



PERiSCOPE

Public Employee Retirement Systems

New accounting rules for public pension plans in the United States are set to take effect beginning in 2014. Successful implementation of the new rules will require an understanding of a variety of technical concepts regarding the various newly required calculations. In this multi-part PERiScope series, we explore these technical topics in detail. This is the third article in the series, titled "Depletion Date Projections," which delves into more detail on the requirement to calculate a depletion date and on how the depletion date impacts the plan's total pension liability (TPL). See sidebar for more information on upcoming technical articles in this series.

GASB 67/68: Depletion date projections

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The Governmental Accounting Standards Board (GASB) in 2012 released new accounting standards for public pension plans and participating employers. These standards, GASB Statements No. 67 and 68, have substantially revised the accounting requirements previously mandated under GASB Statements No. 25 and 27. Required implementation is imminent, with GASB 67 effective for plan fiscal years beginning after June 15, 2013, and GASB 68 effective for employer fiscal years beginning after June 15, 2014.

This third article in Milliman's GASB 67/68 Task Force miniseries focuses on the determination of a plan's *depletion date*, which is the projected point in the future (if any) where plan assets are no longer sufficient to satisfy benefit obligations, and on the impact on liability calculations that will result from a conclusion that a depletion date exists.

Plan liabilities may now be required to be calculated using a blended single equivalent discount rate

GASB Statements No. 67 and 68 introduce several new requirements related to the disclosure of pension obligations. One of the most significant of these is that a blended discount rate be used in certain circumstances to measure the total pension liability (TPL), defined by the new GASB statements as the actuarial accrued liability calculated using the individual entry age normal cost method. The blended discount rate would be used in cases where the plan is projected under GASB's specified projection methodology to become insolvent at some point in the future. This is a change from the single discount rate used for purposes of the prior GASB pension Statements No. 25 and 27, which has typically been based on the long-term expected rate of return on investments.

Did you know? Milliman's GASB 67/68 Task Force will release an upcoming miniseries on technical and implementation issues surrounding GASB 67 and 68. Each article will be released through *PERiScope*. Look for the following articles in coming months:

- Long-term expected investment returns and the money-weighted rate of return
- Calculation specifics on individual entry age normal and recognition of deferred inflows/outflows
- Substantively automatic plan provisions
- Balance sheet items and projections from valuation dates to measurement dates
- Calculation of pension expense
- Proportionate share calculations
- Special funding situations

Additionally, a Frequently Asked Questions document will be maintained, with links to relevant miniseries articles as they become available.

Visit www.milliman.com/GASB6768 for all the latest resources on the new statements.

Under the new GASB standards, the long-term expected rate of return on investments may be used to discount liabilities *only* to the extent that the plan's fiduciary net position (market value of assets) and future contributions are projected to be sufficient to cover expected benefit payments and expenses for current plan members. A 20-year, high-quality (AA/Aa or higher), tax-exempt municipal bond yield or index rate must be used to discount benefit payments for periods where the fiduciary net position is not projected to cover expected benefit payments and expenses. Plans that are projected to have sufficient assets indefinitely will continue to use the long-term expected return on investments to determine liabilities, but will have to substantiate their projected solvency. Plans that are projected to reach a point where assets are not sufficient to cover benefit payments will be required to use a blended single equivalent discount rate, which may be significantly lower than the long-term expected rate of return on investments and will therefore result in higher liability calculations. The increase in the liability will be a function of how many years of expected benefit payments and expenses are expected to not be covered by projected assets.

Step 1: Project benefit payments

The first step in determining the depletion date is to project future benefit payments based on the benefit terms as of the fiscal year-end. The projected benefit payments should be based on all current plan members, including members in payment status, active members, and inactive members owed benefits who are not yet in payment status. Projected benefits should include amounts for automatic and substantively automatic cost-of-living-adjustments (COLAs), future increases in salary, and future service (for both benefit eligibility and benefit amounts) regardless of whether these are recognized for funding valuation purposes. Notably, benefits that are expected to be paid to *future* employees should *not* be included in the benefit payment projections, i.e., the projection should be done on a "closed group" rather than "open group" basis.

Step 2: Project plan assets

The second step in determining the depletion date is to project the plan's fiduciary net position. The assets are projected forward taking into account expected inflows (contributions) and outflows (benefit payments and expenses) associated with *current* members. Unlike the

benefit payment projection discussed above, GASB does allow for the inclusion of expected contributions for *future* members to the extent that such contributions exceed their expected service cost (allocated cost of benefits earned). Therefore, contributions associated with future members that are used to write down the unfunded liability will be included in the projection of the plan's fiduciary net position.

Contribution inflows (contributions) may come from the employer, the members, or a non-employer source. For plans where the contribution rate is set in statute or there exists a formal written contribution policy and it is reasonable to assume that the contribution will continue to be made, GASB states that application of professional judgment should consider the most recent five years of contribution history when projecting contributions for this purpose. If there is not a statutory contribution basis or a formal funding policy, then the amount of the projected contribution is limited to no more than the average of the most recent five-year period. It is advisable that plans who do not currently have a formal funding policy consider adopting one prior to implementing GASB Statements No. 67 and 68. Significant attention is currently being paid to this area by the actuarial community; guidance already published by the Government Finance Officers Association (GFOA) and the Society of Actuaries Blue Ribbon Panel on Public Pension Plan Funding is likely to be followed shortly by guidance from the Conference of Consulting Actuaries.

Step 3: Determine the single equivalent discount rate

If Step 1 and Step 2 demonstrate that assets are projected to be sufficient to cover benefit payments for all periods, then the long-term expected rate of return on investments may be used to discount all future benefit payments when calculating the total pension liability under GASB Statements No. 67 and 68. However, if Step 1 and Step 2 indicate that there is a date at which plan assets are depleted, the plan actuary must calculate a blended discount rate. This blended discount rate is obtained by 1) calculating the present value of future benefits (as described in Step 1) using the long-term expected rate of return on investments for benefit payments expected to be paid up to the depletion date, and 2) a municipal bond rate for benefit payments expected to be paid after the depletion date. The *single* discount rate that produces the same present value as the total of the dual discount rate payment streams (see Figure 1 below) must then be solved for. This single equivalent discount rate will be used to calculate the total pension liability for GASB purposes.

The Actuarial Standards Board has adopted an updated Standard of Practice (ASOP No. 27) that makes significant changes to the guidelines for selecting the long-term rate of return on investments for actuarial valuations performed after September 30, 2014. Under the prior guidelines, the rate of return assumption could be selected from within a best estimate range; the new standard removes the concept of a best estimate range and may result in a different assumption than what would have resulted under the prior standard.

FIGURE 1: DEPLETION DATE PROJECTION

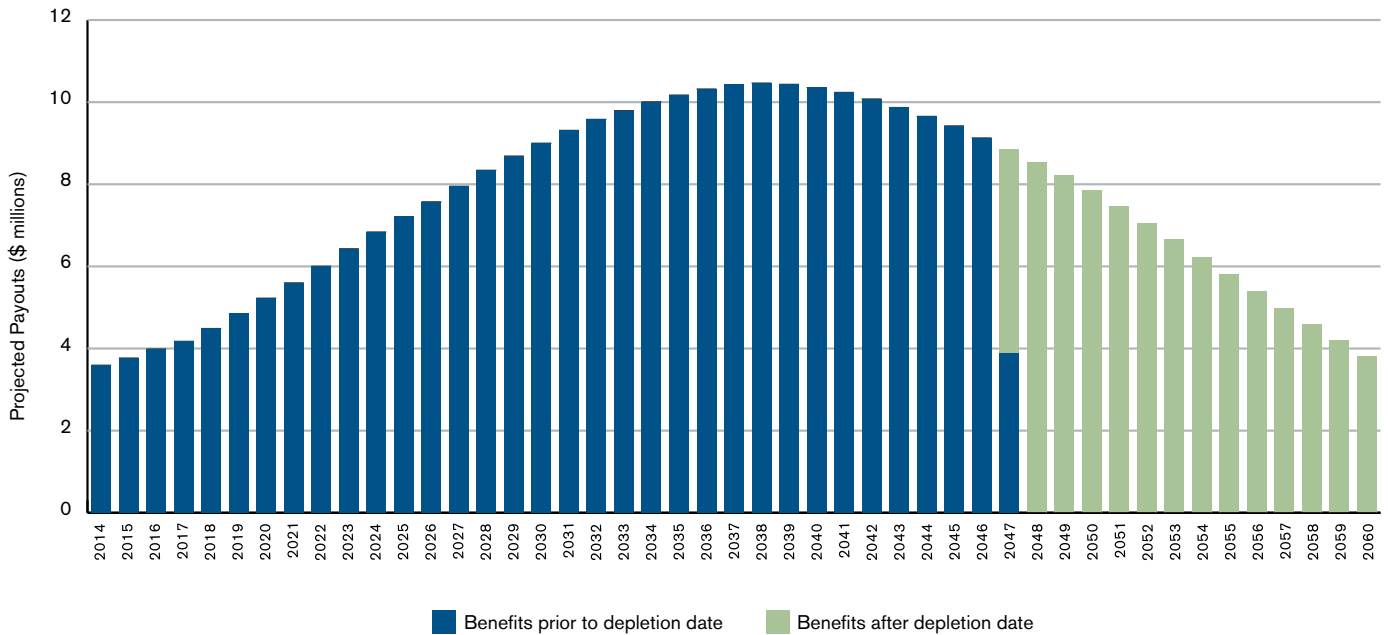


Figure 1 illustrates a plan that is projected to deplete its assets sometime during 2047 (33 years after the valuation date; projected benefit payments for current members are typically projected for a 75- to 100-year period depending on plan demographics). The projected benefit payments expected to be covered by plan assets (represented by the blue bars) are discounted at this plan’s long-term expected rate of return on investments of 7.5%, and the benefit payments expected to be paid after plan assets are depleted (represented by the green bars) are discounted using a municipal bond rate of 4.0% (for illustrative purposes). The single equivalent discount rate is then calculated so that when applied to all projected benefit payments, it results in the same present value as the sum of the separately discounted funded and unfunded benefit payments. In this case, the resulting single equivalent discount rate is 6.35%, which is the rate to be used to determine the total pension liability.

For plans that are projected to reach a depletion date, the impact on the total pension liability may be substantial. For instance, the plan shown in Figure 1 would have a total pension liability of \$71.6 million if there were no depletion date, compared with a total pension liability of \$81.8 million with a depletion date in 2047, for an increase of 14%. The impact for any given plan will depend on the projected payouts (i.e., the shape of the curve in Figure 1), on when the depletion date is expected to occur, and on the spread between the long-term expected rate of return on investments and current municipal bond rates.

Alternative evaluations of sufficiency

As illustrated in the example above, determining the discount rate under GASB Statements No. 67 and 68 will often require that the actuary perform complex projections of future benefit payments and asset values. GASB Statement No. 67 (paragraph 43) and No. 68 (paragraph 29) allow for alternative evaluations of projected solvency, if such evaluation can reliably be made. Alternative evaluations may reduce or eliminate the need for complex projections for some plans. GASB does not specify a particular method for making an alternative evaluation of sufficiency; it is left to professional judgment. Ultimately the determination of whether an alternative approach is warranted will be determined by the plan’s actuary and the auditor. From a practical standpoint, a good candidate for an alternative approach would be a plan that is relatively well funded where contributions are based on a conservative, actuarially-based funding policy. For example, the plan actuary may be able to demonstrate to the auditor’s satisfaction that a plan that is 80% funded, with a solid track record of adhering to a funding policy based on contributing the normal cost plus a 20-year closed amortization of unfunded liabilities, is mathematically certain to remain solvent if the actuarial assumptions are met.

Timing of calculations

GASB Statements No. 67 and 68 allow for an actuarial valuation date that is different than either the plan's fiscal year-end or the employer's measurement date for pension financial reporting; however, the total pension liability may not be able to be finalized until after the respective fiscal year-end or measurement date. For plans that are projected to reach a depletion date, the municipal bond yield or index rate must be determined as of the plan's fiscal year-end for GASB No. 67 reporting or the employer's measurement date for GASB No. 68 reporting. Consideration should also be given to other factors that potentially could impact the calculation of the single equivalent discount rate, such as changes in the plan's net funded position that have occurred since the valuation date. A separate article in Milliman's *PERiScope* miniseries on GASB Statements No. 67 and No. 68 explores the relationship between the valuation date, measurement date, and reporting date in detail.

Implementation considerations

Plans that do not have contribution rates dictated by statute or contractual terms should consider adopting a formal written funding policy in order to avoid having projected contributions limited to the average of the previous five years.

Plans that are subject to statutory contribution requirements that are not sufficient to achieve solvency for the indefinite future may wish to start discussions on revising the statutory contribution basis or preparing the end users of the financial statements for the implications of an anticipated depletion date.

Plans that provide benefit enhancements through ad-hoc COLAs or by other means should begin discussions as to whether the benefit should be considered "substantively automatic" for GASB purposes. This may be a complicated question, and sufficient time should be allowed to ensure the agreement of staff and auditors.

If it is likely that a projected depletion date exists, the plan sponsor or retirement board may need to formally adopt a mechanism for selecting the municipal bond yield or index rate that will be used by the actuary throughout the remaining GASB calculations. Milliman's actuaries can work with the plan's other professional advisors to provide guidance on identifying possible sources of municipal bond rates.

For more information, contact your Milliman consultant and check back for *PERiScope* articles to assist with implementation.

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