


**2019 REGULAR SESSION
ACTUARIAL NOTE SB 1**

<p>Senate Bill 1 SLS 19RS-15 Engrossed</p> <p>Author: Senator Peacock Date: April 10, 2019 LLA Note SB 1. 02</p> <p>Organizations Affected: Bossier City Policemen's Pension and Relief Fund</p> <p>EG NO IMPACT APV</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> <p align="center">  James J. Rizzo, ASA, MAAA Senior Consultant & Actuary Gabriel, Roeder, Smith & Company, Actuary for the Legislative Auditor </p>
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Bill Header: RETIREMENT BENEFITS: Provides for the investment of funds by the board of trustees for the Bossier City Police Pension and Relief Fund. (6/30/19)

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 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 *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).

Net Actuarial Costs (Liabilities) Pertaining to:		Net Actuarial Cost
The Retirement Systems		\$0
Other Post-employment Benefits (OPEB)		0
Total		\$0
Five Year Net Fiscal Cost Pertaining to:	Expenditures	Revenues
The Retirement Systems	\$0	\$0
Other Post-employment Benefits	0	0
Other Government Entities	0	0
Total	\$0	\$0

Bill Information

Current Law

Current law provides that policemen's pension and relief funds' boards of trustees may invest the permanent fund or any portion thereof in interest-bearing bonds or securities issued or backed by the United States, the state of Louisiana, or the municipality in which the board is located or in certificates of deposit in banks of the United States and/or the state of Louisiana.

Current law also provides for a more expanded list of fixed income investments which may be made by municipalities, parishes, school boards, and any other political subdivisions of the state.

Proposed Law

SB 1 provides that the Bossier City Policemen's Pension and Relief Fund's board of trustees may also invest the permanent fund or any portion thereof in the types of investments which can be used by municipalities, parishes, school boards, and any other political subdivisions of the state.

Implications of the Proposed Changes

SB 1 will expand the list of investments available to the Fund's board of trustees. The board of trustees will now be allowed to invest in the types of investments which can be used by municipalities, parishes, school boards, and any other political subdivisions of the State.

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I. ACTUARIAL ANALYSIS SECTION

**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 \$0. The actuary's analysis is summarized below.

The Bossier City Policemen's Pension and Relief Fund has been closed for many years, with all active police officers and most of the retirees and beneficiaries covered by the Municipal Police Employees' Retirement System. According to the Bossier City Comprehensive Annual Financial Statement (CAFR), as of December 31, 2017, the plan's membership consisted of 38 retirees and beneficiaries currently receiving benefits and no active employee members (page 75).

As of December 31, 2017, the Policemen's Fund had a plan fiduciary net position of \$29,990,959 (page 80), invested in Federal Home Loan Bank (10%), Louisiana State Series A & B (19%), United States Treasury Notes (59%) and Louisiana Local Gov't Environment (6%) (page 46). Current law provides that policemen's pension and relief funds' boards of trustees may invest the permanent fund or any portion thereof in interest-bearing bonds or securities issued or backed by the United States, the state of Louisiana, or the municipality in which the board is located or in certificates of deposit in banks of the United States and/or the state of Louisiana.

According to the 2017 CAFR (page 80), the plan has a net pension asset on its books (a surplus, not an unfunded liability or a net pension liability), i.e., its plan fiduciary net position (balance sheet assets) exceeds its total pension liability by \$1,037,511. Its contribution income from various sources (page 77) significantly exceeds its benefit payments, with the plan fiduciary net position (balance sheet assets) increasing.

The proposed bill expands the types of investments to include additional fixed income securities that may carry slightly higher returns and slightly higher risks or volatility. If the Fund already invests in certain of these investments, the proposed legislation will have no effect. The slightly higher return expectations of other newly permissible investments may be partially offset by sales or redemption losses occurring when investments with slightly lower returns in slightly lower markets are sold or redeemed in order to pay benefits when due.

Expanding the list of investments available to the board of trustees to other forms of fixed income instruments as permitted under the proposed legislation does not affect the benefits payable to members, and it is not expected to have any measurable net effect on the longer term actuarial cost.

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 protection provided to retirees is not affected by expanding the list of investments available to the pension board of trustees.

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

Financial and membership data cited above were obtained from the Bossier City Comprehensive Annual Financial Report (CAFR) prepared for the year ending December 31, 2017 and dated June 15, 2018. The actuarial assumptions set forth in the CAFR are reasonable and, in particular, the investment return assumption reflects the conservative range of investments permitted under the current law.

**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 ANALYSIS SECTION

This section of the actuarial note pertains to fiscal (annual) costs or savings associated with the retirement systems (Table A), with OPEB (Table B), and with other fiscal costs or savings incurred by other government entities (Table C). Fiscal costs or savings in Table A include benefit-related actuarial costs and administrative costs incurred by the retirement systems. The total effect of SB 1 on fiscal costs, fiscal savings, or cash flows is presented in Table D.

**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

EXPENDITURES	2019-20	2020-21	2021-22	2022-23	2023-24	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	2019-20	2020-21	2021-22	2022-23	2023-24	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 retirement related fiscal costs and revenues during the five year measurement period.

2. Expenditures:

No measurable effects.

3. Revenues:

No measurable effects.

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**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.

OPEB Fiscal Cost: Table B

EXPENDITURES	2019-20	2020-21	2021-22	2022-23	2023-24	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	2019-20	2020-21	2021-22	2022-23	2023-24	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.

2. Expenditures:

No measurable effects.

3. Revenues:

No measurable effects.

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**C. Estimated Fiscal Impact: Other Government Entities (other than the retirement systems or OPEB)
(Prepared by Bradley Cryer, Director of Local Government Services, LLA)**

1. Narrative

From time to time, legislation is proposed that has an indirect effect on cash flows associated with other government entities (other than the retirement systems or OPEB). Table C shows the estimated fiscal impact of the proposed legislation 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

EXPENDITURES	2019-20	2020-21	2021-22	2022-23	2023-24	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	2019-20	2020-21	2021-22	2022-23	2023-24	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 other government entities during the five year measurement period.

2. Expenditures:

No measurable effects.

3. Revenues:

No measurable effects.

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

1. Narrative

Table D shows the estimated fiscal impact of the proposed legislation 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.

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

EXPENDITURES	2019-20	2020-21	2021-22	2022-23	2023-24	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	2019-20	2020-21	2021-22	2022-23	2023-24	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

Credentials of the Signatory Staff:

James J. Rizzo is a Senior Consultant and Actuary with Gabriel, Roeder, Smith & Company, which is currently serving as 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.

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, in certain cases, by the Public Retirement Systems' Actuarial Committee (PR SAC).

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.

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

SB 1 contains a retirement system benefit provision having an actuarial cost.

No member of the Bossier City Policemen's Pension and Relief Fund will receive a larger benefit with the enactment of SB 1 than what he would have received without SB 1.

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 2019 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