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House Bill 1173

(As Engrossed March 7, 2019)
Actuarial Cost Study prepared for
Joint Committee on Public Retirement and Social Security Programs
of the Arkansas 92nd General Assembly

Provisions of the Bill

House Bill 1173 affects all of the Arkansas state retirement plans (Chapter 24, subchapters 1 through 11) except the alternate plans offered by higher learning institutions. House Bill 1173 adds a new section §24-1-109 that requires the retirement systems to conduct the financial risk analyses that are recommended by their actuary. The results of these calculations are to be presented to the Retirement Committee twenty days before each regular legislative session. House Bill 1173 also gives the Retirement Committee the authority to have their own actuary prepare risk analyses.

Note we have also provided a document titled “Additional Supporting Information” with detailed terminology and risk analysis that is currently available. The Supporting Information is the same as included in our original report dated February 21, 2019.

Fiscal Impact

The risk analyses discussed in House Bill 1173 appear to be the information that will be conducted and provided by the systems’ actuaries in the normal course of the annual valuation process. With the implementation of ASOP 51 (discussed in Supporting Information), we foresee additional reporting to be included in the actuarial valuations that will address the various risks involved. Therefore, it is our opinion that there should be no additional administrative costs to the systems beyond what is already being anticipated. There is no fiscal impact to the systems in our opinion.

Other

The Retirement Committee has broad oversight authority of the retirement systems. The Retirement Interim Committee (§10-3-703) is charged with making “continuing review of the statistics, actuarial solvency, adequacy of benefits, and all other aspect” of the retirement systems. The Retirement Committee even has authority (§24-1-102) to review and agree with the actuarial assumptions used by the systems.

Sincerely,

Jody Carreiro

Jody Carreiro, A.S.A, M.A.A.A.
Actuary

Additional Disclosures on file with BLR

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Purpose of Document

This document has been prepared in addition and in support of the Actuarial Cost Study for House Bill 1173. This document is intended to provide terminology and other technical information not normally contained in the Cost Study.

Terminology

GASB – Governmental Accounting Standards Board.

CAFR – Comprehensive Annual Financial Report. A CAFR is a set of financial statements for a state, municipality or other governmental entity that comply with the accounting requirements established by the Governmental Accounting Standards Board (GASB).

GASB 67 – GASB Statement Number 67, Financial Reporting for Pension Plans. "The objective of this Statement is to improve financial reporting by state and local governmental pension plans. This Statement results from a comprehensive review of the effectiveness of existing standards of accounting and financial reporting for pensions with regard to providing decision-useful information, supporting assessments of accountability and inter-period equity, and creating additional transparency." (from GASB summary) GASB 67 was effective for fiscal years beginning after June 14, 2013.

GASB 68 – GASB Statement Number 68, Accounting and Financial Reporting for Pensions. "The primary objective of this Statement is to improve accounting and financial reporting by state and local governments for pensions. It also improves information provided by state and local governmental employers about financial support for pensions that is provided by other entities." (from GASB summary) GASB 68 was effective for fiscal years beginning after June 14, 2014.

Actuarial Standards Board (ASB) - The ASB sets standards for appropriate actuarial practice in the United States through the development and promulgation of Actuarial Standards of Practice (ASOPs). (see www.actuarialstandardsboard.org)

Actuarial Standards of Practice (ASOPs) - These ASOPs describe the procedures an actuary should follow when performing actuarial services and identify what the actuary should disclose when communicating the results of those services. (see www.actuarialstandardsboard.org)

ASOP 51 – Actuarial Standard of Practice Number 51, Assessment and Disclosure of Risk Associated with Measuring Pension Obligations and Determining Pension Plan Contributions. "This ASOP provides guidance to actuaries when performing certain actuarial services with respect to measuring obligations under a defined benefit pension plan and calculating actuarially determined contribution for such plans, with regard to the assessment and disclosure of the risk that the actual future measurements may differ significantly from expected future measurements." ASOP 51 is effective for any actuarial work product with a measurement date on or after November 1, 2018.

(Remaining definitions from ASOP 51)
Actuarially Determined Contribution – "A potential payment to the plan as determined by the actuary using a contribution allocation procedure. It may or may not be the amount actually paid by the plan sponsor or other contributing entity." (ASOP 51) GASB 25 and 27 (predecessor statements to GASB 67 and 68) defined an Annual Required Contribution. Although the two are different, they are similar in that they both convey an amount of money that needs to be contributed to keep the fund solvent in the long run.

Risk – The potential of actual future measurements deviating from expected future measurements resulting from actual future experience deviating from actuarially assumed experience. For purpose of ASOP 51, risk includes contribution risk.

Contribution Risk – The potential of actual future contributions deviating from expected future contributions. For example, that actual contributions are not made in accordance with the plan's funding policy or that material changes occur in the anticipated number of covered employees, covered payroll, or other relevant contribution base.

Scenario Test – A process for assessing the impact of one possible event, or several simultaneously occurring possible events, on a plan's financial condition.

Sensitivity Test – A process for assessing the impact of a change in an actuarial assumption on an actuarial measurement.

Stochastic Modeling – A process for generating numerous potential outcomes by allowing for random variations in one or more inputs over time for the purpose of assessing the distribution of those outcomes.

Stress Test – A process for assessing the impact of adverse changes in one or relatively few factors affecting a plan's financial condition.

Risk Assessment Contained in GASB 67/68

The requirements of the GASB statements must be met in order for a financial report to be considered a CAFR. A CAFR is considered the standard of reporting for users that are independent of the governmental agency. That is, a CAFR is what is needed to be reviewed by bond rating agencies and bond issuers. Therefore, these standards are followed by Arkansas statewide public pension plans.

The adoption of GASB 67/68 brought about several expanded and additional disclosures that are useful in the assessment of risks involved with pension plans. These are intended for the user to have a better understanding of the inherent risks that are a part of the pension plan. Some of these assessments and disclosures are as follows:

Effect of a 1% increase/decrease in single discount rate. This metric has proven quite useful and is probably one of the most discussed new disclosures. The actuary must disclose the Net Pension Liability (similar idea as the Unfunded Actuarial Accrued Liability or UAL) if the discount rate were both increased and decreased by 1%. This sensitivity test shows how sensitive the NPL is to changes in this assumption.

Calculation of the Single Discount Rate (Cash Flow Test). GASB 67 includes a specific requirement for the discount rate that is used for the purpose of the measurement of the Total Pension Liability. This rate considers the ability of the fund to meet benefit obligations in the future. To make this determination, employer contributions, employee contributions, benefit payments, expenses and investment returns are projected into the future. The Plan Net Position (assets) in future years can then be projected and compared to the obligation to make benefit payments in those years. As long as assets are projected to be sufficient in a future year, the assumed valuation discount rate is used. In years where assets are not projected to be sufficient to meet benefit payments, the use of a "risk-free" rate is required. The single discount rate is equivalent to applying these two rates to the benefits that are projected to be paid during the different time periods.

This cash flow test is primarily a test of the current contribution policy of the plan. It is a tool that can show the strengths and weaknesses of a particular contribution policy. It can also be adapted easily way to demonstrate some sensitivity and stress testing.

Changes in Net Pension Liability. Although this is not a test of the actuarial assumptions, it allows the user to see the actuarial gain or loss due to demographic changes, the effect of assumption changes, and the effect of investment gains and losses separately and how each of these items has affected the Net Pension Liability (similar to UAL).

Historical Demonstrations. GASB 67/68 requires a 10-fiscal year history of various information about certain aspects of the Net Pension Liability. The Schedule of Changes in Net Pension Liability has the information mentioned in the previous item shown over the 10-year period. The Schedule of the Components of Net Pension Liability is a history of the assets and liabilities of the plan along with various ratios, such as the Funded Percentage. The Comparison of Actual Employer Contributions to the Actuarially Determined Contributions shows the history the plan has in making the necessary contributions to the plan. Making the needed contributions to a pension plan is the single largest indicator of the sustainability of a pension plan. Finally, the Schedule of the Annual Rate of Return on Pension Plan Investments shows the history of this important rate.

Additional discussion of certain assumptions. Although all assumptions are disclosed as usual, certain assumptions, including rate of return and cost of living adjustments now have further substantiating discussion included in the GASB disclosures.

Risk Assessment in ASOP 51

It has always been good actuarial practice to ensure that the users of pension actuarial reports understand that the calculations are based on assumptions and that the ultimate results will be different than what is shown and will only be known as the experience develops.

The need to explain uncertainty has long been a part of ASOP No. 4 (Measuring Pension Obligations) since it was first published. Each revision to this ASOP has increased language about risk and uncertainty. ASOP No. 41 (Actuarial Communications) has also addressed the duty of the actuary to discuss uncertainty. The ASB decided that it was best to develop a separate standard to address risk assessment. This standard (ASOP 51) is effective for any actuarial work product with a measurement date on or after November 1, 2018.

Actuarial Standards of Practice are principles-based documents. They are not narrowly prescriptive, but do allow for the use of professional judgment in selecting methods and assumptions and conducting an analysis. Every ASOP identifies factors that the actuary typically should consider when addressing the practice area in the standard.

ASOP 51 discusses the use of various tests to understand the risks involved, including scenario tests, sensitivity tests, stress tests and stochastic modeling. It also has a section on the use of historical information, including funded status. ASOP 51 also discusses using plan maturity measures. Plan maturity measures could include ratio of actives to retirees, ratios of active and retiree liability to total liability, ratio of market value of assets to participant payroll, and cash flow ratios. There are several tables of historical and plan maturity measures already contained in the actuarial valuation reports of the state systems.

It is anticipated actuaries will comply with ASOP 51 by continuing to show historical and plan maturity measures but with expanded explanation of how they will affect future results. We would anticipate seeing additional sensitivity measurements as appropriate for each system. There will likely be a separate stochastic analysis of various assumptions performed at regular multi-year intervals, similar to or in concert with experience studies.