

**2020 REGULAR SESSION
ACTUARIAL NOTE SB 20**

<p>Senate Bill 20 SLS 20RS-30 Original</p> <p>Author: Senator Peacock Date: March 2, 2020 LLA Note SB 20.01</p> <p>Organizations Affected: Firefighters' Retirement System</p> <p>OR DECREASE 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> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  Lowell P. Good, ASA, EA, MAAA Actuarial Services Manager </div> <div style="text-align: center;">  James J. Rizzo, ASA, EA, MAAA Senior Consultant & Actuary Gabriel, Roeder, Smith & Company </div> </div>
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Bill Header: FIREFIGHTERS RETIREMENT: Provides benefits for members hired on or after January 1, 2021. (6/30/20)

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:		<u>Net Actuarial Cost</u>
The Retirement Systems		Decrease
Other Post-employment Benefits (OPEB)		Decrease
Total		Decrease
Five Year Net Fiscal Cost Pertaining to:	<u>Expenditures</u>	<u>Revenues</u>
The Retirement Systems	Decrease	Decrease
Other Post-employment Benefits (OPEB)	0	0
Local Government Entities	Decrease	0
State Government Entities	0	0
Total	Decrease	Decrease

Bill Information

Current Law

Current law provides for retirement eligibility, a 3 year average final compensation (AFC) period, and 3 1/3% accrual rate for all members of Firefighters Retirement System (FRS), as shown in the table below.

Proposed Law

SB 20 changes the retirement eligibility, the AFC computation period, the determination of additional benefits for service earned after exiting DROP, and the accrual rate for employees of FRS hired on or after January 1, 2021. These changes are summarized in the table below.

	Current Law -- For Members of FRS Hired before January 1, 2021	SB 20 -- For Members of FRS Hired on or after January 1, 2021
Retirement Eligibility and Benefits		
Retirement eligibility	<ul style="list-style-type: none"> • 25 or more years of service at any age • 20 or more years of service at age 50 • 12 or more years of service at age 55 	<ul style="list-style-type: none"> • 20 or more years of service at age 50 • 12 or more years of service at age 55
AFC	36 consecutive months	60 consecutive months
Anti-spiking cap	15%	15%

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Accrual rate	3 1/3%	<ul style="list-style-type: none"> • 3 1/3% for all years of service, only if a member has earned 30 or more years of service • 3% for all years of service, if less than 30 years of service • Thus, there is a spike (11.1% increase) in the benefit amount for members reaching 30 years of service
Retirement benefits	3 1/3% x AFC x Years of service	<ul style="list-style-type: none"> • 3 1/3% x AFC x Years of service; (if earned at least 30 years of service) • 3% x AFC x Years of service; (if Years of service < 30)
Deferred Retirement Option Plan (DROP)		
Retirement benefits for additional service earned after exiting DROP	Use AFC earned after exiting DROP if member earns at least 3 or more years of creditable service after exiting DROP.	Use AFC earned after exiting DROP if member earns at least 5 or more years of creditable service after exiting DROP.

Implications of the Proposed Changes

SB 20 creates a new, lower tier of benefits in FRS for members hired on or after January 1, 2021.

Unreduced retirement benefits will be delayed for some new members, AFC will be lower, and accrual rates will be lower for many (but not all) new members.

Since new members will not be able to retire earlier than age 50, there may be more members working 30 years because (i) they may reach or be close to 30 years when they reach retirement age 50, and (ii) the benefit rate goes up from 3.0% to 3 1/3% for all years of service at 30 years, leaving them with the same accrual rate as current law.

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 decrease in cost. The actuary's analysis is summarized below.

SB 20 has no effect on any current member of FRS. The actuarial present value of future benefit payments for existing members will not change. SB 20 has no effect on current accrued liabilities because it applies to members first employed in the future.

For members first employed on or after January 1, 2021, SB 20 provides for later retirement ages for some new members, a longer AFC period, and lower benefit accrual rates for most new members. As a result, the present value of benefit payments for future members will decrease, and future employer contribution rates will decrease. However, savings from SB 20 will not begin until new members, first employed on or after January 1, 2021, begin to replace current active members.

The FRS actuary has estimated the costs-effect of SB 20 as shown below.

Reduction in Contribution Rate	
Short Term within 5 years	Long Term over 25 or 30 years
Less than 1.06%	3.02%

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 expected to be a decrease in cost for FRS-participating employers that provide implicit or direct subsidies to FRS members commencing at their FRS retirement eligibility dates. The actuary's analysis is summarized below.

SB 20 will potentially delay the retirement of certain members of FRS:

1. Those with at least 25 years of service before attaining age 50 will wait until they attain 50 years of age to receive normal retirement benefits.

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2. Those who have at least 27 years of service credit may continue their employment until they earn 30 years of creditable service to receive higher retirement accruals at 3 1/3% rather than 3.0%.

As a result, FRS members covered under their employer’s OPEB program would be receiving retirement health subsidies for a shorter period of time and costs will be less. This is a long-term effect, with no short-term fiscal effect until new members begin to approach retirement eligibility.

**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.

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	Decrease	Decrease	Decrease	Decrease	Decrease	Decrease
Stat Deds/Other	0	0	0	0	0	0
Federal Funds	0	0	0	0	0	0
Local Funds	0	Decrease	Decrease	Decrease	Decrease	Decrease
Annual Total	Decrease	Decrease	Decrease	Decrease	Decrease	Decrease

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	Decrease	Decrease	Decrease	Decrease	Decrease
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	Decrease	Decrease	Decrease	Decrease	Decrease

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. Expenditures from FRS (Agy Self Generated) will decrease since the benefits provided to new members are lower under SB 20 than the current law. This decrease is expected to be small during the 5-year measurement period since SB 20 will only affect members’ death or disability benefits incurred in-line-of duty during the next five years.

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b. Expenditures from Local Funds will decrease since the benefits provided to new members will decrease resulting in a decrease in employer contribution requirements.

3. Revenues:

FRS revenues (Agy Self Generated) will decrease to the extent that employer contribution requirements decrease.

**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.

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 during the next five years.

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.

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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:

The bill may have an impact on employee retention/hiring, along with related costs in future years; however, such an impact cannot be accurately quantified.

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

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

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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;
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 20 contains a retirement system benefit provision having an actuarial cost.

No member of the Firefighters Retirement System would receive a larger benefit with the enactment of SB 20 than what he would have received without SB 20.

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.

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