

2013 ACTUARIAL REPORT ON THE
LOUISIANA STATE EMPLOYEES' RETIREMENT SYSTEM



ACTUARIAL VALUATION AS OF
JUNE 30, 2013
ISSUED MARCH 2014

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2013 ACTUARIAL REPORT
LOUISIANA STATE EMPLOYEES' RETIREMENT SYSTEM

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LOUISIANA LEGISLATIVE AUDITOR
DARYL G. PURPERA, CPA, CFE

March 17, 2014

The Honorable John A. Alario, Jr.,
President of the Senate
The Honorable Charles E. "Chuck" Kleckley,
Speaker of the House of Representatives

Dear Senator Alario and Representative Kleckley:

This report provides the results of an actuarial valuation of the Louisiana State Employees' Retirement System as of June 30, 2013, as required under R.S. 11:127(C).

The report contains our findings, conclusions, and recommendations. I hope this report will benefit you in your legislative decision-making process.

Sincerely,

Daryl G. Purpera, CPA, CFE
Legislative Auditor

DGP:PTR:ch

LASERS 2013 VALUATION

SUMMARY

SUMMARY

2013 Actuarial Report on the Louisiana State Employees' Retirement System

This report has been prepared by the Actuarial Services Section of the Office of the Louisiana Legislative Auditor as required under Louisiana Revised Statutes (R.S.) 11:127C. Under actuarial standards of practice, Daryl Purpera, the Legislative Auditor, is considered to be our principal. We recognize in the preparation of this report that we also have a responsibility to the Louisiana Public Retirement System Actuarial Committee, the Louisiana legislature, and the public in general.

This valuation has been prepared as of June 30, 2013, based on plan provisions for the Louisiana State Employees' Retirement System (LASERS) as documented in R.S. 11:401 through 11:621. The purpose of the valuation, in general, is to:

1. Measure and compare plan assets and liabilities as of June 30, 2013.
2. Calculate actual employer contribution requirements for FYE 2014.
3. Determine the sources and amounts of gains and losses between June 30, 2012, and June 30, 2013.
4. Calculate projected employer contribution rates for FYE 2015.
5. Show measures of funding of the actuarial obligation of the retirement system.
6. Provide information necessary for LASERS financial statements and the financial statements for agencies participating in the retirement system.
7. Assess the impact that currently prevailing law relative to the Experience Account will have on future employer contribution requirements.

A brief summary of information developed in this valuation and in prior year valuations is presented on the following page.

	----- Prior Years -----		
	June 30, 2013	June 30, 2012	June 30, 2011
A. Membership Data			
(1) Retirees	45,425	42,722	41,142
(2) Actives	44,111	52,352	54,930
(3) DROP	2,092	2,577	2,569
(4) Terminated Vested	4,162	2,222	2,125
B. Annual Benefits	\$ 1,076,245,404	\$ 908,116,716	\$ 841,528,896
C. Total Payroll	1,951,987,750	2,341,703,286	2,408,839,604
D. Valuation Assets	9,740,863,402	9,026,384,260	8,763,101,022
E. Experience Account	195,610,857	0	0
F. Investment Returns			
(1) Market (Total Assets)	11.81%	-0.10%	23.17%
(2) Market (excl OPR & self-directed)	12.19%	-0.20%	23.86%
(3) Net Actuarial Value	14.05%	5.20%	5.45%
(4) Rate for DROP Accounts	13.55%	4.70%	4.95%
G. Normal Costs			
(1) Total in Dollars	\$ 282,121,445	\$ 327,029,375	\$ 352,332,629
(2) Total Normal Cost Rate	14.45%	13.97%	14.63%
(3) Employer Normal Cost Rate	6.54%	6.10%	6.78%
H. Accrued Liability	\$ 16,182,194,641	\$ 16,157,897,566	\$ 15,221,055,048
I. Unfunded Accrued Liability	\$ 6,441,331,239	\$ 7,131,513,306	\$ 6,457,954,026
J. Funded Percentage	60.2%	55.9%	57.6%
K. Funding Requirements for the Fiscal Year Following the Valuation Date			
(1) Employees			
a) Contributions	\$ 156,872,780	\$ 189,875,026	\$ 194,653,008
b) Rate	7.915%	7.870%	7.844%
(2) Employers			
a) Contributions	\$ 713,216,842	\$ 737,556,777	\$ 687,983,477
b) Rate	35.99%	30.6%	27.7%
L. Funding Requirements for the Subsequent Fiscal Year			
(1) Employees			
a) Contributions	\$ 159,255,227	\$ 194,093,341	\$ 199,991,732
b) Rate	7.915%	7.870%	7.844%
(2) Employers			
a) Contributions	\$ 800,601,086	\$ 803,905,422	\$ 750,216,018
b) Rate	39.80%	32.6%	29.4%

The above information reflects the cost of benefits that were in effect on June 30, 2013, including Acts of the 2013 Regular Session of the legislature.

June 30, 2013 Assets and Liabilities

The actuary for the office of the Louisiana Legislative Auditor (LLA) is required by R.S. 11:127(C) to prepare an actuarial valuation for review by PRSAC. More specifically, R.S. 11:127(C) states:

The actuaries for the public retirement systems, plans, and funds and for the legislative auditor shall submit annual actuarial valuations to the committee. The committee shall review and analyze all the assumptions and valuations submitted. The committee shall, with the consent of the majority of members present and voting, approve a single valuation for each public retirement system, plan, or fund. Once consent of the members is obtained, the actuarial valuations in the form of the official valuations adopted by the committee shall be submitted to the House and Senate committees on retirement and the Joint Legislative Committee on the Budget.

We have interpreted this provision of law to mean that the methods and assumptions used to prepare June 30, 2013 assets and liabilities became prescribed by PRSAC when it approved the June 30, 2012 valuation report for LASERS. The June 30, 2013 valuation report that will be adopted by PRSAC will prescribe the methods and assumptions to be used in the preparation of the assets and liabilities as of June 30, 2014.

The actuary for the retirement system, Foster & Foster, and the actuary for the LLA have both elected to use a new actuarial value of assets method as of June 30, 2013.

The actuarial valuation report prepared by the LLA provides PRSAC with some assurance that June 30, 2013 asset and liability values were prepared correctly. The LLA actuary confirms that his calculation of assets and liabilities as of June 30, 2013 matched assets and liabilities prepared by Foster & Foster.

Sources and Amounts of Gains and Losses for FYE 2013

Gains and losses measured by the LLA are compared below with gains and losses calculated by the LLA.

	<u>Foster & Foster</u>	<u>The LLA</u>	<u>Increase/(Decrease)</u>
Unfunded Liability June 30, 2012	\$ 7,131,481,688	\$ 7,131,481,688	\$ 0
Increases Due to:			
Interest on the UAL	570,518,534	570,518,535	0
Employer Contribution Shortfall	78,318,188	78,318,187	0
Allocation to the Experience Account	<u>195,623,963</u>	<u>195,610,857</u>	<u>(13,106)</u>
Total Increases	844,460,685	844,447,579	(13,106)
Decreases Due to:			
Employer Amortization Payments	614,066,977	614,066,977	0
Change in the Asset Valuation Method	170,210,294	170,184,083	(26,211)
Investment Gains	321,037,632	321,036,462	(1,170)
Experience Gains	<u>429,310,507</u>	<u>429,310,506</u>	<u>(1)</u>
Total Decreases	1,534,625,410	1,534,598,028	(27,382)
Unfunded Liability on June 30, 2013	\$ 6,441,316,963	\$ 6,441,331,239	\$ 14,276

The small differences shown above are immaterial and due to corrections to 2010 actuarial value of assets.

Projected Employer Contribution Rates for 2015

We determined the employer contribution rate for FYE 2015 to be 39.8% of payroll. Foster & Foster determined it to be 37.4%. The primary reasons for the difference are summarized below.

1. The LLA used a discount rate of 7.75%, net of investment expenses. Foster & Foster used a rate of 8.00% net of investment expenses and net of future transfers to the Experience Account.
2. The LLA explicitly recognized future transfers to the Experience Account. We established a liability that approximates the cost of providing a 6% increase in benefits for eligible retirees. Foster & Foster implicitly recognized future transfers to the Experience Account by reducing the discount rate that would otherwise be used by 50 basis points. In other words, if Foster & Foster had explicitly recognized future transfers, its discount rate would have been 8.50%.
3. Active participants in LASERS would have their salaries increase over the long term in accordance with inflation and merit adjustments. LLA decreased the salary scale assumption at each age to account for lower inflation assumption of 2.5%. Foster & Foster's inflation rate embedded in salary scale is 3.0%.

Accounting Information

Beginning with FYE 2014, LASERS and the LLA will prepare financial accounting information based on new standards set forth in GASB Statement No 67.

Experience Account Analysis

A detailed analysis of the Experience Account is presented in Section III. The 2010 amendment to the Louisiana Constitution (Article (10)(29)(F)) and discussions with General Counsel and with legislative staff have led us to reconsider the treatment of the Experience Account process. We have concluded the following.


1. Laws pertaining to transfers of gains to the Experience Account are still in force.
2. Laws pertaining to grants of permanent benefit increases are still on the books. However, they cannot be implemented because of the constitutional amendment.
3. Therefore, LASERS still has an obligation under the law to fund the Experience Account up to the maximum level (the present value of a 6% benefit increase to eligible retirees). However, there are no benefit provisions allowing dollars in the Experience Account to be used at this time. Dollars in the Experience Account can be used only if a bill is introduced by the legislature, passes each house with a two-thirds majority, and is signed by the governor.


We have prepared our employer contribution requirements for FYE 2015 in accordance with our understanding of the law as summarized above.

Actuarial Certification

This report is considered to be a Statement of Actuarial Opinion. Therefore, I make the following certification:

I, Paul T. Richmond, am the Manager of Actuarial Services for the Office of the Louisiana Legislative Auditor. I am a member of the American Academy of Actuaries, an Associate in the Society of Actuaries, an Enrolled Actuary, and I meet the Qualification Standards of the American Academy of Actuaries to necessary render the actuarial opinion contained herein.


Paul T. Richmond


Date

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**SECTION I:
DEVELOPMENT OF EMPLOYER CONTRIBUTIONS**

1. Employer Contribution Requirements for FYE 2015 - Sub Plans

The calculations of employer contribution rates for FYE 2015 for employers participating in each sub plan of LASERS are shown below. These contribution requirements are based on revised assumptions and methods.

A. Rank and File Sub Plan

	Dollar Contribution	Projected Payroll	Contribution Rate
Normal Cost	\$ 111,349,151	\$ 1,751,408,245	6.3577%
Shared Amortization Costs	579,238,555		33.0727%
Plan Specific Costs	1,005,442		0.0574%
Total	\$ 691,593,148		39.4878%

B. Pre 2011 Judges and Court Officers Sub Plan

	Dollar Contribution	Projected Payroll	Contribution Rate
Normal Cost	\$ 4,304,347	\$ 39,172,284	10.9882%
Shared Amortization Costs	12,955,345		33.0727%
Plan Specific Costs	0		0.0000%
Total	\$ 17,259,692		44.0610%

C. Post 2011 Judges Sub Plan

	Dollar Contribution	Projected Payroll	Contribution Rate
Normal Cost	\$ 285,447	\$ 5,296,701	5.3892%
Shared Amortization Costs	1,751,764		33.0727%
Plan Specific Costs	0		0.0000%
Total	\$ 2,037,211		38.4619%

D. Legislators Sub Plan

	Dollar Contribution	Projected Payroll	Contribution Rate
Normal Cost	\$ 77,394	\$ 724,240	10.6863%
Shared Amortization Costs	239,526		33.0727%
Plan Specific Costs	0		0.0000%
Total	\$ 316,920		43.7590%

E. Corrections Officers Primary Sub Plan

	Dollar Contribution	Projected Payroll	Contribution Rate
Normal Cost	\$ 2,039,807	\$ 21,450,533	9.5094%
Shared Amortization Costs	7,094,277		33.0727%
Plan Specific Costs	0		0.0000%
Total	\$ 9,134,084		42.5821%

F. Corrections Officers Secondary Sub Plan

	Dollar Contribution	Projected Payroll	Contribution Rate
Normal Cost	\$ 9,906,875	\$ 96,676,807	10.2474%
Shared Amortization Costs	31,973,661		33.0727%
Plan Specific Costs	0		0.0000%
Total	\$ 41,880,536		43.3201%

G. Wildlife Officers Sub Plan

	Dollar Contribution	Projected Payroll	Contribution Rate
Normal Cost	\$ 1,688,962	\$ 10,009,494	16.8736%
Shared Amortization Costs	3,310,413		33.0727%
Plan Specific Costs	0		0.0000%
Total	\$ 4,999,375		49.9463%

H. Peace Officers Sub Plan

	Dollar Contribution	Projected Payroll	Contribution Rate
Normal Cost	\$ 425,348	\$ 3,856,834	11.0261%
Shared Amortization Costs	1,275,560		33.0727%
Plan Specific Costs	305,122		7.9112%
Total	\$ 2,005,941		52.0100%
Peace Officers Fund	- 305,122		- 7.9112%
Net Employer Cost	\$ 1,700,819		44.0988%

I. Alcohol Tobacco Control Officers Sub Plan

	Dollar Contribution	Projected Payroll	Contribution Rate
Normal Cost	\$ 113,385	\$ 854,958	13.2621%
Shared Amortization Costs	282,758		33.0727%
Plan Specific Costs	80,986		9.4725%
Total	\$ 477,129		55.8073%
ATC Officers Fund	- 80,986		- 9.4725%
Net Employer Cost	\$ 396,143		46.3348%

J. Bridge Police Officers Sub Plan

	Dollar Contribution	Projected Payroll	Contribution Rate
Normal Cost	\$ 10,936	\$ 289,295	3.7802%
Shared Amortization Costs	95,678		33.0727%
Plan Specific Costs	0		0.0000%
Total	\$ 106,614		36.8530%

K. Hazardous Duty Officers Sub Plan

	Dollar Contribution	Projected Payroll	Contribution Rate
Normal Cost	\$ 3,807,674	\$ 82,329,175	4.6250%
Shared Amortization Costs	27,228,507		33.0727%
Plan Specific Costs	140,359		0.1705%
Total	\$ 31,176,540		37.8682%

L. Total For All Sub Plans

	Dollar Contribution	Projected Payroll	Contribution Rate
Normal Cost	\$ 134,009,239	\$ 2,012,068,566	6.6603%
Shared Amortization Costs	665,446,046		33.0727%
Plan Specific Costs	1,531,903		0.0761%
Total	\$ 800,987,192		39.8091%
Less ATC & Peace Officers Funds	386,108		0.0192%
Net Employer Cost	\$ 800,601,082		39.7900%

2. Employer Contribution Requirements for FYE 2014 - Combined Plan

Employer contribution requirements for FYE 2014, as measured for all sub plans combined using assumptions and methods applicable to the 2013-14 fiscal year, are calculated below. These values have been determined as if the entire system had been measured as a single financial entity. Although R.S. 11:102C requires separate calculations of normal cost for each sub plan within LASERS, values in the aggregate are useful for comparisons with contribution requirements for prior years.

	<u>Dollar Amount</u>	<u>Percent of Salary</u>
A. Employer Portion of Normal Cost	\$ 129,581,752	6.538034%
B. Shared Amortization Payments	512,994,250	25.883072%
C. Amortization Payments for Sub Plans	1,545,239	0.077965%
D. Contribution Variance Payments	<u>69,488,009</u>	<u>3.506010%</u>
E. Total Contribution = A + B + C + D	\$ 713,609,250	36.005081%
F. Payments from Peace Officers Fund	311,064	0.015695%
G. Payments from ATC Officers Fund	<u>81,344</u>	<u>0.004104%</u>
H. Net Required Employer Contribution = E – F – G	\$ 713,216,842	35.985282%
I. Projected Payroll for FYE 2014	\$ 1,981,968,160	
J. Total Contribution Rate for FYE 2014 = H ÷ I	35.99%	
K. Minimum Contribution Rate	15.5%	
L. Minimum Required Contribution for FYE 2014 = I x K	\$ 307,205,065	15.500000%
M. Required Employer Contribution for FYE 2014 = The Greater of H and L	\$ 713,216,842	35.985282%

3. Employer Contribution Requirements for FYE 2015 - Combined Plan

Employer contribution requirements for FYE 2015, as measured for all sub plans combined using assumptions and methods applicable to the 2014-15 fiscal year, are calculated below. These values have been determined as if the entire system had been measured as a single financial entity. Although R.S. 11:102C requires separate calculations of normal cost for each sub plan within LASERS, values in the aggregate are useful for comparisons with contribution requirements for prior years.

	<u>Dollar Amount</u>	<u>Percent of Salary</u>
A. Employer Portion of Normal Cost	\$ 134,009,239	6.660272%
B. Shared Amortization Payments	571,649,234	28.411022%
C. Amortization Payments for Sub Plans	1,531,909	0.076136%
D. Contribution Variance Payments	<u>93,796,812</u>	<u>4.661711%</u>
E. Total Contribution = A + B + C + D	\$ 800,987,194	39.809141%
F. Payments from Peace Officers Fund	305,122	0.015165%
G. Payments from ATC Officers Fund	<u>80,986</u>	<u>0.004025%</u>
H. Net Required Employer Contribution = E – F – G	\$ 800,601,086	39.789951%
I. Projected Payroll for FYE 2015	2,012,068,567	
J. Total Contribution Rate for FYE 2015 = H ÷ I	39.80 %	
K. Minimum Contribution Rate	15.50%	
L. Minimum Required Contribution for FYE 2015 = I x K	\$ 311,870,628	15.500000%
M. Required Employer Contribution for FYE 2015 = The Greater of H and L	\$ 800,601,086	39.789951%

4. Normal Cost Values - Combined Plan

Employer and Employee Normal Costs

Funding rules under R.S. 11:21 require a measurement of normal costs to be calculated in accordance with the Projected Unit Credit Funding method. Employee and employer normal cost values for the 2013-14 fiscal year are based on the valuation of normal costs as of June 30, 2013. The total normal cost percentage is calculated as the total normal cost for 2013-14 divided by the payroll as of June 30, 2013. The employee normal cost is calculated as employee contributions collected in FYE 2013 divided by the June 30, 2013 payroll. The employer normal cost percentage is equal to the difference between the total normal cost percentage and the employee normal cost percentage. These percentages are then multiplied by the project payroll for the 2013-14 fiscal year to determine dollar contribution amounts for FYE 2014.

Projected normal costs for 2014-15 are calculated in a similar manner. The calculated normal percentages, however, are multiplied by projected payroll amounts for FYE 2015.

Normal costs and projected payroll values for FYE 2014 are based on an 8.00% discount rate net of investment expenses, and other assumptions and methods applicable to FYE 2014 as described in Section IV of this report. Projected normal costs and employer payrolls for FYE 2015 are based on a 7.75% discount rate and a salary increase assumptions that is 50 basis points less than used for FYE 2014.

	<u>2014-15</u>	<u>2013-14</u>	<u>2012-13</u>
A. Total Normal Cost			
1. Retirement Benefits	\$ 223,378,108	\$ 222,650,233	\$ 259,757,933
2. Disability Benefits	5,390,989	5,608,138	6,329,773
3. Survivor Benefits	6,187,040	5,901,387	6,949,735
4. Voluntary Terminations	<u>49,551,379</u>	<u>47,961,687</u>	<u>53,991,934</u>
5. Total Normal Cost	\$ 284,507,516	\$ 282,121,445	\$ 327,029,375
B. Payrolls			
1. On Valuation Date	\$ 1,951,987,750	\$ 1,951,987,750	\$ 2,341,703,286
2. Projected for Year after Valuation Date	N/A	1,981,968,160	2,412,643,275
3. Projected for 2nd Year after Valuation Date	2,012,068,567	N/A	2,478,292,517
C. Normal Cost Rates			
1. Total Normal Cost Rate = A5 ÷ B1	14.575272%	14.453034%	13.965449%
2. Employee Normal Cost Rate	7.915000%	7.915000%	7.870000%
3. Employer Normal Cost Rate = C1 – C2	6.660272%	6.538034%	6.095449%
D. Employer Normal Costs			
1. Actual Cost for FYE after Valuation Date = B2 x C3	N/A	\$ 129,581,752	\$ 147,061,437
2. Projected Cost for 2nd FYE after Valuation Date = B3 x C3	\$ 134,009,239	N/A	\$ 151,063,056

	<u>2014-15</u>	<u>2013-14</u>	<u>2012-13</u>
E. Employee Normal Costs			
1. Actual Cost for FYE after Valuation Date = A5 – D1	N/A	\$ 156,872,780	\$ 179,967,938
2. Projected Cost for 2nd FYE after Valuation Date = B3 x C2	\$ 159,255,227	N/A	\$ 195,041,621

Increases in Normal Costs Attributable to Change in Asset Valuation Method

The method used to determine the actuarial value of assets was changed effective June 30, 2013. This change had no effect on normal costs or projected payrolls.

Increases in Normal Costs Attributable to Assumption Changes

The discount rate and the salary increase assumption used to calculate normal costs were changed effective June 30, 2014. Normal costs before and after the changes were calculated as of June 30, 2013. It is assumed that the increase in normal cost as of June 30, 2014, would be the same as the increase calculated as of June 30, 2013. Values associated with normal costs changes resulting from the change in assumptions are shown below.

	<u>Old Assumptions</u>	<u>New Assumptions</u>	<u>Increase/ (Decrease)</u>
A. Total Normal Cost			
1. Retirement Benefits	\$ 222,650,233	\$ 223,378,108	\$ 727,875
2. Disability Benefits	5,608,138	5,390,989	(217,149)
3. Survivor benefits	5,901,387	6,187,040	285,653
4. Voluntary Terminations	<u>47,961,687</u>	<u>49,551,379</u>	<u>1,589,692</u>
5. Total Normal Cost	\$ 282,121,445	\$ 284,507,516	\$ 2,386,071
B. Payrolls			
1. Payroll on June 30, 2013	\$ 1,951,987,750	\$ 1,951,987,750	\$ 0
2. Projected Payroll for FYE 2014	1,981,968,160	1,963,702,160	(18,266,000)
3. Projected Payroll for FYE 2015	2,030,784,463	2,012,068,567	(18,715,896)
C. Normal Cost Rates			
1. Total Normal Cost Rate = A5 ÷ B1	14.453034%	14.575272%	0.122238%
2. Employee Normal Cost Rate	7.915000%	7.915000%	0.000000%
3. Employer Normal Cost Rate = C1 – C2	6.538034%	6.660272%	0.122238%
D. Employer Normal Costs			
1. Actual Cost for FYE 2014 = B2 x C3	\$ 129,581,752	\$ 130,787,905	\$ 1,206,153
2. Projected Cost for FYE 2015 = B3 x C3	132,773,379	134,009,239	1,235,860

		<u>Old</u> <u>Assumptions</u>		<u>New</u> <u>Assumptions</u>		<u>Increase/</u> <u>(Decrease)</u>
E. Employee Normal Costs						
1. Actual Cost for FYE 2014 = B2 x C2	\$	156,872,780	\$	155,427,026	\$	(1,445,754)
2. Projected Cost for FYE 2015 = B3 x C2		160,736,590		159,255,227		(1,481,363)

Increases in Normal Costs Attributable to Benefit Changes

A liability associated with gain sharing will be included in the accrued liability effective June 30, 2014. The entire present value of future transfers to the Experience Account will be included in the liability value. Therefore there is no normal cost associated with the recognition of gain sharing.

5. Unfunded Actuarial Accrued Liability

Unfunded Accrued Liability as of June 30, 2013

Funding rules under R.S. 11:21 require a measurement of the unfunded actuarial accrued liability for the plan to be calculated in accordance with the Projected Unit Credit Funding method. This measurement is to be made for all sub plans combined. Accrued liability values as of June 30, 2013, are based on an 8.00% discount rate net of investment expenses, and other assumptions and methods applicable to FYE 2014 as described in Section IV of this report. The unfunded accrued liability is based on the new actuarial value of assets that became effective on June 30, 2013.

The components of the unfunded accrued liability on June 30, 2013, are shown below.

	<u>June 30, 2013</u>	<u>June 30, 2012</u>
A. Accrued Liability		
1. Accrued Liability for Active Members		
a. Retirement Benefits	\$ 3,583,505,921	\$ 4,381,448,861
b. Disability Benefits	74,591,294	92,370,629
c. Survivor Benefits	73,463,663	91,227,907
d. Voluntary Terminations	<u>469,360,271</u>	<u>562,678,212</u>
e. Total	\$ 4,200,921,149	\$ 5,127,725,609
2. Accrued Liability for Retired and Inactive Members		
a. Regular Retirees	\$ 8,356,666,502	\$ 7,360,741,511
b. Disability Retirees	281,953,712	273,268,019
c. Survivors	646,869,392	660,965,505
d. Members with a Deferred Benefit	307,667,605	182,861,529
e. Contributions to Be Refunded	95,799,704	80,269,264
f. Deferred Benefits for DROP Members	1,348,248,971	1,597,322,115
g. Account Balances for DROP Members	938,035,164	868,143,454
h. Account Balances for ORP Members	<u>6,032,442</u>	<u>6,600,560</u>
i. Total	\$ 11,981,273,492	\$ 11,030,171,957
3. Total Accrued Liability	\$ 16,182,194,641	\$ 16,157,897,566
B. Valuation Assets (after Change in Asset Method for June 30, 2013)	\$ 9,740,863,402	\$ 9,026,415,878
C. Unfunded Accrued Liability (after Change in Asset Method for June 30, 2013)	\$ 6,441,331,239	\$ 7,131,481,688

Reconciliation of UALs between June 30, 2012 and June 30, 2013

Accrued liabilities, valuation assets, and unfunded accrued liabilities are summarized below for June 30, 2013, and June 30, 2012.

	<u>June 30, 2013</u>	<u>June 30, 2012</u>
A. Actuarial Accrued Liability	\$ 16,182,194,641	\$ 16,157,897,566
B. Valuation Assets	<u>9,740,863,402</u>	<u>9,026,384,260</u>
C. Unfunded Accrued Liability = A – B	\$ 6,441,331,239	\$ 7,131,513,306

The unfunded accrued liability on June 30, 2013, is reconciled below with the unfunded accrued liability on June 30, 2012.

A. Unfunded Accrued Liability on June 30, 2012		\$ 7,131,481,688
B. Increases in the UAL Due to:		
1. Interest on the UAL	\$ 570,518,535	
2. Employer Contribution Shortfall	78,318,187	
3. Allocation to the Experience Account	<u>195,610,857</u>	
4. Total Increases = B1 + B2 + B3		\$ 844,447,579
C. Decreases in the UAL Due to:		
1. Employer Amortization Payment	\$ 614,066,977	
2. Change in Asset Valuation Method	170,184,083	
3. Investment Gain	321,036,462	
4. Experience Gain	<u>429,310,506</u>	
5. Total Decreases = C1 + C2 + C3 + C4		\$ 1,534,598,028
D. Unfunded Accrued Liability on June 30, 2013 = A + B4 – C5		\$ 6,441,331,239

Increases in Accrued Liabilities on June 30, 2014 Attributable to Assumption Changes

The discount rate and the salary increase assumption used to calculate accrued liabilities were changed by the LLA actuary effective June 30, 2014. Liabilities, before and after the changes, were calculated as of June 30, 2013. It is assumed that the increase in accrued liability as of June 30, 2014, would be the same as the increase calculated as of June 30, 2013, plus interest for one year. Values associated with accrued liabilities resulting from the change in assumptions are shown below.

	<u>Old</u> <u>Assumptions</u>	<u>New</u> <u>Assumptions</u>	<u>Increase/</u> <u>(Decrease)</u>
A. Accrued Liability			
1. Accrued Liability for Active Members			
a. Retirement Benefits	\$ 3,583,505,921	\$ 3,614,284,706	\$ 30,778,785
b. Disability Benefits	74,591,294	74,276,489	-314,805
c. Survivor Benefits	73,463,663	77,365,950	3,902,287
d. Voluntary Terminations	<u>469,360,271</u>	<u>486,251,436</u>	<u>16,891,165</u>
e. Total	\$ 4,200,921,149	\$ 4,252,178,581	\$ 51,257,432
2. Accrued Liability for Retired and Inactive Members			
a. Regular Retirees	\$ 8,356,666,502	\$ 8,529,140,608	\$ 172,474,106
b. Disability Retirees	281,953,712	286,093,866	4,140,154
c. Survivors	646,869,392	651,698,376	4,828,984
d. Members with a Deferred Benefit	307,667,605	315,340,306	7,672,701
e. Contributions to Be Refunded	95,799,704	95,799,704	0
f. Deferred Benefits for DROP Members	1,348,248,971	1,375,872,744	27,623,773
g. Account Balances for DROP Members	938,035,164	938,035,164	0
h. Account Balances for ORP Members	<u>6,032,442</u>	<u>6,032,442</u>	<u>0</u>
i. Total	\$ 11,981,273,492	\$ 12,198,013,210	\$ 216,739,718
3. Total Accrued Liability	\$ 16,182,194,641	\$ 16,450,191,791	\$ 267,997,150
B. Interest Adjustment for One Year			21,439,772
C. Increase in Accrued Liability Due to Change in Assumptions = A3 + B			\$ 289,436,922
D. Recognition of Gain Sharing Liability			
1. Cost of 6% COLA to Eligible Retirees determined stochastically at 7.75%			300,885,490

Increases in Accrued Liabilities Attributable to Benefit Changes

Liabilities associated with past gain sharing have already been recognized either permanent benefit increases already given or through the transfer of \$195,610,857 to the Experience Account on June 30, 2013. The liability associated with future gain sharing transfers to the Experience Account has been measured to be \$300,885,490. This amount will be included as a liability of the retirement system for the first time effective June 30, 2014.

Projected Unfunded Accrued Liability on June 30, 2014

The calculation of the projected unfunded accrued liability as of June 30, 2014, is shown below.

A.	Unfunded Accrued Liability on June 30, 2013		\$ 6,441,331,239
B.	Increases in the UAL Due to:		
	1. Interest on the UAL	\$515,306,499	
	2. Expected Employer Contribution Shortfall	88,264,895	
	3. Recognition of Gain Sharing	300,872,383	
	4. Change in Assumptions	<u>389,759,773</u>	
	5. Total Increases = B1 + B2 + B3 + B4		\$ 1,294,203,550
C.	Decreases in the UAL Due to:		
	1. Employer Amortization Payment	\$ 606,939,180	
	2. Investment Gain	0	
	3. Experience Gain	0	
	4. Assumption Change (inflation 50 BP lower)	<u>100,322,851</u>	
	5. Total Decreases = C1 + C2 + C3		\$ 707,262,031
D.	Unfunded Accrued Liability on June 30, 2014		
	= A + B5 – C5		\$ 7,028,285,866

6. Assets

A. Actuarial Value of Assets (New Method)

The method for determining the actuarial value of assets has been changed effective June 30, 2013. The new method is based on the market value of assets adjusted to phase in realized and unrealized investment gains and losses over the four year period immediately prior to the valuation date. This method is shown below.

	<u>June 30, 2013</u>	<u>June 30, 2012</u>	<u>June 30, 2011</u>	<u>June 30, 2010</u>
A. Investment Gain/(Losses) Based on Market				
1. BOY Market Value	\$ 9,515,774,342	\$ 9,703,496,641	\$ 8,064,543,049	\$ 7,100,333,387
2. Contributions	856,194,404	862,522,235	770,081,144	708,719,337
3. Benefit Payments	1,131,933,021	1,022,193,004	957,394,617	864,913,161
4. Administrative Expenses	18,932,247	18,441,062	18,181,272	18,897,997
5. EOY Market Value	\$ 10,327,598,351	\$ 9,515,774,342	\$ 9,703,496,641	\$ 8,064,543,049
6. Actual Investment Income = A5 – A1 – A2 + A3 + A4	1,106,494,873	(9,610,468)	1,844,448,337	1,139,301,483
7. Expected Investment Income Based on the Discount Rate	749,475,113	793,191,360	656,848,143	578,554,967
8. Gain/(Loss) = A6 – A7	\$ 357,019,760	\$ (802,801,828)	\$ 1,187,600,194	\$ 560,746,516
		Gain/(Loss)	Factor	Market Value Adjustment
B. Market Value Adjustment		<u>(a)</u>	<u>(b)</u>	<u>(c) = (a) x (b)</u>
1. Adjustment for 2013	\$	357,019,760	80%	\$ 285,615,808
2. Adjustment for 2012		(802,801,828)	60%	(481,681,097)
3. Adjustment for 2011		1,187,600,194	40%	475,040,078
4. Adjustment for 2010		560,746,516	20%	<u>112,149,303</u>
5. Total Market Value Adjustment				\$ 391,124,092
C. Preliminary Actuarial Value				
1. Market Value on June 30, 2013 = A5			\$10,327,598,351	
2. Market Value Adjustment = B5			<u>391,124,092</u>	
3. Preliminary Actuarial Value = C1 – C2			\$ 9,936,474,259	
D. Corridor Values				
1. 85% x Market Value			8,778,458,598	
2. 115% x Market Value			11,876,738,104	
E. Actuarial Value of Assets =				
Preliminary Value if Preliminary Value is inside the Corridor. Otherwise the Actuarial Value = the average between the Preliminary Value and the Corridor			\$ 9,936,474,259	

B. Market and Book Values

The market value of assets and the book value of assets shown below have been extracted from the June 30, 2013, actuarial valuation report for LASERS prepared by Foster and Foster.

<u>Date</u>	<u>Asset Values</u>		<u>Unrealized Appreciation (c) = (a) - (b)</u>
	<u>Market Value (a)</u>	<u>Book Value (b)</u>	
June 30, 2013	\$ 10,327,598,351	\$ 8,984,583,245	\$ 1,343,015,106
June 30, 2012	9,515,774,342	8,791,278,752	724,495,590
June 30, 2011	9,703,496,641	8,559,718,294	1,143,778,347
June 30, 2010	8,064,543,049	8,179,393,406	<u>(114,850,357)</u>
Total			\$ 3,096,438,686

C. Actuarial Value of Assets (Old Method)

The old method for determining the actuarial value of assets is based on an algebraic formula that is equivalent to the formula used by Foster and Foster.

A. Book Value on June 30, 2013	\$ 8,984,583,245
B. Average Unrealized Appreciation	
1. Total Unrealized Appreciation	3,096,438,686
2. Averaging Factor	25%
3. Average Unrealized Appreciation = B1 x B2	\$ 774,109,672
C. Preliminary Actuarial Value = A + B3	\$ 9,758,692,917
D. Asset Corridor	
1. 80% x Market Value of Assets	8,262,078,681
2. 120% x Market Value of Assets	12,393,118,021
E. Actuarial Value of Assets = C, but not less than D1 or greater than D2	\$ 9,758,692,917

Caveat: This method treats realized gains and losses differently from unrealized gains and losses. Realized gains and losses are recognized immediately but recognition of unrealized gains and losses is delayed. Under this method, an increase in asset turnover may cause a significant change in the actuarial value of assets. This caveat is provided in accordance with Actuarial Standards of Practice No. 44 Section 3.4.2.

D. Effect of the Change in the Asset Valuation Method

As a result of the change in the asset valuation method, the unfunded accrued liability decreased \$177,781,342.

A. June 30, 2013, Actuarial Value under New Method	\$ 9,936,474,259
B. June 30, 2013, Actuarial Value under Old Method	9,758,692,917
C. Decrease in the Unfunded Accrued Liability Resulting from the Change in Asset Valuation Method = A – B	\$ 177,781,342

E. Investment Gain

Investment gain/(losses) are measured as the difference between actuarial and expected investment earnings during FYE 2013.

A. Components of the Gain/(Loss) Calculation	
1. Net Actuarial Value of Assets on June 30, 2012 (Old Method)	\$ 8,653,473,972
2. Contributions for FYE 2013	739,097,900
3. Benefits Paid for FYE 2013	1,056,549,626
4. Administrative Expenses Paid for FYE 2013	18,932,247
5. Net Actuarial Value of Assets on June 30, 2013 (New Method)	\$ 9,509,333,516
6. Expected Rate of Return on Assets	8.00%
B. Actual Investment Earnings = A5 – A1 – A2 + A3 + A4	\$ 1,192,243,517
C. Expected Investment Earnings	679,081,412
D. Investment Gain/(Loss) = B – C	\$ 513,162,105

F. Allocation of Investment Gains to the Experience Account

According to R.S. 11:542, 50% of the total investment gain, not associated with DROP accounts, in excess of \$100 million will be transferred from the regular asset pool to the Experience Account unless the Experience Account already exceeds the statutory limit which is 2 times the actuarial present value of a full 3% COLA adjustment. The amount of assets to be transferred under R.S. 11:542 from the regular pool of assets to the Experience Account is calculated below.

A. Excess Investment Earnings = Investment Gain	\$ 513,162,105
B. Excess Investment Earnings Paid to DROP Accounts	
1. DROP Accounts Eligible for System Investment Earnings	
a. Total of all DROP and IBO accounts	\$ 888,898,026
b. DROP accounts for Actives not entitled to system earnings	105,182,016
c. Self-directed DROP accounts not entitled to system earnings	<u>421,108,301</u>
d. DROP accounts entitled to system earnings = B1a – B1b – B1c	\$ 362,607,709
2. Rate of Return Attributable to Excess Earnings on DROP Accounts	
a. Actual rate of return on investments for DROP accounts	13.550724%
b. Expected rate of return for DROP accounts	7.500000%
c. Rate of return attributable to excess earnings = B2a – B2b	6.050724%
3. Excess Investment Earnings Paid to DROP Accounts = B1d x B2c	\$ 21,940,392
C. Net Excess Investment Earnings = A – B3	\$ 491,221,713
D. Allocation of Excess Investment Earnings to the Experience Account	
1. Net Excess Investment Earnings = C	\$ 491,221,713
2. Administrative Expense	0
3. Threshold Gain	<u>100,000,000</u>
4. Gain Available for Gain Sharing = D1 – D2 – D3	\$ 391,221,713
5. Gain Sharing Percentage	50%
6. Allocation of Gains to the Experience Account	\$ 195,610,857

G. Employer Shortfall/(Surplus)

Employer Contribution Shortfall for FYE 2013

Total contributions received from participating employers were lower in FYE 2014 than were expected. As a result, asset values are less than what they would have been otherwise. The unfunded accrued liability has increased because of this deficit in contributions. The calculation of the shortfall as of June 30, 2013 is shown on the following page.

A. Actual Employer Contributions		
1. Employer Contributions	\$	648,450,038
2. ORP Contributions		579,670
3. Net Employer Contributions = A1 + A2	\$	649,029,708
 B. Expected Employer Contributions		
1. Member Contributions	\$	173,357,802
2. Employee Contribution rate		7.915000%
3. Salaries on which Contributions Were Received = B1 ÷ B2	\$	2,190,243,866
4. Employer Normal Cost Rate for FYE 2013		6.095449%
5. Expected Employer Normal Costs = B3 x B4	\$	133,505,195
6. Contributions to the Employer Credit Account for FYE 2013		0
7. Amortization Payments for FYE 2013		557,269,001
8. Payments toward Contribution Variances for 2013		<u>33,617,223</u>
9. Expected Employer Contributions	\$	724,391,419
 C. Mid-Year Employer Shortfall for FYE 2013 = B9 – A3	\$	75,361,711
 D. Interest at 8.00% for ½ Year		<u>2,956,476</u>
 E. Employer Shortfall on June 30, 2013 = C + D	\$	78,318,187

Projected Employer Contribution Shortfall for FYE 2014

A shortfall in employer contributions is expected to occur because the actual employer contribution rate, 36.0% of pay for FYE 2014, is greater than the projected 31.7% rate of pay set by PRSAC a year ago. The expected shortfall of employer contributions is calculated below.

A. Actual Employer Contributions Required in Mid-Year for FYE 2014	\$	713,216,842
B. Projected Employer Contributions Expected in Mid-Year for FYE 2014		628,283,907
C. Shortfall of Employer Contributions Expected for Mid-Year for FYE 2014 = A – B	\$	84,932,935
D. Interest on Shortfall at 8.00% per Year from Mid-Year to End of Year		3,331,960
E. Total Employer Contribution Shortfall on June 30, 2014 = C + D	\$	88,264,895

H. Asset Allocation (Market Values)

	<u>June 30, 2013</u>	<u>June 30, 2012</u>
A. Short-Term Assets		
1. Cash/Cash Equivalents	\$ 62,005,498	\$ 76,484,826
2. Short-term Investments	310,972,110	240,781,998
B. Bonds		
1. Domestic Issues	1,340,180,058	1,344,720,844
2. International Issues	313,875,045	451,373,593
C. Equities		
1. Domestic Stock	2,929,817,566	2,538,708,299
2. International Stock	2,430,091,727	2,112,485,553
D. Other Assets		
1. Fixed Assets	6,373,829	8,106,259
2. Real Estate and Alternative Investments	2,904,008,123	2,611,544,725
E. Receivables minus Payables	38,344,357	141,076,794
F. Securities Lending (Assets minus Liabilities)	<u>(8,069,962)</u>	<u>(9,508,549)</u>
G. Total Assets		
1. Market Value	\$ 10,327,598,351	\$ 9,515,774,342
2. Book Value	8,984,583,245	8,791,278,752

I. Income Statement (Market Value)

	FYE <u>June 30, 2013</u>	FYE <u>June 30, 2012</u>
A. Income		
1. Contribution Income		
a. Member Contributions	\$ 173,357,802	\$ 192,795,057
b. Employer Contributions	648,450,038	636,621,556
c. ORP Contributions	<u>579,670</u>	<u>664,364</u>
d. Total = A1a + A1b + A1c	822,387,510	830,080,977
2. Other Income		
a. Legislative Appropriations	0	0
b. Transfers/Purchases	25,885,296	26,963,750
c. Miscellaneous	<u>7,921,598</u>	<u>5,477,508</u>
d. Total = A2a + A2b + A2c	33,806,894	32,441,258
3. Net Investment Income		
a. Investments Income	1,164,780,598	47,231,594
b. Investment Expense	<u>58,285,725</u>	<u>56,842,062</u>
c. Net Investment Income = A3a – A3b	1,106,494,873	(9,610,468)
4. Total Income = A1d + A2d + A3d	\$ 1,962,689,277	\$ 852,911,767
B. Expense		
1. Operating Expense		
a. General Administration	\$ 15,907,599	\$ 15,500,163
b. Post-Employment Benefits	982,754	999,650
c. Depreciation	<u>2,041,894</u>	<u>1,941,249</u>
d. Total = B1a + B1b + B1c	18,932,247	18,441,062
2. Benefit Payments		
a. Pension Benefits	1,070,410,859	978,971,262
b. Return of Employee Contributions	<u>61,522,162</u>	<u>43,221,742</u>
c. Total = B2a + B2b	1,131,933,021	1,022,193,004
3. Total Expense = B1d + B2c	\$ 1,150,865,268	\$ 1,040,634,066
C. Net Income = A4 – B3	\$ 811,824,009	\$ (187,722,299)

J. Allocation of Assets to Sub Accounts

	<u>FYE</u> <u>June 30, 2013</u>	<u>FYE</u> <u>June 30, 2012</u>
A. Employer Credit Account		
1. Beginning Balance for Current Year	\$ 0	\$ 0
2. Allocation for Current Year	0	0
3. Disbursements for Current Year	0	0
4. Accumulated Interest for Current Year	<u>0</u>	<u>0</u>
5. Ending Balance for Current Year = A1 + A2 – A3 + A4	\$ 0	\$ 0
B. Initial UAL Amortization Fund		
1. Beginning Balance for Current Year	\$ 0	\$ 0
2. Allocation for Current Year	0	0
3. Disbursements for Current Year	0	0
4. Accumulated Interest	<u>0</u>	<u>0</u>
5. Ending Balance for Current Year = B1 + B2 – B3 + B4	\$ 0	\$ 0
C. Experience Account Fund		
1. Beginning Balance for Current Year	\$ 0	\$ 0
2. Allocation for Current Year	195,610,857	0
3. Disbursements for Current Year	0	0
4. Accumulated Interest	<u>0</u>	<u>0</u>
5. Ending Balance for Current Year = C1 + C2 – C3 + C4	\$ 195, 610,857	\$ 0
D. Valuation Assets		
1. Actuarial Value of Assets	\$ 9,936,474,259	\$ 9,026,384,260
2. Employer Credit Account = A5	0	0
3. Initial UAL Amortization Fund = B5	0	0
4. Experience Account Fund = C5	<u>195,610,857</u>	<u>0</u>
5. Valuation Assets = D1 – D2 – D3 – D4	\$ 9,740,863,402	\$ 9,026,384,260

7. Rate of Return on Investments

A. Rates of Return on Investments Based on Market Values

The market value of assets includes funds that have been invested outside the trust fund by members with money in ORP and self-directed accounts. Column (a) shows the rate of return on investments with these account funds included; column (b) shows the rate of return associated with ORP and self-directed account funds; and column (c) shows the rate of return with these funds excluded.

	Market Value <u>(a)</u>	Self-Directed & ORP Values <u>(b)</u>	Net Market Value <u>(c) = (a) - (b)</u>
A. Asset Value on June 30, 2012	\$ 9,515,774,342	\$ 372,941,906	\$ 9,142,832,436
B. Contributions	856,194,404	117,096,504	739,097,900
C. Benefit Payments	1,131,933,021	75,383,395	1,056,549,626
D. Administrative Expenses	18,932,247	0	18,932,247
E. Asset Value on June 30, 2013	\$ 10,327,598,351	427,140,743	\$ 9,900,457,608
F. Investment Income = E - A - B + C + D	\$ 1,106,494,873	\$ 12,485,728	\$ 1,094,009,145
G. Unrounded Rates of Return = F ÷ [A + ½ x (B - C - D)]	11.810878%	3.170588%	12.190005%
H. Rounded Rate of Return on Investments	11.81%	3.17%	12.19%

B. Rates of Return on Investments Based on Actuarial Value

The actuarial value of assets includes funds that have been invested outside the trust fund by members with money in ORP and self-directed accounts. Column (a) shows the rate of return on investments with these account funds included; column (b) shows the rate of return associated with ORP and self-directed account funds; and column (c) shows the rate of return with these funds excluded.

	Actuarial Value <u>(a)</u>	Self-Directed & ORP Values <u>(b)</u>	Net Actuarial Value <u>(c) = (a) - (b)</u>
A. Asset Value on June 30, 2012	\$ 9,026,415,878	\$ 372,941,906	\$ 8,653,473,972
B. Contributions	856,194,404	117,096,504	739,097,900
C. Benefit Payments	1,131,933,021	75,383,395	1,056,549,626
D. Administrative Expenses	18,932,247	0	18,932,247
E. Asset Value on June 30, 2013	\$ 9,936,474,259	427,140,743	\$ 9,509,333,516
F. Investment Income = E - A - B + C + D	\$ 1,204,729,245	\$ 12,485,728	\$ 1,192,243,517
G. Unrounded Rates of Return = F ÷ [A + (½ x (B - C - D)]	13.568176%	3.170588%	14.050724%
H. Rounded Rate of Return on Investments	13.57%	3.17%	14.05%

C. Summary of Rates of Return on Investments

	<u>Rates Measured on June 30</u>		
	<u>2013</u>	<u>2012</u>	<u>2011</u>
A. Total Market Value	11.81%	-0.10%	23.17%
B. Net Market Value	12.19%	-0.20%	23.86%
C. Actuarial Value	13.57%	5.09%	5.42%
D. Net Actuarial Value	14.05%	5.20%	5.45%
E. Rate Payable on DROP Accounts other than ORP and Self-Directed Funds	13.55%	4.70%	4.95%
F. Five Year Geometric Average of Total Actuarial Value	3.62%	2.59%	4.29%

8. Amortization Payments for FYE 2014

Year	Description	Amortization		Initial Liability	Years Remaining	Balance on June 30, 2013	Mid-Year Payment	Balance on June 30, 2014
		Method	Period					
Shared Bases								
2010	OAB	I	19	\$ 1,936,750,759	16	\$ 1,885,373,610	\$ 164,409,127	\$ 1,865,344,520
2010	EAAB	I	30	2,493,227,298	27	2,518,868,857	187,493,459	2,525,529,446
2009	Assumption Change	L	30	(221,451,744)	26	(212,910,183)	(18,952,205)	(210,247,288)
2009	Change in Liability	L	30	1,381,087,874	26	1,327,818,271	118,195,775	1,311,211,080
2010	Change in Liability	L	30	630,583,407	27	613,014,019	53,942,764	605,996,176
2011	Change in Liability	L	30	86,983,753	28	85,420,798	7,437,844	84,524,828
2012	Assumption Change	L	30	357,645,630	29	354,488,537	30,569,488	351,078,876
2012	Change in Liability	L	30	272,743,878	29	270,336,250	23,312,575	267,736,011
2013	EA Allocation	L	30	195,610,857	30	195,610,857	16,719,689	193,884,115
2013	Asset Method Change	L	30	(170,184,083)	30	(170,184,083)	(14,546,355)	(168,681,794)
2013	Investment Gain	L	30	(321,036,462)	30	(221,036,462)	(18,892,923)	(219,085,277)
2013	Experience Gain	L	30	<u>(429,310,506)</u>	30	<u>(429,310,506)</u>	<u>(36,694,988)</u>	<u>(425,520,796)</u>
Total				\$6,212,650,661		\$6,217,489,965	\$512,994,250	\$6,181,769,900
Plan Specific Bases								
2007	Act 414 Peace Officers	L	30	\$ 3,631,308	24	\$ 3,403,600	\$ 311,064	\$ 3,352,621
2008	Act 262 Rank & File	L	10	1,999,338	5	1,194,048	287,768	990,515
2008	Act 740 ATC Officers	L	10	565,160	5	337,526	81,344	279,993
2010	Act 992 Rank & File	L	10	5,036,841	7	3,915,058	723,588	3,476,288
2011	Act 992 Haz Duty	L	10	452,190	8	387,603	64,902	351,163
2012	Act 992 2012 Change	L	10	<u>533,971</u>	9	<u>497,111</u>	<u>76,573</u>	<u>457,303</u>
Total				\$ 12,218,808		\$ 9,734,946	\$ 1,545,239	\$ 8,907,883
Total Outstanding Balances						\$ 6,227,224,911	\$ 514,539,489	\$ 6,190,677,783
Employers Credit Balance								
2009	Contribution Variance	L	5	\$ (13,861,476)	1	\$ (3,224,685)	\$ (3,351,191)	\$ 0
2010	Contribution Variance	L	5	74,727,281	2	33,444,688	18,046,768	17,365,512
2011	Contribution Variance	L	5	98,016,200	3	63,329,249	23,646,218	43,821,718
2012	Contribution Variance	L	5	50,918,231	4	42,238,890	12,271,387	32,865,202
2013	Contribution Variance	L	5	<u>78,318,187</u>	5	<u>78,318,187</u>	<u>18,874,827</u>	<u>64,968,346</u>
Total				\$ 288,118,423		\$ 214,106,329	\$ 69,488,009	\$ 159,020,778
Grand Total						\$ 6,441,331,240	\$ 584,027,498	\$ 6,349,698,561

9. Amortization Payments for FYE 2015

Year	Description	Amortization		Initial Liability	Years Remaining	Balance on June 30, 2014	Mid-Year Payment	Balance on June 30, 2015
		Method	Period					
Shared Bases								
2010	OAB	I	19	\$ 1,936,750,759	15	\$ 1,865,344,522	\$ 170,837,247	\$ 1,832,575,052
2010	EAAB	I	30	2,493,227,298	26	2,525,529,447	193,645,529	2,520,248,697
2009	Assumption Change	L	30	(221,451,744)	25	(210,247,288)	(18,570,638)	(207,264,630)
2009	Change in Liability	L	30	1,381,087,874	25	1,311,211,080	115,816,124	1,292,609,678
2010	Change in Liability	L	30	630,583,407	26	605,996,176	52,830,615	598,121,276
2011	Change in Liability	L	30	86,983,753	27	84,524,828	7,281,045	83,517,581
2012	Assumption Change	L	30	357,645,630	28	351,078,876	29,911,445	347,238,602
2012	Change in Liability	L	30	272,743,878	28	267,736,011	22,810,746	264,807,382
2013	EA Allocation	L	30	195,610,857	29	193,884,115	16,352,656	191,935,636
2013	Asset Method Change	L	30	(170,184,083)	29	(168,681,794)	(14,227,032)	(166,986,590)
2013	Investment Gain	L	30	(321,036,462)	29	(219,085,277)	(18,478,184)	(216,883,533)
2013	Experience Gain	L	30	(429,310,506)	29	(425,520,796)	(35,889,456)	(421,244,434)
2014	Assumption Change Discount rt (8% to 7.75%)	L	30	389,759,773	30	389,759,773	32,569,513	386,158,122
2014	Assumption Gain (inflation 50 BP lower)	L	30	(100,322,851)	30	(100,322,851)	(8,383,283)	(99,395,798)
2014	Initial Gain Sharing	L	30	<u>300,885,490</u>	30	<u>300,885,490</u>	<u>25,142,907</u>	<u>298,105,100</u>
Total				\$ 6,802,973,073		\$ 6,772,092,312	\$ 571,649,234	\$ 6,703,542,141
Plan Specific Bases								
2007	Act 414 Peace Officers	L	30	\$ 3,631,308	23	\$ 3,352,621	\$ 305,122	\$ 3,295,724
2008	Act 262 Rank & File	L	10	1,999,338	4	990,515	286,500	769,885
2008	Act 740 ATC Officers	L	10	565,160	4	279,993	80,986	217,627
2010	Act 992 Rank & File	L	10	5,036,841	6	3,476,288	718,942	2,999,419
2011	Act 992 Haz Duty	L	10	452,190	7	351,163	64,423	311,505
2012	Act 992 2012 Change	L	10	<u>533,971</u>	8	<u>457,303</u>	<u>75,936</u>	<u>413,920</u>
Total				\$ 12,218,808		\$ 8,907,883	\$ 1,531,909	\$ 8,008,080
Total Outstanding Balances						\$ 6,781,000,195	\$ 573,181,143	\$ 6,711,550,221
Employers Credit Balance								
2010	Contribution Variance	L	5	\$ 74,727,281	1	\$ 17,365,512	\$ 18,025,870	\$ 0
2011	Contribution Variance	L	5	98,016,200	2	43,821,718	23,592,517	22,728,232
2012	Contribution Variance	L	5	50,918,231	3	32,865,202	12,230,234	22,716,942
2013	Contribution Variance	L	5	78,318,187	4	64,968,346	18,791,664	50,497,139
2014	Contribution Variance	L	5	<u>88,264,895</u>	5	<u>88,264,895</u>	<u>21,156,527</u>	<u>73,144,379</u>
Total				\$ 390,244,794		\$ 247,285,673	\$ 93,796,812	\$ 169,086,692
Grand Total						\$ 7,028,285,868	\$ 666,977,955	\$ 6,880,636,913

SECTION II
MEASURES OF FUNDED PENSION
OBLIGATIONS

1. Comparison of Assets to Accrued Liability

An actuarial funding method is a procedure for allocating the actuarial present value of projected benefits and expenses over working life time of the plan participants. The actuarial funding method provides the retirement system with a tool to annually budget for estimated annual pension costs. In other words, it is the process of assigning the cost of benefits to the years during which those benefits are earned by participants, from the date of hire to the full eligibility date.

One way to measure the success of the budgeting process is to determine whether there are sufficient assets to cover estimated pension obligations. Note that the selection of the discount rate directly impacts the measurement of pension obligations, and consequently, whether the plan is on budget. The retirement system is on budget when there is sufficient money to pay all benefit obligations when due, if plan assets are invested and have earned the expected rate of return. When plan assets earn lower returns than expected, additional funds are required; when plan assets earn higher returns than expected, a surplus fund develops.

LASERS uses the Projected Unit Credit funding (or cost) method. Under this method, the annual accrued benefit is called the Normal Cost and it is the actuarial present value of all benefits earned in that year. The actuarial present value of all benefits earned prior to valuation date is called actuarial accrued liability. The unfunded accrued liability is the actuarial accrued liability minus the actuarial value of assets.

	<u>June 30, 2013</u>	<u>June 30, 2012</u>
Accrued Liability	\$ 16,182,194,641	\$ 16,157,897,566
Actuarial Value of Assets	9,740,863,402	9,026,384,260
Unfunded Accrued Liability	6,441,331,239	7,131,513,306
Ratio of Assets to the Accrued Liability	60.19%	55.86%

It is also useful to determine which portion of the accrued liability is covered by assets. A comparison of assets and accrued liability on this basis is shown below.

	<u>June 30, 2013</u>	<u>June 30, 2012</u>
Actuarial Value of Assets	\$ 9,740,863,402	\$ 9,026,384,260
Accrued Liability for Inactive Members	11,981,273,492	11,030,171,957
Ratio of Assets to Inactive Liabilities	81.30%	81.83%
Asset Shortfall for Inactive Members	\$ 2,240,410,090	\$ 2,003,787,697
Assets Available for Active Members	\$ 0	\$ 0
Accrued Liability for Active Members	4,200,921,149	5,127,725,609
Ratio of Assets to Active Liabilities	0.00%	0.00%
Asset Shortfall for Active Members	\$ 4,200,921,149	\$ 5,127,725,609

The following conclusions can be drawn from the above tables:

1. There are no assets to cover benefit obligations to active participants. Active employee contributions and employer contributions budgeted to pay for Normal Cost are diverted to pay for the immediate obligations to current retirees.

2. Plan assets are only sufficient to cover 81% of the liability for members who are no longer employed by the state. The retirement system may consider that the investment return on current assets and contributions from active employees and retirement system will pay the scheduled benefits for many years and there is no immediate funding shortfall. However, eventually there will be a funding shortfall unless additional contributions are made.

2. Funding Measures for GASB

Accounting disclosure requirements for the Louisiana State Employees' Retirement System are set forth by the Government Accounting Standards Board (GASB). The Retirement System must comply with GASB Statement No. 25 as modified by Statement No. 50. Employers participating in LASERS must disclose in accordance with GASB Statement No. 27 as modified by Statement No. 50.

Information pertaining to these disclosure requirements is set forth below using the format suggested in the GASB statements. These formats are not necessarily the ones that will be used for reporting by LASERS or any of its participating employers. Unless otherwise disclosed, the information contained herein reflects valuation measurements prepared by LLA.

DRAFT NOTES TO FINANCIAL STATEMENTS

Louisiana State Employees' Retirement System

Draft Notes to the Financial Statements

For the Fiscal Year Ended June 30, 2013

The Louisiana State Employees' Retirement System (LASERS) administers one defined benefit pension plan. System assets may be used only for the payment of benefits to members of the plan, in accordance with the terms of the plan, and for the payment of expenses associated with administering the retirement system.

A. Summary of Significant Accounting Policies

Basis of Accounting: LASERS financial statements are prepared using the accrual basis of accounting. Member contributions are recognized in the period in which the contributions are due. Employer contributions are recognized when due and the employer has made a formal commitment to provide the contributions. Benefits and refunds of employee contributions are recognized when due and payable in accordance with the terms of the plan.

Method Used to Value Investments: Investments are reported at fair value. Short-term investments are reported at cost, which approximates fair value. Mortgages are valued on the basis of future principal and interest payments, and are discounted at prevailing interest rates for similar instruments. The fair value of real estate investments is based on independent appraisals. Fair value of other securities is determined by the mean of the most recent bid and asked prices as obtained from dealers that make markets in such securities. Investments for which market quotations are not readily available are valued at their fair values as determined by the custodian under the direction of the LASERS board of trustees, with the assistance of a valuation service.

Please note: The statement given above relative to the method used to value investments is a statement that is typically made. The LLA does not affirm the validity of this statement relative to the valuation of LASERS assets.

B. Plan Description and Contribution Information

Membership in LASERS consisted of the following on June 30, 2013, the date of the latest actuarial valuation.

Retirees and beneficiaries receiving benefits*	47,517
Terminated plan members entitled to, but not yet receiving benefits	4,162
Active plan members	44,111
Total	95,790
Number of participating employers	355

* This includes 2,577 members who are participating in DROP.

Plan Description: LASERS is a single employer defined benefit pension plan that covers rank and file employees of the state and various groups of employees working in positions that are considered hazardous duty. LASERS provides retirement, disability and death benefits to members, beneficiaries and survivors. Cost of living adjustments (COLAs) are provided at the discretion of the LASERS board of trustees as long as specified thresholds set forth in the law are met and approval is given by the legislature.

Contributions: Plan members are required to contribute from 7.5% to 13.0% of their annual covered compensation depending upon the set of benefit provisions under which they accrue benefits. The State of Louisiana is required to contribute at an actuarially determined rate.

C. Funded Status and Funding Progress

The funded status of the retirement system as of June 30, 2013, the most recent actuarial valuation date, is as follows.

Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b) – (a)	Funded Ratio (a) / (b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll [(b) – (a)]/(c)
6/30/13	\$ 9,740,863	\$ 16,182,195	\$ 6,441,331	60.2%	\$ 1,951,988	329.99%

Dollar values are shown in thousands of dollars.

The schedules of funding progress, presented as required supplementary information (RSI) following the notes to the financial statements, present multiyear trend information about whether the actuarial values of plan assets are increasing or decreasing over time relative to the AALs for benefits.

Additional information as of the latest actuarial valuation follows:

Valuation date	June 30, 2013
Actuarial cost method	Projected Unit Credit Method
Amortization method	Increasing payments until 2029 with generally level payments thereafter. New debits and credits are generally amortized over 30 years.

Remaining amortization period	30 years ^a
Asset valuation method	The market value of assets minus 80% of investment gains/losses for the prior year, 60% of gains/losses for the 2 nd prior year, 40% of gains/losses for the 3 rd prior year and 20% of gains/losses for the 4 th prior year. The actuarial value so determined must fall within a 15% corridor of the market value. If not, the actuarial value is calculated as the average of the preliminary actuarial value and the corridor value.
Actuarial Assumptions	
Investment rate of return ^b	8.00%, net of investment expenses and net of future transfers to the Experience Account.
Projected salary increase ^b	Generally ranges from 4.5% to 6.0%
COLAs	Current law has no provisions automatically providing for the payment of COLA benefits. However, current law provides for automatic transfers of investment gains to the Experience Account if investment gains exceed \$100 million. The Experience Account is then used to provide COLAs when sufficient funds exist. The automatic transfer of assets to the Experience Account has been valued; the subsequent granting of COLA benefits have not been.
a. The UAAL is being amortized over various periods of time with some payments calculated as level dollar amounts and some payments increased at various rates from year to year. Amortization payments for FYE 2013 were sufficient to pay interest on the UAAL as well as a portion of the principal balance. Larger amortization payments are scheduled to be made in future years with the entire UAAL scheduled for complete amortization in 30 years.	
b. Includes inflation at 3.0% per year	

REQUIRED SUPPLEMENTARY INFORMATION

Schedules of Funding Progress

Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b) – (a)	Funded Ratio (a) / (b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll [(b) – (a)]/(c)
6/30/04	\$ 6,097,815	\$ 10,237,574	\$ 4,139,759	59.6%	\$ 2,017,726	205.2%
6/30/05	6,673,500	10,847,062	4,173,562	61.5%	2,100,043	198.7%
6/30/06	7,430,784	11,548,680	4,117,896	64.3%	1,979,705	208.0%
6/30/07	8,345,495	12,421,907	4,076,412	67.2%	2,175,367	187.4%
6/30/08	9,167,170	13,562,214	4,395,044	67.6%	2,436,956	180.3%
6/30/09	8,499,662	13,986,847	5,487,185	60.8%	2,562,576	214.1%
6/30/10	8,512,403	14,764,015	6,251,612	57.7%	2,546,457	245.5%
6/30/11	8,763,069	15,221,055	6,457,954	57.6%	2,408,840	268.1%
6/30/12	9,026,384	16,157,898	7,131,513	55.9%	2,341,703	304.5%
6/30/13	9,740,863	16,182,195	6,441,331	60.2%	1,951,988	330.0%

Schedule of Employer Contributions

Fiscal Year	Actuarial Required Contribution (ARC)	Percentage of ARC Contributed	Annual Pension Cost (APC)	Actual Contribution	Interested Adjusted Actual Contribution	Percentage of APC Contributed	Net Pension Obligation
2004	\$ 367,881	95.4%	\$ 364,930	\$ 337,156	\$ 350,788	96.1%	\$ 35,367
2005	411,728	99.2%	404,460	392,409	408,275	100.9%	31,552
2006	423,503	93.1%	415,185	378,793	394,108	94.9%	52,629
2007	434,797	97.0%	420,367	405,504	421,900	100.4%	51,096
2008	456,741	115.4%	440,895	506,485	526,963	119.5%	(34,973)
2009	492,403	102.8%	491,379	486,590	506,264	103.0%	(49,858)
2010	585,269	87.2%	590,821	490,701	510,542	86.4%	30,422
2011	678,123	85.5%	672,330	557,563	580,107	86.3%	122,645
2012	713,971	92.9%	698,486	637,286	663,053	94.9%	158,078
2013	752,810	89.6%	730,520	649,030	674,491	92.3%	214,106

Notes:

1. All shaded information was taken from valuation reports prepared by the System actuary.
2. The information in the above table has been prepared using the projected unit credit actuarial cost method.
3. All dollar amounts are in thousands of dollars.

DRAFT NOTES TO THE FINANCIAL STATEMENTS

For Employers Participating in LASERS

Draft Notes to the Financial Statements

For the Fiscal Year Ended June 30, 2013

Plan Description: LASERS is a single employer defined benefit pension plan that covers rank and file employees of the state and various groups of employees working in positions that are considered hazardous duty. LASERS provides retirement, disability and death benefits to members, beneficiaries and survivors. Cost of living adjustments (COLAs) are provided at the discretion of the LASERS board of trustees as long as specified thresholds set forth in the law are met and approval is given by the legislature. The Louisiana state legislature has the authority to establish and amend benefit provisions. LASERS issues a publically available financial report that includes financial statements and required supplementary information (RSI) for the system. That report may be obtained by writing to LASERS, at P.O. Box 44213, Baton Rouge, LA 70804, or by calling (800) 256-3000.

Funding Policy: Sources of funding are established and may be amended by the Louisiana state legislature. Plan members are required to contribute amounts ranging from 7.5% to 13.0% of their covered compensation. The state of Louisiana is required to contribute at an actuarially determined rate.

Annual Pension Cost and Net Pension Obligation: The annual pension cost for all employers participating in LASERS and net pension obligation in the aggregate to LASERS for the year ending June 30, 2013, was as follows:

Annual required contribution (ARC)	\$ 752,810
Interest on net pension obligation	12,646
Adjustment to ARC	34,936
Annual pension cost	\$ 730,520
Employer contributions made	\$ 674,491
Increase (decrease) in net pension obligation	56,028
Net pension obligation beginning of the year	158,078
Net pension obligation end of the year	\$ 214,106

All dollar amounts are in thousands of dollars.

Schedule of Employer Contributions

Fiscal Year	Actuarial Required Contribution (ARC)	Percentage of ARC Contributed	Annual Pension Cost (APC)	Actual Contribution	Interested Adjusted Actual Contribution	Percentage of APC Contributed	Net Pension Obligation
2004	\$ 367,881	95.4%	\$ 364,930	\$ 337,156	\$ 350,788	96.1%	\$ 35,367
2005	411,728	99.2%	404,460	392,409	408,275	100.9%	31,552
2006	423,503	93.1%	415,185	378,793	394,108	94.9%	52,629
2007	434,797	97.0%	420,367	405,504	421,900	100.4%	51,096
2008	456,741	115.4%	440,895	506,485	526,963	119.5%	(34,973)
2009	492,403	102.8%	491,379	486,590	506,264	103.0%	(49,858)
2010	585,269	87.2%	590,821	490,701	510,542	86.4%	30,422
2011	678,123	85.5%	672,330	557,563	580,107	86.3%	122,645
2012	713,971	92.9%	698,486	637,286	663,053	94.9%	158,078
2013	752,810	89.6%	730,520	649,030	674,491	92.3%	214,106

Notes:

1. All shaded information was taken from valuation reports prepared by the System actuary.
2. The information in the above table has been prepared using the projected unit credit actuarial cost method.
3. All dollar amounts are in thousands of dollars.

Funded Status and Funding Progress: As of June 30, 2013, the most recent actuarial valuation date, the plan was 60.2% funded. The actuarial accrued liability for benefits was \$16,182,194,641 and the actuarial value of assets was \$9,740,863,402 resulting in an unfunded actuarial accrued liability (UAAL) of \$6,441,331,239. The covered payroll (annual payroll of active employees covered by the plan) was \$1,951,987,750 and the ratio of the UAAL to the covered payroll was 329.99%.

The schedule of funding progress, presented as RSI following the notes to the financial statements, present multiyear trend information about whether the actuarial value of plan assets is increasing or decreasing over time relative to the actuarial accrued liability for benefits. Information about the funded status of LASERS has been calculated using the projected unit credit cost method.

Schedules of Funding Progress

Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b) – (a)	Funded Ratio (a) / (b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll [(b) – (a)]/(c)
6/30/04	\$ 6,097,815	\$ 10,237,574	\$ 4,139,759	59.5%	\$ 2,017,726	205.2%
6/30/05	6,673,500	10,847,062	4,173,562	61.5%	2,100,043	198.7%
6/30/06	7,430,784	11,548,680	4,117,896	64.3%	1,979,705	208.0%
6/30/07	8,345,495	12,421,907	4,076,412	67.2%	2,175,367	187.4%
6/30/08	9,167,170	13,562,214	4,395,044	67.6%	2,436,956	180.3%
6/30/09	8,499,662	13,986,847	5,487,185	60.8%	2,562,576	214.1%
6/30/10	8,512,403	14,764,015	6,251,612	57.7%	2,546,457	245.5%
6/30/11	8,763,069	15,221,055	6,457,954	57.6%	2,408,840	268.1%
6/30/12	9,026,384	16,157,898	7,131,513	55.9%	2,341,703	304.5%
6/30/13	9,740,863	16,182,195	6,441,331	60.2%	1,951,988	330.0%

Actuarial Methods and Assumptions: In the June 30, 2013, actuarial valuation, the projected unit credit actuarial cost method was used. Actuarial assumptions included (a) 8.00 percent investment rate of return net of investment expenses and net of future transfers to the Experience Account and (b) projected salary increases that generally range from 4.5 percent to 6.0 percent per year. Both (a) and (b) included an inflation component of 3.00% per year. The actuarial value of assets was determined using techniques that spread the effects of short term volatility in the market value of investments over a four year period. The UAAL is being amortized over various periods of time with some payments calculated as level dollar amounts and some payments increased at various rates from year to year. Amortization payments for FYE 2013 were sufficient to pay interest on the UAAL as well as a portion of the principal balance. Larger amortization payments are scheduled to be made in future years with the entire UAAL scheduled for complete amortization in 30 years.

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SECTION III
VALUATION OF EXPERIENCE ACCOUNT PROVISIONS

1. Actuarial Basis for the Valuation of the Experience Account

A. Actuarial Interpretation of Louisiana Law

Prior to November 2010, the law provided for automatic transfers of investment gains from the regular pool of assets to the Experience Account. This transfer is a legislative mandate and must occur. There is no mandate that a COLA be granted. The law, prior to the 2010 Constitutional amendment, merely provided a process by which a COLA could be approved. The approval process required certain numerical tests to be satisfied and also required a recommendation by the board of trustees to the legislature, a favorable vote by the House and Senate on a concurrent resolution approving the recommendation, and certification by the actuary for the Legislative Auditor that there are sufficient funds in the Experience Account to fully pay for the COLA requested.

From an actuarial perspective, the annual valuation must recognize a liability associated with the transfer of investment gains. It is less clear whether future COLA grants should be measured and included as part of the system's liability. It can be argued that future COLA grants are not part of current plan provisions. Future COLA grants become a plan provision only after a successful approval process, which includes the enactment of a legislative instrument, has been completed.

The Legislative Auditor's actuary took the position that since the inception of the gain sharing COLA program, approvals have been granted every time that the necessary conditions had been satisfied. Only once was a COLA not granted and that occurred when the CPI-U was 0.1% for the year. As a result, we have contended that COLA grants were *substantively automatic* and should be recognized in the valuation of liabilities.

We included a section in our valuation reports discussing the effect that automatic COLA grants would have on liabilities, normal costs and employer contribution requirements, but recognized that the System's actuary took the position that the COLA's were not automatic.

In November 2010, Article (10)(29)(F) of the Louisiana Constitution was amended to include the following language.

F) Benefit Provisions; Legislative Enactment. Benefit provisions for members of any public retirement system, plan, or fund that is subject to legislative authority shall be altered only by legislative enactment. No such benefit provisions having an actuarial cost shall be enacted unless approved by two-thirds of the elected members of each house of the legislature. Furthermore, no such benefit provision for any member of a state retirement system having an actuarial cost shall be approved by the legislature unless a funding source providing new or additional funds sufficient to pay all such actuarial cost within ten years of the effective date of the benefit provision is identified in such enactment. This Paragraph shall be implemented as provided by law.

Underlining added to identify relevant content.

Based on our reading of the amendment, our discussions with General Counsel, and our discussions with legislative staff, future COLA grants will require the introduction of a bill, approval by two-thirds of the House and Senate, and the signature of the governor. Our valuation will treat COLA's as not automatic.

B. Recognition of Experience Account Transfers for the June 30, 2013 Valuation

Louisiana law provides an automatic transfer of a portion of investment gains to an Experience Account whenever the actual rate of return on the actuarial value of assets exceeds the stated assumed discount rate. This is commonly referred to as gain sharing. This transfer from the regular pool of assets must be accounted for in the actuarial valuation of the plan. For the June 30, 2013 valuation, future transfers of assets to the Experience Account were recognized by adjusting the discount rate by 50 basis points. The

stated discount rate for the June 30, 2013 valuation was 8.00%, net of investment expenses, and net of future transfers. This is the same as explicitly measuring gain sharing and stating the discount rate as 8.50%, net of investment earnings.

Because this method only indirectly recognizes gain sharing, no specific measurement of the effect on actuarial calculations of normal costs and liabilities has been made.

C. Recognition of Experience Account Transfers for the June 30, 2014 Valuation

The method used to recognize automatic transfers to the Experience Account will be changed July 1, 2014. Instead of recognizing transfers implicitly through a reduction in the discount rate, gain sharing will be measured explicitly by the Legislative Auditor's actuary and the discount rate will be net of investment expenses only. The explicit method we used in this valuation is described below.

1. LASERS has an obligation to make future transfers to the Experience Account until the value of the account is equal to the cost of a 6% increase in benefits for eligible retirees. Future transfers thereafter will be required only if the account balance is less than the 6% present value target. A shortfall may occur because of changes to the census data or as a result of investment losses.
2. The LASERS obligation for future gain sharing transfers will be treated as a plan liability on June 30, 2014. This liability has been determined using stochastic modeling with investment returns as the random variable based on capital market assumptions, and reflecting the future growth of assets and future changes to the retiree census. This liability has been determined to be \$496,496,347 based on the assumptions stated under item D below.
3. On June 30, 2014, it is expected that the balance in the Experience Account (the reserve pool) will be \$195,610,857. The difference between the liability and the amount in the reserve pool, \$300,885,490 will be collected from future employer contributions by amortizing the liability over a 30 year period.
4. In the future, whenever an investment gain is required to be transferred to the Experience Account, cash will flow from the regular asset pool to the Experience Account equal to the calculated transfer amount. However, at the same time, the liability (or debt) for the reserve will be reduced by the same amount. These transactions will have no net effect on the system's UAL.
5. If the future, a COLA bill may be enacted that uses funds in the Experience Account. When this occurs, the system will take on additional liability associated with the present value cost of the COLA. It will receive assets from the Experience Account equal to that liability. However, the reserve liability will increase by the present value cost of the COLA grant. According to Article (10)(29)(F) of the constitution, the increase in the reserve liability must be amortized over a ten year period.

D. Assumptions and Methods

STOCHASTIC MODELS

This initial reserve liability has been determined using stochastic modeling with investment returns as the random variable based on capital market assumptions, and reflecting the future growth of assets and future changes to the retiree census.

OPEN GROUP VALUATION

The stochastic model was based on an open group valuation with a projection of new participants into the retirement system. New members were assumed to join the system in such a manner as to maintain the same number of active members in the future as existed on the valuation date.

RELIANCE ON OTHER ACTUARIES

The LLA engaged Gabriel Roeder Smith (GRS) to assist with the development of the stochastic models. We further relied on GRS to run the models on our behalf.

DISCOUNT RATE

The discount rate was assumed to be 7.75% net of investment expenses. The discount rate was developed using the building block approach and capital market assumptions shown in Section IV.

E. Additional Explanations

Additional information related to the gain sharing provisions of the law pertaining to LASERS is given in the following sub sections of this report.

- The Legal Basis for the Payment of COLAs
- Compliance with Actuarial Standards of Practice

2. The Legal Basis for the Payment of COLAs

The legal basis for the payment of cost-of-living adjustments to retirees of the Louisiana State Employees' Retirement System is found in R.S. 11:102.1 and 11:542. A special account called the Experience Account is established by R.S. 11:542. Act 497 of the 2009 Regular Session set the balance of this account to \$0 on June 30, 2009. The balance in the Experience Account on June 30, 2013, was \$195,623,964.

A. Experience Account

Rules pertaining to future debits and credits to the Experience Account are summarized below:

Inflows:

1. LASERS will calculate each year the amount of investment gain or loss that has occurred during the system's fiscal year. The gain or loss will be based on the actuarial value of assets. A gain occurs when the rate of return on the actuarial value of assets exceeds the assumed discount rate. A loss occurs when the rate of return is less than the assumed discount rate. The assumed discount rate for the June 30, 2013 valuation is 8.00% net of investment expenses and net of future transfers to the Experience Account. For the June 30, 2014 valuation the LLA actuary assumed discount rate will be 7.75% net of investment expenses.
2. Fifty percent (50%) of any investment gain that exceeds \$100 million will be transferred from the regular pool of assets for LASERS into LASERS' Experience Account. The effective date of this transfer is June 30 of the fiscal year in which the investment gain occurs.
3. Funds in the Experience Account are invested in the same manner as the regular pool of assets. The balance in the Experience Account at the beginning of the fiscal year earns the same rate of return as assets in the regular asset pool. This return may be positive or negative. The effective date of this credit or debit is June 30 of the fiscal year in which the investment return is earned.
4. The maximum value permitted in the Experience Account is equal to two (2) times the actuarial cost of providing a full COLA of 3% to all eligible retirees and beneficiaries. In other words, the amount of any transfer of investment gains cannot cause the Experience Account value to exceed two times the actuarial cost of a full COLA.

Outflows:

1. Whenever a permanent benefit increase is granted through a legally prescribed approval process using Experience Account assets as a funding source, an amount equal to the actuarial cost of the benefit so granted is transferred from the Experience Account back to the regular pool of assets. This transfer occurs on the same date that eligible retirees begin to receive the permanent benefit increase, which is the July 1 following the completion of the approval process.
2. The value of the Experience Account cannot be less than \$0.

B. Approval Process

Prior to the June 30, 2011 Valuation

A permanent benefit increase potentially becomes payable whenever there is an increase in the cost of living based on the Consumer Price Index for all urban consumers (CPI-U) and other specified numerical measures are satisfied. Prior to June 30, 2011, a permanent benefit increase could be granted only in accordance with the following approval process.

1. The actuary for LASERS must determine that the necessary conditions exist for a permanent increase to be granted and then determines the actuarial cost that will be incurred by the Experience Account should such an increase be approved.
2. The LASERS actuary must also declare that there are sufficient dollars in the Experience Account to cover the actuarial cost of the permanent benefit increase.
3. The actuary for the Legislative Auditor must review the actuarial cost analysis and must not disagree with the assessment prepared by the LASERS actuary.
4. The LASERS board of trustees must approve the permanent benefit increase.
5. The LASERS board of trustees must ask the Speaker of the House and the President of the Senate for a concurrent resolution to authorize the permanent benefit increase. A COLA is granted with a 50% majority vote by the legislature on the concurrent resolution.
6. The permanent benefit increase becomes effective on the first day of the fiscal year following the legislative session.

Effective with the June 30, 2011 Valuation

As discussed above, we believe it is more likely than not that COLAs will be granted only if a bill to make such a grant is introduced to the legislature, the bill passes both houses with a two-thirds vote, and is then signed into law by the governor. This is not to be construed as a legal opinion. It is merely our best judgment based in information available to us during the preparation of this valuation report.

This valuation has recognized a liability associated with automatic transfers to investment gains to the Experience Account. It does not reflect any liability associated with future COLA grants.

3. Compliance with Actuarial Standards of Practice

According to Section 3.5.3 of Actuarial Standards of Practice No. 4:

Some plan provisions may create pension obligations that are difficult to measure using deterministic procedures and assumptions selected in accordance with ASOP Nos. 27 and 35. Such plan provisions can include those provisions in which future benefits vary asymmetrically with future economic or demographic experience relative to the estimated projected benefits based on a particular set of actuarial assumptions. Examples of such plan provisions include the following:

- a. Gain sharing provisions that trigger benefit increases when investment returns are favorable; (underlining emphasis added).
- b. *Floor-offset provisions that provide a minimum defined benefit in the event a participant's account balance in a separate plan falls below some threshold; or*
- c. *Benefit provisions that are tied to an external index, but subject to a floor or ceiling, such as certain cost of living adjustment provisions and cash balance crediting provisions.*

For such plan provisions, the actuary should consider using alternative procedures, such as stochastic modeling, option-pricing techniques, or assumptions that are adjusted to reflect the asymmetric impact of variations in experience from year to year. In selecting valuation procedures for such plan provisions, the actuary should use professional judgment based on the purpose of the measurement and other relevant factors. For example, using alternative procedures to capture the impact of asymmetric plan provisions may be appropriate for estimating an economic value. On the other hand, when determining plan contributions, concerns that certain assumed economic or demographic outcomes may not occur may lead the actuary to ignore asymmetric plan provisions such as shutdown benefits in order to avoid excess funding.

The revised June 30, 2011 valuation, the June 30, 2012 valuation and the June 30, 2013 valuation prepared by the LASERS actuary complied with the above ASOP by reducing the otherwise assumed discount rate by 50 basis points. This implicit method for recognizing gain sharing in the valuation is acceptable under actuarial standards of practice.

However, to provide greater clarity, the June 30, 2014 valuation will be prepared by explicitly measuring future transfers to the Experience Account. We will assume that COLA grants can occur only through the enactment of new legislation. Therefore, if no new legislation is enacted, the Experience Account will be filled to and retained at the maximum level (i.e., an amount equal to the value of a 6% benefit increase).

SECTION IV
BASIS FOR THE VALUATION

1. Basis for the Valuation

The June 30, 2013 valuation is used to determine actuarial liabilities as of June 30, 2013, actual employer contribution requirements for FYE 2014, and projected employer contribution requirements for FYE 2015. Census data, actuarial methods, and actuarial assumptions used in the preparation of June 30, 2013 assets, liabilities, and employer contribution requirements for FYE 2014 are shown in this section of the report. Additional information is provided whenever a change has been made since the June 30, 2012 valuation or it is expected that a change will be made in the preparation of the June 30, 2014 valuation.

2. Census Data

Census data used in the preparation of the June 30, 2013 valuation is summarized below. The census data was provided by LASERS. The accuracy of the data was audited by Financial Audit Services within the office of the Louisiana legislative Auditor. A comparison with census summaries prepared by the LASERS actuary confirmed the reasonability of the census data used in preparing this report.

Membership Status	June 30 Valuation Date		
	2013	2012	2011
Rank and File Including Appellate Law Clerks	37,114	44,733	47,214
Legislators	12	12	20
Judges Prior 2011	298	308	320
Judges Post 2011	22	12	3
Wildlife	190	204	222
Corrections Primary	375	460	557
Corrections Secondary	2,574	3,106	3,622
Peace Officers	79	84	93
Alcohol Tobacco Control	19	28	41
Bridge Police	7	11	12
Hazardous Duty Plan	1,596	1,258	522
Post DROP	1,825	2,136	2,304
Total Active Members	44,111	52,352	54,930
DROP Participants	2,092	2,577	2,569
Regular Retirees	37,145	34,513	32,897
Disability Retirees	2,554	2,544	2,586
Survivors	5,726	5,665	5,659
Terminated Vested & Reciprocal	4,162	2,222	2,125
Total Inactive Members	51,679	47,521	45,836
Total Active and Inactive Members	95,790	99,873	100,766
Terminated Due Refund	52,385	50,590	51,959
Total Members	148,175	150,463	152,725

Membership Reconciliation

	Active (Pre DROP)	Active After DROP	Terminated Vested	In DROP	Retired, Disabled, Survivor	Total
Members on June 30, 2012	50,216	2,136	2,222	2,577	42,722	99,873
Additions to Census						
Initial Membership	4,085	0	104	0	0	4,189
Data Revisions	0	1	0	1	45	47
Total Additions	4,085	1	104	1	45	4,236
Change in Status						
Active to Term Vested	(2,265)	0	2,265	0	0	0
Active to In DROP	(681)	0	0	681	0	0
Active to Retired	(2,290)	0	0	0	2,290	0
Disabled to Active	1	0	0	0	(1)	0
Terminated Vested to Active	67	0	(67)	0	0	0
Terminated Vested to Retiree	0	0	(120)	0	120	0
In DROP to Active After DROP	0	354	0	(354)	0	0
In DROP to Retiree	0	0	0	(816)	816	0
Active After DROP to Retiree	0	(689)	0	0	689	0
Data Revisions	(2)	31	(12)	13	(30)	0
Total Changes	(5,170)	(304)	2,066	(476)	3,884	0
Eliminated from Census						
Refunded	(3,726)	0	(158)			(3,884)
Terminated	(3,013)	0	(4)			(3,017)
Deceased	(35)	(6)	(16)	(6)	(1,169)	(1,232)
Data Revisions	(71)	(2)	(52)	(4)	(57)	(186)
Total Eliminated	(6,845)	(8)	(230)	(10)	(1,226)	(8,319)
Members on June 30, 2013	42,286	1,825	4,162	2,092	45,425	95,790

Membership Profile
 Categorized By Age and Years Employed

State Employees Retirement System
 Appellate Law Clerks

Cells Depict - Member Count
 Total Salary

Valuation Date 6/30/2013

Age/Years	(0-1)	[1-5)	[5-10)	[10-15)	[15-20)	[20-25)	[25-30)	[30-35)	[35+	TOTALS
[0-19)	-	-	-	-	-	-	-	-	-	-
[20-24)	-	-	-	-	-	-	-	-	-	-
[25-29)	-	4	-	-	-	-	-	-	-	4
	-	203,389	-	-	-	-	-	-	-	203,389
[30-34)	-	9	6	-	-	-	-	-	-	15
	-	454,626	360,175	-	-	-	-	-	-	814,801
[35-39)	-	2	13	4	1	-	-	-	-	20
	-	122,182	808,814	237,583	60,940	-	-	-	-	1,229,519
[40-44)	-	2	7	12	5	2	-	-	-	28
	-	137,937	420,034	813,716	351,992	147,151	-	-	-	1,870,830
[45-49)	-	1	5	6	10	6	1	-	-	29
	-	73,310	333,065	456,911	764,536	477,513	78,875	-	-	2,184,210
[50-54)	-	3	3	7	7	5	9	3	-	37
	-	184,618	232,647	530,240	557,475	423,437	820,414	262,883	-	3,011,714
[55-59)	-	2	3	6	3	3	4	4	1	26
	-	122,927	180,268	448,322	221,175	237,982	355,669	382,751	122,390	2,071,484
[60-64)	-	-	3	1	1	1	4	1	-	11
	-	-	190,311	65,648	71,151	85,047	377,776	114,586	-	904,519
[65-69)	-	-	-	1	1	-	-	-	-	2
	-	-	-	62,417	71,404	-	-	-	-	133,821
[70-74)	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-
TOTALS	-	23	40	37	28	17	18	8	1	172
	-	1,298,989	2,525,314	2,614,837	2,098,673	1,371,130	1,632,734	760,220	122,390	12,424,287

Averages Attained Age 47.50
 Service Years 14.31
 Annual Salary \$ 72,234

Membership Profile
 Categorized By Age and Years Employed

State Employees Retirement System
 Legislators

Cells Depict - Member Count
 Total Salary

Valuation Date 6/30/2013

Age/Years	(0-1)	[1-5)	[5-10)	[10-15)	[15-20)	[20-25)	[25-30)	[30-35)	[35+	TOTALS
[0-19)	-	-	-	-	-	-	-	-	-	-
[20-24)	-	-	-	-	-	-	-	-	-	-
[25-29)	-	-	-	-	-	-	-	-	-	-
[30-34)	-	-	-	-	-	-	-	-	-	-
[35-39)	-	-	-	-	-	-	-	-	-	-
[40-44)	-	-	1	-	-	-	-	-	-	1
	-	-	130,000	-	-	-	-	-	-	130,000
[45-49)	-	-	-	-	-	1	-	-	-	1
	-	-	-	-	-	124,468	-	-	-	124,468
[50-54)	-	-	-	-	-	1	-	-	-	1
	-	-	-	-	-	39,190	-	-	-	39,190
[55-59)	-	-	-	-	-	2	-	-	-	2
	-	-	-	-	-	181,289	-	-	-	181,289
[60-64)	-	-	1	-	-	1	1	1	-	4
	-	-	34,422	-	-	76,203	34,124	33,081	-	177,830
[65-69)	-	-	1	-	-	-	-	1	-	2
	-	-	77,989	-	-	-	-	215,786	-	293,775
[70-74)	-	-	-	-	-	-	1	-	-	1
	-	-	-	-	-	-	30,846	-	-	30,846
TOTALS	-	-	3	-	-	5	2	2	-	12
	-	-	242,411	-	-	421,150	64,970	248,867	-	977,398

Averages Attained Age 59.56
 Service Years 21.23
 Annual Salary \$ 81,450

Membership Profile
 Categorized By Age and Years Employed

State Employees Retirement System
 Judges Post 1/2011

Cells Depict - Member Count
 Total Salary

Valuation Date 6/30/2013

Age/Years	(0-1)	[1-5)	[5-10)	[10-15)	[15-20)	[20-25)	[25-30)	[30-35)	[35+	TOTALS
[0-19)	-	-	-	-	-	-	-	-	-	-
[20-24)	-	-	-	-	-	-	-	-	-	-
[25-29)	-	-	-	-	-	-	-	-	-	-
[30-34)	-	-	-	-	-	-	-	-	-	-
[35-39)	1 129,600	-	-	-	-	-	-	-	-	1 129,600
[40-44)	1 114,788	3 413,641	-	-	-	-	-	-	-	4 528,429
[45-49)	2 245,124	3 413,231	-	-	-	-	-	-	-	5 658,355
[50-54)	4 495,331	-	-	-	-	-	-	-	-	4 495,331
[55-59)	2 230,314	5 694,623	-	-	-	-	-	-	-	7 924,937
[60-64)	-	1 137,744	-	-	-	-	-	-	-	1 137,744
[65-69)	-	-	-	-	-	-	-	-	-	-
[70-74)	-	-	-	-	-	-	-	-	-	-
TOTALS	10 1,215,156	12 1,659,239	-	-	-	-	-	-	-	22 2,874,395

Averages **Attained Age 50.51**
 Service Years 1.15
 Annual Salary \$ 130,654

Membership Profile
Categorized By Age and Years Employed

State Employees Retirement System
Hazardous Duty Plan

Cells Depict - Member Count
Total Salary

Valuation Date 6/30/2013

Age/Years	(0-1)	[1-5)	[5-10)	[10-15)	[15-20)	[20-25)	[25-30)	[30-35)	[35+	TOTALS
[0-19)	33 664,348	5 136,751	- -	- -	- -	- -	- -	- -	- -	38 801,099
[20-24)	182 4,287,490	109 3,108,110	- -	- -	- -	- -	- -	- -	- -	291 7,395,600
[25-29)	155 3,880,709	146 4,379,093	10 362,960	- -	- -	- -	- -	- -	- -	311 8,622,762
[30-34)	75 2,390,380	115 3,728,100	30 1,190,600	15 668,249	- -	- -	- -	- -	- -	235 7,977,329
[35-39)	58 1,581,600	70 2,334,860	17 743,888	19 873,036	10 550,285	- -	- -	- -	- -	174 6,083,669
[40-44)	62 2,112,334	58 2,075,641	24 1,009,426	22 1,059,014	25 1,166,979	11 650,092	- -	- -	- -	202 8,073,486
[45-49)	45 1,293,979	54 1,869,411	14 567,123	15 598,521	15 674,419	14 867,353	- -	- -	- -	157 5,870,806
[50-54)	34 1,100,359	40 1,448,274	12 497,801	10 443,805	9 424,808	7 348,853	1 48,759	- -	- -	113 4,312,659
[55-59)	18 688,147	14 533,093	2 77,419	11 520,663	3 141,651	5 256,698	- -	- -	- -	53 2,217,671
[60-64)	6 162,482	8 290,956	1 35,693	2 83,521	- -	- -	- -	- -	- -	17 572,652
[65-69)	1 48,035	4 158,247	- -	- -	- -	- -	- -	- -	- -	5 206,282
[70-74)	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
TOTALS	669 18,209,863	623 20,062,536	110 4,484,910	94 4,246,809	62 2,958,142	37 2,122,996	1 48,759	- -	- -	1,596 52,134,015

Averages Attained Age 35.25
 Service Years 3.34
 Annual Salary \$ 32,665

Membership Profile
 Categorized By Age and Years Employed

State Employees Retirement System
 Corrections Primary Before 1986

Cells Depict - Member Count
 Total Salary

Valuation Date 6/30/2013

Age/Years	(0-1)	[1-5)	[5-10)	[10-15)	[15-20)	[20-25)	[25-30)	[30-35)	[35+)	TOTALS
[0-19)	-	-	-	-	-	-	-	-	-	-
[20-24)	-	-	-	-	-	-	-	-	-	-
[25-29)	-	-	-	-	-	-	-	-	-	-
[30-34)	-	-	-	-	-	-	-	-	-	-
[35-39)	-	-	-	-	-	-	-	-	-	-
[40-44)	-	-	-	-	-	-	-	-	-	-
[45-49)	-	-	-	-	-	-	3	-	-	3
	-	-	-	-	-	-	287,851	-	-	287,851
[50-54)	-	-	-	-	-	-	4	1	-	5
	-	-	-	-	-	-	257,149	72,147	-	329,296
[55-59)	-	-	-	-	-	-	7	1	-	8
	-	-	-	-	-	-	448,648	43,445	-	492,093
[60-64)	-	-	-	-	-	-	-	-	-	-
[65-69)	-	-	-	-	-	-	-	-	-	-
[70-74)	-	-	-	-	-	-	-	1	-	1
	-	-	-	-	-	-	-	54,576	-	54,576
TOTALS	-	-	-	-	-	-	14	3	-	17
	-	-	-	-	-	-	993,648	170,168	-	1,163,816

Averages Attained Age 54.92
 Service Years 28.24
 Annual Salary \$ 68,460

Membership Profile
 Categorized By Age and Years Employed

State Employees Retirement System
 Corrections Primary After 1986

Cells Depict - Member Count
 Total Salary

Valuation Date 6/30/2013

Age/Years	(0-1)	[1-5)	[5-10)	[10-15)	[15-20)	[20-25)	[25-30)	[30-35)	[35+	TOTALS
[0-19)	-	-	-	-	-	-	-	-	-	-
[20-24)	-	-	-	-	-	-	-	-	-	-
[25-29)	-	-	-	-	-	-	-	-	-	-
[30-34)	-	1	-	2	-	-	-	-	-	3
	-	34,775	-	99,255	-	-	-	-	-	134,030
[35-39)	-	-	1	11	10	-	-	-	-	22
	-	-	42,598	446,571	463,844	-	-	-	-	953,013
[40-44)	-	-	-	19	16	7	-	-	-	42
	-	-	-	832,324	804,896	390,024	-	-	-	2,027,244
[45-49)	-	-	-	16	27	26	-	-	-	69
	-	-	-	673,592	1,307,455	1,546,566	-	-	-	3,527,613
[50-54)	-	-	-	38	47	21	1	-	-	107
	-	-	-	1,653,144	2,321,470	1,166,469	54,184	-	-	5,195,267
[55-59)	-	-	-	34	37	15	3	-	-	89
	-	-	-	1,405,177	1,791,214	786,249	181,377	-	-	4,164,017
[60-64)	-	-	-	9	8	1	3	-	-	21
	-	-	-	343,584	356,645	65,624	193,156	-	-	959,009
[65-69)	-	-	-	1	2	1	1	-	-	5
	-	-	-	43,680	95,036	53,947	54,075	-	-	246,738
[70-74)	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-
TOTALS	-	1	1	130	147	71	8	-	-	358
	-	34,775	42,598	5,497,327	7,140,560	4,008,879	482,792	-	-	17,206,931

Averages Attained Age 51.43
 Service Years 16.90
 Annual Salary \$ 48,064

Membership Profile
Categorized By Age and Years Employed

State Employees Retirement System
Wildlife

Cells Depict - Member Count
Total Salary

Valuation Date 6/30/2013

Age/Years	(0-1)	[1-5)	[5-10)	[10-15)	[15-20)	[20-25)	[25-30)	[30-35)	[35+)	TOTALS
[0-19)	-	-	-	-	-	-	-	-	-	-
[20-24)	-	-	-	-	-	-	-	-	-	-
[25-29)	-	10	12	-	-	-	-	-	-	22
	-	365,713	520,864	-	-	-	-	-	-	886,577
[30-34)	1	7	33	5	-	-	-	-	-	46
	30,663	260,766	1,522,299	252,961	-	-	-	-	-	2,066,689
[35-39)	-	3	7	24	8	2	-	-	-	44
	-	113,758	329,303	1,368,397	458,895	121,576	-	-	-	2,391,929
[40-44)	-	-	8	15	14	5	-	-	-	42
	-	-	366,912	868,751	872,753	355,911	-	-	-	2,464,327
[45-49)	-	-	2	5	7	6	1	-	-	21
	-	-	98,945	271,837	445,163	427,421	67,309	-	-	1,310,675
[50-54)	-	-	-	2	1	7	1	1	-	12
	-	-	-	132,951	69,059	548,956	67,808	99,691	-	918,465
[55-59)	-	-	-	-	1	1	-	-	-	2
	-	-	-	-	64,359	65,832	-	-	-	130,191
[60-64)	-	-	-	1	-	-	-	-	-	1
	-	-	-	64,359	-	-	-	-	-	64,359
[65-69)	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-
[70-74)	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-
TOTALS	1	20	62	52	31	21	2	1	-	190
	30,663	740,237	2,838,323	2,959,256	1,910,229	1,519,696	135,117	99,691	-	10,233,212

Averages Attained Age 38.67
 Service Years 11.90
 Annual Salary \$ 53,859

Membership Profile
 Categorized By Age and Years Employed

State Employees Retirement System
 Peace Officers

Cells Depict - Member Count
 Total Salary

Valuation Date 6/30/2013

Age/Years	(0-1)	[1-5)	[5-10)	[10-15)	[15-20)	[20-25)	[25-30)	[30-35)	[35+	TOTALS
[0-19)	-	-	-	-	-	-	-	-	-	-
[20-24)	-	-	-	-	-	-	-	-	-	-
[25-29)	-	1	2	-	-	-	-	-	-	3
	-	31,475	78,363	-	-	-	-	-	-	109,838
[30-34)	-	-	7	2	1	-	-	-	-	10
	-	-	288,217	96,100	40,339	-	-	-	-	424,656
[35-39)	-	-	3	1	5	-	-	-	-	9
	-	-	142,745	41,006	232,678	-	-	-	-	416,429
[40-44)	-	2	3	5	2	3	-	-	-	15
	-	95,691	124,224	207,539	83,263	164,634	-	-	-	675,351
[45-49)	-	-	1	2	2	11	4	-	-	20
	-	-	41,534	108,302	115,206	658,377	243,459	-	-	1,166,878
[50-54)	-	-	-	1	3	3	2	-	-	9
	-	-	-	40,408	167,176	156,764	125,141	-	-	489,489
[55-59)	-	-	2	1	2	3	-	-	-	8
	-	-	104,364	59,648	111,042	177,460	-	-	-	452,514
[60-64)	-	1	1	1	-	-	-	-	-	3
	-	68,855	36,845	70,147	-	-	-	-	-	175,847
[65-69)	-	1	1	-	-	-	-	-	-	2
	-	57,511	51,384	-	-	-	-	-	-	108,895
[70-74)	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-
TOTALS	-	5	20	13	15	20	6	-	-	79
	-	253,532	867,676	623,150	749,704	1,157,235	368,600	-	-	4,019,897

Averages Attained Age 45.57
 Service Years 15.62
 Annual Salary \$ 50,885

Membership Profile
 Categorized By Age and Years Employed

State Employees Retirement System
 Alcohol Tobacco Control

Cells Depict - Member Count
 Total Salary

Valuation Date 6/30/2013

Age/Years	(0-1)	[1-5)	[5-10)	[10-15)	[15-20)	[20-25)	[25-30)	[30-35)	[35+)	TOTALS
[0-19)	-	-	-	-	-	-	-	-	-	-
[20-24)	-	-	-	-	-	-	-	-	-	-
[25-29)	-	-	1	-	-	-	-	-	-	1
	-	-	41,012	-	-	-	-	-	-	41,012
[30-34)	-	-	2	-	-	-	-	-	-	2
	-	-	85,570	-	-	-	-	-	-	85,570
[35-39)	-	-	2	2	-	-	-	-	-	4
	-	-	90,764	83,327	-	-	-	-	-	174,091
[40-44)	-	-	-	-	1	1	-	-	-	2
	-	-	-	-	46,550	44,608	-	-	-	91,158
[45-49)	-	-	-	-	1	5	-	-	-	6
	-	-	-	-	21,989	308,675	-	-	-	330,664
[50-54)	-	-	-	-	1	2	-	-	-	3
	-	-	-	-	60,936	121,268	-	-	-	182,204
[55-59)	-	-	-	-	-	-	-	-	-	-
[60-64)	1	-	-	-	-	-	-	-	-	1
	34,615	-	-	-	-	-	-	-	-	34,615
[65-69)	-	-	-	-	-	-	-	-	-	-
[70-74)	-	-	-	-	-	-	-	-	-	-
TOTALS	1	-	5	2	3	8	-	-	-	19
	34,615	-	217,346	83,327	129,475	474,551	-	-	-	939,314

Averages Attained Age 43.93
 Service Years 15.37
 Annual Salary \$ 49,438

Membership Profile
 Categorized By Age and Years Employed

State Employees Retirement System
 Bridge Police

Cells Depict - Member Count
 Total Salary

Valuation Date 6/30/2013

Age/Years	(0-1)	[1-5)	[5-10)	[10-15)	[15-20)	[20-25)	[25-30)	[30-35)	[35+	TOTALS
[0-19)	-	-	-	-	-	-	-	-	-	-
[20-24)	-	-	-	-	-	-	-	-	-	-
[25-29)	-	1	-	-	-	-	-	-	-	1
	-	41,768	-	-	-	-	-	-	-	41,768
[30-34)	-	1	1	-	-	-	-	-	-	2
	-	41,293	44,450	-	-	-	-	-	-	85,743
[35-39)	-	-	-	2	-	-	-	-	-	2
	-	-	-	95,747	-	-	-	-	-	95,747
[40-44)	-	-	-	-	-	-	-	-	-	-
[45-49)	-	-	-	-	-	-	1	-	-	1
	-	-	-	-	-	-	84,173	-	-	84,173
[50-54)	-	-	-	-	-	-	1	-	-	1
	-	-	-	-	-	-	58,790	-	-	58,790
[55-59)	-	-	-	-	-	-	-	-	-	-
[60-64)	-	-	-	-	-	-	-	-	-	-
[65-69)	-	-	-	-	-	-	-	-	-	-
[70-74)	-	-	-	-	-	-	-	-	-	-
TOTALS	-	2	1	2	-	-	2	-	-	7
	-	83,061	44,450	95,747	-	-	142,963	-	-	366,221

Averages Attained Age 38.07
 Service Years 12.83
 Annual Salary \$ 52,317

Membership Profile
Current Age and Years Employed

State Employees Retirement System
Active After DROP

Cells Depict - Member Count
Total Salary
DROP Benefits

Valuation Date 6/30/2013

Age/Years	(0-1)	[1-2)	[2-3)	[3-4)	[4-5)	[5-10)	[10-15)	[15-20)	[20-)	TOTALS
[0-34)	-	-	-	-	-	-	-	-	-	-
[35-39)	-	-	-	-	-	-	-	-	-	-
[40-44)	-	-	-	-	-	-	-	-	-	-
[45-49)	-	1	-	-	3	2	-	-	-	6
	-	65,953	-	-	195,879	176,136	-	-	-	437,968
	-	35,184	-	-	64,524	48,504	-	-	-	48,504
[50-54)	82	61	22	13	4	21	1	-	-	204
	3,943,397	3,368,049	1,357,118	721,166	309,337	1,471,105	65,010	-	-	11,235,182
	2,808,708	2,052,228	761,508	374,700	111,876	399,696	12,756	-	-	3,221,160
[55-59)	147	111	81	57	30	61	18	-	-	505
	7,861,283	6,903,056	4,790,549	3,105,707	1,820,037	3,653,442	1,293,036	-	-	29,427,110
	5,372,784	4,099,572	2,831,832	1,733,496	940,620	1,564,680	296,328	-	-	7,233,792
[60-64)	115	87	82	69	68	136	19	1	-	577
	5,436,374	4,726,775	5,340,913	4,297,581	4,811,499	9,470,259	1,307,224	70,138	-	35,460,763
	2,602,740	2,006,532	2,792,328	2,139,468	2,485,632	4,289,208	437,112	17,040	-	7,346,100
[65-69)	9	17	65	64	37	143	42	1	-	378
	342,111	783,103	3,174,762	3,159,300	2,080,087	9,711,003	2,943,317	54,576	-	22,248,259
	84,156	250,236	1,024,980	1,064,100	694,740	3,620,940	1,114,884	12,324	-	4,832,304
[70-74)	2	3	2	6	3	78	53	8	-	155
	84,720	161,707	73,632	463,544	175,496	4,163,342	3,677,762	427,485	-	9,227,688
	23,052	29,616	13,572	139,140	53,724	1,031,640	1,105,104	165,600	-	2,325,396
TOTALS	355	280	252	209	145	441	133	10	-	1,825
	17,667,885	16,008,643	14,736,974	11,747,298	9,392,335	28,645,287	9,286,349	552,199	-	108,036,970
	10,891,440	8,473,368	7,424,220	5,450,904	4,351,116	10,954,668	2,966,184	194,964	-	50,706,864

Averages **Attained Age 61.86**
 Post DROP Years 4.10
 Annual Salary \$ 59,198
 Annual Benefit \$ 27,785

Membership Profile
Categorized By Age and Years Employed

State Employees Retirement System
Post Retirement Service

Cells Depict - Member Count
Total Salary

Valuation Date 6/30/2013

Age/Years	(0-1)	[1-5)	[5-10)	[10-15)	[15-20)	[20-25)	[25-30)	[30-35)	[35+	TOTALS
[0-19)	-	-	-	-	-	-	-	-	-	-
[20-24)	-	-	-	-	-	-	-	-	-	-
[25-29)	-	-	-	-	-	-	-	-	-	-
[30-34)	-	-	-	-	-	-	-	-	-	-
[35-39)	-	-	-	-	-	-	-	-	-	-
[40-44)	1 64,667	-	-	-	-	-	-	-	-	1 64,667
[45-49)	3 45,746	6 281,251	1 66,685	-	-	-	-	-	-	10 393,682
[50-54)	9 261,225	9 455,270	4 164,246	1 50,586	-	-	-	-	-	23 931,327
[55-59)	13 564,695	11 737,332	12 586,007	8 460,259	-	-	-	-	-	44 2,348,293
[60-64)	22 633,046	19 1,094,218	8 485,962	4 231,027	-	-	-	-	-	53 2,444,253
[65-69)	10 363,357	16 1,309,097	9 421,247	4 292,818	-	-	-	-	-	39 2,386,519
[70-74)	25 853,075	26 1,213,170	13 487,806	7 439,926	-	-	-	-	-	71 2,993,977
TOTALS	83 2,785,811	87 5,090,338	47 2,211,953	24 1,474,616	-	-	-	-	-	241 11,562,718

Averages Attained Age 63.57
 Service Years 3.52
 Annual Salary \$ 47,978

Membership Profile
Categorized By Age and Years Employed

State Employees Retirement System
Term Vested/Reciprocal

Cells Depict - Member Count
Total Benefits

Valuation Date 6/30/2013

Age/Years	(0-1)	[1-5)	[5-10)	[10-15)	[15-20)	[20-25)	[25-30)	[30-35)	[35+	TOTALS
[0-19)	-	-	-	-	-	-	-	-	-	-
[20-24)	-	-	4	-	-	-	-	-	-	4
[25-29)	5	4	87	-	-	-	-	-	-	96
[30-34)	17	4	143	76	-	-	-	-	-	240
[35-39)	8	-	116	241	35	-	-	-	-	400
[40-44)	12	3	126	340	137	14	-	-	-	632
[45-49)	9	1	135	351	182	65	8	2	-	753
[50-54)	17	-	112	408	237	69	33	2	-	878
[55-59)	22	3	101	421	286	77	7	1	-	918
[60-64)	12	2	16	83	34	12	3	1	1	164
[65-69)	3	-	3	26	9	2	-	-	1	44
[70-74)	-	-	2	18	7	1	3	2	-	33
TOTALS	105	17	845	1,964	927	240	54	8	2	4,162
	426,696	83,032	4,835,694	26,688,005	18,267,843	6,703,154	1,636,061	254,844	150,756	59,046,085

Averages Attained Age 48.85
 Service Years 12.45
 Annual Benefit \$ 14,187

3. Plan Provisions

EFFECTIVE DATE:

July 1, 1947

EMPLOYEE:

Any person who legally occupies a position in state service.

EMPLOYER:

The State of Louisiana or any of its boards, commissions, departments, agencies and courts which are contributing members and those approved for membership by the legislature from which any employee receives his compensation.

ELIGIBILITY FOR PARTICIPATION:

Condition of employment in state service except the following: elected or appointed officials or employees who are contributing members of any other state system; public officials and state employees who receive a per diem in lieu of compensation; persons employed prior to January 1, 1973, who work on a part-time basis and elect not to participate; patient or inmate help in state charitable, penal or correctional institutions; part-time students, interns and resident physicians; independent contractors; employees who are age 60 or older at time of employment; retirees of the retirement system who return to work under certain conditions; judges who failed to elect membership prior to October 2, 1976; civilian employees who on November 1, 1981, were within five years of retirement eligibility in the Federal Civil Service Retirement and Disability Fund; teachers employed after September 10, 1982; nurses employed from employment pools at state charity hospitals; temporary, seasonal, part-time employees of DOTC, or as defined in federal law.

SERVICE:

Service as an "Employee," defined above.

CREDITABLE SERVICE:

For service prior to January 1, 1973: 1/4 year granted for each 89 day interval of service, not to exceed one credit per fiscal year. Minimum 15 days required for 1st Quarter credit.

For service on or after January 1, 1973, a member shall receive credit based on the ratio of actual pay to the annual base per calendar year. Fractional service shall be rounded to the next highest 1/10th, not to exceed 100 percent per year.

ADDITIONAL CREDITABLE SERVICE:

1. Credit for service canceled by withdrawal of accumulated contributions may be restored by member by paying into system the amount withdrawn plus interest at the Actuarial Valuation rate.
2. Maximum of four years of credit for military service may be obtained for each member with at least two years of service, contingent on payment of Actuarial Cost.
3. Credit for service which was classified as a job appointment or emergency appointment where the intended duration of employment exceeds two years of service.

4. At retirement, all accumulated unused sick and annual leave shall be credited based on the following schedule:

1 - 26 Days	10% of a Year
27 - 52 Days	20% of a Year
53 - 78 Days	30% of a Year
79 - 104 Days	40% of a Year
105 - 130 Days	50% of a Year
131 - 156 Days	60% of a Year
157 - 182 Days	70% of a Year
183 - 208 Days	80% of a Year
209 - 234 Days	90% of a Year
235 - 260 Days	100% of a Year

Service credit for unused leave can be used for computation purpose only, not for eligibility. An actuarial equivalent lump sum is available after August 15, 1993.

EARNABLE COMPENSATION:

The base pay earned by an employee for a given pay period as reported by the employing agency. This includes the full amount earned by an employee, overtime, and per diem earned by an employee of the House of Representatives, the Senate, or an agency of the legislature, and expense allowances and per diem paid to members of the legislature, the clerk, or sergeant at arms of the House of Representatives and president and secretary or sergeant at arms of the Senate.

AVERAGE FINAL COMPENSATION FOR BENEFIT PURPOSES:

The average annual earned compensation for the 36 highest months of successive employment, or the highest 36 successive joined months where interruption of service occurred; part-time employees use the base pay the part-time employee would have received had employment been full-time. Per Act 75 of 2005, average final compensation for Regular members, Bridge Police, and Appellate Law Clerks hired on or after July, 1, 2006, is determined as the 60 highest months of successive employment. Per Act 992 of 2010, average final compensation for Judges hired on or after January 1, 2011 and all members of the Hazardous Duty Plan is based on the highest 60 months. Compensation is limited by the 401a(17) compensation limit of the Internal Revenue Code for certain members.

ACCUMULATED CONTRIBUTIONS:

The sum of all amounts deducted from the earned compensation of a member and credited to the individual account in the employee's savings account, together with regular interest credited prior to July 1971.

EMPLOYEE CONTRIBUTIONS:

<u>Sub Plan</u>	<u>Contribution Rate</u>
Rank & File Employees and Appellate Law Clerks	
Pre Act 75 (Hired before 7/1/2006)	7.5%
Post Act 75 (Hired after 6/30/2006)	8.0%
Pre 2011 Judges and Court Officers	11.5%
Post 2011 Judges	13.0%
Legislators	11.5%

<u>Sub Plan</u>	<u>Contribution Rate</u>
Correction - Primary	9.0%
Corrections – Secondary	9.0%
Wildlife Officers	9.5%
Peace Officers	9.0%
ATC Officers	9.0%
Bridge Police	8.5%
Hazardous Duty	9.5%

EMPLOYER CONTRIBUTIONS:

Act 81 of 1988 requires the employer rate to be actuarially determined and set annually, based on the Public Retirement Systems' Actuarial Committee's recommendation to the Legislature. Act 1026 of the 2010 Legislative Session further requires that the employer contribution rate be determined separately by sub plan. The normal cost portion of each plan's employer contribution rate varies based upon that plan's benefits, member demographics, and the rate contributed by employees. The shared UAL contribution rate is determined in aggregate for all plans. The UAL established due to a specific plan or group of plans due to legislation will be allocated entirely to the applicable plan(s).

RETIREMENT BENEFIT:NORMAL RETIREMENT:Eligibility and Benefit:

Members whose first employment which makes them eligible for membership in a Louisiana state retirement system occurs on or after January 1, 2011:

1. Regular Plan: Eligible with 5 years at age 60. Benefit accrual rate is 2.5%.
2. Judges: Eligible with 5 years at age 60. Benefit accrual is 3.5%, plus regular plan benefits for prior service.
3. Hazardous Duty Plan: Eligible with 12 years at age 55 or 25 years at any age. Benefit accrual rate is 3.33% for service earned in the Hazardous Duty Plan if the last 10 years of service was earned in a hazardous duty position; otherwise, the accrual rate is 2.5%.

Members whose first employment which makes them eligible for membership in a Louisiana state retirement system occurs prior to January 1, 2011:

1. Regular members hired prior to July 1, 2006: Eligible with 10 years at age 60, or 25 years at age 55, or 30 years at any age. Regular members hired on or after July 1, 2006 are eligible with 5 years at age 60. Benefit accrual rate is 2.5% for all years of service.
2. Judges, Court Officers, and Appellate Law Clerks: Eligible with 18 years at any age, 10 years at age 65, 20 total years with at least 12 years as a judge or court officer at age 50, 12 years at age 55, or age 70 regardless of service. Judges and Court Officers earn 3.5% for year of service, plus regular plan benefits for prior service. Appellate Law Clerks earn 2.5% for all years of service.
3. Members of the legislature, governor, lieutenant governor and state treasurer: Eligible with 16 years of service at any age, 20 total years with at least 12 years as a member of this class at age 50,

or 12 years at age 55. Members earn 3.5% per years of service, plus regular plan benefits for prior service.

4. Plans for certain employees of the Department of Public Safety and Corrections:
 - a. Corrections Primary, hired before 8/15/1986: Eligible with 10 years at age 60 or 20 years at any age. Benefit accrual rate is 2.5%.
 - b. Corrections Primary, hired between 8/15/1986 and 12/31/2001: Eligible with 10 years at age 60 or 20 years at age 50. Benefit accrual rate is 2.5%.
 - c. Corrections Secondary Plan, hired after 1/1/2002, or transferred from Corrections Primary Plan: Eligible with 10 years at age 60 or 25 years at any age. Benefit accrual rate is 3.33%.
5. Wildlife and Fisheries:
 - a. Members hired before July 1, 2003: 10 years at age 55, or 20 years at any age. Benefit accrual is 3.0% for service earned prior to July 1, 2003 and 3.33% for service earned after July 1, 2003.
 - b. Members hired on or after July 1, 2003: 10 years at age 60, or 25 years at any age. Benefit accrual is 3.33%.
6. Peace Officers: Eligible with 10 years of service and age 60 or at 25 years at age 55, or 30 years at any age. Benefit accrual is 3.33%.
7. Alcohol Tobacco Control: Eligible with 10 years of service and age 60 or at 25 years of service at any age. Benefit accrual is 3.33%.
8. Bridge Police: Eligible with 10 years at age 60, or 25 years at any age. Benefit accrual is 2.5%

NOTES:

- A. Benefit is limited to 100% of average compensation.
- B. Retirees who return to work will continue to receive unreduced benefits if compensation does not exceed 50% of the annual benefit during the fiscal year. Earnings above this limit will result in a corresponding reduction to benefits. Retirees who return to work may choose to suspend their retirement benefits and resume making contributions in the system. Upon subsequent retirement, benefit will resume. If post-retirement employment is at least 36 months, a supplemental benefit will be calculated. Otherwise, employee contributions will be refunded.
- C. A \$300 annual supplemental benefit is provided to persons who become members of the retirement system prior to July 1, 1986 (Act 608 of 1986).
- D. For members employed after January 1, 1990, the annual pension paid from the trust cannot exceed the maximum benefit provided under Section 415(b) of the Internal Revenue Service Code, and related Section 415 regulations, as adjusted for inflation and form of benefit other than life annuity or qualified joint and survivor annuity for retirement ages as follows:

Age	Maximum	Age	Maximum	Age	Maximum
48	\$ 58,896	56	\$ 117,925	64	\$ 205,000
49	64,094	57	129,029	65	205,000
50	69,791	58	141,296	66	205,000
51	76,039	59	154,865	67	205,000
52	82,895	60	169,889	68	205,000
53	90,430	61	186,539	69	205,000
54	98,721	62	205,000	70	205,000
55	107,856	63	205,000		

ACTUARIALLY REDUCED RETIREMENT:

Members with 20 years of service credit at any age are eligible for an actuarially reduced benefit from the earliest date member would be eligible if employment had continued, to the earliest normal retirement date, based on service earned to date. This does not apply to the correctional secondary plan members or wildlife agents hired on or after July 1, 2003.

POST RETIREMENT INCREASES:

Permanent benefit increases, previously referred to as cost of living adjustments, may be granted only with the enactment of new law. The Experience Account continues to exist under current law and future transfers to the Account will automatically be made when investment gains exceed \$100 million.

However, old law relative to the granting of permanent benefit increases has been over ruled by the enactment of Article (10)(29)(F) of the constitution in 2010. New provisions of law enacted in the future may be influenced by old law regarding the Experience Account or regarding grants of permanent benefit provisions. But the legislature may deny future COLAs or take any approach to permanent benefit increases it deems appropriate at the time.

MINIMUM BENEFITS:

Effective September 1, 2001, retirees and beneficiaries receiving retirement benefits shall be entitled to a minimum benefit which is not less than \$30.00 per month for each year of creditable service. The minimum benefit is adjusted for the option elected at retirement.

DISABILITY RETIREMENT:Eligibility:

Ten years of creditable service and certification of disability by medical board. (Medical examination may be required once per year for the first five years of disability retirement, and once every three years thereafter, until age 60.)

Benefit:

- (1) The disability retirement annuity shall be equivalent to the regular retirement formula without reduction by reason of age for all classes of membership.
- (2) For judges and court officers, the benefit in (1) but not less than 50% of current salary.
- (3) Members of the Corrections Primary Plan with disabilities incurred in the line of duty may retire with 60% of their final average compensation, regardless of years of service. Disabilities incurred not in the line of duty paid according to (1) above.
- (4) Members of the Corrections Secondary Plan with disabilities incurred in the line of duty may retire with 40% of their final average compensation regardless of service. If the member has 10 or more years of service, the benefit will be the greater of 40% of final average compensation or the benefit determined by (1) above. Disabilities incurred not in the line of duty determined according to (1) above.
- (5) For certain Wildlife agents, partial disabilities not eligible for (1) above receive 75% of the benefit in (1); members totally disabled while in the line of duty receive 60% of average compensation.

- (6) Members of the Hazardous Duty Plan with disabilities incurred in the line of duty may retire with 75% of their final average compensation, regardless of years of service. Disabilities incurred not in the line of duty paid according to (1) above.

SURVIVOR'S BENEFITS:

Members whose first employment which makes them eligible for membership in a Louisiana state retirement system occurs on or after January 1, 2011, or members of the Hazardous Duty Plan regardless of when hired:

Eligibility and Benefit:

1. Regular Members and Judges
 - a. Surviving spouse with minor children of a deceased member with five years of service credit, two of which were earned immediately prior to death, or 20 years of service will receive 50% of the retirement benefit that would have been due the member, or \$600 per month if greater. Each qualifying child will receive 50% of the spouses benefit, up to 2 children. The total paid to the spouse and children subject to a minimum based on the Option 2A equivalent for the surviving spouse.
 - b. Surviving spouse, legally married one year prior to death, of a deceased member with 10 years of service credit, two of which were earned immediately prior to death, or 20 years of service regardless of date earned will receive the Option 2A equivalent of the retirement benefit that would have been due the member, or \$600 per month if greater.
 - c. Surviving minor children will each (up to two) receive 50% of the benefit paid to a surviving spouse with children. This amount will be divided equally among all eligible children.
 - d. Surviving handicapped or mentally retarded children continue to receive a minor child's benefit described above in (1) or (3) whichever is applicable.
2. Hazardous duty members:
 - a. Surviving spouse and children of members who did not die in the line of duty receive benefits described for non-Hazardous Duty members.
 - b. Surviving spouse and children of members who died in the line of duty receive 80% of the member's final average compensation. The benefit is shared equally.
 - c. Surviving spouse of a retired member will receive 75% of members' monthly benefit. If no spouse, then surviving children receive 1.c. above.
3. If no one is eligible to receive a survivor benefit, then the named beneficiary will receive the member's accumulated contributions.

Members whose first employment which makes them eligible for membership in a Louisiana state retirement system occurs prior to January 1, 2011:

Eligibility and Benefit:

1. Regular members:
 - a. Surviving spouse, legally married one year prior to death, of a deceased member with 10 years of service credit, two of which were earned immediately prior to death, or 20 years of service regardless of date earned, receive the greater of 50% of member's average compensation or \$200 per month.
 - b. If member with no spouse has surviving minor child, and 5 years of service credit, two of which were earned immediately prior to death, or 20 years of service regardless of date earned, minor children receive the greater of 75% of member's average compensation or \$300 per month.

- c. For surviving spouse with minor children, the spouse must be eligible per (a) above and the children per (b) above to receive these benefits. If either one is ineligible, then the criteria in (a) or (b) would apply accordingly.
 - d. Surviving handicapped or mentally retarded children continue to receive a minor child's benefit described above in (1a) or (1 c) whichever is applicable.
 2. Surviving spouse of a judge or court officer receive survivor's benefit described in (1a) or (1 b), but not less than the greater of 1/3 the member's current compensation, 50% of the retirement pay which such member was entitled or receiving prior to death, or 50% of the members final average compensation (if the provisions of R.S. 11:471 are met). Benefit limited to 75% of average compensation.
 3. Corrections
 - a. In the line of duty:
 - i. Surviving spouse with no minor children: 60% of average compensation if member had less than 25 years of service, or 75% of average compensation if member had 25 or more years of service.
 - ii. Minor children or disabled children and no spouse: 60% of average compensation if member had less than 5 years of service (25 years for Secondary Plan), or 75% of average compensation if member had 5 or more years of service (25 years for Secondary Plan).
 - iii. Surviving spouse with minor children: 60% of average compensation if member had less than 5 years of service (25 years for secondary plan) and benefit divided 1/3 to spouse and 2/3 to minor children equally. 75% of average compensation if member had 5 or more years of service (25 years for Secondary Plan) and benefit divided 1/3 to spouse and 2/3 to minor children equally.
 - b. Not in the line of duty surviving spouse receives benefits in accordance with the provisions for regular members.
 4. Wildlife agents
 - a. In line of duty:
 - i. Surviving spouse receives 75% of average compensation if member has 25 or more years of service, otherwise, spouse receives 60% of compensation. Benefits cease upon remarriage.
 - ii. Children under age 18: one child - 30% of average compensation, 2 children - 40%, 3 children - 50%, 4 or more children - 60%, divided equally among children.
 - b. Not in the line of duty benefit to surviving spouse and children: Surviving spouse receives a benefit as if the member retired on the date of death, until remarried. If member dies prior to age 55 with at least 1 5 years of service, benefit computed based on years of service without regard to age.
 - c. Survivors of retired wildlife agents will receive 75% of the retiree benefit in priority order: surviving spouse (until remarriage), children under age 18, parents who derive main support from retired agent.
 5. If no one is eligible to receive a survivor benefit, then the named beneficiary will receive the member's accumulated contributions.

OPTIONAL FORMS OF BENEFIT:

In lieu of receiving normal retirement benefit, member may elect to receive actuarial equivalent of retirement allowance in a reduced form as follows:

- Option 1 If a member dies before receiving present value of annuity in monthly payments, balance paid to designated beneficiary.

- Option 2 100% of reduced retirement allowance, if member dies, to be continued to designated beneficiary for his lifetime.
- Option 3 50% of reduced retirement allowance, if member dies, to be continued to designated beneficiary for his lifetime.
- Option 4 Other benefits of equal actuarial value may be elected with approval of board.
- A. 90% of the maximum retirement allowance to member; when member dies, 55% of the maximum retirement allowance continued to beneficiary.
 - B. Reduced retirement allowance to member; if member dies, 55% of the maximum retirement allowance continues to beneficiary, adjusted based on the age and relationship of the beneficiary to the member.
 - C. Special reversionary annuities to Options 2, 3, and 4. Member's reduced benefit reverts to the maximum if the beneficiary predeceases the annuitant.

If divorced after retirement, optional benefit can revert to maximum benefit with actuarial adjustment.

Automatic COLA Option - An increasing annuity option permits the member to make an irrevocable election at retirement to receive an actuarially reduced benefit which increases 2.5% annually. The increases begin on the first retirement anniversary date, but not before the retiree attains age 55 or would have attained age 55 in the case of a surviving spouse. This option can be chosen in combination with the above options.

Initial Benefit Option - Maximum benefit actuarially reduced for partial lump sum equal to not more than 36 months of maximum monthly pension.

REFUND OF CONTRIBUTIONS:

If a member ceases to be a member, except by death or retirement, he shall be paid such part of the amount of the accumulated contributions credited to his individual account in annuity savings fund as he shall demand, plus any accumulated interest thereon as of June 30, 1971; if member of legislature, no interest. No interest credited after June 30, 1971. Death prior to retirement - accumulated contributions credited to individual account in annuity savings fund are returnable to designated beneficiary, if any; otherwise, to his estate.

DEFERRED RETIREMENT OPTION PLAN:

Instead of terminating employment and accepting a service retirement allowance, any member who has met the normal eligibility requirements may participate in the Deferred Retirement Option Plan (DROP).

Normal Eligibility:

Any member who is eligible for unreduced service retirement allowance may begin participation on the first retirement eligibility date for a period not to exceed the third anniversary of retirement eligibility.

Benefit:

Upon termination of employment, a participant will receive, at his option:

- (1) Lump sum payment (equal to the payments to the account);
- (2) A true annuity based upon his account; or
- (3) Other methods of payment approved by the Board of Trustees.

If a participant dies during the period of participation in the program, his account balance shall be paid to the beneficiary, or if none, to his estate in any form approved by the Board of Trustees.

If employment is not terminated at the end of DROP participation, then:

- (1) Payment into account shall cease;
- (2) Payment from account only upon termination of employment; and
- (3) The participant shall resume active contributing membership.

Then, upon termination of employment, the benefit payments indicated above shall be paid. The participant shall receive an additional retirement benefit based on additional service rendered since termination of participation in the fund, usually the normal method of computation of benefit subject to the following:

- (1) If additional service was less than the period used to determine the average compensation, then the average compensation figure used to calculate the additional benefit shall be based on compensation used to determine the initial benefit.
- (2) If additional service was greater than the period used to determine the average compensation, the average compensation figure used to calculate the additional benefit shall be based on compensation earned during the period of additional service.

DROP accounts for members who become eligible for retirement prior to January 1, 2004, and participate in DROP shall earn interest, following termination of DROP, at a rate of 0.5% below the actuarial rate of the System's investment portfolio.

Members eligible for retirement on or after January 1, 2004, must invest their DROP accounts in self-directed accounts approved by the Board of Trustees.

4. Actuarial Methods and Assumptions

Actuarial assumptions and methods used in the June 30, 2013 valuation are summarized in this section of the report. Significant changes in methods and assumptions are summarized below.

Assumption or Method	June 30, 2012 Valuation	June 30, 2013 Valuation	June 30, 2014 Valuation
Discount Rate	8.00%, net of investment expenses and net of future gain sharing transfers	8.00%, net of investment expenses and net of future gain sharing transfers	7.75%, net of investment expenses
Inflation Component of the Salary Increase Assumption	3.00%	3.00%	2.50%
Asset Valuation Method	Adjustment to market value based on deferred recognition of unrealized investment gains and losses	Adjustment to market value based on a deferred recognition of realized and unrealized investment gains and losses	Adjustment to market value based on a deferred recognition of realized and unrealized investment gains and losses
Gain Sharing and COLAS	Implicit recognition of gain sharing and COLAS	Implicit recognition of gain sharing and COLAS	Explicit recognition of gain sharing; no recognition of COLAs

COST METHOD:

The individual "Projected Unit Credit" cost method was used to calculate the funding requirements of the retirement system, as required by Louisiana Statutes, R. S. 11:22. Under this cost method, the actuarial present value of projected benefits of each individual included in the valuation is accumulated from the participant's attained age to the anticipated retirement dates. That portion of the actuarial present value attributable to current year benefit accruals is called the Normal Cost. The actuarial present value of future benefits in proportion to service accrued on the date of valuation is called the actuarial accrued liability.

ASSET VALUATION:

For the June 30, 2012 valuation, the actuarial value of assets was determined as the market value adjusted for the average of unrealized investment gains and losses over the prior four year period. The actuarial value was not allowed to exceed 120% of the market value of assets nor be less than 80% of the market value.

For the June 30, 2013 valuation, the actuarial value of assets was determined as the market value adjusted for the average of realized and unrealized investment gains and losses over the prior four year period. If the preliminary actuarial value so determined exceeded 15% of the market value of assets, then the actuarial value was calculated to be the average between the preliminary actuarial value and 115% of the market value. If the preliminary actuarial value so determined was less than 85% of the market value of assets, then the actuarial value was calculated to be the average between the preliminary actuarial value and 85% of the market value.

Detailed formulas are shown on pages 19-20 of this report.

ACCOUNTING DISCLOSURE:

The Governmental Accounting Standards Board Statement No. 25 requires the disclosure of certain Actuarial Liabilities for Public Employees Retirement Systems. The disclosures illustrated in SECTION II were developed using the Projected Unit Credit cost method. The statement of assets provided by the LASERS audit staff was the final draft prior to publication. Should the statement of assets received differ from the final audit report, a revised actuarial statement will be issued, but only to the extent that any difference in reporting affects the employer's contribution rate or the yield to the Actuarial Value of Assets.

ADMINISTRATIVE EXPENSES:

R.S. 11:102 has been interpreted by LASERS to require that administrative expenses be excluded from any calculation of normal cost. As a result, the retirement system incurs an actuarial loss each year equal to administrative expense actually paid.

This method is not in accordance with actuarial standards of practice, which requires either implicit or explicit recognition. However, because this practice is prescribed under Louisiana law, the actuary must give priority to the legal standard.

BENCHMARKING

Valuation results were tested by comparing normal cost and liability values produced by our valuation system with values produced by the valuation software used by Foster & Foster. Comparisons of values were made for each sub plan, for each member status category, and for each type of decrement. Our values in the aggregate were generally within 2% of the values produced by Foster & Foster. Comparative values by sub plan, by status category, and by decrement exhibited larger deviations, but on the whole produced values acceptable for valuation purposes.

Because we could not precisely match results produced by Foster & Foster, normal cost values in our valuation for FYE 2014 were calculated according to the following formula.

Value = $A \times B / C$, where

- A = The value produced by Foster & Foster for FYE 2014 using the current set of assumptions.
- B = The value produced by the LLA for FYE 2014 using the revised set of assumptions, and
- C = The value produced by the LLA for FYE 2014 the current set of assumptions.

ACTUARIAL ASSUMPTIONS:

The Retirement System typically conducts an experience study every five years, but the scope of such a study is not necessarily limited to a five year period. The observation period for the most recent experience study was 2003-2008. Rates used in this valuation are provided separately for Regular Members, Corrections, Wildlife and Fisheries, and Judges. The next experience study will be completed for use in setting assumptions for the June 30, 2014 valuation.

MORTALITY ASSUMPTIONS:

Pre-retirement deaths and post-retirement life expectancies are projected by attained age using the RP-2000 table with no projection of mortality improvement. These rates are supported by mortality experience as measured in the last Experience Study. No future mortality improvement is assumed at this time although it is likely that some improvement, resulting from a new experience study, will be considered for the June 30, 2014 valuation.

DISABILITY ASSUMPTION:

Rates of total and permanent disability are projected in accordance with the most recent Experience Study. The rates are based upon attained age. For mortality after disability, rates are based upon the RP-2000 disability table with no projection of mortality improvement.

RETIREMENT/DROP ASSUMPTION:

Retirement/DROP rates are based on age and service eligibility requirements for normal benefits. Age and service requirements vary by plan. At eligibility, the probability of retirement or DROP is determined based upon the retirement assumptions. Retirement rates are based on the most recent Experience Study. This methodology was compared to results using retirement and DROP assumptions and it was determined that there was no material difference.

TERMINATION ASSUMPTIONS:

Voluntary termination or withdrawal rates are based on the most recent Experience Study. During the first five years of employment, the probability of voluntarily terminating is a multiple of service duration as follows:

	Regular Members	Corrections, Wildlife, Hazardous Duty	Judges
1st year	1.3x	1.5x	1.0x
2nd year	1.0x	1.0x	1.0x
3rd year	1.0x	1.0x	1.0x
4th year	1.0x	1.0x	1.0x
5th year	1.0x	1.0x	1.0x

For members terminating with vested benefits, it is assumed that 80% will not withdraw their accumulated employee contribution and will receive a benefit beginning at age 60.

SALARY GROWTH:

The rates of annual salary growth are based upon the member's years of service. Salary assumptions shown below are merit increases only and do not reflect inflation. In addition to merit increases, it is assumed that salary will increase with inflation at the rate of 3.00% per year for the June 30, 2013 valuation. For the June 30, 2014 valuation it is assumed that the rate of inflation will be 2.5% a year. Current salaries and projected future salaries are limited to the Section 401(a)17 of the Internal Revenue Service Code 401(a)17 limit. Projected salaries include a 3% inflation assumption on the Section 401(a)(17) limit for 2013 and 2.5% for 2014.

FAMILY STATISTICS:

The composition of the family is based upon Current Population Reports published by the United States Census Bureau. Seventy-five percent of the membership is assumed to be married. The wife is assumed to be three years younger than the husband. Sample rates for the assumed number of minor children are as follows:

Age of Member	Number of Minor Children	Years for Youngest Child to Attain Majority
25	1.2	17
30	1.4	15
35	1.7	13
40	1.7	10
45	1.4	8
50	1.1	4

ASSUMPTION FOR INCOMPLETE DATA:

Records identified as containing suspicious data or errors in data were assumed to possess the same characteristics of "good data" in the same cohort.

INVESTMENT EARNINGS:

The rate of return on the actuarial value of assets is commonly referred to as the discount rate. Rate used in the preparation of this valuation report are summarized below:

June 30, 2013 Valuation:

- 8.00%, net of investment expenses, and net of future gain sharing transfers.
- Capital market assumptions used to determine the discount rate included a 3.0% inflation rate.

June 30, 2014 Valuation:

- 7.75%, net of investment expenses.
- Capital market assumptions used to determine the discount rate included a 2.5% inflation rate.

CONVERTED LEAVE:

Converted Leave is assumed to increase the accrued benefit at retirement as follows according to the following table, based on the most recent experience study.

	Regular Retirement	Retire After DROP	Disability
Regular Members	3.0%	2.0%	1.5%
Judicial Members	1.0%	1.0%	1.0%
Corrections	4.5%	2.5%	2.5%
Wildlife	6.0%	5.0%	3.0%

CAPITAL MARKET ASSUMPTIONS

The 8.5% gross discount rate used in the preparation of June 30, 2013 liabilities and contribution requirements for FYE 2014 is based in part on capital market assumptions developed by internal professional investment staff relying substantially, but not completely, on information provided by NEPC, LASERS investment advisor. Capital market assumptions of investment consulting firms are considered to be confidential and therefore are not disclosed in this report.

The 7.75% discount rate used in the preparation of contribution requirements for FYE 2014 and in the stochastic analysis associated with gain sharing is based on capital market assumptions developed by Gabriel Roeder Smith (GRS). GRS' assumptions reflect an average of the capital market assumptions of eight major investment consulting firms. Once again, capital market assumptions of the eight firms are confidential.

The major differences between the rates used by Foster and Foster and the rate used by the LLA are summarized below:

1. The assumed rate of inflation used by the LLA is 50 basis points less than the inflation rate assumed by Foster and Foster.
2. The following factors accounted for the remaining 25 basis points.
 - a. LLA used a mid-term time horizon in its analysis. LASERS used a 30-year horizon.
 - b. The LLA based its discount rate on an average of the capital market assumptions for eight investment firms. LASERS based its rate on the capital market assumptions, with some modification, of NEPC.

RP-2000 MORTALITY TABLE FOR ALL SUB-PLANS

For Rank and File Sub Plan and Legislative Sub Plan, Pre 2011 Judges and Court Officers Sub Plan and Post 2011 Judges Sub Plan, All Sub Plans for Hazardous Duty Personnel, and Wildlife Sub Plan.

Mortality Rate			Mortality Rate			DROP		
Age	Male	Female	Age	Male	Female	Age	Male	Female
18	0.000316	0.000188	53	0.002916	0.002207	88	0.15059	0.10730
19	0.000331	0.000190	54	0.003196	0.002424	89	0.16642	0.11915
20	0.000345	0.000191	55	0.003624	0.002717	90	0.18341	0.13168
21	0.000357	0.000192	56	0.004200	0.003090	91	0.19977	0.14460
22	0.000366	0.000194	57	0.004693	0.003478	92	0.21661	0.15762
23	0.000373	0.000197	58	0.005273	0.003923	93	0.23366	0.17043
24	0.000376	0.000201	59	0.005945	0.004441	94	0.25069	0.18280
25	0.000376	0.000207	60	0.006747	0.005055	95	0.26749	0.19451
26	0.000378	0.000214	61	0.007676	0.005814	96	0.28391	0.20538
27	0.000382	0.000223	62	0.008757	0.006657	97	0.29985	0.21524
28	0.000393	0.000235	63	0.010012	0.007648	98	0.31530	0.22395
29	0.000412	0.000248	64	0.011280	0.008619	99	0.33021	0.23139
30	0.000444	0.000264	65	0.012737	0.009706	100	0.34456	0.23747
31	0.000499	0.000307	66	0.014409	0.010954	101	0.35863	0.24483
32	0.000562	0.000350	67	0.016075	0.012163	102	0.37169	0.25450
33	0.000631	0.000394	68	0.017871	0.013445	103	0.38304	0.26604
34	0.000702	0.000435	69	0.019802	0.014860	104	0.39200	0.27906
35	0.000773	0.000475	70	0.022206	0.016742	105	0.39789	0.29312
36	0.000841	0.000514	71	0.024570	0.018579	106	0.40000	0.30781
37	0.000904	0.000554	72	0.027281	0.020665	107	0.40000	0.32273
38	0.000964	0.000598	73	0.030387	0.022970	108	0.40000	0.33744
39	0.001021	0.000648	74	0.033900	0.025458	109	0.40000	0.35154
40	0.001079	0.000706	75	0.037834	0.028106	110	0.40000	0.36462
41	0.001142	0.000774	76	0.042169	0.030966	111	0.40000	0.37625
42	0.001215	0.000852	77	0.046906	0.034105	112	0.40000	0.38602
43	0.001299	0.000937	78	0.052123	0.037595	113	0.40000	0.39351
44	0.001397	0.001029	79	0.057927	0.041506	114	0.40000	0.39831
45	0.001508	0.001124	80	0.064368	0.045879	115	0.40000	0.40000
46	0.001616	0.001223	81	0.072041	0.050780	116	0.40000	0.40000
47	0.001734	0.001326	82	0.080486	0.056294	117	0.40000	0.40000
48	0.001860	0.001434	83	0.089718	0.062506	118	0.40000	0.40000
49	0.001995	0.001550	84	0.099779	0.069517	119	0.40000	0.40000
50	0.002138	0.001676	85	0.110757	0.077446	120	1.00000	1.00000
51	0.002449	0.001852	86	0.122797	0.086376			
52	0.002667	0.002018	87	0.136043	0.096337			

**RANK AND FILE SUB PLAN AND LEGISLATORS SUB PLAN
ACTUARIAL TABLES AND RATES**

*Hired prior to 7/1/06; **Hired on or after TO 7/1/06; ***Salary Scale is (1+ Inflation) x (1+ Merit)

Age	Disability	Termination	Retirement		DROP		Duration	Merit
	Rates	Rates	Rates*	Rates**	Rates*	Rates**		Scale***
18	0.0000	0.06	0.00	0.00	0.00	0.00	0	0.106796
19	0.0000	0.18	0.00	0.00	0.00	0.00	1	0.058252
20	0.0000	0.30	0.00	0.00	0.00	0.00	2	0.043690
21	0.0000	0.27	0.00	0.00	0.00	0.00	3	0.038835
22	0.0000	0.20	0.00	0.00	0.00	0.00	4	0.033980
23	0.0000	0.20	0.00	0.00	0.00	0.00	5	0.029126
24	0.0000	0.20	0.00	0.00	0.00	0.00	6	0.029127
25	0.0000	0.20	0.00	0.00	0.00	0.00	7	0.029126
26	0.0000	0.20	0.00	0.00	0.00	0.00	8	0.029126
27	0.0000	0.18	0.00	0.00	0.00	0.00	9	0.024272
28	0.0000	0.17	0.00	0.00	0.00	0.00	10	0.019417
29	0.0000	0.16	0.00	0.00	0.00	0.00	11	0.019417
30	0.0001	0.15	0.00	0.00	0.00	0.00	12	0.019418
31	0.0001	0.15	0.00	0.00	0.00	0.00	13	0.019417
32	0.0001	0.13	0.00	0.00	0.00	0.00	14	0.019417
33	0.0001	0.12	0.00	0.00	0.00	0.00	15	0.014563
34	0.0001	0.11	0.00	0.00	0.00	0.00	16	0.014563
35	0.0002	0.14	0.00	0.00	0.00	0.00	17	0.014563
36	0.0002	0.11	0.00	0.00	0.00	0.00	18	0.014563
37	0.0007	0.10	0.00	0.00	0.00	0.00	19	0.014563
38	0.0007	0.10	0.00	0.00	0.00	0.00	20	0.014563
39	0.0008	0.10	0.00	0.00	0.00	0.00	21	0.012136
40	0.0013	0.08	0.25	0.00	0.30	0.00	22	0.012136
41	0.0020	0.08	0.25	0.00	0.30	0.00	23	0.012136
42	0.0015	0.07	0.25	0.00	0.30	0.00	24	0.012136
43	0.0020	0.06	0.25	0.00	0.30	0.00	25	0.012136
44	0.0022	0.06	0.25	0.00	0.30	0.00	26	0.012136
45	0.0022	0.05	0.25	0.00	0.30	0.00	27	0.012136
46	0.0021	0.05	0.25	0.00	0.30	0.00	28	0.012136
47	0.0030	0.05	0.25	0.00	0.30	0.00	29	0.012136
48	0.0025	0.05	0.26	0.00	0.55	0.00	30	0.019417
49	0.0032	0.05	0.21	0.00	0.50	0.00	31	0.019417
50	0.0041	0.04	0.26	0.00	0.33	0.00	32	0.029126
51	0.0052	0.04	0.30	0.00	0.28	0.00	33	0.029126
52	0.0031	0.04	0.35	0.00	0.28	0.00	34	0.029126
53	0.0045	0.04	0.34	0.00	0.28	0.00	35	0.029126

	Disability	Termination	Retirement		DROP			Merit
Age	Rates	Rates	Rates*	Rates**	Rates*	Rates**	Duration	Scale***
54	0.0050	0.04	0.30	0.00	0.19	0.00	36	0.019417
55	0.0040	0.04	0.26	0.00	0.45	0.00	>36	0.019417
56	0.0053	0.04	0.33	0.00	0.10	0.00		
57	0.0045	0.04	0.31	0.00	0.05	0.00		
58	0.0040	0.03	0.60	0.00	0.05	0.00		
59	0.0001	0.03	0.30	0.00	0.05	0.00		
60	0.0000	0.03	0.26	0.50	0.25	0.30		
61	0.0000	0.03	0.24	0.15	0.04	0.40		
62	0.0000	0.03	0.27	0.15	0.01	0.50		
63	0.0000	0.03	0.51	0.5	0.01	0.50		
64	0.0000	0.02	0.28	0.33	0.01	0.50		
65	0.0000	0.02	0.30	0.33	0.01	0.50		
66	0.0000	0.02	0.31	0.33	0.01	0.50		
67	0.0000	0.02	0.23	0.33	0.01	0.50		
68	0.0000	0.02	0.23	0.33	0.01	0.50		
69	0.0000	0.02	0.25	0.33	0.01	0.50		
70	0.0000	0.02	0.25	0.33	0.01	0.50		
71	0.0000	0.02	0.25	0.33	0.01	0.50		
72	0.0000	0.02	0.40	0.33	0.00	0.50		
73	0.0000	0.02	0.50	0.33	0.00	0.50		
74	0.0000	0.02	1.00	1.00	0.00	0.50		

**PRE 2011 JUDGES AND COURT OFFICERS SUB PLAN AND POST 2011 JUDGES SUB PLAN
ACTUARIAL TABLES AND RATES**

* Hired prior to 1/1/11; **Hired on or after 1/1/11; ***Salary Scale is (1+ Inflation) x (1+ Merit)

	Disability	Termination	Retirement		DROP			Merit
Age	Rates	Rates	Rates*	Rates**	Rates*	Rates**	Duration	Scale***
30-41	0.0002	0.005	0.00	0.00	0.00	0.00	0	0.024272
42	0.0002	0.009	0.00	0.00	0.00	0.00	1	0.000000
43	0.0002	0.009	0.00	0.00	0.00	0.00	2	0.000000
44	0.0002	0.009	0.00	0.00	0.00	0.00	3	0.004854
45	0.0002	0.009	0.00	0.00	0.00	0.00	4	0.000000
46	0.0002	0.009	0.00	0.00	0.00	0.00	5	0.000000
47	0.0002	0.009	0.00	0.00	0.00	0.00	6	0.009709
48	0.0002	0.009	0.00	0.00	0.00	0.00	7	0.000000
49	0.0002	0.009	0.50	0.00	0.00	0.00	8	0.000000
50	0.0002	0.009	0.50	0.00	0.00	0.00	9	0.000000
51	0.0002	0.009	0.50	0.00	0.00	0.00	10	0.004854
52	0.0002	0.009	0.50	0.00	0.50	0.00	11	0.004854
53	0.0002	0.009	0.50	0.00	0.50	0.00	12	0.004854
54	0.0002	0.009	0.35	0.00	0.50	0.00	13+	0.000000
55	0.0002	0.009	0.35	0.00	0.50	0.00		
56	0.0002	0.009	0.35	0.00	0.20	0.00		
57	0.0002	0.009	0.10	0.00	0.20	0.00		
58	0.0002	0.005	0.10	0.00	0.20	0.00		
59	0.0002	0.005	0.10	0.00	0.10	0.00		
60	0.0002	0.005	0.10	0.50	0.07	0.30		
61	0.0002	0.005	0.10	0.15	0.05	0.40		
62	0.0002	0.000	0.10	0.15	0.05	0.50		
63	0.0002	0.000	0.10	0.50	0.10	0.50		
64	0.0002	0.000	0.10	0.33	0.10	0.50		
65	0.0002	0.000	0.10	0.33	0.05	0.50		
66	0.0002	0.000	0.10	0.33	0.05	0.50		
67	0.0002	0.000	0.10	0.33	0.05	0.50		
68	0.0002	0.000	0.10	0.33	0.05	0.50		
69	0.0002	0.000	0.50	0.33	0.00	0.50		
70	0.0000	0.000	1.00	1.00	0.00	0.50		

**ALL SUB PLANS FOR HAZARDOUS DUTY PERSONNEL EXCEPT WILDLIFE
ACTUARIAL TABLES AND RATES**

*Salary Scale is (1+ Inflation) x (1+ Merit)

Age	Disability Rates	Termination Rates	Retirement Rates	DROP Rates	Duration	Merit Scale*
18	0.0000	0.100	0.00	0.00	0	0.116505
19	0.0000	0.250	0.00	0.00	1	0.053398
20	0.0000	0.290	0.00	0.00	2	0.038835
21	0.0000	0.360	0.00	0.00	3	0.038835
22	0.0000	0.310	0.00	0.00	4	0.033981
23	0.0000	0.260	0.00	0.00	5	0.033981
24	0.0000	0.250	0.00	0.00	6	0.033981
25	0.0000	0.260	0.00	0.00	7	0.033981
26	0.0000	0.250	0.00	0.00	8	0.033981
27	0.0000	0.250	0.00	0.00	9	0.038835
28	0.0000	0.180	0.00	0.00	10	0.038835
29	0.0000	0.180	0.00	0.00	11	0.038835
30	0.0002	0.180	0.00	0.00	12	0.038835
31	0.0002	0.140	0.00	0.00	13	0.038835
32	0.0003	0.140	0.00	0.00	14	0.033981
33	0.0003	0.140	0.00	0.00	15	0.033981
34	0.0004	0.140	0.00	0.00	16	0.033981
35	0.0005	0.180	0.00	0.00	17	0.029126
36	0.0006	0.100	0.00	0.00	18	0.029126
37	0.0008	0.100	0.00	0.00	19	0.029126
38	0.0010	0.100	0.00	0.00	20	0.029126
39	0.0012	0.100	0.00	0.00	21	0.029126
40	0.0013	0.090	0.60	0.00	22	0.029126
41	0.0014	0.070	0.60	0.00	23	0.029126
42	0.0015	0.070	0.60	0.00	24	0.029126
43	0.0017	0.070	0.60	0.00	25	0.029126
44	0.0017	0.070	0.60	0.00	26	0.029126
45	0.0017	0.070	0.60	0.00	27	0.019417
46	0.0030	0.070	0.60	0.00	28	0.019417
47	0.0030	0.070	0.75	0.90	29	0.019417
48	0.0030	0.070	0.75	0.50	30+	0.009709
49	0.0020	0.070	0.70	0.50		
50	0.0020	0.070	0.70	0.50		
51	0.0020	0.060	0.70	0.20		
52	0.0020	0.060	0.70	0.15		

	Disability	Termination	Retirement	DROP		Merit
Age	Rates	Rates	Rates	Rates	Duration	Scale*
53	0.0040	0.060	0.75	0.10		
54	0.0070	0.060	0.75	0.07		
55	0.0070	0.060	0.88	0.03		
56	0.0070	0.060	0.70	0.05		
57	0.0090	0.060	0.60	0.10		
58	0.0070	0.060	0.70	0.05		
59	0.0070	0.060	0.70	0.03		
60	0.0000	0.060	0.25	0.03		
61	0.0000	0.060	0.25	0.01		
62	0.0000	0.060	0.25	0.01		
63	0.0000	0.060	0.25	0.01		
64	0.0000	0.060	0.25	0.01		
65	0.0000	0.060	0.25	0.01		
66	0.0000	0.060	0.25	0.01		
67	0.0000	0.060	0.25	0.01		
68	0.0000	0.060	0.25	0.00		
69	0.0000	0.060	0.50			
70	0.0000	0.000	0.99			

**WILDLIFE
ACTUARIAL TABLES AND RATES**

*Salary Scale is $(1 + \text{Inflation}) \times (1 + \text{Merit})$

Age	Disability Rates	Termination Rates	Retirement Rates	DROP Rates	Duration	Merit Scale*
18	0.0000	0.100	0.00	0.00	0	0.116505
19	0.0000	0.100	0.00	0.00	1	0.135922
20	0.0000	0.100	0.00	0.00	2	0.116505
21	0.0000	0.100	0.00	0.00	3	0.087379
22	0.0000	0.100	0.00	0.00	4	0.077670
23	0.0000	0.100	0.00	0.00	5	0.067961
24	0.0000	0.100	0.00	0.00	6	0.063107
25	0.0000	0.100	0.00	0.00	7	0.063107
26	0.0000	0.070	0.00	0.00	8	0.058252
27	0.0000	0.070	0.00	0.00	9	0.058252
28	0.0000	0.070	0.00	0.00	10	0.053398
29	0.0000	0.070	0.00	0.00	11	0.053398
30	0.0001	0.090	0.00	0.00	12	0.043689
31	0.0010	0.090	0.00	0.00	13	0.033981
32	0.0015	0.090	0.00	0.00	14	0.033981
33	0.0020	0.090	0.00	0.00	15	0.033981
34	0.0025	0.050	0.00	0.00	16	0.033981
35	0.0030	0.030	0.00	0.00	17	0.033981
36	0.0035	0.060	0.00	0.00	18	0.033981
37	0.0040	0.060	0.00	0.00	19	0.033981
38	0.0045	0.060	0.00	0.00	20	0.033981
39	0.0050	0.030	0.00	0.00	21	0.033981
40	0.0050	0.060	0.00	0.00	22+	0.029126
41	0.0050	0.060	0.00	0.00		
42	0.0050	0.010	0.00	0.00		
43	0.0050	0.010	0.00	0.00		
44	0.0050	0.010	0.00	0.00		
45	0.0050	0.010	0.00	0.00		
46	0.0050	0.010	0.00	0.00		
47	0.0050	0.010	0.50	0.00		
48-55	0.0050	0.010	0.50	0.10		
56-63	0.0050	0.000	0.50	0.10		
64	0.0000	0.000	0.50	0.10		
65	0.0000	0.000	1.00	0.00		

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SECTION V
APPENDIX

**Appendix A: Financial Effect of the Differences Between Valuations
Produced by Foster & Foster and LLA – LASERS
For FYE 2015**

Change in Gain Sharing Method From Indirect to Direct Recognition

Discount Rate	8.00%	8.50%	
Salary Increases	Merit + 3.00%	Merit + 3.00%	Increase /
Gain Sharing Method	Indirect	Direct	(Decrease)
Projected Payroll	\$ 2,030,784,463	\$ 2,030,784,463	\$ 0
Employer Normal Cost	132,773,379	112,294,664	(20,478,715)
Unfunded Accrued Liability	6,437,963,454	6,022,690,582	(415,272,872)
Employer Amortization Cost	627,684,763	590,954,744	(36,730,019)
Total Employer Cost	760,458,142	703,249,408	(57,208,734)
Total Employer Cost Rate	37.40%	34.60%	(2.80)%

Change in Inflation Assumption

Discount Rate	8.50%	8.00%	
Salary Increases	Merit + 3.00%	Merit + 2.50%	Increase /
Gain Sharing Method	Direct	Direct	(Decrease)
Projected Payroll	\$ 2,030,784,463	\$ 2,012,068,567	\$ (18,715,896)
Employer Normal Cost	112,294,664	123,375,457	11,080,793
Unfunded Accrued Liability	6,022,690,582	6,630,405,540	607,714,958
Employer Amortization Cost	590,954,744	644,133,604	53,178,859
Total Employer Cost	703,249,408	767,509,061	64,259,652
Total Employer Cost Rate	34.60%	38.10%	3.50%

25 Basis Point Change in Real Rates of Return on Investments

Discount Rate	8.00%	7.75%	
Salary Increases	Merit + 2.50%	Merit + 2.50%	Increase /
Gain Sharing Method	Direct	Direct	(Decrease)
Projected Payroll	\$ 2,012,068,567	\$ 2,012,068,567	\$ 0
Employer Normal Cost	123,375,457	134,009,239	10,633,782
Unfunded Accrued Liability	6,630,405,540	7,028,285,866	397,880,326
Employer Amortization Cost	644,133,604	666,591,847	22,458,243
Total Employer Cost	767,509,061	800,601,086	33,092,025
Total Employer Cost Rate	38.10%	39.80%	1.70%

Summary of All Changes Combined

Discount Rate	8.00%	7.75%	
Salary Increases	Merit + 3.00%	Merit + 2.50%	Increase /
Gain Sharing Method	Indirect	Direct	(Decrease)
Projected Payroll	\$ 2,030,784,463	\$ 2,012,068,567	\$ (18,715,896)
Employer Normal Cost	132,773,379	134,009,239	1,235,860
Unfunded Accrued Liability	6,437,963,454	7,028,285,866	590,322,412
Employer Amortization Cost	627,684,763	666,591,847	38,907,084
Total Employer Cost	760,458,142	800,601,086	40,142,944
Total Employer Cost Rate	37.40%	39.80%	2.40%

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