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COMPARABILITY CALCULATION UNDER 401(a)(4) (ADVANCED)

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This session is designed for the experienced practitioner. Learn how to do calculations to prove nondiscrimination under proposed regulation 401(a)(4).

MR. RICHARD JOSS: This represents the fifth session on 401(a)(4) and if that's not enough, there is another one after this session. We're going to do some comparability calculations under IRS Code Section 401(a)(4). Since our session referred to calculations, I've asked the panel members to focus on the numbers side of the equation. That might make this session a little bit different than some of the others. We're going to change rules a little bit because we're going to be using some illustrations.

We will be presenting this topic as follows: Flick Fornia from TPF&C in Denver is going to be our lead speaker. He is going to talk about some safe harbors and present some examples in that regard. The next speaker will be Ted Wiese. He is from the Cleveland office of The Wyatt Company. Ted is going to present some illustrations of the general test. I will follow Ted and show some illustrations on restructuring. And the final speaker will be Bill Hogan from Milliman & Robertson in Milwaukee, who is going to talk about the conversion from defined benefit testing to defined contribution testing and vice versa.

I want to finish this introduction by pointing out that although this session and the previous four have been titled nondiscrimination testing, it is my personal view that the calculations that we go through have about as much to do with nondiscrimination testing as calling a PBGC payment a premium as opposed to a tax. These calculations are nothing more than hoops and hurdles that need to be jumped through or over. It becomes hoops and hurdles in that you need to guide your clients through in certain situations. So hopefully this session will be of value to you and you will learn which hoops are easier to jump through and which hurdles are a little higher than others.

MR. W. B. FORNIA: I've got the easiest hoops to jump through, or the ones that once you've set up the hoops they are the easiest to jump through year after year. Probably the best source of rules are the regulations, and it is very important when you are dealing with safe harbors to consult the regulations, because they are relatively clear. At least in terms of safe harbors, they are clearer than for some of the other areas.

Most of you, I presume, are consulting actuaries who have a variety of clients with pension plans. The vast majority of my clients use safe harbors. They would rather just come up with an easy switch to their plan, rather than test year after year. Let's have a show of hands, if most of your clients use safe harbors. Okay. It looks like a little more than half or most of you. How many of you have a substantial number of clients that don't use safe harbors? Okay, very small handful. So perhaps what I'm going to go through is very relevant. We'll see.

I'm going to go through three examples. These are almost real live cases. I changed the numbers, not to protect the innocent, but to make the math easy. My first example is for a fairly large client. It is an excess plan. It integrates at covered compensation. It uses the definition of covered compensation rather than a flat dollar amount or a multiple. The plan formula provides 1% of final average pay, plus an additional 0.5% on pay above the integration level. It does that per year of service, with a 30-year cap on service. Here is the provision that got this plan into a little bit of trouble. Participants are allowed to retire early at age 62 with unreduced benefits and have a reduction of just 5% per year prior to age 62. As we will see, that is where we get in a little bit of trouble.

On the face of it, this plan looks like it might be a safe harbor. Let's take a look at some of the key issues. This plan accrues benefits under the fractional accrual rule and it meets the definition of uniform. Let's take a look at Regulation 401(a)(4)-3(b)(2): Rules of Uniform. Those rules say that all employees have to be covered by the same formula. In this case, they were. You have to have consistent accruals based on service. In this case, you do. The compensation definition has to be acceptable. And, although I didn't say so, this plan has an acceptable definition of compensation. The early retirement and joint and survivor rules have to be consistent between classes and employees. Finally, the retirement age has to be consistent. So, this plan meets uniform requirements. It meets the fractional accrual rule. Therefore, this one appears to meet the rules to be a unit benefit safe harbor plan.

But, there is a problem with permitted disparity, and we'll look at that later. The key rules for permitted disparity, as we probably all know, are that for an excess plan, the excess portion has to be less than 0.75%. It also has to be less than half of the base rate. And in this case, we have 1% plus a 0.5% plan, so we met the half of the base rate test as well as the 0.75% test. A plan cannot integrate over more than 35 years. This plan stopped accrual service at 30 years, so we are okay. The integration level in this case was covered compensation, and we are okay. So the only possible problem is early retirement. And as we will see, that was a problem.

We need to test for early retirement under 401(l). The middle column in Table 1 is simply the rules under the 401(l) regulations for someone at Social Security retirement age of 67. We had to pick the worst case because there will be people retiring under this plan some day who have a Social Security retirement age of 67. The early retirement factors were unreduced at 62 and just reduced by 5% per year from 61 on down. And in this case, this plan got into trouble for people retiring at age 56 and 55. So even though this plan at first blush looked like it might be a nondiscriminatory plan, and it probably is a nondiscriminatory plan under some of the other panelists' tricks, under the safe harbor rules, it was not. In this particular example, I just modified the plan to use the 0.344 factor and the 0.316 factor. It is a little bit complicated to communicate to participants, but it now satisfies a safe harbor and only resulted in a modest reduction in future benefits for people who retire at ages 55 or 56.

TABLE 1
Safe Harbor Example I
Early Retirement

Age, yr	401(l) Limit SSRA = 67	Plan Factor
67	0.750%	0.500%
66	0.700	0.500%
65	0.650	0.500%
64	0.600	0.500%
63	0.550	0.500%
62	0.500	0.500%
61	0.475	0.500% × 0.95 = 0.475%
60	0.450	0.500% × 0.90 = 0.450%
59	0.425	0.500% × 0.85 = 0.425%
58	0.400	0.500% × 0.80 = 0.400%
57	0.375	0.500% × 0.75 = 0.375%
56	0.344	0.500% × 0.70 = 0.350%
55	0.316	0.500% × 0.65 = 0.325%

There are perhaps other things you could have done. Perhaps we could have tested, but in this particular case, we would have had to test every year. And my client decided it was easier to make a minor adjustment. So early retirement reduction under 401(l) is one thing that can get you in trouble.

FROM THE FLOOR: You indicated previously that the plan integrates over 35 years. Is that what you said?

MR. FORNIA: The maximum you're allowed to integrate under the 401(l) rules is 35 years. The plan I chose integrated and did everything over 30 years.

FROM THE FLOOR: At the CCA meeting last fall, the IRS indicated that if you're using the fractional rule, the benefit formula prior to prorate must count service in at least 35 years, which I thought was really weird.

MR. FORNIA: I'm sorry. Say that again.

FROM THE FLOOR: If you're using the fractional rule, the IRS indicated at the CCA's meeting last fall that your benefit formula prior to applying the prorate must use service of at least 35 years.

PANEL: That's for an integrated formula.

FROM THE FLOOR: This is an integrated formula. And they were indicating that. Does this sound familiar?

MR. FORNIA: It doesn't sound familiar to me.

MR. JOSS: It's my understanding that if you had a formula that's 1% up to an integration level, 0.5% over, you use a unit credit accrual, or you just earn it year by year, and you have full benefits after 30 years, there is no problem. If you want to project benefits to 65 and take a service prorate, you are violating permitted disparity. And you would need to then test that project and prorate formula under a general test. It is not a safe harbor formula.

FROM THE FLOOR: So in other words, if you're going to use a fractional rule, the benefit prior to the application of the prorate does have to use service of at least 35 years or service up to 65?

MR. JOSS: You need a 35-year period for your step, if you are going to try and use a project and prorate formula. The fear that the IRS has is that if you have a 15-year service cap, you are maximizing the 15 years to really screw up some nonhighly compensated people who get hired at age 20 by projecting their benefits over a 45-year period, and then taking 1/45. The safe harbor is saying, "No, if we're going to have a step in there, it has got to be at least a 35-year step." On the other hand, if you wanted to have a unit accrual formula, you can put in any kind of service cap you want.

FROM THE FLOOR: So would this pass the unit credit formula on fractional rule clause?

MR. JOSS: If you had a 1% formula, with a 0.5% excess type formula, and 35-year service cap.

FROM THE FLOOR: The first 30 years.

MR. JOSS: The first 30 years or what I call unit accrual, earn it year by year, then it is fine. But if your accrued benefit was a project and prorate, you've got problems. I am aware of those in the consulting field who are trying to negotiate this point with the IRS.

FROM THE FLOOR: The IRS doesn't regard this as a true fractional accrual, do they? They regard this as unit credit accrual. It's different from the fractional accrual.

MR. JOSS: This formula would pass if it were a unit credit accrual method. But it will not pass if it is a project and prorate formula. That's the reason we want to have this discussion on safe harbors.

FROM THE FLOOR: It would also pass if we took 30/35 of the maximums.

MR. FORNIA: It would, wouldn't it?

MR. JOSS: Yes. There are other ways to tinker with it.

FROM THE FLOOR: You agree don't you Dick, that if I took 30/35 of the maximum percent it would pass.

MR. JOSS: I believe so. I'd like to do the math; I just know there is the problem with the project and prorate.

FROM THE FLOOR: Then you will be backloading if you want to get the full 35.

MR. JOSS: But we don't want to get the full 35 years.

FROM THE FLOOR: Okay, but then what are you going to do? You tried to do it as a unit credit. You confuse a project and prorate.

FROM THE FLOOR: Yes you can, if you knock that 0.5% down, you're meeting from a disparity, I think.

FROM THE FLOOR: No, this formula already was, except for the early retirement, under 30/35 of 0.65 . . . The problem here was a project and prorate with less than 35 years to build up the step. And as long as you have a 30-year cap on credited service, however you cut it, you can't do it. So if you want to do 30/35 with 0.5%, do it for 35 years.

MR. JOSS: I will agree with the speaker from the floor because we submitted an example to the IRS to try and show how ludicrous the problem is. We asked them to rule on a formula that was 1% up to covered compensation, 1.1% in excess of covered compensation, but with a 30-year service cap. The idea that even if we put a little tiny step in there, couldn't we put in a 30-year service cap. And they said, "No way. Not on a project and prorate. Unit accrual okay, project and prorate no way."

FROM THE FLOOR: Do we conclude then that for project and prorate, you need to use exactly 35 years?

MR. FORNIA: For an integrated piece?

FROM THE FLOOR: For an integrated piece.

MR. FORNIA: Sounds like it.

FROM THE FLOOR: I think you can use more.

MR. FORNIA: Yes.

FROM THE FLOOR: You can use more as long as you don't violate the total 35 times 0.0075.

MR. FORNIA: Well, example two is a little less numeric I think. I challenge you to find anything wrong with this one.

FROM THE FLOOR: This is free education for everybody, including the instructor.

MR. FORNIA: It certainly is. Including my client. Luckily I changed the numbers. There is no integration in this one. This is not a client yet, and if you guys have your way, maybe it never will be.

My second example is for a company that wants to establish a new defined benefit pension plan in 1991. They want to put in just a regular vanilla 1% of final pay per year of service plan. In this case, the issue is past service. The only safe harbor we have is five years. If we give five years of past service, it is deemed to be nondiscriminatory and meets a safe harbor. In the case of this plan, the president of the company has about 15 years of past service. Nobody else has any past service. He wants to put in a plan with 15 years of past service. It's unlikely that we would be able to do that. Unless we do some testing to show that the plan was still nondiscriminatory. This is a simple example. Past service is another key issue. And there's a section in the regulations that deals with that.

Example three is a case similar to the example that's in the regulations. The plan is nonintegrated with a benefit formula of 1% of final pay per year of service with a 25-year service cap. This one does not satisfy the 133.33% rule, but it is uniform and it does satisfy the fractional accrual rule if you look at a person with only 33 years of service. The unit credit plan allows you to do that. In this case, using project and prorate, we can show that you now can meet the 133% rule.

FROM THE FLOOR: Why did it not meet the 133?

MR. FORNIA: Because it has a 25-year service cap. A long service employee would have, under project and prorate, an accrual rate of less than the short service employee.

FROM THE FLOOR: In the September revisions to the 401(a)(4) regulations, can the IRS allow you to ignore employees with more than 25 years of service?

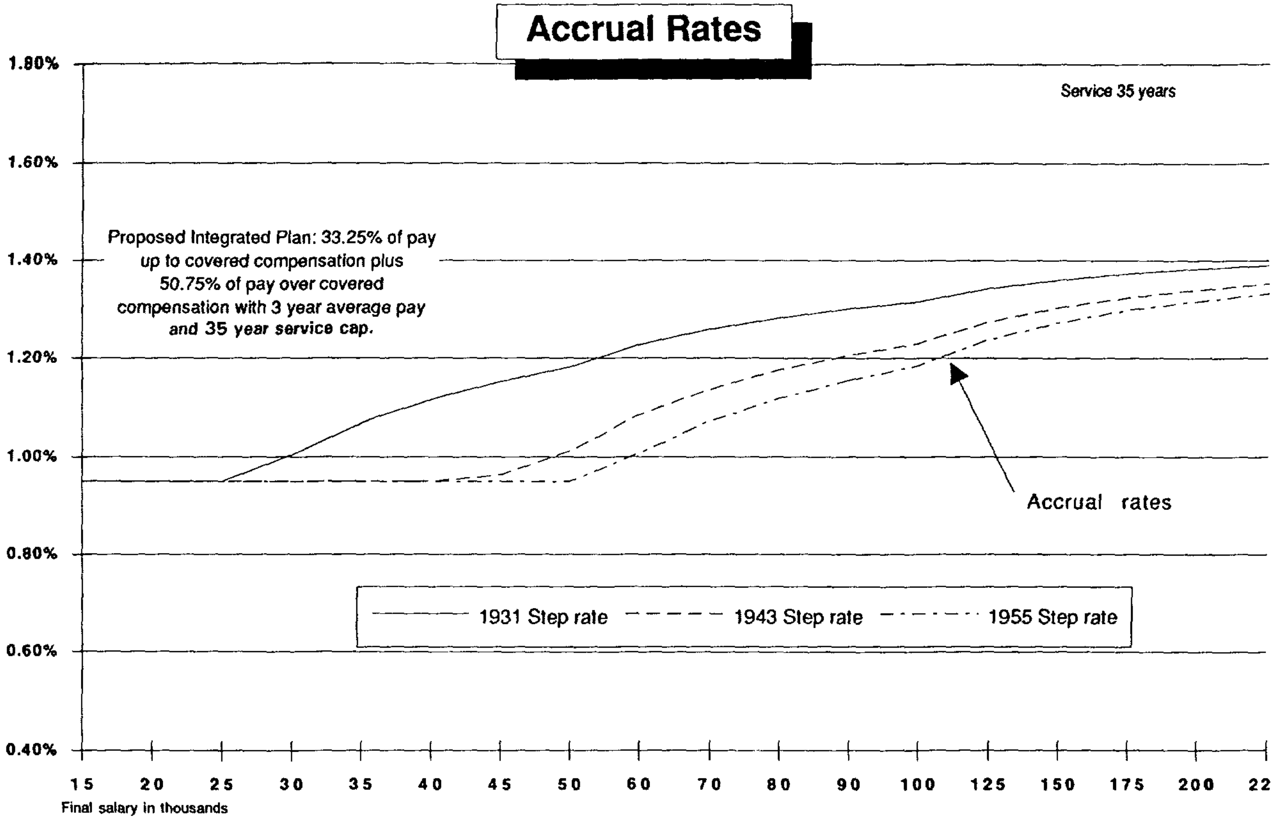
MR. FORNIA: Thirty-three. They cut it from 40 down to 33, and that's what allows us to pass. I'll show you. In this example, if you have a 33-year employee, this person would have an accrual rate of 25% divided by 33 years, which is 0.75%. But if you have a 25-year or less employee, he or she would have 25% over 25 years or 1%. And this comes out to exactly 133.33%. The old rule before revisions had a 40-year requirement. You had to look at an employee with up to 40 years of service, and under that case, you were flunking if you had a 25-year service cap. So what that revision effectively did was to allow 25-year service cap plans to pass, because you only need to look at employees with 33 years of projected service.

MR. THEODORE O. WIESE, JR.: The general test is a very interesting phenomenon. I heard it referred to by one individual at a meeting, and I thought he had a good name for it. He called it "the no any rule" because there can be "no" highly compensated employee with a higher accrual rate than "any" nonhighly compensated employee. Chart 1 shows the accrual rates for a very simple plan. The accrual rate percentages are down the left and across the bottom is compensation). The nonhighly compensated employees are at the left. The highly compensated are at the right. This is a simple step rate plan. It would really meet a safe harbor. It's 0.95% of pay up to covered compensation, 1.45% of pay over covered compensation. So it's a 0.5 differential with 35-year maximum and three-year average pay.

I charted three people; a person born in 1931 which is where your highly compensated people are going to tend to be, a person born in 1943, and a person born in

COMPARABILITY CALCULATION UNDER 401(a)(4) (ADVANCED)

CHART 1



1955. And you can see the accrual rates. Well if the rule is that none of the highly compensated employees can have an accrual rate greater than any nonhighly compensated employee, we have a break point for your highly compensated employees. You can say, "Well the general test is absolutely impossible. There's nothing we can do with that at all." IRS gives you imputed disparity. In Chart 2 we have adjusted accrual rates. Everybody who makes less than about $50,000 and who is younger is going to be right at the 1.6 accrual rate. And you can see now that when you combine restructuring (where you can take groups of people along) with imputed disparity, you can apply the general test and you can create groups of people that will allow you to pass the test.

What this really amounts to is a revision of the general rule. What you have to do with the general rule is prove that for every highly compensated employee, you can find a group of nonhighly compensated employees that will allow you to pass a 410(b) coverage test. And so what this really has done is convert the general test to a 410(b) coverage test. Now this is a safe harbor example; so that's not really terribly meaningful.

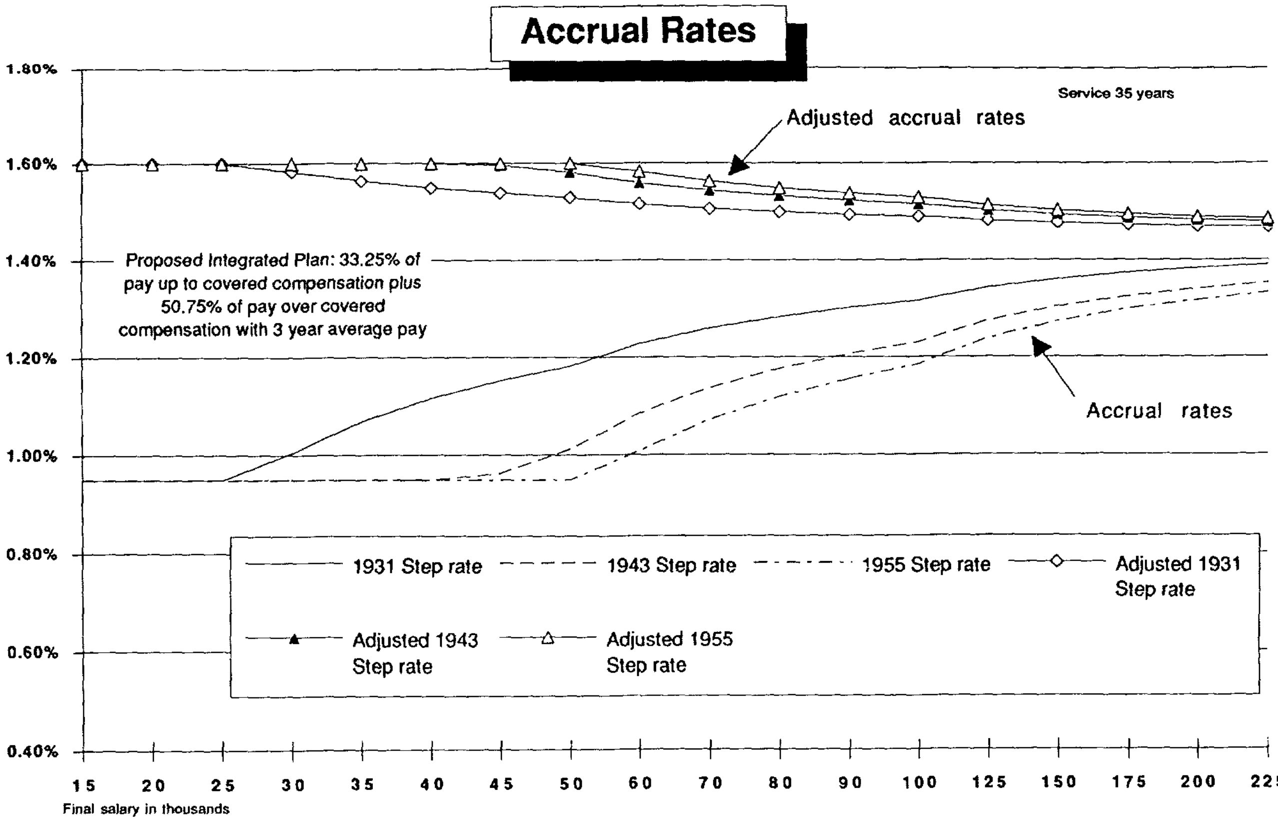
In Chart 3 we have a Social Security offset plan. All three accrual rates lie almost on the same line because the difference in Social Security isn't nearly as significant as the difference in covered compensation. But again we have the problem of much higher accrual rates for the more highly compensated employees. In Chart 4 where we impute the disparity – the disparity imputed is always calculated on an excess formula – you now see that we can have some people up in this range who will be lower compensated and they will offset all the highly compensated employees. This is really the theory that allows the general test to work if you're trying to pass an offset plan. This is just a 50/50 offset plan, 35-year maximum. The example is a simple one. We assume 35 years for everybody. Obviously if you were using real data instead of an example like this, you would have a scatter chart all over the place. But then really, if you do a scatter chart and get the accrual rates, you could really visually group people together to pass your test.

Now we've seen why we want to go through the test, and let's look at some of the material behind it. We have three accrual methods (Chart 5). Again, these are quite simple examples. This works into the example where we work out and prove the plan will pass the test. The annual accrual method is a ratio. It is the difference of two ratios. The first is the accrued benefit over the compensation at the end of the year and the other is the same percentage from the prior year. You can see the ratios in the example, and then you get a 1.32% accrual rate for this employee. Under the accrued-to-date method, we take the accrued benefit at the end of the year, divide it by the compensation times service, where service is a greater of credited service or participation service. We get an accrual rate of 1.25%. And in this case when we also show the projected method, we get the same result. We get the 1.25% accrual. So this is the basic step that you start with when you perform the general test.

FROM THE FLOOR: Does the accrued-to-date method generally give you the lower accrual?

CHART 2

COMPARABILITY CALCULATION UNDER 401(a)(4) (ADVANCED)



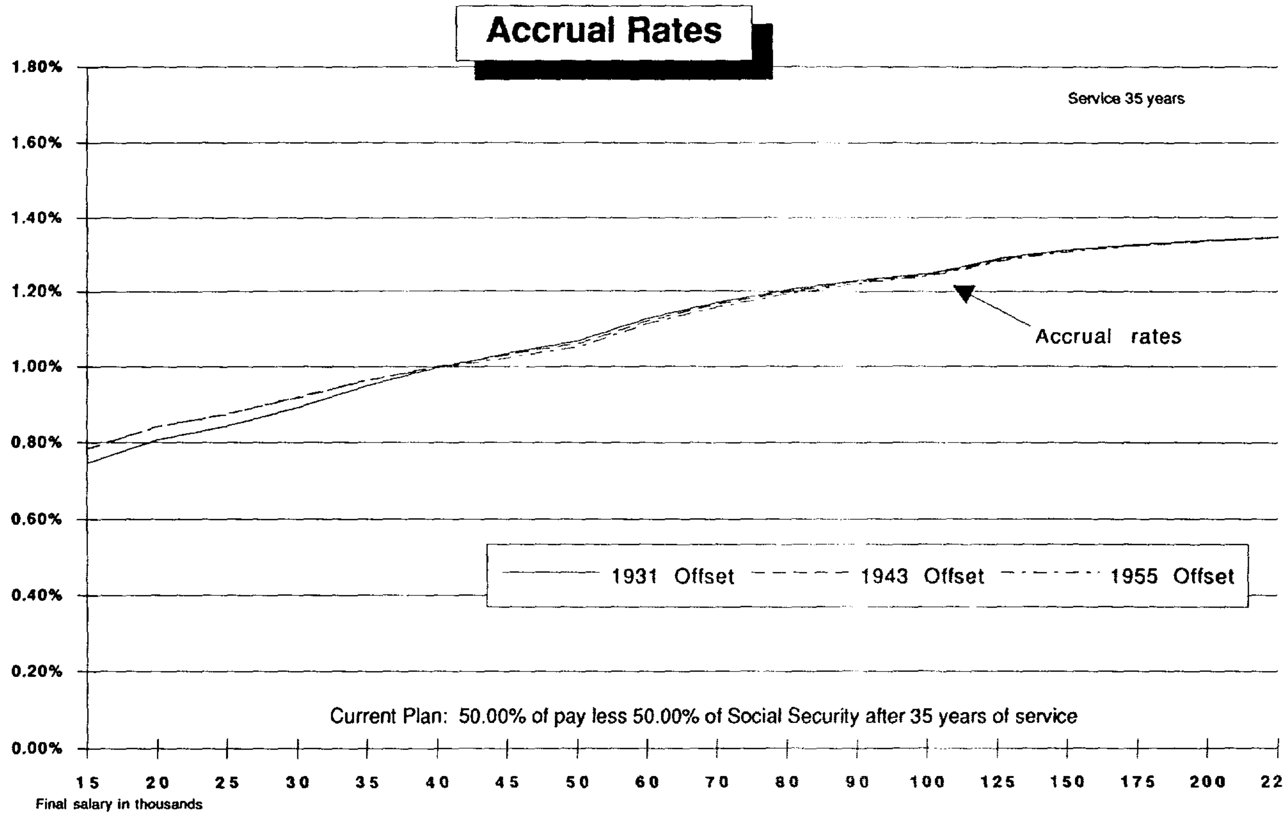

Accrual Rates
Service 35 years
Accrual rates
1931 Offset
1943 Offset
1955 Offset
Current Plan: 50.00% of pay less 50.00% of Social Security after 35 years of service
1.80%
1.60%
1.40%
1.20%
1.00%
0.80%
0.60%
0.40%
0.20%
0.00%
15 20 25 30 35 40 45 50 60 70 80 90 100 125 150 175 200 225
Final salary in thousands

CHART 4

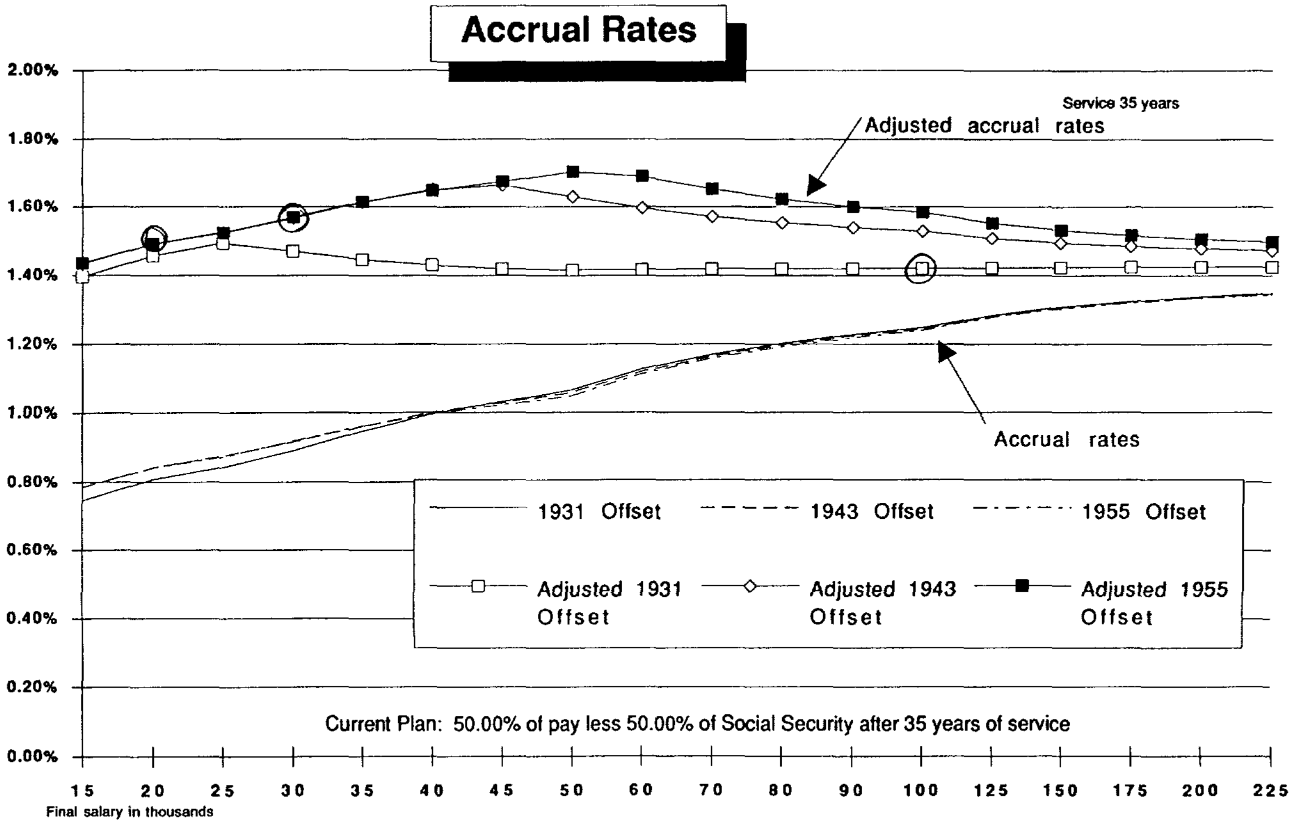

Accrual Rates
Service 35 years
Adjusted accrual rates
Accrual rates
2.00%
1.80%
1.60%
1.40%
1.20%
1.00%
0.80%
0.60%
0.40%
0.20%
0.00%
1931 Offset
1943 Offset
1955 Offset
Adjusted 1931 Offset
Adjusted 1943 Offset
Adjusted 1955 Offset
Current Plan: 50.00% of pay less 50.00% of Social Security after 35 years of service
15 20 25 30 35 40 45 50 60 70 80 90 100 125 150 175 200 225
Final salary in thousands

CHART 5

Annual Accrual Method

Normal accrual rate:

$$\frac{\text{Accrued benefit EOY}}{\text{Compensation EOY}} - \frac{\text{Accrued benefit EOY} - 1}{\text{Compensation EOY} - 1}$$

$$\frac{37{,}380}{100{,}000} - \frac{34{,}261}{95{,}000}$$

$$= 37.38\% - 36.06\% = 1.32\%$$

Accrued to Date Method

Normal accrual rate:

$$\frac{\text{Accrued benefit EOY}}{\text{Compensation EOY} \times \text{Service}}$$

(Service is greater of credited service or participation at the year end)

$$\frac{37{,}380}{100{,}000 \times 30} = 1.25\%$$

Projected Method

Normal accrual rate:

$$\frac{\text{Projected benefit}}{\text{Compensation} \times \text{Projected service}}$$

(Projected service is greater of credited service or participation at the normal retirement date)

$$\frac{43{,}610}{100{,}000 \times 35} = 1.25\%$$

MR. WIESE: I don't really know. I haven't seen enough tests to know whether that happens.

FROM THE FLOOR: I think on career average plans, the accrued-to-date method could be always the lowest. But for the final pay plans they would be closer together. On career average plans, you have some pretty low early benefits.

MR. WIESE: That's true. For a career average plan, where you have lower accrual in the early years, the answer was that you could have lower benefits under the accrued-to-date method than the annual accrual method. The compensation used would be current compensation. You can't project it forward with the salary scale.

FROM THE FLOOR: Is your example a final pay plan?

MR. WIESE: Yes, it is. And for the final pay plan, you project current compensation. This individual, as you'll see later in the example, is 60 years old. So when you project compensation, you use their current year's compensation for the three-year average.

The other part of the general test requires imputing disparity, and there are two methods that I've referred to as Basis A and B (Chart 6). I've not seen the name anywhere else, but it seems to me you have to differentiate between them. For people who earn less than covered compensation, after imputed disparity you can have two times the accrual rate as your adjusted accrual rate. If the person makes more than covered compensation, then the formula is the accrual amount divided by compensation less 0.5 of covered compensation. So where we've had a 1.32% or 1.25% formula before, now we have a 1.44%. Under Basis B, we have a 1.42% adjusted accrual rate. Here the formula is a little different. If the people earn less than covered compensation, they can add only the permitted disparity factor to the basic accrual rate. If they earn more than covered compensation, there is a more complicated formula where they add the permitted disparity factor times covered compensation to the annual benefit accrued, and divide the sum by compensation. The number you can use is the lesser of the two.

We have a plan with three participants in it. We look at their pay and their accrued benefit in 1990 and 1991 so we can calculate all three bases for them. The highly compensated employee's compensation went from $95,000 to $100,000. Employee B went $28,000 to $30,000, and Employee C went from $19,000 to $20,000.

So these are the basic data on the three participants. And then when we look at them, we have our two tests that we have to run: the normal accrual rate and the most valuable accrual rate (Table 2). And we actually pass the normal accrual rate under all three methods. We failed the annual accrual rate on the most valuable rate, but the accrued-to-date and projected still worked. This is basically what you end up with when you've completed the test; a little table of this sort. And all you need to do is demonstrate that the plan passes. When you start into the procedure, you don't necessarily have to work through all three methods. If you have experience

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CHART 6

Imputed Disparity

Basis A

Compensation under Covered Compensation

2 x accrual rate

Compensation over Covered Compensation

$$\frac{\text{accrual amount}}{\text{compensation - 1/2 covered compensation}}$$

$$\frac{1{,}246}{100{,}000 - 1/2 \times 26{,}700} = 1.44\%$$

Basis B

Compensation under Covered Compensation

accrual rate plus permitted disparity

Compensation over Covered Compensation

$$\frac{\text{accrual amount + (permitted disparity x covered compensation)}}{\text{compensation}}$$

$$\frac{1{,}246 + .65\% \times 26{,}700}{100{,}000} = 1.42\%$$

Allowed disparity is the lesser of Basis A or Basis B

TABLE 2
Normal Accrual Rate and Most Valuable Accrual Rate

	Employee			General Test
	A	B	C	
Normal accrual rate				
Annual method	1.49%	1.72%	1.51%	Pass
Accrued-to-date method	1.42	1.57	1.49	Pass
Projected method	1.42	1.57	1.49	Pass
Most valuable accrual rate				
Annual method	1.66	1.86	1.62	Fail
Accrued-to-date method	1.58	1.68	1.60	Pass
Projected method	1.58	1.68	1.60	Pass

with it, you can just use the projected method or whatever you feel is more appropriate. Work through the results and create a table like this, and you know then the plan passes if you can answer this correctly.

Now let's look at the actual calculations briefly. This is the full table of calculations and we did it both ways; both the normal accrual rate and the most valuable (Tables 3 and 4). It looks complicated, but if you just sort of look at each section independently it is not so bad. On the annual accrual method, we calculate the benefit in 1990 at the end of 1991. We calculate the percentages. You get the difference. It's the normal accrual rate. Multiply that by compensation to get the accrual amount. And then adjust it for the disparity as we showed previously, and you'll end up with the 1.49%, 1.72%, 1.51%.

For the accrued-to-date method, we follow the same procedure. Calculate the accrued benefit, divide by service times compensation, get the accrual rate, go through the same adjustments. Basis B tended to be the correct basis in all the calculations here. And then finally the projected method, we went through that. So that's how we actually went through to calculate the normal accrual rate for this particular group of three people. Once you get the formulas in the computer, it doesn't take as long to do as it takes to explain it.

Now we also had to adjust, in this particular case, the plan's early retirement benefit because it was better than the allowed early retirement benefit. Table 5 shows the actual and the allowed early retirement benefit factors. The allowed factors were calculated under one of the allowable tables and interest rates that are specified in the regulations. Then you calculate the benefit ratio between the two and as you can see age 59 was the most valuable benefit age and the ratio was 112.85% of the normal benefit. So based on this calculation then, you have to go back and rework all the previous numbers. And all you really do is bring the 112.85% into a couple of the calculations and just multiply and recalculate the accrual rates. We then just run the same material for the most valuable accrual rates. And then again, the numbers get summarized into a table (Table 5).

TABLE 3

Normal Accrual Rate

Basic Data

	Employee A		Employee B		Employee C	
	1990	1991	1990	1991	1990	1991
Salary	95,000	100,000	28,000	30,000	19,000	20,000
Covered Comp		26,700		43,776		52,944
Soc Sec	1,025	1,065	850	895	654	685
Age	59	60	47	48	35	36
Service	29	30	17	18	5	6

Annual Accrual Method

Annual Benefit	34,261	37,380	4,323	4,953	797	1,010
Benefit rate	36.06%	37.38%	15.44%	16.51%	4.19%	5.05%
Normal accrual rate		1.32%		1.07%		0.86%
Accrual Amount =	100,000 * 1.32% = 1,315		321		171	
Basis A		1.52%		2.14%		1.71%
Basis B		1.49%		1.72%		1.51%
Adjusted accrual rate		**1.49%**		**1.72%**		**1.51%**

Accrued to Date Method

Annual Benefit		37,380		4,953		1,010
Pay x Service		3,000,000		540,000		120,000
Normal accrual rate		1.25%		0.92%		0.84%
Accrual Amount =	37,380 / 30 = 1,246		275		168	
Basis A		1.44%		1.83%		1.68%
Basis B		1.42%		1.57%		1.49%
Adjusted accrual rate		**1.42%**		**1.57%**		**1.49%**

Projected Method

Annual Benefit		43,610		9,630		5,890
Benefit / Service		1,246		275		168
Normal accrual rate		1.25%		0.92%		0.84%
Accrual Amount =	43,610 / 35 = 1,246		275		168	
Basis A		1.44%		1.83%		1.68%
Basis B		1.42%		1.57%		1.49%
Adjusted accrual rate		**1.42%**		**1.57%**		**1.49%**

COMPARABILITY CALCULATION UNDER 401(a)(4) (ADVANCED)

TABLE 4

Most valuable factor 112.85%

Most Valuable Accrual Rate

Basic Data

	Employee A		Employee B		Employee C	
	1990	1991	1990	1991	1990	1991
Salary	95,000	100,000	28,000	30,000	19,000	20,000
Covered Comp		26,700		43,776		52,944
Soc Sec	1,025	1,065	850	895	654	685
Age	59	60	47	48	35	36
Service	29	30	17	18	5	6

Annual Accrual Method

Annual benefit	34,261	37,380	4,323	4,953	797	1,010
Benefit rate	36.06%	37.38%	15.44%	16.51%	4.19%	5.05%
Normal accrual rate		1.32%		1.07%		0.86%
Most valuable accrual rate		1.48%		1.21%		0.97%
Accrual Amount =	*100,000 * 1.48% = 1,484*		*362*		*193*	
Basis A		1.71%		2.41%		1.93%
Basis B		1.66%		1.86%		1.62%
Adjusted accrual rate		**1.66%**		**1.86%**		**1.62%**

Accrued to Date Method

Annual benefit	37,380	4,953	1,010
Pay x Service	3,000,000	540,000	120,000
Normal accrual rate	1.25%	0.92%	0.84%
Most valuable accrual rate	1.41%	1.03%	0.95%
	37,380 * 112.85% = 42,182	5,589	1,139
Accrual Amount =	42,182 / 30 = 1,406	310	190
Basis A	1.62%	2.07%	1.90%
Basis B	1.58%	1.68%	1.60%
Adjusted accrual rate	**1.58%**	**1.68%**	**1.60%**

Projected Method

Annual benefit	43,610	9,630	5,890
Benefit / Service	1,246	275	168
Normal accrual rate	1.25%	0.92%	0.84%
Most valuable accrual rate	1.41%	1.03%	0.95%
	43,610 * 112.85% = 49,212	10,867	6,647
Accrual Amount =	49,212 / 35 = 1,406	310	190
Basis A	1.62%	2.07%	1.90%
Basis B	1.58%	1.68%	1.60%
Adjusted accrual rate	**1.58%**	**1.68%**	**1.60%**

TABLE 5
Actual and Allowed Early Retirement Benefit Factors

Retirement Age	Plan's Early Benefit	Allowed Early Benefit	Benefit Ratio
55	34.00%	34.41%	98.82%
56	40.00	37.94	105.43
57	46.00	41.90	109.78
58	52.00	46.36	112.15
59	58.00	51.40	112.85
60	64.00	57.09	112.10
61	71.20	63.55	112.03
62	78.40	70.91	110.57
63	85.60	79.31	107.94
64	92.80	88.93	104.35
65	100.00	100.00	100.00

FROM THE FLOOR: On the projected basis, you just multiply the projected benefit by the 112.85%?

MR. WIESE: Yes.

FROM THE FLOOR: To get your most valuable accrual rate?

MR. WIESE: Yes.

FROM THE FLOOR: Could you project it just to 59?

MR. WIESE: I guess you could do that. I don't know what effect it would have on the result. Probably it would lower the accrual. I just projected them all to 65.

MR. JOSS: There was a question toward the end about most valuable accrual rates, and I'm aware of two different methods that are in use for calculating most valuable accrual rates. Follow the words in the regulations, it says, "Project a benefit to each and every age that a person might retire." If I have someone who is hired at 53, by the time that person is 55, he'll only have two years of service. He might be eligible for the heaviest level of subsidy at 55. The ultimate benefit because that person has only two years of service is not quite so big. Projected at 56, play the same game. Projected at 57, play the same game. Projected at 58, play the same game. You get sort of a curve that says for that person who is hired at age 53, the most valuable age at which his or her benefit might be paid would be a benefit that's payable at age 60. You take the benefit that's payable at age 60 and convert it to . . . a life annuity at 65 and use that in coming up with your most valuable accrual rates.

I'm also aware of consultants who have looked at the actual subsidizing factor. Let's say if the most heavily subsidized benefit is age 55, we'll use a uniform factor for everybody. I had occasion to converse with a Senior IRS official and he suggested that I write a letter. I wrote a letter on behalf of The Wyatt Company that says, "There's a little bit of confusion going on out there. There's these two different methods. And until the final regulations come out, can you allow us to use both?"

Hopefully that explains a little bit more about how to calculate most valuable accrual rates.

FROM THE FLOOR: What was the second one again?

MR. JOSS: The two different methods for most valuable? The first is to project to each and every age and pick the age at which the benefit is the biggest, and that's the most valuable age. For the second method, let's say the only issue is early retirement subsidy, then use the age at which there is the highest subsidy. Under the second method age 55 might be the most valuable age for everybody, including somebody who was hired at 53. Whereas if you played the year by year projection game, someone hired at 53 would have a most valuable age closer to 60.

FROM THE FLOOR: Why would his most valuable age be different? Why would the 53-year-old hire have a different most valuable age than an age 25 hire, unless he had different early retirement factors or was not eligible to retire early?

MR. JOSS: In the letter to the IRS, we picked a nice simple formula: 1% times high five. And we looked at a person I guess who was hired at age 50. If we project service for this individual, he or she would have five years of service at age 55, six at age 56, seven years at age 57, 10 at age 60, and 15 years at age 65. The formula benefit was like 1% times $30,000 worth of pay times years of service, and would give a $1,500 benefit (I'll call it "calculated" benefit) at age 55. That would go to $1,800 for six years of service, $2,100 for seven years of service, $3,000 at age 60, and $4,500 at age 65. Those are just the calculated benefits. In our example we said we're going to have unreduced early retirement at age 55. So this benefit could be paid at age 55. Its equivalent benefit payable at age 65 turned out to be $4,264. That's the equivalent conversion of this age 55 benefit to 65. The $1,800 age 56 benefit converted to $4,645; a bigger number. So that if this person is making a rational decision he would say, "I want to work one more year because my equivalent benefit is bigger. Somehow giving up the full subsidy at 55 and working the extra year gets me a bigger total benefit at 65." Even though accrual rate is less.

FROM THE FLOOR: But don't you have to divide the first number by five and the second one by six?

MR. JOSS: Let me go on. The biggest one of these benefits turns out to be at age 60 at $5,180. And of course, at 65, we're back to $4,500. If you read the little squibbies in 401(a)(4) and I've had many opportunities to read little squibbies, it says in calculating the most valuable accrual rate, you take the person's benefit that is projected to each year, convert it to an equivalent life annuity at 65, and pick the most valuable number. That then becomes the person's most valuable age. So then you would take this number, divide it by 10 years of service, and you come up with a lower most valuable rate than if you played the same game at 55.

FROM THE FLOOR: Does this count only if you use the projected method?

MR. JOSS: No. If you read the little section where it defines most valuable rate, the words say, "Calculate each person's benefit at each and every age." Do we want to do this or not? I don't know if I could find it, but trust me on this one. Go home and try to figure it out. It says, "Take a benefit, calculate it at each and every projected age. Convert it to age 65. And where this number is the biggest, that's the age you have to play with in determining the person's most valuable accrual rate. It is a lower number than if we calculated a corresponding most valuable rate for this human being at age 55.

FROM THE FLOOR: That analysis seems to be a function of the method of accrual testing that you're using, as opposed to always using the projected method, which it sounds like your interpretation is. The projected method to determine the most valuable age. So that it seems to me that if you're using one of the other methods, the accrued-to-date for example, that analysis of projecting one's benefit is inconsistent.

MR. JOSS: I would use age 55. I am aware of other people who are doing it another way, and as a defense posture, I pointed out what we were doing to the IRS and obtained at least temporary relief that it could be read either way. To be quite honest, I still read the language to require the year by year projections, independently of whether you are using the current accrual method or the accrued-to-date method or the projected method. You're still supposed to play that game. I don't like, but that's how I read it. But I'm one person.

FROM THE FLOOR: The previous example was completed by comparing the maximum permitted early retirement rates to what was in the plan. That was the first method you talked about.

MR. JOSS: The comment was that the example presented earlier just picked the most valuable age for everybody by looking at what age the early retirement benefit is most heavily subsidized. And I would say yes, that's what he did and that's what I have done.

FROM THE FLOOR: All these most valuable rates so far have been based on early retirement. Now there are other things, are there not, that could influence the most valuable rate, like subsidized joint and survivor benefits.

MR. JOSS: Good comment. We've been focusing on the early retirement subsidy in determining most valuable rates. Joint and survivor or 10-year certain and life or other features also enter in.

FROM THE FLOOR: Now in those circumstances for general testing, we will theoretically have to know everybody's marital status and the ages of the spouses.

MR. JOSS: The comment was you need to know everybody's marital status. You have to be able to get an actuarial assumption in there some place. I think you get to assume spouses are the same age or something to that effect.

FROM THE FLOOR: I thought that that was required.

MR. JOSS: Great.

FROM THE FLOOR: Even though you know that the Chairman of the Board has just married a 20-year-old.

MR. JOSS: Now let's go to my piece of the program which is restructuring. The philosophy behind restructuring is that instead of having a 50/50 primary insurance amount (PIA) offset program, that you could adopt a whole series of little plans. Let's say a 1% of final pay plan covering everybody, and then an extra 0.1% covering everybody except this first section over here, and then an extra 0.1% covering everybody except those two sections, and finally a 0.1% covering everybody else. And by tiering up these series of plans, you can demonstrate that each of the various groups satisfies 410(b) coverage. I think it is ludicrous, but it is the hoop and hurdle that we're jumping through.

My personal experience before I got out of consulting, and by the way this is an example of the reason I got out of consulting -- it is so embarrassing to go to a customer and try to explain this stuff, was that we did have quite a bit of general testing. To summarize the practice, we would calculate these normal and most valuable accrual rates for each employee, and as Ted talked about, adjust for permitted disparity. Finally, as I just mentioned, we would try to break them into little groups to see if each of these groups satisfies 410(b). And that's the name of the game.

The example that I'm going to give is a real-life situation. The employer had 115 employees, a small company. They had a formula; 1.75% times high five minus 1.5% times PIA times service. The company wanted to go to a safe harbor. But rather than going back and redoing 15 or 20 benefit calculations to see who won and who lost, the employer said, "Can't we make our new safe harbor formula effective 1/1/91 or 1/1/92?" And we said, "Sure. Let's try a general test for these intervening years so that this formula is somehow demonstrated as meeting 401(a)(4) for the intervening years. And then we'll amend to a safe harbor at some point in the future." It makes for a much smoother transition. And in fact, more than half of the general tests I've been involved in have been ones where we're just trying to cover a few years.

Since the formula is 1.75% times high five minus 1.5% times PIA, for this highly compensated employee, a normal accrual rate of 1.43% sounds about right (Table 6). It has to be something less than 1.75%.

For another highly compensated employee, we come up with a normal accrual rate of 1.46%. Once again, it feels right. It gives you a good, warm feeling. For those lower-paid, nonhighly compensated employees, the offset piece is going to be proportionately bigger. And so we get normal accrual rates of 1.24% or thereabouts. Once again, some numbers that feel like they are in the right range. Unfortunately, they are bigger for the highly compensated employees than they are for the nonhighly compensated employees.

The next question was early retirement subsidy or joint and survivor or 10-year certain. I believe this plan even had a 10-year certain feature. We then adjusted the normal rate to a most valuable rate. If you do all the arithmetic, you will see there is

TABLE 6
Illustration – Uniform Formula
[(1.75% × High-5 – 1.50% × PIA) × Svc]

Name	Normal Accrual Rate	Most Valuable Accrual Rate	Adjusted MV Rate
HCE 1	1.43%	2.81%	3.28%
HCE 2	1.46	2.87	3.29
.	.	.	.
.	.	.	.
.	.	.	.
NHCE 106	1.24	2.43	3.08
NHCE 107	1.28	2.51	3.16
NHCE 108	1.14	2.24	2.89

a nice uniform adjustment because I used age 55 as the most valuable age for everybody. I did not project everybody to every age to find a most valuable age and go forward. Finally, we then tack on a permitted disparity piece. This is a chunk for the Social Security integration. I think I used a uniform 0.65% for all the nonhighly compensated employees who are all earning less than covered compensation. And for the highly compensated employees, we got something a little less than the 0.65%.

Looking at all the adjusted numbers, I still have some highly compensated employees who have bigger adjusted most valuable rates than the nonhighly compensated employees. When we take a look at the entire employee group, everybody's rate was at least 2.85%. I call it a calculated number. It doesn't mean a thing. It's just a calculated number. Everybody's calculated number was at least 2.85%, so that we had all 108 nonhighly compensated participants in this "plan" (Table 7). It is sort of like we adopted a plan that says everybody gets 2.85% of pay except it really doesn't mean that, because it is just a phoney number anyway. Also, all seven highly compensated employees fit in this "plan."

TABLE 7
Restructuring – 410(b) Test

Rate Segment	NHCE Participant	NHCE Ratio	HCE Participant	HCE Ratio	Test Ratio
Less than 2.85%	108	100%	7	100%	100%
2.85 - 3.10	107	99	7	100	99
3.10 - 3.35	56	52	7	100	52*
3.35 - 3.60	14	13	2	29	45*
3.60 or more	9	8	0	N/A	N/A

* Threshold percentage is 25% because plan passes average benefit percentage test.

The next group, and you can group within a 0.1% step in either direction or a 5% multiplicative step, we lost one nonhighly compensated person. We kept all seven highly compensated people, but we passed the 70% ratio test from IRS Code Section 410(b). The next group was a little bit tougher. We lost a lot of nonhighly compensated employees and we haven't lost any of the highly compensated. But since this group was pretty nonhighly compensated dominated, we were able to use an average benefits test to come up with a lower threshold than the 0.7 factor. In fact, we can use 0.25. Since we had the highly compensated participation percentage of 100%, and a nonhighly compensated participation percentage of 52%, we get a 52% test ratio, which once again passed us.

For this plan, I used only the most valuable rates. If you have a uniform formula, that is a formula that covers everybody, and there are no special "gimmies" for the highly compensated, etc., you can just test by looking at most valuable rates. You don't have to look at normal rates. That actually simplifies things considerably.

FROM THE FLOOR: Do the brackets have to be an even 5%?

MR. JOSS: No, they don't. They just have to be within a certain borderline. But they put a sentence in regulations that says if you picked your brackets so that it appears as if you're trying to stuff highly compensated employees at one end of the bracket, we're going to come and get you. And so as an advisor to the consultants in The Wyatt Company, I would encourage them to pick uniform brackets, as a means of avoiding that challenge.

FROM THE FLOOR: Basically, all this does is get around the rule that all highly compensated employees must have lower numbers than any nonhighly compensated employee. Even though there are nonhighly compensated people who are below the highly compensated, you still have a qualified plan.

MR. JOSS: In fact, every highly compensated person has a calculated number of 3.1. Every highly compensated person has a number at least that large, and I have some nonhighly compensated employees that have a calculated number which is less than 3.1.

FROM THE FLOOR: It seems to fly against the very rule, the general rule.

MR. JOSS: Thinking like an actuary, I would agree with you. Thinking like the person who drafted this stuff, you say I could have adopted these various plans and covered various groups with these plans. I don't know how to identify these people ahead of time, but I did. And each one of these plans would then satisfy 410(b). It is a crazy system. That is why I made those comments earlier.

FROM THE FLOOR: Would you go through why your upper two brackets are passing? There's a little footnote that tells it all to you, but it doesn't tell anything to me.

MR. JOSS: Let's look at just the 3.35-3.60 bracket. Why is it passing? I have 14 nonhighly compensated employee participants in that bracket out of a total of 108, for a 13% participation ratio for my nonhighly compensated employees. I have two highly compensated participants in that bracket out of seven, for a 29% participation rate for my highly compensated employees. I take the nonhighly compensated employee participation rate and divide it by the highly compensated employee participation rate and come up with a 45% number, which is called the test ratio. Normally, test ratios need to be 70%. But another rule says that if the average benefit for nonhighly compensated employees is at least 70% of the average benefit for highly compensated employees, we can use a lower threshold than the 70% figure. This is the average benefits test of 410(b). The 410(b) regulations have a little chart that tells the new factors. Also there is a formula that allows you to use this threshold that's lower than 70%. Going through the arithmetic, we calculated the threshold as being 25%.

FROM THE FLOOR: If the overall average is 70% or better, you then get to use a much lower percentage for your brackets.

MR. JOSS: Exactly. The theory is that if you're covering lots of nonhighly compensated employees and their average benefit is pretty good in comparison to the highly compensated employees, we'll let you get by with a lower test ratio than 70%.

I want to talk about sequential restructuring. In the illustration that we've been focusing on, we have to look just at most valuable rates because it was a uniform formula covering everybody. If you are aggregating plans, let's say you've got a plan in Minnesota and a plan in Washington and they're different but you need to aggregate them to meet coverage or other reasons, you do not have a uniform formula. Then you need to look at both: most valuable accrual rates and normal accrual rates. You, me, and a lot of other people might say, "What the heck, let's test most valuable, let's test normal. If each test works, let's get on with life." The federal regulators are worried in that situation that you might be able to take one group of nonhighly compensated employees and wash out the CEO on the most valuable test, and a completely different group of nonhighly compensated employees and wash out the CEO on the normal test. So they came up with this idea called sequential restructuring.

FROM THE FLOOR: Realizing you're not the regulator with whom we should argue, the CEO can collect only on one basis. He may have the opportunity to collect on a number of different bases, but there's only one he's going to collect. He's going to go out and some age and elect some option. So whichever way you test, you're going to catch him on that option that he elected. So why worry about all the ones he didn't elect?

MR. JOSS: I'll go back to the statement that I started with this, that this whole game is about as silly as calling a PBGC payment a premium as opposed to a tax. And I agree totally with the comments from the floor. This is a ridiculous exercise that we go through that runs up client money for absolutely no good at all.

I'm aware of at least two different approaches to sequential restructuring. I tried to create a situation that the regulators are worried about where we have a highly compensated employee who has a low normal rate, and a high most valuable rate. Yet I can find enough nonhighly compensated employees to wash out that high rate and some other nonhighly compensated employees to wash out the high normal rates for other highly compensated employees. If I could just do two tests, one for most valuable rates and one for normal rates, I would pass without any problem. But sequentially restructuring creates some problems (Table 8).

TABLE 8
Sequential Restructuring - Raw Data

	NAR	MVAR		NAR	MVAR
HCE					
M	2.3%	4.0%	P	2.6%	2.6%
N	2.3	2.3	Q	3.0	3.0
O	2.6	2.6	R	3.0	3.0
NHCE					
A	2.0%	2.0%	G	2.6%	2.6%
B	2.0	2.3	H	2.6	3.0
C	2.0	2.6	I	2.6	4.0
D	2.3	2.3	J	3.0	3.0
E	2.3	2.6	K	3.0	3.0
F	2.3	3.0	L	3.0	4.0

Step 1 in a sequential restructuring is to do a normal test first (Table 9). If you are worried that these ranges are too big, it is just because I picked the numbers that would work out that way. We might have the same people appearing in two or three ranges. But for the first 2.0% we covered everybody. For the next 2-2.3% I lost some nonhighly compensated employees but I had nine of them left over. And nine left over was enough to make this thing work. We didn't even have to use the average benefits test. This is exactly like what we had before. That's step 1.

TABLE 9
NAR Restructuring – 410(b) Test

Rate Segment	NHCE Participant	NHCE Ratio	HCE Participant	HCE Ratio	Test Ratio
First 2.0%	12	100%	6	100%	100%
2.0 - 2.3	9	75	6	100	75
2.3 - 2.6	6	50	4	67	75
2.6 - 3.0	3	25	2	33	75

Step 2 says we must look at each of these little subgroups and divide them into smaller subgroups and show that if we started with a normal accrual rate test that the most valuable test will still work (Table 10). We could have started with most valuable test and show that the normal test will work. What you wind up with is then a matrix of numbers. And in fact, some firm came up with the term "matrix restructuring." I'm not sure if this is matrix restructuring as used by that firm or not. Within The Wyatt Company I've referred to it as total rate restructuring. And I use that term because I'm looking at the total rates for each and every employee as we go through the exercise. But essentially you come up with a matrix of rates that says for the normal accrual rates of up to the first 2% and for the most valuable accrual rates of up to the first 2%, everybody is there. If I take the nonhighly compensated employee ratio divided by the highly compensated employee ratio, that's 12 out of 12 divided by 6 out of 6, I get 100%.

TABLE 10
Total Rate Sequential Restructuring - 410(b) Test

	MVAR Rates				
NAR Rates	First 2.0	2.0 - 2.3	2.3 - 2.6	2.6 - 3.0	3.0 - 4.0
First 2.0	12/12 06/06 100%	11/12 06/06 92%	09/12 05/06 90%	06/12 03/06 100%	02/12 01/06 100%
2.0 - 2.3	N/A N/A N/A	09/12 06/06 75%	08/12 05/06 80%	06/12 03/06 100%	02/12 01/06 100%
2.3 - 2.6	N/A N/A N/A	N/A N/A N/A	06/12 04/06 75%	05/12 02/06 125%	02/12 00/06 N/A
2.6 - 3.0	N/A N/A N/A	N/A N/A N/A	N/A N/A N/A	03/12 02/06 75%	01/12 00/06 N/A

This portion of the matrix represents the normal rates from 2-2.3% and the most valuable rates from 2.3-2.6%. I had eight of 12 nonhighly compensated participants in that bucket, and five of six highly compensated participants in that bucket. Dividing those ratios, we come up with 80%. Since this number (and all the others) exceed 70% we passed the test and can get on with life. We've jumped through the hoop or hurdle that we needed to. I think this is the most common type of sequential restructuring that I have seen.

But given that there are consultants out there who think in ways that I would never even dream of, one of our guys came up with something called pro rata most valuable accrual rates (Table 11). The concept here is based on the language of the proposed regulation, where for each normal rate we have an associated or an affiliated or an allocated most valuable rate. Under the pro rata approach, the first thing to do for each employee is to allocate the most valuable rate to portions of the normal accrual rate. For example, let's look at an employee who's normal rate is 2% and who's most valuable rate is also 2%. The entire most valuable rate was then associated or affiliated with that normal rate step of 2.0. For employee B who also had a 2.0 normal rate but a 2.3 most valuable, the entire most valuable rate had to be associated with the initial normal rate. For employees who then begin to get normal rates that are bigger than 2.0, like employee D whose normal rate was 2 plus 0.3, it is like the employee participated in two plans: one providing a 2% of pay formula, and one providing a 0.3% of pay formula. We now allocate the most valuable rate so that on a most valuable basis he also is in a plan that provides 2% for most valuable and an extra 0.3 for most valuable in the second plan.

TABLE 11
Pro-Rata MVAR Rates

Employee	Segment 1 NAR	Segment 1 MVAR	Segment 2 NAR	Segment 2 MVAR	Segment 3 NAR	Segment 3 MVAR
A	2.0	2.00	–	–	–	–
B	2.0	2.30	–	–	–	–
D	2.0	2.00	0.3	0.30	–	–
E	2.0	2.26	0.3	0.34	–	–
G	2.0	2.00	0.3	0.30	0.3	0.30
H	2.0	2.30	0.3	0.35	0.3	0.35
M	2.0	3.48	0.3	0.52	–	–

We just allocate these most valuable rates on a what I'll call a pro-rata basis or in proportion to how their normal rates were split up once you picked the schedule for normal rates. Then you have plans that you test. This was an interesting example in that it flunks. This is part of Wyatt's comment letter to the IRS on 401(a)(4). For right now, if you can get a client through either one of these hoops, congratulations. I'd recommend that you stick it in your file and pray that no one ever looks at it.

MR. WILLIAM V. HOGAN: This is really a fairly straightforward section of the testing. I found the reading to be fairly easy to do. It mirrors target benefit type plans in how you would arrive at that kind of a calculation. The first example that I took was to take a look at a straightforward integrated defined contribution formula just to see how it would stack up if we converted it into benefits (Table 12).

TABLE 12
Defined Contribution Allocation Formula #1

5.7% of Compensation
PLUS
5.7% of Compensation in Excess
of the Social Security
Taxable Wage Base ($53,400)

Employee	Age	Compensation	Allocation	As a % of Compensation
A	50	$200,000	$19,756	9.88%
B	40	30,000	1,710	5.70
C	35	20,000	1,140	5.70
D	30	15,000	855	5.70
		$265,000	$23,461	8.85%

I took an employee group of about four people, paired it down, and as you would expect, the contribution as a percentage of compensation is pretty typical. The highly compensated employee, who is employee A, gets nearly 10% and the others get the base percentage.

The first step that we need to go through in the conversion process would be to choose a testing age, and we're allowed to choose any age that we want as long as it's between 55 and 65. I basically chose both ages just as a demonstration. Then we need to look at the actuarial factors in order to convert to annuity values. The regulations require the use of interest only on the preretirement accumulation of the contribution to convert to a benefit. The regulation says to use a reasonable interest rate. Now the regulations don't really point to the factors that they specify as the postretirement factors, but I chose to use 8.5% in this case because it fit that range, and I figured it wouldn't be questioned. Converting that accumulation at retirement at age 55 or 65, I chose to use 8.5% as well and the UP-1984 Mortality Table. The regulation specifies, as you are probably aware, four other tables that you may use. And you could use an interest rate as low as 7.5%.

So now at that point then, we need to project the allocation forward and convert to a benefit. Doing that for employee A basically just accumulating with interest and dividing by an annuity factor, I get dollar amounts at age 55 and 65 (Chart 7).

CHART 7

Example: Employee A

$$\text{Testing Age 55 Value} = \frac{\$19{,}756 \times 1.085^{5}}{9.5842} = \$3{,}099$$

$$\text{Testing Age 65 Value} = \frac{\$19{,}756 \times 1.085^{15}}{7.9486} = \$8{,}450$$

The next step after that then would be to convert each dollar amount into a percentage, a normal accrual rate. Now, we're also allowed to impute permitted disparity. We don't have to, but you can do it, and in most cases, I think you would want to do it. It's going to help you out in the test. For employee A by doing that, we have to use what we call Formula 2 because he's earning in excess of covered compensation, and we come up with an adjusted benefit percentage. We do the same thing for employee C, only in this case, because he's earning less than covered compensation, we would only be adding in the permitted disparity factor, a much more straightforward calculation. And you can see the discrepancies. Employee C is doing quite well under this conversion (Chart 8).

The end result of doing that test for this straightforward integrated formula is that this plan passes both testing ages without any problem at all (Table 13). And actually it looks like you've got an awful lot of leeway. You could probably do a little bit more. So the conversion process actually points out a fairly beneficial situation here, and it's probably as you would know, mainly because employee A is significantly older than the other employees.

Determining Equivalent Benefit %
(with Social Security)

There are two formulas depending upon whether the individual's comp is less than or greater than the covered compensation.

<u>Example</u>:

1. Employee A @ Age 65 (Above Covered Comp)

   $$\text{Equivalent Ben \%} = \frac{\$\,8{,}450 + (.007 \times \$41{,}400)}{\$200{,}000} = 4.37\%$$

2. Employee C @ Age 65 (Below Covered Comp)

   $$\text{Equivalent Ben \%} = \frac{\$\;1{,}658}{\$30{,}000} + .0065 = 8.94\%$$

TABLE 13
Testing Results for Allocation Formula #1

Employee	Testing Age	
	65	55
A	4.37%	1.65%
B	6.21	2.37
C	8.94	3.36
D	13.11	4.89

I chose another example then to see how that would look. Basically what I did was just allocate a percentage of compensation based on the amount of years of service. Everybody would get a minimum of 3%. Make sure top heavy isn't a problem and that kind of thing. If somebody had 10 years of service, he or she would get a 10% allocation.

When we look at the numbers, we see that employee A gets an allocation of 15% (Table 14). We're assuming that he has 20 years of service. Based on their service, the others are going to get 8%, 5%, and 3%. When we convert that, the results that we get are really still pretty favorable. As you can see, employee A has still got the lowest benefit percentage. So the general test has been passed with flying colors here.

TABLE 14
Testing Results for Allocation Formula #2
(Group 1)

Employee	Age	Service	Compensation	Allocation	Allocation %	Testing Age	
						65	55
A	50	20	$200,000	$30,000	15%	4.37%	1.65%
B	40	8	30,000	2,400	8	6.21	2.37
C	35	5	20,000	1,000	5	8.94	3.36
D	30	1	15,000	450	3	13.11	4.89

I decided to expand the group a little bit on that formula, and looking at group 2, we see now we've got another situation where you've got employee A who is highly compensated, employee C is fairly highly compensated (Table 15). Looking at employee B, he's relatively well paid. He's got a lot of service, probably a valuable professional employee, but not really in the highly compensated group. And you can see then the other three are the same. In the allocation process, the top three get the maximum allocation and the bottom three grade down. Looking at the results of the general test, we can see that employee C presents a problem for us here in terms of just looking at the straight general test. I didn't go through the exercise, but I suspect you could probably restructure and pass the test. But you can see how the age factor is playing up there on that conversion.

TABLE 15
Testing Results for Allocation Formula #2
(Group 2)

Employee	Age	Service	Compensation	Allocation	Allocation %	Testing Age 65	Testing Age 55
A	55	30	$200,000	$30,000	15%	4.39%	1.63%
B	50	25	50,000	7,500	15	7.00	2.64
C	45	15	100,000	15,000	15	9.97	3.70
D	40	12	30,000	3,600	12	12.30	4.96
E	35	5	20,000	1,000	5	7.92	3.32
F	30	1	15,000	450	3	7.21	3.06

In a third formula, I put together a point system to see what that would produce, giving 10 points for each $1,000 of compensation, 10 points for each year of service and 10 points for each year of age. (Total contribution equals 15% of covered payroll allocated in proportion to the ratio of a participant's total points to the total points for the group.) In doing that kind of an allocation, I came up with some interesting percentages, and unfortunately employees A and C wouldn't be too happy with this type of formula as proposed (Table 16). That structure significantly benefitted the lower-paid people. Doing the conversion process as you would guess then, that skewed it way up in terms of the lower paid. So this particular situation didn't provide much of a benefit to the highly compensated.

TABLE 16
Testing Results for Allocation Formula #3
(Group 2)

Employee	Age	Service	Compensation	Allocation	Allocation %	Testing Age 65	Testing Age 55
A	55	30	$200,000	$23,405	11.7%	3.46%	1.28%
B	50	25	50,000	10,266	20.5	9.36	5.84
C	45	15	100,000	13,140	13.1	8.78	3.26
D	40	12	30,000	6,734	22.4	22.41	8.66
E	35	5	20,000	4,927	24.6	36.47	13.79
F	30	1	15,000	3,778	25.2*	55.72	20.85

* Limit to 25%.

FROM THE FLOOR: Employee F is over 415.

MR. HOGAN: Okay, you're right. That would have to be adjusted downward. Another formula to look at just would be to give the owner 15% of pay and give everybody else 5% of pay, just to see what that would look like. When we look at the numbers there then, employee A in group 1 gets 15% (Table 17). The other three get 5%. We then do the conversion, and employee A is slightly above employee B in terms of the benefit percentage. You would probably want to provide an additional allocation to employee B and you'd pass the test. You could maybe set up your formula to make that corrective adjustment if you put that in the actual allocation formula or some other type of formula to put B up there so that he wouldn't cause A to fail. Then you could make this test pass.

TABLE 17
Testing Results for Allocation Formula #4
(Group 1)

Employee	Age	Service	Compensation	Allocation	Allocation %	Testing Age	
						65	55
A	50	20	$200,000	$30,000	15%	6.56%	2.42%
B	40	8	30,000	1,500	5	5.54	2.11
C	35	5	20,000	1,000	5	7.92	2.98
D	30	1	15,000	750	5	11.58	4.33

FROM THE FLOOR: Otherwise he'd pass an average benefits test.

MR. HOGAN: Or an average benefits test. Group 2, pretty much the same scenario, only this time it's because you're keeping C down at 5% (Table 18). You're in pretty good shape. Once again, you'd have the same problem with employee D. You'd have to adjust a little bit. But essentially you're not too far off from passing. And actually if you do a few of the other hoops that we've gone through in the general test, you might be able to push that kind of a formula through. So I think just kind of looking at those four formulas and taking a look to see what kind of percentage the highly compensated received in relation to the total contribution paid, you can see that we obviously have done the best with that fairly discriminative formula in formula 4 (Chart 9). Formula 2 does pretty well for group 1. So depending on the group characteristics, you could kind of structure things to help out that way. In general, you can see that you can do an awful lot of things by converting these contributions to benefits.

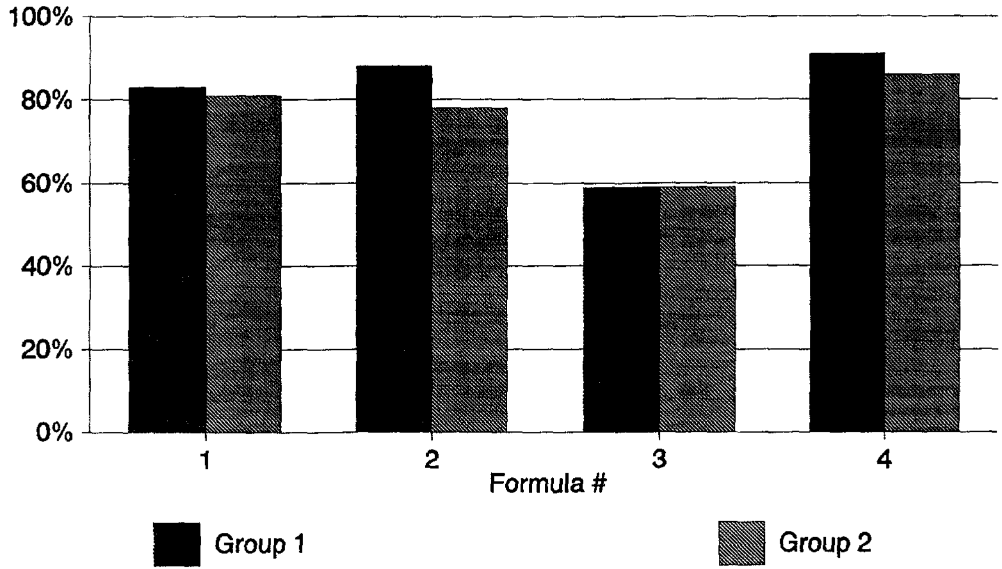
TABLE 18
Testing Results for Allocation Formula #4
(Group 2)

Employee	Age	Service	Compensation	Allocation	Allocation %	Testing Age	
						65	55
A	55	30	$200,000	$30,000	15%	5.56%	1.63%
B	50	25	50,000	2,500	5	8.35	1.07
C	45	15	100,000	5,000	5	6.73	1.34
D	40	12	30,000	1,500	5	5.54	2.47
E	35	5	20,000	1,000	5	7.92	3.32
F	30	1	15,000	750	5	13.11	5.22

Now you also have the ability to convert to contributions from a defined benefit formula, but the natural inclination is that that's probably not going to do you much good unless your most highly paid people are younger than the entire work force which I wouldn't think would be your normal situation. I see this as kind of a way to set up a defined benefit plan without having minimum funding requirements.

CHART 9

% of Total Contribution Received by the Highly Compensated Employees



And unless there are some significant changes in the proposed regulations, which it doesn't sound like there will be, I would think there would be a lot of activity in this area.

FROM THE FLOOR: Somehow, giving a shareholder 15% of pay and the rank and file 5% fails a "smell test."

MR. HOGAN: Yes. But, I was not necessarily trying to put a formula in there that would comply.

FROM THE FLOOR: But it almost did. That, on its face, looks a lot more abusive than an age-weighted profit sharing plan which I understand some people consider to be acceptable. We throw up these two formula plans, that are failing obvious "smell tests." Maybe they're going to fly, and maybe they are not. I'm just confused.

MR. JOSS: I can't say anything other than it's very easy to come up with "unusual formulas." I've worked with several smaller law firms where you put in a formula that's 15% of pay for the lawyers and 4% for staff. You then go through these kinds of tests, and the plan will pass 401(a)(4). Recently, there was an article in the *Daily Tax Reporter* in which Jim Holland had looked at age-weighted profit sharing plans. That's where you allocate profit sharing contributions based on ages. You give a higher contribution to the older employees, recognizing that it's not going to have as much time to earn interest. He commented that seems to fly under 401(a)(4). He acknowledged what was going on. I believe a comment by one of the other people mentioned in the article was that this situation left a loophole in 401(a)(4) that was big enough to drive a tank through. I think you need to be aware of these situations because we, as actuaries, deal with consulting firms that might not have actuaries or have other interests, and that people are certainly going to be talking to a variety of clients, both large and small, about some different things that you can do in the defined contribution area now, which I will label as "creative." Certainly the concept of a 15% contribution for the owners and a 5% contribution for staff doesn't pass a smell test. But in many cases it is going to pass the numerical analysis that you need to go through under 401(a)(4).

FROM THE FLOOR: Isn't that what a defined benefit plan does now?

MR. JOSS: That's effectively taking what used to force a client into a defined benefit (DB) plan, and letting them get away with a defined contribution (DC) plan.

FROM THE FLOOR: Can't you always do that with a target benefit?

MR. JOSS: You could always do some things with a target benefit plan, but this thing smells even better than target benefits to some clients. When you go out and visit, let's say with a small medical clinic or a law firm, about the concept of putting 15% in for the doctors or the lawyers and 5% for the staff, that's what they wanted all along.

MR. HOGAN: In the target benefit, you have to communicate a formula. You'd have to put together a benefit formula.

MR. HOGAN: This is easier to understand than a target benefit formula.

FROM THE FLOOR: But I would argue even though it's passing the test, it smells and looks more abusive than a conventional age-weighted profit sharing plan using 8.5% interest.

MR. JOSS: There's an old expression that if it looks like a duck and it quacks like a duck and so forth, it must be a duck. That doesn't apply in this case. It looks like a duck and quacks like a duck, but it's not a duck, it is a swan.

MR. HOGAN: But I think the implications are there. This sort of a testing procedure I think you can see is very straightforward and not complicated at all. And really it wouldn't be very hard to put numbers together for a client and show them the annual work that they'd be doing is going to be significantly less than what they would currently have to do for their pension plans.

FROM THE FLOOR: I might point out that target benefit plans theoretically do have minimum funding standards.

MR. HOGAN: Right. And so this would be even better than that.

FROM THE FLOOR: We can now have profit sharing plans where you have your target benefit contribution on a unit credit basis, and you just say what the profit sharing formula is, and annually you'll declare what percentage from zero to 100 that you'll make of that unit credit target benefit formula.

MR. HOGAN: That's right. I've seen, M&R has done some of that in house. And you're right. It's basically turning the target plan around and doing an allocation based on target factors.

MR. JOSS: To go even one step farther on the abuse scenario, I've seen one where it says, "Each of the key players gets a contribution of at least $30,000. We will make a 'profit sharing' contribution for staff." And it's designed so that if you played these games, it's the minimum amount of profit sharing contribution you need to deposit, which through restructuring and average benefits and so forth, allows the plan to pass. And numbers can be amazingly small if you have a bunch of 20-25-year-old clerks kicking around.

FROM THE FLOOR: Isn't there a minimum top heavy contribution?

MR. JOSS: Yes, usually 3%. But still, if you put away $30,000 for the key players and 3% for the staff, that's what they have been looking for all these years and have been denied. And now it seems to be there in spades.

MR. HOGAN: As long as you have a definite allocation formula, there's nothing I've seen that would prevent you from doing whatever you want to do.

FROM THE FLOOR: Don't you think the IRS will pick up on this and close the loophole?

MR. JOSS: I would have thought so except that the most recent comment by Mr. Holland seemed to say that he was aware of the loophole.

FROM THE FLOOR: Technically, he is not a policymaker.

MR. JOSS: No, but I think you need to be ware of the "loophole" so that you can deal with your clients and other people out there that are in the business. I'm not a loophole person, but I think it's important to be cognizant of the types of things that exist.

MR. HOGAN: And I think in this environment, too, where we all know that clients are, just because of the compliance problems, going to defined contribution plans, this is a way to accomplish their needs and requirements for their older employees without having to deal with all of the mess that they're trying to get away from.