

# SECTION 415

## MAXIMUM BENEFIT LIMITS

415 REGULATION  
VERY COMPLICATED

# IRC SECTION 415

## DB PLAN MAXIMUM BENEFIT LIMITS

**§415 limits apply to the employer-provided benefit:**

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>§415(b)(1)(A) Dollar limit</b> | <b>210,000 for 2016</b> |
|                                   | <b>215,000 for 2017</b> |
|                                   | <b>220,000 for 2018</b> |

**§415(b)(1)(B) 100% high 3 yr. consecutive pay as an employee**

**§415(b)(4) 10,000 floor - only if employee never covered under employer's DC plan**

# EXAM CONDITION

**27. The employer has never maintained a defined contribution plan or another defined benefit plan.**

# **IRC SECTION 415**

## **DB PLAN MAXIMUM BENEFIT LIMITS**

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**415 dollar limit is defined based on life annuity payable at age 65**

**Must adjust limit for retirement before age 62 or after age 65**

**Adjustments are applied for payment form other than life annuity, but NOT for QJSA**

# APPLICATION OF 415 BENEFIT LIMITS

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**Final §415 limit is the greater of the §415(b)(4) 10,000 floor, and the lesser of:**

**§415(b)(1)(A) Dollar limit**

**§415(b)(1)(B) 100% High 3 yr. consecutive pay**

**The plan benefit can't exceed the §415 limit**

**415(b)(5)**

## **DB LIMITS – SERVICE REDUCTIONS**

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**Dollar limit is reduced pro-rata for participation service less than 10 years**

**Compensation limit and 10,000 floor are both reduced for years of service less than 10 years**

**Can't reduce below 1/10**

**1.415(b)-1(g)**

## **DB LIMITS – SERVICE REDUCTIONS**

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**Reduce DB limits if service (or participation)  
less than 10 years:**

**1.Dollar limit                      participation service**

**2.100% pay limit              service from hire**

**3.10,000 floor              service from hire**

**4.Accrued benefits      use past service**

**5.Projected benefits      use total service**

**1.415(b)-1(g)**

**PARTICIPATION SERVICE AND YEAR OF  
SERVICE FOR PRO-RATING 415 LIMITS**

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**Both must be credited during each accrual computation period using rules for benefit accrual service under the plan**

**This requires accrual of fractional years of service under either elapsed time rules, or plans which grant fractional benefit accrual service with less than 1000 hours**

**COMPENSATION DEFINITION**

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- 1. Now compensation IS limited by §401(a)(17)**
- 2. Use “total” compensation: §401(k) pre-tax deferrals (and others) are included**
- 3. PPA 06 removed language that counted years as a participant, matches regulation**



## **1.415(b)-1(a)(6)**

### **EXEMPTION FROM 415 COMPENSATION LIMIT**

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- **Governmental plans**
- **Multiemployer plans**
- **Certain collectively bargained plans described in 415(b)(7) – but then only use HALF of the 415 dollar limit!**

**415(c)(3)(B)**

## **SPECIAL RULE FOR SELF-EMPLOYED**

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**401(c)(1) Also for owner-employee**

**Compensation = Earned Income, defined as Gross Income less all deductions (includes pension contributions)**

**This compensation is used for**

- **Plan benefits**
- **§415 Benefit Limits**
- **§404 Deduction Limits**

**This can make §415 limit calculations iterative**

# **DC PLAN MAXIMUM BENEFIT LIMITS**

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**§415 limits the Annual Additions, sum of**

- **Employer contributions**
- **Employee contributions**
- **Forfeitures**

**Annual Addition can't exceed lesser of**

- **100% of compensation**
- **55,000**

**Employee contributions exclude rollover contributions and SEP contributions**

**NOTE:**

**DC limit is not given in the Joint Board announcement or exam tables each year!**

## **415(b)(2)(C)**

### **DOLLAR LIMIT – AGE ADJUSTMENTS**

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**The 415(b)(1)(A) dollar limit is unreduced between ages 62 and 65.**

**Actuarial reduction applies before age 62**

**Actuarial increase applies after age 65**

**Mandated basis to calculate actuarial equivalence under §415(b):**

- **5% interest rate**
- **417(e) applicable mortality**

1.415(b)-1(e)

**DOLLAR LIMIT – AGE ADJUSTMENTS > 65**

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## **MANDATED BASIS - ACTUARIAL INCREASE FACTOR**

**PV of 415 dollar limit at age x is actuarially equivalent to PV of 415 dollar limit at 65:**

$$(\$ \text{ Limit})_{65} * \ddot{a}_{65}^{(12)} = (\$ \text{ Limit})_x * (1+i)^{65-x} \ddot{a}_x^{(12)}$$

$$(\$ \text{ Limit})_x = (1+i)^{x-65} \frac{\ddot{a}_{65}^{(12)}}{\ddot{a}_x^{(12)}} (\$ \text{ Limit})_{65}$$

**Actuarial Increase Factor for (Dollar Limit)<sub>65</sub>:**

$$(1+i)^{x-65} \frac{\ddot{a}_{65}^{(12)}}{\ddot{a}_x^{(12)}}$$

**Factor uses 5% and applicable mort, ignores pre-retirement mortality (see page 415-14)**

# 1.415(b)-1(e)(3) ACTUARIAL EQUIVALENCE MORTALITY ADJUSTMENTS

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“To the extent that a forfeiture does not occur upon the participant’s death before the annuity starting date, no adjustment is made to reflect the probability of the participant’s death”

If plan does not charge participants for providing a qualified pre-retirement survivor annuity (QPSA) on the participant’s death, can treat this as no forfeiture → ignore mortality

Plan must apply this treatment both for adjustments before age 62 and after age 65

- results in lower 415 limit after age 65
- results in higher 415 limit before age 62

# 1.415(b)-1(e)(3) ACTUARIAL EQUIVALENCE MORTALITY ADJUSTMENTS

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**Default case: Typical QPSA death benefit**

**General exam condition:**

10. Qualified joint and survivor annuities and any other specified form of payment are provided in such manner that they result in no cost to the employer

**Must assume plan DOES charge participants for cost of QPSA pre-retirement death benefit: can NOT ignore mortality per 1.415(b)-1(e)(3)**

$$\frac{N_{65}^{(12)}}{N_x^{(12)}} = \frac{D_{65} \ddot{a}_{65}^{(12)}}{D_x \ddot{a}_x^{(12)}} = \frac{(1+i)^{x-65} \ddot{a}_{65}^{(12)}}{{}_x-65p_{65} \ddot{a}_x^{(12)}}$$

**This gives higher 415 dollar limit after age 65**

## §415 ACTUARIAL INCREASES > 65

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Assume age  $x > 65$  and no death benefits:  
Either waived automatic QPSA benefit, or  
single participant with no death benefit

Due to complete forfeiture upon death, must  
reflect mortality in factor

Actuarial Increase Factor for (Dollar Limit)<sub>65</sub>:

$$\frac{N_{65}^{(12)}}{N_x^{(12)}} = \frac{D_{65} \ddot{a}_{65}^{(12)}}{D_x \ddot{a}_x^{(12)}} = \frac{(1+i)^{x-65} \ddot{a}_{65}^{(12)}}{{}_{x-65}p_{65} \ddot{a}_x^{(12)}}$$

This is another case when you can use the  
“true” actuarial increase factor – gives higher  
415 dollar limit after age 65



## §415 ACTUARIAL INCREASE - ABOVE AGE 65

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Actuarial increase factor for 415 dollar limit  
Based on mandated 5%, applicable mortality

| Death benefit definition  | Factor  |
|---|---|
| Waived QPSA, or<br>NO death benefit<br>(complete forfeiture on death)                         | $\frac{N_{65}^{(12)}}{N_x^{(12)}}$                            |
| QPSA death benefit, and plan<br>charges participants for cost<br>(default per exam condition) | $\frac{N_{65}^{(12)}}{N_x^{(12)}}$                            |
| 100% of PV of accrued benefit<br>(no forfeiture on death)                                     | $(1+i)^{x-65} \frac{\ddot{a}_{65}^{(12)}}{\ddot{a}_x^{(12)}}$ |
| QPSA death benefit, and plan<br>does NOT charge for cost<br>(treat as no forfeiture on death) | $(1+i)^{x-65} \frac{\ddot{a}_{65}^{(12)}}{\ddot{a}_x^{(12)}}$ |

## **1.415(b)-1(e)**

### **DOLLAR LIMIT – AGE ADJUSTMENTS > 65**

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**If plan DOES define a straight life annuity at both age 65 and the annuity starting date:**

**Adjust 415 dollar limit after age 65 using the lesser of two values:**

- **Mandated basis actuarial increase factor from page 415-17**
- **Plan basis actuarial increase factor: adjustment ratio based on plan factors (see next page)**

**If plan does NOT define a straight life annuity that commences immediately at both age 65 and the annuity starting date – ONLY use Mandated basis actuarial increase factor from page 415-17**

**1.415(b)-1(e)(2)**

**DOLLAR LIMIT – AGE ADJUSTMENTS > 65  
ADJUSTMENT RATIO → PLAN FACTORS**

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**Adjustment ratio = A / B**

**A. Adjusted immediately commencing straight life annuity**

- (1) Ignoring Section 415 limits and accruals after age 65**
- (2) Including actuarial increases after 65**

**B. Adjusted age 65 straight life annuity**

- (1) For hypothetical participant at age 65 with same accrued benefit as the actual participant**
- (2) Ignoring Section 415 limits, accruals after age 65, AND actuarial increases after 65**

**Calculations use plan's basis for actuarial equivalence factors**

**1.415(b)-1(e)(2)**

**DOLLAR LIMIT – AGE ADJUSTMENTS > 65  
ADJUSTMENT RATIO → PLAN FACTORS**

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**Assume participant is retiring at age X, beyond age 65. The plan's NRA can be less than 65. The adjustment ratio is A/B**

**Idea is that A/B measures the plan's actuarial increases above age 65. Value of the adjustment ratio varies depending on the plan design.**

**Look at three designs on the following pages**

**1.415(b)-1(e)(2)**

**DOLLAR LIMIT – AGE ADJUSTMENTS > 65  
ADJUSTMENT RATIO → PLAN FACTORS**

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***PLAN 1 - Continued accruals beyond NRA***

- Item A is the plan benefit at 65 (ignoring 415 limits and additional accruals after 65)
- Item B is the hypothetical age 65 plan benefit (ignoring 415 limits, additional accruals and actuarial increases after 65)

**A/B = 1.0**

**This produces NO increase in 415 \$ limit above 65, based on page 415-18**

**1.415(b)-1(e)(2)**

**DOLLAR LIMIT – AGE ADJUSTMENTS > 65  
ADJUSTMENT RATIO → PLAN FACTORS**

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**Assume participant is retiring at age X, beyond age 65. The plan's NRA could be lower than 65. The adjustment ratio is A/B**

**Idea is that A/B measures the plan's actuarial increases above age 65. Value of the adjustment ratio varies depending on the plan design.**

1.415(b)-1(e)(2)

DOLLAR LIMIT – AGE ADJUSTMENTS > 65  
ADJUSTMENT RATIO → PLAN FACTORS

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***PLAN 2 - Actuarial increase beyond NRA***

- Item A is the plan benefit actuarially increased from NRA 65 to age X (ignoring 415 limits and additional accruals after 65)
- Item B is the hypothetical age 65 plan benefit (ignoring 415 limits, additional accruals and actuarial increases after 65)

$A/B > 1.0$

This produces increase in 415 \$ limit above 65

***PLAN 3 - Greater of continued accruals and actuarial increase beyond NRA***

(Same results as PLAN 2)

1.415(b)-1(d)

**DOLLAR LIMIT – AGE ADJUSTMENTS < 62**

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## **MANDATED BASIS - ACTUARIAL DECREASE FACTOR**

**PV of 415 dollar limit at age x is actuarially equivalent to PV of 415 dollar limit at 62:**

$$(\$ \text{ Limit})_x * \ddot{a}_x^{(12)} = (\$ \text{ Limit})_{62} * (1+i)^{x-62} ({}_{62-x}p_x) \ddot{a}_{62}^{(12)}$$

$$(\$ \text{ Limit})_x = (\$ \text{ Limit})_{62} * (1+i)^{x-62} ({}_{62-x}p_x) \frac{\ddot{a}_{62}^{(12)}}{\ddot{a}_x^{(12)}}$$

**Actuarial Decrease Factor for (Dollar Limit)<sub>62</sub>:**

$$(1+i)^{x-62} ({}_{62-x}p_x) \frac{\ddot{a}_{62}^{(12)}}{\ddot{a}_x^{(12)}}$$

**Factor uses 5% with applicable mort, includes pre-retirement mortality (see next page)**



## §415 ACTUARIAL DECREASES < 62

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**Default case: Typical QPSA death benefit**

**General exam condition:**

**10. Qualified joint and survivor annuities and any other specified form of payment are provided in such manner that they result in no cost to the employer**

**Must assume plan DOES charge participants for cost of QPSA pre-retirement death benefit: can NOT ignore mortality per 1.415(b)-1(e)(3)**

**Actuarial Decrease Factor for (Dollar Limit)<sub>62</sub>:**

$$(1+i)^{x-62} ({}_{62-x}p_x) \frac{\ddot{a}_{62}^{(12)}}{\ddot{a}_x^{(12)}}$$

**This gives lower 415 dollar limit before age 62**

## §415 ACTUARIAL DECREASES < 62

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With death benefit = 100% PV of AB, can ignore mortality due to NO forfeiture:

Actuarial Decrease Factor for (Dollar Limit)<sub>62</sub>:

$$(1+i)^{X-62} \frac{\ddot{a}_{62}^{(12)}}{\ddot{a}_X^{(12)}}$$

If problem states that plan does NOT charge participants for cost of QPSA pre-retirement death benefit →

CAN ignore mortality per 1.415(b)-1(e)(3)

These are the only cases when you can use the “modified” actuarial decrease factor – gives higher 415 dollar limit before age 62

## §415 ACTUARIAL DECREASE - BELOW AGE 62

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Actuarial decrease factor for 415 dollar limit  
Based on mandated 5%, applicable mortality

| Death benefit definition  | Factor  |
|---|---|
| Waived QPSA, or<br>NO death benefit<br>(complete forfeiture on death)                         | $\frac{N_{62}^{(12)}}{N_x^{(12)}}$                            |
| QPSA death benefit, and plan<br>charges participants for cost<br>(default per exam condition) | $\frac{N_{62}^{(12)}}{N_x^{(12)}}$                            |
| 100% of PV of accrued benefit<br>(no forfeiture on death)                                     | $(1+i)^{x-62} \frac{\ddot{a}_{62}^{(12)}}{\ddot{a}_x^{(12)}}$ |
| QPSA death benefit, and plan<br>does NOT charge for cost<br>(treat as no forfeiture on death) | $(1+i)^{x-62} \frac{\ddot{a}_{62}^{(12)}}{\ddot{a}_x^{(12)}}$ |

**1.415(b)-1(d)**

**DOLLAR LIMIT – AGE ADJUSTMENTS < 62**

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If plan DOES define a straight life annuity that commences immediately at both age 62 and the annuity starting date, the adjusted 415 dollar limit is calculated using the lesser of two values:

- Mandated basis actuarial reduction factor from page 415-27
- Plan basis actuarial reduction factor: ratio of A / B (see next page)

**1.415(b)-1(d)**

**DOLLAR LIMIT – AGE ADJUSTMENTS < 62**

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**Define Plan basis actuarial reduction factor as ratio of A / B**

- A. Immediately commencing straight life annuity under the plan, ignoring Section 415 limits**
- B. Straight life annuity commencing at age 62 under the plan, ignoring Section 415 limits**

**Calculations of A and B use plan definition of early retirement factors. Plan must define a straight life annuity that commences immediately at both age 62 and the annuity starting date.**

**1.415(b)-1(d)**

**DOLLAR LIMIT – AGE ADJUSTMENTS < 62**

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**If plan does NOT define a straight life annuity that commences immediately at both age 62 and the annuity starting date –**

**ONLY use Mandated basis actuarial reduction factor from page 415-27**

**415(b)(2)(B)**

## **FORM OF PAYMENT ADJUSTMENTS**

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**Must adjust both the dollar limit and the 100% COMP3 limit for different benefit payment form**

**No adjustment for survivor benefits payable to surviving spouse under 417 qualified joint and survivor annuity (QJSA)**

**No adjustment to 10,000 floor**

# **FORM OF PAYMENT ADJUSTMENTS HISTORY – REVENUE RULING 98-1**

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**Old RPA '94 rules - Do two separate calculations, and use lesser of two results:**

- 1. Plan interest rate and mortality rates**
- 2. Mandated interest and mortality rates**

**New rules in 415 regulations produce similar results, but handle some unusual cases better**



## **1.415(b)-1(c)(2)**

### **FORM OF PAYMENT ADJUSTMENTS – IF NOT SUBJECT TO 417(e)(3)**

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**Section 415 is satisfied if the following benefit is less than the final limit under 415(b)**

**Actuarially equivalent plan benefit on a straight life annuity form limit is greater of two values:**

- **Straight life annuity benefit (if any) payable at participant's annuity starting date**
- **Actuarially equivalent straight life annuity benefit (on mandated basis) at participant's annuity starting date**

**Mandated basis to calculate actuarial equivalence under 1.415(b)-1(c)(2):**

- **5% interest rate**
- **417(e) Applicable mortality**

## **1.417(e)-1(d)(6)**

### **BENEFITS SUBJECT TO 417(e)(3)**

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**“417(e)(3) ... does not apply to the amount of a distribution under a non-decreasing annuity payable for a period other than the life of the participant ...”**

**This means that 417(e)(3) does apply to**

- **Lump sum**
- **Certain only annuity**
- **Social Security level income option**

**Final benefit under these optional forms must be greater of optional form benefit calculated using**

- **Plan actuarial basis, or**
- **417(e) basis**

**1.415(b)-1(c)(3)**

**FORM OF PAYMENT ADJUSTMENTS –  
SUBJECT TO 417(e)(3)**

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**Section 415 is satisfied if the following benefit is less than the final limit under 415(b):**

**Actuarially equivalent plan benefit on a straight life annuity form limit is greater of three values, as of participant's annuity starting date:**

- **Actuarially equivalent straight life annuity benefit using plan basis for actuarial equivalence**
- **Actuarially equivalent straight life annuity benefit using 5.5% interest rate and 417(e) applicable mortality**
- **Actuarially equivalent straight life annuity benefit using 417(e) applicable interest rate and applicable mortality, divided by 1.05**

**415(b)(2)(E)(ii)**

**WRERA**

**FORM OF PAYMENT ADJUSTMENTS –  
SUBJECT TO 417(e)(3)**

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**Exception**

**Eligible employer under IRC 408(p)(2)(C)(i)**

**If 100 or less employees earn 5,000 or more in prior year, then ignore 417(e)(3) interest rate**

**Actuarially equivalent plan benefit on a straight life annuity form limit is greater of two values, as of participant's annuity starting date:**

- **Actuarially equivalent straight life annuity benefit using plan basis for actuarial equivalence**
- **Actuarially equivalent straight life annuity benefit using 5.5% interest rate and 417(e) applicable mortality**

**FORM OF PAYMENT ADJUSTMENTS –  
LUMP SUM – SIMPLIFIED**

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**To convert 415 limit to lump sum under the plan, use lesser of these annuity values:**

- 1. Straight life annuity using plan basis**
- 2. Straight life annuity using 5.5% interest rate and 417(e) applicable mortality**
- 3. 1.05 times [straight life annuity using 417(e) applicable interest rate and applicable mortality]**

**Exception**

**If 100 or less employees earn 5,000 or more in prior year, then ignore 417(e)(3) interest rate - only use first two items**

## **OVERVIEW – 415 LIMIT CALCULATIONS**

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- 1. Calculate reduced §415 dollar limit at early retirement age (page 415-28)**
- 2. Calculate §415 100% 3 year comp. limit**
- 3. "Preliminary" §415 limit is lesser of step (1) and step (2)**
- 4. If available, apply 10,000 floor to step (3)**
- 5. Compare §415 limit in step (4) to actuarially equivalent plan benefit on straight life annuity (page 415-31 or 415-33)**
- 6. If plan benefit exceeds 415 limit, must reduce it on simple pro-rata basis (see next page)**

# OVERVIEW – 415 LIMIT CALCULATIONS

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If plan benefit exceeds 415 limit, must reduce it on simple pro-rata basis:

$$\text{Final Plan benefit} = \text{Initial Plan benefit} * \frac{415 \text{ Limit}}{\text{Plan benefit}}$$

Optional payment form      Straight life annuity

If plan defines straight life annuity benefit, there is a simpler approach (see next page)

# 415 LIMIT CALCULATIONS

## FORM OF PAYMENT ADJUSTMENTS

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If plan defines straight life annuity benefit, then get same result as follows. Convert 415 limit to optional form of payment under the plan using lesser of two factors:

- Plan basis conversion factor for optional form of payment
- Mandated basis conversion factor for optional form of payment

**PROOF follows ... if you dare**

Final plan benefit = Plan benefit \* (415 Limit / Plan benefit)  
Optional Form      Optional Form      Both on life annuity

Final plan benefit = 415 Limit \* (Plan benefit / Plan benefit)  
Optional Form      Life annuity      Optional Form      Life annuity



# 415 LIMIT CALCULATIONS

## FORM OF PAYMENT ADJUSTMENTS

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Plan benefit on Life annuity defined as the greater of the payable at participant's annuity starting date:

- Straight life annuity benefit (if any)
- Actuarially equivalent straight life annuity benefit (on mandated basis)

This equals the Plan benefit on Life annuity times the greater of

- 1.0
- Plan basis optional form factor / mandated basis optional form factor

Plan benefit Optional Form = Plan benefit Life annuity \* Plan optional form factor

Final plan benefit = 415 Limit \*  $\frac{\text{Plan benefit Optional Form}}{\text{Plan benefit Life annuity}}$  \* RATIO

RATIO =  $\frac{\text{Plan benefit Life annuity} * \text{Plan optional form factor}}{\text{Plan benefit Life annuity times Greater of 1.0 or Plan basis optional form factor / mandated basis optional form factor}}$

RATIO =  $\frac{\text{Plan optional form factor}}{\text{Greater of 1.0 or } \frac{\text{Plan basis optional form factor}}{\text{Mandated basis optional form factor}}}$

If Plan basis optional form factor < mandated basis optional form factor, the denominator is 1.0 and RATIO = Plan optional form factor

If Plan basis optional form factor > mandated basis optional form factor, the denominator is > 1.0 and RATIO = Mandated basis optional form factor

Final 415 limit is based on lower of two optional form factors Q.E.D.

## **§415(d)**

### **COST-OF-LIVING ADJUSTMENTS**

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**The dollar limits are adjusted annually:**

- A. 220,000 under §415(b)(1)(A) for DB**
- B. 55,000 under §415(c)(1)(A) for DC**

### **EGTRRA changes**

- New amounts are inflation adjusted based on quarter beginning 07/2001**
- DC rounded down to next lowest \$1,000**
- DB rounded down to next lowest \$5,000**

**§415(d)**

## **COST-OF-LIVING ADJUSTMENTS**

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**Benefits capped by §415 limit may (or may NOT) increase after exit. Depends on exact language in plan document:**

**§415 limits the plan benefit, versus  
§415 limits the payment from the trust**

**Don't want benefits to increase if separate non-qualified "excess only" plan designed to fund benefits in excess of 415 limits**

**1.415(d)-1(a)(2)**

## **COST-OF-LIVING ADJUSTMENTS**

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**COLAs can be applied to the COMP3 limit for retired and separated participants**

**Plan language has to specifically allow for this.**

# REVENUE RULING 81-195

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**Retiree at 01/01/2015 with \$196,000 plan benefit subject to 5% COLA**

**Key point: Plan wording allows benefits to increase as §415 limits increase each year**

| Plan formula benefit |         |   |                      | Benefit Paid |
|----------------------|---------|---|----------------------|--------------|
| 2015                 | 196,000 |   |                      | 196,000      |
| 2016                 | 205,800 | = | $196,000 * (1.05)^1$ | 205,800      |
| 2017                 | 216,090 | = | $196,000 * (1.05)^2$ | 215,000      |
| 2018                 | 226,895 | = | $196,000 * (1.05)^3$ | 220,000      |

**Benefits paid each limitation year can't exceed 415 dollar limit. Benefits for 2018 and later must be limited to 220,000 for a 2018 valuation.**

# REVENUE RULING 81-215

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**§415 limits based on calendar years:**

| Plan year |         |         |
|-----------|---------|---------|
| 210,000   | 215,000 | 220,000 |
| 2016      | 2017    | 2018    |

**If plan year differs from calendar year, two ways to handle:**

1. Treat change in §415 limits as plan change, use Revenue Ruling 77-2, pro-rate effect
2. 1.412(c)(3)-1(d)(1)(i): If plan language allows automatic incorporation of changes in §415 limits, allows use of §415 limit at last day of plan year

**NOT TESTED since 1980s**

# REVENUE RULING 85-131

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**NRB = 50% FAE3      Pay = 200,000**  
**AB = 50% FAE3**

**Unit Credit cost method**

**4 years service and 4 years participation**

**In 1985, the 415(b)(1)(A) limit was 90,000:**

**Maximum accrued benefit**  
**= 90,000 \* (4/10)**  
**= 36,000**

**Benefit accrual**  
**=  $AB_{t+1} - AB_t$**   
**= 90,000 \* (5/10) - 90,000 \* (4/10)**  
**= 9,000**

**NOTE: 1986 law change: reduce dollar limit for participation service < 10 years**

## §415 PRACTICE PROBLEM #1

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Consider newly established plan at 1-1-2018, with 220,000 as §415(b)(1)(A) limit. The participant earns \$300,000. What are the benefit accruals for the first two years?

|                       | YEAR 1 | YEAR 2 | YEAR 3 |
|-----------------------|--------|--------|--------|
| Participation svc     | 0      | 1      | 2      |
| Plan accrued benefit  | 20,000 | 22,500 | 25,000 |
| §415(b)(1)(A) \$limit |        |        |        |

|                      |    |    |    |
|----------------------|----|----|----|
| Years of service     | 10 | 11 | 12 |
| 10,000 floor         |    |    |    |
| §415(b)(1)(B) %limit |    |    |    |

|                                    |  |  |  |
|------------------------------------|--|--|--|
| Lesser of two §415(b) limits       |  |  |  |
| Greater of floor and §415(b) limit |  |  |  |
| Lesser of plan AB and §415 limit   |  |  |  |

**Benefit Accrual**



## §415 PRACTICE PROBLEM #2

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Plan actuarial equivalence basis:  
6% interest, applicable mortality

Normal form is 50% QJ&SA

Optional payment form: Straight life annuity

How do you adjust the 415 dollar limit?

| AGE             | Factor |
|-----------------|--------|
| 55              |        |
| 62              |        |
| 65              |        |
| 71              |        |
| 55 on<br>10 C&L |        |

## §415 AND PROJECTED UNIT CREDIT

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Some prior exam problems tested this (see 1993 #24)

To calculate PUC Normal Cost, must separately determine each component of Funding Accrued Benefit at both valuation dates:

|                  | <u>1-1-2017</u><br>$FAB_0$ | <u>1-1-2018</u><br>$FAB_1$ |
|------------------|----------------------------|----------------------------|
| Plan benefit     | AAA                        | BBB                        |
| 415 limits       | CCC                        | DDD                        |
| 416 T-H minimums | WWW                        | XXX                        |
| Combined effect  | YYY                        | ZZZ                        |

## §415 LUMP SUM CALCS - TOO TRICKY

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### 1. Plan Lump Sum

Plan basis - early retirement reductions

Use greater of plan lump sum, 417 lump sum

### 2. 415(b)(1)(A) Dollar Limit

Actuarial reduction below age 62

### 3. Preliminary 415 Limit: Lesser of

415(b)(1)(A) \$ limit, 415(b)(1)(B) Comp3 limit

### 4. 415 Lump Sum

Multiply step 3 by lesser of 3 factors:

Plan basis, or  $5.5\%$  /  $1.05^* \text{App int}$  / App mort  
(lump sum → 10,000 floor is immaterial)

### 5. Final Lump Sum

Use lesser of plan lump sum, 415 lump sum

**NOTE** - Small plan exception for item 4 - ignore

3<sup>rd</sup> factor -  $1.05^* \text{Applicable interest}$

# **STEPS FOR WORKING 415 PROBLEMS**

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- 1. Basic data: age, service, participation service, final average earnings**
- 2. Plan accrued benefit, early retirement reduction, early retirement benefit**
- 3. Adjust benefit – form of payment**
- 4. 415 COMP3 limit**
- 5. 415 Dollar limit, adjust for benefit commencement age  $< 62$  or  $> 65$**
- 6. 415 limit (life annuity): lesser of 4 and 5**
- 7. Form of payment adjustment on 415 limit**
- 8. If available, check 10,000 floor – unadjusted**
- 9. Benefit payable can't exceed 415 limit**

## 415 SUMMARY (DB PLANS)

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- **Dollar limit at ages 62-65**
  - **Actuarial increase beyond age 65**
  - **Actuarial decrease before age 62**
  - **Factors calculated with two sets of assumptions - plan and mandated**
  - **Rules generally designed to produce lowest possible 415 limit**
- **COMP3 limit - not based on any age**
- **Form of payment adjustment**
  - **Adjust Dollar and COMP3 limits**
  - **Lump sum complications**
- **10,000 floor - never adjusted**

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