


**2020 REGULAR SESSION
ACTUARIAL NOTE HB 11**

<p>House Bill 11 HLS 20RS-97 Original</p> <p>Author: Representative Carpenter Date: February 20, 2020 LLA Note HB 11.01</p> <p>Organizations Affected: Firefighters' Retirement System</p> <p>OR INCREASE APV</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> <p style="text-align: center;"></p> <p>Lowell P. Good, ASA, EA, MAAA Actuarial Services Manager</p>
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Bill Header: RETIREMENT/FIREFIGHTERS: Provides relative to benefit payments if an eligible member of the Firefighters' Retirement System dies prior to retirement.

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).

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

Bill Information

Current Law

Current law provides that if any vested terminated member dies before selecting a benefit form, the member's *designated beneficiary* shall automatically be paid benefits as though the member had elected a 100% joint and survivor form of benefit, naming the *designated beneficiary* as the beneficiary.

In addition, if any active contributing member who is eligible for retirement dies before retiring, the member's *designated beneficiary* shall automatically be paid benefits as though the member had retired on the date of death and elected a 100% joint and survivor form of benefit, naming the *designated beneficiary* as the beneficiary.

In both cases, if there is no designated beneficiary, then the only benefit payable is a refund of accumulated contributions to the member's estate.

Proposed Law

HB 11 provides that if any vested terminated member dies before selecting a benefit form, or any active contributing member who is eligible for retirement dies before retiring, the member's *surviving eligible spouse* shall automatically be paid benefits as though the member had retired on the date of death and elected a 100% joint and survivor form of benefit, naming the *spouse* as the beneficiary. In the event the member has no surviving eligible spouse, the designated beneficiary will be the beneficiary.

In both cases, if there is no surviving eligible spouse and no designated beneficiary, then the only benefit payable is a refund of accumulated contributions to the member's estate.

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Implications of the Proposed Changes

The benefit is slightly more likely to be paid as an annuity than as a refund of accumulated member contributions under the proposed law since there are potentially alternate people who could receive the annuity. This could slightly increase benefits payable from the System.

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 of the proposed legislation associated with the retirement systems is estimated to be a small increase. The actuary's analysis is summarized below.

HB 11 makes the surviving eligible spouse the automatic recipient of benefits payable after the death of (i) a retirement-eligible FRS member, or (ii) a vested terminated member who has not formally elected a benefit form at least 30 days before the benefit commencement date.

Then, if there is no surviving eligible spouse, benefits in either case would be payable to the designated beneficiary. So there are potentially alternate people who could receive the annuity.

Since the cost of paying an annuity to a spouse or other beneficiary is generally greater than the cost of paying a refund of accumulations, this could slightly increase benefits payable from the System.

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 by the Office of Group Benefits or other insurers is not affected by the change in the pension beneficiary relating to the death of a member before retirement.

**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.

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.

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Retirement System Fiscal Cost: Table A

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

REVENUES	2020-21	2021-22	2022-23	2023-24	2024-25	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

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 retirement related fiscal costs and revenues during the five year measurement period.

2. Expenditures:

- a. FRS expenditures (Agy Self-Generated) for death benefit payments are expected to increase slightly.
- b. Expenditures from Local Funds are expected to increase slightly, to the extent that FRS contribution requirements increase.

3. Revenues:

FRS revenues (Agy Self-Generated) are expected to increase slightly to the extent that the FRS employer contribution requirements increase.

**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	2020-21	2021-22	2022-23	2023-24	2024-25	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	2020-21	2021-22	2022-23	2023-24	2024-25	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

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.

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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

EXPENDITURES	2020-21	2021-22	2022-23	2023-24	2024-25	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	2020-21	2021-22	2022-23	2023-24	2024-25	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 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

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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	2020-21	2021-22	2022-23	2023-24	2024-25	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	2020-21	2021-22	2022-23	2023-24	2024-25	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.

2. Expenditures:

N/A - This bill only impacts local government, and therefore, has no state impact. The LFO does not review local government bills.

3. Revenues:

N/A - This bill only impacts local government, and therefore, has no state impact. The LFO does not review local government bills.

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.

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;

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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 11 contains a retirement system benefit provision having an actuarial cost.

The beneficiaries of some members of the Firefighters' Retirement System could receive a larger benefit with the enactment of HB 11 than what they would have received without HB 11.

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>
<p><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: Dual Referral: Senate Finance</p>	<p><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: Dual Referral to Appropriations</p>
<p><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: Dual Referral: Revenue and Fiscal Affairs</p>	<p><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: Dual Referral: Ways and Means</p>