


**2020 REGULAR SESSION  
ACTUARIAL NOTE HB 10**

<p><b>House Bill 10 HLS 20RS-42 Original</b></p> <p><b>Author: Representative Edmonds Date: February 27, 2020 LLA Note HB 10.01</b></p> <p><b>Organizations Affected: Teachers' Retirement System of Louisiana</b></p> <p><b>OR INCREASE APV</b></p>	<p>This Note has been prepared by the Actuarial Services Department of 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.</p> <div style="text-align: center;">   <b>Lowell P. Good, ASA, EA, MAAA</b>  <b>Actuarial Services Manager</b> </div>
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**Bill Header:** RETIREMENT/TEACHERS: Provides relative to the calculation of average compensation of members of the Teachers' Retirement System of Louisiana.

**Cost Summary:**

The estimated net actuarial and fiscal impact of this proposed legislation on the retirement systems and their plan sponsors is summarized below. Net actuarial costs pertain to estimated changes in the *net actuarial present value of future benefit payments and administrative expenses incurred by the retirement system*. Net fiscal costs or savings 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.

An increase in actuarial costs is denoted throughout the actuarial note by "Increase" or a positive number. Actuarial savings are denoted by "Decrease" or a negative number. An increase in expenditures or revenues (fiscal impact) is denoted by "Increase" or a positive number. A decrease in expenditures or revenues is denoted by "Decrease" or a negative number.

**Estimated Actuarial Impact:**

The top part of the following chart shows the estimated change in the *net actuarial present value of future benefit payments and expenses*, if any, attributable to the proposed legislation. The bottom part shows the effect on cash flows (i.e., contributions, benefit payments, and administrative expenses).

<b>Net Actuarial Costs (Liabilities) Pertaining to:</b>		<b><u>Net Actuarial Cost</u></b>
The Retirement Systems		Increase
Other Post-employment Benefits (OPEB)		0
Total		Increase
<b>Five Year Net Fiscal Cost Pertaining to:</b>	<b><u>Expenditures</u></b>	<b><u>Revenues</u></b>
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

This bill complies with 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.

**Bill Information**

**Current Law**

Current law provides that the average compensation of a member of the Teachers' Retirement System of Louisiana (TRSL) is calculated over a three-year period for any teacher whose first employment making him eligible for membership in one of the state retirement systems occurred on or before December 31, 2010, and over a five-year period for a teacher whose first employment occurs after December 31, 2010.

Current law provides that certain compensation is excluded from average compensation if annual compensation increases exceed specified limits. The amount for the first twelve months of the average compensation is not to exceed the compensation for the immediately preceding twelve months by more than ten percent when a three-year averaging period is used, or by more than fifteen percent when a five-year averaging period is used.

**Proposed Law**

HB 10 provides that the limits on compensation in the first year of the average compensation calculation period do not apply if the twelve previous months of employment include an interruption in service of more than ten years.

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**Implications of the Proposed Changes**

HB 10 will remove the limits on compensation in the first year of the average compensation calculation period when the twelve previous months of employment include an interruption in service of more than ten years.

**I. ACTUARIAL IMPACT ON RETIREMENT SYSTEMS AND OPEB [Completed by LLA]**

**A. Analysis of Net Actuarial Costs  
(Prepared by LLA)**

This section of the actuarial note pertains to net actuarial costs or savings associated with the retirement systems and with OPEB.

**1. Retirement Systems**

The net actuarial cost or savings of the proposed legislation associated with the retirement systems is estimated to be a small increase in cost. The actuary's analysis is summarized below.

Retirement benefits are based on the average of the highest 3 successive years (5 years if the date of first employment is after 2010). If a member hired before 2011 were to have an interruption of service of more than 10 years, and then returned to covered employment for exactly 3 years, that member's average compensation might be significantly limited (by the ten percent rule) when compared to earnings in the previous year of covered employment which occurred over 10 years earlier (example A). Alternatively, such a person could postpone retirement and work an additional year so that earnings from over 10 years ago would not be used to limit average compensation (example B).

For example A, there would be an increase in the actuarial costs associated with HB 10 since some teachers who had an interruption in service of more than 10 years will not have their first year of the average compensation calculation limited. These teachers will therefore receive a larger benefit than what they would receive if HB 10 were not enacted.

The member in example B would not have to work the additional year to escape the limitation. The benefit would be based on one less year of service, leading to a smaller benefit amount; but would be payable one year sooner, increasing the number of benefit payments made.

In addition to the increase in benefits TRSL has identified modest administrative costs (less than \$10,000) for implementing the provisions of this bill, including computer programming changes and communications to affected members.

Overall, few teachers would be affected by the change, so any increase in cost to the system is expected to be very small.

**2. Other Post-employment Benefits (OPEB)**

The net actuarial cost or savings of the proposed legislation associated with OPEB, including retiree health insurance premiums, is estimated to be \$0. The actuary's analysis is summarized below.

The liability for post-retirement medical insurance subsidies provided to retirees is not affected by an increase in the average compensation for some teachers.

**B. Actuarial Data, Methods and Assumptions  
(Prepared by LLA)**

Unless indicated otherwise, the actuarial note for the proposed legislation 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 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. With certain exceptions, the actuary for the LLA finds the assumptions used by the retirement systems and PRSAC to be reasonable.

**C. Actuarial Caveat  
(Prepared by LLA)**

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

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**II. FISCAL IMPACT ON RETIREMENT SYSTEMS AND OPEB [Completed by LLA]**

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 in Table A include benefit-related actuarial costs and administrative costs incurred by the retirement systems.

**A. Estimated Fiscal Impact – Retirement Systems  
(Prepared by LLA)**

1. Narrative

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**

<b>EXPENDITURES</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>	<b>2024-25</b>	<b>5 Year Total</b>
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
<b>Annual Total</b>	<b>Increase</b>	<b>Increase</b>	<b>Increase</b>	<b>Increase</b>	<b>Increase</b>	<b>Increase</b>

<b>REVENUES</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>	<b>2024-25</b>	<b>5 Year Total</b>
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
<b>Annual Total</b>	<b>\$ 0</b>	<b>Increase</b>	<b>Increase</b>	<b>Increase</b>	<b>Increase</b>	<b>Increase</b>

The actual sources of funding for employer contributions (e.g., Federal Funds, State General Fund) may vary by employer and are not differentiated on the table.

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

2. Expenditures:

- a. Expenditures by TRSL (Agy Self Generated) will likely increase since greater benefits will be paid for some teachers and modest administrative costs will be generated for implementing the changes.
- b. Expenditures from the State General Fund and Local Funds will likely increase since more benefits will accrue and higher employer contributions will be required.

3. Revenues:

TRSL revenues (Agy Self-Generated) will likely increase since higher employer contributions will be received by TRSL.

**B. Estimated Fiscal Impact – OPEB  
(Prepared by LLA)**

1. Narrative

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.

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**OPEB Fiscal Cost: Table B**

<b>EXPENDITURES</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>	<b>2024-25</b>	<b>5 Year Total</b>
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

<b>REVENUES</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>	<b>2024-25</b>	<b>5 Year Total</b>
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

All expenditures for employer contributions are reflected on a single line in the table above. The actual sources of funding (e.g., Federal Funds, State General Fund) may vary by employer and are not differentiated on the table.

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

2. Expenditures:  
No measurable effects.
3. Revenues:  
No measurable effects.

**III. FISCAL IMPACT ON LOCAL GOVERNMENT ENTITIES [Completed by LLA]**

This section of the actuarial note pertains to annual fiscal costs, cost savings, 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)**  
**(Prepared by Bradley Cryer, Director of Local Government Services)**

1. Narrative

From time to time, legislation is proposed that has an indirect effect on expenditures and revenues associated with local government entities (other than the impact included in Tables A and B). Table C shows the estimated fiscal 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**

<b>EXPENDITURES</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>	<b>2024-25</b>	<b>5 Year Total</b>
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

<b>REVENUES</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>	<b>2024-25</b>	<b>5 Year Total</b>
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

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

2. Expenditures:  
No measurable effects.
3. Revenues:  
No measurable effects.

**IV. FISCAL IMPACT ON STATE GOVERNMENT ENTITIES [Completed by LFO]**

This section of the actuarial note pertains to annual fiscal costs, cost savings, 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)**  
**(Prepared by John Carpenter, Legislative Fiscal Officer)**

1. Narrative

Legislation may be proposed that has an indirect effect on expenditures and revenues associated with state government entities (other than the impact included in Tables A and B). Table D shows the estimated fiscal 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**

<b>EXPENDITURES</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>	<b>2024-25</b>	<b>5 Year Total</b>
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

<b>REVENUES</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>	<b>2024-25</b>	<b>5 Year Total</b>
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.

2. 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.
3. Revenues:  
There is no anticipated direct material effect on governmental revenues as a result of this measure.

**Credentials of the Signatory Staff:**

Lowell P. Good is the Actuary for the Louisiana Legislative Auditor. He is an Enrolled Actuary, a member of the American Academy of Actuaries, an Associate 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.

James J. Rizzo is a Senior Consultant and Actuary with Gabriel, Roeder, Smith & Company, which currently serves as staff for the Actuarial Services Department of the Louisiana Legislative Auditor. He is an Enrolled Actuary, a member of the American Academy of Actuaries, an Associate 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.

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**Actuarial Disclosure: 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 other than 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.

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

HB 10 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 HB 10 than what they would have received without HB 10.

**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 2020 regular session.

<u>Senate</u>	<u>House</u>
<input type="checkbox"/> 13.5.1 Applies to Senate or House Instruments. If an annual fiscal cost $\geq$ \$100,000, then bill is dual referred to: <b>Dual Referral: Senate Finance</b>	<input type="checkbox"/> 6.8F Applies to Senate or House Instruments. If an annual General Fund fiscal cost $\geq$ \$100,000, then the bill is dual referred to: <b>Dual Referral to Appropriations</b>
<input type="checkbox"/> 13.5.2 Applies to Senate or House Instruments. If an annual tax or fee change $\geq$ \$500,000, then the bill is dual referred to: <b>Dual Referral: Revenue and Fiscal Affairs</b>	<input type="checkbox"/> 6.8G Applies to Senate Instruments only. If a net fee decrease occurs or if an increase in annual fees and taxes $\geq$ \$500,000, then the bill is dual referred to: <b>Dual Referral: Ways and Means</b>