2016 REGULAR SESSION
ACTUARIAL NOTE HB 50

House Bill 50 HLS 16RS-200 **Original** **Author: Representative Barry Ivey** **Date: April 27, 2016** **LLA Note HB 50.01** **Organizations Affected:** **State Retirement Systems** **OR DECREASE APV**	**This Note has been prepared by the Actuarial Services Department of the Office of the Legislative Auditor. The attachment of this Note to HB 50 provides compliance with the requirements of R.S. 24:521** **Paul T. Richmond, ASA, MAAA, EA** **Manager Actuarial Services**

<u>Bill Header:</u> RETIREMENT/STATE SYSTEMS: Establishes a tiered accrual rate for new members of state retirement systems whose first employment making them eligible for membership in a state system occurs on or after July 1, 2018.

<u>Cost Summary:</u>

The estimated actuarial and fiscal impact of the proposed legislation is summarized below. Actuarial costs pertain to changes in the ***actuarial present value of future benefit payments***. A cost is denoted by "Increase" or a positive number. Savings are denoted by "Decrease" or a negative number.

Actuarial Cost to Retirement Systems	Decrease
Total Five Year Fiscal Cost	
Expenditures	Decrease
Revenues	Decrease

<u>Estimated Actuarial Impact:</u>

The chart below shows the estimated change in the ***actuarial present value of future benefit payments***, if any, attributable to the proposed legislation. A cost is denoted by "Increase" or a positive number. Savings are denoted by "Decrease" or a negative number. Present value costs associated with administration or other fiscal concerns are not included in these values.

<u>Actuarial Cost to:</u>	**<u>Change in the Actuarial Present Value</u>**
All Louisiana Public Retirement Systems	Decrease
Other Post Retirement Benefits	Decrease
Total	Decrease

<u>Estimated Fiscal Impact:</u>

The chart below shows the estimated fiscal impact of the proposed legislation. This represents the effect on cash flows for the retirement systems and other government entities. Fiscal costs include estimated administrative costs and costs associated with other fiscal concerns. A fiscal cost is denoted by "Increase" or a positive number. Actuarial or fiscal savings are denoted by "Decrease" or a negative number.

EXPENDITURES	**2016-17**	**2017-18**	**2018-19**	**2019-2020**	**2020-2021**	**5 Year Total**
State General Fund	$ 0	Decrease	Decrease	Decrease	Decrease	Decrease
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	Decrease	Decrease	Decrease	Decrease	Decrease
Annual Total	$ 0	Decrease	Decrease	Decrease	Decrease	Decrease

REVENUES	**2016-17**	**2017-18**	**2018-19**	**2019-2020**	**2020-2021**	**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

<u>Bill Information:</u>

Current Law

Current law provides retirement benefits for employees of the state participating in the Louisiana State Employees' Retirement System (LASERS), the Teachers' Retirement System of Louisiana (TRSL), the Louisiana School Employees' Retirement System (LSERS), and the Louisiana State Police Retirement System (STPOL). In general, new non-hazardous duty personnel receive benefits based on an accrual rate of 2.5% per year of service multiplied by five year final average compensation. The accrued rate for hazardous duty personnel is 3 1/3% per year of service multiplied by a five year final average compensation.

Proposed Law

HB 50 establishes a new tier of benefits for employees first employed by the state on or after July 1, 2018. HB 50 will not have any effect on participants first employed on or before June 30, 2018. The primary differences between HB 50 and current law are summarized below.

Plan Provisions	**Current Law**	**HB 50**
Accrued Benefit	***Non-Hazardous Duty Personnel of LASERS, TRSL, and LSERS:*** Accrued Benefit = 2.5% x years of service x 5-year final average compensation Judges receive additional 1% for each year of service as a judge.	***Non-Hazardous Duty Personnel of LASERS, TRSL, and LSERS:*** Accrued Benefit = [1.50% for the first 5 years of service + 1.75% for the 6th through 10th years of service + 2.00% for the 11th through 15th years of service + 2.50% for the 16th through 25th years of service + 3.00% for the 26th through 30th years of service + 3.25% for the 31st through 35th years of service + 4.00% for each year of service thereafter] x 5-year final average compensation Judges receive additional 1% for each years of service as a judge.
	Hazardous Duty Personnel of LASERS and STPOL: Accrued Benefit = 3 1/3% x years of service x 5-year final average compensation	***Hazardous Duty Personnel of LASERS and STPOL:*** Accrued Benefit = [2.00% for the first 5 years of service + 2.50% for the 6th through 10th years of service + 3.25% for the 11th through 15th years of service + 3.75% for the 16th through 20th years of service + 4.00% for the 21st through 25th years of service + 4.50% for each year of service thereafter] x 5-year final average compensation
Maximum Benefit	100% x 5-year FAC	100% x 5 year FAC

1. Disability and Survivor benefits and plan provisions under HB 50 are the same as under current law.

2. HB 50 writes this formula as 1.75% for the fifth year though the ninth year, etc. We assume the drafter meant to write the sixth year through the tenth year, etc.

Implications of the Proposed Changes

Non-hazardous duty personnel with more than 38 1/3 years of service at retirement, but less than 40 years, will receive a benefit that is greater under HB 50 than under current law. Termination of employment at all other accumulated service amounts will produce benefits that are less than or equal to benefits payable under current law.

<u>Cost Analysis:</u>

Analysis of Actuarial Costs

HB 50 contains benefit provisions having an actuarial cost.

Retirement Systems

Benefit Comparison

Comparisons of benefits payable under various circumstances are summarized below.

1. Termination or retirement benefits payable under HB 50 to non-hazardous duty personnel with fewer than 38 1/3 years of service will be less than benefits payable under current law.

2. Retirement benefits payable under HB 50 to non-hazardous duty personnel with exactly 38 1/3 years and 40 or more years of service will be exactly the same as benefits payable under current law.

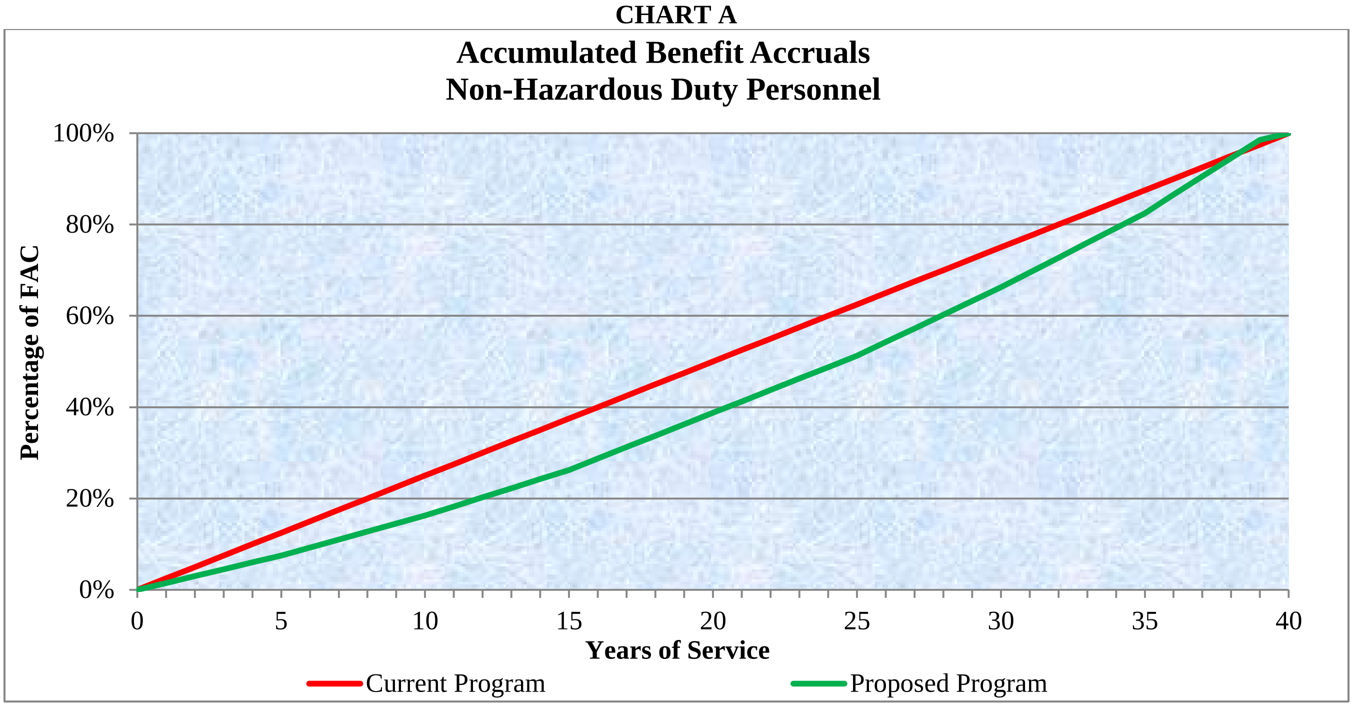
3. Termination or retirement benefits payable under HB 50 to non-hazardous duty personnel with more than 38 1/3 years of service but less than 40 years will be greater than benefits payable under current law.

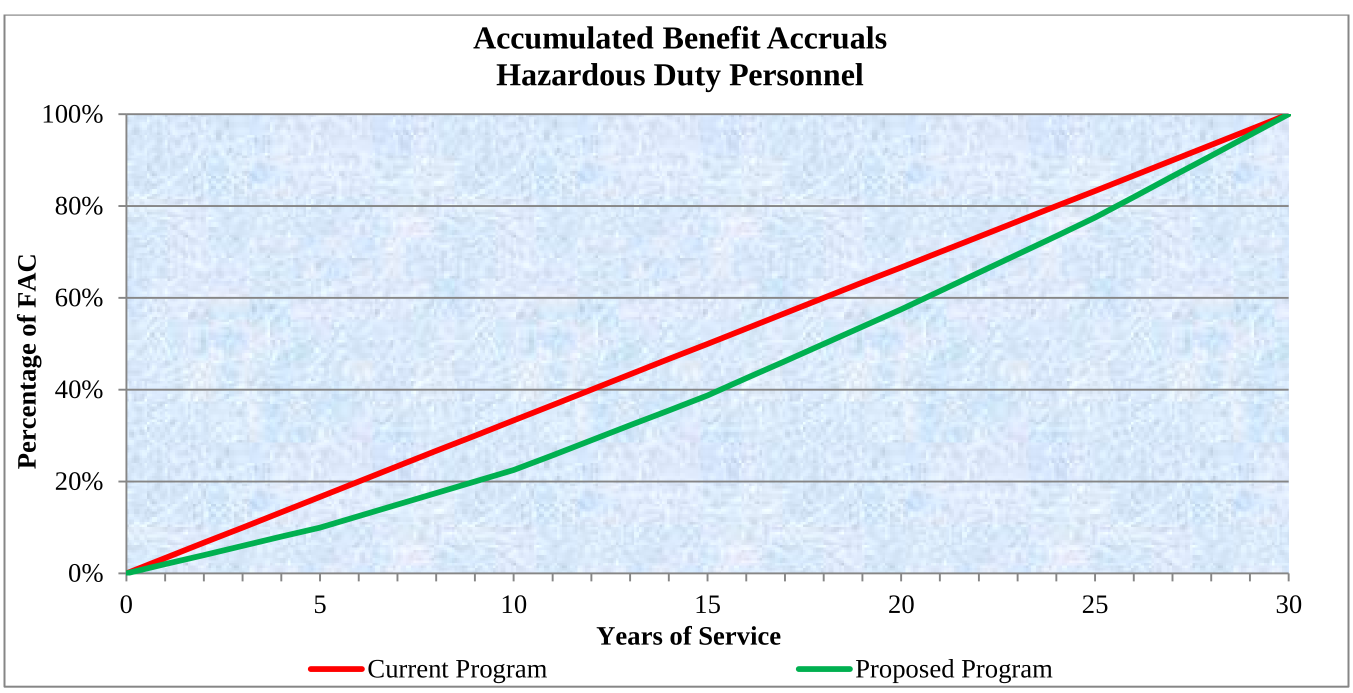
4. Benefits for hazardous duty personnel, no matter the circumstances, will be less than or equal to benefits under current law.

5. Disability and survivor benefits will be the same under HB 50 as under current law.

Accumulated benefit accruals under HB 50 are compared below with accumulated accruals under current law.

CHART A



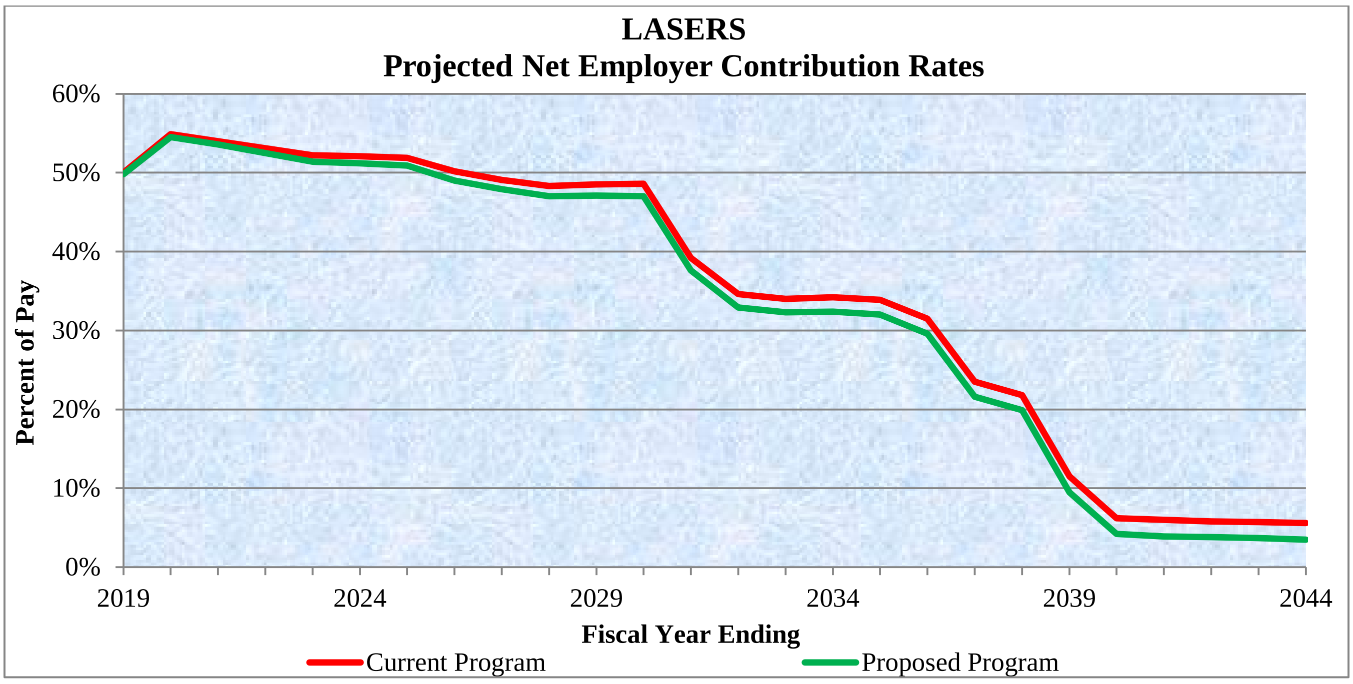


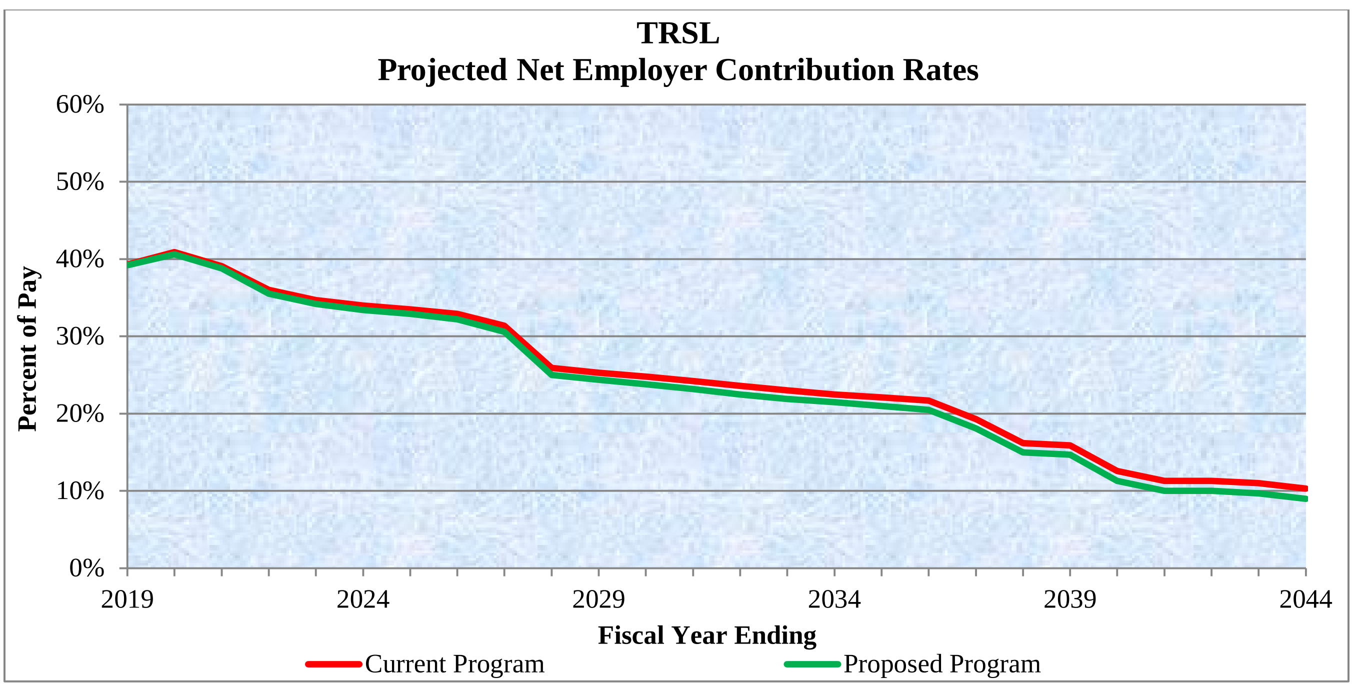
Cost Comparison

Charts B, C, and D have been prepared under the assumption that current laws and laws under the proposed HB 50 will continue to exist indefinitely into the future. However, whether projections are based on current law or proposed law, the retirement systems will reach a point in our projection period where the UAL will be paid off and continuation of the constitutional minimum contribution or the legislative minimum will cease to be realistic. Obviously, this will be "good news". However, the great unknown is how the legislature will respond to the good news. Options that will be available to the legislature at that time are discussed under the observations for Chart D. In our analysis, however, we have continued to recognize minimum contribution requirements because we cannot predict the decisions the legislature will make at that time.

Projected employer contribution rates with the HB 50 program are compared below with projected employer contribution rates with the current plan.

CHART B





Observations about Chart B:

1. Employer contribution rates with the proposed program will be slightly less than with the current program.

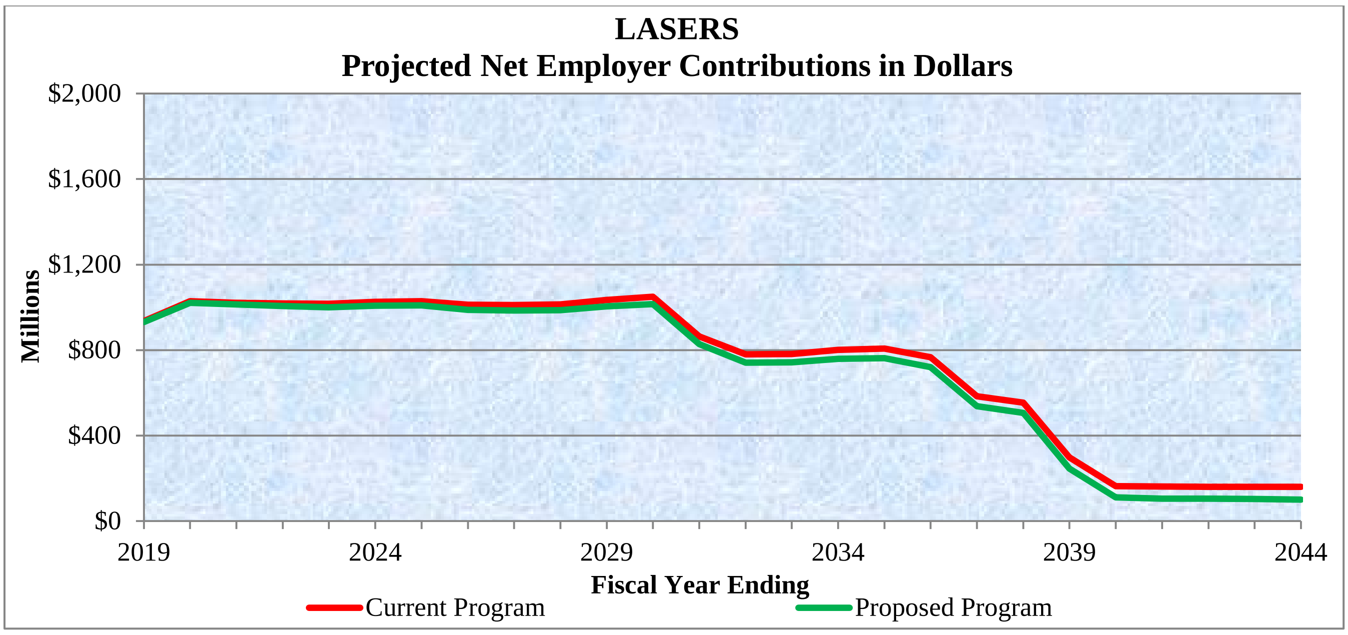
2. Employer contribution rates are virtually the same initially. However, employer contribution rates with the enactment of HB 50 will become progressively lower than what they would have been under current law.

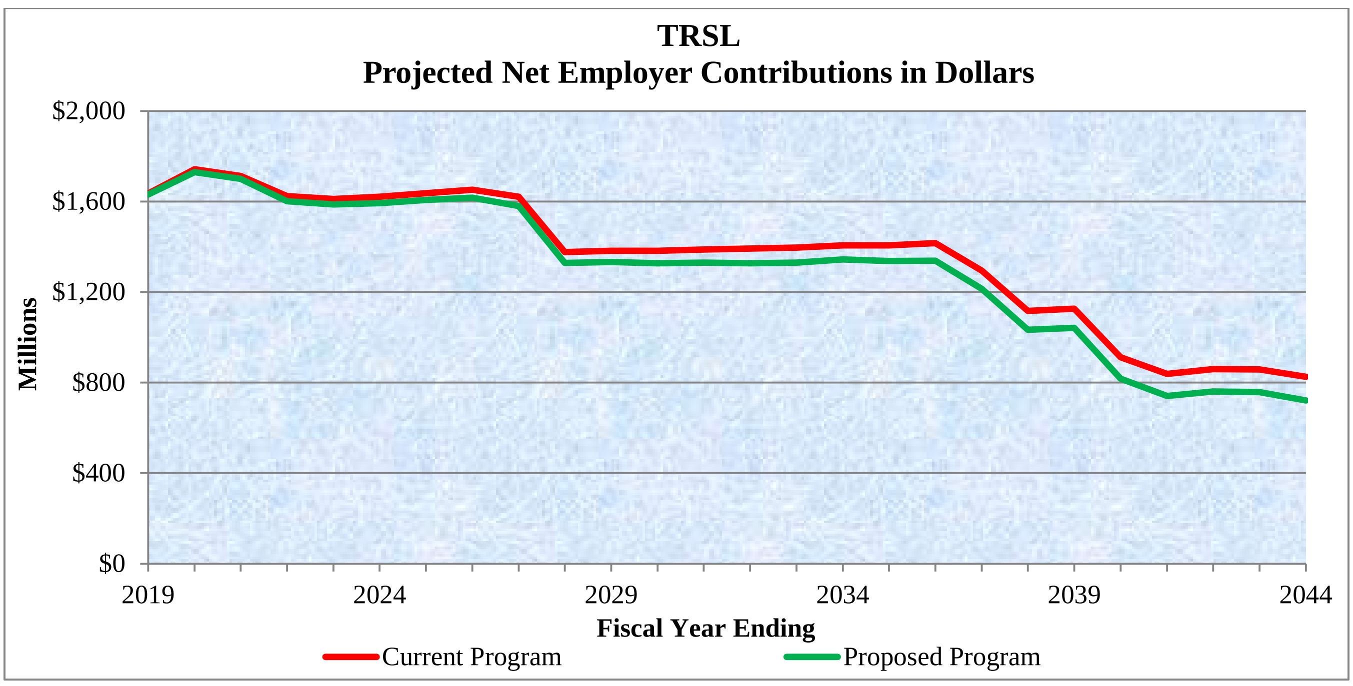
3. By 2043, the employer contribution rate is estimated to be about 7% of pay for LASERS with the current program but only 5% with the proposed program. The 2% differential remains essentially the same thereafter.

4. By 2043, the employer contribution rate is estimated to be about 10% of pay for TRSL with the current program but only 9% with the proposed program. The 1% differential remains essentially the same thereafter.

Employer contributions in dollars are compared below. Chart C shows a similar pattern relative to employer contributions as Chart B.

CHART C





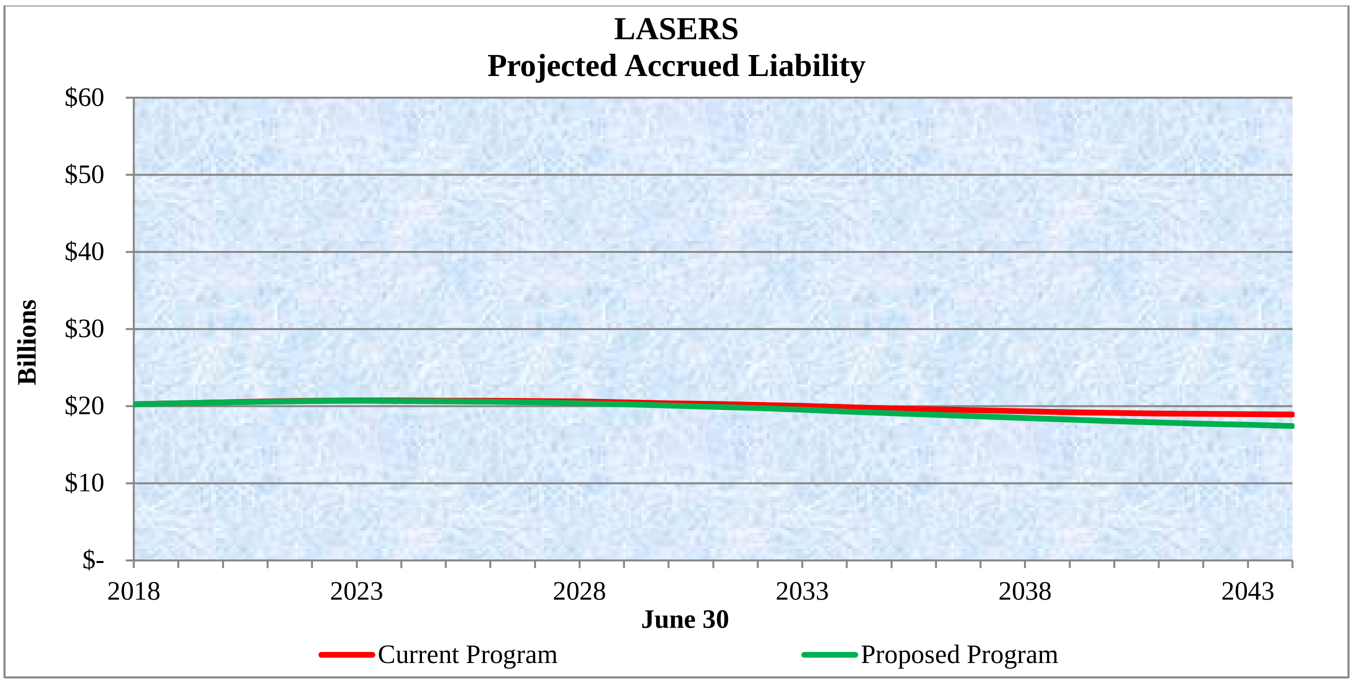
Observations about Chart C:

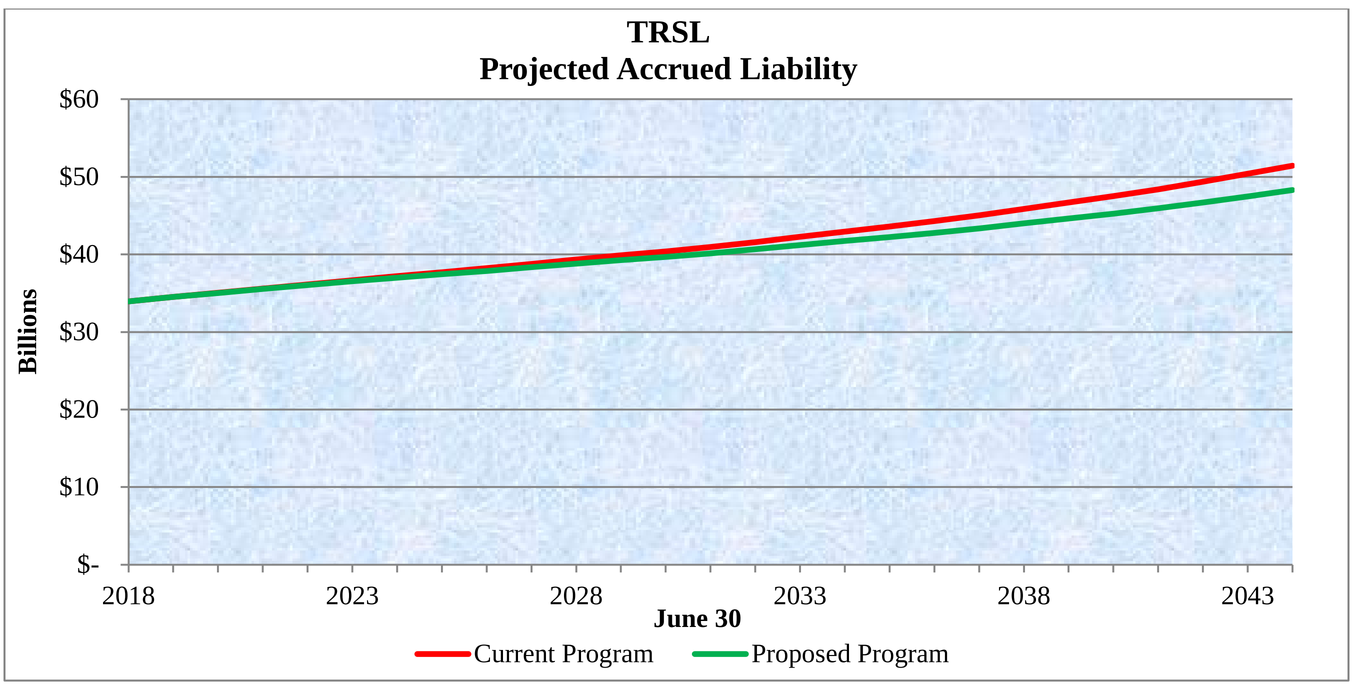
1. For LASERS, projected employer contribution requirements in dollars are virtually the same with the two programs until FYE 2030, although requirements with the proposed program are slightly smaller. Thereafter, contribution requirements are close to one another but a more distinctive difference begins to occur. Enactment of the proposed program will result in employer contributions being about $59 million less in 2044 than continuation of the current program. Ultimately, the cost of the proposed program will be only about 63% of the cost of the current program.

2. For TRSL, projected employer contribution requirements in dollars with the proposed and current programs are close to one another through FYE 2027. Thereafter, requirements begin to diverge. Employer contribution requirements with the proposed program will be about $48 million less for FYE 2027 than with continuation of the current program. By 2044, the differential increases to about $107 million. Ultimately, the cost of the proposed program will be only about 86% of the cost of the current program.

Changes in the accrued liability are shown below in Chart D. The unfunded actuarial accrued liability with the proposed program decreases more rapidly (LASERS), or doesn't increase as rapidly (TRSL), than with the current program.

CHART D





Observations about Chart D and Its Supporting Data:

1. The unfunded accrued liability for LASERS is projected to be paid off by June 30, 2037 with the current program. With the proposed program the UAL is also projected to be completely amortized by FYE 2037.

2. Because the UAL will be paid off and an asset surplus will exist, the legislature in the decade of the 2030s will be presented with several policy choices relative to LASERS that will be perceived as "good news." These choices are identified below:

   a. Contribution Holiday: Because either of the programs will have more assets than accrued liabilities, the state could take a contribution holiday by using the interest on the surplus to pay for normal costs.

   b. De-Risking: LASERS could reduce its risk by investing assets in more conservative, less volatile securities. As a result, the assumed rate of return on assets would decrease, the accrued liability would increase, and it may become necessary for the state to annually contribute the normal cost. The end result, however, would be a more secure retirement program that has fulfilled and will continue to fulfill the constitutional mandate to attain and maintain funding on a basis that is actuarial sound.

   c. COLAs: A systematic COLA program could be implemented for existing retirees. Because they bore the brunt of the state and retirement system's financial instability during their working career, the legislature may believe they should perhaps be the first to benefit in the good times.

   d. Other Benefit Improvements: Should it become law, the proposed program could be improved to help achieve greater equity between the proposed program and the program that would have existed had the law not been changed.

3. The UAL for TRSL is not projected to be paid off until the decade of the 2040s. The system and the legislature will be presented with the same "good new" as LASERS will receive in the 2030s. Its options at that time will be similar.

Other Post-Employment Benefits

The actuarial cost associated with HB 50 relative to post-retirement benefits other than pensions is expected to decrease. Members of the state retirement systems are likely to delay retirement to accumulate additional retirement income in order to replace the income they would have received under the current program.

Analysis of Fiscal Costs

HB 50 will have the following effect on fiscal costs over the 5-year measurement period.

Expenditures:

1. Expenditures from the General Fund are expected to decrease because employer contribution requirements are expected to be smaller.

2. Expenditures from Local Funds are expected to decrease because employer contribution requirements are expected to be smaller.

Revenues:

1. State retirement system revenues (Agy Self-Generated) are expected to decrease because employer contributions will decrease.

Actuarial Data, Methods and Assumptions

This actuarial note was prepared using actuarial data, methods, and assumptions as disclosed in the most recent actuarial valuation report adopted by PRSAC subject to the following exceptions.

1. This analysis has been prepared by explicitly recognizing administrative expenses and gain sharing. The PRSAC valuations were prepared by implicitly recognizing administrative expenses and gain sharing.

2. The discount rate we used in our analysis is based on the average of capital market assumptions for eight leading investment consulting firms. Discount rates used in the PRSAC valuations are based on capital market assumptions developed by LASERS' investment consultant (NEPC) and by TRSL's investment consultant (Aon-Hewitt).

3. The discount rates used in our analysis for LASERS and TRSL were 6.75% and 6.50% respectively for the Pre 2018 program. The actual emerging investment performance for LASERS and TRSL were projected to be 6.75% and 6.50%. The discount rates used for the PRSAC valuations were 7.75% for both systems.

4. We used a 2.50% inflation assumption in our analysis. LASERS used a 3.00% inflation rate for the PRSAC valuation and TRSL used a 2.50% inflation assumption.

Actuarial Caveat

There is nothing in HB 50 that will compromise the signing actuary's ability to present an unbiased statement of actuarial opinion.

Actuarial Credentials:

Paul T. Richmond is the Manager of Actuarial Services for the Louisiana Legislative Auditor. He is an Enrolled Actuary, a member of the American Academy of Actuaries, a member of the Society of Actuaries and has met the Qualification Standards of the American Academy of Actuaries necessary to render the actuarial opinion contained herein.

Dual Referral:

Senate	**House**
☐ 13.5.1: Annual Fiscal Cost ≥ \$100,000	☐ 6.8(F)(1): Annual Fiscal Cost ≥ \$100,000
☐ 13.5.2: Annual Tax or Fee Change ≥ \$500,000	☐ 6.8(F)(2): Annual Revenue Reduction ≥ \$100,000
	☐ 6.8(G): Annual Tax or Fee Change ≥ \$500,000