OFFICE OF LEGISLATIVE AUDITOR
2022 REGULAR SESSION
ACTUARIAL NOTE

Senate Bill 438 SLS 22RS-578	**Date: April 16, 2022**
Original	**Organizations Affected: LASERS**
Author: Price	
LLA Note SB 438.01	**OR INCREASE APV**

<u>Bill Header:</u> STATE EMPLOYEE RET. Provides for a new retirement plan for certain new members.

<u>Purpose of Bill:</u> This bill establishes a new retirement plan for LASERS-eligible Rank and File employees first employed on or after January 1, 2024. The new retirement plan (NRP) consists of a lower defined benefit component and a new defined contribution component. Eligible employees are automatically enrolled in the new retirement plan and have the option to withdraw from the new retirement plan within two years from the date of enrollment.

<u>Cost Summary[1]:</u> The estimated net actuarial and fiscal impact of the proposed legislation is summarized below.

The net actuarial present value of expected future benefits and administrative expenses incurred by the retirement system is expected to increase since most affected employees will likely receive a greater benefit under the new retirement plan than they would have otherwise received. To the extent some retirees delay retirement to accumulate additional retirement income in order to replace the income they would have received under the current program, OPEB costs and liabilities will decrease. On balance, the increase for the retirement benefits is expected to be larger than the decrease in OPEB costs, resulting in an overall net increase in net actuarial present values.

In the following table, "Net Actuarial Present Values" pertain to estimated changes in the ***net actuarial present value of future benefit payments and administrative expenses incurred by a retirement system or associated with an OPEB plan.*** A more detailed explanation of the information presented in this table can be found in Section I: <u>Actuarial Impact on Retirement Systems and OPEB</u>.

Change in Net Actuarial Present Values Pertaining to:	
The Retirement Systems	Increase
Other Post-employment Benefits (OPEB)	Decrease
Total	**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.

"Net Fiscal Costs" 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.

In the following table, expenditures and revenues only include cash flows to or from the affected retirement system or OPEB plan, (e.g. administrative expenses incurred by, benefit payments from, or contributions to the retirement system) and do not include administrative expenditures and revenues specifically incurred by the state or local government entities associated with implementing the legislation. A more detailed explanation of the information presented in this table can be found in Section II: <u>Fiscal Impact on Retirement Systems and OPEB</u>.

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

From time to time, retirement legislation is proposed that affects administrative expenditures and revenues for state and local government entities associated with implementing the proposed legislation (other than contribution changes included in the above table). This information, provided by the LLA Local Government Services or the Legislative Fiscal Office, is summarized in the following table. A more detailed explanation of the information presented in this table can be found in Sections III: <u>Fiscal Impact on Local Government Entities</u> and Section IV: <u>Fiscal Impact on State Government Entities</u>.

Five Year Net Fiscal Costs Pertaining to:	**Expenditures**	**Revenues**
Local Government Entities	$ 0	$ 0
State Government Entities	0	0
Total	**$ 0**	**$ 0**

[1] This is a different assessment from the actuarial cost relating the 2/3 vote (refer to the section near the end of this Actuarial Note "**<u>Information Pertaining to La. Const. Art. X, §29(F)</u>**").

This Note has been prepared by the Actuary for 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.	**Kenneth J. "Kenny" Herbold, ASA, EA, MAAA** **Director of Actuarial Services** **Louisiana Legislative Auditor**

I. ACTUARIAL IMPACT ON RETIREMENT SYSTEMS AND OPEB

This section of the actuarial note pertains to changes in the net actuarial present value of expected future benefit payments and administrative expenses incurred by the retirement systems or associated with an OPEB plan.

1. Retirement Systems

The net change in actuarial present value of expected future benefits and administrative expenses incurred by the retirement systems from the proposed legislation is expected to increase.

Comparison of Plan Provisions

The New Retirement Plan (NRP) applies to regular rank-and-file Tier 4 members hired January 1, 2024 and later. The NRP consists of two *components*: (a) a less generous defined benefit (DB) component and (b) a defined contribution (DC) component. A comparison of the key differences in plan provisions between current law and the New Retirement Plan (NRP) are summarized in the following table.

Plan Provisions	Current Law	SB 438
DB Accrual Rate	2.50%	1.80%
Employee Contributions	8% of pay	8% of pay, split equally between the DB and DC components
Employer Contributions	Actuarially determined contribution (ADC)	DB component: ADC DC component: 3% of pay
DC Component Accrual	Not applicable	Participant directed, invested in stable value fund by default.
DC Component Distribution	Not applicable	1. Annuitized DC account using a 5.25% discount rate, payable in the same form as selected for the DB component, or 2. Lump sum of the vested DC balance. This option will require a refund of employee DB contributions and forfeit any employer-provided DB benefits.
COLAs	Provided on an ad-hoc basis subject to the following (as outlined in statute): 1. The increase in the CPI-U, 2. Whether a COLA was granted in prior years, 3. The funded level of the System, 4. Investment performance, 5. Availability of funds in the Experience Account, 6. Approval of the legislature. 7. Applies to the first $60,000 of benefits; indexed annually by the CPI-U.	A 2% COLA will be automatically paid in every odd-numbered year. Annuitization of DC account balance reflects guaranteed COLA.
Experience Account	A portion of investment gains in excess of certain levels are credited to the Experience Account.	Investment gains subject to allocation to the Experience Account will be multiplied by the following ratio: Non-NRP DB Accrued Liability -- (Non-NRP DB Accrued Liability + NRP DB Component Accrued Liability)

A summary of the key provisions of the two *components* of the NRP is presented in Appendix A and a more detailed comparison of the key provisions between the current DB plan and the DB *component* of the NRP is presented in Appendix B.

Comparison of Total NRP Benefits to Current Law

Generally speaking, when comparing a DB plan versus a DC plan with the same contribution rate, the DB plan tends to favor a participant who has earned a significant amount of service or who joins the plan in the second half of his career; while the DC plan tends to favor a participant who joins the plan in the first part of his career or who terminates employment before retirement age. However. the ultimate value of a DC plan is highly dependent on the actual investment return earned. Therefore, it is virtually impossible to replace a traditional DB plan with a new retirement plan containing a DC component at the same cost, without shifting benefit delivery from older or longer-service employees to younger or shorter-service employees.

This is demonstrated in Charts A and B below, relative to the replacement of the current program with the proposed NRP benefits under this bill. Chart A (based on a 5.5% rate of return earned in the DC account) and Chart B (based on a 2.0% rate of return earned in the DC account) illustrate the margin by which the total "value" both components in the NRP exceeds the current plan at termination or retirement for post-1/1/2024 new hires.

The green scenarios indicate the NRP provides greater combined value than the current DB plan while the red scenarios indicate the NRP provides less combined value than the current DB plan. The blue line represents the attainment of normal (unreduced) retirement eligibility.

CHART A

(Assuming 5.5% Annual Rate of Return in DC Account)

Select Age and Service Combinations

Age at Hire	Service at Termination or Retirement: 5	12	17	22	27	32	37	40
20	50%	69%	85%	99%	46%	32%	22%	17%
25	50%	69%	85%	40%	28%	19%	11%	15%
30	50%	69%	35%	25%	16%	9%	16%	21%
35	50%	32%	21%	13%	6%	13%		
40	50%	18%	10%	4%	10%			
45	22%	8%	2%	8%				
50	11%	0%	5%					
55	2%	3%						
62	3%							
65	5%							

CHART B

(Assuming 2.0% Annual Rate of Return in DC Account)

Select Age and Service Combinations

Age at Hire	Service at Termination or Retirement: 5	12	17	22	27	32	37	40
20	42%	48%	52%	53%	5%	-1%	-4%	-5%
25	42%	48%	52%	8%	-1%	-4%	-6%	-5%
30	42%	48%	11%	-1%	-3%	-6%	-4%	-2%
35	42%	15%	0%	-3%	-5%	-3%		
40	42%	0%	-2%	-5%	-3%			
45	4%	-2%	-5%	-3%				
50	1%	-4%	-2%					
55	-1%	-2%						
62	0%							
65	3%							

Observations about Charts A and B:

1. The NRP will provide a greater combined benefit than the current DB program for all members who earn a 5.5% annual rate of return in their DC account.

2. The NRP will provide a greater combined benefit than the current DB program for those members who earn a 2.0% annual rate of return in their DC account – if they are age 48 or younger when they terminate employment. But if these members terminate or retire at age 49 or later, the NRP will provide a lesser combined benefit than the current DB program.

3. The NRP tends to favor participants who join at the younger ages and terminate before reaching retirement age.

4. The current program tends to favor participants who retire during the prime retirement ages – ages 58 to 62.

Comparison of Normal Costs

In each annual actuarial valuation, LASERS' board and its actuary use assumptions that are expected to match the future emerging experience (future investment earnings, future rates of salary increase, turnover, retirement, etc.). If all emerging experience matches the actuarial assumptions, the unfunded actuarial liability (UAL) is not increased and any changes in the employer contribution required only arises by replacing the normal costs of those exiting with the normal costs of those entering the plan.

As such, the affected employees (e.g., those hired in 2024 or later) are not expected to cause any change in the current UAL or payments thereon. The expected additional cost for the NRP is an increase in "normal costs" compared to the current plan.

In traditional DB plan funding, the total contribution requirement is typically the sum of (a) the total normal cost and (b) payments on the UAL. A member's total normal cost for a traditional DB plan is the expected annual amount (required from the employee and employer) to finance the benefits promised by the plan, without regard for prior actuarial losses funded through payments on the UAL. Therefore, the focus below is on the changes in the normal costs of affected employees resulting from this proposed bill.

Charts C and D below present the total normal cost for the affected new hires in the current DB plan if the bill does not pass as compared to their total normal cost if this NRP bill does pass. The total normal cost is broken out by its component pieces:

1. For the current plan: (a) employer-funded normal cost (core benefits and estimated COLA) and (b) employee contributions (8%), and

2. For the NRP: (a) employer-funded normal cost (core benefits and COLA) to cover the DB *component*, (b) employer contributions to the DC *component* (3%), (c) employee contributions to the DB *component* (4%), and (d) employee contributions to the DC *component* (4%).

Chart C calculates the normal costs using the same 7.60% return on assets assumption used in the June 30, 2021 actuarial valuation. To identify the slice of the employer normal cost representing the COLA benefits on a comparable basis, the normal cost for the COLA program in the current DB plan as well as the NRP were calculated using an explicit approach (which differs from the system's methodology, but results in comparable anticipated cost). The total normal cost for this group of new hires under the current DB plan is approximately the same as was calculated by the board's actuary in the June 30, 2021 actuarial valuation.

Chart D calculates the normal costs using a 6.75% earnings assumption developed by the Legislative Auditor's Office as the benchmark for assessing reasonableness, based on: (a) LASERS' own asset allocation, (b) capital market assumptions of a dozen independent professional investment forecasters, (c) a consensus average of these experts' 50th percentile expectation of compound annual returns of the Fund over the mid-term and longer-term time horizons and (d) the Fund's own expected benefit cash flows.

CHART C

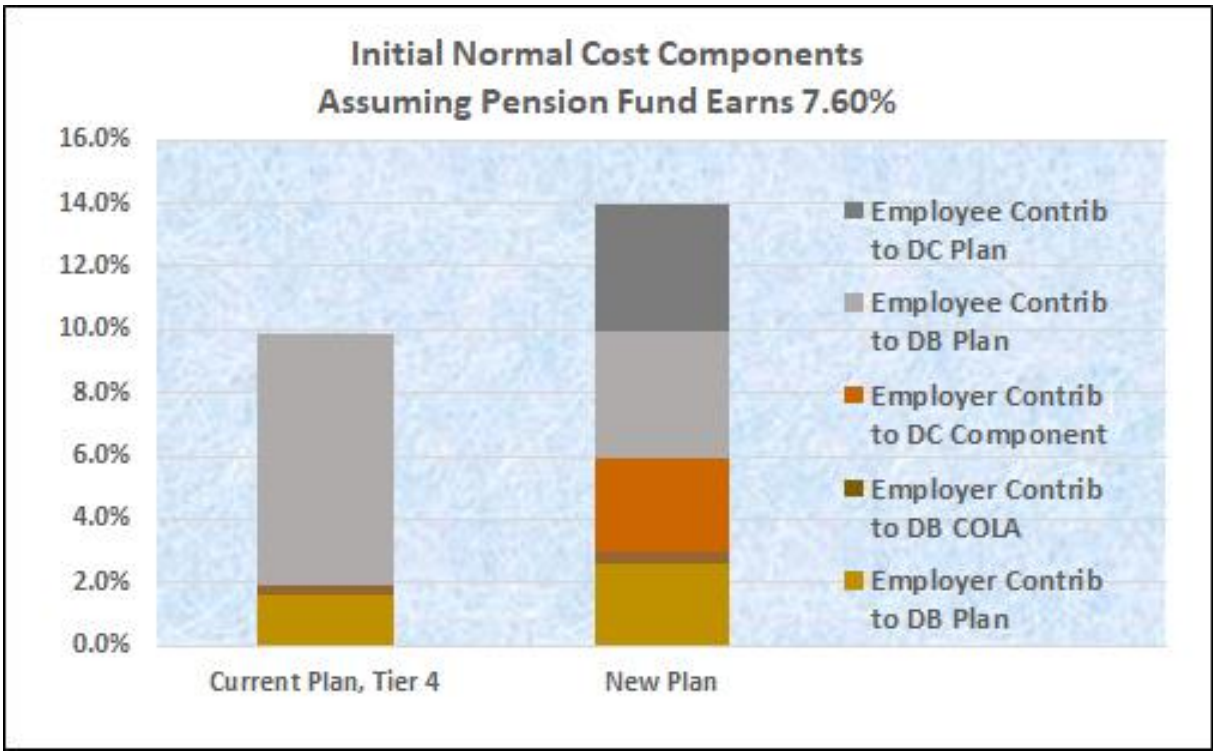
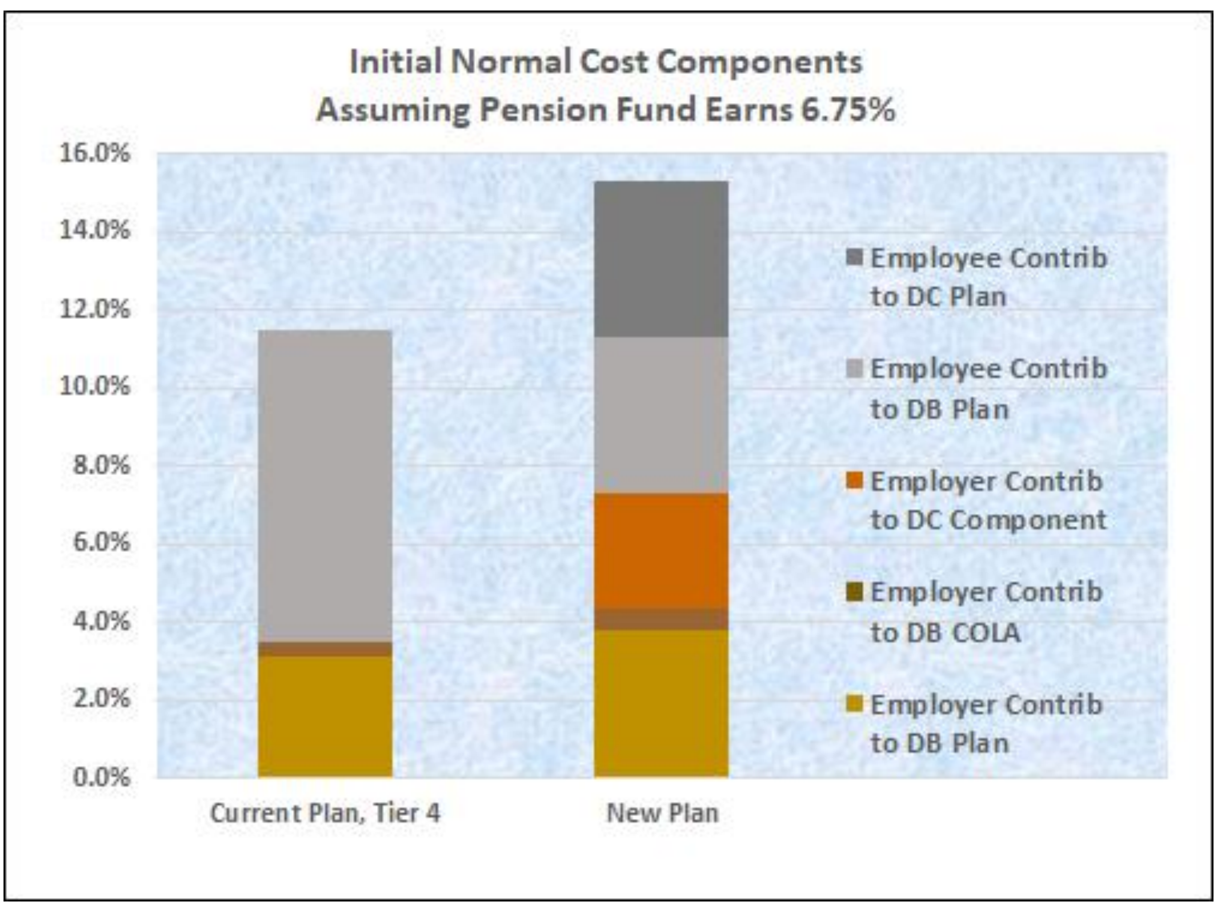


CHART D



Observations about Charts C and D:

1. In order to present the relevant comparison between the current plan and the NRP, these are initial normal cost estimates associated with the cohort of employees expected to be hired in and after 2024. This is not the total normal cost of all rank-and-file employees in all other tiers who will remain under the current plan.

2. The total normal cost for the NRP for this group of affected employees, considering all its component pieces, is expected to be higher under the proposed law than under the current law.

3. The initial employer normal cost (total DB plan normal cost minus the employee contributions toward the DB plan normal cost) for this group of affected employees is higher under the NRP than under the current DB plan.

4. The COLA for the NRP is a 2% COLA every other year (approximately 1% every year). We found that the complex gain-sharing COLA program for the current DB plan is equivalent to a COLA of approximately 0.50% every year. A 1% annual COLA on a lower benefit (with a 1.8% multiplier) costs nearly the same as a 0.50% COLA on a higher benefit (with a 2.5% multiplier).

5. While this bill increases the total normal costs (NRP compared to current plan) for the affected group of new hires, the effect on the total contribution rate for the entire LASERS group is negligible in the first years of the bill's implementation. This is also true even when examining the bill's effect on only the total normal cost of the entire LASERS group. But over the long-term, the total normal cost of all LASERS' membership as a whole, will increase as those covered by the provisions of the NRP gradually make up a larger and larger portion of the active population.

Cost Comparison with Social Security

Currently, employers covered under Social Security pay 6.2% of covered wages to the Social Security Administration.

- One way to compare the cost of the NRP to Social Security is to compare the employer-funded normal cost to the 6.2% level for just the new hires affected by this bill. In that case, the NRP is estimated to cost the employer 6.0% (separate from the employee cost) using the system's most recent 7.6% pension fund earnings assumption as illustrated in Chart C, and 7.3% using the benchmark assumption of 6.75%. as illustrated in Chart D.

- Another way to compare the cost of the NRP to Social Security is to blend the normal costs of all LASERS participants (those affected by this bill and those not affected). Currently, according to page 2 of LASERS' June 30, 2021 actuarial valuation report, the aggregate employer-funded normal cost (for benefits and expenses) for all subplans is 3.96% of pay; and for the subplan covering all Rank & File and App. Law Clerks, it is 3.36% of pay.

  Blending those rates with the initial employer normal cost for NRP-affected employees (approximately 6.0%-7.3% depending on the earnings assumption), the blended or aggregate employer normal cost would increase slightly (negligibly-so initially). However, as time passes with more and more new hires in the NRP rather than the current DB plan, that aggregate or blended rate would increase gradually. It may be a long time, if ever, until the employer normal cost would reach the current 6.2% Social Security rate.

Risk Transfer

In defined benefits (DB) pension plans, the employer bears almost all the risk (investment risk, longevity risk, etc.); when DB plan investments perform worse than assumed or members live longer than assumed, the UAL grows and the employer contribution increases. In traditional defined contribution (DC) plans, the employee bears all the risk.

In this proposed bill, however, the amount of risk-transfer from the current DB plan to the DC component of the NRP is *negligible* for the retirement system as a whole, and *not significant* for the post-1/1/2024 new hires. This is true partly because the NRP still retains a DB *component* and partly because the majority of DC funds will be converted to annuities by transferring the balances into the DB assets where the employer bears the investment and longevity risk (in other words, the employee transfers his risk back to the employer for the rest of his life by converting to an annuity).

This can be a counter-intuitive conclusion given we can see in Charts A and B the ultimate value of the total benefit relies a great deal on the DC earnings assumption. To better understand why this conclusion is true, it can be helpful to consider the proportion of assets needed to support the total DB liability (both the benefit earned under the traditional DB benefit and the annuitization of the DC component of the NRP) versus the proportion of assets needed to support the DC component of the NRP.

Furthermore, the option for participants to withdraw from the NRP within the first two years of enrollment and join the current DB plan also exposes the system to anti-selection risk as employees are likely to participate in the plan they expect to benefit them more. For example: (a) younger employees expecting not to terminate or retire until later in life may choose to remain in the NRP, while (b) employees entering the plan mid-career and expecting to terminate or retire later in life may choose to withdraw from the NRP and join the current DB plan.

In summary, under the proposed bill there is relatively little risk transfer occurring from the DB plan to the DC plan, i.e., from the employer to the employee.

Limitations of the Analysis

Finally, it is important to understand certain limitations associated with the analysis outlined above.

The "cost" of a defined benefit plan is the benefits ultimately paid to participants. One purpose of an actuarial valuation, or analysis such as this, is to estimate how much of that cost will be funded via employer and employee contributions and how much will be funded via investment earnings. As can clearly be seen in Charts C and D above, to the extent investment earnings are lower, more of the benefits must be funded by contributions. This specific impact is generally well understood.

It is other assumptions used in the analysis, particularly those not necessarily used in a standard funding valuation, that are generally not as well understood. For example, the later the average age-at-hire, the higher the expected normal cost because there is less time over which to spread the total cost. Further, retirement eligibility under the current Tier 4 plan and the NRP differ significantly from the retirement eligibility for participants recently eligible for retirement. Therefore, relying on recent retirement patterns (and the retirement rates used in the June 30, 2021 valuation) could produce significantly different results than an assumption that reflects the later full retirement eligibility for future hires.

These considerations present less of an issue when comparing the relative value (e.g. Charts A and B) or the relative costs (e.g. Charts C and D) of different plan designs because similar underlying assumptions are used. It can become an issue, however, when attempting to compare the costs as presented against an absolute value, such as in the *Cost Comparison with Social Security* section above, or against some other external benchmark, such as the current aggregate normal cost of LASERS or the normal cost of a different retirement system. This is not to say these comparisons do not provide value, it is simply important to recognize that even seemingly small differences in assumptions or methodology can sometimes result in surprisingly different results.

2. Other Post-employment Benefits (OPEB)

The net change in actuarial present value of expected future benefits and administrative expenses associated with OPEB, including retiree health insurance premiums, from the proposed legislation is expected to decrease.

Members of LASERS are likely to delay retirement to accumulate additional retirement income in order to replace the income they would have received under the current program if they elect to remain in the NRP. Delayed retirement produces smaller OPEB costs.

II. FISCAL IMPACT ON RETIREMENT SYSTEMS AND OPEB

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 only include cash flows to or from the affected retirement system or OPEB plan, (e.g. administrative expenses incurred by, benefit payments from, or contributions to the retirement system) and do not include administrative expenditures and revenues specifically incurred by the state or local government entities associated with implementing the legislation.

A. Estimated Fiscal Impact – Retirement Systems

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.

Table A: Retirement System Fiscal Cost

Expenditures	**2022-23**	**2023-24**	**2024-25**	**2025-26**	**2026-27**	**5-Year Total**
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**

Revenues	**2022-23**	**2023-24**	**2024-25**	**2025-26**	**2026-27**	**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**

The proposed legislation will have the following effects on retirement related fiscal costs and revenues during the five-year measurement period.

1. Expenditures:

   a. Employer contribution requirements are expected to increase beginning the 2023-24 fiscal year when new hires in the regular rank-and-file Tier 4 category will be first covered by the NRP (effective January 1, 2024). It is uncertain exactly what LASERS will charge the affected agencies towards the DB component of the new plan for those new hires since the contribution rate for that year and the following year (2024-25), will be determined in the June 30, 2022 and June 30, 2023 valuations (well before NRP members would be hired, much less reflected in the valuation data).

      LASERS might or might not charge a higher contribution rate to cover the new DB component. However, they will need to charge the 3% employer contribution for the DC component beginning January 1, 2024 under this bill, in addition to the charge for the DB component. Therefore, employer contributions would increase starting in the 2023-24 year regardless of the employer charge for the DB normal cost component.

      Changes in employer contributions are reflected in the State General Fund and/or Local Fund expenditure lines above. The actual sources of funding (e.g., Federal Funds, State General Fund, etc.) may vary by employer and are not differentiated in the table.

   b. There will be administrative implementation costs to LASERS (Agy Self-Generated) associated with the modification of computer systems, development and dissemination of publications and training materials, legal fees related to reviewing and monitoring the new plan for compliance with federal tax law, and workload increases related to developing, reviewing, and evaluating solicitation for proposals for new defined compensation plan providers. LASERS’ estimates the one-time costs associated with computer system upgrades and training materials could be as high as $1.6M. Ongoing expenses for recurring notification requirements included in the bill and to administer the new DC accounts are estimated to be approximately $80,000 - $100,000 per year. The one-time costs would be incurred during the 2022-23 and 2023-2024 fiscal years, with the ongoing costs beginning during the 2023-2024 fiscal year.

c. Increases in benefit expenditures from LASERS (Agy Self-Generated) are expected to start in the 2025-26 fiscal year when employees hired during the first half of calendar year 2024 begin to vest in their DC account balances, and receive higher termination benefits than they would be paid under the current law.

2. Revenues:

Revenues to LASERS (Agy Self-Generated), as reflected in Table A above, arise from employer contributions. The revenue entries above reflect the same pattern shown in expenditures from the State General Fund.

B. Estimated Fiscal Impact – OPEB

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.

Table B: OPEB Fiscal Cost

Expenditures	**2022-23**	**2023-24**	**2024-25**	**2025-26**	**2026-27**	**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	**2022-23**	**2023-24**	**2024-25**	**2025-26**	**2026-27**	**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 administrative costs and revenues related to local government entities during the five-year measurement period.

1. Expenditures:

The proposed legislation will not have measurable effects on OPEB related expenditures during the five-year measurement period because members affected by this bill are not projected to attain eligibility for retirement during that period.

2. Revenues:

The proposed legislation will not have measurable effects on OPEB related revenue during the five-year measurement period because members affected by this bill are not projected to attain eligibility for retirement during that period.

III. FISCAL IMPACT ON LOCAL GOVERNMENT ENTITIES
(Prepared by LLA Local Government Services)

This section of the actuarial note pertains to annual fiscal costs (savings) relating to administrative expenditures 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)

N/A – This bill only impacts state government, and therefore, has no local government impact. The Local Government Services section of the LLA does not review state government bills.

Table C: Fiscal Costs for Local Government Entities

Expenditures	**2022-23**	**2023-24**	**2024-25**	**2025-26**	**2026-27**	**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	**2022-23**	**2023-24**	**2024-25**	**2025-26**	**2026-27**	**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**

IV. FISCAL IMPACT ON STATE GOVERNMENT ENTITIES
(Prepared by Legislative Fiscal Office)

This section of the actuarial note pertains to annual fiscal cost (savings) relating to administrative expenditures 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)

From time to time, legislation is proposed that has an indirect effect on administrative expenditures and revenues associated with state government entities (other than the impact included in Tables A and B). Table D shows the estimated fiscal administrative cost 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.

Table D: Fiscal Costs for State Government Entities

Expenditures	2022-23	2023-24	2024-25	2025-26	2026-27	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	2022-23	2023-24	2024-25	2025-26	2026-27	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.

1. Expenditures:

   Other than the impact on employer contribution rates which is already reflected in Table A above, there is no anticipated direct material effect on governmental expenditures as a result of this measure.

2. Revenues:

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

V. ACTUARIAL DISCLOSURES

Intended Use

This actuarial note is based on our understanding of the bill as of the date shown above. It is intended to be used by the Legislature during the current legislative session only and assumes no other legislative changes affecting the funding or benefits of the affected systems, other than those identified, will be adopted. Other readers of this actuarial note are advised to seek professional guidance as to its content and interpretation, and not to rely upon this communication without such guidance. The actuarial note, and any referenced documents, should be read as a whole. Distribution of, or reliance on, only parts of this actuarial note could result in its misuse and may mislead others. The summary of the impact of the bill included in this actuarial note is for the purposes of an actuarial analysis only, as required by La. R.S. 24:521, and is not a legal interpretation of the provisions of the bill.

Actuarial Data, Methods and Assumptions

Unless indicated otherwise, this actuarial note 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 assumptions and methods are reasonable for the purpose of this analysis.

For certain calculations that may be presented herein, we have utilized commercially available valuation software and/or are relying on proprietary valuation models and related software developed by our actuarial contractor. We made a reasonable attempt to understand the intended purpose of, general operation of, major sensitivities and dependencies within, and key strengths and limitations of these models. In our professional judgment, the models have the capability to provide results that are consistent with the purposes of the analysis and have no material limitations or known weaknesses. Tests were performed to ensure that the model reasonably represents that which is intended to be modeled.

To the extent that this actuarial note relies on calculations performed by the retirement systems' actuaries, to the best of our knowledge, no material biases exist with respect to the data, methods or assumptions used to develop the analysis other than those specifically identified. We did not audit the information provided, but have reviewed the information for reasonableness and consistency with other information provided by or for the affected retirement systems.
Other actuarial assumptions and methodologies used to develop opinions and conclusions presented herein include:

- This analysis directly values anticipated cost-of-living adjustments under current law, while the system's June 30, 2021 actuarial valuation includes a 35 basis point reduction in the discount rate. The anticipated cost impact of these different methodologies is expected to be comparable. More information regarding the difference in methodologies can be found in the LLA's *Actuarial Review of the 2021 Actuarial Valuation of the Louisiana State Employees' Retirement System*.

- The benchmark earnings assumption developed by the Legislative Auditor's Office for assessing reasonableness was 6.75% per year rate of return, based on: (a) LASERS' own asset allocation, (b) capital market assumptions of a dozen independent professional investment forecasters, (c) a consensus average of these experts' 50th percentile expectation of compound annual returns of the Fund over the mid-term and longer-term time horizons and (d) the Fund's own expected benefit cash flows.

- The new entrant profile (distribution of ages and salaries at hire) for modelling the hires in 2024 and later was developed: (a) by examining the pre-COVID new hire experience among regular rank-and-file Tier 4 employees and (b) increasing those new-hire salaries from then to the year of hire by 2.5% per year.

- DC plan account balances are invested, by default, in stable value funds which are designed to protect principal and avoid volatility and therefore generally have a comparatively low rate of return. NRP participants will be permitted to select their own asset allocation for investing their DC account balances. Therefore, for comparison purposes, we have illustrated the accumulation of DC account balances at 2.0% and 5.5% during their working lives.

- When calculating the normal costs, all DC plan account balances are assumed to be converted to annuities in the DB plan using the conversion interest rate set forth in the bill.

- Charts A and B compared the "value" of the current law benefits to the NRP benefits in terms of actuarial present values at the time of termination or retirement with the then-current account balance being the floor of the value of the DC annuity-converted benefit at termination or retirement.

- For purposes of this analysis, we used an alternative set of retirement rates developed by the system's actuary. The retirement rates used in the June 30, 2021 actuarial valuation were developed based on recent plan experience and reflect retirement patterns associated with different retirement eligibility requirements than the Tier 4 plan and NRP. We believe the rates are a reasonable adjustment for this purpose. A table of the prior and current rates can be found in Appendix B.

Conflict of Interest

There is nothing in the proposed legislation that will compromise the signing actuary's ability to present an unbiased statement of actuarial opinion.

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 at rates that differ from what was 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.

Certification

Kenneth J. Herbold is an Associate of the Society of Actuaries (ASA), a Member of the American Academy of Actuaries (MAAA), and an Enrolled Actuary (EA) under the Employees Retirement Income Security Act of 1974. Mr. Herbold meets the US Qualification Standards necessary to render the actuarial opinion contained herein.

VI. LEGISLATIVE PROCEDURAL ITEMS

Information Pertaining to La. Const. Art. X, §29(F)

[X] This bill contains a retirement system benefit provision having an actuarial cost.

Some members of the Louisiana State Employees' Retirement System could receive a larger benefit with the enactment of this bill than what they would have received without this bill.

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

The first year following the 2022 regular session affected by this bill will be the 2023-24 fiscal year. This is when new hires in the regular rank-and-file Tier 4 category would be covered by the NRP (effective January 1, 2024). It is uncertain exactly what LASERS will charge the affected agencies towards the DB component of the new plan for those new hires since the contribution rate for that year and the following year (2024-25), will be determined in the June 30, 2022 and June 30, 2023 valuations (well before NRP members would be hired, much less reflected in the valuation data).

We presume LASERS will charge a higher contribution rate under this bill for those two years to cover the DC component coverage, as compared to what LASERS would charge without this bill. Considering the expected number of rank-and-file new hires in each of those two years is likely to exceed 2,000, the expected average salaries (averaging $34,062 and $34,914, respectively), and an estimate of the higher contribution rate LASERS may charge the agencies, we conclude that the annual fiscal cost will equal or exceed the $100,000 required for dual referral to Senate Finance. We also conclude the annual General Fund fiscal cost will equal or exceed the $100,000 required for dual referral to House Appropriations.

Senate			House		
X	13.5.1	Applies to Senate or House Instruments. If an annual fiscal cost ≥ $100,000, then bill is dual referred to: **Dual Referral: Senate Finance**	X	6.8F	Applies to Senate or House Instruments. If an annual General Fund fiscal cost ≥ $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 ≥ $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 ≥ $500,000, then the bill is dual referred to: **Dual Referral: Ways and Means**

APPENDIX A

Summary of the New Retirement Plan (NRP) ***For Post-1/1/2024 New Hires -- Regular Rank-and-File Tier 4 Members***		
Plan Provisions	**Defined Benefit (DB) Component of NRP**	**Defined Contribution (DC) Component of NRP**
Participation in NRP	Automatic Enrollment on or after January 1, 2024.	Automatic Enrollment on or after January 1, 2024.
Withdrawal from NRP Participation	Withdrawal of employee contributions upon termination requires distribution of DC Component's vested account balance.	Distribution of DC Component's account balance requires a withdrawal of employee contributions from DB Component, thereby forfeiting any future pension benefits.
Contributions	Employee: 4% of pay Employer: Actuarially determined contribution	Employee: 4% of pay Employer: 3% of pay
Individual Accounts	Not Applicable.	1. Investment options include: stable value fund, target date funds, self-directed brokerage. 2. Default investment option is Stable Value Fund 3. DC accounts are a part of the system funds
Borrowing or withdrawing from the Individual Account	Not Applicable.	Not Allowed.
Retirement Eligibility	1. 62 and 5 Years of Service, 2. 20 Years of Service regardless of age, but with an actuarial benefit reduction.	Upon retirement from the DB plan.
Retirement Benefits	1.80% x Years of Service x Average Compensation.	DC account at retirement to be annuitized.
Average Compensation	Average of the highest 60 consecutive months with 15% anti-spiking rule.	Not Applicable.
DROP or Back-DROP	Not Allowed.	Not Applicable.
Payment Form	Same life annuity form as under the current plan, including the same optional forms of benefit as are available in the current plan (except for the COLA option which is already built into this benefit).	1. Annuitized DC account using a 5.25% discount rate, payable in the same form as selected for the DB component, or 2. Lump sum of the vested DC balance. This option will require a refund of employee DB contributions and forfeit any employer-provided DB benefits.
Termination, death or disablement with less than 5 years of service	Return of employee contributions without investment earnings; no further pension benefits payable	100% of employee contribution plus a vested portion of investment earnings and employer contributions according to the following schedule: <u>Months of Service</u> — <u>Vested Percentage</u> Less than 24 months — 0% At least 24 months — 50% At least 36 months — 75% At least 48 months — 100%
Termination with at least 5 years of service.	Member has a choice between: 1. A refund of DB employee contributions without interest and no further pension benefits or annuity payable (must take a distribution of the DC balance), or 2. An annuity beginning at age 62, based on a 1.8% multiplier and on years of service and average compensation to date; a member may not take a DC distribution until the DB benefit commences.	Member has a choice between: 1. Distribution of the entire DC balance (must also take a refund of DB employee contributions without interest, forfeiting any deferred benefit), or 2. Deferring distribution of the DC balance until DB benefit commencement; if this option is exercised, the DC account at retirement must be annuitized.

APPENDIX A

Summary of the New Retirement Plan (NRP) *For Post-1/1/2024 New Hires -- Regular Rank-and-File Tier 4 Members*		
Plan Provisions	**Defined Benefit (DB) Component of NRP**	**Defined Contribution (DC) Component of NRP**
Disability Benefits	2.50% x years of service x Average Compensation payable without reduction until converted to a regular retirement annuity.	Distribution of individual account balance in the same manner as under regular retirement, at regular retirement age.
Death Benefits	Same as pre-1/1/2011 members under current law	1. Vested portion of DC account paid in a Lump Sum directly to the beneficiary or transferred to another qualified plan. 2. If the beneficiary is the spouse, the vested portion of the DC account may be annuitized at 5.25%.
Assets	Comingled with LASERS legacy DB plan assets	Individual accounts administered by third party providers; DC assets remain under control and trusteed by LASERS but constitutes a separate plan (assets of DC component may not be used for DB benefits unless forfeited or converted and transferred under the terms of the NRP)

APPENDIX B

Defined Benefit (DB) Plan Summary Comparison ***For Post-1/1/2024 New Hires -- Regular Rank-and-File Tier 4 Members***		
Plan Provisions	**Current Law** **DB Plan Provisions**	**SB 438** **DB Component Plan Provisions of the New Retirement Plan (NRP)**
Retirement Eligibility	1. 62 and 5 Years of Service, or 2. 20 Years of Service regardless of age, but with an actuarial benefit reduction.	Same as current law.
Retirement Benefits	2.50% x years of service x Average Compensation	1.80% x years of service x Average Compensation.
Average Compensation	Average of the highest 60 consecutive months with 15% anti-spiking rule.	Same as current law.
Contributions	1. 8% of pay from the employee, 2. Remaining actuarially determined contribution from the employer.	1. 4% of pay from the employee, 2. Remaining actuarially determined contribution from the employer.
COLAs	Provided on an ad-hoc basis subject to the following (as outlined in statute): 1. The increase in the CPI-U, 2. Whether a COLA was granted in prior years, 3. The funded level of the System, 4. Investment performance, 5. Availability of funds in the Experience Account, 6. Approval of the legislature. 7. Applies to the first $60,000 of benefits; indexed annually by the CPI-U.	A 2% COLA will be automatically paid in every odd-numbered year. Annuitization of DC account balance reflects guaranteed COLA.
Experience Account	A portion of investment gains in excess of certain levels are credited to the Experience Account.	Investment gains subject to allocation to the Experience Account will be multiplied by the following ratio: $$\frac{\text{Non-NRP DB Accrued Liability}}{\text{(Non-NRP DB Accrued Liability + NRP DB Component Accrued Liability)}}$$
Disability Benefits	2.50% x years of service x Average Compensation	Same as current law, paid until regular retirement. Benefit paid after regular retirement based on 1.8% multiplier and the accumulated DC balance.
Death Benefits	See June 30, 2021 Actuarial Valuation	Same as pre-1/1/2011 members under current law
Termination, death or disablement with less than 5 years of service	Return of employee contributions without investment earnings; no further pension benefits payable	Same as current law
Termination with at least 5 years of service.	Member has a choice between: 1. A refund of DB employee contributions without interest; no further pension benefits or annuity payable or 2. An annuity beginning at age 62, based on a 2.5% multiplier and on years of service and average compensation to date.	Member has a choice between: 1. A refund of DB employee contributions without interest and no further pension benefits or annuity payable (must take a distribution of the DC balance), or 2. An annuity beginning at age 62, based on a 1.8% multiplier and on years of service and average compensation to date; a member may not take a DC distribution until the DB benefit commences.

APPENDIX C

RETIREMENT/DROP RATES

AGE	June 30, 2021 Actuarial Valuation < 10 YOS	10-19 YOS	20-24 YOS	25-29 YOS	30+ YOS	SB 438 AN
<=37	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
38	0.0%	5.0%	5.0%	5.0%	0.0%	5.0%
39	0.0%	5.0%	5.0%	5.0%	0.0%	5.0%
40	0.0%	5.0%	5.0%	5.0%	0.0%	5.0%
41	0.0%	5.0%	5.0%	5.0%	0.0%	5.0%
42	0.0%	5.0%	5.0%	5.0%	0.0%	5.0%
43	0.0%	5.0%	5.0%	5.0%	0.0%	5.0%
44	0.0%	5.0%	5.0%	5.0%	0.0%	5.0%
45	0.0%	5.0%	5.0%	5.0%	0.0%	5.0%
46	0.0%	5.0%	5.0%	5.0%	0.0%	5.0%
47	0.0%	5.0%	5.0%	5.0%	0.0%	5.0%
48	0.0%	8.0%	8.0%	8.0%	20.0%	8.0%
49	0.0%	8.0%	8.0%	8.0%	20.0%	8.0%
50	0.0%	10.0%	10.0%	10.0%	20.0%	10.0%
51	0.0%	10.0%	10.0%	10.0%	20.0%	10.0%
52	0.0%	10.0%	10.0%	10.0%	20.0%	10.0%
53	0.0%	10.0%	10.0%	10.0%	20.0%	10.0%
54	0.0%	25.0%	25.0%	25.0%	25.0%	15.0%
55	0.0%	18.0%	18.0%	60.0%	60.0%	18.0%
56	0.0%	18.0%	18.0%	20.0%	20.0%	18.0%
57	0.0%	18.0%	18.0%	20.0%	20.0%	18.0%
58	0.0%	18.0%	18.0%	20.0%	20.0%	20.0%
59	0.0%	18.0%	18.0%	20.0%	20.0%	25.0%
60	35.0%	35.0%	35.0%	35.0%	35.0%	30.0%
61	18.0%	18.0%	18.0%	18.0%	18.0%	40.0%
62	17.0%	17.0%	17.0%	17.0%	17.0%	50.0%
63	15.0%	15.0%	15.0%	15.0%	15.0%	50.0%
64	17.0%	17.0%	17.0%	17.0%	17.0%	50.0%
65	20.0%	20.0%	20.0%	20.0%	20.0%	50.0%
66	18.0%	18.0%	18.0%	18.0%	18.0%	50.0%
67	18.0%	18.0%	18.0%	18.0%	18.0%	50.0%
68	18.0%	18.0%	18.0%	18.0%	18.0%	50.0%
69	18.0%	18.0%	18.0%	18.0%	18.0%	50.0%
70	18.0%	18.0%	18.0%	18.0%	18.0%	50.0%
71	18.0%	18.0%	18.0%	18.0%	18.0%	50.0%
72	18.0%	18.0%	18.0%	18.0%	18.0%	50.0%
73	18.0%	18.0%	18.0%	18.0%	18.0%	50.0%
74	18.0%	18.0%	18.0%	18.0%	18.0%	50.0%
75+	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%