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February 19, 2015

Mr. Larry Dickerson
Executive Secretary
Arkansas State Highway
Employees Retirement System
PO Box 2261
Little Rock, AR 72203

Re: Actuarial Impact of House Bill No. 1215 (HB 1215)

Dear Larry:

You have requested that Gabriel Roeder Smith & Company (GRS) determine the actuarial impact on the Arkansas State Highway Employees Retirement System (ASHERS) of HB 1215. This bill amends sections § 24-1-102, of the Arkansas Code.

The purpose of the bill is to require an additional valuation of all public retirement systems of the state and political subdivisions in Arkansas. This additional valuation would be produced using the actuarial assumptions and methods selected by the Board for valuation purposes except for the investment return assumption which would be set at 4.0% by the legislation. This additional valuation of the system would then be published in the same annual valuation report of the system.

Actuarial Impact

We have determined the additional disclosure information, as of June 30, 2014 (as if the legislation had been in place at that time), of the proposal using the same assumptions and method used for the June 30, 2014 actuarial valuation of ASHERS with the exception of the investment return assumption which is established by the legislation at 4.0%. The table below shows key valuation metrics of the June 30, 2014 valuation along with the additional disclosure required by the proposed legislation.

Cost Item	June 30, 2014 Actuarial Valuation	HB 1215 – 4% Investment Return Assumption
Normal Cost	12.54%	33.36%
Unfunded Actuarial Accrued Liability	$135 million	$999 million
Funding Period	23.2 years	Infinite

It is important to note that the legislation does not require the system to be funded on this basis but only that this alternative valuation information be disclosed in addition to the valuation numbers produced when using the Board's assumptions.

Other Comments

The selection of actuarial assumptions, including the appropriate valuation interest rate for funding purposes, for public sector pension plans is guided by the Actuarial Standards of Practice (ASOP), including ASOP 4, *Measuring Pension Obligations*. For purposes of reporting the retirement system's plan financial information Governmental Accounting Standards Board Statement #25, *Financial Reporting for Defined Benefit Pension Plans and Note Disclosures for Defined Contribution Plans*, the investment return assumption (discount rate) should be based on an estimated long-term investment return from the plan's assets. Generally, the plan's investment policy and forward-looking capital market expectations are used to identify an appropriate investment return assumption.

It appears that the proposed language is intended to require ASHERS (and the other state and municipal pension systems in Arkansas) to disclose an unfunded actuarial accrued liability (UAAL) based upon a market value of liability (MVL) measure in addition to the UAAL that is disclosed under traditional actuarial practice (which is the basis upon which the System is actually funded).

The disclosure of a UAAL under an MVL measure may be a reasonable disclosure (if properly calculated and properly communicated) if the System is trying to assess the risk associated with settling the System's liabilities (we would recommend the use of a different cost method for that purpose). However, we are concerned that the disclosure of this measurement could easily be used to mislead interested stakeholders (members, employers, and taxpayers) as to what is the "true" cost of the System. We do not believe this measure represents the "true" cost of ASHERS.

While we understand that providing additional information may be useful for stakeholders, we believe the selection of 4% to be somewhat arbitrary. If the purpose is to determine an MVL liability then an investment return assumption more closed tied to some form of yield curve would be more approprate. By establishing a fixed interest rate, the bill seems to be implying that the investment return assumption is too optimistic and therefore it is necesscary to disclose the cost on a more realalistic assumption. The period from 2001 – 2010 was the worst 10-year period for investments since the great depression. It included the 2001 – 2002 bear market and the "Great Recession" in 2009. ASHERS averaged a compounded return of 3.5% over that 10-year period. However, the investment horizon for ASHERS is counted in decades not years. If we just add the four years subsequent to 2010, ASHERS average compound return increases to 6.5% (and this includes 2012 which was a poor year for investments). Therefore, we believe disclosing the liabilities of ASHERS at such a low discount rate as a risk awareness measure overstates the risk to stakeholders.

We would also like to point out that the legislation only requries the disclosure of a downside risk measurement. It is possible that ASHERS could our perform their investment return assumption. While it may be entirely appropriate to only disclose the downside risk, we just wanted to note it.

Finally, if the bill becomes law, there would be additional administrative expense to ASHERS because the System's actuary would be required to produce, check, and publish another set of actuarial liability calculations.

Basis of Calculations

Our calculations are based on the June 30, 2014 actuarial valuation, including member and financial data used for that valuation. With the exception of the investment return rate, all assumptions and methods used to calculate the liability and employer costs in this analysis are identical to those used in the actuarial valuation.

The rate of investment return (discount rate) was changed for this analysis under the premise that real returns would be lower than currently assumed. If expectations about future inflation were also lower and a component of the decrease in investment return, then other assumptions such as the rate of future salary increases, future cost-of-living adjustments and the payroll growth rate may also need to be adjusted since they also are based on the same underlying inflation assumption. Changes in these assumptions results in interplay with the change in the investment return assumption in the calculation of the liabilities, which often results in a slightly lower increase in liability and cost, compared to singularly reducing the investment return assumption.

Our calculations are based upon assumptions regarding future events, which may or may not materialize. Please bear in mind that actual results could deviate significantly from our projections, depending on actual plan experience.

Joe Newton is a member of the American Academy of Actuaries and meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

If you have any questions regarding this estimated impact statement, please don't hesitate to contact us.

Sincerely,

Lewis Ward
Consultant

Joseph P. Newton, FSA, MAAA, EA
Senior Consultant

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