Hall Actuarial Associates

Charles G. Hall
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Enrolled Actuary

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November 3, 2016

Board of Trustees
LOUISIANA STATE POLICE
RETIREMENT SYSTEM
9224 Jefferson Hwy
Baton Rouge, Louisiana 70809

Ladies and Gentlemen:

This report is intended to present the results of the actuarial valuation of assets and liabilities, as well as funding requirements, for the Louisiana State Police Retirement System (LSPRS) in effect as of June 30, 2016.

This report has been prepared in accordance with generally accepted actuarial principles and practices and to the best of my knowledge, fairly reflects the actuarial present value of accrued benefits of the Louisiana State Police Retirement System.

In preparing this valuation, I have relied upon the information provided by LSPRS regarding plan provisions, plan membership, plan assets, census data and other matters as detailed in the exhibits of this report. In particular, I have relied upon the statement of assets as provided by the Louisiana Legislative Auditor’s Office.

The present values shown herein have been estimated on the basis of the Entry Age Normal actuarial cost method as specified in Louisiana Revised Statutes Title 11 Section 22(12). In my opinion, the Actuarial Assumptions, which have been approved by the Board of Trustees, are appropriate and reasonable for the purposes of this valuation as noted in the Exhibit 5, and represents my best estimates of the anticipated experience under the plan.

Furthermore, I believe that the content of this report has not materially deviated from the guidance contained in the Actuarial Standards of Practice statement 27.

Board of Trustees
LSPRS
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A brief summary of the more important figures developed in this valuation, with comparable results from previous valuations are as follows:

			---------Prior Years---------	
		June 30, 2016	June 30, 2015	June 30, 2014
I.	Membership Census			
	1) Retirees	1,220	1,224	1,229
	2) Actives	1,041	991	956
	3) Terminated Vested	41	41	34
II.	Annual Benefits	$ 41,866,788[1]	$ 41,737,344	$ 40,440,528[2]
III.	Annual Payroll	75,969,718	64,632,596	54,331,845
IV.	Valuation Assets	699,121,700	627,083,218	549,075,148
V.	Investment Yield[3]			
	Market Value	-1.63%	3.00%	17.93%
	5 year avg.	6.47%	11.19%	12.96%
	10 year avg.	5.21%	6.13%	6.74%
	Actuarial Value[2]	6.23%	10.66%	12.48%
	5 year avg.	9.76%	8.99%	6.87%
	10 year avg.	5.63%	6.30%	6.10%
	DROP Accounts[3]	5.73%	10.16%	11.98%
VI.	Experience Account	3,963,595	12,416,791	12,069,552
VII.	Cost to Fund Annual Pension Accruals	20,077,312	17,831,480	15,369,908
	(Normal Costs)	26.43%	27.59%	28.29%
VIII.	Unfunded Actuarial Accrued Liability	307,504,737	283,762,125	288,865,398
IX.	Funded Percentage	69.5%	68.8%	65.5%
X.	Funding Requirements			
	1) Employee Contribution Rate	8.50%	8.50%	8.50%
	New Hires after 12/31/2010	9.50%	9.50%	9.50%
	2) Employer Rate (current year)	48.1%	54.0%	66.7%
	plus, Premium Tax Allocation	1,500,000	1,500,000	1,500,000
	Recommended Projected Rate	47.4%	51.2%	60.8%
	plus, Premium Tax Allocation	1,500,000	1,500,000	1,500,000

Funding Requirements measure the cost of benefit in effect on the valuation date.

[1] Excludes the $859,704 permanent benefit increase granted in ACT 93 effective 7/01/2016.
[2] Excludes the $798,760 permanent benefit increase granted in ACT 103 effective 7/01/2014.
[3] Excludes Money Market DROP Accounts.

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UNFUNDED LIABILITY

The Actuarial Valuation for the plan year ending June 30, 2016 discloses a increase in the plan's Unfunded Actuarial Liability (UAL), which measures the deficiency of assets required to fund benefits that have been accrued. The assets are defined as the actuarial value of assets excluding Side Fund Accounts.

The annual required contribution is the normal cost, plus an amortization payment of the UAL. The normal cost is the amount needed to fund that portion of the current year's benefit accruals for active members, plus the current year's administrative expenses. The normal cost is divided into two parts; employee and employer portions expressed as a percentage of annual payroll. Administrative expenses are paid from investment income. Beginning July 1, 2017, administrative expenses will be funded directly as an employer contribution. Act 81 of the 1988 Legislative Session provides for the amortization of the initial UAL, plus subsequent changes in benefits, methods, or gain/loss experience.

The current valuation process discloses the source of any changes in actuarial assumptions, and gains/losses resulting from actual experience which differs from expected plan experience. Changes in actuarial methods, assumptions, benefit changes or plan experience are amortized as a level annuity. The amortization periods are in general; the later of the year 2029 or 30 years for methods, assumptions and experience changes; 10 years for benefit changes; and 5 years for employer contribution shortfall variances. Other amortization periods may be specified for specific legislation.

To assist the Board of Trustees in reconciling changes in the unfunded actuarial accrued liability, the following gain/loss analysis is presented as follows:

CHANGE IN UNFUNDED LIABILITY

Unfunded Liability 6/30/2015		$ 283,762,125
INCREASES		
Interest on Unfunded Liability	$19,863,349	
Experience Account allocation	0	
COLA/PBI to Retirees	9,226,746	
Investment Loss	4,431,406	
Experience Loss	42,493,525	
Incurred Increases	76,015,026	
DECREASES		
Experience Account distribution	9,226,746	
Employer Shortfall Gain	17,097,150	
Net Amortization Payment	25,948,518	
Incurred Decreases	$52,272,414	
Unfunded Liability 6/30/2016		$ 307,504,737
Net change in Unfunded Liability		23,742,612

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Plan Experience

The actuarial valuation results are based on the actuarial assumptions which estimate the value of future contingent events. If the actual plan experience differs from the assumptions, an experience gain or loss occurs in one of the following general areas.

Investment Experience is the variance between the rate of return on the actuarial value of assets, 6.23%, compared to the assumed discount rate of 7.0%. This year's difference resulted in a loss of 0.77% or $4,431,406, net of excesses credited to DROP accounts.

Demographic (Plan) Experience measures the variance between the actual and anticipated assumptions for rates of retirement, disability, termination, mortality, salary growth, participation in Back DROP and other demographic assumptions. From these sources there was a net loss of $42,493,523 with the average 11-20% pay adjustment having the largest impact. For GASB reporting, plan experience also includes gains due to an employer contribution variance of $17,097,150, an losses due to the amortization of administrative expenses.

Legislative Changes – 2016 Regular Session

ACT 93 PBI/COLA effective 6/30/2016:

Provides a 2.0% permanent benefit increase (PBI/COLA) on benefits up to $60,000 to all retirees who had attained age 60, disability retirees, and survivors of members who would have attained age 60 and had been retired for at least one year. Those who attained age 65 and have been retired prior to June 30, 2001 would receive a 2.0% supplement.

ACT 94 Non-investment Administrative Expenses effective 6/30/2016:

Adds a new component for the non-investment administrative expenses for the fiscal year to be included in the employer contribution rate, beginning in the first fiscal year in which the projected aggregate employer rate does not increase.

ACT 95 Amends ACT 399 of 2014 (PBI/COLAs),effrctive 6/30/2016:

- Defines "funded percentage" to mean the valuation assets used to determine contributions divided by accrued liability.
- The funded percentage shall be determined before any allocation to the experience account.
- Amortization period for most actuarial changes, gains, or losses shall be reduced to 20 years for the June 30th valuation following the fiscal year in which a system first attains a 70% funded percentage.
- Actuarial gins allocated to the experience account shall be amortized as a loss with level payments over a ten-year period.
- Once the system is 80% funded, re-amortization of the net remaining liability after application of the hurdle payments will occur every fifth fiscal year following the 2019-2020 Fiscal Year.

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Legislative Changes (continued)

Act 399 of 2014
(original prior to ACT 95 of 2016)

[Section 1] Excess Investment Returns Allocation to Amortization Bases and Experience Account.

- The first $5M excess (hurdle) is applied to the oldest amortization base without re-amortization, indexed each year by the % increase in actuarial value of assets. The remaining excess is split as follows;
-
  1) 50% Experience Account Allocation; Up to 50% of all excess returns, until account reaches PBI reserve cap. Remaining excess over cap amortized over 30 years

  2) 50% Amortization Base Allocation; Investment Gain Amortized 30 years, 20 years after 85% Funded

If there are sufficient reserves in the Experience Account a PBI may be granted if the following conditions have been satisfied;

System Funded Status	PBI Can be granted	Amount if System earns at least 7.00%	Amount if System does not earn 7.00%
Less than 55%	No	n/a	n/a
At least 55% but less than 65%	If no PBI in preceding year	Lesser of 1.5% or CPI-U	0
At least 65% but less than 75%	If no PBI in preceding year	Lesser of 2.0% or CPI-U	0
At least 75% but less than 80%	If no PBI in preceding year	Lesser of 2.5% or CPI-U	0
80% or greater	If no PBI in preceding year	Lesser of 3.0% or CPI-U	Lesser of 2% or CPI-U

[Section 2] The first 5 million of excess return will be applied to the oldest amortization base, without re-amortization.

[Section 3] The system shall prepare and present to the House and Senate Committees on Retirement a report on the administrative and actuarial processes that will be applied in the implementation of this Act, submitted to the committees no later than November 14, 2014.

Board of Trustees
LSPRS
November 3, 2016

Side Funds

Side funds are trust fund assets excluded from the Actuarial Value of Assets used to determine the employer current funding requirements. The trust has one remaining side fund.

The Experience Account is used to accumulate allocations of investment gain sharing to fund permanent benefit increases (COLAs/PBIs). The internal accounting of this fund has been altered by ACT 399 of the 2014 Legislative Session, primarily by limiting the annual allocation depending on the Plan's funded status and its ability to fund the new COLA/PBI maximum reserve currently set at 2.0%, plus a 2.0% supplement for those who have attained age 65.

The account balance is managed as follows:

EXPERIENCE ACCOUNT	June 30, 2016
A. Prior Year End Balance	$ 12,416,791
COLA/PBI distributions	-9,226,746
Adjusted Balance	3,190,045
B. Maximum COLA/PBI reserve Cap	12,345,749
C. Interest on adjusted balance	773,550
Gain Sharing allocation	0
Available Credits	773,550
D. Permitted allocation [lesser of B-A or C]	773,550
Fund Balance - Year End [A + D]	3,963,595

Funding Requirements

The annual required contribution is the normal cost, plus an amortization payment of the Unfunded Actuarial Liability (UAL), plus administrative expenses. The normal cost is the amount needed to fund that portion of the current year's benefit accruals for active members. The normal cost is divided into two parts; employee and employer portions, each expressed as a percentage of annual payroll.

The projected employer contribution rate for the 2016-2017 plan year approved by the Board of Trustees and the Public Employees Retirement Systems Actuarial Committee (PERSAC) was set at 51.2%.

The actual employer contribution rate determined by this valuation for the current plan year is 48.2%. Therefore, the current plan year should generate a contribution variance overage gain since the projected approved rate understates the valuation rate by 3.0%.

Board of Trustees
LSPRS
November 3, 2016

Comments and Disclosures

Current statutes require administrative expenses to be funded indirectly through investment income, resulting in an annual experience loss, amortized over thirty years. Act 94 of the 2016 provides for the payment of non-investment administrative expenses as a new component to the employers funding requirements beginning in the first fiscal year in which the projected aggregate employer rate does not increase. The employer rate did not increase this year, therefore the administrative expenses have been added to the projected 2017-18 fiscal year employer contribution rate.

There have been no changes to the actuarial assumptions or methods since the preceding measurement date which did incorporate my recommended changes contained in the five year Experience Study and adopted by the Board of Trustees, effective for the June 30, 2013 report. A copy of the detailed analysis of the development and recommendations in the study can be obtained from LSPRS. The actuarial assumptions outlined in Exhibit 5 were used in the preparation of this report and are based solely on my recommendations to and adoption by the Board of Trustees.

The format of this report was designed with the intent of highlighting the pertinent results of the valuation's funding requirements while maintaining compliance with the Actuarial Standards of Practice.

I am a Fellow of the Conference of Consulting Actuaries (FCA), an Associate of the Society of Actuaries (ASA), an Enrolled Actuary #4199-14 with the Joint Board for the enrollment of Actuaries under ERISA, a Member of the American Academy of Actuaries (MAAA), and have met the Qualification Standards of the Academy necessary to render the actuarial opinions expressed in this report.

Should you have any questions or comments, please do not hesitate to contact me.

Sincerely,

Charles G. Hall, FCA,MAAA,ASA
Actuary

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EXHIBIT 1

DEVELOPMENT OF COSTS, LIABILITIES AND CONTRIBUTIONS[1]

Normal Costs and Accrued Liabilities are calculated in accordance with the Individual Entry Age Normal Actuarial Cost Method, and the Actuarial Assumptions outlined in Exhibit 5 based on the Provisions of the Plan as summarized in Exhibit 4.

	June 30, 2016		June 30, 2015	
	Dollar Amount	% of Salary	Dollar Amount	% of Salary
I. Normal Costs (to fund annual pension accruals)				
Active Members-(Hired before January 1, 2010)				
a) Retirement Benefits	$ 16,378,023	23.99%	$ 14,435,559	24.02%
b) Disability Benefits	627,666	0.92%	553,215	0.92%
c) Survivor Benefits	321,060	0.47%	283,727	0.47%
d) Voluntary Termination	693,912	1.02%	670,082	1.11%
TOTAL	18,020,661	26.40%	15,942,583	26.52%
Active Members-(working after DROP)				
a) Retirement Benefits	74,690	35.32%	75,000	33.53%
b) Disability Benefits	2,129	1.01%	1,972	0.88%
c) Survivor Benefits	2,244	1.06%	2,102	0.94%
d) Voluntary Termination	0	0.00%	0	0.00%
TOTAL	79,063	37.39%	79,074	35.35%
Active Members-(Hired after December 31, 2009)				
a) Retirement Benefits	1,795,989	23.97%	1,037,450	24.10%
b) Disability Benefits	50,741	0.68%	29,226	0.68%
c) Survivor Benefits	30,376	0.41%	17,524	0.41%
d) Voluntary Termination	100,482	1.34%	56,686	1.32%
TOTAL	1,977,588	26.39%	1,140,886	26.50%
TOTAL all Active Members				
a) Retirement Benefits	$ 18,248,702	24.02%	$ 15,548,009	24.06%
b) Disability Benefits	680,536	0.90%	584,413	0.90%
c) Survivor Benefits	353,680	0.47%	303,353	0.47%
d) Voluntary Termination	794,394	1.04%	726,768	1.12%
TOTAL	20,077,312	26.43%	17,831,480	27.59%
II. Administrative Expenses	$ 711,463	0.94%	$ 668,937[2]	1.03%[2]

[1]Actuarial valuation rate changed from 7.50% to 7.0% effective July 1, 2013
[2]For illustrative purposes and not a part of the employee or employer normal cost contribution. (see pg. 30)

Exhibit 1 (Continued)
Costs, Liabilities & Contributions

	June 30, 2016	June 30, 2015
III. Actuarial Accrued Liability[1]		
Active Members-(Hired before January 1, 2010)		
a) Retirement Benefits	$ 452,815,755	$ 367,497,372
b) Disability Benefits	2,498,153	2,356,629
c) Survivor Benefits	2,150,730	1,857,002
d) Voluntary Termination	5,815,785	5,685,751
TOTAL	463,280,423	377,396,754
Active Members-(working after DROP)		
a) Retirement Benefits	644,968	605,061
b) Disability Benefits	0	97
c) Survivor Benefits	4,087	4,420
d) Voluntary Termination	0	0
TOTAL	649,055	609,578
Active Members-(Hired after December 31, 2009)		
a) Retirement Benefits	6,633,260	2,770,730
b) Disability Benefits	149,331	58,326
c) Survivor Benefits	74,144	30,840
d) Voluntary Termination	221,464	90,196
TOTAL	7,078,199	2,950,092

	June 30, 2016	June 30, 2015
TOTAL all Active Members		
1) Retirement Benefits	$ 460,093,983	$ 370,873,163
2) Disability Benefits	2,647,484	2,415,052
3) Survivor Benefits	2,228,961	1,892,262
4) Voluntary Termination	6,037,249	5,775,947
TOTAL	471,007,677	380,956,424
Retired and Inactive Members		
1) Regular Retirees	390,188,988	398,383,517
2) Disabled Retirees	22,315,793	18,984,981
3) Survivors	62,086,057	61,266,085
4) Vested Deferred & Transfers	9,438,117	8,720,886
5) Contribution Refunds	462,460	455,955
6) DROP Account Balance	40,686,851	40,843,926
7) DROP Annuity Reserve	1,213,748	1,233,569
TOTAL	526,392,014	529,888,919
PBI/COLA granted not in 6/30 data	9,226,746	n/a
TOTAL Actuarial Accrued Liability	1,006,626,437	910,845,343

[1]Actuarial valuation rate changed from 7.50% to 7.0% effective July 1, 2013

Exhibit 1 (Continued)
Costs, Liabilities & Contributions[1]

		June 30, 2016	--Prior Year-- June 30, 2015
III.	Actuarial Accrued Liability	$ 1,006,626,437	$ 910,845,343
IV.	Actuarial Assets	699,121,700	627,083,218
V.	Unfunded Actuarial Accrued Liabilities	307,504,737	283,762,125
	a) Change over prior year	23,742,612	-5,103,273
	b) Funded Percentage	69.5%	68.8%
VI.	Employer Contributions to Fund		
	To fund current Plan Year[2]		
	a) Employer Portion of Normal Cost	13,720,666	11,786,562
	b) Amortization Payments	32,879,577	29,223,852
	c) Prior Contribution Variance	-8,087,204	-4,138,473
	GROSS Required Contribution	38,513,039	36,871,941
	d) Insurance Premium Tax Fund (IPTF) *Offset*		
	(1) ACT 1160 Normal Cost	1,265,937	1,077,108
	(2) ACT 1160 Amortization Payment	2,249,709	2,152,831
	(3) Initial ITPF Allocation[3]	1,500,000	1,500,000
	ITPF Allocation [lesser of [(1)+(2), or (3)]	-1,500,000	-1,500,000
	TOTAL Required Contribution	37,013,039	35,371,941
		48.1%	54.0%
	PERSAC approved Rate	51.2%	60.8%
VII.	Projected Employer Contributions		
	To fund next fiscal Plan Year[2]		
	a) Employer Portion of Normal Cost	14,244,150	12,239,303
	b) Administrative Expenses	712,000	n/a
	c) Amortization Payments	32,879,577	29,223,852
	d) Prior Contribution Variance	-8,488,107	-5,141,991
	e) IPTF allocation[3]	-1,500,000	-1,500,000
	TOTAL Projected Contribution	37,847,620	34,821,164
		47.4%	51.2%
VIII.	Current Annual Payroll	75,969,718	64,632,596
	Projected Payroll - Mid Year	76,956,653	65,477,667
	Projected Payroll - Next Year	79,892,779	67,992,733

[1] Actuarial valuation rate changed from 7.50% to 7.0% effective July 1, 2013
[2] Dollar Amounts reflect estimated payments due mid-year on January 1st per Act 81.
[3] ITPF allocation is the lesser of the normal cost plus amortization or $1,500,000.

Exhibit 1 (Continued)
Costs, Liabilities & Contributions

AMORTIZATION of UNFUNDED
ACTUARIAL ACCRUED LIABILITY
JUNE 30, 2016

DATE 6/30	DESCRIPTION	AMTZ. METHOD	AMTZ. PERIOD	INITIAL[1] LIABILITY	YEARS REMAING	REMAINING BALANCE	MID-YEAR PAYMENT
1994	Change in Liability	L	20	-1,381,660	13	-1,096,125	-126,790
1995	Change in Liability	L	20	20,128,380	13	15,968,624	1,847,104
1996	Change in Liability	L	20	-9,762,782	13	-7,745,193	-895,893
1997	Change in Liability	L	20	4,409,601	13	3,498,307	404,652
1998	Change in Liability	L	20	-2,444,207	13	-1,939,084	-224,296
1999	Change in Liability	L	20	12,418,148	13	9,851,798	1,139,566
2000	Change in Liability	L	20	-21,262,939	13	-16,868,714	-1,951,218
2001	Change in Liability	L	20	14,218,540	13	11,280,119	1,304,781
2002	Change in Liability	L	20	36,882,500	13	29,260,317	3,384,565
2003	Change in Assumptions	L	24	14,644,647	17	12,527,300	1,240,430
2003	Change in Liability	L	20	60,111,382	13	47,688,690	5,516,191
2004	Change in Liability	L	20	16,579,889	13	13,153,468	1,521,473
2005	Change in Liability	L	20	14,086,441	13	11,175,320	1,292,659
2006	Change in Liability	L	20	-11,718,142	13	-9,296,456	-1,075,329
2007	Change in Liability	L	20	13,788,779	13	10,939,173	1,265,343
2008	Change in Assumptions	L	29	9,487,421	22	8,582,324	750,083
2008	Change in Liability	L	20	29,944,312	13	23,755,984	2,747,875
2009	Change in Assumptions	L	30	1,032,469	23	941,565	80,751
2009	Change in Benefits	L	10	671,120	3	252,673	93,079
2009	Change in Liability	L	30	74,940,622	23	68,342,407	5,861,249
2010	Change in Liability	L	30	26,844,661	24	24,883,445	2,097,396
2011	Change in Liability	L	30	28,079,134	25	26,419,456	2,191,657
2012	Change in Liability	L	30	7,358,996	26	7,019,587	573,839
2013	Change in Method	L	30	-12,256,998	27	-11,839,841	-954,891
2013	Change in Assumptions	L	30	26,210,291	27	25,318,244	2,041,934
2013	Change in Liability	L	30	-25,552,458	27	-24,682,800	-1,990,685
2014	ACT 399 of 2014 (hurdle)	L	5	-2,500,000	3	-1,600,116	-589,445
2014	Change in Liability	L	30	-1,327,488	28	-1,298,398	-103,419
2015	Change in Liability	L	30	22,863,386	29	22,621,345	1,781,191
2016	Change in Liability	L	30	46,924,931	30	46,924,931	3,655,725
	oldest OB accumulations offset	L		-6,056,900		-6,056,900	
	TOTAL OUTSTANDING BALANCE					337,981,450	32,879,577
EMPLOYER'S CREDIT BALANCE							
2012	Contribution Variance	L	5	-552,001	1	-126,083	-130,422
2013	Contribution Variance	L	5	-316,179	2	-139,422	-74,548
2014	Contribution Variance	L	5	-2,038,403	3	-1,304,672	-480,611
2015	Contribution Variance	L	5	-14,295,186	4	-11,809,386	-3,370,491
2016	Contribution Variance	L	5	-17,097,150	5	-17,097,150	-4,031,132
	TOTAL EMPLOYER CREDIT					-30,476,713	-8,087,204
	TOTAL UNFUNDED ACTUARIAL ACCRUED LIABILITY					307,504,737	

[1] Initial Unfunded Actuarial Liability liquidated 6/30/2006.

NOTE: Effective July 1, 2013, Actuarial Valuation Rate changed from 7.5% to 7.0%.

EXHIBIT 2

FINANCIAL SUMMARY
STATEMENT OF REVENUES AND EXPENSES
FOR FISCAL YEAR ENDING

		---------Prior Years---------	
	June 30, 2016	June 30, 2015	June 30, 2014
OPERATING REVENUES:			
1. Contribution Income			
Member	$ 7,106,355	$ 5,445,928	$ 4,564,590
MV Fees	4,816,916	3,143,187	3,405,480
Appropriations	50,063,524	49,154,872	38,434,645
Insurance Premium Tax	1,500,000	1,500,000	1,500,000
2. Other Income			
Transfers/Purchases	2,763,170	1,970,101	2,147,984
Miscellaneous	27,569	263,589	161,982
TOTAL CONTRIBUTIONS	66,277,534	61,477,677	50,214,681
3. Investment Income			
Investments	-9,163,589	20,710,059	95,717,680
Less, Manager fees	-1,634,253	-1,653,372	-1,521,261
Custody Fees	-127,372	-126,311	-116,667
TOTAL INVESTMENT INCOME	-10,925,214	18,930,376	94,079,752
4. Total Revenues	55,352,320	80,408,053	144,294,433
OPERATING EXPENSES:			
1. General Administration	711,463	667,937	590,854
Other Expenses	35,226	31,694	31,831
2. Benefits Paid			
a) Pension Benefits	42,425,750	43,142,722	41,627,979
b) Transfers Out	10,207	0	107,247
c) Return of Contributions	62,964	233,029	273,577
TOTAL BENEFITS PAID	42,498,921	43,375,751	42,008,803
3. Total Expenses	43,245,610	44,075,382	42,631,488
NET INCREASE:	12,106,710	36,332,671	101,662,945

EXHIBIT 2 (Continued)
Financial Summary

FINANCIAL SUMMARY
STATEMENT OF ASSETS
FOR FISCAL YEAR ENDING

ASSETS	June 30, 2016	Prior Years: June 30, 2015	Prior Years: June 30, 2014
Cash Equivalents	$ 170,508	$ 2,399,397	$ 1,825,104
Short-term investments	59,612,837	28,996,938	25,546,562
Domestic fixed income	106,402,726	101,580,311	102,662,098
International fixed income	21,827,473	20,802,779	22,047,052
Domestic equity	265,405,469	276,602,602	278,099,788
Developed international equity	75,822,679	85,908,779	76,577,037
Emerging market equity	42,974,918	43,968,973	36,087,121
Alternative investments	97,192,394	97,301,025	78,329,881
Properties (at cost)	1,273,288	1,286,901	1,309,332
Other assets	1,018	1,018	1,018
Receivables (-) Payables	-474,282	-645,431	308,617
Deferred Outflows (-) Inflows	214,141	113,167	n/a
TOTAL ASSETS - Market Value	670,423,169	658,316,459[2]	622,793,610
- Valued at Cost	575,639,203	530,055,655	474,441,362
INVESTMENT YIELD:			
Actuarial Value	6.23%	10.66%	12.48%
DROP Account Yield[1]	5.73%	10.16%	11.98%
Market Value	-1.63%	3.00%	17.93%
SIDE FUND ACCOUNTS:			
Experience Account	3,963,595	12,416,791	12,069,552

ACTUARIAL VALUE OF ASSETS Developed as the Market Value, less the sum of the weighted deferrals of the unrealized gains/losses relative to the valuation rate.

	wt.	June 30, 2016	June 30, 2015	June 30, 2014
Total Market Value		670,423,169	659,126,281[2] (prior to restatement)	622,793,610
Minus,				
Weight x (G/L) deferral	wt.	deferral	deferral	deferral
Plan Year - 3	80%	29,184,592	-31,235,919	53,783,958
Plan Year - 2	60%	57,344,656	29,184,592	-31,235,919
Plan Year - 1	40%	-25,258,982	57,344,656	29,184,592
Plan Year (current)	20%	-57,851,897	-25,258,982	57,344,656
Gross Actuarial Value of Assets		703,085,295	639,500,009	561,144,700
Less, Side Fund Accounts		-3,963,595	-12,416,791	-12,069,552
Valuation Assets		699,121,700	627,083,218	549,075,148

[1] Effective 7/1/2003 new DROP Accounts are credited with Money Market rates.
[2] Market Value was restated to include GASB 67 recognition of Net Pension Liability, Deferred Outflows and Deferred Inflows. The development of the actuarial value of assets was not restated.

EXHIBIT 3

CENSUS DATA

GENERAL COMMENTS

The data contained in this valuation is summarized on the following pages with exceptions noted below. The profile depicted in the cellular graphs represents the census data as of June 30^{th}, which serves as the basis for determining costs and liabilities. Active members are allocated to cells based upon attained age and years of service. Retirees and Survivors are allocated to cells based upon attained age and years elapsed since retirement or commencement of benefits.

The validity of the results of any actuarial valuation is dependent upon the accuracy of the data base. Prior to processing, suspicious data and data containing errors were purged from the data base and processed separately based on error types such as:

- missing sex code
- missing or invalid date of birth
- missing or invalid date of employment
- missing or invalid salary
- invalid retirement dates

Records with missing or invalid data are resubmitted to LSPRS for correction before processing.

Salary data contained in the profiles and valuation report may exceed the sums reported by internal audit due to salary annualization. In the valuation process, membership data with fractional service annualizes the salary in the first year of employment. Retiree data reflects the benefit amount in pay status on the first day of the next fiscal year.

Following a review of the submitted data, with consideration for prior year's data, it appeared to be of sufficient quality and consistency for preparation of this report. The following is a summary of the data submitted:

	------ June 30 ------		
	---2016--- Census	---2015--- Census	---2014--- Census
Active Members (hired before 1/01/2011)	873	883	902
Active Members (hired after 12/30/2010)	166	106	52
Active Members (after DROP participation)	2	2	2
Regular Retirees	813	826	843
Disability Retirees	69	62	62
Survivors	338	336	324
Vested & Reciprocals	41	41	34
TOTAL	2,302	2,256	2,219

MEMBERSHIP PROFILE
CATEGORIZED BY AGE AND YEARS EMPLOYED

LOUISIANA STATE POLICE
ACTIVE MEMBERS
HIRED BEFORE 1/1/2011

CELLS DEPICT - MEMBER COUNT
TOTAL SALARY

VALUATION DATE 6/30/2016

Age		YEARS EMPLOYED (0-1)	[1-5)	[5-10)	[10-15)	[15-20)	[20-25)	[25-30)	[30-35)	[35-)	Total
[0-19)	count	0	0	0	0	0	0	0	0	0	0
	salary	0	0	0	0	0	0	0	0	0	0
[20-24)	count	0	0	0	0	0	0	0	0	0	0
	salary	0	0	0	0	0	0	0	0	0	0
[25-29)	count	0	0	4	0	0	0	0	0	0	4
	salary	0	0	219643	0	0	0	0	0	0	219643
[30-34)	count	0	1	48	19	0	0	0	0	0	68
	salary	0	47178	2705523	1172912	0	0	0	0	0	3925613
[35-39)	count	0	0	40	82	28	0	0	0	0	150
	salary	0	0	2256074	5331753	1878675	0	0	0	0	9466502
[40-44)	count	0	0	14	53	101	44	0	0	0	212
	salary	0	0	774023	3499089	7602283	3917139	0	0	0	15792534
[45-49)	count	0	0	7	26	64	153	26	0	0	276
	salary	0	0	404726	1651016	5015336	14046116	2725669	0	0	23842863
[50-54)	count	0	0	5	9	14	56	43	4	0	131
	salary	0	0	277232	590111	1113257	5156011	4476968	376357	0	11989936
[55-59)	count	0	0	0	1	6	8	12	1	0	28
	salary	0	0	0	65809	490147	706954	1263158	130053	0	2656121
[60-64)	count	0	0	0	0	1	1	2	0	0	4
	salary	0	0	0	0	81107	93829	197304	0	0	372240
[65-69)	count	0	0	0	0	0	0	0	0	0	0
	salary	0	0	0	0	0	0	0	0	0	0
[70-74)	count	0	0	0	0	0	0	0	0	0	0
	salary	0	0	0	0	0	0	0	0	0	0
TOTALS	count	0	1	118	190	214	262	83	5	0	873
	salary	0	47178	6637221	12310690	16180805	23920049	8663099	506410	0	68265452

AVERAGES --- Attained Age 44.33
Service Years 17.67
Average Salary 78,196

MEMBERSHIP PROFILE
CATEGORIZED BY AGE AND YEARS EMPLOYED

LOUISIANA STATE POLICE
ACTIVE MEMBERS
HIRED AFTER 12/31/2010

CELLS DEPICT - MEMBER COUNT
TOTAL SALARY

VALUATION DATE 6/30/2016

Age	(0-1)	[1-5)	[5-10)	[10-15)	[15-20)	[20-25)	[25-30)	[30-35)	[35-)	Total
[0-19)	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
[20-24)	7	5	0	0	0	0	0	0	0	12
	306964	231651	0	0	0	0	0	0	0	538615
[25-29)	19	23	7	1	0	0	0	0	0	50
	834043	1067341	326002	47178	0	0	0	0	0	2274564
[30-34)	14	18	9	4	0	0	0	0	0	45
	583495	840245	427935	177601	0	0	0	0	0	2029276
[35-39)	12	14	6	4	0	0	0	0	0	36
	487910	657925	280950	184580	0	0	0	0	0	1611365
[40-44)	4	2	1	3	3	0	0	0	0	13
	97379	93385	47014	174828	139917	0	0	0	0	552523
[45-49)	2	2	2	0	1	1	0	0	0	8
	88240	93643	98388	0	47014	71113	0	0	0	398398
[50-54)	2	0	0	0	0	0	0	0	0	2
	88049	0	0	0	0	0	0	0	0	88049
[55-59)	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
[60-64)	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
[65-69)	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
[70-74)	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
TOTALS										
count	60	64	25	12	4	1	0	0	0	166
salary	2486080	2984190	1180289	584187	186931	71113	0	0	0	7492790

AVERAGES --- Attained Age 33.04
Service Years 3.58
Average Salary 45,137

*Note: "Years Employed" may reflect transferred service from other Louisiana public retirement systems.

MEMBERSHIP PROFILE
CATEGORIZED BY AGE AND YEARS EMPLOYED

LOUISIANA STATE POLICE
ACTIVE AFTER DROP

CELLS DEPICT - MEMBER COUNT
TOTAL SALARY
DROP BENEFITS

VALUATION DATE 6/30/2016

Age	(0-1)	[1-2)	[2-3)	[3-4)	[4-5)	[5-10)	[10-15)	[15-20)	[20-)	Total
[0-34)	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
[35-39)	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
[40-44)	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
[45-49)	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
[50-54)	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
[55-59)	0	0	0	0	0	1	0	0	0	1
	0	0	0	0	0	124017	0	0	0	124017
	0	0	0	0	0	66696	0	0	0	66696
[60-64)	0	0	0	0	0	1	0	0	0	1
	0	0	0	0	0	87460	0	0	0	87460
	0	0	0	0	0	40284	0	0	0	40284
[65-69)	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
[70-74)	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
TOTALS										
count	0	0	0	0	0	2	0	0	0	2
salary	0	0	0	0	0	211477	0	0	0	211477
benefit	0	0	0	0	0	106980	0	0	0	106980

AVERAGES --- Attained Age 60.05
Post Drop Years 8.30
Average Salary 105,739
Annual Benefit 53,490

*Note: Years employed may reflect transferred service from other Louisiana public retirement systems.

MEMBERSHIP PROFILE
CATEGORIZED BY AGE AND YEARS RETIRED

LOUISIANA STATE POLICE
REGULAR RETIREES

CELLS DEPICT - MEMBER COUNT
TOTAL BENEFITS

VALUATION DATE 6/30/2016

Age		YEARS RETIRED (0-1)	[1-2)	[2-3)	[3-4)	[4-5)	[5-10)	[10-15)	[15-20)	[20-)	Total
[0-39)		0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0
[40-44)		0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0
[45-49)		1	1	4	3	0	0	0	0	0	9
		70968	67380	266484	170880	0	0	0	0	0	575712
[50-54)		2	8	7	10	9	7	0	0	0	43
		52176	522720	331020	494976	480204	507060	0	0	0	2388156
[55-59)		0	1	5	11	12	62	13	0	0	104
		0	52296	315180	721140	746640	3662100	748224	0	0	6245580
[60-64)		0	1	1	4	11	55	56	12	27	167
		0	50472	71748	285504	624924	3590280	2925432	352632	519228	8420220
[65-69)		0	0	0	0	2	21	57	36	94	210
		0	0	0	0	132504	1540788	2998968	1171020	1989384	7832664
[70-74)		0	0	0	0	0	2	11	21	99	133
		0	0	0	0	0	99792	681672	769992	2388684	3940140
[75-79)		0	0	0	0	0	0	0	6	68	74
		0	0	0	0	0	0	0	220812	1666296	1887108
[80-84)		0	0	0	0	0	0	0	0	53	53
		0	0	0	0	0	0	0	0	1140144	1140144
[85-89)		0	0	0	0	0	0	0	0	15	15
		0	0	0	0	0	0	0	0	261876	261876
[90-99)		0	0	0	0	0	0	0	0	5	5
		0	0	0	0	0	0	0	0	78768	78768
TOTALS											
count		3	11	17	28	34	147	137	75	361	813
benefit		123144	692868	984432	1672500	1984272	9400020	7354296	2514456	8044380	32770368

AVERAGES --- Attained Age 67.50
Years Retired 18.45
Annual Benefit 40,308

*Note: Profiles do not include the permanent benefit increase granted in ACT 93 effective 7/01/2016.

MEMBERSHIP PROFILE
CATEGORIZED BY AGE AND YEARS RETIRED

LOUISIANA STATE POLICE
DISABILITY RETIREES

CELLS DEPICT - MEMBER COUNT
TOTAL BENEFITS

VALUATION DATE 6/30/2016

Age		(0-1)	[1-2)	[2-3)	[3-4)	[4-5)	[5-10)	[10-15)	[15-20)	[20-)	Total
[0-39)	count	2	1	0	0	0	0	0	0	0	3
	benefits	76140	22956	0	0	0	0	0	0	0	99096
[40-44)	count	2	1	1	0	0	1	0	0	0	5
	benefits	71700	35868	46296	0	0	45756	0	0	0	199620
[45-49)	count	2	0	0	0	0	3	0	1	0	6
	benefits	63840	0	0	0	0	106752	0	37392	0	207984
[50-54)	count	0	0	0	1	1	2	2	2	0	8
	benefits	0	0	0	38652	39276	82980	45780	61596	0	268284
[55-59)	count	0	0	0	0	0	0	1	2	1	4
	benefits	0	0	0	0	0	0	38688	45840	20172	104700
[60-64)	count	0	0	0	0	0	0	0	0	12	12
	benefits	0	0	0	0	0	0	0	0	266484	266484
[65-69)	count	0	0	0	0	0	0	0	0	15	15
	benefits	0	0	0	0	0	0	0	0	344472	344472
[70-74)	count	0	0	0	0	0	0	0	1	9	10
	benefits	0	0	0	0	0	0	0	25572	201924	227496
[75-79)	count	0	0	0	0	0	0	0	0	3	3
	benefits	0	0	0	0	0	0	0	0	79116	79116
[80-84)	count	0	0	0	0	0	0	0	0	3	3
	benefits	0	0	0	0	0	0	0	0	67668	67668
[85-89)	count	0	0	0	0	0	0	0	0	0	0
	benefits	0	0	0	0	0	0	0	0	0	0
[90-99)	count	0	0	0	0	0	0	0	0	0	0
	benefits	0	0	0	0	0	0	0	0	0	0
TOTALS	count	6	2	1	1	1	6	3	6	43	69
	benefit	211680	58824	46296	38652	39276	235488	84468	170400	979836	1864920

AVERAGES --- Attained Age 61.26
Years Retired 22.98
Annual Benefit 27,028

*Note: Profiles do not include the permanent benefit increase granted in ACT 93 effective 7/01/2016.

MEMBERSHIP PROFILE
CATEGORIZED BY AGE AND YEARS RETIRED

LOUISIANA STATE POLICE
SURVIVOR BENEFITS

CELLS DEPICT - MEMBER COUNT
TOTAL BENEFITS

VALUATION DATE 6/30/2016

Age		(0-1)	[1-2)	[2-3)	[3-4)	[4-5)	[5-10)	[10-15)	[15-20)	[20-)	Total
[0-39)	count	0	0	3	0	0	2	0	0	2	7
	benefit	0	0	115548	0	0	106176	0	0	35508	257232
[40-44)	count	0	0	0	0	0	0	0	1	0	1
	benefit	0	0	0	0	0	0	0	6972	0	6972
[45-49)	count	0	0	1	0	0	1	0	0	1	3
	benefit	0	0	60660	0	0	22200	0	0	21576	104436
[50-54)	count	1	0	0	2	0	1	2	1	1	8
	benefit	30516	0	0	51180	0	14676	34632	8964	9600	149568
[55-59)	count	1	0	0	3	3	4	2	2	8	23
	benefit	13980	0	0	181356	95712	130884	41496	36384	95004	594816
[60-64)	count	2	1	0	0	1	3	1	0	22	30
	benefit	51720	62868	0	0	70392	60468	12804	0	326880	585132
[65-69)	count	3	2	1	3	1	1	5	8	30	54
	benefit	92196	63120	46920	103476	50412	26232	185484	181656	482652	1232148
[70-74)	count	4	0	0	0	1	1	0	1	46	53
	benefit	93912	0	0	0	64176	44112	0	47736	866304	1116240
[75-79)	count	0	0	0	2	1	2	0	1	51	57
	benefit	0	0	0	85968	31152	80052	0	38328	1078944	1314444
[80-84)	count	0	0	0	0	0	0	0	0	49	49
	benefit	0	0	0	0	0	0	0	0	946992	946992
[85-89)	count	0	0	0	0	0	0	1	0	30	31
	benefit	0	0	0	0	0	0	72	0	537768	537840
[90-99)	count	0	0	0	0	0	0	0	0	22	22
	benefit	0	0	0	0	0	0	0	0	385680	385680
TOTALS	count	11	3	5	10	7	15	11	14	262	338
	benefit	282324	125988	223128	421980	311844	484800	274488	320040	4786908	7231500

AVERAGES --- Attained Age 73.04
Years Retired 29.51
Annual Benefit 21,395

*Note: Profiles do not include the permanent benefit increase granted in ACT 93 effective 7/01/2016.

MEMBERSHIP PROFILE
CATEGORIZED BY AGE AND YEARS EMPLOYED

LOUISIANA STATE POLICE
TERM-VESTED/RECIPROCAL

CELLS DEPICT - MEMBER COUNT
TOTAL BENEFITS

VALUATION DATE 6/30/2016

Age		YEARS EMPLOYED (0-1)	[1-5)	[5-10)	[10-15)	[15-20)	[20-25)	[25-30)	[30-35)	[35-)	Total
[0-19)	count	0	0	0	0	0	0	0	0	0	0
	benefits	0	0	0	0	0	0	0	0	0	0
[20-24)	count	0	0	0	0	0	0	0	0	0	0
	benefits	0	0	0	0	0	0	0	0	0	0
[25-29)	count	0	0	0	0	0	0	0	0	0	0
	benefits	0	0	0	0	0	0	0	0	0	0
[30-34)	count	0	0	0	0	0	0	0	0	0	0
	benefits	0	0	0	0	0	0	0	0	0	0
[35-39)	count	0	0	0	3	1	0	0	0	0	4
	benefits	0	0	0	52956	26328	0	0	0	0	79284
[40-44)	count	0	0	0	10	4	0	0	0	0	14
	benefits	0	0	0	211524	144288	0	0	0	0	355812
[45-49)	count	0	0	1	11	5	2	3	0	0	22
	benefits	0	0	8244	221868	176436	84024	74064	0	0	564636
[50-54)	count	0	0	0	0	0	0	0	0	0	0
	benefits	0	0	0	0	0	0	0	0	0	0
[55-59)	count	0	0	0	1	0	0	0	0	0	1
	benefits	0	0	0	13332	0	0	0	0	0	13332
[60-64)	count	0	0	0	0	0	0	0	0	0	0
	benefits	0	0	0	0	0	0	0	0	0	0
[65-69)	count	0	0	0	0	0	0	0	0	0	0
	benefits	0	0	0	0	0	0	0	0	0	0
[70-74)	count	0	0	0	0	0	0	0	0	0	0
	benefits	0	0	0	0	0	0	0	0	0	0
TOTALS	count	0	0	1	25	10	2	3	0	0	41
	benefit	0	0	8244	499680	347052	84024	74064	0	0	1013064

AVERAGES --- Attained Age 45.13
Service Years 14.77
Annual Benefit 24,709

EXHIBIT 4

SUMMARY OF THE STATE POLICE
RETIREMENT SYSTEM'S PLAN PROVISIONS

EFFECTIVE DATE:

Legislative Act No. 293 of 1938

EMPLOYEE:

Sworn, commissioned law enforcement officers of the Division of State Police of the Department of Public Safety who have completed the State Police Training Academy Course of Instruction; those members employed on the Effective Date of the Fund, those subsequently employed who did not withdraw employee contributions; the secretary and deputy secretary of the Department of Public Safety, provided they are sworn, commissioned State Police officers as defined above.

EMPLOYER:

Division of State Police of the Department of Public Safety of the State of Louisiana

CREDITABLE SERVICE:

1. Service as defined as a member of the retirement system.

2. Police duty qualifying as having contributed to the war effort during World War II.

3. Credit for military service, not to exceed four years as follows:

   a) Members employed prior to September 8, 1977 receive a maximum of three years free military service credit. Members may purchase eligible service credit in excess of three years.
   b) Members employed on or after September 8, 1977 but prior to September 8, 1978 were eligible to purchase military service credit after one year of employment. Military service credit in a) and b) applied to retirement eligibility.
   c) Members employed on or after September 8, 1978 were eligible to purchase military service credit; however, such service did not apply to retirement eligibility.
   d) Upon retirement, all unused accumulated sick and annual leave.

EMPLOYEE CONTRIBUTIONS:

7% of earnable compensation.
8% effective July 1, 1989.
Currently,
8.5% effective October 1, 2009 if hired before 1/1/2011.
9.5% if hired after 12/31/2010.

EMPLOYER CONTRIBUTIONS:

State contributions each fiscal year consists of various fees and taxes collected by the Motor Vehicle Office within the Department of Public Safety.

Effective June 29, 2001 - 1.5M from Insurance Premium Tax (see RS 22:1419(A)(3)).

EXHIBIT 4 (Continued)
Plan Provisions

EARNABLE COMPENSATION:

Full salary earned by an employee in qualified service.

AVERAGE FINAL COMPENSATION (FAC):

1. For members employed prior to September 8, 1978
   Average annual earned compensation for the highest 12 successive or joined months prior to Retirement or Date of Death.
2. For members employed on or after September 8, 1978
   Average annual earned compensation for the highest 36 successive or joined months prior to Retirement or Date of Death.
3. For members employed after December 31, 2010
   Average annual earned compensation for the highest 60 successive or joined months prior to Retirement or Date of Death.

NORMAL RETIREMENT:

ELIGIBILITY:

1. Attained Age 50 with 10 years of creditable service
2. Employed prior to September 8, 1978, 20 years of service regardless of age
3. Employed after September 7, 1978, 25 years of service regardless of age.
4. Hired after 12/31/2010 (1)-(3) are replaced with;
   - 25 years of service regardless of age.
   - 12 years of service at age 55
   - 20 years of service at any age, with benefits actuarially reduced.

Note: Compulsory retirement at age 65
(except for the Secretary and Deputy Secretary of the Department of Public Safety).

BENEFIT:

3 1/3% of FAC for each year of service

Note: Maximum benefit accrual cannot exceed 100% of FAC.

ANNUITY FORM:

An Annuity payable for the lifetime of the member

An Initial Benefit Option is an available option to retirees who have not participated in DROP. The election pays up to 36 months of regular benefits in a lump-sum, with the monthly annuity, actuarially reduced for life.

An increasing annuity option is available and permits the member to make an irrevocable election at retirement to receive a reduced benefit which increases 2.5% annually. The increases begin on the 1st 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 is not available to members electing BACK-DROP

EXHIBIT 4 (Continued)
Plan Provisions

DISABILITY BENEFITS:

ELIGIBILITY:

1. Non-service related total disability - 5 years of service;
   - 10 years if hired after December 30, 2010.
2. Service related total disability - no service requirement

BENEFIT:

1. Disabled members eligible will receive a benefit equal to fifty percent of average salary, plus one and one-half percent of average salary for each year of service in excess of ten years.
2. Greater of 100% of FAC, 75% if hired after 12/31/2010, or 36,000 for loss of sight or hearing, permanent damage to brain or spinal cord, paralysis, loss of organ, or loses the use of a limb.

DEATH BENEFITS:

ELIGIBILITY:

1. Death of an active member in the line of duty
2. Death of an active member not in the line of duty
3. Death of a retiree or terminated vested member

BENEFIT:

1. Surviving Spouse receives 75% of FAC
   A. If no surviving spouse, eligible children under the age of 18 receive the following benefit to be shared equally:

Number of Children	Percentage Average Monthly Salary
1	30%
2	40%
3	50%
4	60%

   Benefit ceases at age 18 unless child is handicapped or mentally handicapped. Students may have benefits extended to age 23.

   B. If no surviving spouse and no eligible children, dependent parent(s) will receive 25% of the FAC.
   C. If hired after 12/31/2011, spouse, eligible children share 80% of FAC

2. Surviving Spouse receives benefits according to the following schedule:

Years of Service at Death	Percentage Average Monthly Salary
5 or less	25%
5 - 10	30%
10 - 15	40%
15 - 20	50%
20 or more	Member's Accrued Benefit

EXHIBIT 4 (Continued)
Plan Provisions

A. If no surviving spouse, eligible children receive benefits in accordance with section 1(A) above.
B. If no surviving spouse and no surviving eligible children, dependent parent(s) Receive benefits in accordance with section 1(B) above.

3. Surviving spouse, who was married and living with the member at least two years prior to the date of death, eligible surviving children or the dependent parent(s) shall receive the same monthly pension which was paid to the retired member in the following order of priority: Surviving Spouse, Eligible Children, Dependent Parent(s)

Note: Under all survivor benefits, the spouse forfeits benefits upon remarriage if remarriage occurs prior to age 55. Subsequent monthly benefit payments will be made to eligible surviving children or dependent parent(s).

VESTING:

All members are entitled to a refund of employee contributions in excess of benefits received upon termination or death of the member or survivor(s).

Any member employed on or after September 8, 1978 who is vested for retirement benefits by virtue of 20 years of service but less than attained age 50, who terminates employment will be vested for disability benefits during the deferred period. This provision was deleted in accordance with Act 679 of the 1991 Legislative Session.

COST OF LIVING INCREASES:

ACT 399 of 2014 establishes an Experience Account which is credited with 50% of the investment experience gain in excess of $15 million (indexed), but subject to maximum accumulation limitations based upon the Plan’s funded percentage, and debited with 50% of the net investment experience loss. Balances in the experience account accrue interest at the average actuarial yield for the System portfolio. Once the balance of the Experience Account accumulates a sum sufficient to grant retirees a COLA/PBI, the Board may grant the COLA/PBI on benefits up to $60,000 (indexed), not to exceed the lesser of the CPI-U or the funded level percentage attained, provided a COLA/PBI had not been granted in the prior year. Benefits are restricted to disability retirees and those retirees and beneficiaries who have attained the age of 60 and have been retired for at least one year. Maximum limitations are outlined in ACT 399 of 2014.

DEFERRED RETIREMENT OPTION PLAN:(To be phased out & replaced with BACK-DROP eff. 10/1/2009)

Instead of terminating employment and accepting a service retirement allowance, any members who have met the following eligibility requirements may elect to participate in the Deferred Retirement Option Plan (DROP) and defer receipt of benefits.

ELIGIBILITY:

Any Active member who is eligible to receive a service retirement allowance may begin participation on the eligibility date for a period not to exceed the 3rd anniversary of retirement eligibility.

EXHIBIT 4 (Continued)
Plan Provisions

BENEFIT:

Upon termination of employment at the end of or prior to the end of the specified period of participation, 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) any other option available to a retiree

If a participant dies during the period of participation, a lump sum payment equal to his account balance shall be paid to the beneficiary, or if none, to the estate; in addition, normal survivor benefits payable to survivors of retirees shall be payable.

If employment is not terminated after 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

Upon termination of employment, the benefit payments indicated above shall be paid. The participant shall receive a supplemental benefit based on additional service rendered since termination of participation in the fund subject to the following:

(1) Members employed prior to September 8, 1978
  (a) If additional service was less than 12 months, average compensation figure used to calculate original benefit.
  (b) If additional service was 12 or more months, the average compensation figure used to calculate the additional benefit shall be based on compensation during the period of additional service.

(2) Members employed on or after September 8, 1978
  (a) If additional service was less than 36 months, average compensation figure used to calculate additional benefit shall be that used to calculate original benefit.
  (b) If additional service was 36 or more months, the average compensation figure used to calculate the additional benefit shall be based on compensation during the period of additional service.

Effective 10/1/2009 active members who have not participated in the regular DROP program may elect, at retirement, to participate in BACK-DROP. The basic difference in the two plans is that BACK-DROP allows an eligible member, at retirement, to look back up to three years and make an election to have entered DROP, based on the service and final average compensation that existed at that time. Benefit adjustments are made to the benefit accruals and employee contributions that occurred during the DROP period.

NOTE: DROP Accounts shall earn interest following termination of DROP at a rate .5% below the actuarial rate earned on the System's investment portfolio.

Effective 7/1/2003 new DROP accounts are credited with Money Market rates or self directed accounts approved by the Board of Trustees.

EXHIBIT 5

ACTUARIAL COST METHODS AND ASSUMPTIONS

COST METHOD:

La. R.S. 11:22(B.)(12), prescribes the "Entry Age Normal" cost method to be used to calculate the funding requirements of the retirement system. Under this cost method, the actuarial present value of projected benefits of each individual included in the valuation is allocated on a level basis as percentage of annual payroll for each participant between entry age and assumed retirement age(s). 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 excess of the actuarial present value of future normal costs is called the actuarial accrued liability.

The valuation and measurement of all events occur at mid-plan year.

ASSET VALUATION:

For the Plan Year ending prior to July 1, 1999 equities are valued at a four year weighted average. The computation of the actuarial value of assets is the sum of the bonds at amortized cost, less a weighted average of unrealized losses or (gains) in the market value of equities, plus the market value of Equities.

For the Plan Year beginning July 1, 1999 the Board of Trustees approved a change in the Asset Valuation Method which adjusts the market value of assets to a four year weighted average in the unrealized gain or loss in the value of all assets. This value was subject to Corridor Limits of 80% to 120% of the Market Value of Assets.

For the Plan Year beginning July 1, 2013 the Board of Trustees approved a change in the Asset Valuation Method which adjusts the market value of assets to a five year weighted average of the unrealized gain or loss in the value of all assets relative to the valuation rate. This value is subject to Corridor Limits of 85% to 115% of the Market Value of Assets.

ACCOUNTING DISCLOSURE:

The Governmental Accounting Standards Board Statement No. 25 and No. 67 requires disclosure of certain actuarial liabilities for Public Employee Retirement Systems. The disclosures illustrated in Exhibit 6 were developed using the Entry Age Normal cost method. The statement of assets provided by the independent auditors was a copy of 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 to the extent that any difference in reporting affects the employer's contribution rate or the yield to the Actuarial Value of Assets.

ACTUARIAL ASSUMPTIONS:

The Retirement System is required to conduct an experience study every five years, but the scope of such a study is not necessarily limited to a five year period. The five year observation period (2008-2012) ran consecutive to the prior (2003-2007) study. The Board of Trustees approved the recommended changes in actuarial assumptions on May 21, 2013, effective July 1, 2013. A copy of the Study containing a detailed development of the assumptions with recommendations is available at the retirement office

EXHIBIT 5 (Continued)
Cost Methods & Assumptions

MORTALITY ASSUMPTIONS:

The (2008-2012) Experience Study updated preretirement deaths and postretirement life expectancies in accordance with the experience of the RP-2000 Sex Distinct Mortality Table to the RP-2000 Sex Distinct Mortality Table with mortality improvements projected to 2025.

DISABILITY ASSUMPTION:

Rates of total and permanent disability were projected in accordance in accordance with the experience of the RP-2000 Sex Distinct Disability Mortality Table which remains unchanged from the prior experience study.

RETIREMENT/DROP ASSUMPTION:

The (2008-2012) Experience Study updated retirement rates are based on age and service eligibility requirements for normal retirement benefits and are illustrated in the rate tables at the end of this exhibit.

Back-DROP is viewed as an alternative form of retirement benefit elected at the date of retirement. DROP utilization probabilities are based on the most recent Experience.

Back Drop Utilization

1 year	2 year	3 year
.0993	.0496	.1206

TERMINATION ASSUMPTIONS:

Voluntary termination or withdrawal rates are based upon the most recent Experience (2008-2012) Study and are illustrated in the rate tables at the end of this exhibit.

Generally during the first five years of employment, there is a higher incidence of voluntarily terminating. In prior valuations this “select period” adjusted the probability of termination using multipliers applied to the “ultimate rate”. Over the last two Experience Study observation periods (2003-2012), the select rates have converged with the ultimate rates. Therefore, the select rate multipliers have been eliminated.

For members terminating with less than twenty (20) years of service, it is assumed that 80% will withdraw their accumulated employee contributions. For members terminating with twenty (20) or more years of service, it is assumed that only 30% will withdraw their accumulated employee contributions. Those not receiving a withdrawal are assumed to receive a deferred vested retirement benefit.

SALARY GROWTH:

The (2008-2012) Experience Study updated the salary growth rate to reflect more moderate longevity increases and inflation at 2.75%. The annual salary growth rates are based upon the members’ years of service illustrated on page 31.

Note:

“Annual Payroll” is the annualized rate of pay at the beginning of the fiscal year.
“Covered Payroll” is the actual salary for which contributions were paid in a fiscal year.

EXHIBIT 5 (Continued)
Cost Methods & Assumptions

FAMILY STATISTICS:

The composition of the Family was based on Age Specific Fertility Rates from the 1983 Vital Statistics of the United States. 80% of the membership was assumed to be married with the wife assumed to be three (3) years younger than the husband. Sample rates are as follows:

Age at Death	Number of Minor Chn.	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

REMARRIAGE:

Annuities payable to a spouse, which cease upon death or remarriage, were taken from a Technical Note for the Construction of Widow's Annuities. The Remarriage and Mortality rates used to develop these annuities were based on the graduated rates from the Mortality and Remarriage Experience for Widow's Beneficiaries under OASDI.

Accumulated Leave Policies:

Retirements are monitored to determine the amount of leave converted to service credit. Leave credit is accrued throughout the duration of the member’s career. The average service credit converted is expressed as a percentage increase of the accrued benefit as follows:

Troopers	3.0%

INVESTMENT EARNINGS:

For the 1990-1991 plan year, the Public Retirement Systems’ Actuarial Committee increased the valuation rate assumption to 7.5% from the system’s actuary recommended rate of 7.0%, net investment expenses. The (2008-2012) Experience Study recommended a reduction back to 7.0% based upon reductions in the inflation forecast at 2.75% and an overall reduction in Capital Market for the System’s portfolio.

ADMINISTRATIVE EXPENSES:

Act 94 of 2016 includes administrative expenses as a component of the employer contribution rate. Previously, administrative expenses were excluded from explicit funding rules and were treated annually as a contribution experience loss, amortized over thirty years.

COST OF LIVING:

Cost-of-living Raises or Permanent Benefit Increases (PBI) may be granted from the Experience Account provided there are sufficient funds needed to offset the increase in the actuarial liability and the plan has met the criteria and eligibility requirements outline by ACT 399 of 2014. COLA’s/PBI’s are considered Ad Hoc raises and therefore, no projections for future increases are considered in the liabilities.

ACTUARIAL TABLES AND RATES
Effective 7/1/2013

Age	- Death Rates - Male	Female	Disability Rates	Termination Rates	Retirement Rates	Dur	Salary Scale
18	.000196	.000132	.0020	.0250	.0000	1	1.1650
19	.000205	.000130	.0020	.0250	.0000	2	1.0700
20	.000214	.000128	.0020	.0250	.0000	3	1.0500
21	.000227	.000125	.0020	.0250	.0000	4	1.0500
22	.000238	.000126	.0020	.0250	.0000	5	1.0550
23	.000256	.000132	.0020	.0250	.0000	6	1.0550
24	.000271	.000138	.0020	.0250	.0000	7	1.0550
25	.000292	.000146	.0020	.0250	.0000	8	1.0550
26	.000325	.000158	.0020	.0250	.0000	9	1.0600
27	.000337	.000165	.0020	.0250	.0000	10	1.0600
28	.000347	.000174	.0020	.0250	.0000	11	1.0600
29	.000363	.000183	.0020	.0250	.0000	12	1.0500
30	.000392	.000205	.0020	.0250	.0000	13	1.0500
31	.000440	.000251	.0020	.0200	.0000	14	1.0500
32	.000496	.000286	.0020	.0200	.0000	15	1.0500
33	.000557	.000314	.0020	.0200	.0000	16	1.0450
34	.000619	.000338	.0020	.0200	.0000	17	1.0450
35	.000682	.000360	.0020	.0200	.0000	18	1.0450
36	.000742	.000380	.0020	.0200	.0000	19	1.0450
37	.000798	.000399	.0020	.0200	.0000	20	1.0450
38	.000829	.000420	.0020	.0150	.0000	21	1.0450
39	.000857	.000444	.0020	.0150	.0000	22	1.0450
40	.000883	.000484	.0020	.0150	.0000	23	1.0450
41	.000911	.000530	.0020	.0150	.0000	24	1.0450
42	.000945	.000584	.0020	.0150	.0000	25	1.0450
43	.000985	.000642	.0020	.0100	.0000	26	1.0450
44	.001033	.000705	.0020	.0100	.0000	27	1.0450
45	.001087	.000751	.0020	.0100	.0000	28	1.0450
46	.001136	.000797	.0020	.0100	.0000	29	1.0450
47	.001188	.000842	.0020	.0100	.1000	30	1.0450
48	.001243	.000911	.0020	.0100	.1000	31	1.0400
49	.001300	.000984	.0020	.0100	.1000	32	1.0400
50	.001358	.001092	.0020	.0100	.2500	33	1.0400
51	.001516	.001237	.0020	.0100	.2500	34	1.0400
52	.001609	.001419	.0020	.0100	.2500	35	1.0400
53	.001760	.001632	.0020	.0100	.2500	36	1.0400
54	.001929	.001885	.0020	.0100	.2500	37	1.0400
55	.002243	.002223	.0020	.0100	.2500	38	1.0400
56	.002667	.002658	.0020	.0100	.2500	39	1.0400
57	.003057	.003068	.0020	.0100	.5000	40	1.0400
58	.003523	.003461	.0020	.0100	.5000	41	1.0400
59	.003972	.003918	.0020	.0100	.5000	42	1.0400
60	.004508	.004460	.0020	.0100	.5000	43	1.0400
61	.005261	.005129	.0020	.0000	.5000	44	1.0400
62	.006002	.005873	.0020	.0000	.5000	45	1.0400
63	.007038	.006747	.0020	.0000	.9900	46	1.0400
64	.007929	.007604	.0020	.0000	.9900	47	1.0400
65	.008953	.008563	.0000	.0000	.9900	48	1.0400
66	.010389	.009664	.0000	.0000	.9900	49	1.0400
67	.011590	.010730	.0000	.0000	.9900	50	1.0400
68	.012562	.011861	.0000	.0000	.9900	51	1.0400
69	.013920	.013110	.0000	.0000	.9900	52	1.0400
70	.015219	.014770	.0000	.0000	.9900	53	1.0400
71	.016839	.015984	.0000	.0000	.9900	54	1.0400
72	.018697	.017778	.0000	.0000	.9900	55	1.0400
73	.020825	.019270	.0000	.0000	.9900	56	1.0400
74	.023233	.021358	.0000	.0000	.9900	57	1.0400

EXHIBIT 6

GASB STATEMENTS 67/68 DISCLOSURE

The Governmental Accounting Standards Board establishes financial reporting standards for state and local pension plans administered through trusts. The required actuarial disclosures are presented as follows;

STATEMENT OF EMPLOYERS' NET PENSION LIABILITY

	June 30, 2016	June 30, 2015
Total Pension Liability (TPL)	$ 1,006,626,437	$ 910,845,343
Plan Fiduciary Net Position	670,423,169	658,316,459
Employers Net Pension Liability (NPL)	336,203,268	252,528,884
NPL as a percentage of TPL	66.6%	72.3%
Covered Employee Payroll	82,032,742	64,414,071
Employers Net Pension Liability as a percentage of Covered Employee Payroll	409.8%	392.0%

SCHEDULE OF EMPLOYER CONTRIBUTIONS

Fiscal Year	Actuarial Required Contribution	Actual Contribution	Contribution Variance	Actual Salaries	Percent Contributed
2007	17,876,155	40,430,312	22,554,157	50,252,463	243.0
2008	15,633,237	18,237,039	2,603,802	57,607,413	116.7
2009	19,970,314	19,163,279	-807,035	61,488,650	96.0
2010	33,695,246	28,588,993	-5,106,253	68,118,675	85.0
2011	34,969,931	31,805,583	1,835,652	60,596,447	105.2
2012	36,701,300	37,233,697	532,397	58,083,482	101.5
2013	42,332,491	42,637,442	304,951	55,571,706	100.2
2014	41,369,523	43,340,125	1,970,598	53,629,417	104.8
2015	39,978,381	53,798,059	13,819,874	64,414,071	134.6
2016	39,852,001	56,380,440	16,528,439	82,032,742	141.5

SCHEDULE OF INVESTMENTS

	2016		2015	
	Cost	Market	Cost	Market
Short-term investments	$ 59,612,837	$ 59,612,837	$ 28,996,938	$ 28,996,938
Domestic fixed income	95,423,026	106,402,726	90,645,567	101,580,311
International fixed income	19,728,128	21,827,473	19,815,670	20,802,779
Domestic equity investment	193,782,777	265,405,469	178,365,692	276,602,602
Developed international equity	77,695,361	75,822,679	80,342,351	85,908,779
Emerging market equity	43,612,769	42,974,918	43,155,910	43,968,973
Alternative investments	84,599,632	97,192,394	84,768,653	97,301,025
Cash, Property, Receivables	1,184,673	1,184,673	3,155,052	3,155,052
Total	$ 575,639,203	$ 670,423,169	$ 529,245,833	$ 658,316,459

EXHIBIT 6 (Continued)
GASB Statements 67/68 Disclosure

ACTUARIAL ASSUMPTIONS

Actuarial assumptions for GASB disclosure may differ from the actuarial assumptions approved by the Board of Trustees for valuation purposes. The current valuation assumptions were adopted based upon the five year Experience Study ending June 30, 2012. Actuarial assumptions for GASB disclosure reflect current market trends; therefore there may be a variance in rates for mortality, inflation, salary growth and the discount rate. Disclosue differences, if any, are indicated as follows;

The discount rate for GASB disclosure was developed from a combination of the plan's investment consultant's (UBS) 2015 capital market assumptions and those consultants participating in the 2015 edition of the Horizon Actuarial Consultants "Survey of Capital Market Assumptions", plus the following considerations;

a) The 2015 twenty year economic forecasts for inflation is projected to be 2.30%
b) Investment management expenses adjust the gross rate by 25 basis points and are considered as an offset in the development of the discount rate.
c) COLA's are funded from up to 1/2 of investment gains in excess of the valuation rate. COLA's are not guaranteed, therefore there is no adjustment to the discount rate.
d) Based on the 2015 long term Capitol Market Assumptions published and the current Plan's portfolio Asset Allocation by asset class, the projected gross rate of returns net of investment expenses are indicated as follows;

ASSET CLASS	POLICY ALLOCATION	PROJECTED RETURN
Cash	2.50%	0.25%
Domestic Equity	40.00	8.05
International Equity	20.00	9.05
Domestic Fixed Income	10.00	2.85
International & High Yield	10.00	4.45
Alternative Investments	17.50	8.16
Total Fund	100.00%	7.29%

The discount rate used to measure the Total Pension Liability was 7.00%.

The projected cash flows used to develop the discount rate assumes active members would contribute the statutorily mandated employee contribution rate, and the employer would contribute the actuarial determined rate. Based on these assumptions, the plan's Fiduciary Net Position was projected to fully fund all projected future benefit payments for current members, with the employer's Net Pension Liability liquidated by 2023. Therefore, the long term expected rate of return was applied to all durations of projected benefit payments to determine the Total Pension Liability.

The sensitivity to the change in the Net Pension Liability calculated at the 7.00% discount rate, based upon a plus or minus 1% change in the rate, is as follows;

		7.00%	-1% @ 6.00%	+1% @ 8.00%
Employer' Net Pension Liability	(2015)	252,528,884	361,394,836	161,825,460
	(2016)	336,203,268	436,155,245	216,301,728

EXHIBIT 6 (Continued)
GASB Statements 67/68 Disclosure

STATEMENT OF CHANGES IN NET PENSION LIABILITY

	June 30, 2016	June 30, 2015
Total Pension Liability		
Service Cost	$ 21,782,979	$ 17,522,579
Interest	63,046,379	56,560,446
Changes in benefit terms	-	-
Changes in plan experience	53,450,657	42,197,523
Changes in assumptions/other	-	
Benefit payments	(42,498,921)	(43,375,751)
Net Change in Total Pension Liability	95,781,094	72,904,797
Total Pension Liability - Beginning	910,845,343	837,940,546
Total Pension Liability - Ending	1,006,626,437	910,845,343
Plan Fiduciary Net Position		
Contributions - employer	56,380,440	53,798,059
Contributions - employee	7,106,355	5,445,928
Net investment income	(10,925,214)	18,930,376
Transfers in (Misc)	2,790,739	2,233,690
Benefit payments	(42,498,921)	(43,375,751)
Administrative expenses	(711,463)	(701,823)
Other	(35,226)	(31,694)
Net Change in Plan Fiduciary Net Position	12,106,710	36,298,785
Plan Fiduciary Net Position - Beginning	658,316,459	622,017,674
Change in accounting principles	-	-
Plan Fiduciary Net Position - Ending	670,423,169	658,316,459
Net Pension Liability - Ending	336,203,268	252,528,884

NPL as a percentage of TPL	66.6%	72.3%
Covered Employee Payroll	82,032,742	64,414,071
Employers Net Pension Liability as a percentage of Covered Employee Payroll	409.8%	392.0%

EXHIBIT 6 (Continued)
GASB Statements 67/68 Disclosure

SCHEDULE OF PENSION AMOUNTS

	Net Pension Liability	Deferred Inflows	Deferred Outflows	Pension Expense
Pension Liability - Beginning	(252,528,884)		250,374	----------
Total pension liability factors				
Service cost	(21,782,979)	----------	----------	21,782,979
Interest	(63,046,379)	----------	----------	63,046,379
Changes in benefit terms		----------	----------	
Changes in plan experience	(53,450,657)		53,450,657	----------
Current year amortization	----------		(10,690,131)	10,690,131
2015 year amortization	----------		(8,439,505)	8,439,505
2014 year amortization	----------		(1,964,297)	1,964,297
Changes in assumptions/other	----------			----------
Current year amortization	----------			
2014 year amortization	----------		(1,580,907)	1,580,907
Benefit payments	42,498,921	----------	----------	(42,498,921)
NET CHANGE	(95,781,094)	----------	30,775,817	65,005,277
Plan fiduciary net position				
Contributions – employer	56,380,440	----------	(56,380,440)	----------
Contributions – employee	7,106,355	----------	----------	(7,106,355)
Net expected investment income	46,926,683	----------	----------	(46,926,683)
Changes in investment experience	(57,851,897)		57,851,897	----------
Current year amortization	----------		(11,570,379)	11,570,379
2015 year amortization			(5,051,796)	5,051,796
2014 year amortization	----------	11,468,931		(11,468,931)
Transfers in (Misc)	2,790,739	----------	----------	(2,790,739)
Benefit payments	(42,498,921)	----------	----------	42,498,921
Administrative expenses	(711,463)	----------	----------	711,463
Other	(35,226)	----------	----------	35,226
NET CHANGE	12,106,710	11,468,931	(15,150,718)	(8,424,923)
Pension Liability - Ending	(336,203,268)	11,468,931	15,875,472	56,580,354

Changes in the Total Pension Liability due to actual versus expected experience and differences resulting from changes in assumption are amortized over a period equal to the average remaining service period for members that are provided benefits from the plan. The amortization periods by year are indicated below. Changes in liability due to actual versus expected investment returns are amortized over the amortization period of the initial amortization year.

Plan Year	Average Service Life	Amortization Period	
2014	3.99	4	(rounded up)
2015	4.32	5	
2016	4.34	5	