

RECORD, Volume 25, No. 2*

Seattle Spring Meeting
June 16–18, 1999

Session 21PD Retirement Plans for Today's Work Force

Track: Pension
Key Words: Employee Benefit Plans, Hybrid Benefit Plans, Pension Plans
Moderator: KAREN STEFFEN
Panelists: ALEXANDER CHERNOFF[†]
DAVID A. CONDER
Recorder: KAREN STEFFEN

Summary: Panelists discuss considerations in the design of retirement programs in the United States and Canada. Topics include:

- *Retirement needs for today's work force*
- *The common types of defined-benefit and defined-contribution plan designs and their effect on employees*
- *Factors that are leading many employers to consider modifying plan designs*

Ms. Karen Steffen: This is a pension topic. To benefit those who are not in the pension specialty, I am going to review some basic issues and principles. Then the other panelists will talk about subjects designed to address the majority of the audience—more experienced pension practitioners. We encourage questions.

First of all, I am with Milliman & Robertson in Seattle. My practice is public plans. I am going to talk on public plans and run through the basics. Then I'll turn it over to Mr. David A. Conder and Mr. Alexander Chernoff. Mr. Conder is with Davis Conder Enderle & Sloan. His firm is located in Chicago and his practice is the larger private corporations. Mr. Chernoff's firm specializes at the other end of the spectrum, in small corporate plans. So, between the three of us, we have a rather diverse background on plan design issues. We hope you will get a different perspective from the three of us.

Why are we talking about plan design? I think it is because the defined-benefit (DB) plans have lost their focus. DB plans promise a benefit. If you retire at age 65, the company will give you a monthly benefit for the rest of your life. That is the promise, versus that of the defined-contribution (DC) plans. Particularly here in the Northwest, we have had a lot of the newer companies establish only DC plans, usually with a 401(k) feature.

*Copyright © 2000, Society of Actuaries

[†]Mr. Chernoff, not a member of the sponsoring organizations, is Managing Member of Chernoff, Diamond & Co., LLO in Albertson, NY.

What are some of the issues driving changes in plan design? Over the years, we have had quite a lot of controversy about the DB plans and why should we have them. Why should we continue them? DB plans seem to be old-fashioned and I think that is what is driving a lot of the controversy.

Again, in the interest of time, I am not going to dwell on the issue of defined benefit versus defined contribution. I don't know if the private sector has had this much discussion because the changes were more subtle, but in the public sector there's been quite a controversy that was antagonistic in the beginning. Opinions were either 100% support for a DB plan or 100% support for a DC plan and there was not much support for anything in the middle. I think the corporate area has stayed more in the middle. We are now seeing a coming together of minds in the public sector.

From the employer's point of view and the employees' point of view, each type of plan has its advantages and disadvantages. The DC plan obviously has the advantage of being easy to understand. Employees understand when you tell them that they have an account worth \$100,000. If you tell them that they are promised a benefit of \$500 a month at age 65 for as long as they live, they have difficulty comprehending how that relates to their own financial security. They could relate it to what it takes to live on. The biggest argument against the DB plan is that people do not understand or appreciate the dollar values behind this kind of benefit.

I am going to jump to "alternative" plans. Alternative plans try to take the wins from the DB plans and the wins from the DC plans and put them together in a win-win or, at least, a draw situation. You cannot always do that. You may still end up with some negative aspects of either plan, but that is what we are seeing in plan design issues today. We are moving away from the 100% DB plan and the 100% DC plan and attempting to design plans that offer features of both—in other words, a type of compromise.

At the same time, the IRS has to define a plan as either DB or DC for funding and qualification purposes. So, we end up with plans that are either a DB plan that has incorporated some DC features or a DC plan that has added some DB features. I have not seen many instances of the latter.

This is a brief outline of what I have seen described as alternative plans. First, you can have a floor plan where you have a DB plan with a DC floor offset. There are actually several of these in the public sector. Oregon has recently had an interesting experience with this type of floor plan because its money-purchase DC floor plan was tied to letting the employee contributions be invested in equities. We all know what has happened to equities, so now the money-purchase formula, or feature, of that plan is driving the level of benefits, which far exceeds the DB formula under the regular retirement plan formula. That has produced some interesting results.

The next alternative plan is the cash-balance plan. Recently, we have been reading a lot about cash-balance plans in *The Wall Street Journal*.

And the pension-equity plan is one I will touch on briefly. I would be interested if anybody in the audience has actually implemented or used these. I personally think they have some good features.

The previous three plans are most often considered DB plans with DC features. The final alternative plan—an age-weighted profit-sharing plan came out about three or four years ago. This is a DC plan that attempts to mimic the benefit accruals you get in a DB plan, but I haven't seen or heard of that plan being used very much. A few people in the audience have used them. In the age-weighted profit sharing plan, the accruals are based on age or age and service, so you do not receive just the flat percentage of pay. You can weight the accruals according to the participant group. It is a DC plan, so benefits are paid as lump sums.

The cash-balance plan is a DB plan that looks like a DC plan to the participants. The way it works is that each individual has an account and the account is credited with interest. The interest is usually fixed and specified or tied to some rate, so there is not much flexibility as to how the rate is computed and how it is tied to the account. But the rate does not necessarily have anything to do with the investments in the fund that are the assets that back the benefit promise. Therefore, it is a DB plan. The benefit promise is the account balance has a fixed rate of both the contribution and interest credited to the account. Upon termination or retirement, you usually can get the account balance as a lump sum or it has to be able to be converted to an annuity because it is a DB plan. I do not work with all of these wonderful details, but it does have the administrative "disadvantages" of the FAS 87, PBGC premiums, and actuarial valuations. Dave will cover that in more detail.

The pension-equity plan is a DB plan with a twist on the cash-balance plan. Instead of getting an account with dollar amounts in it, you accumulate points over your career. At the end of your career, when you terminate or retire, the points are multiplied by your final average pay. This creates a lump-sum dollar value that can be either paid out as a lump sum or as an annual benefit. The advantage of the pension-equity plan over the cash-balance plan is that it is linked to final pay. If you look at some of the benefit accruals under a cash-balance plan, they closely follow a DC plan. Mr. Conder has what I call the "fish" chart, which has a concave and a convex curve representing the DB versus DC plan accruals. The pension-equity plan that I just mentioned has more of the DB curve to its benefit accruals.

Lump sums are more commonly found in the private sector. We don't have many public plans that provide lump sums. There are, perhaps, some issues with what the employees do with the lump sum. If they go out and buy a boat and contribute to the boat industry, is that a concern for the employer or not?

The public sector has a lot of plans with post-retirement benefit increases, and there is political pressure for post-retirement adjustments. I don't think the private plans have to deal with that issue as much as the public plans do. But if you do pay out lump sums, obviously, the issue of future post-retirement cost-of-living adjustments goes away.

The old-fashioned balance scale is my key for describing benefit plans or plan design. I don't care what consultant you have or what kind of a plan you have, there is an actuarial rule that says, "what goes in, goes out, and what goes out has to come in." On the left-hand side of the balance scale, we have contributions and investment income; this is the way the money gets put into any fund. And, on the right-hand side, it goes out in the form of benefits and expenses. If you are going to do a plan redesign and you are telling the employer that it is going to cost less, then that means somewhere, somehow, you are paying out less in benefits.

There is no magic formula. I do not think any of us can say that we can provide a better plan and better benefits at a lower cost. It just does not work. You could provide bigger benefits to a particular group of employees. For instance, one controversy about the DB versus DC is that the younger, lower-service employees do not get as big a benefit out of the DB plans. If you go to a DC plan, perhaps you can give the younger employees a bigger benefit. But then that means, if the cost of the plan is the same to the employer, the older employees are going to get less out of the DC plan. So, in all that we do, we have to remember to be fair. I think some of the press in *The Wall Street Journal* came out of some misunderstandings on the cash-balance plans and what they were meant to do.

I'll finish with a few comments on public plans. I mentioned earlier that there have been numerous changes. There are certain restrictions in the public sector, which is almost entirely DB plans with mandatory employee contributions. I like what Colorado has done. The state put into its DB plan some DC features at the front end and the back end. At the front end, when an employee leaves early, the state matches the withdrawal of those mandatory employee contributions. If the employee requests a refund or withdrawal, the state matches it by a certain percentage. I think the state has changed the percentage from 25% to 50%. This, then, acts very much like a typical DC plan, a 401(k) plan with a 50% match. The only thing is that the investment credits are not usually linked to the investments; they are a fixed interest rate. The employee receives a refund of his or her employee contributions with interest and then, say, 50% is matched by employer money. This means the younger, shorter-service, employees walk away with some employer dollars, which previously did not occur and does not currently happen in a majority of the contributory public plans.

At the back end, the state of Colorado added the money purchase type of formula that Oregon has. There is a guarantee to the employee that whatever the defined benefit is that is computed out of the formula (which is years of services times percentage times final average pay), it will be at least equal to, if not greater than, the benefit that could be purchased under his or her annuity purchase rates by doubling the value of the employee account at time of retirement. The employee contributions accumulate with a fixed interest rate and they double that to compute a floor-type benefit at time of retirement.

I think those are two very good ways to bring DC features into the DB spectrum in the public sector because we do have a fair amount of legal considerations. The biggest problem we have in the public sector is something called a "contract right,"

which says that not only can we not disturb any of the benefits that are accrued, we also cannot disturb or take away any of the benefits that are promised. If you look around the country, you'll see different states—Washington is one and New York is notorious for this—where they have different tiers. You have a retirement system made up of tier 1, tier 2, plan 1, and plan 2. If we make a change in plan design, we usually have to start with new employees only and offer a voluntary option for any existing employees. Because of this contract right, we cannot change the benefit accrual promise. I just wanted to mention that to fill you in on what is happening in the public sector.

With that, I will turn it over to Mr. Conder who is going to jump into transition issues.

Mr. David A. Conder: My practice is primarily with large employers that are essentially corporations, as opposed to the public sector type of plans. In that marketplace, we find that DB plans are still very much alive and healthy, and most of our client organizations have them and plan to keep them. However, what is changing is the way they look and operate. Cash-balance plans are very popular now, and we're finding more and more of our large clients are either in the process of switching to cash balance or are reviewing the possibility.

I am going to focus today on the conversion from a traditional DB plan to a cash-balance plan, look at the kinds of challenges that poses in the transition, and discuss whether there is a need to provide transition protection for current employees who might get caught in the switch. In doing that, I am going to work through a case study for a hospital client where we recently did a project like this. We looked at the impact on the entire plan population to help the client understand who the winners and losers would be in terms of impact on future benefit accruals.

Before I get into that, I wanted to come back briefly to a topic that Karen touched on and look at a couple of the basic concepts of retirement plans. With any retirement plan, regardless of type, we essentially have employer money (employer contributions) going into a trust fund. We invest that money. We earn an investment income on the assets, so it grows with the investment income, and then we pay out benefits over the life of the plan. That is true, regardless of whether the plan is defined benefit, defined contribution, cash balance, or pension equity.

Over the life of a plan, the cost is going to be the sum of the employer contributions. Or, another way to think about it is that the cost over the life of the plan is going to be the total of all the benefits we pay out of the plan, less any investment income we can earn on the assets. We will ignore administrative expenses for the time being. The type of plan can only affect the cost if it affects the benefits that we are going to pay out, or if it affects the investment income that we can earn on the assets. That is the only way that changing the type of plan can affect the cost.

What *does* change when we change from one type of plan to another is who receives the benefits. The type of plan is basically the mechanism that distributes the benefits across the participant group as a function of age, service, or pay level. The other thing that the type of plan affects is the flexibility and predictability of the employer contribution. There can be significant differences in the incidence of cost recognition from one plan to another. And last, the type of plan may affect the investment income. For some plans, the individual participants are directing the investment of the assets. For others, the employer or the plan sponsor is directing the investment, and there can be different risk postures, time horizons, and a different sophistication brought to the investment of the assets. All of this can affect the cost of the plan.

The key challenge that we face when we transition from one type of plan to another is what to do for the current participants who are going to be affected by this redistribution. This change, or redistribution, and who gets the benefits typically is a significant issue. For example, in a traditional final-pay DB plan, it is the older, longer-service employees who are receiving more of the money and less of the money is funneled to the shorter-service, younger employees. With a cash-balance plan, or any kind of account balance type of plan, more of the money is funneled to the shorter-service, younger employees and less, on a relative basis, to the older, longer-service employee.

This redistribution means that some members of the participant group will see large benefit increases. Unless the plan sponsor is willing to bear a significant cost increase, that means some participants will see a big decrease in their future benefit accruals. It is important to remember that we are only talking about future accruals. Legally, we have to protect what has already been earned or accrued under the current plan. In terms of future accruals, we can see some big decreases and increases, so the key question is: Should we do something to protect employees against this potential decrease in future benefit accruals? Should we protect some subset either fully or partially? The subsets that we would typically consider are older employees, longer-service employees, or another group that might be nearing retirement and starting to plan for their retirement income based on the current plan provisions. It usually comes down to some hard decisions that the plan sponsor has to make. There is a significant trade-off between providing protection against this reduction in future benefit accruals versus the cost of doing so. Providing this protection is very expensive to the plan sponsor.

Let's take a look at the significance of the impact. What we are graphing in Chart 1 is the accrual pattern under different plan formulas. We have picked a sample employee who comes into the plan at age 35 and show how the value builds up for that employee in the plan over his career, out to a normal retirement age of 65. The solid line is the current final-pay DB pension plan. The dashed line is a simple cash-balance plan where the formula is just a straight 5% of pay each year going into the individual's account as the employer contribution credit. You can see that if we just compare those two graphs, the DB value builds up very slowly in the early years. Later in the individual's career it starts to accelerate with a much steeper growth pattern to produce a pretty significant benefit at normal retirement age.

The cash-balance plan, in contrast, builds up value much more rapidly in the early years. And, it is typically a flat accrual line if it is just a simple, single, flat contribution percentage like this.

The key issue in this transition is: What about employees who have already been under the traditional plan for part of their career? For someone who is age 50 at the time we change the plan to the 5% cash-balance plan, you can see how this individual is going to have a benefit that is much less at retirement than he or she would have had under either plan formula if he or she had been under the same formula for his or her entire career. Employees caught in the transition are experiencing the worst of both worlds. They have had the slow build-up plan the early part of their career when it was producing very little value. Then, at about the time that they would start to benefit from the steeper accrual pattern under the traditional plan, we pull the rug out from under them and switch them to the plan that has a more gradual accrual pattern. So you can see there is a significant impact on employees caught midstream.

Typically, when we are consulting with the plan sponsors about this type of change, they conclude that they want to protect some subset of the employees against a decrease in future accruals. The question is: What form should that protection take? Some employers choose some subset of the employees and allow them to stay under the old plan formula. From that point forward, the company is running two parallel plans, which is the main disadvantage of that type of protection. It could take as many as 15, 20, or 30 years, to work out of that transition protection. Not only that, but it is costly and there is a lot of administrative hassle involved in running two plans at the same time.

Another approach that is more typical and usually of more interest to the employer is to provide extra contributions to a certain group. We tend to call these "kickers," which means putting in an extra contribution for some subset of the population above what the regular cash-balance formula would provide them. The challenge is in trying to decide how to structure this kind of protection. The amount of the additional benefit that you need is going to be very different for each employee. It is hard to know the amount of extra contribution you need to put in because it is going to be a function of each individual's age and service at the time we make the plan change. It will depend on when in the future the individual chooses to terminate or retire. And it will be affected by the individual's future pay increases and future interest rates. There are many other issues, but these are the main ones that affect how much protection is needed.

One approach we found that works quite well in minimizing this challenge is to use a graded cash-balance formula rather than a flat formula. If you are converting from a traditional DB plan, the type of graded formula that gives you the best fit with the accrual pattern from the old plan is to use an age-graded formula. If you use an age-graded formula, you can actually come close to duplicating the accrual pattern under the traditional DB plan. Another approach that works quite well is the service-graded formula, because typically there is a high correlation between age and service in the large employer plans. We find plan sponsors often prefer the

concept of service grading over age grading. Conceptually, they are more comfortable giving an employee a higher benefit who has longer service rather than because he or she is older. So, we find that in many cases the employer is more interested in the service-graded approach.

If part of the reason the sponsor wants to move away from the traditional plan to a cash-balance plan is to change that accrual pattern and to get more build-up early in the career for better portability and a more level accrual value, then a graded approach isn't going to work very well because that isn't its design. The graded approach is really trying to mimic as closely as possible the accrual pattern under the traditional plan and focus more on the cash-balance benefits that you get: It offers ease of understandability and better appreciation on the part of the participant. And yet, it is trying to focus on minimizing the severance benefit aspect of the plan and funnel more of the dollars towards the true retirement benefits. If you use a graded formula, you have to make sure that you meet the ERISA accrual rules because this is still a DB plan. You also have to make sure that the formula isn't back-loaded.

Let's go back to the sample employee (Chart 2). The solid line and the dashed line are the same ones that we were looking at earlier. The solid line is the traditional DB plan. The dashed line is the flat 5% cash-balance plan. The short dashed curve is a service-graded formula that this hospital client actually wanted to adopt. This service-graded formula is one where the contribution percentage starts at 2½% of pay for years of service less than five. The contribution percentage goes up with service and reaches as high as 7½% for years of service above 25 years. You can see the picture is quite different. The short dashed cash-balance curve follows very closely with our traditional DB plan and it has a curvature to it where the accrual pattern accelerates in the later years. We are going to have less of an issue about transition for someone caught mid-career in this plan. However, even though it is less of an issue, it is still an issue.

If we want to do some protecting or equalizing what the old plan would have provided, we need to consider different ways of defining a group that might be eligible for the protection by looking at age and/or service at the time of the change. Some possible ways to carve out a group for protection would be, for example, those who are age 50 with 10 years of service at the time of change or 50 and five, etc. The more generous approaches might go as far as providing some protection to employees who are age 40 or older at the time of change with five years of service. We frequently will look at different ways of providing protection and help our clients understand what the impact is with and without the protection.

Now let's look at what it would take to provide close to full protection if we project 10 years out. If the employees were to work another 10 years after the date of the change, what would it take to keep them close to whole? We found that, for those who are currently in their early 40s, it takes an extra 1% contribution on top of what the contribution would have been in that service-graded formula. It will take an extra 2% for those in their late 40s, on up to those who are in their late

50s, where it will take an extra 4%. For those who are over 60, it is going to take an extra 5% on top of what was in the regular formula to keep them whole. To see how this plays out, let's pick a sample employee and look at the impact of this kind of protection. In Table 1, we are looking at an employee who is age 50 with 15 years of service at the time we make the change. If we had left the plan alone and made no change, the first column shows how the lump sum value would progress at each of the ages in five-year increments. In the next column, we show what the cash-balance plan lump sum value would be if we do not provide any protection, so no kickers are included. You can see that if this 50-year-old employee worked another five years after we make the cash-balance plan change, his value would be 89% of what it would have been if we left the plan alone. At age 60, working another 10 years, it would also be 89%. If he stays to normal retirement age at 65, he's only going to receive about 79% or 80% of the value of what he would have received if we had left the plan alone.

TABLE 1
 "EQUALIZATION" EXAMPLE FOR EMPLOYEE AGE 50
 WITH 15 YEARS OF SERVICE AT TRANSITION

Age at Termination	Current Plan Lump Sum	Cash Bal. Lump Sum No Equal.	Ratio	Cash Bal. Lump Sum With Equal	Ratio
50	\$25,821	\$25,821	100%	\$25,821	100%
55	61,158	54,275	89%	63,660	104%
60	115,331	102,658	89%	127,549	111%
65	229,068	182,108	79%	217,842	95%

If we provide the kickers, because he is age 50, his kicker is going to be an extra 3% on top of that service-graded formula. In the service-graded formula, he was at 5½%, so we are giving him a contribution of 8½% of pay. If we do that and he works another five years, he is actually going to be better off. He's going to get 104% of what he otherwise would have received. If he stays 10 years, he will receive 111%. However, if he stays to normal retirement age, it comes back down and he will only receive about 95%. You can see part of the challenge in trying to keep someone whole is that we have to do some projecting and estimating about future events.

The next thing we typically do with our clients is help them understand what this would look like for the whole participant population. We plot the ratio of what the individual would get 10 years out after the change to cash balance over what the individual would receive 10 years out if we left the program alone. It is interesting. The result is what we call a "hockey stick" kind of curve. There is some point around age 40 where people who are younger than that at the time of the change are going to come out big winners. For the very young participants in their 20s or 30s, it is not unusual to see them get a projected benefit of two to three times what they otherwise would have received. The problem is that those employees who are in their 40s, 50s, and 60s are going to be worse off. They are the ones who would potentially be losers under the program if we do not provide some sort of protection. We plot the population by breaking service into three categories:

less than five years, five to 10 years, and over 10 years. As we think about the kickers or the protection, we want to look at different ways to break down the population.

We just projected out 10 years into the future, assuming that everyone in the plan worked another 10 years and terminated. If everyone in the plan were to work to normal retirement age after the cash balance change, there would be even more people below the 100% line and worse off than with the old plan, even some of the younger ones.

If we were to provide kickers to those who are age 50 with 10 years of service and then project what the comparison would be 10 years in the future, we are doing a good job of protecting them or keeping them whole. The problem is that we still have many other participants who are going to fall short, including those with less than 10 years of service and those in their 40s, even if they have 10 or more years of service. What if we expanded the group we protect?

We can protect those who are age 50 and have five years of service, and one of the more generous approaches would be protecting everyone who is at least age 40 with five years of service. Now we have almost everyone at or above the 100% line, except those with less than five years of service who are over age 40.

It is not unusual for plan sponsors to be willing to draw the line somewhere along these two or three alternatives. Their belief is that for younger people who have been with the organization a very short time, there is not as much of a sense of obligation to keep them whole on future accruals. It is interesting to note that if we provide a 1% kicker to those in their 40s, we actually do a little bit better than keeping them whole. It might only take a half of a percent. Keep in mind, though, we have arbitrarily picked one comparison point of 10 years out. As I mentioned, it is going to be different depending on what point in time you pick to make the comparison.

If we look at the 40 and five group for protection, but project out to normal retirement age, some of those people in their 40s who were above the 100% line are now below the 100% line, but they are still pretty close. So, using a normal retirement age for comparison, which is the toughest target to try to meet, it is always going to be more costly to keep them whole than if they terminate earlier. However, even with this tough benchmark, or standard, this approach is not performing too badly. It is getting most of the folks up above the 80% or 90% line, except for the very short service participants that are in the plan.

The issues of protecting future accruals, who should be protected, and how much they should be protected, is something that varies among organizations. There is no right or wrong answer. There is no legal obligation to protect against future benefits that haven't even been earned yet. Some organizations tend to be very cautious about this, very paternalistic, and want to protect almost everybody, even though it's extremely expensive to do so. We find that other organizations don't feel an obligation to protect against future accruals any more than they feel obligated to make some promise about what future pay increases are going to be

10 or 15 years down the road. We find some organizations are very comfortable not doing much in the area of transition protection.

The Wall Street Journal articles that Karen mentioned earlier and a lot of the activity in the press and in Congress have focused on this transition issue. It is a very hot topic right now. Across the country, in some plans, employees have been surprised that there has not been communication on these issues. They start to figure it out on their own or become aware of it later. There has been a lot of controversy and Congress is very concerned. Senator Daniel Moynihan (D-NY) has introduced a bill that would require, if it gets passed, that this type of calculation be shown to every participant before you actually implement the plan change. Participants would see projections at various points in the future and the bill would even mandate the assumptions you use in making those projections. There is very strong interest in full disclosure to the participants about this kind of impact, and I would be very surprised if we do not have that requirement in place by the end of the year.

Ms. Steffen: Alex is going to walk us through a case study and talk about how an employer might want to make changes and why.

Mr. Alexander Chernoff: I am going to try and approach things from a somewhat different perspective. I am not an actuary by training or education. This is going to be a participatory session.

How do you develop great plan designs? What are they? I would like to go through some methodology and I hope you will help me. Great plan designs start with a good frame of mind. What is the role of an advisor or a consultant? What are we supposed to do? Why are people paying us? Does anybody have any ideas? Comments from the floor include to spark ideas, save money, tap expertise, point out options, and solidify objectives.

I think what you've come up with are great ways to help clients achieve greater success. That is what our clients are paying us for, to help them accomplish their objectives. How do we do that? Let me tell you where we start from, and then maybe you can help me build on it. For a frame of reference, I am from New York. We serve clients that have 100 to about 2,000 employees. We have a couple that are larger, but that is our niche. When we start each day, one of the messages we try to reinforce is: Think independently. Do not be concerned with conventional wisdom. If there is any way to be inspirational, and I know actuaries are inspirational, be inspirational. We want to think differently. We want to have fun. I encourage everybody at our firm, at every level, to think of it as sport.

Now, if we are doing all of this, and we are trying to do something very special, what is it? How would you relate that to sport? Does anyone have any ideas? Is there anything that you do during the day, in the normal course of your business, that you would tie into sport or doing something special? Come on. You are not accountants. You are actuaries. There is something special you do.

From the Floor: By sport do you mean something like sports activity?

Mr. Chernoff: Not necessarily a sports activity, but when you go out in a sporting event, you are trying to do something different. You are dealing with something. You cannot approach it head-on because the thing that you are dealing with is moving.

From the Floor: You need a game plan.

Mr. Chernoff: A game plan, OK, thanks. Anything else?

From the Floor: You try to be the best.

Mr. Chernoff: You try to be the best. What else did I hear? Teamwork. That's a great one.

From the Floor: You learn how to work the clock.

Mr. Chernoff: You mean "work the clock" in a very honorable sense, I am sure. I heard "adapt to changes." Anything else? Be a winner. That is very important. That is probably the most important thing. You have to go out there and do something very special. What is it that we are trying to achieve? When you build a plan, what are some of the important components of a smart plan? Those from the floor say the plan must be in line with objectives, flexible, efficient, understandable, appreciated, achievable, manageable, and realistic.

How many of you think about all of these things when you are designing a plan? We have to do it for the client's objectives, not ours. That is very, very important. Most of us approach things from *our* perspective. We need to approach it from the client's perspective. What flexibility do they need? What is efficient to them? We all come from different places. I look at \$1,000. It means one thing to me. It means something very different to David. It is all a matter of perspective. What is relevant? Who are we communicating with? Who are the employees? What are our problems? What will they appreciate? What kind of resources does the employer have? What is it going to cost to put together this wonderful plan that we have? We need to think outside the box, set aside those preconceived notions, and forget the rules. We can check on the rules later. Forget the rules and innovate.

Let's talk about typical reasons for changing a plan. Why do companies change their plans? From the floor I'm hearing: "to save money," "they don't understand what they have," "competitiveness," "business changes," "human resource issues," "past employee issues," and a "herd mentality."

The herd mentality is a northwest thing. Anything else? Karen mentioned something.

Ms. Steffen: We see a lot of political pressure.

Mr. Chernoff: Political pressure and politics. There was an article in the paper about people buying companies to try to capitalize on surplus. So changes are made to capitalize on economic opportunities, or to be opportunistic, perhaps.

From the Floor: The law changes.

Mr. Chernoff: I am going to tell you something about us again. In our firm, the message I try to get across is: If our clients change for any of these reasons and we were not the catalyst or the ones who gave the advice, then we haven't done our job. So, I think all of these are right. They are all on the list. In fact, there are some here that are not on my list. But, if it's not on my list, that's because we figured out a *better* way to achieve our clients' objectives. We bring it to them. That is our responsibility. And I would hope it is everybody else's, too.

What are the issues that go into the design? We talked about meeting objectives. What are the influences, the factors, the pressures? We talked about money. Who are the people who influence this? We talked about employees, owners, and management concerns, such as internal capabilities.

Let's get back to reasons for changing plan designs. There are strategic issues, which involve long-term thinking from three to five years or two to three years. To illustrate support and staffing issues, let's jump to a case study. What I have tried to present is the first section of a plan document. I always thought plan documents were well conceived. The first few pages give you all the definitions: what it is that you are going to be working with, the definitions of consulting, and the issues that are really at the heart of it. These are the things that permit us to develop great plan designs.

Let me give you a profile of a company and I hope you can help us solve our client's problems. We will bill a great deal. I promise I will share it with you. In New York we have a closely-held company with three shareholders. They range in age from 55 to 65. They are two brothers and a brother-in-law. The company has 500 employees and four existing plans. There is a 401(k) plan with quarterly valuations and \$5 million in assets. We have a professionally managed profit-sharing plan with \$4 million in assets. We have a traditional DB plan, and herein lies one of the problems that I'll get to in a minute. It has \$15 million in assets. It is an offset plan. And we have the money-purchase plan at the base, which has \$16 million in assets. Those are the plan profiles.

The DB plan is overfunded because of strong investment performance, because of aggressive funding, and because the money-purchase plan kicked up with its investment performance, further offsetting some of the liabilities that we otherwise would have had. In fact, in the DB plan, the only participants are the three shareholders. Does anyone here know how much money someone, even if he is grandfathered under the old rules, can get out of a DB plan? Rough numbers.

From the Floor: Is it \$1.5 million?

Mr. Chernoff: OK, now multiply that times three, or \$4.5 million. What happens with the \$15 million minus the \$4.5 million? It kind of evaporates, right? This was a new client of ours. I had to go to this client and say, "Eddie, I am very sorry and I ask you not to shoot the messengers," and I made sure that the windows on the 18th floor did not open. I had to tell him that this money that he thought he and his brother-in-law and brother owned, was, in large part, the government's money; it was not his. And that was a fact.

This is how this case started. I had to go to the clients and tell them that roughly \$11 million of these funds were not theirs. They had understood that every penny in that plan was theirs up to that point. The company happens to be, by the way, paternalistic and the owners care about the welfare of their employees. It is facing some interesting challenges now. They are in the garment industry. There has been some significant penetration by non-domestic companies into their area. Its current plan contributions are about \$1.5 million. This is new money going into the profit-sharing plan and the money-purchase plan. And the employees expect to receive, in terms of contribution, roughly 15% of their pay.

Let me ask some questions here. You have the profile. You have the problem. The owners have \$15 million. Only \$4 million is theirs and \$11 million is not theirs. What solutions can I offer a guy who was ready to shoot me? He thought I was lying at first, thought I was wrong, and when he realized I was right, wished that I never lived. He would have taken the money out, very innocently.

I should mention one other factor. Five years ago, an uncle died. At that time, there was significantly more in the plan. The owners took out \$6 million because they were operating under the assumption that this was *their* money. They had made that mistake and, fortunately, the statute of limitations had run out. We were not involved in that. What would you do? How would you approach this?

From the Floor: I would find the paperwork and separate the account.

Mr. Chernoff: Good idea, but there wasn't any. Are you talking about segregating the assets at age 55, for example, and letting them grow? That happens to be a great idea, but we looked for the paperwork and couldn't find it. Any other ideas? Someone said to amend the DB plan to cover more participants and then decrease the obligation under the other plans? That's a good planning idea. Any other ideas?

From the Floor: You could buy out another business.

Mr. Chernoff: Yes, you could buy out an underfunded plan business. Have any of you done one of those? I have been working on those for 15 years. I have never run into anyone who's done one. Has anybody heard of one that has been done?

From the Floor: Do you mean a merger?

Mr. Chernoff: A merger or an acquisition in this kind of context, where somebody is actually buying the company for the purpose of selling that plan.

From the Floor: Yes.

Mr. Chernoff: That's interesting. Do we have another idea? Someone said we should amend it to cover more participants, decrease the other obligations, and amend it again to a cash-balance plan. Any other ideas? Wow! A lump-sum option with no interest and a 1994 mortality table. What will that do? Someone said that we go to the lump-sum option, use a 1994 mortality table, and that \$16 million might all be theirs. Does anybody have any comments? Do you think that will work? I'm not saying it won't. I'm really curious. Someone said it won't work. What solution do we have back there?

From the Floor: Bring a couple other family members into the business.

Mr. Chernoff: That's thinking outside the box. Any other ideas? Use some assets on life insurance. These are great ideas. Any other ideas?

From the Floor: Use the assets to fund the retiree medical.

Mr. Chernoff: So, if we terminate the DB plan, the first thing that happens is, and this is an oversimplification, we take \$4.5 million out. That means \$1.5 million for each of the owners, which leaves \$10.5 million left. This reverts back to the company, and what happens? It incurs a 50% excise tax. So, we have \$5.25 million in excise tax. Is this deductible?

From the Floor: No.

Mr. Chernoff: We have to pay income tax. Income tax in New York City is 50% plus. So, we lost \$5.25 million in excise tax. And 50% of \$10.5 million is another \$5.25 million. So, I don't think that's going to work.

We have federal, state, and city taxes. And we have the nondeductible excise tax. If they could die, then you would have the federal estate taxes deductible for federal income tax purposes, and we could probably mitigate some of this. But I'm not sure about that one. Any other ideas?

These are a lot of great ideas, and this is thinking outside the box. Let me tell you what happened. We threw in a couple of other things. Because these three guys own the business, we looked at it from an estate planning standpoint, not with relation to the life insurance, although that is a very good idea, but one of these guys was uninsurable. The \$10.5 million surplus in the plan isn't so terrible if you recognize that it is money that can be used to fund future obligations. You can be passing down to the next generation a tax-advantaged asset that will not be subject to estate tax because what argument is going to be made that this is truly an asset in someone's estate? We know that the liquidation value is zero. We have a very good argument that it does not have a value. I could see the

government's argument as well. We won't get into the different sides of that. We took the position that this is a very valuable asset. We did get rid of the money-purchase plan. We froze it and effectively froze the profit-sharing plan as well. We converted the defined benefit into a cash-balance plan where the cash-balance allocations were the equivalent of the 15% a year.

This way, the participants receive the very same amount. Then, we took the cash-balance plan and gave the participants the ability to elect between two different investments. It was very conservative because that is the way this employer is. So, the participants saw exactly what they have seen, only they saw it, for the first time, with guarantees. They saw a plan that was funded. What the employers saw was a long-term estate planning vehicle, relief from an obligation that was costing them roughly \$1.5 million a year, albeit that they didn't have to put the money in. They could amend the plan, obviously. They could not make the discretionary profit-sharing contribution. But, at the end of the day, the employer took that \$1.5 million a year and went to the bank and said, "We have a \$1.5 million in profit that we didn't have before, so I want to take down \$10 million in debt." The bank gave him his \$10 million, and you know what? That \$10 million was not subject to income tax.

This was better than the old plan. That's how this ended up, just like many of you came up with. So, thank you all very much. That's thinking outside the box. I hope it gets you to think a little more outside the box. That's what we do. That's what we feel is our responsibility. Get in there and do something special. Have a little fun.

Ms. Steffen: Let's see what you have on your mind. Does anyone have any issues you want to throw out to ask us for advice?

I'll throw one out. One of my public DB plans is considering putting in some supplemental benefits. This is new in the public sector, where we have too much money. This has not happened to us. I think some of the corporate plans faced this, starting 10 years ago. We have an actuarial surplus, an excess of assets over accrued liability. I will share with you what officials did a year ago in the state of Washington. They adopted some legislation called "gainsharing." It works something like this: If their investment return averaged out over four years exceeds 10%, then the dollars associated with the investment return over the 10% average is split 50/50. Half of it goes to paying out increased post-retirement benefits to retirees and the other half is absorbed by the system to help pay down the unfunded actuarial liability. The state has variable contribution rates but a fixed amortization period, so that is what it's doing with some of their excess.

A client that I am working with right now has a DB plan. It wants to do something with these excess earnings but only when they occur. This is because, in the public sector, we have one underlying rule: We cannot change the benefit promise. If we have extra money to spend, we do not necessarily want to do benefit improvements that are permanent. These improvements may cost us more money down the road that we cannot afford if we don't have the excess earnings.

So, we began to look at DC options. In other words, let's put the excess money into a DC plan. But then you run into separate accounts and other issues. So, what we're looking at is adding a cash-balance supplement to an existing DB plan. Do any of you have any clients with dual defined benefits? We've talked about DB versus DC. What about two types of DB formulas? No? Is that thinking out of the box, Alex?

From the Floor: A question was raised about converting union plans to cash-balance plans or DC plans.

Mr. Conder: A number of our clients have both union and nonunion plans, and our experience is pretty much as you have seen. It seems there has not been a lot of activity on the union plan side to make the conversion. I think this will be changing pretty quickly. We saw a few years ago that unions became very interested in 401(k) and DC plans that, historically, they had not been interested in. With all of the activity and press about cash-balance plans, I would guess that this year and into next year, we are going to see a number of unions asking for a cash-balance type of approach. I would think that the conversion issues and challenges would be nearly the same, whether you're approaching it from a dollar-per-month multiplier or a final-pay perspective.

From the Floor: I have a question about public plans moving towards cash-balance plans.

Ms. Steffen: The one I just told you about might be one of the first. I have been to a lot of seminars and heard a lot of discussion in the public sector on defined benefit versus defined contribution. Colorado set the pace. I think it is an easy one for states to do because of this tier requirement, this transition, and not being able to take away from the benefit accruals in the public sector. It's much easier if you can keep the existing structure and add something to it, which is what Colorado did, and it was able to afford that.

You cannot always do that, though. For example, in the state of Washington, if we tried to change a plan design, we would have to start over from scratch. That is how we ended up with a plan 3 for the teachers' program here. I don't see a lot of discussion going on in the public sector about these hybrid alternative plans, and it might go back to Alex's thinking out of the box.

A lot of the issues stem from politics or other outside sources. There has been a fixed frame of mind, at least up until last year a lot more sympathy grew towards looking at alternatives. The attitude has been that you are either for DB plans or for DC plans, and it's been rather antagonistic in the public sector. I asked earlier if anyone did pension equity because those are tied to the final average pay. I like that idea, but don't know how to implement these plans.

I saw a statement the other day that says there are roughly 100 statewide plans throughout the country. Some states, like Washington, have a teachers' plan separate from its employees' plan and then, possibly, a separate police and fire

plan. There are basically about 100 large systems throughout the country. I think I saw that about 40 of those had done studies to look at the DC issue. Twenty-one of them considered a serious study, but, so far, only one state (Michigan) has actually made a significant change, and they have adopted a DC plan. A couple of states have either added supplemental or alternative optional retirement programs in the DC area. And there have been a couple of legislative proposals that have been pushed forward that haven't passed. So far, Michigan is the one that has actually adopted a significant change and that was to a pure DC plan.

From the Floor: I have a question about the reason why they couldn't switch.

Ms. Steffen: Actually, it is probably just as easy for us to switch as anyone else. We have fewer ERISA issues to worry about. So, to that extent, maybe transition and change is a little easier.

Mr. Conder: Before we go to the next question, I have one thought. Karen, you mentioned that in the public sector there is more to it than just protecting the actual accrued benefit. There is, at least, a mentality of protecting the promise, which would mean future accruals under the old formula. Could that be a reason for not seeing so much activity? Or did I misinterpret the protection?

Ms. Steffen: It is more than mentality; it is legal statute. There are constitutional issues and many state laws prohibit that. Washington is an example. That is why you end up with a tier, because you cannot change the future benefit accrual promise. If a state wants to do a plan redesign and make it effective July 1, 1999, it cannot change the benefit promise for any employee that is currently in the system as of June 30, 1999. In other words, you cannot touch the benefit promise. You can start a new plan and all new employees go into the new plan July 1, 1999. You can make it voluntary, or optional, for all the existing employees to move from Teachers' Plan 2 to Teachers' Plan 3, for example, but you cannot force a Plan 2 teacher to give up the future benefit accruals that he or she has in the existing plan.

There is a lot of discussion going on about changing plan design in the public sector, and there probably will be a lot more changes coming along, but that does make transition and change much more difficult.

David L. Jakes: I want to talk about the union issue for a moment. I have seen examples where employers put in a cash-balance plan for the salaried employees. They put one in for the union employees as well. It is usually not a percentage of pay. It would be a dollar amount going into the account each year. I have a couple of comments about that. First of all, one of the reasons to put in a cash-balance plan is ease of understandability, and most union plans are easy to understand. Another reason is to save money and a union is not going to allow you to get away with that. A third reason is that unions tend to reward long service and the traditional DB plan is the best way to reward long service. Therefore, introducing a cash-balance plan is moving in the wrong direction.

Mr. Conder: Those are all very good points and right on target. Alex, in your example of the DB plan, how were you able to have three owner participants in a company that had 500 employees and pass all the discrimination rules?

Mr. Chernoff: I'm sorry, I don't know the answer to that, but it did pass. There's no question about that. As I explained to you earlier, I am not an actuary. We have a number of actuaries and, in this particular case, the actuary was one of my partners, and he is a stickler. There's no question in my mind that it passed, but I can't tell you how.

CHART 1
 BENEFIT ACCRUAL PATTERNS
 FINAL PAY VS. FLAT 5% CASH-BALANCE PLAN
 TRANSITION AT AGE 50

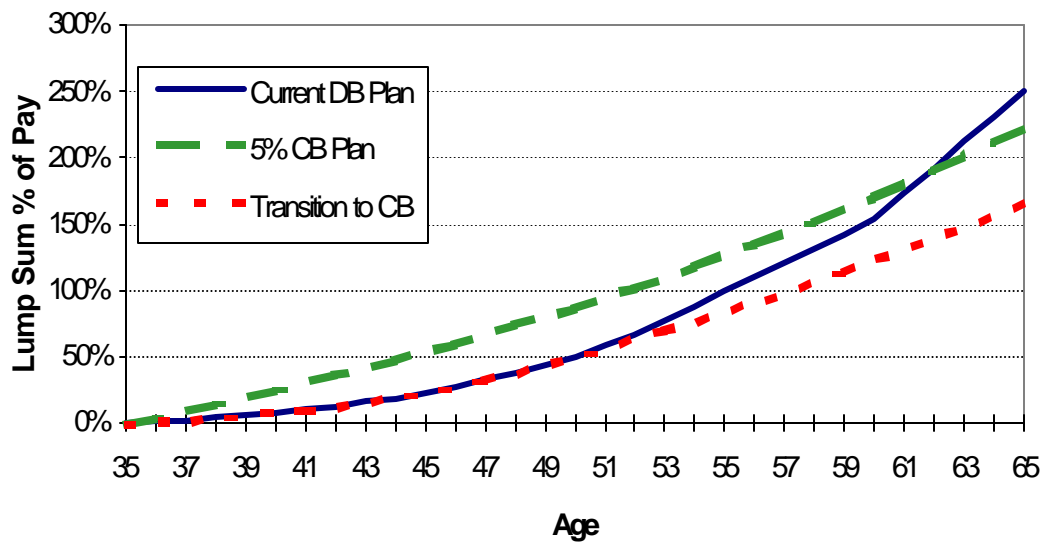
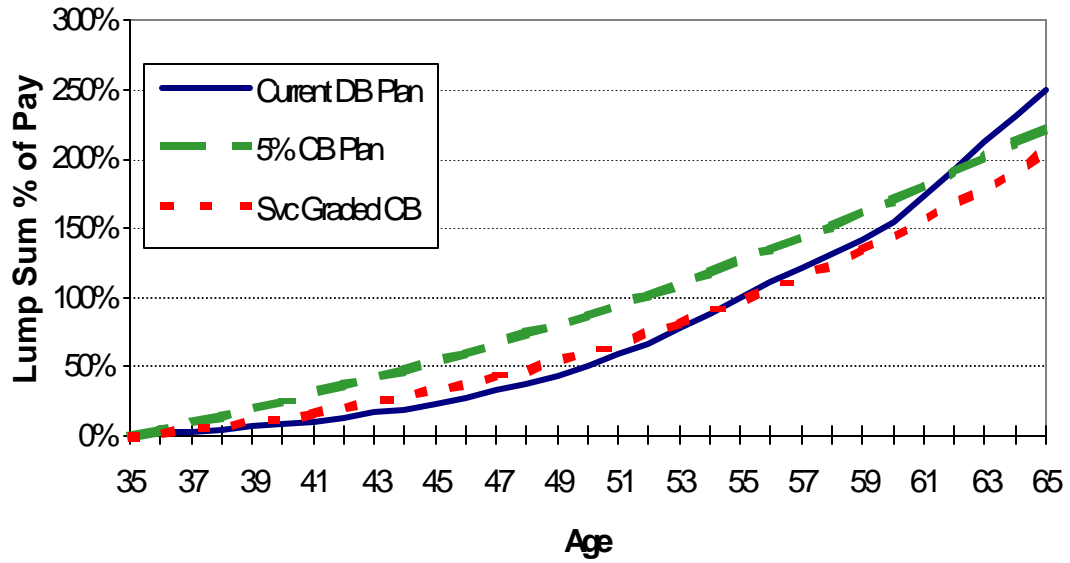


CHART 2
 BENEFIT ACCRUAL PATTERNS
 FINAL PAY DB VS. CASH-BALANCE ALTERNATIVE



Contribution Percentage	Years of Service
2.5%	<5
3.5%	5-9
4.5%	10-14
5.5%	15-19
6.5%	20-24
7.5%	25+