Adventures in Backloading

David R. Godofsky

Of all the obscure provisions of the Employee Retirement Income Security Act of 1974 (ERISA), perhaps none is more obscure or impenetrable than the backloading rules applicable to defined benefit pension plans. Found in Sections 411(b)(1)(A), 411(b)(1)(B) and 411(b)(1)(C) of the Internal Revenue Code of 1986 (IRC),¹ the backloading rules include three mathematical formulas intended to give meaning to the vesting rules by preventing an employer from "backloading" or delaying the accrual of benefits until late in an employee's career. However, the statutory rules are poorly designed for the intended purpose and remarkably counterintuitive.

Lately, backloading has become a favorite claim in class action pension litigation. Plaintiffs in cash balance cases almost invariably claim that the plans are impermissibly backloaded. Despite a string of defense victories, the resulting scrutiny has revealed cracks and faults in the backloading rules, which seem to prohibit common and noncontroversial practices, while failing to address the possibility of truly abusive plan provisions.²

One major problem with the backloading rules is that certain plans—plans that frontload benefits (the opposite of backloading) fail all three mathematical tests. This is particularly true of plans that provide the greater of two or more different benefit formulas. "Greater of" plans are becoming more common every day, as employers merge or look for ways to update their retirement benefits, while attempting to preserve benefits for employees nearing retirement.

Revenue Ruling 2008-7³ provides some temporary relief for the "greater of" problem, but that relief expires December 31, 2008. In June 2008, the Treasury published a proposed regulation intended to fix this problem. The proposed regulation is a step in the right direction but falls significantly short of the relief necessary to avoid punishing employers whose only sin was to preserve future benefits for employees in connection with a merger or plan change. If the proposed regulation goes into effect without additional relief, employers who did the most to protect workers will face additional costs, penalties, lawsuits, and complexity.

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The purpose of this article is to explain the backloading rules, along with the issues and concerns surrounding the rules.

THE PURPOSE OF THE BACKLOADING RULES

Before the passage of ERISA in 1974, some pension plans provided for pensions that vested only upon retirement. As an example, suppose a pension plan promised \$1,000 per month payable for life upon retirement at age 65. This amount, which seems quaint today, could have provided a livable income at the time, especially when combined with Social Security. An employee in such a pension plan might not see a need to save for retirement. If the employee were terminated at age 64, however, the plan would pay nothing, and the employee, who might have spent his entire career at one company, would be destitute.

In response to this situation, ERISA provided that such a plan would have to provide that the employee was vested after completing ten years of service.⁴ Imagine if the employer decided to comply with this new vesting rule by adopting the following accrual formula:

- \$1 per month times years of service for the first 30 years of services; plus
- \$970 per month to accrue in the 30th year, or in the year in which the employee attains age 65, whichever is earlier.

This hypothetical formula provides for that same \$1,000 per month to be paid to an employee who retires at age 65 with 30 years of service. However, if the employee retires (or is fired) at age 64, the benefit would be a laughable \$29 per month, even though full vesting is required.

The backloading rules are intended to prevent this particular type of end run around the vesting rules.

MATHEMATICAL TESTS

In order to pass the backloading rules, a plan must satisfy one of the following three mathematical tests (A, B, or C), as follows:

- A. **3 Percent Test.** Under this test, the employee's accrued benefit in any year must be at least equal to the employee's projected normal retirement benefit multiplied by the employee's years of plan participation, up to $33\frac{1}{3}$ years.
- B. **133**¹/₃ **Percent Test.** Under this test, the employee's accrual in any future year (20xx) cannot be more than four thirds (133¹/₃ percent) of the accrual in any year prior to 20xx.

C. **Fractional Test.** Under this test, the employee's accrued benefit must be at least equal to the employee's

projected normal retirement benefit	\sim	years of participation
	^	projected years of participation at
		normal retirement date (NRD)

If a plan cannot pass at least one of these three mathematical tests, it is impermissibly backloaded.

Each of these three rules has its own twists and turns, which we will get to shortly. First, however, a few comments about all three rules:

- The plan must satisfy the backloading rules with respect to every participant *and* every hypothetical person who could ever become a plan participant, regardless of how unlikely that hypothetical person is to actually exist. As clarified by Revenue Ruling 2008–7, this second part (relating to hypothetical participants) is inapplicable to plans with frozen participation because no hypothetical person *could* become a participant. This makes it significantly easier for a frozen plan to pass the tests. (Ironically, as Congress and the Treasury seek to slow or reverse the decline of pension coverage for workers, the backloading rules encourage employers to freeze all future employees out of pension plans.)
- If a plan has multiple benefit formulas, it can greatly complicate the test. For example, if a plan provides for a benefit equal to the greater of benefit A and benefit B, it may not pass any of the three tests, even if formulas A and B individually would pass the tests. Examples of this situation are provided later. The proposed regulation is intended to solve this problem but does not quite succeed.
- A plan may satisfy different tests for different classifications of participants; however, the classifications may not be structured to evade the backloading rules.⁵
- The backloading rules appear in both ERISA and the IRC. The issue of hypothetical participants plays out differently in the two contexts, however. Passing with respect to hypothetical participants is important to plan qualification. The Internal Revenue Service (IRS) could deny deductions for contributions, even though no real participant is affected. If the plan passes the backloading tests with respect to all real participants, however, and only fails hypothetically, then lawsuits by participants on the basis of backloading

will face serious hurdles. For example, the remedy could be to amend the plan to comply with the backloading rules, which might be done in such a way that no real participant's benefit changes. Further, the defense might argue that any participant who isn't affected by the failure is not a proper plaintiff or class representative.

IRC Section 411(b)(1)(A)—The 3 Percent Test

The starting point of the 3 percent test is the projected normal retirement benefit (NRB). For this purpose, the NRB is calculated as if the participant had become a participant at the earliest possible age. For example, suppose Plan A permits participation at age 18 with one year of service. **Plan A's benefit is:**

- One percent of average compensation for each of the first ten years of service; and
- 2 percent of average compensation for each of the next ten years of service.
- The maximum benefit under Plan A is 30 percent of average compensation. Normal retirement age is 65. Average compensation is a ten-year average.

Anne becomes a participant in the plan at age 55, and her compensation is \$100,000 per year. (Sadly, for her, Anne never gets a raise, because her employer chooses to make the numbers in our example easier.) Although Anne's actual NRB is only \$10,000 (10 percent of \$100,000), her projected NRB *for purposes of this test* is \$30,000, because her projected service is determined *as if* she entered at age 18. Therefore her projected service at age 65 for the test is 47 years, even though in reality it is only ten years. Her projected test NRB is the maximum, 30 percent of average compensation, or \$30,000.⁶

Each year Anne accrues a benefit of one percent of average compensation, or \$1,000 (one percent of \$100,000). After six years of service, her accrued benefit is \$6,000, which is 20 percent of her \$30,000 projected NRB. The minimum accrued benefit required by the 3 percent test is

$$3\% \times 6 \times \$30,000 = \$5,400$$

Because her actual accrued benefit is \$6,000, and this is greater than (or equal to) \$5,400, Plan A passes the test. It will pass the test at any number of years of service and it will pass the test for any employee. In short, Plan A will pass the 3 percent test, even though by any intuitive standard, it is highly backloaded (with benefits accruing twice as fast in later years as in earlier years).

There is an interesting twist in the calculation of this test, involving average compensation. For purposes of the test, the projected NRB is calculated by projecting compensation at an average rate, but with the averaging period not to exceed ten years. Because of the limitation of the averaging period, and the requirement that the plan pass for every hypothetical participant, a plan that uses an averaging period of more than ten years cannot pass the test unless it has frozen participation. To see why this is so, and to see why this is such a bizarre result, consider the following two examples.

For these two examples, we will use a plain vanilla benefit formula:

NRB = $1\% \times$ Average Compensation (AC) × Years of Service (YOS) up to 33 years⁷

Plan A1 uses this formula and defines average compensation as the average over the employee's entire career.⁸

Plan A2 uses the same formula but defines average compensation as the average over ten years.

Hypothetical participant Harry is hired at age 18 at a salary of \$20,000 per year. Harry receives pay increases of 5 percent each year. By age 35, Harry is making \$45,840 per year. Figure 1 shows Harry's accrued benefit under plan A1 and plan A2 over his entire career, to age 65.

Figure 1 shows that plan A2 is significantly more backloaded than plan A1. Plan A2, however, passes the test, whereas plan A1, which



Figure 1. Hypothentical Participants Accrued Benefit in Plans A1 and A2

is much less backloaded, fails the test. To see why this is so, consider Harry's accrued benefit under plan A1 at age 35:

AC =
$$$30,400$$

YOS at age 35 = 17
Accrued Benefit = $1\% \times 17 \times $30,400 = $5,168$
YOS at age 65 = 47
Ten-year average compensation (used to calculate the projected NRB) = \$35,397

Projected average compensation = $$33,590^{\circ}$

Projected NRB = $1\% \times $33,590 \times 33 = $11,085$

Minimum accrued benefit to pass the test = \$11,085 $\times 3\% \times 17 = $5,653$

As can be seen, Harry's accrued benefit is not sufficient to pass the 3 percent test, because his actual accrued benefit is \$5,168, which is less than \$5,653. In fact, by using extreme examples, virtually any pension plan with a compensation averaging period of more than ten years can be made to fail the test. Ironically, then, by making a plan less backloaded (that is, by increasing the averaging period), one can take a passing formula and turn it into a failing one!

In an even greater irony, many plans can avoid this backloading problem by freezing participation, which eliminates the possibility of hypothetical employees and limits the analysis to real employees. Thus, one technique for passing the test could be freezing participation, which obviously cuts against the congressionally mandated policy of providing broad participation in the private pension system and fails to address the vesting issue that backloading is intended to solve.

IRC Section 411(b)(1)(C)—The Fractional Test

The alert reader is wondering why I have chosen to discuss C before B. It is because the most bizarre results come from B, the $133\frac{1}{3}$ percent test. It is difficult to appreciate the problems and limitations of the B test, however, without first understanding why plans may be forced into using the B test. Thus, we will first discuss the limitations of the fractional test in IRC Section 411(b)(1)(C).

Under the fractional test, a projected NRB is calculated on the basis of the following assumptions:

• Continued employment to normal retirement date;

- Continued compensation at a rate based on average compensation, with the averaging period not to exceed ten years; and
- All factors such as Social Security benefits remaining constant.

The projected NRB is multiplied by a fraction equal to the participant's actual years of participation, divided by the years of participation he or she will have at NRD. The participant's actual accrued benefit must be at least equal to this fraction of the projected NRB.

The fractional test will not be passed if a plan has any of the following features:

- It has been amended to increase benefits prospectively. Such a plan will almost always fail the fractional test. For example, suppose the plan's benefit is \$50 per month for each year of service. The plan is amended to provide that for future years of service, the employee will accrue \$60 per month. Because the fractional test compares the current accrued benefit to the projected NRB, the plan will fail the fractional test.
- The compensation averaging period is greater than ten years. In this case, a plan will almost invariably fail the fractional test. As discussed above in the context of the 3 percent test, it is possible to construct a hypothetical participant for whom the plan fails the fractional test if compensation for more than a ten-year period can be used to compute the normal retirement benefit.
- It is a cash balance plan. Because nearly all cash balance plans use compensation over the employee's working lifetime, nearly all cash balance plans will fail the fractional test **unless participation in the plan is frozen.**
- Similarly, nearly all plans with mandatory employee contributions (a once common feature in corporate plans, which is still quite useful) will fail the fractional test. This is because such a plan is required to have a minimum benefit equal to the accumulated employee contributions with interest. Since this minimum benefit is a "cash balance" benefit, in those cases where the minimum benefit is applicable, the fractional test can rarely be used reliably.
- It uses an offset. Such a plan may not pass the fractional test. For example, suppose Company A acquires employees through an asset purchase. Company A's plan gives past service to the acquired employees but then offsets the resulting

gross benefit by the amount of benefit payable by the former employer's plan. Such a plan will fail the fractional test. Similarly, a plan that uses a Social Security offset will fail the fractional test unless the offset itself is accrued ratably over all years of participation up to NRD.

IRC Section 411(b)(1)(B)—The 133¹/₃ Percent Test

Finally, we come to the strangest of the backloading tests, the 133¹/₃ percent test. As we have seen, a wide range of plans is forced to pass this test, including plans with averaging periods of more than ten years, cash balance plans,¹⁰ plans with employee contributions, plans with amendments increasing benefits prospectively, and plans with offsets. (And, this list is by no means exhaustive.)

The $133\frac{1}{3}$ percent test states that the benefit accrued in any future year (20xx) cannot be more than four thirds ($133\frac{1}{3}$ percent) of the benefit accrued in the current year or any future year before 20xx.

Let's take that again slowly. To perform the 133½ percent test, we would compute the amount of benefit to be accrued in 2009 (we'll call that amount "B"), and compare it to the benefit to be accrued in 2008 (we'll call that amount "A"). If B is more than four thirds of A, we fail the test. If not, then we must calculate the benefit to be accrued in 2010. We will call that "C." Now we compare C to B, and then we compare C to A. If we have not yet failed, we will compute the benefit to be accrued in 2011, which we will call "D." We compare D to C, D to B, and D to A. Each of these comparisons must yield a ratio of four thirds or less. This process is repeated infinitely (with E, F, G, etc.) to the end of time, and not just for one participant, nor just for every participant. The process must be done for every *possible* hypothetical participant.¹¹

The 133¹/₃ percent test has certain unique twists not found in the other tests.¹² First, a plan amendment that is in effect in the current year is treated as always having been in effect. For example, suppose a plan had been a "traditional" pension plan and was amended to provide a cash balance formula instead of the traditional formula. The only remaining vestige of the traditional formula is a frozen minimum benefit equal to the amount accrued under the traditional formula. In this case, the plan is treated as having been a cash balance plan since the beginning of time, and the minimum traditional benefit is ignored. Thus, the benefit that is calculated and tested is an entirely hypothetical benefit, even for actual employees.¹³

A related issue arises when a plan is amended, and the old formula is continued for a limited period of time. In a typical example, a traditional pension plan is amended to have a cash balance formula with a generally lower benefit. For a grandfathered class of employees, however, the old formula is continued as a minimum benefit for a period of five years after the new formula applies. Treasury's position is that this situation differs from an amendment under which the old benefit is cut off at the time the new benefit applies (*see* Revenue Ruling 2008-7). Thus, under Treasury's interpretation, the two formulas are treated in the same manner as any other "greater of" formula. Two district court opinions (published *before* Revenue Ruling 2008-7), however, reach the opposite result and find that the old grandfathered benefit is ignored in testing the new benefit.¹⁴

The second twist is that benefit accruals can be measured on the basis of a compensation average of more than ten years. Thus, the $133\frac{1}{3}$ percent test can be used for plans with a formula that uses "career average" compensation and other averaging periods greater than ten years.¹⁵

The third twist is that future benefit increases are disregarded if they are not effective in the current year.¹⁶ For example, if a plan provides that the employee accrues a benefit of \$50 per month for each year of service before 2009, and accrues \$80 per month for each year of service starting in 2009 or later, then the increase to \$80 is treated as if it will not occur for purposes of testing in 2008. Then, when the test is done for 2009, it is done as if the \$80 benefit had always been in effect.¹⁷

To see why this rule is so bizarre, let's go back to Plan A1 from our previous example, and modify it only slightly. The new modified plan will be called Plan B:

NRB = 1% x AC x YOS

AC is the average over five years of service. Plan B, however, is top heavy, and therefore must provide the top-heavy minimum benefit.

Minimum NRB = $2\% \times AC \times YOS$ (10-year maximum)

Before getting into the 133¹/₃ percent test, we note that Plan B as shown above will pass both the 3 percent test and the fractional test; however, we will shortly introduce an additional twist that will make it impossible for Plan B to pass either the 3 percent test or the fractional test. Thus, Plan B's ability to pass the 133¹/₃ percent test is important. Unfortunately, it cannot.

Figure 2 shows how this will play out for Bernice, who was hired 18 years ago at age 35 with a salary of \$230,000.¹⁸

Figure 2 shows that Plan B is anything but backloaded. In fact, it is frontloaded, with benefits accruing twice as fast at the beginning of Bernice's career as at the end of her career. However, because of the acceleration of her benefit at ages 35 through 45, she has zero accruals at ages 45 through 55. Then, after age 55, her one percent accrual



Figure 2. Hypothetical Participant's Accrued Benefit in Plan B

exceeds four thirds of zero, and Plan B fails the 133¹/₃ percent test. This is a remarkable result for a plain vanilla, traditional pension plan whose only twist is the addition of the top-heavy minimum benefit required by IRC Section 416, which frontloads the benefit.

Now, we need only one more twist for plan B to fail all three tests. Plan B has mandatory employee contributions of 5 percent of pay, creating an additional, statutorily required, minimum benefit equal to the value of the accumulated employee contributions with interest. Because this minimum benefit is based on compensation "averaged" over more than ten years, plan B cannot rely on either the 3 percent test or the fractional test. Although Plan B clearly does not delay the accrual of benefits (in fact, it does the opposite), and although the two minimum benefits are required by statute and considered a protection for employees, Plan B fails all of the backloading rules.

One might argue that Plan B is an unusual plan in that it is top heavy and has employee contributions. The larger point, however, is that a combination of multiple formulas can appear in a plan for many reasons, and the interplay of formulas in Plan B that cause it to fail the backloading tests is neither unusual nor abusive. Such multiple formulas appear when employers merge and give all or a grandfathered group a "greater of" benefit based on the two formulas used by the two employers before the merger. Similarly, multiple formulas appear when an employer makes a fundamental benefit change (such as to cash balance) and grandfathers a group of employees. With multiple mergers and cost-cutting initiatives, it is not unusual for a company to accumulate three or four formulas in a single pension plan. If the resulting combination of formulas were in any way abusive, one might be sympathetic to the results of the backloading formulas. In the author's experience, however, the results in Plan B are more typical—benefits that are not backloaded in any common-sense understanding of the term but that are prohibited nonetheless.

THE PROPOSED REGULATION

The proposed regulation published June 18, 2008, allows the plan to test two or more formulas separately so that (subject to an anti-abuse provision) if each formula passes the 133¹/₃ percent test individually, the combined "greater of" benefit is deemed to pass the 133¹/₃ percent test. The two formulas, however, must have a different basis in order to use this rule. The term "basis" in this context refers to the definition of average compensation. If two formulas have the same basis, they must be combined into a single formula for testing purposes under the proposed regulation. In the case of Plan B above, the two formulas have the same basis—five-year average compensation—and thus do not qualify for this relief provision. Further, the regulation provides no relief when one or more of the formulas relies on either the 3 percent test or the fractional test.

For example, suppose formula C satisfies (and relies on) the fractional test and formula D satisfies (and relies on) the $133\frac{1}{3}$ percent test. The proposed regulation would give no relief for the greater of C or D. Why would the plan not be able to provide such a benefit?

Finally, the proposed regulation gives no relief when each of two formulas satisfies the 3 percent test, or when each of two formulas satisfies the fractional test. In the preamble, the Treasury explains that relief is not needed in that situation because the 3 percent test and the fractional test are generally passed when a plan uses the greater of the two formulas, and each formula passes the same test. While this is often the case, however, it is generally not true when the formulas use different average compensations. Suppose for example that each of two formulas satisfies the fractional test. Formula E uses a three-year average compensation while formula F uses ten-year average compensation. The employer "tests" the greater of formula by projecting ten-year average compensation. Formula E, however, is guaranteed to pass the fractional test only if three-year average compensation is projected, whereas formula F is guaranteed to pass only if ten-year average compensation is projected. The test allows the employer to pick which average to project-three-year or ten-year-but there is no mechanism for projecting both, and in fact those two projections are mathematically mutually exclusive. So, the combined formulathe greater of E or F-is not guaranteed to pass the fractional test.

The preamble to the regulation does not suggest that the greater of E or F is somehow an abusive formula. The failure to provide relief is entirely explained by the assumption that relief is not necessary. However, as shown above, the greater of E or F will generally not pass if E and F use different averaging periods for compensation.

A TRULY ABUSIVE EXAMPLE THAT PASSES

Another bizarre result of the poorly designed mathematical tests is that it is relatively easy to construct a truly abusive benefit formula that will pass all of the tests.

As an example, consider Plan G:

- Normal Retirement Age = 62
- Benefit Accrual = \$10 per month for each year of service up to age 62, plus \$200 per month for each year of service following age 62

Now take George, who is hired at age 22 and works until age 65. At age 62, George has 40 years of service and a benefit of \$400 per month. Three years later, when he retires, George has accrued an additional \$600 (three years at \$200 per year) and now has a benefit of \$1,000 per month. Plan G is backloaded by any intuitive measure, but it passes both the 3 percent test and the fractional test, both of which are based on projected benefits at NRD (age 62).

The author knows of no actual plan with this type of abusive formula, nor is it recommended. The formula in Plan G, however, is offered as a demonstration of how simple it is to come up with examples for which the backloading rules would fail to catch abusive plans while penalizing plans that are not abusive at all.

ANOTHER PROBLEM—CASH BALANCE PLANS AND THE PENSION PROTECTION ACT OF 2006

Another problem with the backloading rules is their interaction with the Pension Protection Act of 2006 (PPA).¹⁹ In short, PPA is intended to permit a cash balance plan to use a market rate of return in crediting interest, although the backloading rules prohibit the use of a market rate of return.

PPA Sections 701(a) and 701(b) provide that a cash balance plan may use a market rate of return as its interest crediting rate. One hallmark of a market rate of return is that it may be negative in any one year, although presumably it is expected to be positive over a long period of time. As explained in Revenue Ruling 2008-7, the interest rate crediting in a given year is projected for all future years in the 133¹/₃ percent test. (This also means the test must be done every year as the interest crediting rate changes.) So, for example, suppose Plan H, a cash balance plan, gives pay credits of 5 percent of pay and credits interest equal to the rate earned by the S&P 500 index. Suppose in the year 2012 the S&P 500 returns a negative rate of return of 15 percent. For backloading purposes, Plan H is assumed to have interest credits of negative 15 percent for all years after 2012.

Now consider the accrual for Henry, who in 2012, at age 55, has a pay credit of \$1,000. In calculating how much Henry accrued in 2012, one would project his \$1,000 pay credit to NRD assuming negative 15 percent returns each year. This yields \$196.87 after the effect of ten years of negative 15 percent returns.

One then assumes a \$1,000 pay credit in each future year, also then earning negative 15 percent each year until age 65. Henry's assumed pay credit in 2014 has only eight years of negative 15 percent returns and has a projected value of \$272.49. Because \$272.49 is 38 percent more than \$197.86, Plan H fails the 133¹/₃ percent test (and as previously discussed, cannot use either of the other tests).

Of course, the assumption itself makes no sense. If it made sense to expect that the S&P 500 would truly return negative 15 percent each year, forever into the future, no one would invest in it. In the case of a fluctuating rate of return, it would make more sense to project a long-term average consistent with one or more full market cycles. However, the artificial assumption that the one-year interest crediting rate will continue forever into the future means that whenever a particular rate of return is negative for one year, all cash balance plans using that rate will fail the backloading rules.

Obviously, Congress overlooked this glitch when it enacted PPA Sections 701(a) and 701(b).

CONCLUSION

The backloading rules are a trap for the unwary pension plan sponsor. They are complex, and because they are counterintuitive, they make potential problems difficult to spot. Further, the rules permit plans that defy public policy by significantly delaying accrual of benefits, although they prohibit certain benefit formulas that increase pension benefits by accelerating the accrual of benefits. Worst of all, the rules, as currently administered, run counter to public policy by encouraging plan sponsors to freeze participation, discouraging or prohibiting "greater of" benefits, encouraging litigation, and discouraging the sponsorship of pension plans.

The rules are overdue for a complete overhaul, which would require congressional action. In the meantime, the Treasury could significantly alleviate the problems with three simple steps that could be accomplished by regulation:

- 1. Permit plans to use the greater of A or B provided that neither formula is impermissibly backloaded in isolation, subject to an anti-abuse provision;
- 2. Permit plans to be tested by looking at actual participants rather than hypothetical participants; and
- 3. Permit cash balance plans to be tested by using a long-term average of the index used for the interest crediting rate.

Unless and until the rules are changed or relief is provided, plan sponsors and their advisors need to be careful in checking benefit formulas against the backloading rules.

NOTES

1. With identical provisions in ERISA \S 204(b)(1)(A), 204(b)(1)(B) and 204(b)(1)(C).

2. This article includes an example of an abusive backloading provision that inexplicably is not prohibited by the backloading rules. However, this example is given only for purposes of demonstrating the bizarre way the rules work. The author knows of no actual plans that include such a provision.

3. 2008-7 IRB 419 (2/1/2008).

4. An alternate rule provided for partial vesting after five years of service, grading up to full vesting after 15 years of service.

5. Treas. Reg. § 1.411(b)-1(a)(1).

6. Note how counterintuitive this result is. Anne's actual NRB is \$10,000; however, for purposes of the test, we use a projected NRB of \$30,000.

7. The maximum benefit under the plan is 33 percent of average compensation.

8. The example is not dependent on the averaging period's being the entire career. Any period of time that could exceed ten years will produce essentially the same results.

9. This is the average of the compensation for the past 17 years and 30 more future years at the ten-year average rate.

10. Several courts have observed, incorrectly, that cash balance plans cannot use the 3 percent test or the fractional test. The precedential value of these judicial observations is unclear because the defendants have uniformly conceded that their plans can only use the $133^{1}/_{3}$ percent test. A typical example is Register v. PNC Financial Services Group Inc., 477 F.3d 56 (3d Cir. 2007). In that case, the court observed that, "it is undisputed that the only test that applies is the $133^{1}/_{3}$ % rule because the PNC cash balance plan is calculated using a career pay history." 477 F.3d 56 at 70. The position taken in the Treasury regulations and Rev. Rul 2008-7 is that most cash balance plans with open participants could be constructed who would cause the plan to fail. *Register* does not address the question of whether a cash balance plan with frozen or closed participation could use the 3 percent test or the fractional test. Further, a cash balance plan could be structured with a minimum benefit so as to

pass the 3 percent test or the fractional test. In an action by participants under ERISA, a defendant with an open plan might further argue that mere hypothetical failures are insufficient to give rise to a cause of action for a particular plaintiff whose benefit passes the 3 percent test or the fractional test. A defendant might further argue that, because the court held that the PNC plan did satisfy the 1331/3 percent test, its observation with respect to the 3 percent test and the fractional test was dictum. Thus, it is unclear whether the court's observation in *Register* would have precedential value against a defendant who refused to concede the point. Register was cited in Wheeler v. Pension Value Plan For Employees of Boeing Co., 2007 WL 781908 (S.D.Ill 2007) for the proposition that a cash balance plan cannot satisfy the 3 percent test or the fractional test, but again, there is no hint in the opinion that this was a contested issue, and the court held that the plan did pass the $133\frac{1}{3}$ percent test, so again it could be argued that observations on whether it also passed the other tests are dicta. Nevertheless, these cases and others raise a litigation risk for any plan sponsor who designs a cash balance plan with the intention of using the 3 percent test or the fractional test.

11. One is reminded of King Derwin's wise men in Dr. Seuss's *The 500 Hats of Bartholomew Cubbins*. The first wise man is Nadd, who knows of everything in the kingdom. Then, the father of Nadd knows of everything in the Kingdom and all the world beyond. Finally, the father of the father of Nadd knows of everything in the Kingdom, and all the world beyond, and all the worlds that may happen to be.

12. One interesting twist is that the $133\frac{1}{3}$ percent test is based on the accrued benefit "payable at the normal retirement age." The other two tests lack this statutory language, yet the Treasury and the IRS have always interpreted all three tests to be based on the accrued benefit payable at normal retirement age. This raises the obvious question of why Congress found it necessary to include that phrase in IRC 411(b)(1)(B), but not in IRC 411(b)(1)(A) or IRC 411(b)(1)(C)? However, this question of statutory interpretation is mainly of academic interest, as this aspect of the regulations and rulings has never been challenged and most likely never will be.

13. Allen v. Honeywell Retirement Earnings Plan, 382 F. Supp. 2d 1139 (D. Ar. 2005).

14. Tomlinson v. El Paso Corp., 2008 WL 762456 (D. Colo. 2008); Wheeler v. Pension Value Plan for Employees of Boeing Co., 2007 WL 781908 (S.D.Ill. 2007).

15. This is not clear from the statute or even from the final backloading regulations adopted in 1977; however, the examples in the backloading regulations give some support for this proposition, and it is undoubtedly the position of the IRS. *See* Treas. Reg. § 1.411(b)-1(b)(2)(iii).

16. Plans relying on this test should generally make all benefit improvements effective on the first day of a plan year if the improvement could be more than one third for any participant—a result singularly lacking in any conceivable public policy objective.

17. Langman v. Laub, 328 F.3d 68 (2d Cir. 2003).

18. Bernice received regular salary increases, but that doesn't matter for purposes of the plan because her salary has always been at or above the compensation limit in IRC § 401(a)(17). Bernice is not a key employee, because she is neither an officer nor an owner, and consequently must be given the top-heavy minimum benefit, even though she is highly compensated.

19. Pub. L. No. 109-280, 120 Stat. 780 (codified as amended in scattered sections of 26 U.S.C. and 29 U.S.C.).