

**CHAPTER 17, DEFINED BENEFIT ACCRUALS**

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## INTRODUCTION:

The law defines a defined benefit plan to be any plan that is not a defined contribution plan. [see Internal Revenue (Code) § 414(j)]. This means that a defined benefit plan, in general, does not maintain account balances to track the benefits provided for the plan's participants. Instead, what the defined benefit plan participant receives is determined by the benefit formula, as provided for under the terms of the Plan.

A defined benefit plan is a pension plan, established and maintained by an employer primarily to provide systematically for the payment of definitely determinable benefits to his employees over a period of years, usually for life, after retirement. (see Income Tax Regulation (IT Reg.) § 1.401-1(b)(1)(i)). Thus, a defined benefit plan will typically provide for a Normal Retirement Benefit that will specify the amount of benefit, and the duration for the payment of that benefit. A defined benefit plan will also specify a Normal Retirement Age. The age when an employee is entitled to receive payment of his Normal Retirement Benefit. An employee will receive a benefit equal to the Plan's Normal Retirement Benefit, if he or she continues to work with the Employer until the attainment of Normal Retirement Age, retires and then claims the benefits he is entitled to under the terms of the Plan.

## EXAMPLES OF DEFINED BENEFIT PLAN FORMULAS:

- \$250 per month payable at age 65 payable over the life of the participant.
- 65% of High Consecutive 3 years' Average Monthly Compensation payable at age 65 over the life of the participant
- \$10 times Years of service with the Employer payable at age 65 over the life of the participant.
- 1% of High 5 years' Average Monthly Compensation times Years of service with the Employer (not to exceed 25) payable at age 65 over the life of the participant

An employee will be fully vested in his Normal Retirement Benefit, irrespective of the employee's position on the Plan's vesting schedule when he reaches Normal Retirement Age. (see introduction to Code § 411(a)).

For purposes of vesting and benefit accruals, the Normal Retirement Age is based on the provisions of the Plan, but in no event can it exceed the later of-

- (i) the time a participant attains age 65, or
- (ii) the 5<sup>th</sup> anniversary of the time a plan participant commences participation in the Plan.

(see Code § 411(a)(8)).

Note: the fifth anniversary of participation is not the same as five years of participation.

If an employee quits service with an Employer before the attainment of Normal Retirement Age, he may be entitled to a benefit, but it may not necessarily be equal to the Normal Retirement Benefit that he would have been able to receive had he continued to work with the Employer until Normal Retirement Age. Typically, the benefit would be a fraction of the Normal Retirement Benefit he would have been entitled to had he or she worked until Normal Retirement Age. Such a benefit is called an Accrued Benefit.

Thus, the Accrued Benefit would be defined in the Plan document, and would be expressed in the form of an annual benefit commencing at Normal Retirement Age. (see Code § 411(a)(7)(A)(i)) Mathematically, the accrued benefit would be equal to: the Normal Retirement Benefit multiplied by the applicable accrual rate. The Plan might explicitly specify a method for determining the accrual rate. For example, a Plan might state that an employee's Accrued Benefit will equal to the Normal Retirement Benefit under the terms of the Plan multiplied by a fraction. The numerator of the fraction being the number of years of participation completed by an employee, and the denominator being the number of years of participation the employee would have had if he had continued to work with the Employer until Normal Retirement Age. Alternatively, the accrual rate might be incorporated into the benefit formula. For example, a Plan might provide that an employee's benefit (both Normal Retirement Benefit and Accrued Benefit) will be determined by multiplying a unit benefit by the number of years of service completed by the employee.

**EXAMPLES:**

**Example 1:**

Plan provisions:

- *Normal Retirement Benefit:* 100% of Average Annual Compensation payable in the form of a life annuity at Normal Retirement Age
- *Normal Retirement Age:* 62
- *Average Annual Compensation:* average of the Participant's Annual Compensation for 3 consecutive years ending in the current year or in any prior year during which the average of the Participant's Annual Compensation is the highest
- *Accrued Benefit:* On a given date, a Participant's accrued benefit, payable at Normal Retirement Age, is equal to his Normal Retirement Benefit multiplied by a fraction. The numerator of the fraction is equal to the number of Accrual Years of service as of the date of calculation of this accrued benefit and the denominator is equal to the number of Accrual Years of service that the participant would have had if the Participant continued employment until attaining Normal Retirement Age. The fraction cannot exceed 1.

**Example 2:**

Plan provisions:

- *Normal Retirement Benefit:* is equal to the employee's *Accrued Benefit at Normal Retirement Age*.
- *Accrued Benefit at Normal Retirement Age:* shall be equal to 1% of Average Annual Compensation for each Year of Credited Service completed by the employee as of his (or her) Normal Retirement Age.
- *Normal Retirement Age:* 65
- *Average Annual Compensation:* average of the Participant's Annual Compensation for 5 consecutive years ending in the current year or in any prior year during which the average of the Participant's Annual Compensation is the highest

Under Example 1, the plan document requires that the Normal Retirement Benefit be calculated first and then based on that and the accrual fraction in the Accrued Benefit section, an employee's Accrued Benefit is calculated.

Under Example 2, both the employee's Accrued Benefit and the employee's Normal Retirement Benefit are derived from the same benefit formula. Regardless of method used, the plan must provide for a way to determine an

employee's accrued benefit at any determination date to ensure that the benefits provided by the plan are definitely determinable.

In addition, the plan's provisions, as they relate to benefit accruals, must take into account the following legal parameters:

1. The pattern of accruals must comply with at least one of the rules specified in Code § 411(b).
2. The rate at which benefits accrue to employees must be such that they do not discriminate in favor of Highly Compensated Employees [ref: Code § 401(a)(4); IT Reg. § 1.401(a)(4)-3]
3. An Employee's Accrued Benefit cannot exceed the limitation set by Code § 415(b).
4. For top-heavy plans, a Non-Key Employee's accrued benefit, under the terms of the Plan cannot be less than the minimum accrued benefit determined under the provisions of Code § 416(c)(1).
5. In the event that a plan is amended, the benefit an employee accrued under the previous plan's provisions is generally protected. The protection of accrued benefits is addressed in Code § 411(d)(6) and related regulation IT Reg. § 1.411(d)-4.

If an employee quits service before attaining Normal Retirement Age, then the benefit he is entitled to will also depend on the Plan's vesting schedule. That is, the Employee will be entitled to his vested percentage in his accrued benefit. Specifically he would be entitled to receive his Vested Accrued Benefit. The employee's vested accrued benefit is expressed in the form of an annual benefit payable at Normal Retirement Age. Mathematically, an employee's Vested Accrued Benefit is equal to: the Participant's Accrued Benefit multiplied by the Applicable Vesting Percentage (based on the Plan's vesting schedule. The Plan's vesting schedule should be at least as favorable as one of the vesting schedules identified in Code § 411(a)(2), and for top-heavy plans- as favorable as one of the vesting schedules identified in Code § 416(b)).

An employee's Normal Retirement Benefit, Accrued Benefit, and Vested Accrued Benefit are typically expressed as annual (or monthly) benefits payable over the life of the participant (life annuity), payable at Normal Retirement Age. However, a Plan subject to Code § 401(a)(11) must also provide that the benefit is payable in other forms. For example, the Plan may offer a Qualified Joint and Survivor Annuity as an alternative form of payment. The Plan may also provide for other forms of payment such as a lump sum. The Plan may provide that regardless of the form of benefit, the benefits would be of equal value. That is, they would be "actuarially equivalent" to each other. [Under the requirements of Code § 411(c)(3), an employee's accrued benefit that is determined as an amount other than

an annual benefit commencing at normal retirement must be at least the actuarial equivalent of the normal benefit.]

In order to determine the amounts paid to the participant under the optional forms offered by the Plan, the Plan must specify the factors used to calculate actuarial equivalence. The factors form the basis for converting the benefit provided by the Plan in its normal form (e.g. life annuity) into other forms of benefit offered by the Plan (e.g. Qualified Joint and Survivor Annuity, Lump sum).

Code § 401(a)(25) provides that “a defined benefit plan shall not be treated as providing definitely determinable benefits unless, whenever the amount of any benefit is to be determined on the basis of actuarial assumptions, such assumptions are specified in the plan in a way that precludes employer discretion.”

Accordingly, when optional forms of benefit are offered by the Plan, the actuarial equivalence factors must be specified in the Plan document.

In addition to the Plan document’s provisions for actuarial equivalence, legal parameters that apply to various Code sections also need to be considered. For example, in the event that an employee, elects to take a lump sum distribution, the actuarial equivalence factors used must be at least as favorable as the factors specified in Code § 417(e)(3).

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**Exercise 1:**

- Effective date of the Plan: January 1, 1995
- Plan Year: Calendar Year
- Eligibility: Age- 21 Years of service- 1
- Entry dates: 1/1 or 7/1 following the completion of the plan’s eligibility requirements
- Vesting: 20% per YEARS OF SERVICE
- Normal Retirement Benefit: 30% of high 3 years’ average compensation, payable in the form of a life annuity, payable at Normal Retirement Age.
- Normal Retirement Age: 65
- Accrued Benefit: Normal Retirement Benefit x  
(Years of participation as of date of termination)/ (Years of participation the participant would have had if the participant terminated at Normal Retirement Age).
- Employee Information:

Name: D	1996 Compensation: \$50,000
Date of Birth: 1/1/50	1997 compensation: 60,000
Date of Hire: 1/1/96	1998 compensation: 70,000



**ILLUSTRATION :**

Under the terms of the Plan, a participant is entitled to an accrued benefit of \$1,000 per month, payable at the Plan's Normal Retirement Age (NRA) of 65, in the form of a straight life annuity. The participant is 100% vested in his accrued benefit. The Plan also offers the option of a lump sum distribution payable when an employee terminates participation in the Plan. The Plan's Actuarial Equivalence factors are as follows:

	<u>Pre-retirement</u>	<u>Post-retirement</u>
Interest rate	5%	5%
Mortality table	n/a	83GAM –female mortality table

Calculate the lump sum distribution amount , that the participant would be entitled to, under the following scenarios:

**PARTICIPANT IS 65 YEARS OLD**

- Vested Accrued Benefit: \$1,000 per month
- Annuity Purchase Rate: 150.76- What it would cost to buy an annuity of \$1/mo at age 65 (figure obtained from the 83 GAM Mortality table using a 5% interest rate)
- Lump sum value at NRA \$150,760 Cost of an annuity of \$1,000/mo (150.76 x 1000)
  - Discount factor: 1 (note: the calculation is being done at a time when the Participant's age is the same as the participant's NRA. Thus, no pre-retirement discount factors apply. See and compare with other scenarios outlined below)
  - Actuarially Equivalent lump sum distribution: \$150,760.

Based on the actuarial equivalence factors outlined in the Plan, a \$1,000/mo payable to the participant for the life of the participant or a one-time (lump sum) distribution of \$150,760 paid to the participant at age 65 are equal in value or "actuarially equivalent" benefits. Put another way, based on the actuarial equivalence factors of the Plan, if the Participant received a distribution of \$150,760 at age 65- she could use the distribution and buy an annuity of \$1,000 per month to be paid to her for the rest of her life.

**PARTICIPANT IS 64 YEARS OLD**

- Vested Accrued Benefit: \$1,000 per month
- Annuity Purchase Rate: 150.76- What it would cost to buy an annuity of \$1/mo at age 65 (figure obtained from the 83 GAM Mortality table using a 5% interest rate)
- Lump sum value at NRA \$150,760 Cost of an annuity of \$1,000/mo (150.76 x 1000)
- Discount factor: 0.952381 i.e.  $(1/1.05)$  [ Note: Participant terminated at age 64, which is one year before the Plan's NRA of 65. Now, the pre-retirement discount factors outlined in the Plan's Actuarial Equivalence provisions apply. In this case, the lump sum value of the participant's benefit is discounted at 5%(see pre-retirement actuarial equivalence provision) for a 1 year period (i.e. the number of years that the distribution precedes the participant's NRA).
- Actuarially Equivalent lump sum distribution:  $\$143,581 = \$150,760 \times (1/1.05)$ . [Present Value of the benefit payable at age 65. i.e. Plan can pay \$143,581 at age 64. It can then be invested to earn 5% and accumulate to \$150,760 at age 65. The \$150,760 can then be used to buy a benefit of \$1,000 per month at age 65]

**PARTICIPANT IS 60 YEARS OLD:**

- Vested Accrued Benefit: \$1,000 per month
- Annuity Purchase Rate: 150.76- What it would cost to buy an annuity of \$1/mo at age 65 (figure obtained from the 83 GAM Mortality table using a 5% interest rate)
- Lump sum value at NRA \$150,760 Cost of an annuity of \$1,000/mo (150.76 x 1000)
- Discount factor: 0.7835262 i.e.  $(1/1.05)^5$  [ Note: Participant terminated at age 60, which is five years before the Plan's NRA of 65. Now, the pre-retirement discount factors outlined in the Plan's Actuarial Equivalence provisions apply. In this case, the lump sum value of the participant's benefit is discounted at 5%(see pre-retirement actuarial equivalence provision) for a 5 year period (i.e. the number of years that the distribution precedes the participant's NRA).
- Actuarially Equivalent lump sum distribution:  $\$118,124 = \$150,760 \times (1/1.05)^5$ . [Present Value of the benefit payable at age 65. i.e. Plan can pay \$118,124 at age 60. It can then be invested to earn 5% and accumulate to \$150,760 at age 65. The \$150,760 can then be used to buy a benefit of \$1,000 per month at age 65]

**Exercise 2:**

Same facts as Exercise 1. The Plan's actuarial equivalence factors are as follows:

	<u>Pre-retirement</u>	<u>Post-retirement</u>
Interest rate	5%	5%
Mortality table	n/a	83GAM –female mortality table

If D elects to take a lump sum distribution of his vested accrued benefit, how much would D receive as of his date of termination on 1/1/2000? Assume that the Plan's actuarial factors are more favorable than the factors specified in Code § 417(e).

**Key Concepts for Review**

- Defined Benefit Plan
- Defined Contribution Plan
- Normal Retirement Benefit
- Normal Retirement Age
- Accrued Benefit
- Vested Accrued Benefit
- Actuarial Equivalence
- Legal Requirements affecting Accrued Benefits

**BENEFIT ACCRUALS AND CODE § 411(B)**

**ACCRUAL RULES:**

For those employees who separate from service before attaining Normal Retirement Age, their retirement benefit is their accrued benefit.

An accrued benefit is typically expressed as a monthly benefit, commencing at Normal Retirement Age, payable over the life of the participant.

Accrued Benefit = Normal Retirement Benefit x Accrual Rate (typically based on the number of Years of participation completed by the Participant)

Consider if the accrual rates were determined under the following scenario. Assume that the earliest age than an individual could participate in this Plan is 21 and the Normal Retirement Age under the Plan is 65.

Years of Participation	% of Normal Retirement Benefit Accrued
Years of Participation from Ages 21 thru 64	0%
Years of Participation from Ages 64 to 65	100%

Under this scenario, an individual could possibly commence participation in a Plan at its entry age of 21, work until age 64, quit after 43 years of participation and have an accrued benefit of zero. If the individual completes the 44<sup>th</sup> year of participation he would have an accrued benefit that would be equal to the Normal Retirement Benefit offered by the Plan.

The phenomenon of providing accrual credit for the final year(s) is called back loading.

Code § 411(b)(1) prescribes 3 options, which have the effect of requiring a Plan to give accrual credit for the initial years of participation completed by the participant. The Plan is required to provide for a method of accrual that would satisfy one of the three options provided for in Code § 411(b)(1). The purpose of the alternatives provided for in Code § 411(b)(1) is to prevent excessive back loading.

Two options, the 3% method (Code § 411(b)(1)(A)) and the fractional rule (Code § 411(b)(1)(C)) are cumulative in nature. If the plan is being evaluated against any of those options, one should be able to show, from the plan's language, that, as of the end of each year of participation, an employee's accrued benefit is at least as high as what his accrued benefit would have been if any of those options had been incorporated into the plan.

The third option, the 133 1/3 percent rule (Code § 411(b)(1)(B)) evaluates the additional benefit accrued by a participant during an individual year of participation and compares it to the additional benefits accrued by the same participant in prior years. If a plan's method of accrual were being evaluated against this option, one would be comparing individual years' benefit accruals. The purpose of such a comparison would be to ensure that, under the plan's terms, the additional benefit accrued by a participant in a given year (when expressed either as a percentage of compensation or an absolute dollar amount) cannot exceed, by more than a certain percentage, the benefit accrued by a participant in a prior year.

In addition, to ensure that a participant gets credit for his service with the employer, Code § 411(b)(4) specifies the years of participation that need to be taken into account when determining his accrued benefit.

The following section deals with the years of participation that must be credited to the employee for the purpose of determining an employee's accrued benefit. The sections that follow address the three options, one of which must be satisfied by the plan's provisions.

**YEAR OF PARTICIPATION AND BENEFIT ACCRUAL:**

Typically, an employee's accrued benefit is determined by the number of years of participation (or service) credited to the employee. Consider the following examples for plan provisions:

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**Example. 1: Accrued Benefit**

On a given date, a Participant's accrued benefit, payable at Normal Retirement Age, is equal to his Normal Retirement Benefit multiplied by a fraction. The numerator of the fraction is equal to the number of Accrual Years of service as of the date of calculation of this accrued benefit and the denominator is equal to the number of Accrual Years of service that the participant would have had if the Participant continued employment until attaining Normal Retirement Age. The fraction cannot exceed 1.

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**Example. 2: Accrued Benefit at Normal Retirement Age:**

Shall be equal to 1% of Average Annual Compensation for each Year of Credited Service completed by the employee as of his (or her) Normal Retirement Age.

In Example 1, in order to calculate an employee's accrued benefit, we will need to know what constitutes an "Accrual Year of Service". Is it based on a Plan Year or a calendar year or some other time frame? Does a person have to complete a certain number of hours during year under consideration for it to count as an Accrual Year of Service?

The Plan language will define what an Accrual Year of Service is. Based on that definition, one can count the number of Accrual Years of service the employee is credited with as of a particular date and the number of Accrual Years of service the employee could possibly be credited with if he or she worked with the employer from his or her date of hire until Normal Retirement Age. From those numbers one can determine the employee's accrual fraction and accrued benefit.

In Example 2, in order to calculate an employee's accrued benefit one needs to know the number of "Years of Credited Service" completed by the employee. In order to ascertain that number, one needs to refer to the definition of that term in the plan document.

In either scenario, the accrued benefit is based on a period of service completed by the employee. The issue is how is that period of service counted for the purpose of calculating the employee's accrued benefit.

The plan provisions need to ensure that when measuring a unit such as an "Accrual Year of Service" or a "Year of Credited Service" or an alternative term (e.g. Year of Participation), that at a minimum all periods specified in Code § 411(b)(4) are considered for the purpose of determining an individual's accrued benefit. Code § 411(b)(4) refers to these measuring periods as "years of participation". Department of Labor Regulation (DOL Reg.) § 2530.204 refers to these measuring periods as "accrual computation periods".

Code § 411(b)(4)(A) provides that for purposes of determining an employee's accrued benefit, the term "year of participation" means a period of service as determined under regulations prescribed by the Secretary of Labor.

Department of Labor (DOL Reg.) § 2530.204-2 sets forth the rules relating to the computation periods to be used in measuring the years of participation for benefit accrual ("accrual computation periods"). [see DOL Reg. § 2530.204-1(a)].

The rules relating to an accrual computation period are outlined as follows:

- ◆ A plan may designate any 12 consecutive month period as the accrual computation period. The period so designated must apply equally to all participants.
- ◆ The accrual computation period could be the plan year, the vesting computation period, or the 12 consecutive month period commencing from an employee's date of participation or any other such period designated by the Plan.
- ◆ A plan is not required to take into account any 12 consecutive month period in which the participant has not completed 1000 hours of service.
- ◆ Thus, all accrual computation periods in which the employee has completed at least 1000 hours of service must be considered when calculating an employee's accrued benefit.

- ◆ The Plan, however, may require that an employee complete more than a 1000 hours of service during the computation period, to get a full year's accrual.

For example, a Plan may require that a participant complete 2000 hours of service during the accrual computation period, in order to get credit for a full year of participation. If the Plan has such a provision, then those participants with at least 1000 hours of service but not more than 2000 hours of service, must get a partial year's accrual. The partial year must be at least equal to the proportion of the number of hours of service credited divided by the number of hours required for a participant to get credit for a full year of participation. In this example, an individual with 1000 hours of service during the accrual computation period must be credited with at least a half a year of participation (1000/2000).

- The Plan can set a number of hours required for credit for a full year of participation, that is greater than a 1000 hours. The DOL Regulation, however, requires that the hours requirement set must be reasonable for the job classification of the employees covered under the Plan. The examples in the regulation, use 2000 hours for illustration purposes because, for many job classifications, it would be reasonable to expect that a full-time employee will have worked 40 hours a week for 50 weeks during a twelve month computation period.

It is possible that a Plan may use a method for determining a person's accrued benefit, that does not involve measuring individual computation periods. An example of such a situation would be where a person's period of service is measured on the basis of elapsed time. Another example would be where an employee's accrued benefit is based on the number of hours completed by the employee throughout his career, e.g. 1 cent per month for each hour of service completed by the employee during his or her career. Again, please note that no individual "year of participation" determination is required to determine the employee's accrued benefit.

"If, however, a plan determines an employee's accrual on a basis other than computation periods, it must be possible to prove that despite the fact that benefit accruals are not based on computation periods, the plan's provisions meet at least one of the three benefit accrual rules of ...section 411(b)(1) of the Code under all circumstances." DOL Reg. 2530.204-3(a).

**MINIMUM RATES OF ACCRUAL: CODE § 411(B)(1)(A), (B) AND (C); IT REG. 1.411(B)-1**

The introductory language to Code section 411(a) in part provides:

“ A trust shall not constitute a qualified trust under section 401(a) unless the plan of which such trust is a part...[in the case of a defined benefit plan] satisfies the requirements of subsection (b)(1).”

This means that the plan’s method for providing benefit accruals must, at a minimum, satisfy one of the following options, provided for in Code section 411(b)(1), outlined below:

- (1) A participant’s accrued benefit , upon separation from service, must be at least as favorable as if his accrued benefit was determined under the “3% method” [ see narrative under Option #1]; or
- (2) The rate at which a participant accrues a benefit cannot exceed 133 1/3% of the rate at which he accrued a benefit in any prior year[ see narrative under Option #2]
- (3) A participant’s accrued benefit, upon separation from service, must be at least as favorable as if his accrued benefit was determined under the “Fractional Rule” [see narrative under Option #3]; or

Note: For a plan to satisfy options 1 or 3, the Plan would have to show that at the end of each year of participation (Year 1, Year 2 etc.) a participant’s total accrued benefit under the terms of the Plan should be at least as favorable as what it would have been had the plan simply used the relevant option as the basis for providing accruals under the plan. In the case of option 2, instead of looking at a cumulative accrued benefit one looks at the benefit accrued by a participant in an individual year, and makes a comparison with an accrual in a previous year.

The subsequent narratives provide a more detailed explanation of the options provided for under Code section 411(b)(1).

**OPTION #1: 3% METHOD [CODE § 411(B)(1)(A)]**

The Plan's method for providing accruals would satisfy the "3% method", if upon separation from service, a participant's accrued benefit will always be greater than or equal to:

3% x years of participation (not to exceed 33 1/3) x  
"Normal Retirement Benefit to which he would have been entitled if he commenced participation at the earliest possible entry age under the plan and served continuously until the earlier of age 65 or the normal retirement age specified under the Plan."  
[ Ref: Code § 411(b)(1)(A)]

"In the case of a plan providing retirement benefits based on compensation during any period, the normal retirement benefit to which a participant would be entitled shall be determined as if he continued to earn annually the average rate of compensation which he earned during consecutive years not in excess of 10, for which his compensation was highest." [Ref: Code § 411(b)(1)(A)]

**EXAMPLES, SHOWING HOW AN ACCRUED BENEFIT UNDER A PLAN'S PROVISIONS WOULD BE COMPARED TO THE "3% METHOD"**

**Example 3**

Z corporation's defined benefit plan provides an annual retirement benefit, commencing at age 65, of \$10 per month for each Year of Participation (YOP) in the Plan. As a condition of participation, the plan requires that an employee should have attained age 21. Do the Plan's provisions satisfy the "3% method"?

Answer:

For a plan to satisfy the 3% method, as of the end of each year, the employee's accrued benefit should equal to 3% x YOP x Normal Retirement Benefit (NRB). NRB is calculated as if the participant entered the plan at the earliest possible entry age and terminated from service as of the earlier of the plan's NRA (which in this case is 65) or age 65.

In this case, at the end of the first year of participation, the participant would have accrued a benefit of \$10 per month.

Under the 3% method, if the employee had entered the Plan at age 21 and terminated from service at age 65, the employee would have had 44

years of participation. Based on that, the NRB provided by the Plan is \$10 per month x 44 years of participation = \$440 per month. At the end of year 1, the participant's accrued benefit should be at least as great as  $3\% \times 1 \times \$440 = \$13.20$  per month.

At the end of year 1, the participant's accrued benefit (\$10 per month) is less than what is required under the 3% method (\$13.20 per month)

Plan's method for providing accruals does not satisfy the "3% method." Also, note that under this example, it takes more than 33 1/3 years for a participant to be fully accrued in the Plan's NRB. That, in it self, would cause the Plan to violate the 3% method.

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**Example 4**

Y corporation's defined benefit plan provides an annual retirement benefit, commencing at age 65, of \$10 per month for each Year of Participation (not to exceed 25) in the Plan. As a condition of participation, the plan requires that an employee should have attained age 21. Do the Plan's provisions satisfy the "3% method"?

**Answer:**

For a plan to satisfy the 3% method, as of the end of each year, the employee's accrued benefit should equal to  $3\% \times YOP \times NRB$ . NRB is calculated as if the participant entered the plan at the earliest possible entry age and terminated from service as of the earlier of the plan's NRA (which in this case is 65) or age 65.

In this case, at the end of the first year of participation, the participant would have accrued a benefit of \$10 per month.

Under the 3% method, if the employee had entered the Plan at age 21 and terminated from service at age 65, the employee would have had 44 YOP. Based on that, the NRB provided by the Plan is \$10 per month x 25 YOP = \$250 per month. (Note: In this example, years of participation in excess of 25 are ignored for the purpose of figuring out the NRB, because the Plan does not provide for any additional benefit for those years) At the end of year 1, the participant's accrued benefit should be at least as great as  $3\% \times 1 \times \$250 = \$7.50$  per month.

At the end of year 1, the participant's accrued benefit (\$10 per month) is greater than what is required under the 3% method (\$7.50 per month). It can also be seen that for each subsequent years of participation, the participant's accrued benefit would exceed the accrued benefit required under the 3% method. For instance, in year 2, the participant's accrued

benefit would be \$20 per month. Under the 3% rule, the plan would be required to have an accrued benefit that is at least as great as  $3\% \times 2 \times \$250$  per month = \$15 per month.

Plan's accruals comply with the "3% method".

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**Example 5**

X corporation's defined benefit plan provides an annual retirement benefit, commencing at age 65, of 2% of high-3 consecutive years' average annual compensation (AAC) for each Year of Participation (YOP) in the Plan. As a condition of participation, the plan requires that an employee should have attained age 21. Do the Plan's provisions satisfy the "3% rule"?

**Answer:**

For a plan to satisfy the 3% method, as of the end of each year, the employee's accrued benefit should equal to  $3\% \times YOP \times NRB$ . NRB is calculated as if the participant entered the plan at the earliest possible entry age and terminated from service as of the earlier of the plan's NRA (which in this case is 65) or age 65.

In this case, at the end of the first year of participation, the participant would have accrued a benefit of 2% of AAC.

Under the 3% method, if the employee had entered the Plan at age 21 and terminated from service at age 65, the employee would have had 44 years of participation. Based on that, the NRB provided by the Plan is  $2\% \text{ of AAC} \times 44 \text{ YOP} = 88\% \text{ of AAC}$ . At the end of year 1, the participant's accrued benefit should be at least as great as  $3\% \times 1 \times (88\% \text{ of AAC}) = 2.64\% \text{ of AAC}$ .

At the end of year 1, the participant's accrued benefit (2% of AAC) is less than what is required under the 3% method (2.64% of AAC)

Plan's method for providing accruals does not satisfy the "3% method." Also, note that under this example, it takes more than 33 1/3 years for a participant to be fully accrued in the Plan's NRB. That, in it self, would cause the Plan to violate the 3% method.

**Example 6**

W corporation's defined benefit plan provides an annual retirement benefit, commencing at age 65, of 2% of AAC for each year of participation in the Plan (not to exceed 30). As a condition of participation, the plan requires that an employee should have attained age 21. Do the Plan's provisions satisfy the "3% rule"?

**Answer:**

For a plan to satisfy the 3% method, as of the end of each year, the employee's accrued benefit should equal to  $3\% \times \text{YOP} \times \text{NRB}$ . NRB is calculated as if the participant entered the plan at the earliest possible entry age and terminated from service as of the earlier of the plan's NRA (which in this case is 65) or age 65.

In this case, at the end of the first year of participation, the participant would have accrued a benefit of 2% of AAC.

Under the 3% method, if the employee had entered the Plan at age 21 and terminated from service at age 65, the employee would have had 44 years of participation. Based on that, the NRB provided by the Plan is 2% of AAC  $\times 30$  YOP = 60% of AAC. (Note: In this example, years of participation in excess of 30 is ignored for the purpose of figuring out the NRB) At the end of year 1, the participant's accrued benefit should be at least as great as  $3\% \times 1 \times 60\%$  of AAC = 1.8% of AAC.

At the end of year 1, the participant's accrued benefit (2% of AAC) is greater than what is required under the 3% method (1.8% of AAC). Also for each subsequent year of participation, the participant's accrued benefit would exceed the accrued benefit required under the 3% method. For instance, in Year. 2, the participant's accrued benefit would be 4% of AAC. Under the 3% rule, the participant would be required to have an accrued benefit that is at least as great as  $3\% \times 2 \times (60\%$  of AAC) = 3.6% of AAC.

Plan accruals comply with the "3% method".

**EXERCISE 1:**

Plan Provisions:

- *Normal Retirement Benefit*: is equal to the employee's *Accrued Benefit at Normal Retirement Age*.
- *Accrued Benefit at Normal Retirement Age*: shall be equal to:
  - 1% of AAC for the first 15 years of participation plus 1.25% of AAC for the next 6 years of participation plus 1.5% of AAC for the next 5 years of participation
- *Normal Retirement Age*: 65
- *Average Annual Compensation(AAC)*: average of the Participant's Annual Compensation for 5 consecutive years ending in the current year or in any prior year during which the average of the Participant's Annual Compensation is the highest
- *Eligibility*: 21, 1YEARS OF SERVICE

Do the Plan's provisions for providing benefit accruals satisfy the 3% method?

**OPTION #2: 133 1/3% RULE [CODE § 411(B)(1)(B)]**

A plan's method for providing benefit accruals, would satisfy the "133 1/3% rule" if the following conditions are satisfied.

- At Normal Retirement Age(NRA), a participant's *Accrued Benefit* = his or her *Normal Retirement Benefit* under the terms of the Plan
- The annual rate at which a participant can accrue benefits, under the plan formula, for a later year cannot exceed 133 1/3% of the annual rate of benefit accrual for any prior year.  
(see Code § 411(b)(1)(B))

Consider the following examples:

**Example 7:**

The Plan provides that a participant will accrue his benefits as follows:

- 1.5% of high-5 consecutive years' average compensation (AAC) for the first 10 years of participation;
- 2% of AAC for the second 10 years of participation; and
- 2.5% of AAC for the following 10 years of participation

The Normal Retirement Benefit payable at age 65 will be equal to the accrued benefit calculated for the participant based on the accrual rates provided above.

Answer:

From Year 21 onward, the participant accrues additional benefits at the rate of 2.5% of AAC per year. In Years. 1-10, the same participant accrues benefits at the rate of 1.5% of AAC per year.

For the plan to comply with the 133 1/3% rule, a subsequent year's accrual cannot exceed 133 1/3% of a prior year's accrual.

In this case:

Annual rate of accrual in Year. 21 (2.5%) exceeds

133 1/3% x Annual rate of accrual in Year.1(1.5%) = 2.0%

Plan's method of accrual does not satisfy the 133 1/3% rule.

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**Example 8:**

The Plan provides that a participant will accrue his benefits as follows:

- 1.5% of AAC for the first 10 years of participation
- 2% of AAC for the next 10 years of participation

The Normal Retirement Benefit payable at age 65 will be equal to the accrued benefit calculated for the participant based on the accrual rates provided above.

Answer:

From Year 11 onward, the participant accrues additional benefits at the rate of 2% of AAC per year. In Years. 1-10, the same participant accrues benefits at the rate of 1.5% of AAC per year.

For the plan to comply with the 133 1/3% rule, a subsequent year's accrual cannot exceed 133 1/3% of a prior year's accrual.

In this case:

Annual rate of accrual in Year. 11 (2.0%) does not exceed

133 1/3% x Annual rate of accrual in Year.1(1.5%) = 2.0%

Plan's method of accrual satisfies the "133 1/3% rule."

**Example 9:**

The Plan provides that a participant will accrue his benefits as follows:

- 2.5% of AAC for the first 10 years of participation
- 2% of AAC for the second 10 years of participation
- 1.5% of AAC for the following 10 years of participation

The Normal Retirement Benefit payable at age 65 will be equal to the accrued benefit calculated for the participant based on the accrual rates provided above.

**Answer:**

Plan complies with the 133 1/3% rule. There is no restriction on the Plan providing for lower rates of accruals in subsequent years.

**EXERCISE 2:**

**Plan Provisions:**

- *Normal Retirement Benefit:* is equal to the employee's *Accrued Benefit at Normal Retirement Age*.
- *Accrued Benefit at Normal Retirement Age:* shall be equal to:
  - 3% of AAC for the first 10 years of participation plus 2% of AAC for the next 10 years of participation plus 3% of AAC for the next 10 years of participation
- *Normal Retirement Age:* 65
- *Average Annual Compensation(AAC):* average of the Participant's Annual Compensation for 5 consecutive years ending in the current year or in any prior year during which the average of the Participant's Annual Compensation is the highest
- *Eligibility:* 21, 1YEARS OF SERVICE

Do the Plan's provisions for providing benefit accruals satisfy the 133 1/3% rule?

Do the Plan's provisions for providing benefit accruals satisfy the 3% method?

The Plan's method for providing accruals satisfies the provisions of Code § 411(b). True/False

**OPTION #3: FRACTIONAL RULE [CODE § 411(B)(1)(C)]**

To meet this rule, under the terms of the plan, a participant's accrued benefit payable at Normal Retirement Age (NRA) must be at least as great as:

Participant's Normal Retirement Benefit

(Annual Benefit to which an employee would have been entitled to at NRA if the employee continued to work with the Employer until NRA and his compensation was the same as the amount he had earned at the time he separated from service.)

$x$  (Total years of participation upon separation from service)/ (Total years of participation the employee would have had if the employee had terminated from service at NRA)

The fraction cannot exceed 1.

[See § 411(b)(1)(C)]

The Fractional Rule can be illustrated with the following example:

Plan provides for a Normal Retirement Benefit of 50% of high-3 consecutive years' average compensation (AAC) payable in the form of a life annuity at the Plan's NRA of 65. The Plan provides that the participant's Accrued Benefit will be based on the fractional rule. Employee B commences participation in the Plan at age 35 and separates from service at age 50. Employee C commences participation in the Plan at age 21 and separates from service at age 36. Calculate B's and C's accrued benefit. Assume that both B and C's AAC were at \$50,000, when they separated from service.

Answer:

Employee B

$NRB = 50\% \text{ of AAC} = 50\% \times \$50,000 = \$25,000$  per year, payable at age 65

Accrual fraction =  $15(\text{years of participation on separation}) / 30(\text{years of participation had B terminated at NRA}=65)$

Accrued Benefit =  $(50\% \text{ of AAC}) \times 15/30$   
= 25% of AAC, payable at age 65  
=  $25\% \times \$50,000$ , payable at age 65

= \$12,500 per year, payable at age 65

Employee C:

NRB= 50% of AAC = 50% x \$50,000= \$25,000 per year, payable at age 65

Accrual fraction = 15(years of participation on separation)/ 44(years of participation had C terminated at NRA=65)

Accrued Benefit = (50% of AAC) x 15/44  
= 17.0455% of AAC, payable at age 65  
= 17.0455% x \$50,000, payable at age 65  
= \$8,523 per year, payable at age 65

If a Plan provides for accruals based on the fractional rule a participant will accrue benefits at the same rate for each year of participation. Lets look at the example above. Employee B entered the Plan at age 35. B's NRA is 65. Thus, B would potentially participate, in the Plan, for 30 years before she attains her Normal Retirement Benefit. Under the fractional rule, for each year of participation, B will accrue 1/30<sup>th</sup> of her Normal Retirement Benefit. She separated from service at age 50. She had 15 years of participation and thus accrued 15/30<sup>th</sup> of her Normal Retirement Benefit. Employee C entered the Plan at age 21. C's NRA is 65. Thus, C would potentially participate, in the Plan, for 44 years before he attains his Normal Retirement Benefit. Under the fractional rule, for each year of participation, C will accrue 1/44<sup>th</sup> of his Normal Retirement Benefit. He had 15 years of participation and thus accrued 15/44<sup>th</sup> of his Normal Retirement Benefit. Note: Even though C had the same compensation and number of years of participation as B, his accrued benefit is less than B's. This is because C would have had to complete more years of participation to get the same Normal Retirement Benefit, and thus under the fractional rule, is accruing benefits at a slower rate upon the completion of a year of participation.

Questions:

If B and C accrue benefits at different rates, does that cause a problem for purposes of Code section 411(b)?

What Code sections could be impacted by B and C accruing benefits at different rates?

**EXERCISE:**

Plan Information:

- Normal Retirement Benefit is calculated on the basis of the following formula:
  - 1% of high-3 consecutive years' avg. compensation (AAC) for the first 15 years of participation plus
  - 1.25% AAC for the next 6 years of participation plus
  - 1.5% of AAC for the next 4 years of participation
- Accrued Benefit: Calculated on the basis of the fractional rule, using Years of Participation
- NRA = 65
- Eligibility: 21, 1 YEARS OF SERVICE

Employee Information:

- Name: A
- Date of Birth: 1/1/50
- Date of Hire: 1/1/89
- Date of Participation: 1/1/90
- Date of Termination: 1/1/2000
- Compensation: \$50,000 per year. from 1989 thru 1999.
- A was a full time employee through out the duration of his employment.

What is A's accrued benefit as of 1/1/2000?

The example and exercise above assume that the Plan's method of accrual is the fractional rule. However, a Plan could have a different method for providing accruals and still demonstrate that any participant's accrued benefit, under the plan's provisions, will be at least as favorable

as it would have been had his accrued benefit been calculated under the fractional rule.

Question:

Plan Provisions:

- *Normal Retirement Benefit:* is equal to the employee's *Accrued Benefit at Normal Retirement Age*.
- *Accrued Benefit at Normal Retirement Age:* shall be equal to:
  - 3% of AAC for the first 10 years of participation plus 2% of AAC for the next 10 years of participation plus 3% of AAC for the next 10 years of participation
- *Normal Retirement Age:* 65
- *Average Annual Compensation(AAC):* average of the Participant's Annual Compensation for 5 consecutive years ending in the current year or in any prior year during which the average of the Participant's Annual Compensation is the highest
- *Eligibility:* 21, 1YEARS OF SERVICE

Would the Plan's method for providing accruals satisfy the fractional rule as outlined in Code § 411(b)(1)(C)? How would one evaluate the plan's method of providing benefit accruals for this purpose?

**BENEFIT ACCRUALS: POST- NORMAL RETIREMENT AGE: [CODE § 411(B)(1)(H)]**

The 3 options under Code sections 411(b)(1)(A),(B) and (C), generally address the issue of benefit accruals in the event that a participant separates from service at or before the plan's Normal Retirement Age(NRA). What, however, would be the impact on a participant's accrued benefit, in the event that the participant, upon attainment of NRA, decides to continue working with the Employer?

Code section 411(b)(1)(H)( i) provides that a participant's rate of accrual cannot be reduced because of the attainment of any age. Thus, if the Plan provides for a benefit accrual of 1% of compensation for each Year of Participation, then his accruals, of 1% of compensation per year, do not cease just because a participant decides to work beyond Normal Retirement Age. Thus, if a Plan provides for a Normal Retirement Age of 65, and one employee works on a full time basis, as a participant, from age 55 to age 65, and another employee works on a full time basis from age 60 to age 70- both employees will have an accrued benefit of 10% of

compensation. The second employee's accruals do not stop upon his attainment of age 65.

However, if a participant does not continue to accrue benefits because of limitations that are not related to the participant's age, then that would not violate the provisions of Code section 411(b)(1)(H). (see Code section 411(b)(1)(H)(ii). ) Thus, if the participant does not accrue an additional benefit because he has already accrued the maximum benefit provided for under the terms of the plan, then the plan would not be in violation of Code section 411(b)(1)(H). Thus, if a Plan provides for a Normal Retirement Age of 65, and a Normal Retirement Benefit that is equal to 1% of compensation per year (not to exceed 10 years), then if a participant upon attaining age 66 has already had 10 years of participation, he would not be accruing an additional benefit. Similarly, if the participant does not accrue an additional benefit because his accrued benefit is already at the maximum limit permissible by the provisions of Code section 415, then that would not violate the provisions of Code section 411(b)(1)(H) (see Code section 411(b)(1)(H)(v)).

A plan can also reduce additional benefit accruals by any additions of benefit resulting from a plan provision that provides for actuarial increases in a participant's normal retirement benefit. This concept can be illustrated by the following example: Suppose the Plan provides for an accrued benefit that is equal to \$20 per month for each year of credited service. The Plan's Normal Retirement Age is 65. If a participant had 30 years of credited service at age 65, he would have been entitled to an accrued benefit of \$600 per month payable at age 65. The participant in question does not take a distribution of his benefit, and instead works for two additional years, until age 67. Thus, if the Plan's formula was considered, the participant would have two additional years of accrual, after age 65 and his accrued benefit would be at \$640 (\$20 x 32 years) per month. However the plan provides for actuarial increases for the employee's normal retirement benefit to reflect the fact that the distribution of his normal retirement benefit, accrued at age 65, is beginning at a later date. Remember the participant's normal retirement benefit was \$600 per month, payable at 65. Assume that, after applying the actuarial factors, the benefit is increased to \$700 per month, payable at age 67. The actuarial equivalent of the normal retirement benefit is greater than the accrued benefit under the plan's formula even after considering the two additional years of service. Thus, if the plan provides that the employee will get the greater of the actuarially increased normal retirement benefit or the accrued benefit, based on the plan's formula, then the employee will receive \$700 per month. In this case, no additional accruals are being provided to the employee for the years he worked beyond normal retirement age. The actuarial equivalent of the benefit already accrued at normal retirement age more than offsets any increased benefit he may

have accrued under the plan's benefit formula. (see Prop. Reg. 1.411(b)-2(b)(4)(iv), Example 2).

Finally, when determining additional accruals for a participant beyond normal retirement age, the plan can also take into account the actuarial equivalent of distributions already made, when an employee attained normal retirement age. (see Code section 411(b)(1)(H)(iii)(I).) Those distributions can be used to offset any additional benefits accrued by the participant, after normal retirement age. Thus, using the example above, lets assume that a participant started to receive a benefit of \$600 per month upon the attainment of age 65. If no distributions were made, then the participant would have received an additional benefit accrual of \$40 per month for the two additional years worked, and thus his accrued benefit when he separated from service, at age 67, would be \$640 per month. However, in this case, the participant already commenced receiving benefits at age 65. By age 67, he would received 24 monthly payments of \$600. That represents \$14,400 in payments. Assume that these payments, using the actuarial equivalence factors of the plan translates to an equivalent benefit of \$150 per month , payable at age 67. The actuarial value of these payments is greater than the increase in benefit accruals resulting from the employee's decision to work beyond normal retirement age (\$40 per month). In this situation, since the actuarial value of benefit payments made during the two years of credited service after normal retirement age exceeds the benefit accrual for the two years of credited service after normal retirement age, the plan is not required to provide the additional benefit accrual to the employee. His benefit payment of \$600 per month, is not adjusted.

(see Prop. Reg. 1.411(b)-2(b)(4)(iv), Example 3).

## **SPECIAL SITUATIONS:**

1. Certain insured defined benefit plans (Code section 411(b)(1)(F)  
If a plan is funded exclusively by insurance contracts and the plan satisfies the provisions of Code section 412(i), then the plan does not have to demonstrate that its method of accrual satisfies one of the three options provided for in subsections (A), (B) and (C) of Code section 411(b)(1).
2. First two years of service (Code section 411(b)(1)(E).  
A plan could postpone the commencement of benefit accruals until the employee has completed two continuous years of service. However, once the participant completes the two years of service, all years of service must be considered for purposes of determining whether the plan's method for providing benefit accrual satisfies one of the three

options provided for in subsections (A),(B) and (C) of Code section 411(b)(1). A year of service, for this purpose, means a year of service as defined in Code section 410(a)(3)(A) (generally a 12 month period in which an employee completes 1000 hours of service). The two years will be considered "continuous" if the years in which an employee satisfies the requirements for a "year of service" are not separated by a year in which an employee has incurred a break-in- service.

(see IT reg. 1.411(b)-1(d)(1)).