


**2018 REGULAR SESSION  
ACTUARIAL NOTE SB 9**

<p><b>Senate Bill 9 SLS 18RS-43 Engrossed</b></p> <p><b>Author: Senator Peacock Date: March 15, 2018 LLA Note SB 9.02</b></p> <p><b>Organizations Affected: Louisiana State Police Retirement System</b></p> <p><b>EG 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>  <b>Manager Actuarial Services</b> </div>
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**Bill Header:** STATE POLICE RET FUND. Provides for determination of credits to be made to the experience account. (2/3 - CA10s29(F)) (6/30/18).

**Cost Summary:**

The estimated actuarial and fiscal impact of SB 9 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)		0
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	0	0
Other Government Entities	0	0
Total	Increase	Increase

**Bill Information**

**Current Law**

Two types of post-employment benefit increases are permitted under the Louisiana State Police Retirement System (LSPRS) – (a) a regular COLA and (b) a supplemental benefit increase. The regular COLA is equal to the Consumer Price Index – Urban Consumers subject to a maximum limitation that depends on the funded ratio of the system.

<b>LSPRS’ Funded Ratio</b>	<b>Maximum Regular COLA</b>
At least 80%	3.0%
At least 75% but less than 80%	2.5%
At least 65% but less than 75%	2.0%
At least 55% but less than 65%	1.5%
Less than 55%	No COLA Permitted

Regular COLA benefits and supplemental benefit increases are funded through the experience account based on a portion of the investment gains earned by System. Regular COLA benefits can be prorated if there is not enough in the experience account to pay for the maximum regular COLA.

If there are funds in the experience account after paying the maximum regular COLA, a supplemental benefit increase may be payable. If the remaining balance in the experience account is large enough to provide for a 2.0% benefit increase, a 2.0% benefit increase may be paid to the group of retirees specified in the law. If the remaining balance is not sufficient to pay for a 2.0% benefit increase, then the supplemental benefit increase will be 0.0%. There is no proration.

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The experience account is funded by a portion of investment gains. If there are investment losses rather than investment gains, no allocation is made to the experience account. Furthermore, in no event shall an allocation of investment gains be made to the experience account if such credit would cause the balance to exceed (a) the actuarial present value of two maximum regular COLAs if the System is at least 80% funded, or (b) the actuarial present value of one maximum regular COLA if the System is less than 80% funded.

### **Proposed Law**

SB 9 will increase the maximum amount that may be retained in the experience account. Under SB 9, in no event shall an allocation of investment gains be made to the experience account if such credit would cause the balance to exceed (a) the actuarial present value of two maximum regular COLAs *plus the actuarial present value of one supplemental benefit increase* if the System is at least 80% funded, or (b) the actuarial present value of one maximum regular COLA *plus the actuarial present value of one supplemental benefit increase* if the System is less than 80% funded.

### **Implications of the Proposed Changes**

Under current law, the limit of the balance in the experience account is restricted to one or two times the actuarial value of the maximum regular COLA. Benefits, however, are determined as the sum of the maximum regular COLA and the supplemental benefit increase. The payout formula for the experience account exceeds the funding formula. This results in funding that is slower than what will occur under SB 9.

SB 9 changes the funding formula so that it is determined on a similar basis as payouts.

## **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 9 associated with LSPRS is expected to increase. Our analysis is summarized below.

- a. The experience account starts with a zero balance.
- b. Investment gains allocated to the experience account are larger under SB 9 than under current law.
- c. The balance in the experience account grows to a larger amount under SB 9 than under current law.
- d. Benefit distributions under SB 9, when they occur, are the same as under current law.
- e. Benefit distributions under SB 9 occur more frequently than under current law.

A more precise estimate of the actuarial cost for SB 9 can only be provided by using Monte Carlo simulations. These simulations are more costly to provide than is warranted for the purposes of this actuarial note.

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

The actuarial cost or savings of SB 9 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 protection provided to retirees is not affected by the provisions of SB 9.

#### **3. Other Government Entities**

The actuarial cost or savings of SB 9 associated with government entities other than LSPRS and its sponsor is expected to be \$0.

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

Unless indicated otherwise, the actuarial note for SB 9 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 9 that will compromise the signing actuary's ability to present an unbiased statement of actuarial opinion.

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**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 both 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	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

SB 9 will have the following effects on retirement related fiscal costs and revenues during the five year measurement period.

2. Expenditures:

- a. Expenditures from LSPRS (Agy Self-Generated) will increase because the frequency of benefit amounts paid to retirees and beneficiaries will increase.
- b. General Fund expenditures will increase because employer contributions to LSPRS will increase.

3. Revenues:

- a. LSPRS’ revenues will increase because employer contributions to LSPRS will increase.

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

1. Narrative

Table B shows the estimated fiscal impact of SB 9 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.

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**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	\$ 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 9 will have no effect on OPEB related fiscal costs and revenues during the five year measurement period.

**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 (administrative and actuarial) of SB 9 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.

**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 9 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 LSPRS and its sponsor.

3. Revenues:

a. There is no direct material effect on government entities other than LSPRS and its sponsor.

**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 9 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

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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	\$ 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	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

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

1. Narrative

Proposed law clarifies that the cap on the State Police Retirement System’s experience account fund balance as determine by conditions pursuant to present law includes the reserves funds necessary to grant supplemental pay increases.

**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	\$ 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 9 will have the following effects on fiscal costs and revenues related to other government entities during the five year measurement period.

2. Expenditures:

*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:**

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.

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

SB 9 contains a retirement system benefit provision having an actuarial cost.

Some members of the system will receive a larger retirement benefit if SB 9 is enacted than they will receive without SB 9.

**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.

<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>