OFFICE OF LEGISLATIVE AUDITOR
2022 REGULAR SESSION
ACTUARIAL NOTE

Senate Bill 6 SLS 22RS-69	**Date: March 9, 2022**
Original	**Organizations Affected: TRSL**
Author: Price	
LLA Note SB 6.01	**OR INCREASE APV**

<u>Bill Header:</u> TEACHERS RETIREMENT: Grants a permanent benefit increase to eligible system retirees and beneficiaries. (2/3 - CA10s29(F)) (6/30/22)

<u>Purpose of Bill:</u> This bill provides a permanent benefit increase, effective July 1, 2022, of 2% on the first $68,396 of the current annual benefit to eligible retirees and surviving beneficiaries of the Teachers' Retirement System of Louisiana (TRSL).

<u>Cost Summary[1]:</u> The estimated net actuarial and fiscal impact of the proposed legislation is summarized below. An increase in actuarial present values (actuarial impact) and an increase in expenditures or revenues (fiscal impact) is denoted by "Increase" or a positive number. A decrease in actuarial present values (actuarial impact) or a decrease in expenditures or revenues (fiscal impact) are denoted by "Decrease" or a negative number.

This bill provides a one-time permanent increase in future benefit payments, with a cost "funded" by the transfer of funds from the EA to the core pension fund and, as such, it will accelerate the patterns of future transfers expected to go into and out of the Experience Account, which results in an increase in expected future benefits and contributions to the plan.

In the following table, "Net Actuarial Present Values" pertain to estimated changes in the ***net actuarial present value of future benefit payments and administrative expenses incurred by a retirement system or associated with an OPEB plan***. A more detailed explanation of the information presented in this table can be found in Section I: <u>Actuarial Impact on Retirement Systems and OPEB</u>.

Change in Net Actuarial Present Values Pertaining to:	
The Retirement Systems	Increase
Other Post-employment Benefits (OPEB)	0
Total	**Increase**

This bill is subject to the Louisiana Constitution which requires unfunded liabilities created by an improvement in retirement benefits to be amortized over a period not to exceed ten years.

"Net Fiscal Costs" pertain to changes to all cash flows over the next five-year period including retirement system cash flows, OPEB cash flows, or cash flows related to local and state government entities.

In the following table, expenditures and revenues only include cash flows to or from the affected retirement system or OPEB plan, (e.g. administrative expenses incurred by, benefit payments from, or contributions to the retirement system) and do not include administrative expenditures and revenues specifically incurred by the state or local government entities associated with implementing the legislation. A more detailed explanation of the information presented in this table can be found in Section II: <u>Fiscal Impact on Retirement Systems and OPEB</u>.

Five Year Net Fiscal Costs Pertaining to:	**<u>Expenditures</u>**	**<u>Revenues</u>**
The Retirement Systems	Increase	Increase
Other Post-employment Benefits (OPEB)	0	0
Local Government Entities	Increase	0
State Government Entities	Increase	0
Total	**Increase**	**Increase**

From time to time, retirement legislation is proposed that affects administrative expenditures and revenues for state and local government entities associated with implementing the proposed legislation (other than contribution changes included in the above table). This information, provided by the LLA Local Government Services or the Legislative Fiscal Office, is summarized in the following table. A more detailed explanation of the information presented in this table can be found in Sections III: <u>Fiscal Impact on Local Government Entities</u> and Section IV: <u>Fiscal Impact on State Government Entities</u>.

Five Year Net Fiscal Costs Pertaining to:	**<u>Expenditures</u>**	**<u>Revenues</u>**
Local Government Entities	$ 0	$ 0
State Government Entities	0	0
Total	**$ 0**	**$ 0**

[1] This is a different assessment from the actuarial cost relating the 2/3 vote (refer to the section near the end of this Actuarial Note **<u>"Information Pertaining to Article (10)(29)(F) of the Louisiana Constitution"</u>**).

This Note has been prepared by the Actuary for the Louisiana Legislative Auditor (LLA) with assistance from either the Fiscal Notes staff of the Legislative Auditor or staff of the Legislative Fiscal Office (LFO). The attachment of this Note provides compliance with the requirements of R.S. 24:521 as amended by Act 353 of the 2016 Regular Session.	**Kenneth J. "Kenny" Herbold, ASA, EA, MAAA** **Director of Actuarial Services** **Louisiana Legislative Auditor**

I. ACTUARIAL IMPACT ON RETIREMENT SYSTEMS AND OPEB

This section of the actuarial note pertains to changes in the net actuarial present value of expected future benefit payments and administrative expenses incurred by the retirement systems or associated with an OPEB plan.

1. Retirement Systems

The net change in actuarial present value of expected future benefits and administrative expenses incurred by the retirement systems from the proposed legislation is estimated to be an increase.

The bill provides for a permanent benefit increase to eligible retirees and beneficiaries in the amount of 2% on the first $68,396 of the current annual benefit, effective July 1, 2022. The payments will be funded via a transfer of funds from TRSL's Experience Account (EA) to System's core pension fund. This amount is estimated to be approximately $369 million, but may change if a more thorough examination of participant data identifies more, or fewer, individuals to be eligible at the effective date.

There are five relevant effects of this bill; it:

- Increases benefit payments to almost all current retirees and beneficiaries by applying a permanent cost-of-living type of benefit increase;
- Empties the EA and returns approximately $369 million to the core pension fund to offset the actuarial cost of the new lifetime increase in benefit payments;
- Causes more transfers out of the core pension fund into the Experience Account in the future by emptying the Experience Account (leaving more room for transfers in) sooner than expected in the absence of the proposed bill;
- Causes new unfunded accrued liabilities to be created with each such new transfer out of the core pension fund; and
- Causes new amortization payments to be added to the future employer contributions to pay off these new unfunded accrued liabilities.

In other words, transfers from the core pension fund (triggered by better-than-expected investment returns and other rules) into the EA, and transfers back to the core pension fund from the Experience Account, ultimately result in increases to future benefits to members and future required contributions from the employers. Therefore, by emptying the EA at this time, the operation of the statutory rules will cause more transfers in the future from the core pension fund into the EA than without this proposed bill.

To measure the near-term and longer-term effects of this proposed bill, we simulated the operation of the EA provisions, modelling the numerous caps, floors, triggers and other "moving parts" necessary to fund the EA and assuming the legislature would grant a cost of living increase whenever the rules permit it to do so, both with and without the passage of this bill, over the next 30 years. We assumed the future rates of return of TRSL's portfolio would follow a consensus average of the expectations from a dozen national professional investment forecasters. We simulated the operation of the gain-sharing provisions over the next 30 years, and did so 1,000 times (making a total of 30,000 simulated rates of return and annual actuarial valuations).

Although this bill is intended to be "funded" by the transfer of funds from the EA to the core pension fund, it is expected to increase the actuarial cost because it accelerates the patterns of future transfers expected to go into and out of the EA, which will result in an increase in expected future employer contributions to the plan.

2. Other Post-employment Benefits (OPEB)

The net change in actuarial present value of expected future benefits and administrative expenses associated with OPEB, including retiree health insurance premiums, from the proposed legislation is estimated to $0.

The liability and expenses for post-retirement medical insurance is not impacted by any provisions of this bill.

II. FISCAL IMPACT ON RETIREMENT SYSTEMS AND OPEB

This section of the actuarial note pertains to fiscal (annual) costs or savings associated with the retirement systems (Table A) and with OPEB (Table B). Fiscal costs or savings only include cash flows to or from the affected retirement system or OPEB plan, (e.g. administrative expenses incurred by, benefit payments from, or contributions to the retirement system) and do not include administrative expenditures and revenues specifically incurred by the state or local government entities associated with implementing the legislation.

A. Estimated Fiscal Impact – Retirement Systems

Table A shows the estimated fiscal impact of the proposed legislation on the retirement systems and the government entities that sponsor them. A fiscal cost is denoted by "Increase" or a positive number. Fiscal savings are denoted by "Decrease" or a negative number. A revenue increase is denoted by "Increase" or a positive number. A revenue decrease is denoted by "Decrease" or a negative number.

Retirement System Fiscal Cost: Table A

EXPENDITURES	2022-23	2023-24	2024-25	2025-26	2026-27	5 Year Total
State General Fund	$ 0	Increase	Increase	Increase	Increase	Increase
Agy Self Generated	Increase	Increase	Increase	Increase	Increase	Increase
Stat Deds/Other	0	0	0	0	0	0
Federal Funds	0	0	0	0	0	0
Local Funds	0	Increase	Increase	Increase	Increase	Increase
Annual Total	Increase	Increase	Increase	Increase	Increase	Increase

REVENUES	2022-23	2023-24	2024-25	2025-26	2026-27	5 Year Total
State General Fund	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
Agy Self Generated	0	Increase	Increase	Increase	Increase	Increase
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	Increase	Increase	Increase	Increase	Increase

The proposed legislation will have the following effects on retirement related fiscal costs and revenues during the five-year measurement period.

1. Expenditures:

   a. Expenditures from TRSL (Agy Self-Generated) will increase for FY 2022-23 and all subsequent years because benefits will be permanently increased for eligible retirees and beneficiaries.

   b. The 2% increase amounts to approximately $38.2 million in FY 2022-23, dropping off to approximately $34.7 million in FY 2026-27.

   c. The statutory rules are detailed and complex for determining when money is transferred from the core pension fund into the Experience Account (EA), and vice versa. The proposed bill transfers funds out of the Experience Account back to the core pension fund in FY 2021-22 and, consequently, alters the expected patterns of future transfers *into* the EA. Each time money is transfer from the core pension fund *into* the EA, a new amortization base is created in the year of transfer, which causes employer contributions to *increase* in future years.

   Increases in employer contributions are reflected in both the State General Fund and Local Funds line above. The actual sources of funding (e.g., Federal Funds, State General Fund) may vary by employer and are not differentiated in the table.

   As described in the actuarial analysis section above, we performed actuarial simulations of the future operation of the retirement system and the EA provisions with and without this proposed bill. Exactly which year will trigger a transfer *into* the Experience Account from the core pension fund is not known with any certainty, therefore Table A reflects the average expected effect on employer contributions. For the purpose of this Table A, the first potentially increased transfer is expected in FY 2021-22 causing the first increase in employer contributions to be in FY 2023-24, and expected to increase somewhat each year thereafter.

   Over the five-year period, and the longer-term, the proposed bill by itself is expected to increase the total employer contributions, but the employer contribution rates are not expected to increase substantially.

2. Revenues:

   Changes in retirement contributions identified as expenditures have corresponding changes in Agy Self Generated revenues.

B. Estimated Fiscal Impact – OPEB

Table B shows the estimated fiscal impact of the proposed legislation on actuarial benefit and administrative costs or savings associated with OPEB and the government entities that sponsor these benefit programs. A fiscal cost is denoted by "Increase" or a positive number. Fiscal savings are denoted by "Decrease" or a negative number. A revenue increase is denoted by "Increase" or a positive number. A revenue decrease is denoted by "Decrease" or a negative number.

OPEB Fiscal Cost: Table B

EXPENDITURES	2022-23	2023-24	2024-25	2025-26	2026-27	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

REVENUES	2022-23	2023-24	2024-25	2025-26	2026-27	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

The proposed legislation will have the following effects on OPEB related fiscal costs and revenues during the five-year measurement period.

1. Expenditures:

   No measurable effects.

2. Revenues:

   No measurable effects.

III. FISCAL IMPACT ON LOCAL GOVERNMENT ENTITIES
(Prepared by LLA Local Government Services)

This section of the actuarial note pertains to annual fiscal costs (savings) relating to administrative expenditures and revenue impacts incurred by local government entities other than those included in Tables A and B. See Table C.

Estimated Fiscal Impact - Local Government Entities (other than the impact included in Tables A and B)

From time to time, legislation is proposed that has an indirect effect on administrative expenditures and revenues associated with local government entities (other than the impact included in Tables A and B). Table C shows the estimated fiscal administrative cost impact of the proposed legislation on such local government entities. A fiscal cost is denoted by "Increase" or a positive number. Fiscal savings are denoted by "Decrease" or a negative number. A revenue increase is denoted by "Increase" or a positive number. A revenue decrease is denoted by "Decrease" or a negative number.

Fiscal Costs for Local Government Entities: Table C

EXPENDITURES	2022-23	2023-24	2024-25	2025-26	2026-27	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

REVENUES	2022-23	2023-24	2024-25	2025-26	2026-27	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

The proposed legislation will have the following effects on fiscal administrative costs and revenues related to local government entities during the five-year measurement period.

1. Expenditures: No measurable effects.

2. Revenues: No measurable effects.

IV. FISCAL IMPACT ON STATE GOVERNMENT ENTITIES
(Prepared by Legislative Fiscal Office)

This section of the actuarial note pertains to annual fiscal cost (savings) relating to administrative expenditures and revenue impacts incurred by state government entities other than those included in Tables A and B. See Table D.

Estimated Fiscal Impact − State Government Entities (other than the impact included in Tables A and B)

From time to time, legislation is proposed that has an indirect effect on administrative expenditures and revenues associated with state government entities (other than the impact included in Tables A and B). Table D shows the estimated fiscal administrative cost impact of the proposed legislation on such state government entities. A fiscal cost is denoted by "Increase" or a positive number. Fiscal savings are denoted by "Decrease" or a negative number. A revenue increase is denoted by "Increase" or a positive number. A revenue decrease is denoted by "Decrease" or a negative number.

Fiscal Costs for State Government Entities: Table D

EXPENDITURES	2022-23	2023-24	2024-25	2025-26	2026-27	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

REVENUES	2022-23	2023-24	2024-25	2025-26	2026-27	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

The proposed legislation will have the following effects on fiscal costs and revenues related to state government entities during the five-year measurement period.

1. Expenditures:

   Other than the impact on employer contribution rates which is already reflected in Table A above, there is no anticipated direct material effect on governmental expenditures as a result of this measure.

2. Revenues:

   There is no anticipated direct material effect on governmental revenues as a result of this measure.

V. ACTUARIAL DISCLOSURES

Intended Use

This actuarial note is based on our understanding of the bill as of the date shown above. It is intended to be used by the Legislature during the current legislative session only and assumes no other legislative changes affecting the funding or benefits of the affected systems, other than those identified, will be adopted. Other readers of this actuarial note are advised to seek professional guidance as to its content and interpretation, and not to rely upon this communication without such guidance. The actuarial note, and any referenced documents, should be read as a whole. Distribution of, or reliance on, only parts of this actuarial note could result in its misuse and may mislead others. The summary of the impact of the bill included in this actuarial note is for the purposes of an actuarial analysis only, as required by La. R.S. 24:521, and is not a legal interpretation of the provisions of the bill.

Actuarial Data, Methods and Assumptions

Unless indicated otherwise, this actuarial note was prepared using actuarial data, methods, and assumptions as disclosed in the most recent actuarial valuation report adopted by the Public Retirement Systems' Actuarial Committee (PRSAC). The assumptions and methods are reasonable for the purpose of this analysis.

For certain calculations that may be presented herein, we have utilized commercially available valuation software and/or are relying on proprietary valuation models and related software developed by our actuarial contractor. We made a reasonable attempt to understand the intended purpose of, general operation of, major sensitivities and dependencies within, and key strengths and limitations of these models. In our professional judgment, the models have the capability to provide results that are consistent with the purposes of the analysis and have no material limitations or known weaknesses. Tests were performed to ensure that the model reasonably represents that which is intended to be modeled.

To the extent that this actuarial note relies on calculations performed by the retirement systems' actuaries, to the best of our knowledge, no material biases exist with respect to the data, methods or assumptions used to develop the analysis other than those specifically identified. We did not audit the information provided, but have reviewed the information for reasonableness and consistency with other information provided by or for the affected retirement systems.

Conflict of Interest

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

Risks Associated with Measuring Costs

This actuarial note is an actuarial communication, and is required to include certain disclosures in compliance with Actuarial Standards of Practice (ASOP) No. 51.

A full actuarial determination of the retirement system's costs, actuarially determined contributions and accrued liability require the use of assumptions regarding future economic and demographic events. The assumptions used to determine the retirement system's contribution requirement and accrued liability are summarized in the system's most recent Actuarial Valuation Report accepted by the respective retirement board and by the Public Retirement Systems' Actuarial Committee (PRSAC).

The actual emerging future experience, such as a retirement fund's future investment returns, may differ from the assumptions. To the extent that emerging future experience differs from the assumptions, the resulting shortfalls (or gains) must be recognized in future years by future taxpayers. Future actuarial measurements may also differ significantly from the current measurements due to other factors: changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period; or additional cost or contribution requirements based on the system's funded status); and changes in plan provisions or applicable law.

Examples of risk that may reasonably be anticipated to significantly affect the plan's future financial condition include:

1. Investment risk – actual investment returns may differ from the expected returns (assumptions);
2. Contribution risk – actual contributions may differ from expected future contributions. For example, actual contributions may not be made in accordance with the plan's funding policy or material changes may occur in the anticipated number of covered employees, covered payroll, or other relevant contribution base;
3. Salary and Payroll risk – actual salaries and total payroll may differ from expected, resulting in actual future accrued liability and contributions differing from expected;
4. Longevity and life expectancy risk – members may live longer or shorter than expected and receive pensions for a period of time other than assumed;
5. Other demographic risks – members may terminate, retire or become disabled at times or with benefits at rates that differ from what was assumed, resulting in actual future accrued liability and contributions differing from expected.

The scope of an actuarial note prepared for the Louisiana Legislature does not include an analysis of the potential range of such future measurements or a quantitative measurement of the future risks of not achieving the assumptions. In certain circumstances, detailed or quantitative assessments of one or more of these risks as well as various plan maturity measures and historical actuarial measurements may be requested from the actuary. Additional risk assessments are generally outside the scope of an actuarial note. Additional assessments may include stress tests, scenario tests, sensitivity tests, stochastic modeling, and a comparison of the present value of accrued benefits at low-risk discount rates with the actuarial accrued liability.

However, the general cost-effects of emerging experience deviating from assumptions can be known. For example, the investment return since the most recent actuarial valuation may be less (or more) than the assumed rate, or a cost-of-living adjustment may be more (or less) than the assumed rate, or life expectancy may be improving (or worsening) compared to what is assumed. In each of these situations, the cost of the plan can be expected to increase (or decrease).

The use of reasonable assumptions and the timely receipt of the actuarially determined contributions are critical to support the financial health of the plan. However, employer contributions made at the actuarially determined rate do not necessarily guarantee benefit security.

Certification

Kenneth J. Herbold is an Associate of the Society of Actuaries (ASA), a Member of the American Academy of Actuaries (MAAA), and an Enrolled Actuary (EA) under the Employees Retirement Income Security Act of 1974. Mr. Herbold meets the US Qualification Standards necessary to render the actuarial opinion contained herein.

VI. LEGISLATIVE PROCEDURAL ITEMS

Information Pertaining to Article (10)(29)(F) of the Louisiana Constitution

[X] SB 6 contains a retirement system benefit provision having an actuarial cost.

Some members of the Teachers' Retirement System of Louisiana could receive a larger benefit with the enactment of SB 6 than what they would receive without SB 6.

Dual Referral Relative to Total Fiscal Costs or Total Cash Flows:

The information presented below is based on information contained in Tables A, B, C, and D for the first three years following the 2022 regular session.

Senate			House		
[X]	13.5.1	Applies to Senate or House Instruments. If an annual fiscal cost ≥ $100,000, then bill is dual referred to: **Dual Referral: Senate Finance**	[X]	6.8F	Applies to Senate or House Instruments. If an annual General Fund fiscal cost ≥ $100,000, then the bill is dual referred to: **Dual Referral to Appropriations**
[ ]	13.5.2	Applies to Senate or House Instruments. If an annual tax or fee change ≥ $500,000, then the bill is dual referred to: **Dual Referral: Revenue and Fiscal Affairs**	[ ]	6.8G	Applies to Senate Instruments only. If a net fee decrease occurs or if an increase in annual fees and taxes ≥ $500,000, then the bill is dual referred to: **Dual Referral: Ways and Means**