May 2016

Milliman

PERiScope

Public Employee Retirement Systems

New accounting rules for public postretirement benefit plans in the United States are set to take effect soon. Successful implementation of the new rules will require an understanding of a variety of technical concepts regarding the various newly required calculations. Two years ago, in a multipart PERiScope series, we explored these technical topics in detail as they related to Governmental Accounting Standards Board (GASB) Statements 67 and 68. We now take a similar approach with GASB Statements 73, 74, and 75. Milliman has established a task force for GASB 73/74/75 that will publish a detailed series of educational articles regarding various key implementation and technical issues surrounding these new statements. This series will result in numerous articles in the upcoming months.

GASB 74/75: Calculation specifics on individual entry age normal

Michael Caparoso

This *PERiScope* article in the Governmental Accounting Standards Board (GASB) Statements No. 74 and 75 miniseries discusses the *individual entry age* actuarial cost method for the valuation of Other Postemployment Benefits (OPEB). The individual entry age cost method is specifically identified in the new standards as the only appropriate method for determining a plan's *Total OPEB Liability* (TOL), which is the portion of the present value of benefits attributable to past service.

Actuarial cost methods

The value in today's dollars for all plan benefits incorporating service through a member's assumed age(s) of exit from active service is called the *present value of benefits*. Actuaries use actuarial cost methods to allocate the present value of benefits to various time periods during the member's active service with the plan sponsor. This provides plan sponsors with a cost accrual pattern that allows benefits to be accounted for and/or funded (should the plan sponsor desire to) in an even and orderly fashion while they are being earned.

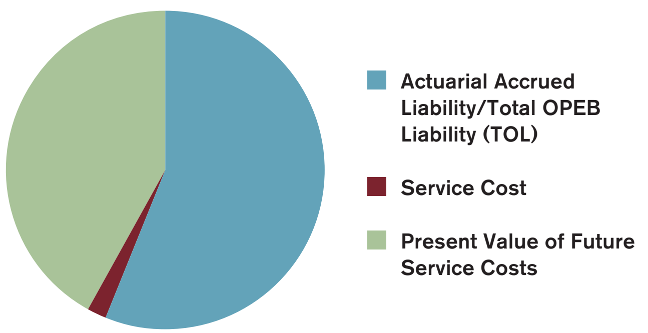
The portion of the present value of benefits allocated to service accrued as of the valuation date has traditionally been termed the actuarial accrued liability and is now labeled "Total OPEB Liability" under GASB 74/75. The amount allocated to the current year is traditionally called the normal cost, now termed "service cost" under the new standards. The chart in Figure 1 illustrates the distribution of present value of benefits under the individual entry age cost method for a hypothetical OPEB plan.

Did you know? Milliman's GASB 73/74/75 Task Force is releasing a miniseries on technical and implementation issues surrounding GASB 73, 74, and 75. Each article will be released through PERiScope. Look for the following articles in coming months:

- Relationship between valuation date, measurement date, and reporting date
- Depletion Date Projections
- Balance sheet items and projections from valuation date to measurement date
- Long-term expected investment returns and the money-weighted rate of return
- Calculation of OPEB expense
- GASB 73
- Revised ASOP 6 and Community Rated Plans
- Alternative Measurement Method
- Visit milliman.com/GASB-73-74-75 for the latest resources on the new statements.

Under current practice, the two most common actuarial cost methods are unit credit and entry age. Unit credit allocates the present value of benefits of a member based on benefits accrued as of the valuation date. Entry age allocates the present value of benefits of a member over the active service of that member, from his or her "entry age," or date of membership, through his or her assumed age(s) of exit from active service. This allocation can be determined as either a level dollar amount or as a level percentage of pay. There are also entry age variations related to how plan changes are reflected in the allocation process, and to whether allocation calculations are performed on an individual member basis or aggregated across groups of members. These variations may not comply with the specific individual entry age variation prescribed in GASB 74/75.

FIGURE 1: DISTRIBUTION OF PRESENT VALUE OF BENEFITS UNDER INDIVIDUAL ENTRY AGE

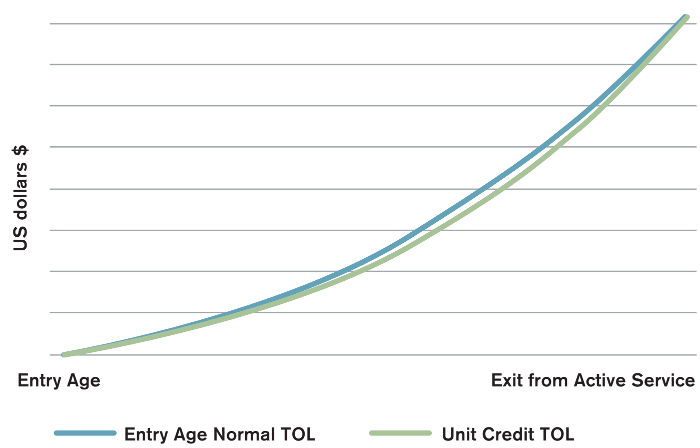


Individual entry age actuarial cost method prescribed by GASB 74/75

The prior financial reporting standards (GASB 43/45) allowed the TOL to be determined using any one of six different actuarial cost methods. In an effort to harmonize and simplify the information reported, GASB 74/75 requires that the individual entry age cost method be used to determine the plan's TOL.

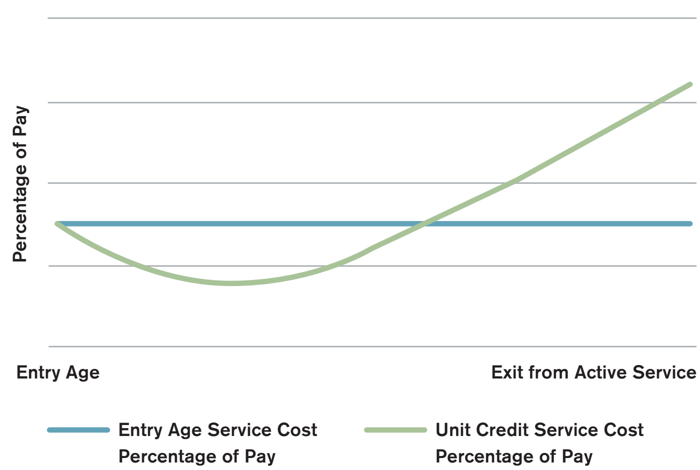
Unit credit is commonly used under GASB 43/45 and usually produces an increasing service cost over the member's active service. The pattern of increasing service cost is due to each additional year of service being one year closer to the commencement of benefits. Individual entry age also produces an increasing service cost over the member's employment based on the assumed pattern of salary increases for the individual. Depending on the relationship between the discount rate and the assumed salary increases, the individual entry age method may produce a higher or lower TOL and service cost compared with the unit credit method. The closer the discount rate is to the assumed salary increase rate, the less the change from unit credit to individual entry age will impact the TOL. The graph in Figure 2 compares the accrual pattern of the TOL under the entry age and unit credit cost methods as a level percentage of pay. Because of the merit increases in salary earlier in the individual's career, the unit credit service cost increases in absolute dollar terms but decreases as a percentage of pay. As shown in Figure 2, both methods will accumulate to the present value of benefits at the member's retirement age.

FIGURE 2: TOTAL OPEB LIABILITY ACCRUAL



The graph in Figure 3 compares the service cost as a percentage of pay under the entry age with unit credit cost methods. The entry age service cost is higher in the initial years than under unit credit upon entry, but it remains level as a percentage of pay throughout the member's assumed employment. Under unit credit, the service cost increases dramatically as the member approaches retirement.

FIGURE 3: SERVICE COST OVER TIME



GASB identified two main criteria in selecting the actuarial cost method to be used: (1) the cost method should allocate the present value of benefits to past periods based on the services provided by the member during past periods, and (2) the cost method should utilize the same approach to allocating present value of benefits to past periods as it does to current and future periods. GASB felt that the individual entry age actuarial cost method best fits these criteria, when considered as a level percentage of a member's pay.

Furthermore, the standards identified the following specific features of the entry age method that should be included in the calculation of the TOL:

- The liability should be allocated to the various time periods (past, current year, and future) on a member-by-member basis rather than on an aggregate basis
- The service cost should be determined as a level percentage of pay (regardless of whether or not the member's actual benefits are based on compensation)
- Past service liability should be allocated retroactively to when the member first accrued a benefit in the plan
- Future service costs should be allocated through all assumed exit ages through retirement
- Service costs should be calculated based on the same plan terms as those used to calculate the present value of benefits

Most plans provide OPEB benefits that are not related to compensation. GASB felt that even if the benefits themselves are not determined based on a member's amount of pay, the benefits provided are a form of compensation and should be allocated over the member's active service as a level pattern relative to other compensation.

The determination of past service liability could be difficult to accurately measure for retiree medical benefits because historical benefits (e.g., claims costs used in prior actuarial valuations) may not be readily available. The plan sponsor's consultants should discuss assumptions to determine an appropriate method for valuing these historical benefits. Common approaches to valuing historical benefits might be to use the first year's assumed trend to project backwards or using the employer's historical premium data. Currently, GASB has not given any guidance on reasonable methods for determining past service liability.

Funding versus financial reporting

The prior financial reporting standards included an expense item referred to as the "Annual Required Contribution," which was often utilized to determine an appropriate level of funding. The new standards effectively separate funding from financial reporting, leaving sponsors to define their own appropriate levels of funding for their plans.

The required use of individual entry age by GASB is for financial reporting purposes only. Plan sponsors currently using a method other than the individual entry age specified by GASB 74/75 may continue to do so for purposes of determining the appropriate level of funding for the plan. For example, a plan that has implemented a "soft" freeze (meaning future new hires do not enter the plan) may wish to calculate its annual funding amount using the aggregate cost method, so that the present value of benefits is fully funded when the last member terminates employment with the sponsor. In addition, some plans may be using a variation of entry age that differs from the specific variation mandated for GASB 74/75, which the plan sponsor may believe is more appropriate from a funding perspective. Still other sponsors may prefer the liability allocation and accrual pattern of projected unit credit, and will wish to continue using it to determine their future contributions to the plan.

Plans may continue using other actuarial cost methods to calculate their funding obligations; however, this will require the calculation of two separate liability figures, and perhaps education to trustees and other stakeholders to distinguish the differences and the purposes of each liability calculation.

Summary

In practice, there are several actuarial cost methods, including multiple variations of the entry age actuarial cost method, used to calculate the liabilities of plans for funding purposes. However, GASB 74/75 eliminated the option to choose from among these variations for financial reporting, specifying instead the individual entry age approach.

Plan sponsors will want to ensure that their actuaries are calculating the TOL for financial reporting purposes according to these new provisions. Actuaries preparing valuations for use in financial reporting may need to adjust their systems and/or current programming in order to conform to these new standards.

CONTACT:

Michael Caparoso
michael.caparoso@milliman.com