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PUTTING THE "PUBLIC" IN PUBLIC PLAN ACTUARIAL WORK

By Tia Goss Sawhney

Last October I began a learning journey into the world of public pensions. At that time I was near the conclusion of a three-year term on the Social Insurance and Public Finance Council. During those three years I had heard much about the dire state of public pension plans, but, as a health actuary, I had not yet gotten directly involved with public pension plan issues. At the end of an October call, however, I suddenly decided to get involved. My motivation extended beyond general actuarial and societal concerns and included personal motivation. I am a participant in an Illinois public pension plan, the State Employees Retirement System (SERS). SERS is one of the most underfunded large public pension plans in the country.

Like many of life's journeys, I started out on my survey of public pension plan information rather overconfidently. I was sure that if I could find the actuarial documents related to my plan and other Illinois public pension plans, I would soon figure out what was going on. After all, I am an actuary with an undergraduate degree in finance from Wharton, and I had no problem passing those long-ago exams, even with respect to pension material. I was wrong. My error was not with respect to my ability to learn the terminology and concepts sufficiently to understand public pension plan issues, but rather with respect to the insufficiency of quality actuarial information within actuarial documents.

This article is about the actuarial information that I did not find and what I would like to find in the future. It is about the actuarial information that is necessary for informed public discourse concerning our public pensions.

I have identified and will discuss four broad areas of insufficiency in these documents: (1) reliance on prescribed methods and assumptions, (2) absence of risk analysis, (3) no

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standard analysis, and (4) noncompliance with actuarial standards.

It is important to first note that I am going to comment on current areas of insufficiency in the context of actuarial standards that will soon be in effect. The Actuarial Standards Board (ASB) has recently adopted new Actuarial Standards of Practice (ASOPs) for Measuring Pension Obligations and Determining Pension Plan Costs or Contributions (ASOP 4, effective Dec. 31, 2014, henceforth referred to as "the new ASOP 4") and Selection of Economic Assumptions for Measuring Pension Obligations (ASOP 27, effective Sept. 30, 2014). In addition, the ASB is reviewing comments to an exposure draft of Selection of Demographic and Other Noneconomic Assumptions for Measuring Pension Obligations (ASOP 35). Also, pension communications are subject to ASOP 41, Actuarial Communications, unless an ASOP 4 requirement conflicts with the pension ASOPs. ASOP 41 was effective May 1, 2011 and is, as of now, not being changed.

While the new standards are somewhat stronger than the current standards, I feel that they are insufficient and will not significantly close the gaps that I have identified in current actuarial work involving public pension plans.

AREAS OF INSUFFICIENCY

Reliance on prescribed methods and assumptions. Prescribed methods and assumptions are methods and assumptions, set by statute, regulation, or other legally binding authority. Actuaries are often called upon to perform calculations using prescribed methods and assumptions. The prescribed methods and assumptions are established by third parties, such as a department of insurance or the Internal Revenue Service (IRS). Prescribed methods and assumptions in the public pension world, however, are often set by first parties, not third parties. The government entities responsible for the plans, plan sponsors, can and do prescribe their own methods and assumptions.

For example, Illinois has a prescribed method for setting actuarial contributions that is not consistent with any standard actuarial method and is referred to as "the Illinois Method."[1] It also, not coincidentally, extends contributions for unfunded liability further out into the future than would be acceptable under standard methods. Sponsor-prescribed methods and assumptions present two challenges. The first is the inherent conflict of interest in letting the plan sponsor set assumptions. The other is the resulting lack of comparability across public plans. In part because of sponsor-prescribed methods and assumptions there is no way to consistently evaluate the financial position of public plans.

Under current actuarial ASOPs an actuary is obliged to comment if a prescribed method or assumption "significantly conflicts" with what an actuary judges would be reasonable. Reasonable is, in turn, defined to encompass a broader range of choices than simply that method or assumption that the actuary would have independently selected. The ambiguity surrounding "significant" creates potential conflicts between the actuary and the plan sponsor concerning the outer bounds of significant conflict, with considerable pressure on the actuary to cave in to demands of plan sponsors. One alternative is for the actuary to avoid the conflict altogether. An actuary can pass on making a judgment by simply stating that he/she was unable to evaluate the reasonableness of the method or assumption. If, in the end, the actuary concludes that the method or assumption is unreasonable, a comment to that effect is sufficient to fulfill his/her actuarial obligations; there is no need for the actuary to perform alternative calculations with a reasonable method or assumptions.

Recognizing the inherent conflict of sponsoring entity prescribing methods and assumptions, the new ASOP 4 redefines prescribed methods and assumptions so that methods and assumptions set by any political entity of the plan sponsor are no longer defined as "prescribed" but as "set by another party." The impact of this definition change, however, is minimal. A qualitative comment is still sufficient with respect to methods

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While a principal may request a risk analysis or an actuary may volunteer one, the SOPs never require the public pension plan actuary to perform a quantitative risk analysis.

and assumptions that are significantly unreasonable, and the actuary can still absolve him/herself of the responsibility in making such a comment, if doing so could require a "substantial amount of additional work beyond the scope of the assignment." Therefore, if the sponsor does not request that the actuary examine the method/assumptions and substantially more, perhaps unpaid, work is required, the actuary is not obligated to examine methods and assumptions that are "set by another party" for reasonableness.

Finally, under the current and new ASOP 4, a single calculation based on one method and a single set of deterministic assumptions, often set by an inherently conflicted entity, is sufficient. I feel that regardless of who sets the method and assumptions, and the reasonableness thereof, a single set of assumptions for an analysis of a benefit stream extending decades into the future is problematic. This brings us to the next gap, the absence of risk analysis.

Absence of risk analysis. Our profession prides itself on being the experts in financial risk analysis. My SOA shirt says "Risk is Opportunity." I was, therefore, surprised by the absence of risk analysis in the pension reports that I examined, even with respect to clearly stressed plans with liabilities valued in the billions of dollars. A single calculation, using deterministic assumptions with respect to benefit streams extending decades into the future, should not be sufficient, especially for plans with liabilities measured in billions of dollars.

While a principal may request a risk analysis or an actuary may volunteer one, the ASOPs never require the public pension plan actuary to perform a quantitative risk analysis. Under the ASOPs, a single methodology, along with a single set of assumptions and the resulting point estimates, are sufficient, even when the methodology and assumptions are prescribed by the plan sponsor.

When an actuary discloses that he/she feels that the assumptions are unreasonable or that the contribution methodology is inconsistent with the plan accumulating adequate assets to make benefit payments when due, the actuary only has to state his/her opinion to that effect. The actuary does not have to, subsequently, perform calculations using any alternative methodology or assumptions. Even the analysis leading up to the disclosure may be nonquantitative—the actuary is instructed to form his/her opinion "based on professional judgment."[2]

The new ASOP 4 contains sections that explicitly absolve the actuary of risk analysis. For example, the first word of the section with respect to volatility is "if."

> *3.16 Volatility—If the scope of the actuary's assignment includes an analysis of the potential range of future pension obligations, periodic costs, actuarially determined contributions, or funded status, the actuary should*

consider sources of volatility that, in the actuary's professional judgment, are significant.

In two other sections this ASOP explicitly instructs the actuary to assume that all actuarial assumptions will be realized and contributions will be made when due.[3]

The requirements of ASOP 4 stand in contrast to other ASOPs. ASOP 7, Analysis of Life, Health, or Property/Casualty Insurer Cash Flows, provides the standards for cash flow and sensitivity testing that the National Association of Insurance Commissioners (NAIC) requires for insurance companies. ASOP 32, Social Insurance, specifically states that the actuary "should perform an analysis of the sensitivity of the program's cost or financing method under reasonable, alternative scenarios that are different from expected experience" with respect to social insurance programs. ASOP 32 goes on to require an actuary who reports on the financial adequacy of a statutory mechanism for setting the level of financing for a social insurance program to base his/her opinion on the testing of a range of assumptions.

As a result of lack of regulatory oversight and ASOPs, public pensions are exempt from the risk analysis required for insurance company retirement annuities and Social Security program benefits. (I initially wanted to believe that public pension plans were covered under the umbrella of social insurance. However, while ASOP 32 explicitly includes the Social Security program under its social insurance definition, it explicitly excludes public pensions.)

No standard analysis content. Whereas an actuary has to comply with actuarial standards in performing and communicating the analysis, the actuary is, generally, only obligated to perform the analysis that his/her principal requests. This has two impacts.

The first impact is that some actuarial reports are incredibly scant. For example, the state of Illinois mandates that municipal fire and police plans have an actuary annually calculate the plan's actuarial liability and required contribution for that year. Actuaries hired by the municipalities do just that. No attempt is made to provide other pertinent information, even as little as an estimate of next year's required contribution! Yet the municipal fire and police reports are, nonetheless, labeled "Annual Actuarial Valuation Report."

The second impact is that the contents of actuarial valuation reports are noncomparable. There are no actuarial or any other standards that define the components of a public pension plan actuarial valuation report, let alone the specific content within the components. Each report is a unique product of the principal and the actuary. Information that, logically, might be included in an actuarial valuation report may or may not be found elsewhere, such as in the comprehensive annual financial report, accounting statements, accounting and actuarial audit reports, legislative documents, or within reports available only by Freedom of Information Act requests.

It is, therefore, impossible (SOA volunteers and many others have tried) to systematically collect information across public pension plans and across taxing districts, or even within the multilayered mosaic of public plans that may be associated with a single taxing district.

Noncompliance with actuarial standards. Whereas so far I have been noting where our standards fall short, I also need to observe that not all actuaries meet even these standards. Some appear to try, but fall somewhat short in some regard or another. That's rather human and our discipline process makes allowances for such situations. While such situations are regrettable, they are not particularly concerning. There are two other situations, however, that are concerning.

One situation is where the actuary falls substantially and systematically short of standards, including on an ongoing basis. Based on my re-

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view of pension work and from what I hear from pension actuaries, these are usually small-firm consulting actuaries, serving smaller plans as larger firms often have review processes. Systematically poor actuarial work reflects poorly on all actuaries.

The other situation occurs when an actuary, who is otherwise competent, deliberately chooses to ignore a standard or selects a highly favorable interpretation of a standard in order to satisfy the political aims of his/her principal. Based on my review of pension work and from what I hear from pension actuaries, these may well be actuaries working for national firms and serving large public pension plans. I have heard the word "prostitute" used with respect to such actuaries. The mere perception that plan sponsors can buy a favorable actuarial analysis reflects poorly on all actuaries.

I believe that in both situations actuaries fail to fully comply, in part, because they feel that they can get away with it. The Actuarial Board for Counseling and Discipline (ABCD) seldom recommends public action against noncompliant actuaries and, even then, it is up to the actuary's actuarial organization(s) to take the action. Until then, all ABCD action is confidential. The American Academy of Actuaries has taken public action only 27 times in the last 38 years across all actuarial disciplines.[4] No profession is as good as this disciplinary record indicates!

IMPLICATIONS

The end effect of methods and assumptions set by plan sponsors, an absence of risk analysis, narrowly defined and nonstandardized valuation content, and, sometimes, poor or manipulative actuarial work is a paucity of information to inform the societal discourse on public pensions. Our society needs informed discourse.

On behalf of our society and profession, we can and should demand better of ourselves. The following is what I recommend.

RECOMMENDATIONS

Define the public as the principal. Whereas in theory our precepts and ASOPs oblige us to meet the needs of "the public" (CPC, Precept 1), the "intended audience" (CPC, Precept 4), "other party" (CPC, Precept 8), and "intended user" (ASOP 41), it is the duty to the principal that seems to dominate. While, overall, I believe that we have given too much dominance to duty to principal, with respect to public pensions I believe that we may have misdefined principal. I assert that with respect to public pension work the principal is the public.

Whenever I have asserted this, other actuaries have said: "No, the principal is whose name is on the contract and who pays the bill." Well, not necessarily. First of all, in the world of public contracting, one might be surprised whose name is on the contract and who pays the bill. Second, there is a concept of representation. Governments are the representatives of their constituents.

I will explain using my Illinois SERS plan as an example. The SERS board of trustees hires actuarial consultants to do their valuation and other actuarial work. The consultants, then, may argue that the board of trustees is their principal. An examination of their contract,[5] however, indicates otherwise. Their contract is with the state of Illinois. Whereas they may receive work direction from SERS, the consultants are obliged to serve the interests of the state of Illinois. But who is the state of Illinois? Our state constitution starts with "We, the people …" and, as a state employee, I am continuously told I work for and am accountable to the people. Therefore, I assert that the SERS actuarial consultants also work for and are accountable to the people.

Our actuarial standards and discipline process with respect to public pension plan work should, first and foremost, serve the public. We need to make that clear.

Decouple public and private pension plan ASOPs. As I have engaged in my pension learning, I have heard again and again from pension actuaries that private and public pensions are very different. Actuaries doing private pension plan work have to comply with a variety of very precise requirements, set by third parties (ERISA and the IRS requirements, among others). While private pension plan actuaries may not need more actuarial oversight or requirements, public pension plans need more oversight. So, I propose that we decouple private and public pension plan actuarial standards.

Revise the ASOPs: Act upon the Blue Ribbon Panel recommendations. The SOA recently released the Blue Ribbon Panel Report on Public Pension Plan Funding.[6] Most of the panel participants were financially sophisticated non-actuaries. The report includes recommendations for improving actuarial analysis and reports, including recommendations with respect to risk analysis. Our intended users have spoken. We need to seriously consider the Blue Ribbon Panel recommendations and incorporate the recommendations, or variants thereof, into our standards.

Quantify rather than disclose. In most circumstances only actuaries engaged by plan sponsors have access to the granular plan data and also have the necessary skills and software to perform a quantitative analysis. Quantitative analysis, therefore, enters the public discourse through actuaries. Yet our ASOPs explicitly allow actuaries to make qualitative statements (disclosures) without providing supporting quantification. Furthermore, sometimes even disclosures are not required.

The new ASOP provides poignant examples concerning lack of quantification and disclosure.

1. Although the second exposure draft of the new ASOP 4 had included a requirement for the actuary to make a disclosure if the unfunded actuarial accrued liability is expected to increase at any time during the amortization period (negative amortization), the adopted standard does not require such a disclosure. The actuary is only required to describe the amortization method and disclose if the method is inconsistent with the plan accumulating adequate assets to make benefit payments when due. The actuary does not need to disclose negative amortization or to quantitatively project the amortization.[7]

2. Under the new ASOP 4, while the actuary must describe changes to assumptions and methods,[8] the actuary does not need to, similarly, describe changes to cost or contribution procedures when the changes are prescribed or set by law.[9] Simply stating that there has been a change and citing the law is sufficient. When a description of a change is required, a simple description suffices; the actuary is under no obligation to quantify, or even to generally describe, in terms of direction or magnitude, the impact of such changes.

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Tia Goss Sawhney, DrPH, FSA, MAAA, is director of Data, Analytics and Research at the Illinois Department of Healthcare and Family Services. She can be reached by personal email at *tiasawhney@yahoo.com.*

3. Likewise under the new ASOP 4, if the cost or contribution procedure uses the actuarial value of assets rather than the market value of assets, the actuary is only obligated to point out that using market value would change the cost or contribution. The actuary is not obligated to quantify the impact of using actuarial value instead of market value.[10]

4. As already discussed, if the actuary discloses his/her opinion that a method or assumption is unreasonable, the actuary does not need to prepare an analysis with reasonable assumptions.

5. While the actuary is required to acknowledge risk, as already discussed, the actuary is under no obligation to quantify risk.

Does anyone doubt that public pension stakeholders need quantitative information with respect to these topics? So why aren't we providing this information?

Define "actuarial valuation report." As already discussed, public plan actuarial valuation reports are not comparable with respect to content, methods and assumptions. Therefore, it is impossible to sum across plans to understand the total pension obligation of a taxing district or to compare the relative health of one plan to another. In addition, an actuarial valuation report can be so narrowly defined by sponsors and their actuaries as to not be worthy of the term "report."

I propose that we need a prescribed minimum standard for the content of actuarial valuation reports, and that one component of the content should be the calculation of plan assets, liabilities, normal costs and amortization, using a common set of methods and assumptions. The "common set" would exist to facilitate inter-plan comparability and not preclude plans from adopting other methods and assumptions for purposes of setting contributions or otherwise managing the plans.

I also propose that the minimum standard should include an analysis of how any unfunded liability emerged over time. Such an analysis would reveal to what extent the plan has been impacted by sponsors not making the recommended contributions and to what extent the recommended contributions have been too low as a result of systematic bias in setting assumptions.

Put more transparency into the ABCD process. One of the serious shortcomings of the ABCD process is that complaints are kept private unless they result in public discipline. As a result, the actuarial profession doesn't have any opportunity to learn from the vast majority of ABCD complaints that never result in public discipline. I believe that, without necessarily naming names, the ABCD should be compelled to summarize the topic of each complaint and state how the complaint was resolved, even when the complaint is resolved by counseling. This would allow the profession and individual practicing actuaries to learn from the ABCD process and to modify their individual work products and use of actuarial standards accordingly.

Write commentaries and complaints. If we believe that public pension plans present societal and professional risks, then all actuaries have a role in reducing that risk. We all need to make our voices and expectations heard within our profession and within the larger public pension discourse. Public plan actuaries and our actuarial institutions, such as the ASB and ABCD, need our help and support. We cannot rely upon public plan actuaries to get the job done all by themselves, as even the highest-caliber public plan actuaries, who want to do their best for our society and profession, are often conflicted with respect to their role and personal economic interests and may choose to maintain the status quo.

Because writing, as of now, is the only way to formally comment on a proposed revision to an ASOP or to file an actuarial complaint, it is one of the best ways to provide help and support.

CONCLUSION

I urge our profession to act quickly and decisively with respect to these issues. I understand that actuaries did not cause today's public pension plan problems and that, likewise, we are not solely responsible for solving the problems. By not supplying sufficient, quality information, we are, however, complicit in the ongoing problems. Lack of sufficient, quality actuarial information helps maintain a public veneer of viability with respect to public pension plans even as they deteriorate.

Sufficient, quality actuarial information, in contrast, provides the platform for the discourse necessary to address public pension problems. While not every member of the public will be able to comprehend actuarial information, and some would prefer to cling to rhetoric rather than to substitute facts for impressions, there are numerous public pension stakeholders and public representatives who are starved for the information that our profession is not providing.

If our profession does not quickly and firmly address the quantity and quality of actuarial work with respect to public pension plans, then we will be complicit in the potential eventual meltdown of said plans. Pension plan meltdowns have far-reaching economic consequences and one of the inevitable ancillary fallouts is finger pointing, often in the form of massive lawsuits. The fingers will point to our profession.

Let's act. Now.

The opinions expressed are solely the author's. She has produced them on personal time and equipment. She is an actuary and public pension stakeholder, not a pension actuary. You may disagree. As her public pension learning continues, she will have more to say. She may even modify her views over time.

--Tia Goss Sawhney

ENDNOTES

1. Legislation was passed in December 2013 that will soon move some Illinois plans to a more standard methodology. For unrelated reasons the legislation is being challenged in the courts.
2. New ASOP 4, section 3.17.1.
3. Sections 3.14.2 and 4.1.k.
4. http://actuary.org/content/public-discipline.
5. Obtained by a Freedom of Information Act request—one of the mechanisms that reinforce the accountability of government to the people.
6. http://www.soa.org/blueribbonpanel/.
7. See cover memo to new ASOP 4.
8. Section 4.1.s.
9. Section 4.1.t.
10. Section 4.1.s.3