

Public Retirement Systems'
Actuarial Committee Meeting
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Sustainability of the Louisiana State Retirement Systems

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Objectives



- ✓ What Does Sustainable Mean?
- ✓ Sustainability of Costs Associated with Benefit Accruals under Current Defined Benefit Plans
- ✓ Sustainability Associated with Unfunded Accrued Liabilities
- ✓ Conclusions



What Does Sustainable Mean?

Sustainable



General Usage

- The term sustainable is frequently used but not defined.
- It sounds ominous for a retirement system to be unsustainable.
- Proponents of pension reform have declared Louisiana pension systems to be unsustainable but have not given any reason why.

Sustainable



General Usage

- Sustainable is equivalent to actuarial soundness.
- If a retirement system is actuarially sound, it is sustainable.

Sustainable and Actuarially Sound



The following principles apply to sustainability and actuarial soundness:

1. Intergenerational Equity
2. Prudent Investment of Assets
3. Cost Stability and Predictability
4. Financial Willingness or Ability to Pay
5. Funding Strength
6. Compliance with Actuarial Standards of Practice

Sustainable and Actuarially Sound



Intergenerational Equity

- A. A plan exists to pay off past intergenerational inequities.
- B. A plan exists to limit the creation of future inequities.

Sustainable and Actuarially Sound



Prudent Investment of Assets

- A. Caveat: Market returns are inherently volatile.
- B. The existence of a systematic process for determining the investment policy and selecting the investment consultant and money managers.

Sustainable and Actuarially Sound



Cost Stability and Predictability

- A. Caveat: Volatile market returns lead to volatile employer contribution requirements.
- B. The presence of actuarial methods to smooth market volatility.
- C. The presence of other techniques and processes to stabilize employer contribution requirements.

Sustainable and Actuarially Sound



Financial Willingness or Ability to Pay

- A. The ability of the state to afford the pension plans.
- B. The presence of an alternative to keeping the promises that have already been made.

Sustainable and Actuarially Sound



Funding Strength

- A. Reasonable funded ratios for each system relative to the pension plan's history and maturity.
- B. The presence of a realistic funding plan to produce funded ratios that will approach a specified target within a reasonable period of time.

Sustainable and Actuarially Sound



Compliance with Actuarial Standards of Practice

- A. The degree to which the law is compatible with Actuarial Standards of Practice.



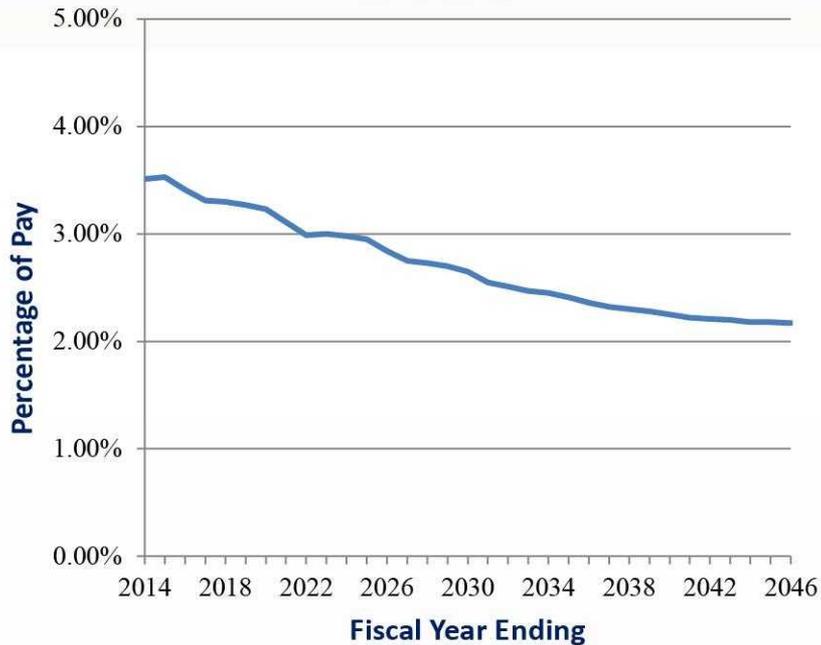
Sustainability of Costs Associated with Benefit Accruals Under Current Defined Benefit Plans

Sustainability of Current Benefit Accruals

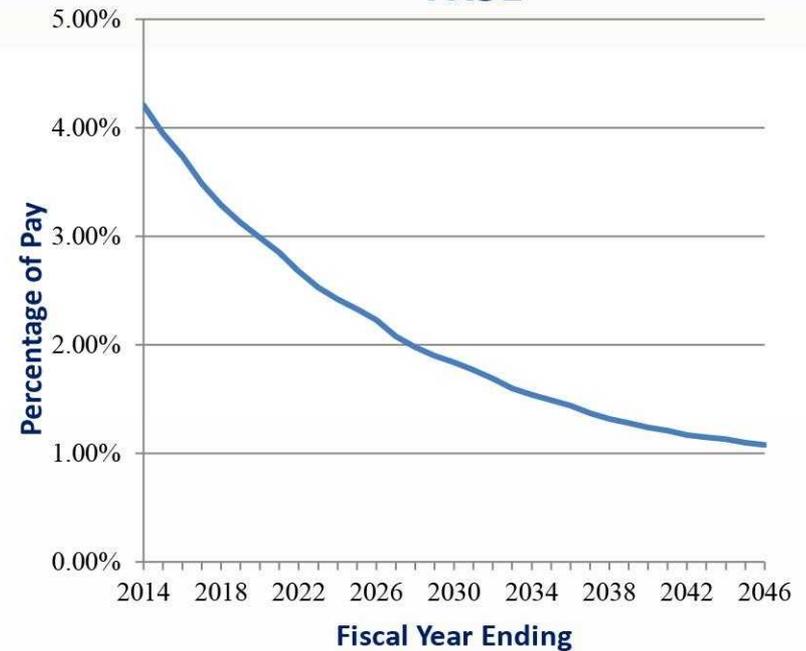


Projected Employer Normal Costs

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Employer costs for future benefit accrual for current and future employees are projected to decrease.

Sustainability of Current Benefit Accruals



Conclusions:

1. According to Actuarial Standards of Practice, actuarial assumptions and methods should represent the actuary's best estimate of future events and should not be biased either positively or negatively.

Sustainability of Current Benefit Accruals



Conclusions:

2. Current defined benefit plans will be sustainable if assumptions and methods used to determine normal costs (the cost of current benefit accruals) are maintained to reflect future expectations.

Sustainability of Current Benefit Accruals



Conclusions:

3. Costs associated with benefit accruals under the current defined benefit plans are relatively inexpensive. **Costs are less than Social Security.**



Sustainability Associated with Unfunded Accrued Liabilities

Assumptions and Methods



Type of Valuation	Stochastic
Projected Active Population	Level
Valuation Discount Rate	7.75%
Basis for Future Returns	NEPC/Aon-Hewitt
COLA Assumption	Automatic 0.5%*
Symmetric Gains and Losses	No
Administrative Expenses	Actuarial Loss

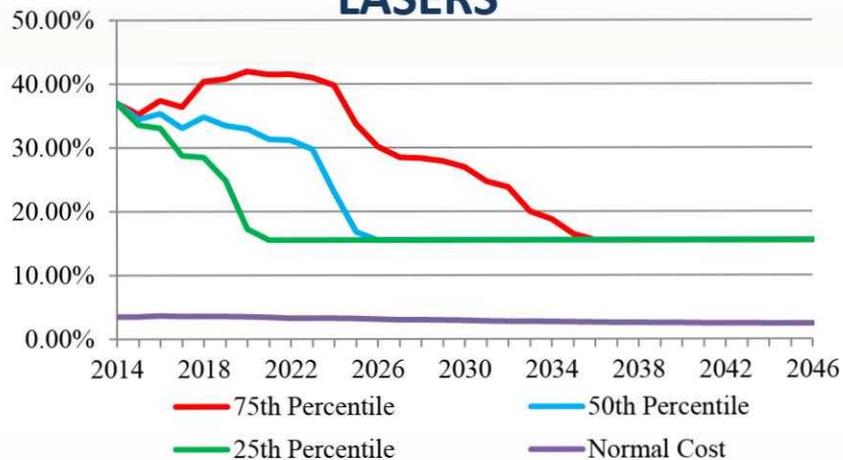
**An automatic 0.5% annual COLA is approximately equal to COLAs that will be available under current law. This assumption was used to simplify the actuarial calculations in this analysis.*

Risk Analysis

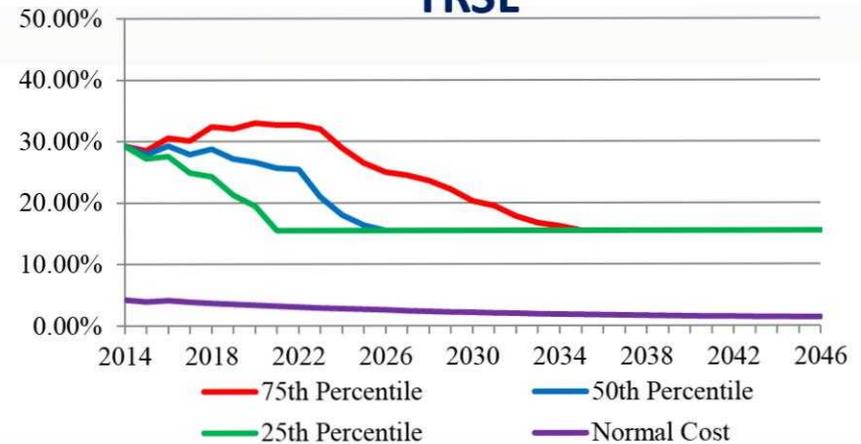
Employer Contribution Requirement Rates



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Conclusions:

1. The State bears a risk that the employer contribution rate in any given year within the next decade will be larger than the current rate.
2. All employer contribution rates are projected to converge to 15.5% of pay which is the statutory minimum.
3. The employer normal cost rate, shown by the purple line, is less than 5% of pay, significantly less than total projected rates (15.5% of pay to 42.0% of pay)

Understanding the Graph:

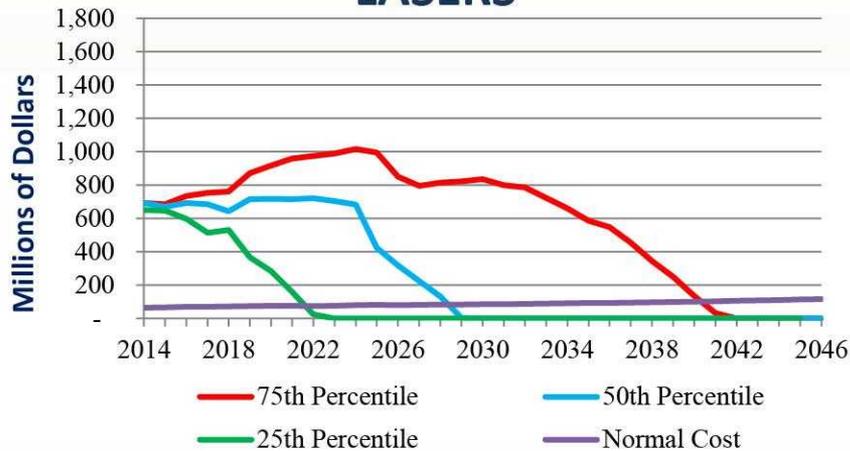
1. There is a 25% chance that employer contribution rates in any given year will exceed the red line.
2. There is a 25% chance that employer contribution rates in any given year will fall between the red and blue lines.
3. There is a 25% chance that employer contribution rates in any given year will fall between the blue and green lines.
4. There is a 25% chance that employer contribution rates in any given year will fall below the green line.

Risk Analysis

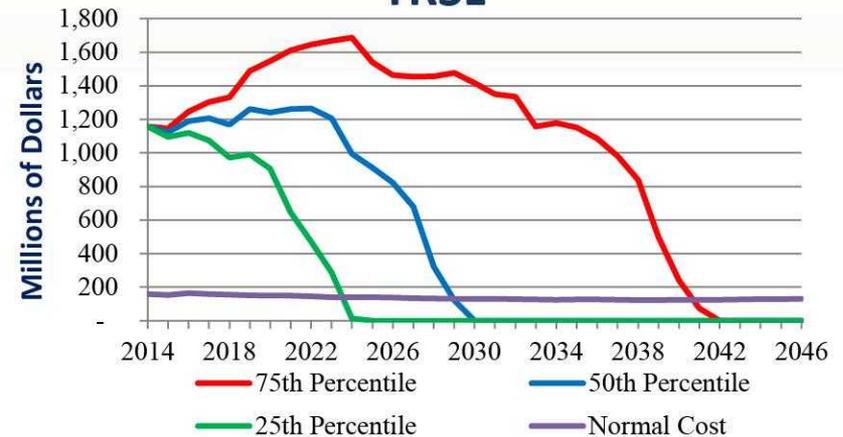
Employer Contribution in Dollars



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Conclusions:

1. The State bears a risk that the employer contributions in any given year within the next decade will be larger than the current amount.
2. All employer contributions in dollars are projected to converge to \$0 even though employer contribution rates converge to 15.5%. We assumed in the model that dollar contributions would go to \$0 if the unfunded accrued liability is \$0 and the investment returns exceed normal costs.
3. The employer normal cost in dollars, shown by the purple line, is less than \$100 million for LASERS and \$200 million for teachers.

Understanding the Graph:

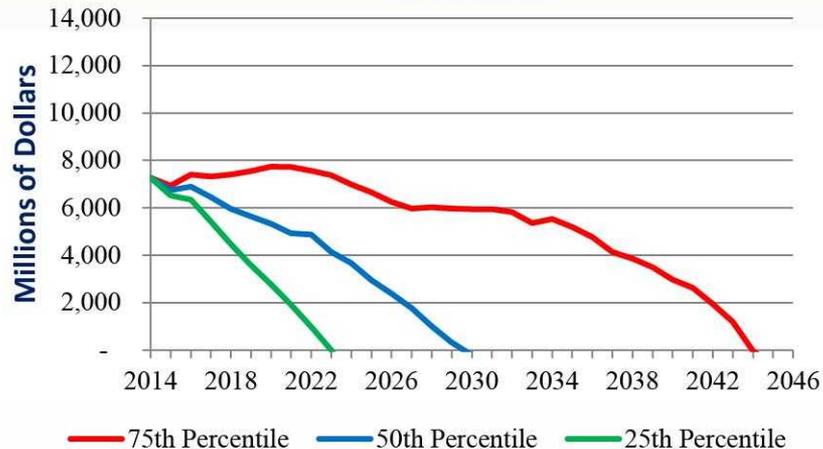
1. There is a 25% chance that employer contributions in dollars in any given year will exceed the red line.
2. There is a 25% chance that employer contributions in dollars in any given year will fall between the red and blue lines.
3. There is a 25% chance that employer contributions in dollars in any given year will fall between the blue and green lines.
4. There is a 25% chance that employer contributions in dollars in any given year will fall below the green line.

Risk Analysis

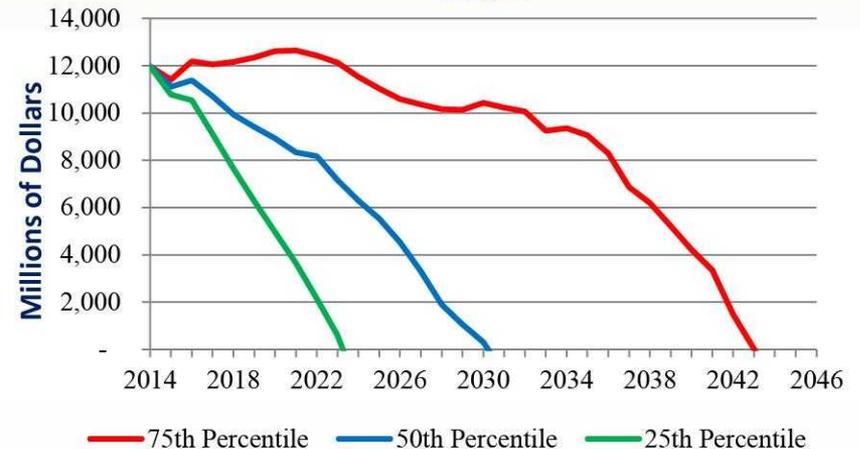
Unfunded Accrued Liability



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Conclusions:

1. There is a 25% chance that the UAL for LASERS may exceed \$6 billion for any given year through FYE 2034.
2. There is a 25% chance that the UAL for TRSL may exceed \$10 billion for any given year through FYE 2034.
3. There is a 50/50 chance that LASERS and TRSL will be fully funded by 2029.

Understanding the Graph:

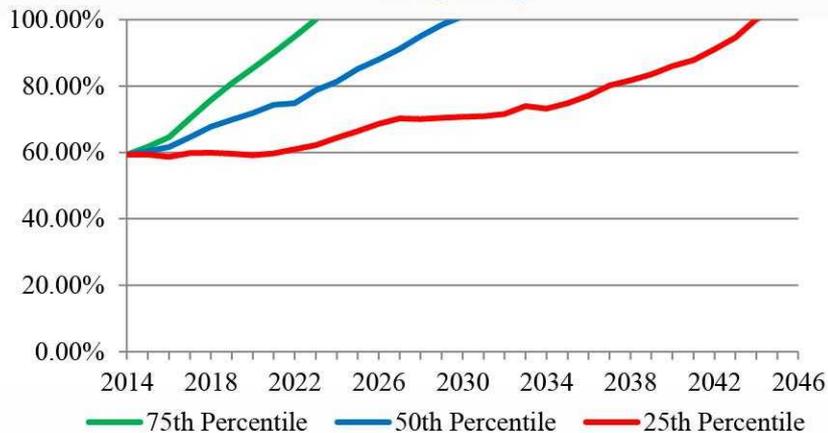
1. There is a 25% chance that the unfunded accrued liability in any given year will exceed the red line.
2. There is a 25% chance that the unfunded accrued liability in any given year will fall between the red and blue lines.
3. There is a 25% chance that the unfunded accrued liability in any given year will fall between the blue and green lines.
4. There is a 25% chance that the unfunded accrued liability in any given year will fall below the green line.

Risk Analysis

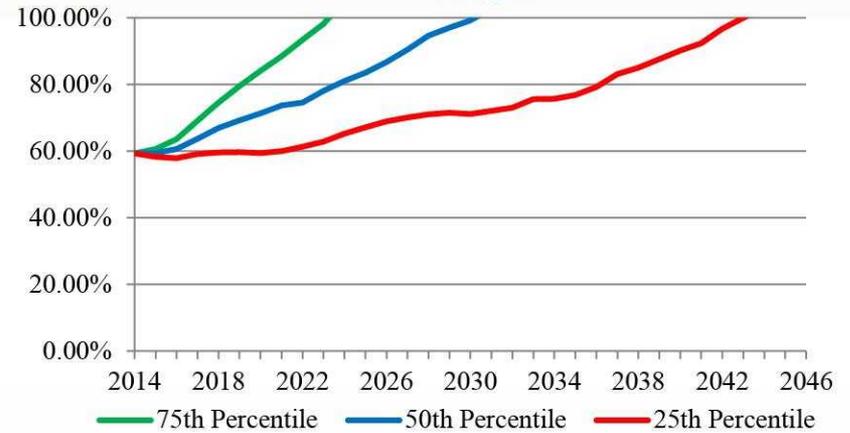
Funded Ratios



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Conclusions:

1. For LASERS and TRSL, there is a 25% chance that the funded ratio will be 100% by 2023, a 50% chance that the funded ratio will be 100% by 2030, and a 75% chance that the funded ratio will become 100% by 2044.

Understanding the Graph:

1. There is a 25% chance that the funded ratio in any given year will exceed the green line.
2. There is a 25% chance that the funded ratio in any given year will fall between the green and blue lines.
3. There is a 25% chance that the funded ratio in any given year will fall between the blue and red lines.
4. There is a 25% chance that the funded ratio in any given year will fall below the red line.



Conclusions

General Conclusions



1. The problem with the retirement systems is not the plan design, but rather it is the fact **that UALs (debts) have accumulated in the past that now must be paid.**
2. **The retirement systems cannot invest their way out of the UAL hole;** contributions toward the UAL are necessary.
3. In general, however, the risk analysis presented in this report shows LASERS and TRSL to be in relatively good financial position.
4. **The current defined benefit structure applicable to future benefit accruals for existing and new active members is definitely sustainable.**

General Conclusions



5. Payments toward the UAL are generally sustainable.
6. There is a risk that employer contribution requirements toward the UAL in any given year over the next decade may be larger than current levels because of market volatility. This could stress participating employers from time to time.
7. Assumptions and methods must be monitored continuously to keep a pattern of additional unfunded liabilities from developing.

General Conclusions



8. Because assumptions and methods must be unbiased, a reserve for adverse experience can be developed only by contributing more than the actuarially calculated amount.
9. It is better to have larger contributions initially and have a gradual decline thereafter than to have smaller contributions initially with a pattern of contribution increases.

General Conclusions



10. Although, the retirement systems appear to be sustainable, the following issues may need to be addressed in the near future.
 - a. Explicit valuations of the COLA program (compliance with Actuarial Standards of Practice)
 - b. Symmetrical amortization of gains and losses with level payments over periods not to exceed 20 years (law change for compliance with Actuarial Standards of Practice and best practices)
 - c. Administrative expenses funded through the normal cost (law change for compliance with Actuarial Standards of Practice)
 - d. Reassessment of the Discount Rate
 - e. Funding Deposit Accounts to create reserves for contribution stability