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Using Actuarial Experience in Managing a Public Pension Plan

By *Brad Fisher*

For government pension plan sponsors, regular analysis of the plan's experience is a vital tool in the ongoing financial management of the plan. The experience analysis not only provides monitoring of recent trends, it is the basis for determining the forward-looking assumptions used in the actuarial valuations that measure the plan's liabilities, funded status, accounting expense, and recommended contributions.

Regular experience analysis identifies emerging trends among the plan's participants, the plan's investment performance, and the current economic environment. We've seen the following general trends in recent years:

- During the Great Recession (2008-2010), plan participants' retirement patterns shifted to later retirement, particularly when there were changes in benefits or coverage under a post-retirement health benefits plan. Participant retirements are returning to historical patterns as the economy improves.
- Participants are living longer in retirement, but not as much as originally expected. Government workers in public safety positions have not seen the increases in life span that employees in other government roles have experienced (e.g., teachers or general employees). A participant's income level prior to retirement appears to be a better predictor of life expectancy than job role.
- Low inflation has changed expectations for future investment performance; many investment advisors believe that the current environment is the 'new normal' for long-term inflation.

Monitoring changes in demographic, investment and economic trends is important, because the actuarial model should use the best estimates of future experience (the actuarial assumptions) to ensure integrity in the plan's financial measurements. All stakeholders of a government entity rely on these measurements, but perhaps the most important is the individual taxpayer. The allocation of plan costs should be fair to current and future generations of taxpayers—which means that the actuarial assumptions used in determining the financial measurements should be the best estimates of expected future events.

The Government Finance Officers Association (GFOA), the Government Accounting Standards Board (GASB), and the actuarial profession have each issued standards regarding appropriate actuarial assumptions. The GFOA has also published its recommendations on practices to enhance the reliability of the actuarial valuation; among these are regularly analyzing actuarial gains and losses and periodically performing actuarial experience studies.

How Should Plan Sponsors Monitor Actuarial Experience?

The GFOA recommends analyzing actuarial gains and losses with every valuation cycle, typically annually. The details of the experience analysis should reflect the plan's specific circumstances, with economic and demographic factors analyzed separately, and the experience of more significant assumptions highlighted.

Experience monitoring over shorter periods provides real-time information on emerging trends; continuing the analysis over multiple years adds more value by identifying longer-term trends in pension plan experience. The value of a long-term approach can be seen in the research article "How Did State/Local Plans Become Underfunded" by the Center for Retirement Research at Boston College. This article details the actuarial experience in the Georgia Teachers' Retirement System (TRS) over a 12-year period and illustrates how actuarial experience ultimately affected the Georgia TRS.[i]

When Should a Formal Experience Study Be Performed?

Ongoing experience analysis may suggest the need for a more in-depth, formal *experience study.* The experience study can then be the basis for decisions to modify the plan's actuarial assumptions. An experience study looks at all of the demographic, investment and economic factors that make up the total experience for the plan. Also, the experience study reviews experience over a longer period (typically three to five years).

Some plan sponsors perform an actuarial experience study regularly while others perform studies as circumstances arise, such as after significant plan events, changes within the government entity, or changes in the economy.

Using the Experience Study in Setting Assumptions

The plan sponsor, guided by their actuary, uses an experience study as a key reference point in making assumptions regarding future experience. Each assumption chosen should reflect a combining of recent experience, experience over a longer period of time, as well as expectations for the future. The actuarial experience study can be used to blend the plan's experience with national experience tables from the Society of Actuaries, or indicate which national experience tables are most appropriate.

In Perspective

Successful financial management of a public pension plan is a recurring process of financial forecasting based on the best available information. Ongoing experience analysis and experience studies gives the plan sponsor and actuary the needed information to best ensure the integrity of plan financial measurements. The bottom line: this process results in less volatile contributions in the short-term, and provides greater generational equity among taxpayers for the long-term.

Questions to Ask Your Actuary

- WHEN WAS THE MOST RECENT ACTUARIAL EXPERIENCE STUDY PERFORMED FOR THE PLAN?
- ARE THERE SPECIFIC ACTUARIAL ASSUMPTIONS THAT ARE ON YOUR WATCH LIST FOR FUTURE CHANGES?
- DOES THE PLAN HAVE ENOUGH DATA FOR THE EXPERIENCE TO BE RELIABLE (I.E., STATISTICALLY CREDIBLE)?
- DO RECENT EXPERIENCE ANALYSES (I.E., GAINS AND LOSSES) INDICATE A NEED FOR AN EXPERIENCE STUDY?

Questions? For additional information about experience analysis and experience studies, contact the Findley consultant you normally work with, or Brad Fisher at *Brad.Fisher@findley.com*, 615.665.5316.

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[i] Alicia H. Munnell, Jean-Pierre Aubry, and Mark Cafarelli, "How Did State/Local Plans Become Underfunded?" *State and Local Pension Plans* 42 (Center for Retirement Research at Boston College, January 2015). *http://crr.bc.edu/wp-content/uploads/2015/01/slp_42.pdf*, accessed June 20, 2018.