2013 REGULAR SESSION
ACTUARIAL NOTE SB 4

Senate Bill 4 SLS 13RS-14 **Engrossed with Senate Retirement Committee Amendment #712** **Author: Senator Elbert L. Guillory** **Date: April 25, 2013** **LLA Note SB 4.02** **Organizations Affected:** **Louisiana State Employees' Retirement System** **Teachers' Retirement System of Louisiana** **EG DECREASE APV**	**This Note has been prepared by the Actuarial Services Department of the Office of the Legislative Auditor. The attachment of this Note to SB 4 provides compliance with the requirements of R.S. 24:521.** Paul T. Richmond **Paul T. Richmond, ASA, MAAA, EA** **Manager Actuarial Services**

Bill Header: Provides for use of entry age normal valuation method by Louisiana State Employees' Retirement System and Teachers' Retirement System of Louisiana. (6/30/13).

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	Decrease
Revenues	Decrease

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 to:	**Change 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	**2013-14**	**2014-15**	**2015-16**	**2016-17**	**2017-2018**	**5 Year Total**
State General Fund	$ (10,300,000)	Decrease	Decrease	Decrease	Decrease	Decrease
Agy Self Generated	Decrease	Decrease	Decrease	Decrease	Decrease	Decrease
Stat Deds/Other	0	0	0	0	0	0
Federal Funds	0	0	0	0	0	0
Local Funds	40,300,000	Decrease	Decrease	Decrease	Decrease	Decrease
Annual Total	$ 30,000,000	Decrease	Decrease	Decrease	Decrease	Decrease

REVENUES	**2013-14**	**2014-15**	**2015-16**	**2016-17**	**2017-2018**	**5 Year Total**
State General Fund	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
Agy Self Generated	30,000,000	Decrease	Decrease	Decrease	Decrease	Decrease
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	$ 30,000,000	Decrease	Decrease	Decrease	Decrease	Decrease

<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 funding method (PUC). 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 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 benefit earned in each year. This cost generally increases throughout a member's career, both as a dollar amount and as a percentage of pay.

The boards of trustees for LASERS and TRSL are permitted to establish all actuarial assumptions and the method used to smooth the market value of assets.

Gain sharing is a commonly used term to describe the provisions of current law pertaining to the transfer of a portion of investment earnings to the Experience Account which is then used to fund COLAs. Gain sharing under current law is generally based on the extent to which investment earnings on the actuarial value of assets exceeds the amount that would have been earned had investments yielded the actuarial rate of return assumed by the systems' actuary.

Proposed Law

Under SB 4, LASERS and TRSL will be able to use the Entry Age Normal (EAN) funding method to budget for a member's benefit. The cost of a member's pension benefit under EAN is allocated in such a manner as to maintain a contribution rate that is a level percent of pay throughout the member's career.

The ability to use the EAN method is contingent upon the Public Retirement System Actuarial Committee (PRSAC) reconvening on or before June 28, 2013, and adopting a valuation report for June 30, 2012, that is based on the Entry Age Normal (EAN) funding method and the following methods and assumptions in the determination of projected employer contribution requirements for the fiscal year ending June 30, 2014.

1. A discount rate of 7.5%.

2. A salary increase assumption that is 50 basis points less than the rates used in the preparation of the valuation reports adopted by PRSAC on March 7, 2013.

3. A new method for smoothing the market value of assets. The new method will be based on the market value of assets on the valuation date recognizing both realized and unrealized gains and losses in a similar manner.

4. Using all other assumptions and methods used in the preparation of the valuation reports adopted by PRSAC on March 7, 2013.

Upon approval of revised valuation reports by PRSAC, the EAN funding method will become the legally prescribed funding method for LASERS and TRSL in the preparation of the June 30, 2012, valuation report as it pertains to the calculation of projected employer contribution requirements for FYE 2014. It will also become the legally prescribed method for all future years assuming the PRSAC contingency requirement is met. The retirement systems will retain the authority to establish other methods and assumptions for preparing actuarial valuation reports based on June 30, 2013, assets and census data, and for all later dates.

In addition, SB 4 changes the basis for measuring investment gains for the purpose of gain sharing from the assumed rate of return to 8.25%.

Implications of the Proposed Changes

Most of the sub plans of LASERS are frozen to new employees of the state. The only sub plan currently accepting new members is the Hazardous Duty Sub Plan. The Cash Balance Sub Plan will begin accepting new members on July 1, 2013. Employer normal cost rates under the PUC method increase as members become older. Therefore, the normal cost 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. Therefore, the change proposed by SB 4 will help stabilize employer contribution requirements.

The TRSL sub plan for Higher Education employees is also frozen to new entrants. SB 4 will have a similar stabilizing effect on contribution requirements for this sub plan.

The changes made to gain sharing provisions will also help stabilize employer contribution requirements. SB 4 establishes a single rate of 8.25% as the basis for administering the gain sharing program.

<u>Cost Analysis:</u>

Analysis of Actuarial Costs

Retirement Systems

Gain Sharing Provisions

If SB 4 is enacted, the actuarial present value of future benefit payments will decrease. Under current law, gain sharing is based on the assumed rate of return, which for LASERS is currently 8.00%. The assumed rate of return for TRSL is currently 8.25% but will become 8.00% effective July 1, 2013. Assumed rates could stay at 8.00%, or may decrease further to comply with Actuarial Standards of Practice, to comply with GASB 67 and 68, and to comply with additional analyses examining capital market assumptions and asset allocations of the two retirement systems.

If SB 4 is enacted, gain sharing will be based on a fixed rate of 8.25%, instead of the assumed rate which could be somewhere between 7.00% and 8.00%. As a result, investment gains potentially transferrable to the Experience Account will be smaller and the frequency and size of COLA adjustments will decrease.

The annual cost of the gain sharing program using 8.25% as a measurement basis has been estimated to be about $108 million for LASERS and about $163 million for TRSL. If the discount rate is reduced to 7.50%, annual costs are expected to be about $175 million and $265 million respectively. Therefore, the enactment of SB 4 could save on average $67 million a year for LASERS and $102 million a year for TRSL. This provision of SB 4 is not subject to any contingency and would become effective with the enactment of the bill.

Funding and Assumptions Provisions

If the actuary for the retirement systems and the actuary for the Legislative Auditor produce valuation reports in the prescribed manner and PRSAC adopts one of the newly prepared valuations, Entry Age Normal will become the funding method for all future years. If PRSAC decides not to adopt a new valuation, the Projected Unit Credit method remains in effect for all future years.

If SB 4 is enacted, if new valuation reports are presented to PRSAC, and if PRSAC elects to adopt the new reports, employer contribution rates for FYE 2014 are expected to differ from the rates shown in the valuation reports already approved by PRSAC.

	LASERS		TRSL	
Current Valuation		31.7%		27.1%
Changes Due To:				
Decrease in the Discount Rate to 7.50%	2.3%		2.4%	
50 Basis Point Decrease in the Salary Scale	- 0.8%		- 0.9%	
Change in Asset Valuation Method	- 1.2%		- 0.9%	
Change from PUC to EAN	- 0.8%		0.3%	
Total Changes		- 0.5%		0.9%
SB 4 Valuation		31.2%		28.0%

The Funding and Assumptions provisions of SB 4 will have no effect on the actuarial present value of future benefits because no benefits are being changed. General observations and conclusions about other actuarial cost measures are given below.

1. The adjustments will help stabilize contribution requirements in the future. Contribution requirements currently are quite volatile for a variety of reasons. As a result of SB 4, contribution requirements should be less volatile.

2. Employer contribution requirements to LASERS under SB 4 will be smaller for FYE 2014 than under current law, because of the relative values on June 30, 2012, of the market and book values of assets, the actuarial value of assets under the current smoothing method and the actuarial value under the SB 4 method. These values are aligned in such a manner as to allow the other changes to occur without an increase in contribution requirements.

3. Employer contribution requirements to TRSL under SB 4 will be larger for FYE 2014 than under current law, because of the relative values on June 30, 2012, of the market and book values of assets, the actuarial value of assets under the current smoothing method and the actuarial value under the SB 4 method. These values are aligned in such a manner as to not permit the other changes to occur without an increase in contribution requirements.

4. The effects of SB 4 on various projected actuarial measures on June 30, 2013, and for FYE 2014 are shown below.

LASERS

	Current Valuation	SB 4 Valuation	Increase/(Decrease)
Accrued Liability	$ 16,700,000,000	$ 18,400,000,000	$ 1,700,000,000
Total Normal Cost	346,000,000	260,000,000	(86,000,000)
Employer Normal Cost	$ 151,000,000	$ 65,000,000	$ (86,000,000)
Amortization of UAL	634,000,000	703,000,000	69,000,000
Employer Contribution Requirements	785,000,000	768,000,000	(17,000,000)
Payroll for Normal Costs	$ 2,478,000,000	$ 2,466,000,000	$ (12,000,000)
Payroll for Amortization Costs	2,478,000,000	2,466,000,000	(12,000,000)
Employer Normal Cost Rate	6.0954%	2.6358%	- 3.4596%
Employer Amortization Rate	25.5781%	28.5077%	2.9296%
Total Employer Rate	31.6735%	31.1435%	- 0.5300%

TRSL

	Current Valuation	SB 4 Valuation	Increase/(Decrease)
Accrued Liability	$ 25,100,000,000	$ 27,900,000,000	$ 2,800,000,000
Total Normal Cost	551,000,000	463,000,000	(88,000,000)
Employer Normal Cost	$ 231,000,000	$ 143,000,000	$ (88,000,000)
Amortization of UAL	980,000,000	1,115,000,000	135,000,000
Employer Contribution Requirements	1,211,000,000	1,258,000,000	47,000,000
Payroll for Normal Costs	$ 4,018,000,000	$ 3,998,000,000	$ (20,000,000)
Payroll for Amortization Costs	4,594,000,000	4,572,000,000	(22,000,000)
Employer Normal Cost Rate	5.7423%	3.5768%	- 2.1655%
Employer Amortization Rate	21.3390%	24.3876%	3.0486%
Total Employer Rate	27.0813%	27.9644%	0.8831%

5. The measurements of the changes required under SB 4 only pertain to June 30, 2013, and FYE 2014. The effects of SB 4 on measurements occurring on future valuation dates and future FYEs cannot be determined. There are too many unpredictable economic and other factors that will affect these measurements to be able to reliably isolate the effect of SB 4 beyond FYE 2014.

Other Post Retirement Benefits

There are no actuarial costs associated with SB 4 for post-employment benefits other than pensions.

Analysis of Fiscal Costs

SB 4 will have the following effect on fiscal costs.

Expenditures:

1. Expenditures from the General Fund will decrease because contribution requirements for employers participating in LASERS will decrease about $17 million for FYE 2014. General Fund expenditures in years beyond FYE 2014 may increase or decrease as a result of the Methods and Assumptions provisions of SB 4. It is likely however, that decreases resulting from the Gain Sharing provisions of SB 4 will be larger than any future increases that might occur as a result of the Methods and Assumptions provisions.

2. Expenditures from the General Fund will increase because contribution requirements for employers in higher education participating in TRSL will increase about $6.7 million for FYE 2014. General Fund expenditures in years beyond FYE 2014 may increase or decrease as a result of the Methods and Assumptions provisions of SB 4. It is likely however, that decreases resulting from the Gain Sharing provisions of SB 4 will be larger than any future increases that might occur as a result of the Methods and Assumptions provisions.

3. Expenditures from LASERS and TRSL (Agy Self-Generated) will decrease because the Gain Sharing provisions of SB 4 will decrease the frequency and amount of COLAs.

4. Expenditures from Local Funds will increase because contribution requirements for K-12 employers participating in TRSL will increase about $40.3 million for FYE 2014. Local Fund expenditures in years beyond FYE 2014 may increase or decrease as a result of the Methods and Assumptions provisions of SB 4. It is likely, however, that decreases resulting from the Gain Sharing provisions of SB 4 will be larger than any future increases that might occur as a result of the Methods and Assumptions provisions.

Revenues:

1. Revenues to LASERS (Agy Self-Generated) will decrease about $17 million for FYE 2014 because contribution requirements for employers participating in LASERS and will decrease. This will be offset by a $6.7 million increase for FYE 2014 in employer contribution requirements for higher education employers participating in TRSL. Thereafter revenues to TRSL are likely to decrease because the gain sharing provisions of SB 4 will reduce future employer contribution requirements.

2. Revenues to TRSL (Agy Self-Generated) will increase about $40.3 million for FYE 2014 because the employer contribution rate will increase. In FYE 2015 and later years, TRSL revenues are likely to decrease because the gain sharing provisions of SB 4 will reduce future employer contribution requirements.

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 to render the actuarial opinion contained herein.

Dual Referral:

Senate	House
[x] 13.5.1 ≥ $100,000 Annual Fiscal Cost	[ ] 6.8(F) ≥ $500,000 Annual Fiscal Cost
[ ] 13.5.2 ≥ $500,000 Annual Tax or Fee Change	[ ] 6.8(G) ≥ $500,000 Annual Tax or Fee Change