unfunded benefits, which amounted to 40–60% of the total retirement benefit that was unfunded on a projected basis. In addition, they wanted to enhance the ability of their executives to participate in their qualified plans. These were two objectives that were kind of intertwined. The other thing that's a little interesting here, but not unusual, is that the qualified plans are very well funded. There are probably substantial amounts of surplus.

So how did we go about this? Let me outline the approach and give some of the particulars. First, we wanted to upgrade the company's savings plan. It was a large company and they didn't want to have the executives in the 401(k) plan; maybe that made sense. There were under 100 people so it really doesn't make any sense to have unusual arrangements for the executives on the savings plan side. It seemed that if they wanted to continue with automatic compliance, given the changes that were recently legislated in the last couple of years, you could put in a savings plan and include the executives, as long as you made the match. The match was generous enough and met certain other requirements as we'll see. You could include the executives in the rank-and-file plan. There was no need to carve them out any longer.

On the pension plan side, we needed to do a number of different things in order to raise the level of the benefits provided by the qualified plan to the executives. This is kind of a balancing act. One of the things that was kind of unusual when we first got to this assignment was the client said something which I don't often hear. They said, "We want to hear what your ideas are; don't worry about the costs. We'll deal with the costs, so just give us some ideas here." That was music to our ears. As I said, we don't often hear that. The way we approached it on the pension plan side was we decided we had to change the focus of the early retirement incentives. We had to aim the retirement incentives more towards age 60, which was more the focus of the SERP. We wanted to eliminate the bias of the early retirement incentives towards the lower pay people because, frankly, our approach was going to be very different. We pretty much abandoned the safe harbor approach. In order to accomplish what they wanted, which was to provide more benefits for higher-paid people, we felt we had to have a design that was more aggressive than would be permitted within a safe harbor. We still were concerned about being able to comply, so we realized that we were going to have to use a general test. In order to give ourselves the assurance that we'd be able to get through the general test successfully, we decided we'd have to put in a minimum benefit so that's what we did.

Regarding the savings plan, we extended coverage to all the highly compensated people. We gave them a match, which actually is a little bit more generous than the statutory minimum, but it does certainly comply. We gave them a 100% match on the first 3% and 50% on the next 3%. This is a company that's already matching 50% on 6%. We said to them, "Why don't you just raise the match to 100% on the first 3%, and leave it at 50% on the next 3%." Then the employees will think they are still getting a match on 6%, and this will certainly comply with the statutory minimum. If they wanted to save money at some point in the design phase, they could cut it back to the statutory minimum level, which is 100% on 3%, 50% on the next 2%.

In order to get through the 401(k) testing safe harbor, you have to fully vest the match. The match is not withdrawable during employment. In this circumstance, I don't believe it was withdrawable so that wasn't a big issue. It is a small price to pay. You allow yourself to avoid the annual testing on the 401(k) and 401(m). So that was the savings plan change we suggested. On the pension plan side, we came up with a design that does not, on the face of it, comply with any of the safe harbors. We had 1.4% on covered compensation, 2.4% on excess pay above the covered compensation level, and a maximum service of 25 years. This made for nice, juicy benefits for higher paid people. We included a formula, a 2% final average pay with a maximum of 5 years which we felt would enable us to get through the compliance testing. Since most of the people currently have less than five years of service and are relatively young, we felt that we could assure ourselves that, at least in the foreseeable future, we'd be able to meet the general test on the Section 401(a)(4) with this formula. Benefits were reduced for commencement prior to the earlier of age 60 with 10 years of service and age 65. Once again, you might recall the SERP had its unreduced benefits available as early as age 60.

For vesting, we decided to use the fractional rule. The main purpose here was to kind of minimize benefits for people that were going to be leaving prior to retirement. Although they said they weren't concerned about cost constraints, we all know that ultimately they are. In any event, that was essentially our plan design.

Table 2 shows that this generated fairly substantial increases in qualified plan benefits. For those same people that you saw before in Table 1, the ratios of unfunded benefits that were 40–60% under this particular alternative have been substantially slashed. We're now in the range of 10–25% for unfunded benefits. This new formula provides substantially better funded benefits for the executives. In terms of the actual cash outlay for the company, one of the things I also mentioned was that their qualified plan is overfunded and will probably be overfunded for a number of years. They have a substantial amount of surplus cash within the plan so implementing this new formula probably will not require them to have any additional outlay.

In terms of the accounting aspects, it will raise their annual pension expense. However, you have to remember that the pension expense that currently is reported on their financial statements is really the sum of the expense that they have for their qualified plan as well as the expense for their SERP. All we've done by changing the qualified plan formula is created benefit improvements for the people that are in the SERP. However, for people that are in the SERP, there is no change in the costs of the plans when you look at them combined.

TABLE 2
RETIREMENT PLAN DESIGN CASE STUDIES
QUALIFIED RETIREMENT PLAN ALTERNATIVE
PROJECTED FUNDED STATUS OF
RETIREMENT BENEFITS

Employee	Curr. Plan	Alt.
	Unfunded Benefits—Age 60	
A "60/10"	58%	11%
B "60/25"	49	11
C "55/20"	53	17
D "45/5"	59	24
	Unfunded Benefits—Age 65	
A "60/10"	46%	13%
B "60/25"	44	26
C "55/20"	48	30
D "45/5"	58	28

Having said all of that, the actual increase in cost was about 2% of pay over the plan as a whole. Obviously, there's a certain amount of selling to the parent that has to take place. However, for a lot of reasons, this is probably something that, if it's not adopted in its entirety, is something that the company probably will adopt in some measure or in some form.

The second case study was not a divestiture; it was a merger. There were two companies in the same business, and one acquired the other. It was interesting because in some respects, their plans were very much the same. In one very important respect, they were extremely different. First of all, they both had final average pay plans. They both had 401(k) savings plans with matches. These are typical corporate type plans. The one thing that was very, very different about these companies was the amount of their benefits. Company B had benefits that were consistently about 70% of Company A's. Company B had a nice savings plan; there was a 50% match on the first 6%. Company A's benefit was much better, and much more generous. It was 100% on the first 3% plus 50% on the next 3%. The total match might be as much as 4.5% of pay for Company A, whereas the maximum match was 3% for Company B. It was about 70%.

What do you do? They had some very unique problems. They wanted to reduce costs; that was a given. When Company B decided to buy Company A, its business plans indicated that it needed to make cost savings of several million dollars over a period of five years. The benefits were identified as one area in which it would have to make cost reductions. In addition to making cost reductions, it decided it wanted to have a single plan going forward; it wanted to have a unified approach to its benefits. It was also hoping that when all was said and done, it would have

plans that looked better than what it had in the past. There were benefits out there or improvements that it could make at relatively little or no cost. They were willing to look at it if it improved the look of their programs.

I'm going to look at two approaches. Frankly, approach one was not what it ultimately adopted. It adopted approach number two, but approach number one was kind of a straightforward way of looking at these things. When a client is looking to acquire and you're trying to figure out ways to save money, approach one is a very straightforward, maybe in a heartless way, but it is certainly a straightforward way of producing benefit reductions and cost reductions. Approach one was very simple; you take Company A and you knock it down to Company B. You give Company A the same savings plan match, the lesser match, and you take their two pension plans, merge them, and give Company A employees the same formula as the Company B employees. Now you may have to grandfather the Company A plan benefit that was earned at the time of the merger but the bottom line is, it will get benefits that are much less generous. It will get the Company B benefits in the future. That is the straightforward approach, and it saves a ton of money.

Approach number two was a little different. We tried to be a little creative. In fact, there's one aspect to this that I thought was a little unusual. It was a different approach that we came up with for a cash-balance plan or at least in terms of the transition. The basic approach was to change the form of the pension plan. If I have a 1% final average pay plan, and I reduce that from 1% to 0.8%, everybody knows, you don't have to be an actuary to figure out that you just had a benefit cutback; that's kind of obvious. If you give them something different, it isn't as obvious. What's more, the cash-balance plan for those of you that have spent any time with it, delivers benefits in a different way. The way that benefits are earned is markedly different under a cash-balance plan than under a traditional final average pay plan. In this circumstance, using a cash-balance plan was an opportunity. For some employees, what you're taking away may not be very worthwhile to them at this point in their career. They may be more receptive to having a cash-balance plan. It might actually be better for them. Frankly, it depends on when they're going to leave. So the point was that we try to give them something different to obviously try to get away from the fact that we were going to have to cut back their benefits. We give them something that perhaps they might view to be more valuable than what they currently had. Let me go through some of the details.

On the savings plan side, we approved the match. Instead of cutting everybody back to the least common denominator, we tried to strike a happy medium. We took Company B and we raised it up, and we took Company A and we cut it back

to the new Company B level, which was a little bit higher than the old plan. On the pension plan side, we took their two plans and we tossed them in the garbage. We gave them something different—a cash balance. It was going to have a cash-balance formula, which works very differently than a final average pay plan. We were going to have a plan that provided a nominal account balance, where there were credits made to the account every year based on age, service, and a percentage of their pay. In order to get past concerns about people who were retirement eligible or who might be planning to retire in the not-too-distant future, we would have put in a five-year grandfather of the old plan benefit.

We put in the savings plan 100% on the first 2%, 50% on the next 3% which comes to a total of 3.5%, which is more than the 3% pay match in the current Company B plan, but less than the Company A formula. Like I said, we're going to improve vesting a little bit to kind of make it look a little better, and maybe make people think that we weren't just cutting things back. Vesting is something that you can improve at a relatively low cost, and it does make it look better. The cash-balance pay credits were ranging from 2.5% for people who were young with less service to 10.5% of pay for people who were older with lots of service. We integrated with Social Security. We gave a higher credit on pay over the Social Security wage limit; it was actually 150% of the rate below the limit.

The interest credits under the cash-balance plan were based on 30-year U.S. Treasuries. We wanted to be sure that we'd be able to pay out the account balance at retirement and meet the 417(e) rules. If you credit 30-year Treasuries, you will be able to do that. We had a 5% minimum interest credit. When you design your formula, one of the things you have to be concerned about is meeting the benefit accrual rules under Section 411. For a cash-balance plan, the interest credits will be the key determinant in whether or not you meet 411, especially if you have a plan that has low credits early in a career and those credits grow over time. To make a long story short, you have to almost put in some sort of minimum interest credit in order to be able to demonstrate that you meet the accrual rules.

The one thing that was very unusual about this plan was the transition. If you look at a compendium of cash-balance plans around this country over the last 15 years, you'd see that most of them have opening balances for the participants. When people start out in a cash-balance plan, they have past service, so some people feel that you have to give them an opening balance. How are those opening balances determined? You'll see that the actuary computes an accrued benefit under the old plan, and the actuary takes that accrued benefit and determines a present value. That's your opening balance.

What does that mean? It generates a lot of problems, and it also generates a lot of fees for actuaries. In addition to the fees, it creates a lot of problems. First, you have a traditional plan where the benefits are very much attuned to the age of the individual. We know that the benefit values are age dependent. That's what you're getting away from by going to cash balance. By computing an opening balance, you're, in some respect, preserving an aspect of the old plan. People don't know what the old plan is worth. We talk about surveys that show that young people don't put much value on their traditional retirement plans. If you put in a cash-balance plan and you determine the opening balance, you will now have confirmed the employees fears. You will be telling them what their old plan was worth. Frankly, in some respects, they won't be surprised because maybe they didn't put much value on it to start with. In some respects, they will be surprised because it's usually lower than they thought.

I remember a cash-balance plan I put in about 12 years ago. We were doing the opening balances, and when I called my client contact, he wasn't at his desk. However, his secretary picked up the phone and she said to me, "As long as I have you on the phone, I want to talk to you. I got my statement, and this can't be right." I said, "I know that we did all the formulas correctly and double-checked and triple-checked everything. What do you think isn't right?" She said, "Ira, I've worked here for 10 years. I'm 32 years old; I'm making $30,000, and my opening balance is $800. That can't be right. That's $80 a year, and that's ridiculous." When you give out an opening balance statement under a cash-balance conversion, there is a sticker shock associated with it.

When I did this particular project, this client said he didn't want to deal with the sticker shock. It is a real negative. I said, "That's kind of where the old plan was and that's why we're changing it." He said, "Yeah, I can say that, but it kind of lends a distaste to the whole process. Even if we feel that we're going to a better plan, it kind of mars the whole thing." So I said to him, "Let me see if I can come up with a different approach." In addition to that aspect, there are other aspects to the opening balance that just don't make a lot of sense. You determine a present value at one point in time, and once you determine that present value, that balance is in the person's record forever and is the basis for all the future interest accumulations on that old money. That is wrong. Interest rates will not be the same when a person retires as they are today. So, in some sense, our assessment of what the old benefits are worth won't be right. That's the problem with doing an opening balance. Obviously, it's something you have to do; at least that's what some people feel you have to do. However, it generates a sticker shock. You have to make this guess and you might guess too high because interest rates are very low today and they might be higher when the person retires. Maybe interest rates will

be higher today than they will be when the person retires. But the point is, that spot calculation of an opening balance based on current interest is a potential design flaw under a cash-balance plan.

We decided to do nothing. We said, "Why play this game? It doesn't make any sense. There's a sticker shock, and we're going to guess wrong on the interest rates." We decided not to do it. We're grandfathering the old plan anyway. The old plan was going to continue for five years so why give them an opening balance? Why not just give them additional pay credits for the next five years? Our strategy was to phase out the old plan over five years and then phase in the new plan. Let's have them focus on the money going into their account rather than on our attempts to assess what the old balances are. Was there a different approach? Even though this has not been implemented, I think it's a better approach. I think it certainly is not perfect. Obviously you have to come up with the right kind of supplementary credits in order to accomplish this five-year phase-in. I think that this approach is a much better one for cash balance conversions because I think it gets past some of the problems that are associated with the opening balance. If any of you have ever done opening balance calculations, you know that it sounds simple, but it's not.

In addition to the matter of computing the opening balance, you have to compute the accrued benefit. All the old skeletons come out of the closet on that old plan, and you have to deal with them right away. If you come up with a supplementary credit scheme, you can put the plan up right away and you don't have to worry about an opening balance. Just be able to compute the future credits. You can move forward instead of being mired in trying to accumulate past information. In any event, that's my sales pitch.

That's essentially the two case studies. The real scoop is that the cash-balance plan never flew despite our best efforts. From a political standpoint, the client was not able to put this thing through. Ultimately, they wound up with a final-average pay plan, but it was not as good as the old plan for Company A. It was a little bit better than Company B. There are issues involved with that. It was not simple, but I thought the cash-balance story was much more interesting so I left it in.

Mr. Benjamin Goodman: I have a question on your idea of changing the 401(k) with Company A. Company A had a 100% match on the first 3% plus a 50% match on the next 3%. The maximum match was therefore 4.5%. Company B had a maximum match of 3% on 6% of pay. You turned it into a maximum match of 3.5% on 5% of pay.

Mr. Kastrinsky: Right.

Mr. Goodman: One of the big issues we always look at is the idea that you want people to retire with some money. It's not good PR for a company to have their former employees living on a minimal income.

Mr. Kastrinsky: We agree with that.

Mr. Goodman: Right. In any case, overall it turns out that everyone's going to lose now because the total 401(k) contributions for Company B are 8.5% and for Company A they are 10%, so everyone's going to get less from their 401(k) plan.

Mr. Kastrinsky: They allowed you to contribute more beyond these levels, but they weren't matched. You could put in more.

Mr. Goodman: I understand that, but you send a message.

Mr. Kastrinsky: I think the message that we had here was a little bit different than what you're suggesting, although maybe your glass is half empty, and mine is half full. When we were cutting back benefits, it was like we were trying to take a sow's ear and make it into a silk purse. In the past, you had to contribute 6% to get all the company money. Going forward, you don't have to do that. You'll only have to contribute as much as 5% to get all of the company money, but you could put in more. So one positive aspect might be that in the future, the company requires less money in order to get the full matching. You're putting in less money but there are cost issues here as I outlined. You're right; there are probably lower benefits; however, I don't think any of the people are going to be homeless if they have full careers at these companies.

Mr. Patrick Welsh: I wanted to talk about the first case. It looked like all of the weight of the design was aimed at solving one problem, which was turning unfunded benefits into funded qualified benefits. I guess a lot of the opportunity to do that was caused by the dramatic shift in the way this company was structured. Is that what the company expects it will look like in the long term? Will it be a relatively small, 100-employee company, or is it going to turn into something different that will send you back to the drawing board?

Mr. Kastrinsky: In terms of their planning, some executives have this focus. Their focus is relatively short term because, from their perspective, this is a relatively short-term problem. They don't know where the company is going down the road, but they need to have some assurance that they will have funded benefits.

From the Floor: What are those people doing now? I mean what does the remnant do?

Mr. Kastrinsky: For the last two or three years, they have been selling off the other pieces. They've also been managing some of the aspects of that sell-off. I don't want to get into a lot of details but, there were certain lawsuits that they were part of as a result of their retail and their manufacturing operations. They are continuing to manage those lawsuits: it's funny because they've essentially developed certain expertise with respect to that aspect of the operation. They retain certain liabilities related to that, and they're continuing to manage it. As those lawsuits progress, maybe they're eventually winding down. They also have money to spend and are looking for opportunities. If they become bigger down the road, they might change their designs; hopefully they will.

Mr. Welsh: Where are you after five years with regard to the second case study that you start with a zero balance?

Mr. Kastrinsky: I tried to design a scheme of supplemental credits over the five years that would generate balances equivalent to what the person would have had if he or she had always been in the cash-balance plan. Let's say the guy is 40 years old with 10 years of service. He starts out with zero. Five years down the road, he's age 45 with 15 years of service. My goal was to get him a balance at 45 and 15 equivalent to what he would have had if he had been in cash-balance plans from day one when he was hired or when he first entered the pension plan.

Mr. Welsh: Was this based on some assumptions? You didn't go back and look at all the data history and all that.

Mr. Kastrinsky: I wouldn't do that because it's probably not feasible or cost-effective.

Mr. William Torrie: If we're going to do a January 1, 1999 cash-balance conversion, my recommendation was we actually convert the old accrued benefit to a lump sum as of January 1, 1999. The first statement that you give the participant is the January 1, 1999 statement that shows something like the $800 balance, which Ira mentioned, plus for a 5% plan, a $1,500 accrual for the year plus the interest on the $800. The first time the participant sees his paper, he sees $800, but the eye immediately goes to what they earned during the last year and how much they've got. My expectation is that the thrill of seeing this big growth in one year overshadows what the old plan was. Boy, am I glad we got rid of the plan last year, I've already been in this plan a year now.

Some cash-balance conversions had been done by calculating old pays, either using actual pays or imputing and calculating what they would have been on some sort of assumption, and then accumulating the cash balance up to that point in time. Some people have chosen that. That's obviously much more complicated. Some employees understand that their account should be fairly large if they're near retirement (over 40 or so), and they accept the fact that they're smaller. So I think it's a judgment call, probably based on who the client is and how educated the employees are.

Mr. Thomas Naffe Rice: On this five-year grandfather of the prior defined benefit, how would that work with the cash balance for employees near retirement? The cash balance can't be as valuable to them if it starts out at a zero benefit, right?

Mr. Kastrinsky: You will compare the old formula to the cash balance. Practically speaking, the old plan is going to be better for people near retirement. In my case, I had a five-year phase in on the credits anyway. In most circumstances, because of things like early retirement subsidies, the old plan is going to be better for people near retirement. We're telling the people not to worry for the next five years. If you're going to retire two or three years from now, we will give you what you would have gotten anyway as a minimum. If a cash balance is higher, you'll get that, but practically speaking, it probably won't be higher. After five years, the benefit is frozen in this particular example. So if the guy leaves at year six, we'll look at the benefit he earned at the end of the five years, and he'll get that amount. Between years five and six, the old formula doesn't grow. You take that old plan formula, you determine its value at the point in time when the person is leaving, and you compare it to the cash balance account. Whichever is larger is what the person gets.

Mr. Rice: How do you determine that value?

Mr. Kastrinsky: I guess there are a number of ways you can do it. For people close to retirement, you'll be doing a grandfather. You would probably determine it under the rules of the old plan. If the old plan had a lump-sum option, you'd apply the lump sum factors to the benefit at retirement and you'd compare it to the cash-balance account, which makes it simple. But the people prior to retirement who do not have a lump-sum option need to exercise more judgment in terms of choosing the appropriate factors for converting. There are some choices.

Mr. Torrie: The reason I questioned Ira on that is because, in one particular plan where we did a conversion and provided that same kind of grandfather, we worded it in a way that would not overpay the participant in the sense that the original plan

didn't have a lump-sum option. To guarantee his grandfathering, and then convert that grandfather benefit to a lump sum based on the PBGC's factors would have provided much more than he would have otherwise expected. So what we included in the plan was an option to convert your cash balance account into a life annuity. To encourage people to take annuities, we used factors that were subsidized. *Subsidize* in this case means slightly higher interest rates when you're converting a lump sum into an annuity. We protected the old benefit by saying that if you have $100,000, and that converts to $10,000 under the plan's factors, but you should have gotten $12,000 under the grandfather formula, we'll increase the $100,000 under these new annuity factors. As such you will get what you would have received under the old plan. That way we're protecting the old annuity, but not paying a lump sum that is larger than originally intended.

From the Floor: I'm curious about doing additional credits for the first five years. How could you be sure that you wouldn't get into discrimination problems given that you probably received higher paid, longer service people that you're going to be trying to build up credits for? Also, new hires are relatively low paid employees.

Mr. Kastrinsky: Ultimately it's all subject to the annual testing. When you determine the benefits, you are spreading the benefits over the entire period of the person's service under the accrued benefit method. I don't really see where you have a worse problem than if you had an opening balance. You're essentially taking the benefits that are earned today and spreading them over service or in the cash-balance context; you would take the balance and project it to retirement and then convert it to an annuity. You, once again, divide by service. I guess you have to do an annual test or maybe you have to do it less frequently under a three-year testing scenario. My experience has shown that these cash-balance plans typically have relatively few compliance problems because of the way the benefits are earned. If you look at the benefit accrual curves, benefit accruals are typically higher in the early years than they are for the traditional plans. So in my experience, there's relatively little compliance concerns with the cash balance, but you do have to test the bottom line. I'm not expecting anything unusual.

Mr. Torrie: In almost every case I've seen, for those five years, that cash balance is less than that protected grandfather benefit.

Mr. Kastrinsky: It depends on where you are, and it depends on how old you are. It's possible to have situations where the current benefits are relatively smaller in value, but for testing purposes, it's no worse than any other type of cash-balance plan with an opening balance.

Mr. Torrie: I would like to discuss two plan redesigns that we did, and the cash balance could be involved with both. As Ira said, converting to a cash-balance plan does have an advantage. It masks a lot of the changes, and it allows you a lot more flexibility than you might have thought you would have.

One situation I'll describe is where there was a large corporation with about 10,000 employees. They had a 4% floor contribution in their savings plan and then a 50% match. Over a period of two or three years, they made six acquisitions, and each acquisition had its own defined-benefit plan and its own savings plan. They had quite a mess of plans at this point, and then they started moving employees around from location to location. We had employees next to one another with different benefits. When combined, the six defined-benefit plans were overfunded. Our solution was to take these six defined-benefit plans and convert them to a cash-balance plan using their accrued benefits and converting them to lump sums in a fairly standard way. The future pay credits are going to be 4% of pay just like the defined-contribution plan. So now you might have some employees getting 4% for a contribution in savings plan, and others getting this 4% pay credit in the cash-balance plan. So at least they looked pretty much the same.

Early on in the cash balance history, the impression was that you had to declare the interest rate to be credited during the beginning of the year for this to be a defined-benefit plan. We couldn't, at that point, feel comfortable in tying the interest credit on these cash-balance accounts to some outside index. Therefore, we just continued our old habit of using one year T-bills. Now there are plans where you have the interest credit in the cash-balance plan tied to whatever's earned on the guaranteed insurance contract fund or some other fund used by the defined-benefit plan.

By the way, as a result of those changes, that plan was overfunded to begin with, and it continues to be overfunded. I think they have about five or six years worth of service costs of overfunding in the plan. Now because of NationsBank, I've already had one call from a client who said, “Gee whiz, why are we dealing with all these plans? Why don't we convert them all to one cash-balance plan?” We'll see what happens with that.

Another situation occurred about the time of the Tax Reform Act. A client had a fairly inexpensive final average pay plan for its 1,500 salaried employees and a very inexpensive defined-benefit plan for its 8,000 hourly employees. The really happy benefit was the profit-sharing plan, which only salaried employees participated in. They would receive annual credits and contributions to their profit-sharing accounts that were as low as 9% of pay and as high as 15% of pay. So the salaried

employees had this great profit-sharing plan, and hourly employees did not. All the hourly employees had was this fairly inexpensive, low benefit, defined-benefit plan, and there was no savings plan around at all.

This profit-sharing plan would have caused us to fail any of the nondiscrimination tests because we had all these nonunion, hourly employees getting nothing. We put together a program that was approved by the company's board of directors that essentially eliminated the profit-sharing plan. Actually they said, "We'll guarantee 2% pay credits and maybe 3% in some years." It was expanded to include the hourly employees. That helped a lot of the nondiscrimination. The problem was what are you going to do with these employees who have been getting 15% of pay contributions to the profit-sharing plan? In both defined-benefit plans, the company's philosophy was to treat hourly employees a little bit more equitably or a little bit more like salaried employees. We created a single, cash-balance plan that, in effect, replaced the two defined-benefit plans. For about the same cost, it gave some of the older employees fairly large pay credits (as high as 10% or 12% of pay) in their cash-balance plans. The younger employees with shorter service were getting 2% and 3% of pay, but the older employees who had had this experience over the last 10 or 15 years are getting fairly high pay contributions to their profit-sharing plan. It didn't provide as much, but it gave something pretty close.

There was one other plan introduced at that point. The company believed that it had to have a savings plan to be competitive. That was put in with just a 50% match on the first 3%, and that was just for salaried employees. The reason for these two examples is that it kind of highlights one of the original thoughts with cash-balance plans. It allows you to convert other plans to a plan that is, in general, more easily understood by employees and more frequently communicated to employees. Most employees didn't appreciate the two defined-benefit plans that they had. It allows you to put in a plan in a way that allows a conversion. An employee might think, "I was getting 1.24% of pay, and now I'm getting 1% of pay." There's very little comparison that can be done between the two plans. Does that trigger any thoughts in your mind?

Mr. Kastrinsky: I guess I don't know what the experience of the people in the audience is, but over time, I guess there have been a lot of changes in the landscape, and cash-balance plans have come in over the last 10–15 years. There are other types of hybrid defined-benefit plans. Pension equity is another one. One of the things that has happened over time as companies have changed is there has been divestiture and acquisition activity. As they've looked at the retirement programs that generate cost savings, the traditional plans are starting to disappear. Some companies years ago were trying to just eliminate them and put in defined-contribution plans. One of the interesting aspects of the last 10 or 15 years has

been the development of certain new types of retirement plans like cash balance, pension equity, and more account balance approaches to defined-benefit plans.

I think, in some respects, cash balance and the other types of hybrid plans have really been an attempt of actuaries to save the defined-benefit plan. It was starting to look like it was going to become a dinosaur over time. It doesn't mean that there aren't companies that have them. Certainly there are. Every time we do a study that looks at the retirement plan and whether the defined benefit is still appropriate, I guess I always feel uncomfortable having grown up as a retirement actuary so I can look at the traditional plans. They just don't make a lot of sense in the corporate environments we live in. For companies that just want to have very low costs and that have a very small and young work force with high turnover. They'll want traditional plans because they don't cost a lot, but they don't provide much benefit. When a company is looking for fairer, more contemporary benefits, the traditional plans don't seem to make a lot of sense. I think that the cash balance and other alternatives are the ones that are kind of trying to buck the trend and preserve the defined-benefit because I think defined-benefit plans make a lot of sense.

From the Floor: I have a question about the traditional plans not making sense. My question is not about pension plans but it fits your broader definition for retirement plans. The question is about retiree medical plans and some of the same reasons that make the traditional pension plans obsolete, they are applied to retiring medical plans just as well. Do either of you or anybody from the audience want to comment on what types of designs they're seeing replace the traditional retiree medical plans? That would be of interest to me.

Mr. Kastrinsky: You threw down the gauntlet, and nobody seems to want to pick it up. What we've seen in the retirement or pension benefit area is that you're describing situations that are now being carried over in the health care area. The attempt to establish these accounts is more cost-driven than benefit driven. You can make an argument that for a cash-balance plan, you're delivering benefits. You're designing the way benefits are earned; that's more rational, but an account in a medical plan is just a way to try to contain costs or at least limit employer commitments.

From the Floor: The way the *FAS No. 106* expense is, you can lower the cost, but still provide a benefit to a broader group of people because of the way the commitment is defined under the health cash account plan. So it fits better with work forces that are more mobile. In the traditional plan, you're not going to get any benefit at all unless you stay there. It's worse than a defined-benefit pension plan because there are no vesting rules unless you stay there until you're fully

retirement eligible, so it does address some of those issues. As in defined-dollar retiree medical benefits, you can lower the *FAS No. 106* expense.

Mr. Torrie: There has been kind of a bright spot on the retiree medical, at least all the plans that I deal with. Benefits are now at least tied to service somehow. There was a point when you could start working at age 45, retire at 55, and get the same benefits as somebody who was there 40 years and retired at 65. So I think that introduces some sort of equity in terms of how your benefits are somehow tied to service.

From the Floor: I've attended all of the sessions that are part of this continuing seminar, and one of the themes has been the fact that it's easier to communicate and easier for employees to understand the defined contribution kind of plan, which is why the cash-balance plan has developed. One of the questions that occurs to me though is do people really know what it is that they're going to have to retire on? I mean what understanding do employees have about the kinds of incomes they can expect when they retire? In the statements that I have seen, there's very little emphasis, if any, on what a balance represents in terms of a future annuity. When you discussed the second case, you brought up the transition problems and you didn't want to bring up the low present value of a young person's defined benefit. That's certainly an issue. What was surprising to the young person was the fact that the annuity that represented a reasonable payment for the 10 years of service had such a low cash value. This simply reflects a lack of understanding of actuarial science. Since she's not an actuary, she shouldn't necessarily understand the actuarial perspective. It does seem to me that there are a lot of people out there who are looking at their balance statements and thinking they have a nice nest egg. They are not really integrating it into a picture of what kind of incomes they can expect in the future.

What's driving this is cost. It's the new employee environment, an employment environment that companies are looking to. There are certain kinds of people they want to retain and there is a need for less paternalism. Nonetheless, it seems to me that there is going to be a crunch that is not very far down the road with the baby-boom generation heading toward retirement. It seems to me that there is a lack of understanding of what's involved in that.

Mr. Torrie: How much do people need to retire on? The Society is sponsoring a conference in December 1998 called "Retirement Needs Conference." I happen to be on the organizing committee. What we did at one of our first meetings was create a matrix because retirement needs are changing, and not just because of financial needs. We now have parents or family members who are 65 that might need to be supported. They might have children coming back into the house.

There are all kinds of situations that can arise, and the hope is that this conference and the 16 papers that are going to be submitted will address some of the issues.

I think one of the things about cash-balance plans and age 65 is retirement. The common knowledge was put in by Bismarck at the turn of the century or shortly thereafter. Arnold Shapiro tells me it was really age 70. At age 70, you no longer could go down and work in the coal mine or work with the blacksmith or maybe even deliver *The Post* any more. One hundred years ago, age 70 was old. Age 65 has been the age for a long time. Social Security has begun to admit that the retirement age should be increased. Nobody wants to touch Medicare. People are starting to recognize the need for balance between income and the cost of medical care. Retirement is going to have two phases. In one phase, you will be reasonably active, maybe working part-time or doing some kind of activity. Then you'll pass into another phase in which you will be less active. I see these accounts as giving you a better fix. After you put your three kids through college, you can't retire at 65. These account plans help you because now you can accrue additional benefits. Remember what used to happen with the old defined-benefit plans? You didn't even get additional accruals or actuarial increases. It was frozen at the time.

Ms. Anna M. Rappaport: I'd like to say a little more about the retirement needs framework that's in order. I'm very excited about the project. Our focus is to look at the period after retirement, and to look at some of the events that are both anticipated and not anticipated: there is the decline in health status, the loss of a spouse, the change in the economic value, and changing housing needs. Try to understand what the events are, where we might find data, how we might model them, and how we might use this to really think about retirement planning. I think most of the focus in the models to date have been how do we get to assets that will let us replace preretirement income without thinking about what happens after retirement and what that means. I think we have some very interesting papers, an interesting group of people, and there will be good discussion. For those of you who can't come, I really encourage you to get a copy of the papers. I think it's going to be an exciting thing.

Depending on what we come up with, we might publish some more economic statistics for actuaries. We might publish some more guidance or do some more research. We really view this as a first part of a process to help us get a much better handle on the postretirement period.

I'd also like to point out some statistics. A disturbing statistic is that a significant portion of the elderly population are women living alone. Their economic status is considerably less than that of couples. There is a decline in economic status at the

time of widowhood. Some actuaries are in the life insurance business, some are in the pension business, and some are in the health business, but we provide products for people's economic security. We are not doing a very good job for a bunch of people. Maybe these people aren't doing a good job for themselves. What can we do to help people do a better job for themselves? How can we help to cut down the number of people in the poor and near poor category? I think that people often don't make very good decisions about the use of their retirement assets which is why the economic status drops at widowhood. We need better tools to help them do that; I'm very concerned about that.

I'm also concerned about another issue. Look at the Social Security piece of this, by examining an example of a family that earns $34,000 a year. Take the family with a single earner. If the husband dies, the surviving spouse gets almost $1,100 a month as a survivor benefit. On the other hand, take a dual-income family with a 50/50 split in income. That surviving wife gets $400 less a month, or about $675. She is a person who will be struggling. I think our Social Security system needs to be fixed. When debating Social Security, we all need to be aware of that. My concern is that I think they're going to fix Social Security or do something to change it without even thinking about some of these issues.