2015 REGULAR SESSION
ACTUARIAL NOTE SB 285

Senate Bill 285 SLS 15RS-2111
Original

Author: Senator Robert R Adley
Date: May 21, 2015

LLA Note SB 285.01

Organizations Affected:
Teachers' Retirement System of Louisiana

OR +$415,000,000 FC GF EX

This Note has been prepared by the Actuarial Services Department of the Office of the Legislative Auditor. The attachment of this Note to SB 285 provides compliance with the requirements of R.S. 24:521.

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<u>Bill Header:</u> TEACHERS RETIREMENT. Provides for determination of unfunded accrued liability payments. (gov sig)

<u>Cost Summary:</u>

The estimated actuarial and fiscal impact of the proposed legislative 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 to Retirement Systems	$0
Total Five Year Fiscal Cost	
Expenditures	$415,000,000
Revenues	$0

<u>Estimated Actuarial Impact:</u>

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	$0
Other Post Retirement Benefits	$0
Total	$0

<u>Estimated Fiscal Impact:</u>

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

EXPENDITURES	**2015-16**	**2016-17**	**2017-18**	**2018-2019**	**2019-2020**	**5 Year Total**
State General Fund	$ 83,000,000	$ 83,000,000	$ 83,000,000	$ 83,000,000	$ 83,000,000	415,000,000
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	0	0	0	0	0
Annual Total	$ 83,000,000	$ 83,000,000	$ 83,000,000	$ 83,000,000	$ 83,000,000	$ 415,000,000

REVENUES	**2015-16**	**2016-17**	**2017-18**	**2018-2019**	**2019-2020**	**5 Year Total**
State General Fund	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
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	0	0	0	0	0
Annual Total	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0

Bill Information:

Current Law

Current law provides that a separate employer contribution rate will be determined for each of the following sub plans of TRSL:

1. K-12 Teachers
2. Lunch Plan A
3. Lunch Plan B
4. Higher Education

The employer contribution rate for each sub plan is equal to:

1. The normal cost particularized to that sub plan.
2. A shared amortization cost based on amortization charges and credits that are not specifically associated with a particular sub plan.
3. A particularized amortization cost based on charges and credits that are specific to a particular sub plan.

Proposed Law

Under SB 285, there will be only two sub plans.

1. Specialty Plan 1 for employees and former employees of Higher Education.
2. Specialty Plan 2 for employees and former employees of K-12 including Lunch Plan A and Lunch Plan B.

The employer contribution for each Specialty Plan will be equal to:

1. The normal cost particularized to that Specialty Plan.
2. A particularized amortization cost based on the provisions of SB 285, or
3. A shared amortization cost that will be the same as under current law.

As a result of SB 285, the employer contribution rate for K-12 employers will be larger than it would have been otherwise, at least for the foreseeable future. However, at some point in time in the future, the opposite could be true. If the legislature makes a direct appropriation by law to TRSL that is sufficient to offset the increase in the total contribution that is a direct result of the application of SB 285, then the amortization cost for each sub plan will be an amortization cost that has been particularized to each sub plan. If the legislature fails to make the appropriation, then the amortization cost for both sub plans will be the shared amortization cost as determined under current law.

Particularized Amortization Cost

The following provisions will be applicable if SB 285 is enacted and if the legislature makes a sufficient appropriation directly to TRSL.

The June 30, 2014 valuation will be revised to reflect the changes made by SB 285. The total TRSL actuarial liability, assets, and unfunded accrued liability as of June 30, 2014, will be allocated to each Specialty Plan in the following manner.

1. The accrued liability for Specialty Plans 1 and 2 will be calculated separately for Higher Education and K-12 (including Lunch Plan A and Lunch Plan B).
2. An accrued liability percentage will be calculated for each Specialty Plan in accordance with the following formulas.

$$\begin{array}{l}\text{Accrued Liability Percentage}\\\text{for Specialty Plan 1}\end{array} = \frac{\begin{array}{c}\text{The Accrued Liability}\\\text{Attributable to Specialty Plan 1}\end{array}}{\begin{array}{c}\text{The Total TRSL}\\\text{Accrued Liability}\end{array}}$$

$$\begin{array}{l}\text{Accrued Liability Percentage}\\\text{for Specialty Plan 2}\end{array} = 100\% - \begin{array}{l}\text{Accrued Liability Percentage}\\\text{for Specialty Plan 1}\end{array}$$

3. The actuarial value of assets on June 30, 2014, after subtracting amounts assigned to the Experience Account and to the Employer Credit Account, will be allocated to Specialty Plans 1 and 2 in accordance with the following formulas.

$$\begin{array}{l}\text{Assets Allocated}\\\text{to Specialty Plan 1}\end{array} = \begin{array}{c}\text{Total Actuarial Value of TRSL}\\\text{Assets on June 30, 2014}\end{array} \times \begin{array}{l}\text{Accrued Liability Percentage}\\\text{for Specialty Plan 1}\end{array}$$

$$\begin{array}{l}\text{Assets Allocated}\\\text{to Specialty Plan 2}\end{array} = \begin{array}{c}\text{Total Actuarial Value of TRSL}\\\text{Assets on June 30, 2014}\end{array} \times \begin{array}{l}\text{Accrued Liability Percentage}\\\text{for Specialty Plan 2}\end{array}$$

4. The unfunded accrued liability for Specialty Plans 1 and 2 will be calculated in accordance with the following formulas.

UAL for Specialty Plan 1	=	The Accrued Liability Attributable to Specialty Plan 1	−	Assets Allocated to Specialty Plan 1
UAL for Specialty Plan 2	=	The Accrued Liability Attributable to Specialty Plan 2	−	Assets Allocated to Specialty Plan 2

The total TRSL amortization table on June 30, 2014, containing outstanding charge and credit balances, and annual payment and credit amounts will be allocated into two separate schedules, one for Specialty Plan 1 and one for Specialty Plan 2. The outstanding balances of charges or credits will be allocated to Specialty Plan 1 and 2 in accordance with the respective Accrued Liability Percentages. Annual payment or credit amounts will also be allocated to Specialty Plan 1 and 2 in accordance with the respective Accrued Liability Percentages.

The employer contribution rate for each specialty plan will be calculated in the following manner:

1. Specialty Plan 1 − The employer contribution rate for Specialty Plan 1 will be equal to the sum of the following:

    a. The particularized normal cost rate for Specialty Plan 1 which is equal to the particularized normal cost divided by the payroll of Specialty Plan 1 employees participating in the TRSL DB plan.

    b. The particularized UAL amortization rate for Specialty Plan 1 which is equal to the particularized amortization payment or credit amount divided by the payroll of all system-covered positions of Specialty Plan 1 (this includes employees of Higher Education participating in ORP). This applies if the legislature makes an appropriation to TRSL that is sufficient in accordance with SB 285.

    c. The shared UAL amortization rate under current law for Specialty Plan 1. This applies if the legislature does not make an appropriation that is sufficient in accordance with SB 285.

2. Specialty Plan 2 – The employer contribution rate for Specialty Plan 2 will be equal to the sum of the following:

    a. The particularized normal cost rate for Specialty Plan 2 which is equal to the particularized normal cost divided by the payroll of Specialty Plan 2 employees participating in the TRSL DB plan.

    b. The particularized UAL amortization rate for Specialty Plan 2 which is equal to the particularized amortization payment or credit amount divided by the payroll of all system-covered positions of Specialty Plan 2 (this includes employees of K-12 participating in ORP). This applies if the legislature makes an appropriation to TRSL that is sufficient in accordance with SB 285.

    c. The shared UAL amortization rate under current law for Specialty Plan 2. This applies if the legislature does not make an appropriation that is sufficient in accordance with SB 285.

New amortization credits or charges will be created for each future valuation. If a credit or charge base is specifically identified as belonging to Specialty Plan 1 or Specialty Plan 2, then the entire base and amortization schedule so created will be included in the appropriate amortization table. If the credit or charge base cannot be specifically identified as being exclusive to Specialty Plan 1 or Specialty Plan 2, such charge or credit will be allocated in accordance with the Accrued Liability Percentage determined on June 30, 2014.

For the June 30, 2014 revised valuation, amortization charges associated with contribution variances will be included in the allocation of charge bases and payments to the Specialty Plans. For the June 30, 2015 and later valuations, under and over employer contribution payments will be based on actual collections relative to employer contribution requirements for each Specialty Plan.

Actuarial valuations will be processed in this manner until new assumptions resulting from a quinquennial experience study are adopted for use by the TRSL board of trustees. Assets, accrued liabilities, and UALs (including those associated with particularized UALs created since the last allocation) will be re-allocated using the same process as identified for the revised June 30, 2014 valuation. However, contribution variance will not be included in the re-allocation.

This process will be repeated for each valuation following the completion of a quinquennial experience study.

PRSAC will meet as soon as practicable after the effective date of the enactment of SB 285 to adopt a new June 30, 2014 actuarial valuation prepared in accordance with the provisions contained in SB 285.

Implications of the Proposed Changes

SB 285 provides for particularized employer contribution rates for Higher Education and K-12. The bill establishes procedures for calculating particularized rates based on the June 30, 2014 and later valuations.

<u>Cost Analysis:</u>

Analysis of Actuarial Costs

Retirement Systems

The allocation of accrued liabilities, assets, and unfunded accrued liabilities on June 30, 2014 to Specialty Plan 1 and Specialty Plan 2 is shown below.

Table 1
Actuarial Measurements

Actuarial Measurement	Specialty Plan 1	Specialty Plan 2	Total
Accrued Liability	$ 4,544,560,471	$ 23,574,976,092	$ 28,119,536,563
Accrued Liability Percentage	16.16%	83.84%	100.00%
Assets	2,609,411,457	13,536,361,350	16,145,772,807
Unfunded Accrued Liability	1,935,149,014	10,038,614,743	11,973,763,757

Table 2
Payroll for FYE 2016

Current Law		SB 285	
Sub Plan	**Payroll**	**Sub Plan**	**Payroll**
Higher Education		Specialty Plan 1	
DB Plan Members	$ 564,703,589	DB Plan Members	$ 564,703,589
ORP Members	543,923,957	ORP Members	543,923,957
Total Higher Education	$ 1,108,627,546	Total Specialty Plan 1	$ 1,108,627,546
K-12		Specialty Plan 2	
K-12 DB Plan Members	$ 3,372,231,255	K-12 DB Plan Members	$ 3,397,696,200
Lunch Plan A Members	352,327		
Lunch Plan B Members	25,112,618		
Total K-12 DB Plan Members	$ 3,397,696,200		
K-12 ORP Members	20,004,781	K-12 ORP Members	20,004,781
Total K-12	$ 3,417,700,981	Total Specialty Plan 2	$ 3,417,700,981
Total Payroll	$ 4,526,328,527	Total Payroll	$ 4,526,328,527

Table 3
Employer Contribution Rates for FYE 2016

Current Law		SB 285	
Sub Plan	**Employer Rate**	**Sub Plan**	**Employer Rate**
Higher Education		Specialty Plan 1	
DB Plan Members	25.3%	DB Plan Members	17.8%
ORP Members	22.0%	ORP Members	14.5%
K-12		Specialty Plan 2	
K-12 DB Plan Members	26.3%	K-12 DB Plan Members	28.8%
Lunch Plan A Members	31.3%		
Lunch Plan B Members	28.8%		
K-12 ORP Members	22.0%	K-12 ORP Members	24.4%
Combined Rate	26.2%	Combined Rate	26.2%

Table 4
Employer Contribution Requirements for FYE 2016

Current Law		SB 285	
Sub Plan	**Employer Contributions**	**Sub Plan**	**Employer Contributions**
Higher Education		Specialty Plan 1	
DB Plan Members	142,913,818	DB Plan Members	100,683,659
ORP Members	119,582,541	ORP Members	78,906,343
Total Higher Education	262,496,359	Total Specialty Plan 1	179,590,003
K-12		Specialty Plan 2	
K-12 DB Plan Members	886,298,252		
Lunch Plan A Members	110,114	K-12 DB Plan Members	978,120,506
Lunch Plan B Members	7,240,886		
K-12 ORP Members	4,398,083	K-12 ORP Members	4,883,357
Total K-12	900,047,335	Total Specialty Plan 2	983,003,863
Total Contribution*	1,162,619,515	Total Contribution*	1,162,593,866

*Projected employer contributions for FYE 2016 as reported in the June 30, 2014 valuation is $1,162,543,694. Total contributions shown above differ from the June 30, 2014 valuation amount due to rounding.

SB 285 does not change the employer contribution requirement in the aggregate. It changes the allocation of required contributions between Higher Education and K-12. With the enactment of SB 285, $83 million of employer contributions will be shifted from Higher Education to K-12 for FYE 2016. However, the contribution shift will not occur unless the legislature appropriates by law in the 2015 session an amount sufficient to offset the contribution increase for K-12.

Other Post-Employment Benefits

There are no actuarial costs associated with SB 285 relative to post-employment benefits other than pensions.

Analysis of Fiscal Costs

SB 285 will have the following effect on fiscal costs during the five year measurement period. These conclusions are based on the following assumptions: (1) the 2015 legislature will appropriate $83 million directly to TRSL for FYE 2016 to offset the contribution increase that would otherwise apply to K-12 employers (2) the 2015 legislature will not reduce its appropriation to Higher Education to reflect the $83 million of savings that Higher Education will realize from the enactment of SB 285.

Expenditures:

1. Expenditures from the General Fund to TRSL will increase $83 million a year beginning FYE 2016. The General Fund will pay TRSL $83 million directly to offset any contribution increase that otherwise would be required from Local Funds.

2. Expenditures from Local Funds will not change. The increase in employer contribution requirements for K-12 attributable to SB 285 will be paid by a direct appropriation from the General Fund to TRSL.

Revenues:

- SB 285 has no effect on revenues.

<u>Actuarial Data, Methods and Assumptions</u>

This actuarial note was prepared using actuarial data, methods, and assumptions as disclosed in the most recent actuarial valuation report adopted by PRSAC.

<u>Actuarial Caveat</u>

There is nothing in SB 285 that will compromise the signing actuary's ability to present an unbiased statement of actuarial opinion.

<u>Actuarial Credentials:</u>

Paul T. Richmond is the actuary 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**
[x] 13.5.1: Annual Fiscal Cost ≥ \$100,000	[ ] 6.8(F)(1): Annual Fiscal Cost ≥ \$100,000
[ ] 13.5.2: Annual Tax or Fee Change ≥ \$500,000	[ ] 6.8(F)(2): Annual Revenue Reduction ≥ \$100,000
	[ ] 6.8(G): Annual Tax or Fee Change ≥ \$500,000