Dear Actuary:

My governmental pension plan is scheduling an actuarial audit. What is an actuarial audit and why do I need one?

- Puzzled in Portsmouth

Dear Puzzled:

Congratulations on your commitment to monitoring the quality of actuarial services performed for your pension plan! An actuarial audit is a review of the actuarial valuation of a pension or other postemployment benefits (OPEB) plan. It is performed by an actuary (the auditing actuary) who is independent of the actuary who prepared the valuation. It is considered to be a “best practice” to have an actuarial audit performed every five years or so.

Audits can be pretty simple and inexpensive, at one end of the spectrum, or very detailed and comprehensive at the other. We often talk about audits in terms of their “level.”

A “level three” actuarial audit is at the simple end, and means that the auditing actuary reviews the actuarial methods and assumptions to make sure that they are reasonable and comply with professional standards known as Actuarial Standards of Practice (ASOPs). The auditing actuary will typically comment on whether the actuarial report is OK, and will probably do a little math checking based on numbers that are available in the valuation report. The auditing actuary would not perform much in the way of actuarial calculations in a level three audit.

Moving up the scale, a “level two” or “limited scope” actuarial audit includes all of the elements of a level three audit. In addition, the auditing actuary replicates or confirms some aspects of the actuarial valuation by looking at detailed actuarial calculations for a smallish number of the plan’s members and attempting to match the results that the valuation actuary provided. Using this kind of sampling process is a way for the auditing actuary to test that the plan’s benefit provisions were properly reflected in the calculation of the liability and that the actuarial methods and assumptions are accurately described in the valuation report. With sampling, of course, you can’t be sure that the entire valuation is 100% okay, but by thoughtfully choosing the sample members the auditing actuary can test a great deal of the plan provisions and actuarial assumptions. To round out a level two audit, the auditing actuary also typically examines some of the census data that was used in the valuation. For instance, the auditing actuary might look at payroll records to check to see that the valuation used the proper pay amounts.

Finally, a “level one” or “full scope” actuarial audit includes everything that’s in a level two audit, but extends the liability replication from just a sample to looking at the results for every single member that was included in the valuation. The auditing actuary uses exactly the same census data and actuarial methods and assumptions that were used for the valuation itself. If the auditing actuary can match the valuation’s numerical results, then everyone can be comfortable that the valuation is properly reflecting the plan’s provisions and the actuarial methods and assumptions.

The chart in Figure 1 illustrates the three audit levels.

FIGURE 1: ACTUARIAL AUDIT LEVELS

- Level 3: Review assumptions and methods
- Level 2: Review sample data and results
- Level 1: Fully replicate valuation results
There are several reasons why an actuarial audit is important. On a very fundamental level, having an outside expert kick the tires on the valuation provides the plan sponsor with confidence in the results of the valuation. Contributing more than necessary can place an inequitable burden on the current generation of taxpayers. Contributing too little might result in the plan’s inability to pay benefits or sharp increases in future contributions.

Stakeholders of a government entity rely on valuations producing accurate results, and an audit can help to increase public trust in the pension plan’s governance structure. In addition, an auditing actuary can provide recommendations, suggestions, or considerations to improve the quality and comprehensiveness of the actuarial valuation report.

The Government Finance Officers Association recommends that public plans have actuarial audits performed at least once every five years. You should think through the different levels of actuarial audits and decide which level fits your situation the best.

Your Milliman Actuary

P.S. Thanks so much to Brian Nichols, EA for providing the information I needed to understand why actuarial audits are so important for satisfying the requirements of plan sponsors and fiduciaries!