2014 REGULAR SESSION
ACTUARIAL NOTE SB 13

Senate Bill 13 SLS 14RS-30 **Original** **Author: Senator Borrow Peacock** **Date: March 30, 2014** **LLA Note SB 13.01** **Organizations Affected:** **Louisiana State Employees' Retirement System** **Teachers' Retirement System of Louisiana** **OR DECREASE APV**	**The Note was prepared by the Actuarial Services Department of the Office of the Legislative Auditor. The attachment of the Note to SB 13 provides compliance with the requirements of R.S. 24:521.** Paul T. Richmond **Paul T. Richmond, ASA, MAAA, EA** **Manager Actuarial Services**

Bill Header: RETIREMENT SYSTEMS. Provides for use of entry age normal valuation method by the State Employees' Retirement System and the Teachers' Retirement System. (See Act)

Cost Summary:

The estimated actuarial and fiscal impact of the proposed legislation is summarized below. Actuarial costs pertain to changes in the ***actuarial present value of future benefit payments***. A cost is denoted by "Increase" or a positive number. Savings are denoted by "Decrease" or a negative number.

Actuarial Cost/(Savings) to Retirement Systems and OGB	Decrease
Total Five Year Fiscal Cost	
Expenditures	See Below
Revenues	See Below

Estimated Actuarial Impact:

The chart below shows the estimated change in the ***actuarial present value of future benefit payments***, if any, attributable to the proposed legislation. A cost is denoted by "Increase" or a positive number. Savings are denoted by "Decrease" or a negative number. Present value costs associated with administration or other fiscal concerns are not included in these values.

Actuarial Cost (Savings) to:	**Increase (Decrease) in The Actuarial Present Value**
All Louisiana Public Retirement Systems	Decrease
Other Post Retirement Benefits	$0
Total	Decrease

Estimated Fiscal Impact:

The chart below shows the estimated fiscal impact of the proposed legislation. This represents the effect on cash flows for government entities including the retirement systems and the Office of Group Benefits. Fiscal costs include estimated administrative costs and costs associated with other fiscal concerns. A fiscal cost is denoted by "Increase" or a positive number. Fiscal savings are denoted by "Decrease" or a negative number.

EXPENDITURES	**2014-15**	**2015-16**	**2016-17**	**2017-2018**	**2018-2019**	**5 Year Total**
State General Fund	$ 0	See Below	See Below	See Below	See Below	See Below
Agy Self Generated	0	0	0	0	0	0
Stat Deds/Other	0	0	0	0	0	0
Federal Funds	0	0	0	0	0	0
Local Funds	0	See Below	See Below	See Below	See Below	See Below
Annual Total	$ 0	See Below	See Below	See Below	See Below	See Below

REVENUES	**2014-15**	**2015-16**	**2016-17**	**2017-2018**	**2018-2019**	**5 Year Total**
State General Fund	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
Agy Self Generated	0	See Below	See Below	See Below	See Below	See Below
Stat Deds/Other	0	0	0	0	0	0
Federal Funds	0	0	0	0	0	0
Local Funds	0	0	0	0	0	0
Annual Total	$ 0	See Below	See Below	See Below	See Below	See Below

<u>Bill Information:</u>

Current Law

Current law specifies that the Louisiana State Employees' Retirement System (LASERS) and the Teachers' Retirement System of Louisiana (TRSL) must be funded in accordance with the Projected Unit Credit (PUC) funding method. The PUC method is one of several methods developed by actuaries for budgeting and funding for pension benefits over the course of a member's career. In general terms, the normal cost of a member's pension benefit under PUC is allocated to each year of the member's employment by measuring the actuarial present value of the benefits earned in each year. The normal cost generally increases throughout a member's career, both as a dollar amount and as a percentage of pay.

Current law provides that investment gains potentially transferrable to the Experience Account are equal to the amount by which actual investment earnings exceed investment earnings expected in accordance with the discount rate adopted by the board of trustees for valuation purposes.

Proposed Law

SB 13 has no effect on benefit provisions.

SB 13 changes the funding method for LASERS and TRSL from the PUC method to the Entry Age Normal (EAN) method. Under EAN, the normal cost of a member's pension benefit is allocated in such a manner as to maintain a normal cost contribution rate that is a level percent of pay throughout the member's career. The effective date of this change depends on the valuation reports presented to PRSAC relative to the June 30, 2014, valuation date or later valuation dates. Rules regarding the effective dates are summarized below:

1. If neither the system actuary nor the actuary for the LLA use the EAN funding method for preparing actual employer contributions requirements for FYE 2015 or for preparing projected employer contribution requirements for FYE 2016 based on the June 30, 2014 valuation date, then the funding method will remain the PUC method for at least one or more years. PRSAC will have no opportunity to adopt a valuation report that uses EAN.

2. If one or both of the actuaries presenting valuation reports based on the June 30, 2014 valuation date use the EAN method for preparing either the actual employer contribution requirement for FYE 2015 or the projected employer contribution requirement for 2016, and PRSAC adopts such an EAN based valuation report, then the EAN method will become the effective method for that system for the first fiscal year to which the method applies and will continue to be the legally mandated method for that system thereafter.

Under SB 13, investment gains potentially transferrable to the Experience Account will be equal to the amount by which actual investment earnings exceed investment earnings expected in accordance with the greater of the discount rate adopted by the board of trustees for valuation purposes and 8.00%.

Implications of the Proposed Changes

Most of the sub plans of LASERS are frozen to new employees of the state. The only sub plans of LASERS currently accepting new members is the Rank and File plan enacted by Act 992 of the 2010 regular session of the legislature, the Judges Plan applicable to judges first employed by the state on or after January 1, 2011, and the Hazardous Duty Sub Plan. Employer normal cost rates for frozen sub plans under the PUC method increase as members become older. Total normal costs for the frozen sub plans will become increasingly larger as the years go by. Normal cost rates under the EAN method do not change materially from one year to the next. The change proposed by SB 13 will help stabilize employer contribution requirements in future years.

The TRSL sub plan for Higher Education employees is also frozen to new entrants. SB 13 will have a similar stabilizing effect on contribution requirements for this sub plan.

<u>Cost Analysis:</u>

Analysis of Actuarial Costs

Retirement Systems

EAN Analysis

The valuation reports adopted by PRSAC on March 6, 2014 were prepared using the PUC method for projecting the employer contribution rate for FYE 2015. If instead, projected rates for 2015 had been prepared using the EAN method, then employer contributions for LASERS would have been $18,209,757 less than the amount developed in the PRSAC approved report. However, for TRSL, the employer contribution rate using EAN would have been $23,244,974 more that the approved amount.

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LASERS

	PUC	**EAN**	**Increase/(Decrease)**
6/30/2013 Valuation Results			
Accrued Liability	$ 16,182,194,641	$ 16,756,762,465	$ 574,567,824
Actuarial Value of Assets	9,740,877,677	9,740,877,677	0
Unfunded Accrued Liability	6,441,316,964	7,015,885,788	574,567,824
Funded Ratio	60.2%	58.1%	(2.1%)
Projected Funding Requirements for FYE 2015			
Employer Normal Cost	$ 132,773,370	$ 65,452,865	$ (67,320,505)
UAL Amortization Cost	627,684,762	676,795,510	49,110,748
Total Required Employer Contributions	760,458,132	742,248,375	(18,209,757)
Employer Contribution Rate	37.4%	36.6%	(0.8%)

TRSL

	PUC	**EAN**	**Increase/(Decrease)**
6/30/2013 Valuation Results			
Accrued Liability	$ 26,017,708,304	$ 26,856,538,239	$ 838,829,935
Actuarial Value of Assets	14,669,155,950	14,669,155,950	0
Unfunded Accrued Liability	11,348,552,354	12,187,382,289	838,829,935
Funded Ratio	56.4%	54.6%	(1.8%)
Projected Funding Requirements for FYE 2015			
Employer Normal Cost	$ 196,882,998	$ 148,429,620	$ (48,453,378)
UAL Amortization Cost	1,011,853,415	1,083,551,767	71,698,352
Total Required Employer Contributions	1,208,736,413	1,231,981,387	23,244,974
Employer Contribution Rate	27.7%	28.1%	0.4%

Under SB 13, LASERS and TRSL are allowed to choose when to adopt the EAN method. They may elect to use EAN to determine actuarial contribution rates for FYE 2015. This will affect the contribution variance for FYE 2015 and employer contribution rates for 2016. Or the systems may elect to use EAN to determine the projected employer contribution requirement for 2016. This will also affect employer contribution requirements for FYE 2016. Or they may elect to delay implementation until an even later date.

SB 13 has no effect on the actuarial present value of future benefits. A change from PUC to EAN only has an effect on cash flow costs. However, the effect on fiscal costs cannot be determined in advance. The effect of making the change from PUC to EAN depends upon when the change is made and the characteristics of system's census data at that particular moment in time.

The analysis shown above shows that employer contributions would have been smaller for LASERS and larger for TRSL had EAN been adopted for FYE 2015 based on census data as of June 30, 2013. A very different conclusion may result once an actuarial valuation has been prepared based on June 30, 2014 census data.

Therefore, we draw the following conclusions:

1. There is no change in the actuarial present value of future benefits.

2. The dollar amount of employer contributions to LASERS with EAN could range from 98% of the contribution required under PUC to 102%. The precise amount cannot be determined in advance.

3. The dollar amount of employer contributions to TRSL with EAN could also range from 98% of the contribution required under PUC to 102%. The precise effect cannot be measured in advance.

Investment Gain Threshold

Under current law, if the board of trustees lowers the discount rate, which would improve actuarial funding for the retirement systems, the potential for investment gains increases. As a result, an action of the board to improve actuarial funding produces larger gains and potentially larger PBI benefits.

The provisions of SB 13 require investment gains to be measured using the greater of 8.00% and the discount rate established by the board of trustees. If SB 13 is enacted, an action by the board to improve actuarial funding will no longer produce larger gains. In fact, if the board takes action to increase the discount rate, the potential for PBIs will decrease.

We therefore conclude that this provision of SB 13 has the potential to reduce the present value of future benefits payable from the retirement system.

Other Post-Employment Benefits

There are no actuarial costs associated with SB 13 for post-employment benefits other than pensions.

Analysis of Fiscal Costs

As discussed above, no definitive conclusion can be drawn about the effect the EAN provision of SB 13 will have employer contribution requirements to LASERS and TRSL during the five year measurement period.

Actuarial Data, Methods and Assumptions

This actuarial note was prepared using actuarial data, methods, and assumptions as disclosed in the most recent actuarial valuation report approved by PRSAC. These assumptions and methods are in compliance with actuarial standards of practice. This data, methods and assumptions are being used to provide consistency with the actuary for the retirement system who may also be providing testimony to the Senate and House retirement committees.

This actuarial note is based on information provided to the LLA by Foster & Foster, the actuarial firm used by LASERS and TRSL.

Actuarial Caveat

There is nothing in SB 13 that will compromise the signing actuary's ability to present an unbiased statement of actuarial opinion.

Actuarial Credentials:

Paul T. Richmond is the Manager of Actuarial Services for the Louisiana Legislative Auditor. He is an Enrolled Actuary, a member of the American Academy of Actuaries, a member of the Society of Actuaries and has met the Qualification Standards of the American Academy of Actuaries necessary to render the actuarial opinion contained herein.

Dual Referral:

Senate	House
☐ 13.5.1: Annual Fiscal Cost ≥ \$100,000	☐ 6.8(F)(1): Annual State Fiscal Cost ≥ \$100,000
☐ 13.5.2: Annual Tax or Fee Change ≥ \$500,000	☐ 6.8(F)(2): Annual State Revenue Reduction ≥ \$500,000
	☐ 6.8(G): Annual Tax or Fee Change ≥ \$500,000