2018 REGULAR SESSION
ACTUARIAL NOTE SB 14

Senate Bill 14 SLS 18RS-79 **Engrossed with Senate Retirement Committee Amendment #1410** **Author: Senator Peacock** **Date: March 29, 2018** **LLA Note SB 14.02** **Organizations Affected:** **Louisiana State Employees' Retirement System** **EG INCREASE APV**	**This Note has been prepared by the Actuarial Services Department of the Legislative Auditor with assistance from either the Fiscal Notes staff of the Legislative Auditor or staff of the Legislative Fiscal Office. The attachment of this Note provides compliance with the requirements of R.S. 24:521 as amended by Act 353 of the 2016 Regular Session.** Paul T. Richmond **Paul T. Richmond, ASA, MAAA, EA** **Manager Actuarial Services**

<u>Bill Header:</u> STATE EMPLOYEE RET. Provides for a hybrid plan for rank and file members. (2/3 – CA 10s29(F)) (6/30/18)..

<u>Cost Summary:</u>

The estimated actuarial and fiscal impact of SB 14 on the retirement systems and their plan sponsors is summarized below. Actuarial costs pertain to estimated changes in the ***actuarial present value of future benefit payments***. Fiscal costs or savings pertain to changes to all cash flows over the next five year period including retirement system cash flows, OPEB cash flows, or cash flows related to other government entities.

An increase in actuarial costs is denoted throughout the actuarial note by "Increase" or a positive number. Actuarial savings are denoted by "Decrease" or a negative number. An increase in expenditures or revenues (fiscal impact) is denoted by "Increase" or a positive number. A decrease in expenditures or revenues is denoted by "Decrease" or a negative number.

<u>Estimated Actuarial Impact:</u>

The top part of the following chart shows the estimated change in the ***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.

Actuarial Costs Pertaining to:		**<u>Actuarial Cost</u>**
The Retirement Systems		Increase
Other Post Employment Benefits (OPEB)		Decrease
Other Government Entities		<u>0</u>
Total		Increase
Five Year Fiscal Cost Pertaining to:	**<u>Expenses</u>**	**<u>Revenues</u>**
The Retirement Systems	$ 9,860,000	$ 9,860,000
Other Post Employment Benefits	0	0
Other Government Entities	<u>0</u>	<u>0</u>
Total	$ 9,860,000	$ 9,860,000

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.

<u>Bill Information</u>

Current Law

Under current law, members of the Louisiana State Employees' Retirement System (LASERS) participate in a traditional defined benefit (DB) pension plan.

The benefit payable to future Rank and File employees (Tier 4) is generally equal to 2.5% x years of service x the member's final average compensation. Future Judges (Tier 3) receive an additional 1.0% for each year of service as a judge. For Hazardous Duty Personnel, the accrual rate is generally equal to 3 1/3% per year of service.

The current plan provides disability benefits that are based on the same accrual rates as those that apply at retirement. Survivor benefits are also provided.

Participation in LASERS is generally a condition of employment and requires an 8.00% contribution from Rank and File personnel first employed after June 30, 2006 (7.50% for members first hired on or before that date) and a 9.50% contribution from employees working in positions classified as hazardous. Under current law, a future non-hazardous duty employee of the state will be a member of the Rank and File sub-plan of LASERS and will be entitled to benefits based on provisions that apply to members employed on or after July 1, 2015. Future hazardous duty personnel will become members of the Hazardous Duty sub-plan of LASERS.

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Proposed Law

SB 14 only affects LASERS. Under SB 14, new Rank and File members first employed on or after July 1, 2020 (effective date) will participate in a hybrid retirement program. Provisions applicable to LASERS members other than Rank and File are not affected by the proposed law.

The hybrid benefit program consists of two components: a less generous traditional DB plan and a supplemental defined contribution (DC) plan. Hybrid members will continue to contribute 8%, of which 4% is applied to the DB component and 4% to their DC component plan's account.

There will be no separation of assets between the pre-effective date legacy DB plan (for current members) and the DB component of the hybrid program (for new members), and no separate amortizations of Unfunded Actuarial Liabilities (UAL). All assets for both are pooled for investment purposes and all assets may be used to pay benefit of any members in either program. This note was prepared assuming that employer contribution rates applicable to the DB component of the hybrid plan will be developed by comingling its normal cost with the normal cost of the legacy Rank and File membership tiers and by adding all shared UAL payments applicable to pre-effective date and post-effective date Rank and File participants. The assets in the DC component, of course, constitute a separate plan. The assets are not commingled for investment purposes and no DC plan assets are available to pay DB benefits or vice versa.

Key provisions of the hybrid plan are summarized in Table 1.

Table 1: SB14 Summary – Hybrid Retirement Plan (HRP) – 1/1/2020
(Applicable to Rank and File Plan of LASERS Only)

Hybrid Plan for Post-2020 Rank and File Employees		
Plan Provisions	**Hybrid DB Component**	**Hybrid DC Component**
Participation	Mandatory participation for Rank and File employees hired on or after July 1, 2020.	Mandatory participation for Rank and File employees hired on or after July 1, 2020.
Contributions	4% of pay from the employee. Actuarially determined contribution from the employer.	4% of pay for the employee. 3% of pay for the employer.
Individual Accounts	Not Applicable	1. Administered and maintained by a third-party provider. 2. Choice between a stable value fund, target date fund, and a self-directed brokerage account managed by a third party provider. 3. Additional Member contributions will not be allowed.
Borrowing or withdrawing from the Individual Account	Not Applicable	Not Allowed
Final Average Compensation	Average of the highest 60-consecutive months with 15% anti-spiking rule	Not Applicable
Retirement Benefits	1.5% x years of credited service x final average compensation	1. 75% or more of the DC account at retirement must be annuitized, transferred from the DC account vendor to the commingled DB plan. 2. No more than 25% of the DC at retirement may be rolled over or paid as a lump sum
Retirement Eligibility	1. 65 and 5 years of service. 2. 55 and 20 years of service with actuarial reduction.	Upon retirement from the DB plan.
Annuity Payment Form	Same as under the pre-2018 plan, except no fixed COLA option is available. The Hybrid's DB component already contains a fixed COLA.	DC balances are annuitized through the aggregated LASERS DB plan. The annuity is paid at the same time and in the same form as benefits from the Hybrid's DB component.
DROP or Back-DROP	Not Allowed	Not Applicable

Hybrid Plan for Post-2020 Rank and File Employees		
Plan Provisions	**Hybrid DB Component**	**Hybrid DC Component**
Termination, death or disablement with less than 5 years of service	Return of employee contributions without investment earnings	100% of employee contribution plus a vested portion of investment earnings and employer contributions according to the following schedule: Months of Contribution — Vested Percentage 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: - A refund of DB employee contributions without interest (must take a distribution of the DC balance), or - An annuity beginning at age 65; a member may not take a DC distribution until the DB benefit commences).	Member has a choice between: - Distribution of the entire DC balance (must also take a refund of DB employee contributions without interest, forfeiting any deferred benefit), or - Deferring distribution of the DC balance until DB benefit commencement; if this option is exercised, 75% or more of the DC account at retirement must be annuitized at that time.
Eligibility for Disability Benefits	10 years of service	No eligibility requirement
Disability Benefits	Accrued Benefit payable immediately without reduction.	Vested DC balance paid as a lump sum.
Eligibility for Death Benefits	1. 5 years of service for a death benefit to minor, unmarried or handicapped children 2. 10 years for a death benefit to spouse	No age or service eligibility conditions.
Death Benefits	1. 75% of the deceased member's average compensation, minimum of $300 per month, payable to children after 5 years of service. 2. 50% of the deceased member's average compensation, minimum of $200 per month, payable to spouse after 10 years of service. 3. Combined benefit payable to the spouse and all children cannot exceed the greater of 75% percent of the deceased member's average compensation, or $300 per month	Vested balance to named beneficiary; any portion of the DC balance can be annuitized if the beneficiary is a qualifying spouse
COLA Eligibility	All members of the Plan age 65 or older and retired for at least one year.	All members of the plan age 65 or older and retired for at least one year, based on the annuitized benefit.
COLA Benefit	2% increase in full DB benefit every odd-numbered year in which LASERS is at least 65% funded; not dependent on investment gains.	Not applicable. COLAs are paid from the Hybrid DB component during retirement.
Assets	Comingled with LASERS legacy DB plan assets	1. Individual accounts are administered by third party providers. 2. Non-vested portions of balances revert to LASERS legacy DB plan 3. Annuitized portion transferred to LASERS fund. 4. DC assets remain assets under control and trusteed by LASERS but constitutes a separate plan

A comparison of the key provisions of the current DB plan with the key provisions of the proposed hybrid DB component is given below in Table 2.

Table 2: SB14 Comparison – Hybrid DB Component – 1/1/2020
(Tier 4 is Applicable to Rank and File Class of LASERS hired after July 1, 2015)

DB Plan Comparison		
Plan Provisions	**Current Law** **DB Plan for Tier 4 Members**	**SB 14** **Hybrid DB Component**
Employee Contributions	8.00% of pay	4.00% of pay
Employer Contributions	1. Total normal cost less employee contributions. 2. Payments to amortize the UAL.	1. Total normal cost less employee contributions. 2. Payments to amortize the UAL.
Retirement Eligibility	1. 62 and 5 years of service. 2. 20 years of service with actuarial reduction.	1. 65 and 5 years of service. 2. 55 and 20 years of service with actuarial reduction.
Retirement Benefits	2.50% x years of service x final average compensation	1.50% x years of service x final average compensation
COLAs, Gain Sharing and the Experience Account	COLAs are provided under a gain sharing arrangement. A portion of investment gains are deposited into the Experience Account. COLA benefits are funded by amounts in the Experience Account. A COLA grant depends on: 1. The increase in the CPI-U. 2. Whether a COLA was granted in prior year. 3. The funded level of each system 4. Investment performance 5. Availability of funds in the Experience Account. 6. Approval of the Legislature and Governor. Other COLA rules: 1. COLAs apply to the first $60,000 of benefits; the cap is indexed annually by the CPI-U. 2. Must be at least age 60 to be eligible for a COLA.	A COLA will be paid in every odd-numbered year that the plan is at least 65% funded. COLA are not dependent on investment gains. COLA rules: 1. 2.0% every other year. 2. Must be at least age 65 to be eligible for a COLA.
Eligibility for Disability Benefits	10 years of service	10 years of service
Disability Benefits	Accrued benefit (at 2.50%) payable immediately without reduction.	Accrued benefit (at 2.50%) payable immediately without reduction.
Eligibility for Death Benefits	1. 5 years of service for a death benefit to minor, unmarried or handicapped children. 2. 5 years for a death benefit to a spouse with children. 3. 10 years for a death benefit to a spouse without children.	1. 5 years of service for a death benefit to minor, unmarried or handicapped children. 2. 10 years for a death benefit to spouse.

DB Plan Comparison		
Plan Provisions	**Current Law** **DB Plan for Tier 4 Members**	**SB 14** **Hybrid DB Component**
Death Benefits	1. 50% of accrued benefit with no reduction, minimum of $600 per month payable to spouse with children. 2. Up to two Surviving children receive 50% of benefit due to spouse, includes physically handicapped or mentally disabled dependents. 3. 50% of accrued benefit with no reduction, minimum of $600 per month payable to spouse without children. 4. Benefit accrued at 2.5%	1. 75% of the deceased member's average compensation, minimum of $300 per month, payable to children after 5 years of service. 2. 50% of the deceased member's average compensation, minimum of $200 per month, payable to spouse after 10 years of service. 3. Combined benefit payable to the spouse and all children cannot exceed the greater of 75% percent of the deceased member's average compensation, or $300 per month
Termination, death or disablement with less than 5 years of service	Return of employee contributions without investment earnings	Return of employee contributions without investment earnings
Termination of service after 5 years	Member has a choice between: 1. A refund of employee contributions without interest, or 2. An annuity beginning at age 62.	Member has a choice between: 1. A refund of DB employee contributions without interest if also taking a distribution of the DC balance, or 2. An annuity beginning at age 65 (cannot take a DC distribution).

Implications of the Proposed Changes

SB 14 establishes a hybrid plan for Rank and File members of LASERS first employed by the State on or after July 1, 2020. The hybrid plan consists of DB and DC components.

I. ACTUARIAL ANALYSIS SECTION

A. Analysis of Actuarial Costs
(Prepared by the LLA)

This section of the actuarial note pertains to actuarial costs or savings associated with the retirement systems, with OPEB, and with other government entities.

There is an actuarial cost to SB 14.

1. Retirement Systems

The actuarial cost of SB 14 associated with LASERS and its plan sponsors is expected to increase. Our analysis is summarized below.

Benefit Comparison – For New Hires

A 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. A 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.

Chart A below compares the value of retirement benefits that a Rank and File Tier 4 member (hired on or after July 1, 2015) would receive under the current law with the combined value of retirement benefits he would receive under SB 14, using an apples-to-apples comparison. Benefits under the Hybrid DB and Hybrid DC components are actuarially adjusted to the same annuity form, retirement age and expected COLA level as the current plan. This puts the comparison of hybrid benefits on equal footing with current benefits. Only retirement benefits are compared here, without regard to refunds, disability or death benefits.

This Chart A illustrates the demographic of new hires that are better-off or worse-off under current law as compared with SB 14.

CHART A

Note: The larger the circle the greater the difference between the benefit that will be earned under the current and proposed programs.

Observations about Chart A:

1. The proposed program will provide a better benefit than the current program for new hires who are age 46 and younger when they terminate employment; and a worse benefit than the current program for new hires who are older than age 46 when they terminate or retire.

2. The proposed program tends to favor employees who join at the youngest ages and who leave well before attaining retirement age. Note that the largest green dots follow the diagonal, which reflects those who join at age 18.

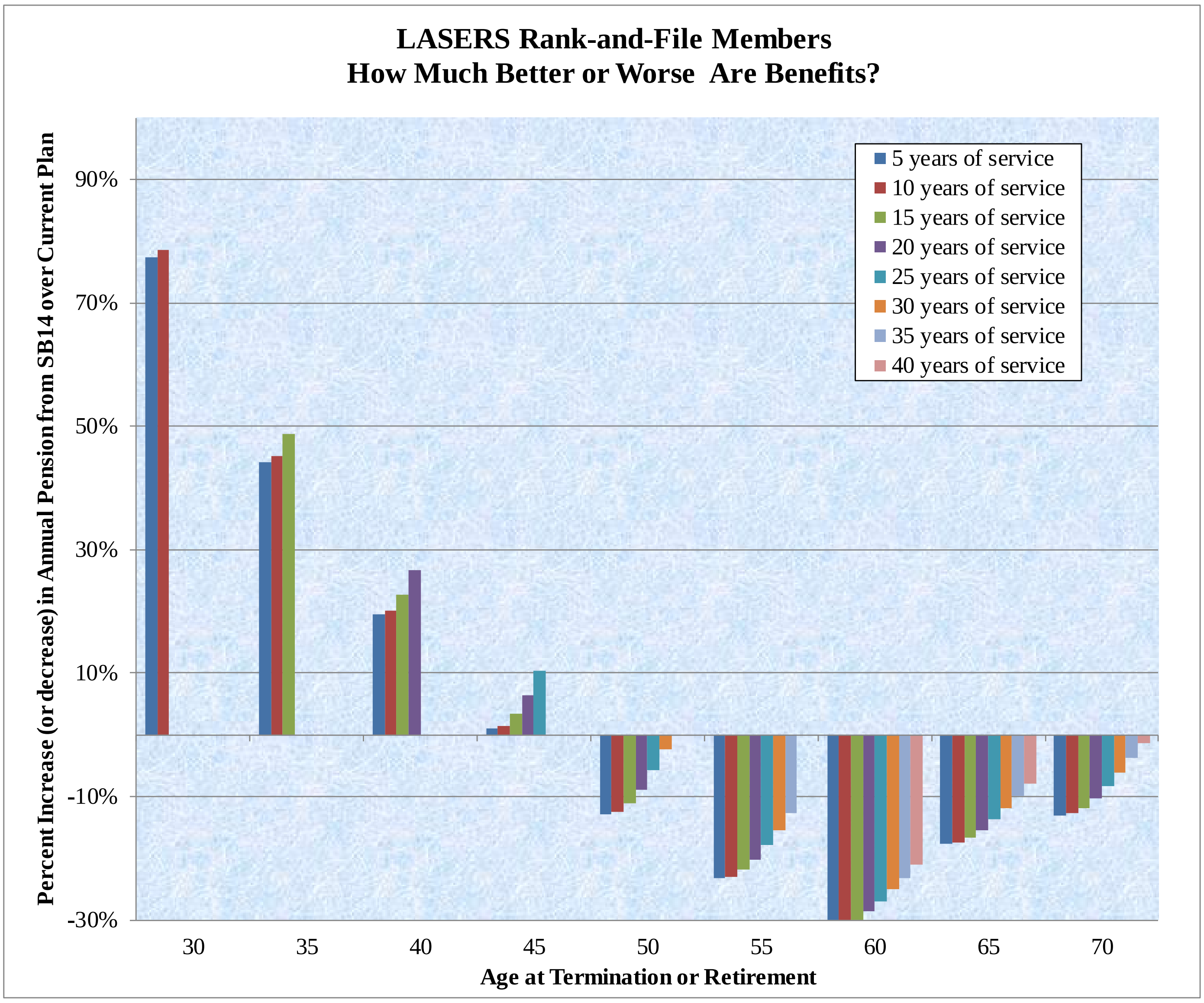
3. The current program is more favorable to those who retire during the prime retirement ages – ages 58 to 62. The current program provides better benefits for career employees.

4. Although the current program is more favorable for those who retire at age 65 and later, the benefit difference between the two programs becomes smaller as age and service increase beyond that point.

Chart A is instructive for determining *which* program provides a better benefit, the current program or the proposed one.

Chart B highlights information about *how much* better or worse one program is than the other.

CHART B



Observations about Chart B:

1. The proposed program provides a significantly better benefit for a participant who terminates employment at age 30 with 5 or 10 years of service. The benefit under the proposed program is approximately 80% more than the benefit that would be available under current law. In either case however, the value of the benefit is quite small. Under the proposed program, the terminating member will have accumulated retirement wealth that includes his own contributions, his employer's contributions to the DC account, and investment earnings on all contributions. Under the current program, the terminating participant's wealth accumulation toward retirement will be limited to his own contributions without interest.

2. At age 60, a participant will receive a benefit from the proposed program that is approximately 70% of the benefit that he would have received from the current program. Notice that the more service the member has earned, the smaller the differential between the two programs.

3. At age 65, a participant will receive a benefit from the proposed program that is approximately 80% of the benefit that he would have received from the current program.

This Chart B highlights information about *how much* better or worse one program is than the other, for new hires.

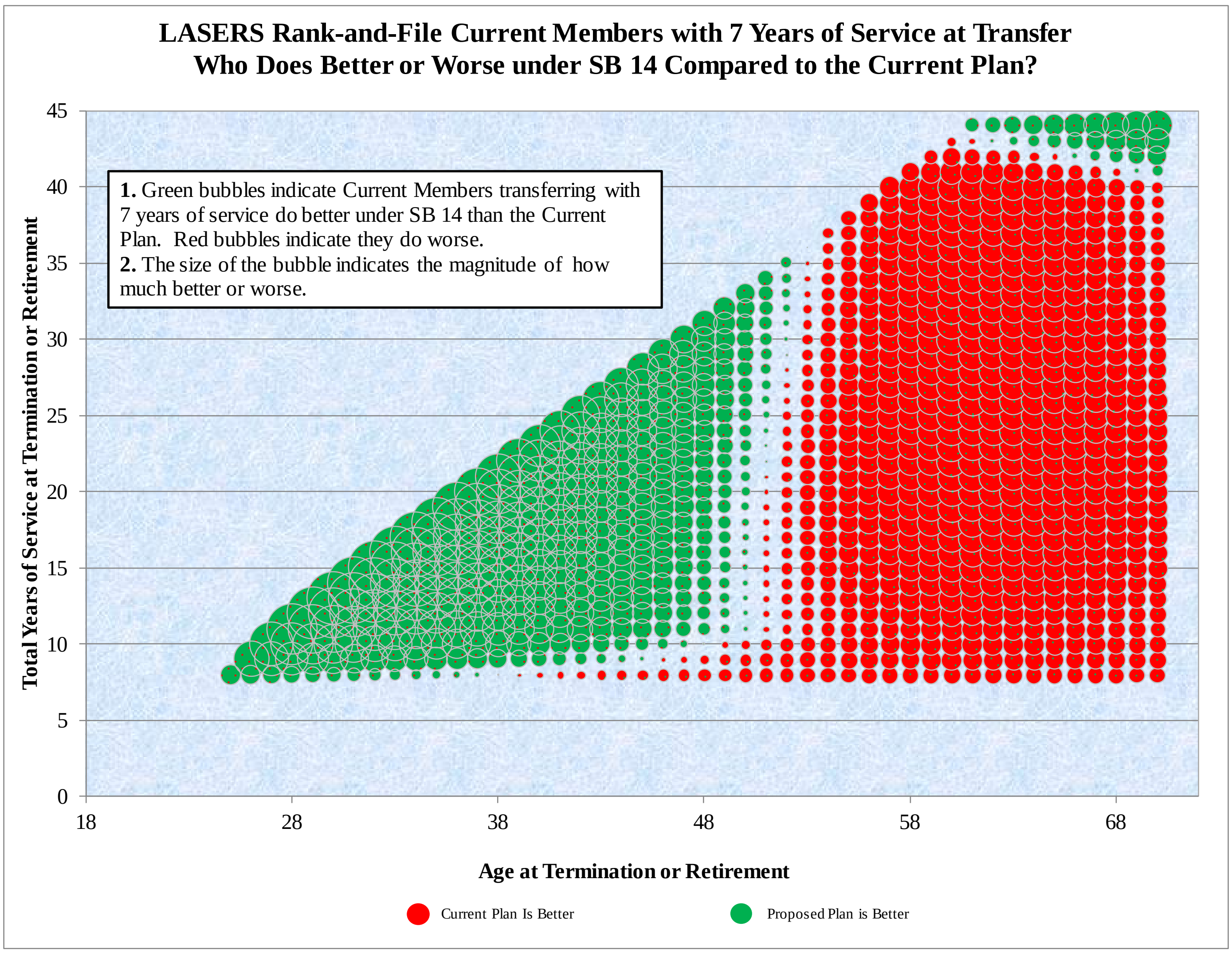
Benefit Comparison – For Current Members Electing Transfer

SB 14 also permits *current* plan members hired since July 1, 2006 to elect to leave the legacy DB plan and join the hybrid program. This transfer election must be made on or before December 31, 2020.

Charts C and D, below, compare the value of retirement benefits that a Rank and File member eligible for optional transfer to the Hybrid plan would receive under the current law with the combined value of retirement benefits he would receive under SB 14.

Chart C was prepared for a member with 7 years of accrued service as of the transfer date coinciding with the plan effective date of January 1, 2020.

CHART C

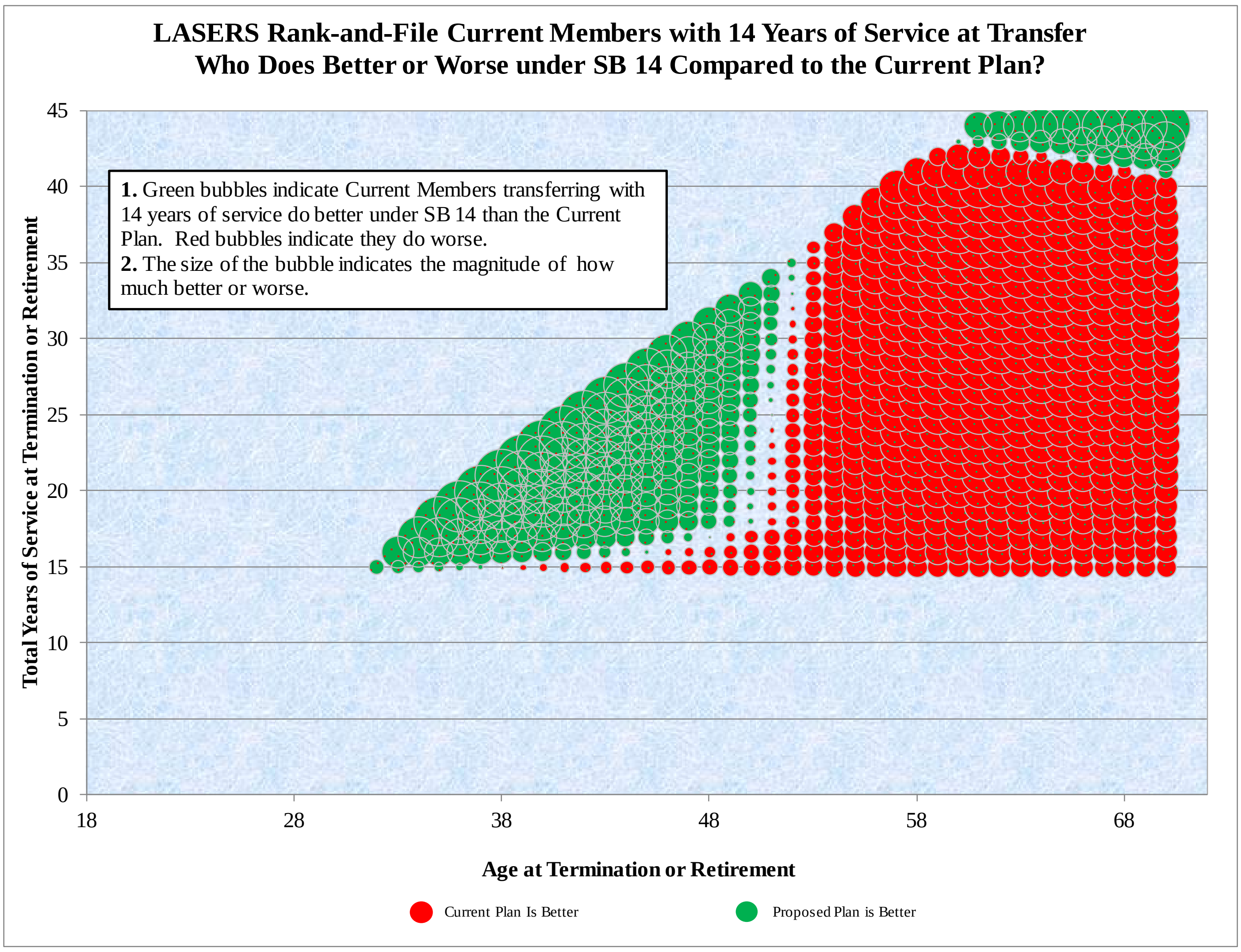


Observations about Chart C:

1. The proposed program will provide a better retirement benefit than the current program for almost all members who have seven years of service at the time of transfer and who are age 51 (or 52) and younger when they terminate employment;

2. The current program is more favorable to those who retire during the prime retirement ages – ages 52 and up. The current program provides better benefits for career employees, with the exception of members with 42 or more years of service whose benefits may be limited under the current plan to 100% of the final average compensation.

CHART D



Observations about Chart D:

1. The proposed program will provide a better retirement benefit than the current program for almost all members who have 14 years of service at the time of transfer and who are age 51 (or 52) and younger when they terminate employment;

2. The current program is more favorable to those who retire during the prime retirement ages – ages 52 to 62. The current program provides better benefits for career employees, with the exception of members with 42 or more years of service whose benefits may be limited under the current plan to 100% of the final average compensation.

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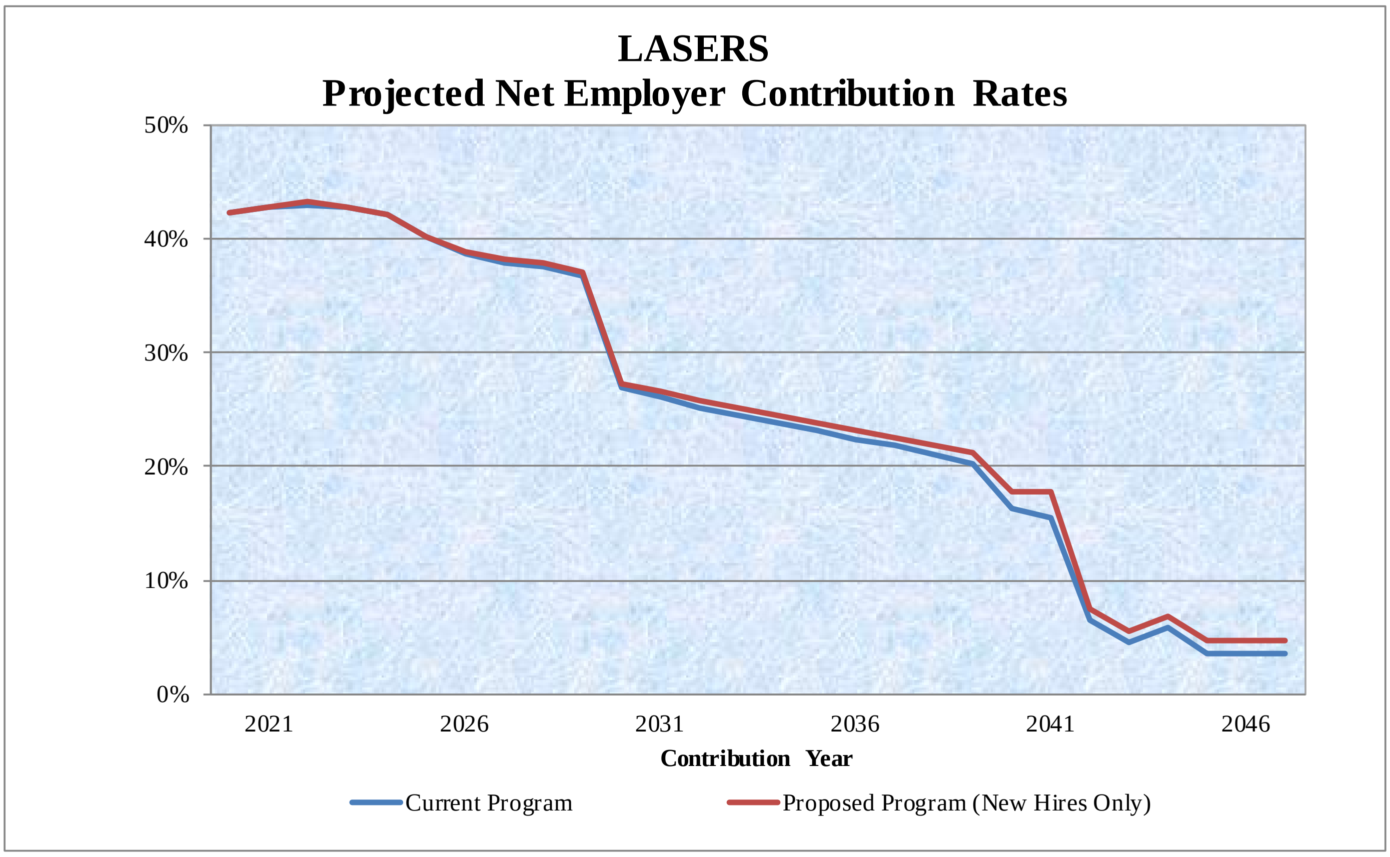
Cost Comparison

Charts E, and F have been prepared under the assumption that (a) current laws will continue to exist indefinitely into the future for the purpose of the contribution projections under the current program and (b) laws under the proposed SB 14 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, it is unknown as to how the legislature will respond to the good news. In our analysis, we have continued to recognize the current statutory, but have ignored the constitutional minimum contribution requirements because we cannot predict the decisions the legislature will make at that time.

Projected employer contribution rates with the SB 14 program are compared below to projected employer contribution rates with the current plan.

CHART E



Contribution Year Ending	2021	2026	2031	2036	2041	2046
Current Program	42.70%	38.70%	26.10%	22.30%	15.50%	3.60%
Proposed Program	42.81%	38.91%	26.52%	23.16%	17.84%	4.65%
Increase/(Decrease)	0.11%	0.21%	0.41%	0.86%	2.34%	1.05%

Observations about Chart E:

1. Employer contribution rates with the hybrid program will be slightly larger than with the current program.

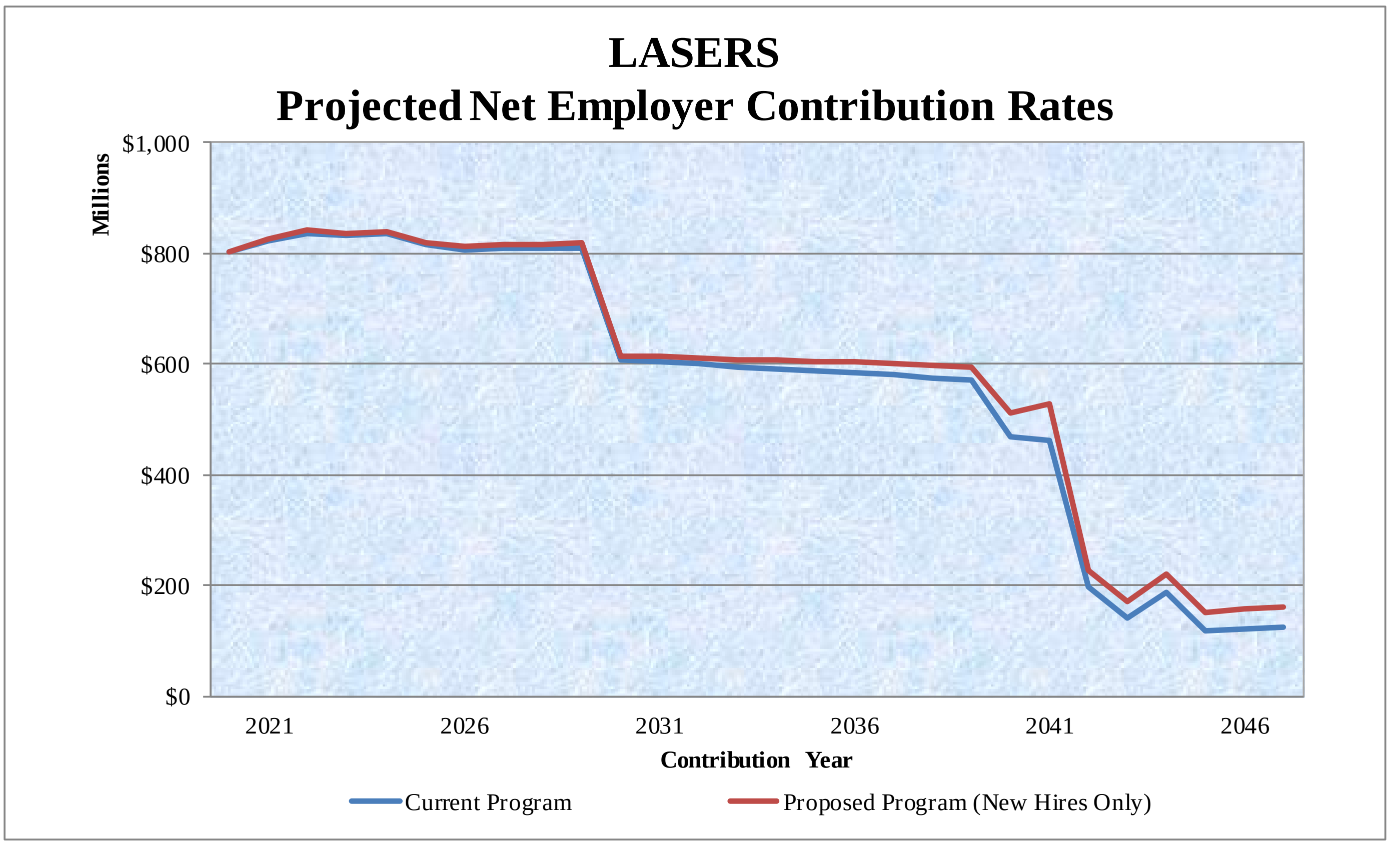
2. Employer contribution rates are virtually the same initially. However, the difference between employer contribution rates with the enactment of SB 14 and rates with continuation of the current program increases as participants in the hybrid program replace members in the current program.

3. By 2046, the employer contribution rate is estimated to be about 4.65% of pay for LASERS with the hybrid program but only 3.60% with the current plan. The 1% differential remains essentially the same thereafter.

4. The simple reason for SB 14’s increased contributions is that, while some new hires will benefit more or less under SB 14, the net effect is that the combination of the less generous DB component coupled with the DC component is slightly more expensive than a continuation of the current plan.

Employer contributions in dollars are compared below. Chart F shows a pattern of employer contributions which is similar to Chart E.

CHART F



Contribution Year Ending	2021	2026	2031	2036	2041	2046
Current Program	$ 822.5	$ 807.4	$ 605.3	$ 584.4	$ 460.0	$ 121.8
Proposed Program	824.6	812.0	614.9	604.6	528.5	156.4
Increase/(Decrease)	2.1	4.6	9.6	20.2	68.5	34.6

Observations about Chart F:

1. There is no significant difference in projected employer contribution requirements in dollars between the two programs for next several years, although contribution requirements with the proposed program are slightly greater. 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 $35 million more in 2046 than continuation of the current program. Ultimately, the cost of the proposed program will be about 18% greater than the cost of continuing the current program.

Changes in the unfunded accrued liability are shown below in Chart G. The unfunded accrued liability with the proposed program decreases more rapidly than with a continuation of the current program.

CHART G

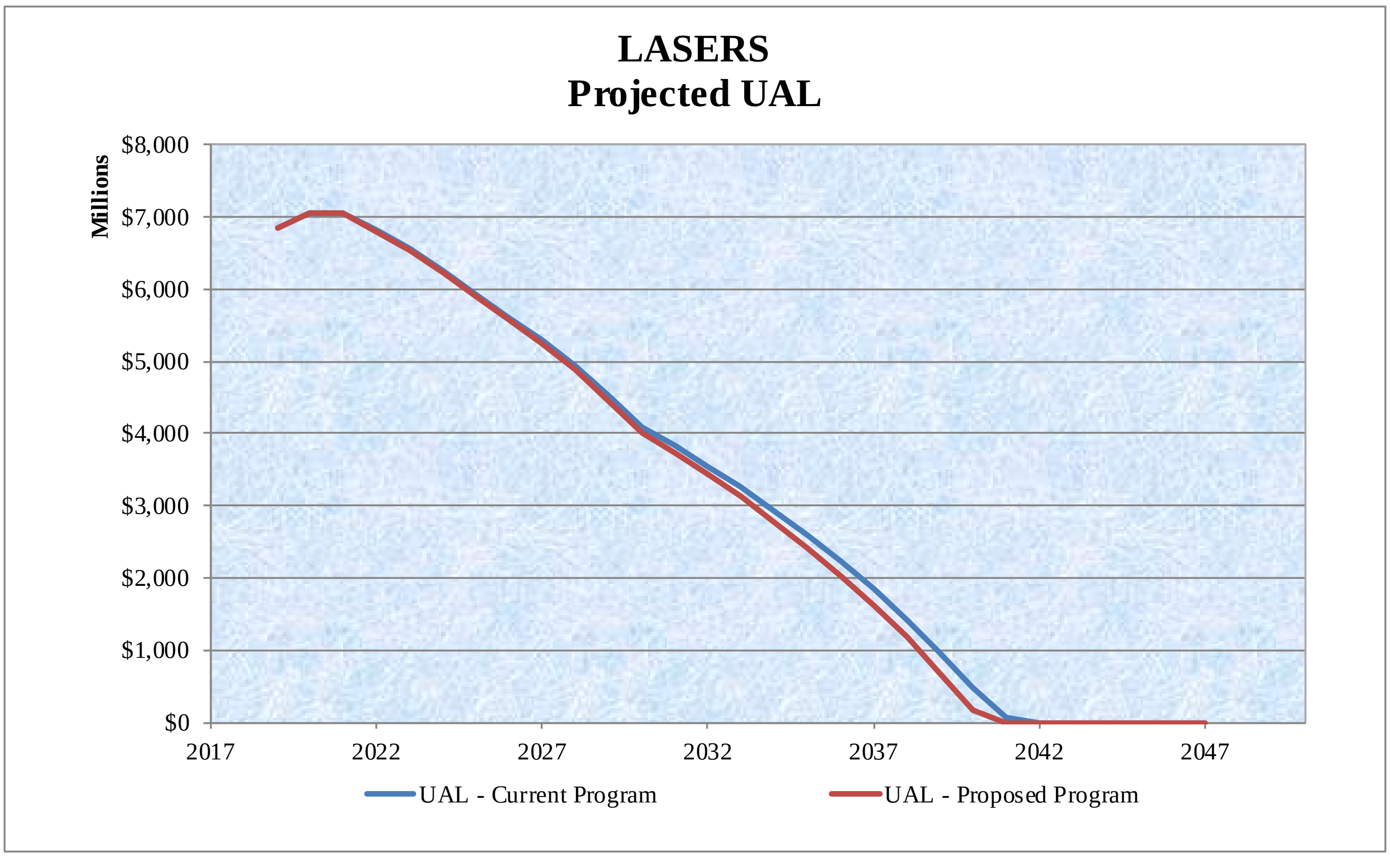
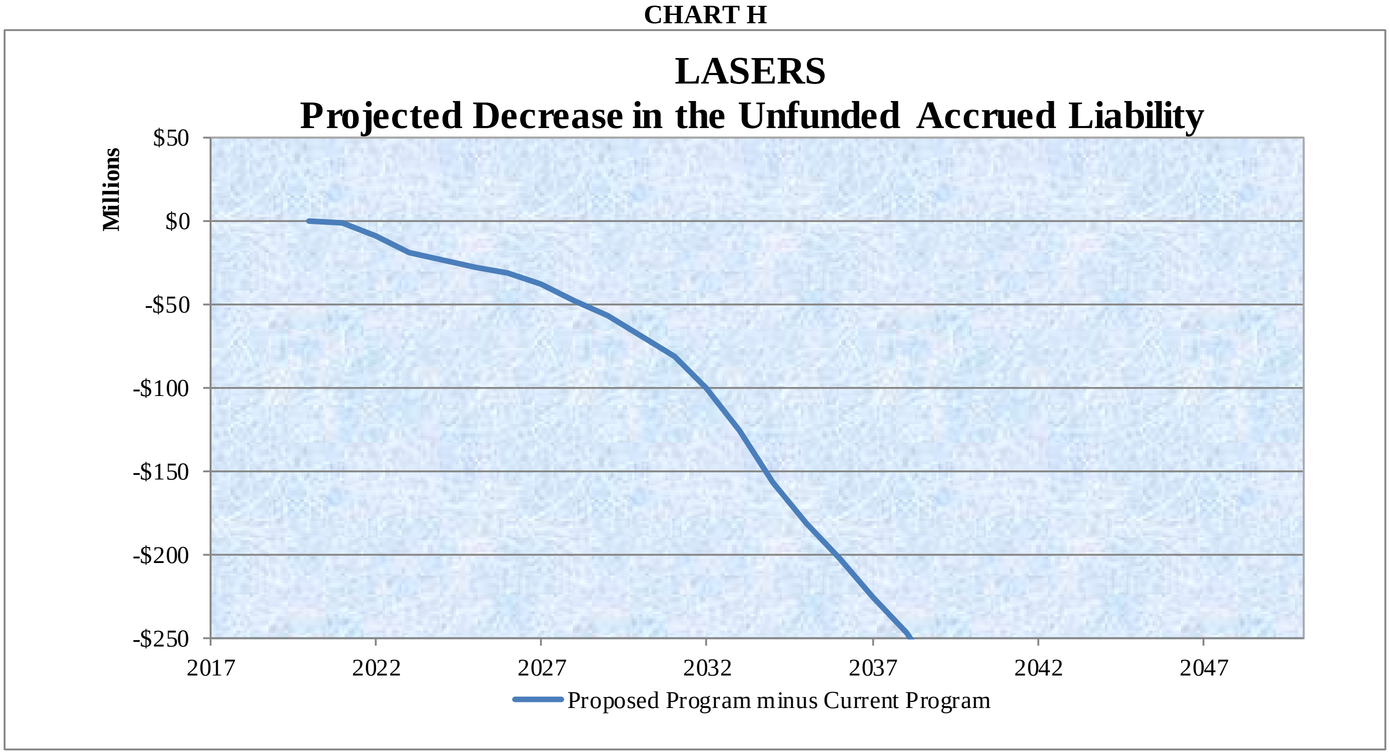


CHART H



Observations about Charts G and H:

1. The path of the unfunded accrued liability (UAL) under SB 14 is expected to be lower than under a continuation of the current plan. For example, in 2032, the UAL is expected to $100 million less than it would be under a continuation of the current plan.

2. The UAL for LASERS is projected to be paid off by June 30, 2042 with a continuation of the current program. With the proposed program, the UAL is projected to be completely amortized by FYE 2041, one year sooner.

3. Because the UAL will be paid off and an asset surplus will exist, the legislature and the LASERS' Board in the decade of the 2040s will be presented with several policy choices relative to LASERS that will be perceived as "good news." These choices are identified below:

   a. De-Risking: LASERS' Board 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.

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

c. Other Benefit Improvements: Should it become law, the hybrid DB plan 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.

d. 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. This is listed for the sake of completeness but would not be recommended in place of de-risking.

Risk Transfer

Generally speaking, the largest sources of risk in retirement plans are investment risk and longevity risk. In DB plans, the longevity risk is mitigated by pooling the risk among thousands of plan members, leaving investment risk as the primary source of risk.

In most DB plans (including LASERS), investment risk is borne by taxpayers. Shortfalls in investment performance do not change the benefit promised to members, but must be made up through additional employer contributions funded by taxpayers.

In DC plans, investment risk and longevity risk are borne by the plan member. Shortfalls in investment performance diminish the members' DC account balance leaving less funds for their retirement years. Members may outlive their DC account balance leaving no benefits for the last years of life. In DC plans, both the investment risk and longevity risk ultimately play out as benefit risks to plan members.

Under the proposed SB 14, part of the retirement benefit will be derived from the DC component of the Hybrid Plan under which members bear the investment risk in their individual DC accounts. As such, implementation of the Hybrid Plan proposed by SB 14 will result in a partial, gradual and incomplete transfer of investment risk from taxpayers to members.

The partial risk transfer only occurs during the working lifetime of the hybrid members. Upon retirement, hybrid members are required to annuitize at least 75% of their DC balances by transferring the account balance form the DC plan into the DB plan in exchange for a guaranteed benefit. In effect the member is transferring the investment and longevity risk for his retirement years back to the DB component (that is, back to taxpayers). It is recognized that the rate of exchange for the annuitizing transaction favors the DB plan. But the risk thereafter is still borne by the taxpayers.

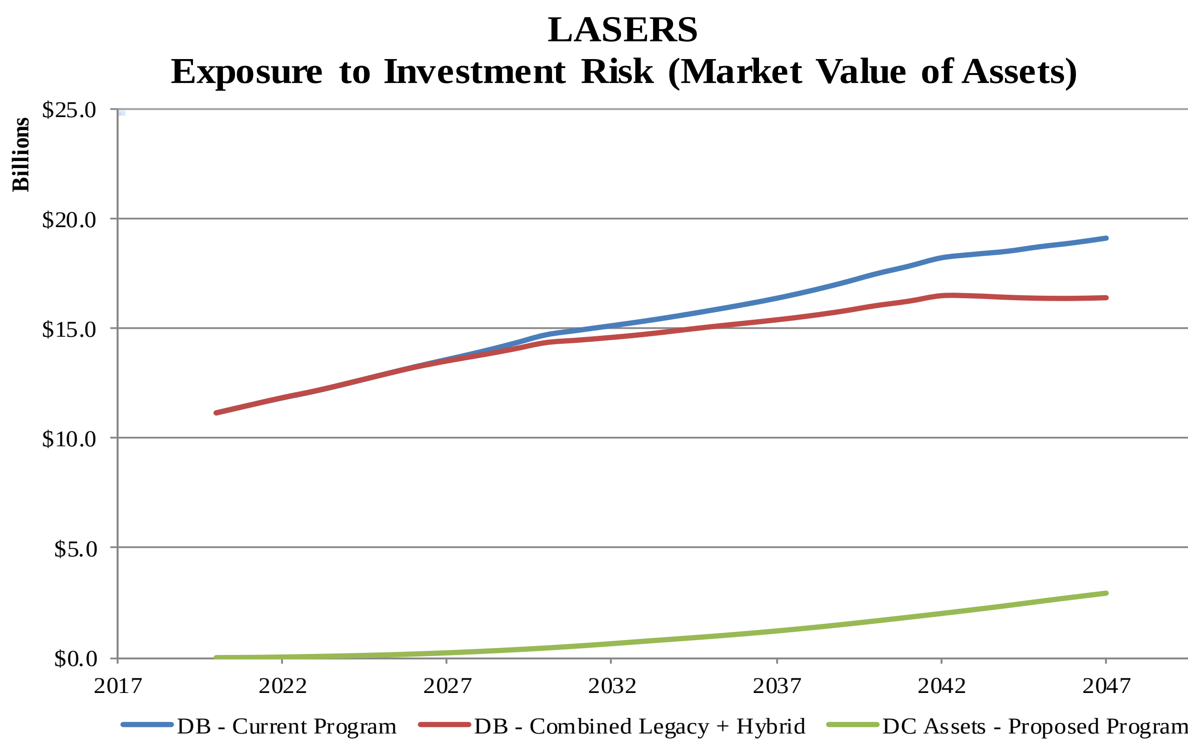
On balance, SB 14 does not *materially* transfer investment risk from taxpayers to plan members over the near term,

There are two reasons for this: First, as mentioned above, at least 75% of the DC balance is transferred back to the DB component at retirement. Second, the legacy DB plan together with the DB hybrid component will continue to be a large part of total assets for many years. In short, the DB plan will continue to bear a substantial part of the investment and longevity risks for decades to come.

The partial, gradual and incomplete transfer of investment risk to DC plan members is best illustrated by comparing the expected value of DB assets subject to investment risk to the expected value of DC assets subject to investment risk. A measure and comparison of investment risk in the two types of plans is gleaned from examining the level of assets accumulating in the future in each type of plan. The growth of DC plan assets under SB 14 will be very slow for many many years, while the DB plan assets will continue to grow.

This is illustrated on Chart I where exposure to investment risk is represented by the total value of assets in the DB plan and the DC individual accounts. For the proposed scenario, DB asset amounts represent the combined legacy DB Plan and DB component of the hybrid plan.

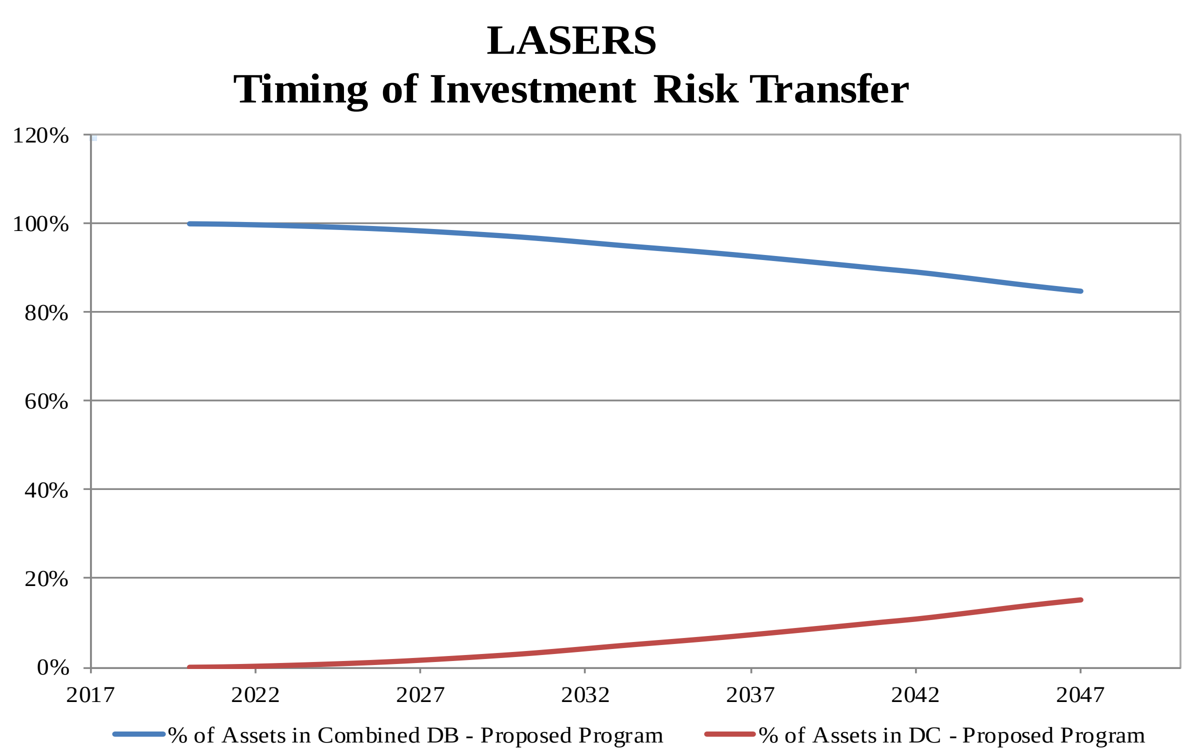
CHART I



Observations about Charts I and J:

1. SB 14 is expected to result in a transfer of some of the the investment risk from the employer to employees.
2. State's exposure to investment risk will keep increasing under both plans as assets backing up DB benefits are expected to continue to grow for at least another 20 years. However DB assets would grow slower under SB 14 than under the current plan.
3. The combined DB and DC assets under SB 14 are expected to grow at the approximately the same pace as assets under the current program.
4. It will take more than 25 years to transfer 20% of the investment risk to employees.
5. The lines in Chart J will never cross. That is, the amount of risk borne by taxpayers will never come down to equal the amount of risk borne by the members. While it appears the lines might cross sometime after 2047, the requirement to annuitize and transfer risk back to the taxpayers will prevent a complete or even majority transfer of risk from occurring.

CHART J



2. Other Post-Employment Benefits (OPEB)

The actuarial costs of SB 14 associated with OPEB, including retiree health insurance premiums, is expected to decrease. Our analysis is summarized below.

Normal retirement age for new members increases from age 62 (current plan) to age 65 (SB 14). Members of the state retirement systems are likely to delay retirement to avoid reductions for early retirement under the Hybrid Plan's DB component and to accumulate additional retirement income in order to replace the income they would have received under the current program. This will result in a slight decrease in the actuarial cost of the OPEB program.

3. Other Government Entities

The actuarial cost or savings of SB 14 associated with government entities other than LASERS and its sponsors is expected to be $0.

B. <u>Actuarial Data, Methods and Assumptions</u>
(Prepared by the LLA)

This actuarial note was prepared using actuarial data, methods, and assumptions as disclosed in the most recent actuarial valuation report adopted by PRSAC dated September 21, 2017 with the following additional assumptions:

1. Projections for a continuation of the current plan (without SB 14) were based on net investment return assumptions of:

   a. 8.25% for the June 30, 2017 valuation,
   b. 8.05% for the June 30, 2018 forecasted valuation,
   c. 8.00% for the June 30, 2019 forecasted valuation,
   d. 7.95% for the June 30, 2020 forecasted valuation
   e. 7.90% for the June 30, 2021 and subsequent forecasted valuations.

   The LASERS Board is on a schedule to lower its assumed rate of return from the current 8.25% to 7.9% by the June 30, 2021 valuation. The system's current assumption of recognizing future gain-sharing COLAs by reducing the return assumption by 0.40% was continued for this Actuarial Note by valuing all the *core* benefits for the June 30, 2017 and subsequent forecast valuations using a discount rate which is 0.40% lower than the Board's assumed investment return assumption.

2. Under SB 14, the legacy DB plan (for current members who do not elect to transfer) was also valued using the same net investment return assumption and discount rate, as described above.

3. Under SB 14, the DB component of the hybrid program already has a 2% biannual COLA built into the statutory benefit provisions, so there is no need to lower the return assumption by 0.40%. Therefore, the benefits for the DB hybrid component are valued using a net investment return assumption which is the same as described above, but with a discount rate equal to the net investment return assumption without any reduction.

4. For the purpose of Chart C benefit comparisons, transferring members leaving a benefit in the legacy plan are assumed to have their future salary increases (and final average compensation at retirement) applied to the frozen service and multiplier they had at the time of the transfer. Such transferred members would have three sources of benefit from the system: (a) the legacy benefit increasing only with salary increases, (b) the hybrid's DB component and (c) the hybrid's DC lump sum or annuitized benefit.

5. For the purpose of cost projections, no transfers were assumed to occur from to the hybrid program.

6. Forfeitures arising from the non-vested portion of terminated DC component members are assumed to be transferred to the DB pool of assets.

7. We assumed investment earnings on account balances for the hybrid DC plan will be 5.00% during the accumulation period. We assumed that DC account balances will be converted into annuities based on a 5.00% discount rate, in accordance with SB 14 requiring that rate to be 2.0% lower than the valuation discount rate.

8. The primary difference between the Original actuarial note and the Engrossed note containing Senate Retirement Committee Amendment #1410 is that:

   1. The Original note was based on an annuity conversion rate using the assumed rate of return on assets less 2.50%, and

   2. The Engrossed note (with SRC Amendment #1410) is based on an annuity conversion rate using the assumed rate of return on assets less 2.0%.

   After completing our analysis, it was determined that the respective Charts A-F were almost identical. The Engrossed SB 14 has an actuarial cost that is slightly higher than the Original SB 14, but the difference is so small as to be considered negligible. As a result, Charts A-F in this Engrossed note are the same as Charts A-F in the Original note.

9. Retiring members will annuitize 75% of their DC balances, the minimum required by SB 14. This provision is included in the analysis because members will be required to annuitize at discount rates providing the retirement system with a risk margin.

10. Members eligible for disability retirements will take a lump sum (or roll over) distribution of the entire DC account, as permitted under SB 14.

11. Survivors of active employees will take a lump sum (or roll over) distribution of the entire DC account, as permitted under SB 14.

12. 20% of vested members terminating for any other reason are assumed to request a refund of their own contributions without interest and distribution of the entire DC balances. 80% of vested members are assumed to defer their DB benefits and annuitize 75% of their DB balances at retirement.

These assumptions and methods are in compliance with actuarial standards of practice.

Actuarial Caveat
(Prepared by the LLA)

There is nothing in SB 14 that will compromise the signing actuary's ability to present an unbiased statement of actuarial opinion.

II. FISCAL ANALYSIS SECTION

Tables A, B, C, and D have been prepared by the LLA. These tables include information developed by the LLA from its own sources as well as information supplied by Tanesha Morgan of the Legislative Fiscal Office (LFO). Table D includes all costs and savings pertaining to Louisiana government.

The LFO has requested that the information supplied by Tanesha Morgan be included in the actuarial note verbatim and without any changes. This information is shown below under Fiscal Costs Received by the LLA from the LFO. The reader should note that complete fiscal cost information is contained within Table D. Fiscal costs developed by the LFO only reflect the portion of Table D that was supplied by the LFO.

Table A pertains to fiscal costs or savings associated with the retirement systems; Table B pertains to OPEB; Table C pertains to fiscal costs associated with government entities other than LSPRS and its sponsor. Table D is the cumulative sum of Tables A, B, and C.

A. Estimated Fiscal Impact – Retirement Systems
(Prepared by the 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. Fiscal costs and savings include administrative and actuarial costs and savings. 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	2018-19	2019-2020	2020-2021	2021-2022	2022-23	5 Year Total
State General Fund	$ 0	$ 0	$ 2,100,000	$ 6,730,000	$ 1,030,000	$ 9,860,000
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	$ 2,100,000	$ 6,730,000	$ 1,030,000	$ 9,860,000

REVENUES	2018-19	2019-2020	2020-2021	2021-2022	2022-23	5 Year Total
State General Fund	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
Agy Self Generated	0	0	2,100,000	6,730,000	1,030,000	9,860,000
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	$ 2,100,000	$ 6,730,000	$ 1,030,000	$ 9,860,000

SB 14 will have the following effects on retirement related fiscal costs and revenues during the five year measurement period.

2. Expenditures:

a. Expenditures from the General Fund are expected to increase because employer contribution requirements are expected to be larger under SB 14.

1). For the 2018-19 and 2019-20 years, there will be no effect on contribution requirements because SB 14 is not implemented until July 1, 2020.

2). The 2020-21 year will have a DB contribution based on the June 30, 2019 valuation (before any hybrid members are included) plus 3% of pay employer contribution to the DC component for the hybrid members joining throughout that year.

3). The 2021-22 year will have a DB contribution based on the June 30, 2020 valuation (again, before any hybrid members are included) plus 3% of pay employer contribution to the DC component for the hybrid members from that year and the prior year. The DB contribution requirement still does not reflect any reduction due to the less generous hybrid DB component because none of those new members are in the June 30, 2020 valuation at that point.

4). The 2022-23 year is the first year that the valuation (as of June 30, 2021) includes new members valued at a less generous DB plan. Consequently, the increase in contribution compared to a continuation of the current plan is not as high as the previous year. Thereafter, the increase is expected to rise. Refer Charts E and F for subsequent years.

3. Revenues:

a. State retirement system revenues (Agy Self-Generated) are expected to increase because employer contribution requirements will increase.

B. <u>Estimated Fiscal Impact – OPEB</u>
(Prepared by the LLA)

1. Narrative

Table B shows the estimated fiscal impact of SB 14 on actuarial costs or savings associated with OPEB and the government entities that sponsor these benefit programs. Fiscal costs or savings in Table B include administrative costs associated with the government entity sponsoring the OPEB program. 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	**2018-19**	**2019-2020**	**2020-2021**	**2021-2022**	**2022-23**	**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	**2018-19**	**2019-2020**	**2020-2021**	**2021-2022**	**2022-23**	**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

SB 14 will have no effect on OPEB related fiscal costs and revenues during the five year measurement period.

SB 14 will result in a slight decrease in the actuarial cost of the OPEB program overall. However, the effects of the fiscal expenditures and revenues will not appear until well after the five year measurement period. New members will not become eligible for pay-as-you-go OPEB benefits until after they retire, which will not be for many years after enactment.

C. <u>Estimated Fiscal Impact: Other Government Entities (unrelated to the retirement systems or OPEB)</u>
(Prepared by the LLA using information supplied by the LFO)

1. Narrative

From time to time, legislation is proposed that has an indirect effect on cash flows associated with other government entities, unrelated to the retirement systems or OPEB. Table C shows the estimated fiscal impact (administrative and actuarial) of SB 14 on such government entities. A fiscal cost is denoted by “Increase” or a positive number. Fiscal savings are denoted by “Decrease” or a negative number.

Fiscal Costs for Other Government Entities: Table C

EXPENDITURES	2018-19	2019-2020	2020-2021	2021-2022	2022-23	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	2018-19	2019-2020	2020-2021	2021-2022	2022-23	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

SB 14 will have the following effects on fiscal costs and revenues related to other government entities during the five year measurement period.

2. Expenditures:

   a. There is no direct material effect on the expenditures of government entities other than LASERS and its sponsors.

3. Revenues:

   a. There is no direct material effect on the revenues of government entities other than LASERS and its sponsors.

D. <u>Estimated Fiscal Impact − All Retirement Systems, OPEB, and All Government Entities</u>
(Prepared by the LLA)

1. Narrative

Table D shows the estimated fiscal impact of SB 14 on all government entities within the state of Louisiana. Cell values in Table D are the sum of the respective cell values in Table A, Table B, and Table C. A fiscal cost is denoted by "Increase" or a positive number. Fiscal savings are denoted by "Decrease" or a negative number. A revenue increase is denoted by "Increase" or a positive number. A revenue decrease is denoted by "Decrease" or a negative number.

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

EXPENDITURES	2018-19	2019-2020	2020-2021	2021-2022	2022-23	5 Year Total
State General Fund	$ 0	$ 0	$ 2,100,000	$ 6,730,000	$ 1,030,000	$ 9,860,000
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	$ 2,100,000	$ 6,730,000	$ 1,030,000	$ 9,860,000

REVENUES	2018-19	2019-2020	2020-2021	2021-2022	2022-23	5 Year Total
State General Fund	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
Agy Self Generated	0	0	2,100,000	6,730,000	1,030,000	9,860,000
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	$ 2,100,000	$ 6,730,000	$ 1,030,000	$ 9,860,000

<u>Fiscal Costs Received by the LLA from the LFO</u>
(Prepared by Tanesha Morgan, Legislative Fiscal Office)

1. Narrative

<u>Proposed law</u> establishes a mandatory hybrid retirement plan (HRP) for Louisiana State Employee' Retirement System (LASERS) rank and file members that are hired on or after January 1, 2020. The proposed HRP includes a defined benefit and a defined contribution component.

Fiscal Costs for Other Government Entities

EXPENDITURES	2018-19	2019-2020	2020-2021	2021-2022	2022-23	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	2018-19	2019-2020	2020-2021	2021-2022	2022-23	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

SB 14 will have the following effects on fiscal costs and revenues related to other government entities during the five year measurement period.

2. Expenditures:

There will be implementation costs to make major software modifications to existing computer programs. However, given that the implementation of the HRP occurs in two years, LASERS has indicated that it can manage these software changes with its existing staff through its regular workflow processes. There will also be negligible costs to update educational and training publications, which are anticipated to be absorbed through the agency's existing budget.

3. Revenues:

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

Credentials of the Signatory Staff:

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.

John D. Carpenter, Legislative Fiscal Officer, has supervised the preparation of the fiscal analyses contained herein.

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

[X] SB 14 contains a retirement system benefit provision having an actuarial cost.

Some employees will receive a larger benefit with the enactment of SB 14 than they would receive without SB 14.

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

The information presented below is based on information contained in Table D for the first three years following the 2020 regular session.

Senate

[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

[ ] 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

House

[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

[ ] 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