


**2018 REGULAR SESSION  
REVISED ACTUARIAL NOTE SB 10**

<p><b>Senate Bill 10 SLS 18RS-41 Original</b></p> <p><b>Author: Senator Peacock Date: March 23, 2018 LLA Note SB 10.01</b></p> <p><b>Organizations Affected: Louisiana State Employees' Retirement System</b></p> <p><b>OR INCREASE APV</b></p>	<p>This Note has been prepared by the Actuarial Services Department of the Legislative Auditor with assistance from either the Fiscal Notes staff of the Legislative Auditor or staff of the Legislative Fiscal Office. 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>Paul T. Richmond, ASA, MAAA, EA</b>              Manager Actuarial Services         </div>
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**Bill Header:** STATE EMPLOYEE RET. Provides for firefighters at state agencies to be members of the hazardous duty plan. (6/30/18).

**Cost Summary:**

The estimated actuarial and fiscal impact of SB 10 on the retirement systems and their plan sponsors is summarized below. Actuarial costs pertain to estimated changes in the *actuarial present value of future benefit payments*. 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 other 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 *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.

<b>Actuarial Costs Pertaining to:</b>		<b>Actuarial Cost</b>
The Retirement Systems		Increase
Other Post Employment Benefits (OPEB)		Increase
Other Government Entities		0
Total		Increase
<b>Five Year Fiscal Cost Pertaining to:</b>	<b>Expenses</b>	<b>Revenues</b>
The Retirement Systems	Increase	Increase
Other Post Employment Benefits	Increase	0
Other Government Entities	0	0
Total	Increase	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.

**Bill Information**

**Current Law**

The Louisiana State Employees' Retirement System (LASERS) includes a sub plan for members who are employed in hazardous duty positions. The benefit multiplier for the Hazardous Duty sub plan is 3 1/3% per year of service.

LASERS also includes a sub plan for Rank and File employees of the state. The benefit multiplier for the Rank and File sub plan is 2.5% per year of service.

The employees of the Department of Agriculture and Forestry are covered by LASERS' Rank and File sub plan.

**Proposed Law**

SB 10 pertains to employees of the Department of Agriculture and Forestry who respond to wildfires and who qualify as Firefighter Type 2 or higher according to the National Wildfire Coordinating Group. Employees who were first employed into such a position on or after January 1, 2011 will be moved from the Rank and File sub plan that has a 2.5% service multiplier to the Hazardous Duty sub plan with a 3 1/3% multiplier.

Any member of the Rank and File sub plan on June 30, 2018 who was first employed as a firefighter on or after January 1, 2011 will be transferred to the Hazardous Duty sub plan. The effective date of such a transfer will be the member's first date of employment as a firefighter.

Any firefighter who is first employed on or after June 30, 2018 will become a member of the Hazardous Duty sub plan.

**2018 REGULAR SESSION  
REVISED ACTUARIAL NOTE SB 10**

**Implications of the Proposed Changes**

Employees of the Department of Agriculture and Forestry who respond to wildfires and who qualify as Firefighter Type 2 or higher according to the National Wildfire Coordinating Group will cease being members of the Rank and File sub plan and will become members of the Hazardous Duty Services Plan. They will be eligible to retire earlier, and will qualify for a larger benefit payable at retirement, upon disability in the line of duty, or upon death while in the line of duty.

**I. ACTUARIAL ANALYSIS SECTION**

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

This section of the actuarial note pertains to actuarial costs or savings associated with the retirement systems, with OPEB, and with other government entities.

**1. Retirement Systems**

The actuarial cost of SB 10 associated with LASERS is expected to increase. Our analysis is summarized below.

The following table compares the major benefit provisions of the Rank and File sub plan to the major benefit provisions of the Hazardous Duty sub plan.

<b>Benefit Provision</b>	<b>Rank and File Members*</b>	<b>Hazardous Duty Members</b>
Benefit Multiplier	2.5% x service	3 1/3% x service
Normal Retirement Age	Age 62 with 5 years of service	Age 55 with 12 years of service, or Any age with 25 years of service
Line of Duty Disability Benefit	accrued retirement benefit without actuarial reduction	75% x final average compensation
Employee Contribution Rate	8.0%	9.5%

\*Rank and File Members first employed on or after July 1, 2015.

Actuarial costs will increase because benefits provided to firefighter members of LASERS will be larger under the Hazardous Duty sub plan than under the Rank and File sub plan.

Consider the following:

**Actuarial Costs**

- a. Actuarial costs will increase as a result of SB 10.
- b. There are 75 employees who satisfy the conditions necessary to move from the Rank and File sub plan to the Hazardous Duty sub plan.
- c. The average annual pay for these employees is \$25,000.
- d. The total normal cost (employee plus employer contributions) for FYE 2020 for the Hazardous Duty sub plan is estimated to be 2.30% of pay larger than the total normal cost for the Rank and File sub plan.
- e. The additional total normal cost that will be paid by employers and employees is estimated to be \$43,125 per year (75 x \$25,000 x 2.3%). Employees will pay an additional \$28,125 (75 x \$25,000 x 1.50%) each year. Employers will pay an additional \$15,000 (75 x \$25,000 x 0.80%).
- f. A standard actuarial formula provides that the present value of future benefits (actuarial cost) must be equal to the present value of future normal costs in order to maintain the actuarial solvency of the retirement system. Therefore, if benefit provisions are enriched, normal costs will increase; the present value of future normal costs will increase; and the present value of future benefits (the actuarial cost) will increase.

**Actuarial Revenue**

- a. Actuarial revenue must be increased to offset actuarial costs and to maintain the actuarial soundness of the retirement system.
- b. The increase in actuarial revenue is not a savings because benefit provisions have not been diminished. The increase is a reflection of how much LASERS must collect from employer and employee contributions in the future in order to pay the additional benefits promised.

Please note: the increase in actuarial cost is quite small. There are only 75 people who are eligible to transfer from the Rank and File sub plan to the Hazardous Duty sub plan. The increase in the normal cost (\$43,125) represents only a two basis point increase for all sub plans of LASERS combined.

**2018 REGULAR SESSION  
REVISED ACTUARIAL NOTE SB 10**

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

The actuarial cost of SB 10 associated with OPEB, including retiree health insurance premiums, is expected to increase. Our analysis is summarized below.

Members who will move from the Rank and File sub plan to the Hazardous Duty sub plan can be expected to retire earlier than they would have otherwise. Therefore they will collect OPEB benefits sooner and for a longer period of time.

**3. Other Government Entities**

The actuarial cost or savings of SB 10 associated with government entities other than LASERS and the state is expected to be \$0.

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

Unless indicated otherwise, the actuarial note for SB 10 was prepared using actuarial data, methods, and assumptions as disclosed in the most recent actuarial valuation report adopted by 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.

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

There is nothing in SB 10 that will compromise the signing actuary’s ability to present an unbiased statement of actuarial opinion.

**II. FISCAL ANALYSIS SECTION**

Tables A, B, C, and D have been prepared by the LLA. These tables include information developed by the LLA from its own sources as well as information supplied by Tanesha Morgan of the Legislative Fiscal Office (LFO). Table D includes all costs and savings pertaining to Louisiana government.

The LFO has requested that the information supplied by Tanesha Morgan be included in the actuarial note verbatim and without any changes. This information is shown below under Fiscal Costs Received by the LLA from the LFO. The reader should note that complete fiscal cost information is contained within Table D. Fiscal costs developed by the LFO only reflect the portion of Table D that was supplied by the LFO.

Table A pertains to fiscal costs or savings associated with the retirement systems; Table B pertains to OPEB; Table C pertains to fiscal costs associated with government entities other than LSPRS and its sponsor. Table D is the cumulative sum of Tables A, B, and C.

**A. Estimated Fiscal Impact – Retirement Systems  
(Prepared by the 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. Fiscal costs and savings include administrative and actuarial costs and savings. 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>2018-19</b>	<b>2019-2020</b>	<b>2020-2021</b>	<b>2021-2022</b>	<b>2022-23</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	0	0	0	0	0
Annual Total	Increase	Increase	Increase	Increase	Increase	Increase

<b>REVENUES</b>	<b>2018-19</b>	<b>2019-2020</b>	<b>2020-2021</b>	<b>2021-2022</b>	<b>2022-23</b>	<b>5 Year Total</b>
State General Fund	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
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	0	0	0	0	0
Annual Total	Increase	Increase	Increase	Increase	Increase	Increase

**2018 REGULAR SESSION  
REVISED ACTUARIAL NOTE SB 10**

SB 10 will have the following effects on retirement related fiscal costs and revenues during the five-year measurement period.

2. Expenditures

- a. Expenditures from the General Fund will increase because employer contribution requirements will increase. The total contribution requirement will increase; employee contribution requirements will increase; and employer contribution requirements will increase.
- b. LASERS' expenditures will increase because the system will be paying larger benefits under SB 10.
- c. LASERS expenditures for administration will increase in the first year of the benefit change as it incurs costs for software modifications to existing computer programs to identify the members specified in the bill and transfer them to the Hazardous Duty Plan. These costs are negligible and are anticipated to be absorbed through the agency's existing budget.

3. Revenues:

LASERS' revenues (Agy Self-Generated) will increase because employer and employee contribution requirements will increase.

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

1. Narrative

Table B shows the estimated fiscal impact of SB 10 on actuarial costs or savings associated with OPEB and the government entities that sponsor these benefit programs. Fiscal costs or savings in Table B include administrative costs associated with the government entity sponsoring the OPEB program. 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**

<b>EXPENDITURES</b>	<b>2018-19</b>	<b>2019-2020</b>	<b>2020-2021</b>	<b>2021-2022</b>	<b>2022-23</b>	<b>5 Year Total</b>
State General Fund	Increase	Increase	Increase	Increase	Increase	Increase
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	Increase	Increase	Increase	Increase	Increase	Increase

<b>REVENUES</b>	<b>2018-19</b>	<b>2019-2020</b>	<b>2020-2021</b>	<b>2021-2022</b>	<b>2022-23</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

SB 10 will have the following effects on OPEB related fiscal costs and revenues during the five-year measurement period.

2. Expenditures:

- a. Expenditures from the General Fund will increase because members will retire earlier under SB 10 than under current law and insurance premiums will increase.

3. Revenues:

- a. SB 10 will have no fiscal impact on LASERS relative to OPEB.

**C. Estimated Fiscal Impact – Other Government Entities (unrelated to the retirement systems or OPEB)  
(Prepared by the LLA using information supplied by the LFO)**

1. Narrative

From time to time, legislation is proposed that has an indirect effect on cash flows associated with other government entities, unrelated to the retirement systems or OPEB. Table C shows the estimated fiscal impact of SB 10 (administrative and actuarial) on such government entities. A fiscal cost is denoted by "Increase" or a positive number. Fiscal savings are denoted by "Decrease" or a negative number.

**2018 REGULAR SESSION  
REVISED ACTUARIAL NOTE SB 10**

**Fiscal Costs for Other Government Entities: Table C**

<b>EXPENDITURES</b>	<b>2018-19</b>	<b>2019-2020</b>	<b>2020-2021</b>	<b>2021-2022</b>	<b>2022-23</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>2018-19</b>	<b>2019-2020</b>	<b>2020-2021</b>	<b>2021-2022</b>	<b>2022-23</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

SB 10 will have the following effects on fiscal costs and revenues related to other government entities during the five-year measurement period.

2. Expenditures:

a. There is no direct material effect on government entities other than LASERS, the State, and the Department of Agriculture and Forestry.

3. Revenues:

a. There is no direct material effect on government entities other than LASERS, the State, and the Department of Agriculture and Forestry.

**D. Estimated Fiscal Impact – All Retirement Systems, OPEB, and All Government Entities  
(Prepared by the LLA)**

1. Narrative

Table D shows the estimated fiscal impact of SB 10 on all government entities within the state of Louisiana. Cell values in Table D are the sum of the respective cell values in Table A, Table B, and Table C. 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.

**Total Fiscal Cost: Table D (Cumulative Costs from Tables A, B, & C)**

<b>EXPENDITURES</b>	<b>2018-19</b>	<b>2019-2020</b>	<b>2020-2021</b>	<b>2021-2022</b>	<b>2022-23</b>	<b>5 Year Total</b>
State General Fund	Increase	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	0	0	0	0	0
Annual Total	Increase	Increase	Increase	Increase	Increase	Increase

<b>REVENUES</b>	<b>2018-19</b>	<b>2019-2020</b>	<b>2020-2021</b>	<b>2021-2022</b>	<b>2022-23</b>	<b>5 Year Total</b>
State General Fund	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
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	0	0	0	0	0
Annual Total	Increase	Increase	Increase	Increase	Increase	Increase

**Fiscal Costs Received by the LLA from the LFO  
(Prepared by Tanesha Morgan, Legislative Fiscal Office)**

1. Narrative

Present law defines “members” of the Louisiana State Employees’ Retirement System’s (LASERS) Hazardous Duty Plan to include: certain Department of Wildlife and Fisheries wildlife agents; certain Louisiana State University Health Sciences

**2018 REGULAR SESSION  
REVISED ACTUARIAL NOTE SB 10**

Center hospital security officers; certain Department of Public Safety and Corrections employees; employees of the bridge police section of the Crescent City Connection Division of the Department of Transportation and Development; certain Department of Revenue law enforcement personnel; certain Department of Culture, Recreation, and Tourism park rangers; certain campus police officers employed by any institution of postsecondary education; certain investigators employed by the Department of Justice, Office of the State Fire Marshall, and Office of State Inspector General; and all personnel employed in positions required to be Peace Officer Standards and Training (POST) certified, who have the power to arrest, who hold a commission as required for employment in such positions, who are otherwise members of the Louisiana State Employees' Retirement System, and who are not members of any other retirement system. Proposed law adds employees of the Louisiana Department of Agriculture and Forestry (LDAF) who respond to wildfires and who qualify as Firefighter Type 2 or higher according to the National Wildfire Coordinating Group to this list.

**Fiscal Costs for Other Government Entities**

<b>EXPENDITURES</b>	<b>2018-19</b>	<b>2019-2020</b>	<b>2020-2021</b>	<b>2021-2022</b>	<b>2022-23</b>	<b>5 Year Total</b>
State General Fund	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 25,000
Agy Self Generated	0	0	0	0	0	0
Stat Deds/Other	0	0	0	0	0	0
Federal Funds	5,000	5,000	5,000	5,000	5,000	25,000
Local Funds	0	0	0	0	0	0
<b>Annual Total</b>	<b>\$ 10,000</b>	<b>\$ 10,000</b>	<b>\$ 10,000</b>	<b>\$ 10,000</b>	<b>\$ 10,000</b>	<b>\$ 50,000</b>

<b>REVENUES</b>	<b>2018-19</b>	<b>2019-2020</b>	<b>2020-2021</b>	<b>2021-2022</b>	<b>2022-23</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
<b>Annual Total</b>	<b>\$ 0</b>	<b>\$ 0</b>	<b>\$ 0</b>	<b>\$ 0</b>	<b>\$ 0</b>	<b>\$ 0</b>

SB 10 will have the following effects on fiscal costs and revenues related to other government entities during the five year measurement period.

2. Expenditures:

*There will be increased cost of approximately \$10,000 a year to the Louisiana Department and Forestry (LDAF). This measure requires that certain firefighters employed by the LDAF shall participate in the LASERS Hazardous Duty Plan. There are projected to be 75 firefighters impacted by this bill. These firefighters are currently in the LASERS Rank and File Plan. The projected FY 19 employer contribution rate for the LASERS Hazardous Duty Plan is 38.5%. The projected FY 19 employer contribution rate for the LASERS Rank and File Plan is 37.3%. This measure increases the LDAF's retirement expenses for these firefighters by the difference, which is 1.2% or approximately \$10,000 based on the firefighters' salary. To the extent that these firefighters' salaries increase in the future, the retirement expenses to LDAF will increase proportionally by an additional 1.2%.*

*There will be implementation costs to LASERS to make minor software modifications to existing computer programs to identify the members specified in the bill and transfer them to the Hazardous Duty Plan. These costs are negligible and are anticipated to be absorbed through the agency's existing budget.*

3. Revenues:

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

**Credentials of the Signatory Staff:**

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.

John D. Carpenter, Legislative Fiscal Officer, has supervised the preparation of the fiscal analyses contained herein.

**2018 REGULAR SESSION  
REVISED ACTUARIAL NOTE SB 10**

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

SB 10 contains a retirement system benefit provision having an actuarial cost.

Some members of LASERS will receive a larger benefit with the enactment of SB 10 than what they would have received without SB 10.

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

The information presented below is based on information contained in Table D for the first three years following the 2018 regular session.

**Senate**

**House**

13.5.1 Applies to Senate or House Instruments.  
If an annual fiscal cost  $\geq$  \$100,000, then bill is dual referred to:  
**Dual Referral: Senate Finance**

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:  
**Dual Referral to Appropriations**

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:  
**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  $\geq$  \$500,000, then the bill is dual referred to:  
**Dual Referral: Ways and Means**