

**ERRATA TO
110 ORIGINAL QUESTIONS
AND SOLUTIONS FOR THE
EA-2B EXAM
2007 EDITION**

- Question 20: In the solution to this question, the reference to “110%” in the second to last paragraph of the solution and the last line of numerical calculation should read “105%.” The numerical answer is correct.
- Question 23: In the solution to this question, the two dates at the top of page 120 should be 12/31/2001 (not 1/1/2001).
- Question 25: In the solution to this question, the reference to “110%” in the second to last paragraph of the solution and the last line of numerical calculation should read “105%.” The numerical answer is correct.
- Question 30: The question should ask for the sum of the category 4 benefits for Smith, Brown and Green.
- Question 47: Smith has 9 years of service as of 12/31/2007. In the solution to this question, the benefit for Smith under the original formula should be 108 (not 96) and the increase in benefit under the 1/1/2005 formula should be 72 (not 64). Note that only \$60 of the \$72 is guaranteed under the phase-in. The total guaranteed benefit is 168 (108 + 60), and the total guaranteed benefits for both Smith and Brown should be 208 (not 196).
- Question 49: The method used to allocate assets to category 5 is erroneous in the solution. The correct method is described in ERISA regulation 4044.10(e). The following is the revised solution to this question reflecting that regulation.

There are no benefits in categories 1, 2 or 3. The assets are allocated by individual to category 4 in proportion to the present value of the category 4 benefits, regardless of whether the benefits are guaranteed or not. Therefore, Smith's category 4 benefits can be determined as if Smith were a non-substantial owner.

Smith's benefit under category 4 is determined as follows.

Original benefit formula: $60 \times 8 \text{ years} = 480$

1/1/2005 amendment: $90 \times 8 \text{ years} = 720$; Increase = $720 - 480 = 240$;

Phase-in = $240 \times 60\% = 144$

1/1/2007 amendment: $110 \times 8 \text{ years} = 880$; Increase = $880 - 720 = 160$;
Phase-in = $160 \times 20\% = 32$

Total guaranteed = $480 + 144 + 32 = 656$

Present value as of 12/31/2007 = $656 \times {}_5| \ddot{a}_{60}^{(12)} \times 12 = 62,976$

Brown's benefit under category 4 is determined as follows.

Original benefit formula: $60 \times 4 \text{ years} \times 60\% \text{ vested} = 144$

1/1/2005 amendment: $90 \times 4 \text{ years} \times 60\% \text{ vested} = 216$; Increase = $216 - 144 = 72$;
Phase-in = $20 \times 3 \text{ years} = 60$

1/1/2007 amendment: $110 \times 4 \text{ years} \times 60\% \text{ vested} = 264$; Increase = $264 - 216 = 48$;
Phase-in = $20 \times 1 \text{ year} = 20$

Total guaranteed = $144 + 60 + 20 = 224$

Present value as of 12/31/2007 = $224 \times {}_{10}| \ddot{a}_{55}^{(12)} \times 12 = 15,590$

The total present value of benefits in category 4 is:

$$62,976 + 15,590 = 78,566$$

The remaining assets available for category 5 are:

$$85,000 - 78,566 = 6,434$$

The benefits in category 5 are the remaining benefits that are vested that were not covered in a previous priority category. For purposes of allocating assets, the benefit formulas must be taken chronologically, beginning with the formula in effect 5 years before plan termination. (Note that this rule applies only to category 5.)

The present value of the vested benefits under the original formula was fully guaranteed for both Smith and Brown in category 4, so there were enough assets to cover those benefits. The benefit increases using the 1/1/2005 formula were not fully guaranteed, so some of those benefits were not covered in the prior categories. The present value of the vested benefits based on the 1/1/2005 formula is:

$$\text{Smith: } 720 \times {}_5| \ddot{a}_{60}^{(12)} \times 12 = 69,120$$

$$\text{Brown: } 216 \times {}_{10}| \ddot{a}_{55}^{(12)} \times 12 = 15,034$$

The excess (if any) of the present value of vested benefits from the 1/1/2005 formula over the present value of benefits paid thus far in the prior categories is:

$$\text{Smith: } 69,120 - 62,976 = 6,144$$

$$\text{Brown: } 15,034 - 15,590 = 0$$

The remaining 6,434 of assets is enough to cover these additional present values, leaving 290 left to be allocated ($6,434 - 6,144 = 290$).

The present value of the vested benefits based on the 1/1/2007 formula is:

$$\text{Smith: } 880 \times {}_5| \ddot{a}_{60}^{(12)} \times 12 = 84,480$$

$$\text{Brown: } 264 \times {}_{10}| \ddot{a}_{55}^{(12)} \times 12 = 18,374$$

The excess (if any) of the present value of vested benefits from the 1/1/2007 formula over the present value of benefits paid thus far in the prior categories is:

$$\text{Smith: } 84,480 - 69,120 = 15,360$$

$$\text{Brown: } 18,374 - 15,590 = 2,784$$

The remaining 290 of assets must be allocated proportionally. Smith's allocation is:

$$290 \times 15,360 / (15,360 + 2,784) = 246$$

Smith's total asset allocation is:

$$62,976 + 6,144 + 246 = 69,366$$

Question 54: The reference in the question to “substantial” owner should read “majority” owner.

Question 100: The reference in the solution to “substantial” owner should read “majority” owner.

Question 104: In the question, the date of the current liability interest rate should be 1/1/2000, not 1/1/2001.