



MUT Made Easy: Yes, Really!

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This article is a collaboration of two actuaries and an attorney. Needless to say, we needed to hold ourselves back from using lots of calculus and "herewiths." For those who have a low tolerance for either, let us come to the point: the next several pages will provide you with a one-step formula to calculate the maximum multiple use test (MUT). In many cases, we will demonstrate that the MUT is automatically passed and, therefore, does not apply.

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Universally, practitioners would like to see the Internal Revenue Service (IRS) eliminate the MUT. The ultimate effect of the MUT is to increase the incidence of testing failures, which results in returns of deferrals and/or matching contributions to highly compensated employees (HCEs). The tax revenue generated from MUT failures could not possibly be significant enough to warrant the cumbersome calculations. In fact, like the ill-fated Section 89 of the Internal Revenue Code (Code) (repealed in 1989), it is likely that the cost to calculate the MUT (which generates fees that are deductible by the payor) outweighs the ultimate tax income from test failures. However, until the IRS and Congress come to their collective senses and abolish the MUT, we're stuck. Hopefully this formula can make life a bit easier.

LET'S CUT TO THE CHASE: SUMMARY OF RESULTS

To explain the results, we need to define a few terms:

- Actual deferral percentage (ADP) and actual contribution percentage (ACP) are the same as defined in Code Sections 401(k) and 401(m).
- The sum of the average of the ADP plus the ACP for non-highly compensated employees (NHCEs) is referred to as *ADP + ACP*.
- The maximum amount that the ADP + ACP for the HCEs may be and still pass the MUT is referred to as the *MAX MUT*.

Now for the promised results:

Result 1: If the ADP + ACP is less than 2 percent, the MUT is automatically passed. Yes, really!

Result 2: If the ADP + ACP is greater than 10 percent, the MUT is automatically passed. Yes, really... with a caveat! As we will discuss below, this result (and all results using the formula) is based on a principle called *shifting*. In some very, very rare cases (particularly when the ADP is less than 2 percent, which in this case means that the ACP is greater than 8 percent), the underlying shifting that the formula requires may not be possible. When the ADP is less than 2 percent, the ACP must be shifted to the ADP. In order to do this type of shift, the matching contribution must be a *qualified* match, which means it must be 100 percent vested and subject to the distribution limitations of Code Sections 401(m)(2)(B) and (C). If the matching contribution is not a qualified match, the shifting will not work, and this formula cannot apply.

Result 3: If the ADP + ACP is between 2 percent and 10 percent, the MAX MUT can be determined by using the following formula:

$$\text{MAX MUT} = .04 + .00625 \left[\frac{\text{NHCE ADP} + \text{NHCE ACP}}{.005} - 4 \right]$$

Yes, really ... with the same caveat as in Result 2!

Now on to the proof and logic.

HOW THE MUT AND SHIFTING WORK

The *multiple use of alternative limitations* is defined in Treasury Regulations Section 1.401(m)-2. The MUT was designed to prevent multiple use of the "alternative limitation." The alternative limitation permits the ADP (or ACP) for the HCEs to be equal to or less than the lesser of (a) 200 percent of the ADP (or ACP) for the NHCEs; or (b) the ADP (or ACP) for the NHCEs plus 2 percentage points. [IRC §§ 401(k)(3)(A)(ii)(11), 401(m)(2)(A)(ii)] This is commonly referred to as the *2-times-2% limit*. [Treas Reg § 1.401(m)-2(b)(2)] Because the MUT is designed to prevent the double use of this limit, we can conclude that if either or both of the ADP and ACP tests are passed using the 1.25-times test (primary limit), the MUT does not apply.

Our MUT formula is based on the concept of *shifting*. Shifting permits a plan to move contributions from the ADP test to the ACP test or vice versa if certain conditions are met. [See Treas Reg §§ 1.401(k)-1(b)(5), 1.401(m)-1(b)(5) ("*all or part of the qualified nonelective contribution and elective contributions made with respect to any or all employees... may be treated as matching contributions.*") (Emphasis added)] The contributions shifted for HCEs need not be the same percentage as the contributions that are shifted for NHCEs. However, the ADP and ACP tests must be independently met both before and after the shifting is completed. (If you're already getting a headache, stay with us. The examples shown below will help.)

In most cases, elective deferrals are shifted to the ACP test. The ACP is matching-based. Because most matching formulas are proportionate to deferrals, and provide a matching contribution that is less than dollar-for-dollar, the ACP is usually lower than the ADP. For example, if a participant defers 5 percent in a plan that matches 50 percent, then the ADP equals 5% and ACP equals 2.5%. This type of relationship would be constant throughout the plan.

If it is necessary to shift from the ACP to ADP, the matching contribution must be a "qualified match";

that is, the matching contribution must be 100 percent vested and be subject to the distribution restrictions under Code Sections 401(k)(2)(B) & (C) [Treas Reg § 1.401(m)-1(b)(4)(B)]. Hence, the caveat in Results 2 and 3 above.

Example 1A. The CT company sponsors a 401(k) plan that provides for elective deferrals and matching contributions. The ADP and ACP tests for 1999 produced the following results:

| | ADP | ACP | SUM |
|------|-------|-------|--------|
| HCE | 7.00% | 5.00% | 12.00% |
| NHCE | 5.00% | 3.00% | 8.00% |

The ADP and ACP tests are each passed independently using the 2-times-2% limit. The MUT test (without using the formula or shifting) is as follows:

| | | |
|-----|---------------------------------------|---------------|
| (a) | Greater of the ADP or ACP for NHCEs | 5.00% |
| (b) | 1.25 × (a) | 6.25% |
| (c) | Lesser of ADP or ACP for NHCEs | 3.00% |
| (d) | (c) × 2 | 6.00% |
| (e) | (c) + 2% | 5.00% |
| (f) | Lesser of (d) or (e) | 5.00% |
| (g) | (f) + (b) | 11.25% |
| (h) | Lesser of the ADP or ACP for HCEs | 3.00% |
| (i) | 1.25 × (h) | 3.75% |
| (j) | Greater of ADP or ACP for HCEs | 5.00% |
| (k) | (j) × 2 | 10.00% |
| (l) | (j) + 2% | 7.00% |
| (m) | Lesser of (k) or (l) | 7.00% |
| (n) | (m) + (i) | 10.75% |
| (o) | MAX MUT: Greater of (n) or (g) | 11.25% |

The original MAX MUT (without shifting) is 11.25 percent. Shifting can increase the amount of the MAX MUT. By shifting 3 percent from the ADP test to the ACP test for both HCEs and NHCEs, the optimal results may be obtained. (Note: Even though we are expressing the shifted amount as a percentage, elective deferrals are actually transferred from the ADP test to the ACP test. In this case, sufficient elective deferrals are shifted from individual HCEs and NHCEs and treated as if they were matching

contributions for purposes of the nondiscrimination testing so that the ADP for each group is decreased by 3 percent and the ACP for each group is increased by 3 percent.) The contributions are not physically transferred, and the participant's accounts are not affected. The transfer is *virtual* for testing only. *The optimum shift will cause one—and only one—of the ADP or ACP tests to be met using the 2-times-2% limitation.*

As mentioned above, the ADP and ACP tests must each be passed independently after the shifting has occurred. Since shifting only changes the allocation of contributions among the ADP and ACP tests, the total percentages for both the HCE and the NHCE groups (12 percent and 8 percent, respectively) will remain constant.

Results After the Shift

| | ADP | ACP | Total |
|--------------|--------|--------|--------|
| Shift Amount | -3.00% | +3.00% | |
| HCE | 4.00% | 8.00% | 12.00% |
| NHCE | 2.00% | 6.00% | 8.00% |

Now, let's recalculate the MUT:

- (a) Greater of the ADP or ACP for NHCEs 6.00%
- (b) $1.25 \times (a)$ 7.50%
- (c) Lesser of ADP or ACP for NHCEs 2.00%
- (d) $(c) \times 2$ 4.00%
- (e) $(c) + 2\%$ 4.00%
- (f) Lesser of (d) or (e) 4.00%
- (g) $(f) + (b)$ 11.50%
- (h) Lesser of the ADP or ACP for NHCEs 2.00%
- (i) $1.25 \times (h)$ 2.50%
- (j) Greater of ADP or ACP for NHCEs 6.00%
- (k) $(j) \times 2$ 12.00%
- (l) $(j) + 2\%$ 8.00%
- (m) Lesser of (k) or (l) 8.00%
- (n) $(m) + (i)$ 10.50%
- (o) **MAX MUT: Greater of (n) or (g) 11.50%**

By using shifting, the MAX MUT has been increased from 11.25 percent to 11.50 percent. Ultimately, this results in fewer dollars returned to the HCEs. In some cases, the

MUT may pass after shifting, without returning any deferrals at all to the HCEs.

Although shifting is a valuable technique, this is a long, tedious process. Most software programs performing Code Sections 401(k) and 401(m) tests do not have a shifting option. This means that the shifting calculations would need to be done manually.

Okay, so let's make the calculations easier by using a one-step formula.

Example 1B: Using the Formula. It is effective to express the NHCE ADP and NHCE ACP as decimals, rather than as percentages.

$$\begin{aligned} \text{MAX MUT} &= .04 + .00625 \left[\frac{\text{NHCE ADP} + \text{NHCE ACP}}{.005} - 4 \right] \\ &= .04 + .00625 \left[\frac{.05 + .03}{.005} - 4 \right] \\ &= .04 + .00625 \left[\frac{.08}{.005} - 4 \right] \\ &= .04 + .00625 [16 - 4] \\ &= .04 + .075 \\ \text{MAX MUT} &= .1150 = 11.50\% \end{aligned}$$

With the formula, the MAX MUT and shifting results can be achieved in one step. Software can be programmed to address shifting automatically. If you still have doubts, try it with one of your own clients. Yes, really. It does work!

How Does the Formula Work, and Why?

As stated in the above Examples 1A and 1B, the fundamental premise is the concept of shifting. To achieve optimal results in shifting, the first step is to make either the NHCE ADP or NHCE ACP equal to 2 percent. Result 1 states that the MUT is automatically passed, and therefore inapplicable, if the ACP + ADP is 2 percent or less. To prove Result 1, the total elective deferral will be tested below as a matching contribution.

Example 2A. The DG Company 401(k) Plan had the following testing results for 1999.

| | ADP | ACP | Total |
|------|-------|-------|-------|
| HCE | 2.00% | 2.00% | 4.00% |
| NHCE | 1.00% | 1.00% | 2.00% |

Both the ADP and the ACP test pass based on the 2-times-2% limitation. The

MAX MUT, on unaltered data would be as follows.

| | |
|---|--------------|
| (a) Greater of the ADP or ACP for NHCEs | 1.00% |
| (b) $1.25 \times (a)$ | 1.25% |
| (c) Lesser of ADP or ACP for NHCEs | 1.00% |
| (d) $(c) \times 2$ | 2.00% |
| (e) $(c) + 2\%$ | 3.00% |
| (f) Lesser of (d) or (e) | 2.00% |
| (g) $(f) + (b)$ | 3.25% |
| (h) Lesser of the ADP or ACP for NHCEs | 1.00% |
| (i) $1.25 \times (h)$ | 1.25% |
| (j) Greater of ADP or ACP for NHCEs | 1.00% |
| (k) $(j) \times 2$ | 2.00% |
| (l) $(j) + 2\%$ | 3.00% |
| (m) Lesser of (k) or (l) | 2.00% |
| (n) $(m) + (i)$ | 3.25% |
| (o) MAX MUT: Greater of (n) or (g) | 3.25% |

Since the actual sum of the ADP and ACP for the HCEs is 4 percent, the DG Company 401(k) Plan would fail the MUT test and elective deferrals would need to be returned to the HCEs. The result is devastating. The average HCE return will be 0.75%. This is equal to almost 50 percent of their matching contributions.

Alternatively, the elective deferrals can be shifted to be tested with the matching contributions, and the MUT test will be nonapplicable.

Example 2B: Using Shifting. All of the elective deferrals are shifted to the ACP test. The ACP test passes independently and the MUT test has no effect.

| | ADP | ACP | Total |
|------|-------|-------|-------|
| HCE | 0.00% | 4.00% | 4.00% |
| NHCE | 0.00% | 2.00% | 2.00% |

Since the ADP for both HCE and NHCEs is now 0 percent, MUT testing is not really necessary. But to demonstrate the MUT calculation:

| | |
|---|-------|
| (a) Greater of the ADP or ACP for NHCEs | 2.00% |
| (b) $1.25 \times (a)$ | 2.50% |

| | |
|---|--------------|
| (c) Lesser of ADP or ACP for NHCEs | 0.00% |
| (d) $(c) \times 2$ | 0.00% |
| (e) $(c) + 2\%$ | 2.00% |
| (f) Lesser of (d) or (e) | 0.00% |
| (g) $(f) + (b)$ | 2.50% |
| (h) Lesser of the ADP or ACP for NHCEs | 0.00% |
| (i) $1.25 \times (h)$ | 0.00% |
| (j) Greater of ADP or ACP for NHCEs | 2.00% |
| (k) $(j) \times 2$ | 4.00% |
| (l) $(j) + 2\%$ | 4.00% |
| (m) Lesser of (k) or (l) | 4.00% |
| (n) $(m) + (i)$ | 4.00% |
| (o) MAX MUT: Greater of (n) or (g) | 4.00% |

The MAX MUT is now 4 percent, so no contributions will need to be returned to the HCEs.

Result 2 indicates that, if the ADP + ACP is equal to or greater than 10 percent, the MUT is automatically passed and, therefore, does not apply. The caveat is the same as discussed above in Example 1A. When the ADP is less than 2 percent, the ACP must be shifted to the ADP—this requires the match to be a qualified match. The following example will explain how this result is possible.

Example 3A. Fox, Inc. sponsors a 401(k) plan that matches participants' deferrals on a \$1.25 per dollar basis. The following are the testing results for 1999:

| | ADP | ACP | Total |
|------|-------|-------|--------|
| HCE | 7.00% | 8.00% | 15.00% |
| NHCE | 5.00% | 6.00% | 11.00% |

The original MUT produces the following results:

| | |
|---|--------|
| (a) Greater of the ADP or ACP for NHCEs | 6.00% |
| (b) $1.25 \times (a)$ | 7.50% |
| (c) Lesser of ADP or ACP for NHCEs | 5.00% |
| (d) $(c) \times 2$ | 10.00% |
| (e) $(c) + 2\%$ | 7.00% |
| (f) Lesser of (d) or (e) | 7.00% |
| (g) $(f) + (b)$ | 14.50% |
| (h) Lesser of the ADP or ACP for the NHCE | 5.00% |

- (i) $1.25 \times (h)$ 6.25%
- (j) Greater of ADP or ACP for NHCEs 6.00%
- (k) $(j) \times 2$ 12.00%
- (l) $(j) + 2\%$ 8.00%
- (m) Lesser of (k) or (l) 8.00%
- (n) $(m) + (i)$ 14.25%
- (o) **MAX MUT: Greater of (n) or (g)** 14.50%

The MUT requires that the HCEs receive refunded deferrals equal to 0.50 percent for the year.

Alternatively, shifting can be used. Three percent can be shifted from the ADP to the ACP. The results after shifting are shown below in Example 3B:

Example 3B: Using Shifting

| | ADP | ACP | Total |
|--------------|--------|--------|--------|
| Shift Amount | -3.00% | 3.00% | |
| HCE | 4.00% | 11.00% | 15.00% |
| NHCE | 2.00% | 9.00% | 11.00% |

The ADP test passes by means of the alternate limitation (2 times 2%). The ACP test passed by the 1.25 times ($9\% \times 1.25 = 11.25\%$). Therefore pursuant to Code Section 1.401(m)-2(a), the alternative limitation is used only once and therefore the MUT does not apply. The following is a calculation of the MUT to demonstrate that it is not applicable.

- (a) Greater of the ADP or ACP for NHCEs 9.00%
- (b) $1.25 \times (a)$ 11.25%
- (c) Lesser of ADP or ACP for NHCEs 2.00%
- (d) $(c) \times 2$ 4.00%
- (e) $(c) + 2\%$ 4.00%
- (f) Lesser of (d) or (e) 4.00%
- (g) $(f) + (b)$ 15.25%
- (h) Lesser of the ADP or ACP for NHCEs 2.00%
- (i) $1.25 \times (h)$ 2.50%
- (j) Greater of ADP or ACP for NHCEs 9.00%
- (k) $(j) \times 2$ 18.00%
- (l) $(j) + 2\%$ 11.00%
- (m) Lesser of (k) or (l) 11.00%
- (n) $(m) + (i)$ 13.50%

- (o) **MAX MUT: Greater of (n) or (g)** 15.25%

It is not possible for the HCE ACP + ADP to be greater than 15.25 percent and pass each of the ADP and ACP tests independently.

Result 3: The Formula

As we discussed, the formula uses shifting, from the ADP to the ACP. The shifting does not need to be the same for the HCEs as it is for the NHCEs.

Example 4. Testing results for the Skipper Company 401(k) Plan for 1999 are as follows:

| | ADP | ACP | SUM |
|------|-------|-------|-------|
| HCE | 3.00% | 3.00% | 6.00% |
| NHCE | 1.50% | 1.50% | 3.00% |

Each test passes by using the 2-times-2% limitation. In the prior examples, the shifted percentages have been the same for both the HCEs and the NHCEs. In this example, the optimal results are achieved by shifting deferrals from the ADP to the ACP in such a manner as to have the HCE, ADP, and the NHCE ACP equal 2 percent.

| | ADP | ACP | SUM |
|------|-------|-------|-------|
| HCE | 2.00% | 4.00% | 6.00% |
| NHCE | 1.00% | 2.00% | 3.00% |

The Skipper Company could use the formula directly to obtain the maximum MUT.

$$\begin{aligned}
 \text{MAX MUT} &= .04 + .00625 \left[\frac{\text{NHCE ADP} + \text{NHCE ACP}}{.005} - 4 \right] \\
 &= .04 + .00625 \left[\frac{.03}{.005} - 4 \right] \\
 &= .04 + .00125 \\
 &= .0525 = 5.25\%
 \end{aligned}$$

Without the shift, the MAX MUT equals 4.875%

CONCLUSION

There are ways to eliminate or reduce the effect of the MUT. Shifting produces significant favorable results in this process. The plan document must permit shifting in order for it to be used, or, at least, not preclude its use, because the IRS insists that the document outline the Code Sections 401(k) and (m) testing methodology with specificity. Some practitioners believe that a specific reference to Code Sections

401(k)(3)(D) and 401(m)(3) is required in order for shifting to be available.

In Notice 2000-3, the IRS asked for comments on how to make the MUT "simpler." The IRS indicated a desire to simplify the MUT calculations, to make them more user-friendly. The IRS's concept of simplification is likely to be a lookup table. The methods that have been discussed here demonstrate that is not

necessary. Rather, the IRS can make the MUT more livable by adopting the above formula as the standard MUT. In addition, the LRMs for prototype and all plans should incorporate shifting or the formula directly. Short of abolishing the MUT altogether (which is actually the best option), the formula represents a reasonable compromise.