

Hall Actuarial Associates

Charles G. Hall
F.C.A., M.A.A.A., A.S.A.
Enrolled Actuary

1624 LaSalle Parc Drive
Baton Rouge, La. 70806
(225) 928-7866

September 23, 2013

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

Gentlemen:

This report presents the results of the actuarial valuation of assets and liabilities, as well as funding requirements, for the Louisiana State Police Retirement System as of June 30, 2013.

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 regarding plan provisions, plan membership, plan assets 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 Fund's external auditors, Hientz & Macaloso LLC.

The present values shown herein have been estimated on the basis of the actuarial cost method 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 6, and represents my best estimates of the anticipated experience under the plan.

Board of Trustees
LSPRS
September 23, 2013

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

	<u>June 30, 2013</u>	-----Prior Years-----	
		<u>June 30, 2012</u>	<u>June 30, 2011</u>
I. Membership Census			
1) Retirees	1,234	1,222	1,207
2) Actives	933	979	1,033
3) Terminated Vested	37	34	31
4) DROP	0	0	2
II. Annual Benefits	\$ 39,770,484	\$ 38,290,020	\$ 36,484,176
III. Total Payroll	51,261,574	57,828,488	58,592,035
IV. Valuation Assets	474,235,310	415,965,659	401,146,109
V. Investment Yield ¹			
Market Value	<u>13.92%</u>	<u>0.53%</u>	<u>22.19%</u>
5 year avg.	4.80%	1.01%	3.97%
10 year avg.	6.15%	5.29%	4.94%
Actuarial Value ¹	<u>16.77%</u>	<u>3.17%</u>	<u>2.57%</u>
5 year avg.	2.85%	0.61%	1.65%
10 year avg.	5.30%	3.42%	3.28%
DROP Accounts ¹	16.27%	2.67%	2.07%
VI. Experience Account	18,164,123	0	0
VII. Cost to Fund Annual Pension Accruals (Normal Costs)	14,582,680 28.45%	15,422,066 26.66%	15,644,209 26.70%
VIII. Unfunded Actuarial Accrued Liability	323,604,196	343,686,976	339,111,263
IX. Funded Percentage	59.44%	54.76%	54.19%
X. Funding Requirements (Mid Year Payment)			
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, plus Premium Tax Allocation (Current Year)	76.2% 1,500,000	70.6% 1,500,000	59.7% 1,500,000
3) Projected Employer Rate, plus Premium Tax Allocation (Next Year)	75.3% 1,500,000	70.0% 1,500,000	68.6% 1,500,000

Funding Requirements measure the cost of benefits in effect on June 30, 2013.

¹Excludes Money Market DROP Accounts.

Board of Trustees
LSPRS
September 23, 2013

UNFUNDED LIABILITY

The Actuarial Valuation for the plan year ending June 30, 2013 discloses a decrease in the value of the plan's unfunded actuarial accrued liability due in part to a change in the Actuarial Value of Assets Method which altered the deferral of investment gains from prior years. The dollar funding requirements have decreased, but the funding as a percentage of payroll, has increased due to a gross reduction in payroll. It is generally appropriate for the current valuation process to disclose the source and causes of any significant changes in the plan from year to year. Changes that occur are generally the result of changes in actuarial assumptions, gains or losses resulting from actual experience which differs significantly from expected plan experience or some external force such as plan restructuring.

In accordance with Act 165 of the 1992 Legislative Session, beginning with the 1992-1993 plan year, the actuarial cost method was changed from the "Projected Unit Credit" to the "Entry Age Normal" cost method. Changes in actuarial methods, assumptions, benefit changes or plan experience are amortized as a level annuity. The amortization period is the later of the year 2029 or 30 years for changes after 6/30/2008 as provided for in Act 852 of the 2008 Legislative Session.

During the past fiscal year the actuarial accrued liability in excess of assets to pay benefits decreased from 343.7 million to a 323.6 million dollar deficit.

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 6/30/2012 \$ 343,686,976

INCREASES

Interest on Unfunded Liability	\$ 25,776,523
Experience Account allocation	18,164,123
5 Year Experience Study Loss	<u>26,210,291</u>
Incurred Increases	70,150,937

DECREASES

Experience Gain	17,151,040
Investment Gain	26,565,539
Asset Valuation Method Change	12,256,998
Employer Shortfall Gain	316,179
Net Amortization Payment	<u>33,943,961</u>
Incurred Decreases	90,233,717

Unfunded Liability 6/30/2013 \$ 323,604,196

Board of Trustees
LSPRS
September 23, 2013

Funding

The projected employer contribution rate for the 2013-2014 plan year was set by PERSAC at 70.0%. The actual employer contribution rate determined by this valuation for the current plan year is 76.2%. Therefore, the current plan year should generate a contribution shortfall loss since the PERSAC approved rate understates the valuation rate by 6.2%.

Legislative Changes

Act 287 was created by the 2013 Legislative Session which provided technical corrections required to comply with current State practices for Public Retirement Systems and federal regulation concerning plan document disclosures. The Act has no impact on the valuation of liabilities or the funding requirements of the Retirement System.

Comments and Disclosures

Exhibit 3, "Pension Accounting and Financial Disclosure", contains disclosure of the accrued liabilities under the Entry Age Normal Actuarial Cost Method required by the Governmental Accounting Standards Board Statement No. 25.

I am a Fellow of the Conference of Consulting Actuaries, an Associate of the Society of Actuaries, an Enrolled Actuary #4199-11 with the Joint Board for the enrollment of Actuaries under ERISA, a Member of the American Academy of Actuaries, and have met the Qualification Standards of the Academy necessary to render the actuarial opinions expressed in this report.

The format of this report was designed with the intent of highlighting the pertinent results of the valuation's funding requirements. 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

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 6 based on the Provisions of the Plan as summarized in Exhibit 5.

	<u>June 30, 2013¹</u>		<u>June 30, 2012</u>	
	<u>Dollar</u>	<u>% of</u>	<u>Dollar</u>	<u>% of</u>
	<u>Amount</u>	<u>Salary</u>	<u>Amount</u>	<u>Salary</u>
I. Normal Costs (to fund annual pension accruals)				
Active Members				
a) Retirement Benefits	\$ 12,622,567	24.62%	\$ 13,325,900	23.04%
b) Disability Benefits	472,336	.92%	481,498	.83%
c) Survivor Benefits	245,997	.48%	342,281	.59%
d) Voluntary Termination	666,780	1.30%	749,387	1.30%
e) Expenses	575,000	1.12%	523,000	.90%
TOTAL	<u>14,582,680</u>	28.45%	<u>15,422,066</u>	26.66%
II. Actuarial Accrued Liability				
a) Active Members				
1) Retirement Benefits	\$ 276,351,305		\$ 290,905,462	
2) Disability Benefits	2,150,140		2,364,445	
3) Survivor Benefits	1,587,821		2,580,340	
4) Voluntary Termination	4,815,245		-4,892,680	
	<u>284,904,511</u>		<u>290,957,567</u>	
b) Retired and Inactive Members				
1) Regular Retirees	394,557,278		357,838,737	
2) Disabled Retirees	16,315,337		15,198,354	
3) Survivors	54,883,381		47,961,951	
4) Vested Deferred & Transfers	7,692,697		7,575,168	
5) Contribution Refunds	868,080		724,298	
6) DROP Account Balance	38,010,038		32,262,141	
7) DROP Annuity Reserve	608,184		7,134,419	
	<u>512,934,995</u>		<u>468,695,068</u>	
c) TOTAL	797,839,506		759,652,635	

¹Actuarial discount rate changed from 7.50% to 7.0% effective July 1, 2013

Exhibit 1 (Continued)**Costs, Liabilities & Contributions**

	<u>June 30, 2013³</u>	<u>--Prior Year-- June 30, 2012</u>
II. Actuarial Accrued Liability	\$ 797,839,506	\$ 759,652,635
III. Actuarial Assets	474,235,310	415,965,659
IV. Unfunded Actuarial Accrued Liabilities	323,604,196	343,686,976
a) Change over prior year	-20,082,780	4,575,713
b) Funded Percentage	59.44%	54.76%
V. Employer Contributions to Fund		
<u>Current Plan Year¹</u>		
a) Employer Portion of Normal Cost	9,767,970	10,117,302
b) Amortization Payments	30,105,359	32,135,025
c) Prior Contribution Variance	1,167,954	603,438
GROSS Required Contribution	41,041,283	42,855,765
d) Insurance Premium Tax Fund (IPTF) Offset		
ACT 1160 Normal Cost	853,522	964,014
ACT 1160 Amortization payment	1,971,412	1,886,519
TOTAL ITPF Allocation ²	1,500,000	1,500,000
TOTAL Required Contribution	39,541,283	41,355,765
	76.2%	70.6%
<u>PERSAC approved Rate</u>	<u>70.0%</u>	<u>68.6%</u>
VI. Projected Employer Contributions		
<u>To Fund next fiscal Plan Year¹</u>		
a) Employer Portion of Normal Cost	10,124,900	10,531,633
b) Amortization Payments	30,105,359	32,135,025
c) Prior Contribution Variance	1,753,524	1,536,696
d) IPTF allocation ²	-1,500,000	-1,500,000
TOTAL Projected Contribution	40,483,783	42,703,354
	75.3%	70.0%
VII. Current Payroll	51,261,574	57,828,488
Projected Payroll - Mid Year	51,885,840	58,602,676
Projected Payroll - Next Year	53,781,794	61,002,616

¹Dollar Amounts reflect estimated payments due mid-year on January 1st per Act 81.²ITPF allocation is the lesser of the normal cost plus amortization or \$1,500,000.³Actuarial discount rate changed from 7.50% to 7.0% effective July 1, 2013

EXHIBIT 2

FINANCIAL SUMMARY
STATEMENT OF REVENUES AND EXPENSES
FOR FISCAL YEAR ENDING

	<u>June 30, 2013</u>	-----Prior Years----- <u>June 30, 2012</u>	<u>June 30, 2011</u>
<u>OPERATING REVENUES:</u>			
1. Contribution Income			
Member	\$ 4,723,595	\$ 4,937,096	\$ 5,150,698
MV Fees	2,956,173	3,119,256	3,079,851
Appropriations	38,181,269	32,594,441	32,225,732
Insurance Premium Tax	1,500,000	1,500,000	1,500,000
2. Other Income			
Transfers/Purchases	1,037,360	1,472,595	1,002,341
Miscellaneous	234,465	59,223	34,685
TOTAL CONTRIBUTIONS	<u>48,632,862</u>	<u>43,702,611</u>	<u>42,993,307</u>
3. Investment Income			
Investments	64,435,235	3,422,719	82,351,396
Less, Manager fees	<u>-1,155,331</u>	<u>-1,050,737</u>	<u>-1,113,856</u>
TOTAL INVESTMENT INCOME	63,279,904	2,371,982	81,237,540
4. Total Revenues	111,912,766	46,074,593	124,230,847
<u>OPERATING EXPENSES:</u>			
1. General Administration	542,894	522,262	555,227
Other Expenses	31,279	19,243	2,101
Disability Settlement	-	-	3,100,000
2. Benefits Paid			
a) Pension Benefits	41,111,873	40,993,198	39,612,793
b) Transfers Out	381,658	0	169,239
c) Return of Contributions	<u>372,314</u>	<u>77,350</u>	<u>117,592</u>
TOTAL BENEFITS PAID	41,865,845	41,070,548	39,899,624
3. Total Expenses	42,440,018	41,612,053	43,556,952
<u>NET INCREASE:</u>	69,472,748	4,462,540	80,673,895

EXHIBIT 2 (Continued)
Financial Summary

FINANCIAL SUMMARY
STATEMENT OF ASSETS
FOR FISCAL YEAR ENDING

<u>ASSETS</u>	<u>June 30, 2013</u>	<u>-----Prior Years-----</u>	
		<u>June 30, 2012</u>	<u>June 30, 2011</u>
1. Cash Equivalents	\$ 71,957	\$ 33,163	\$ 24,649
Short Term	15,523,948	9,310,499	20,349,402
2. Bonds			
United States Obligations	10,150,918	13,691,470	14,857,052
Bonds - General	94,372,125	97,247,980	89,780,795
3. Equities			
Property and Equipment	1,341,905	1,367,694	830,732
Common Stock - Domestic	169,182,916	138,534,221	144,526,117
- Foreign	35,407,513	22,703,784	52,605,143
Mutual Funds - Index	62,054,901	72,231,337	79,948,544
Real Estate	37,152,909	33,700,227	27,624,949
Alternatives	94,345,758	61,257,867	18,603,761
Other	1,018	1,018	-
4. Receivables (-) Payables	<u>1,524,798</u>	<u>1,578,657</u>	<u>-1,955,767</u>
TOTAL ASSETS - Market Value	521,130,665	451,657,917	447,195,377
- Valued at Cost	427,260,455	394,020,109	384,077,228

INVESTMENT YIELD:

Actuarial Value	16.77%	3.17%	2.57%
DROP Account Yield ¹	16.27%	2.67%	2.07%
Market Value	13.92%	0.53%	22.19%

EXPERIENCE ACCOUNT FUND:

Prior Year End Balance	0	0	0
+ Experience Account Allocation	18,164,123	0	0
- Current Year Distribution	0	0	0
+ Accumulated Interest	<u>0</u>	<u>0</u>	<u>0</u>
Fund Balance - Year End	18,164,123	0	0

ACTUARIAL VALUE OF ASSETS² Developed as the Market Value, less the sum of the weighted deferrals
of the unrealized gains/losses relative to the valuation discount rate effective 7/1/2013.

Total Market Value,	521,130,665	451,657,917	447,195,377
less			
Weight x (G/L) deferral	<u>wt.</u> <u>deferral</u>	<u>wt.</u> <u>deferral</u>	<u>deferral</u>
Plan Year - 3	80% 13,057,632	n/a n/a	n/a
Plan Year - 2	60% 53,783,958	75% 26,208,006	-67,722,010
Plan Year - 1	40% -31,235,919	50% 66,501,024	26,208,006
Plan Year (current)	20% <u>29,184,592</u>	25% <u>-5,480,341</u>	<u>66,501,024</u>
Gross Actuarial Value of Assets	492,399,433	415,965,659	401,146,109
Less, Experience Account	<u>-18,164,123</u>	<u>0</u>	<u>0</u>
Valuation Assets	474,235,310	415,965,659	401,146,109

¹ Effective 7/1/2003 new DROP Accounts are credited with Money Market rates.

² Asset Smoothing Method changed effective 7/1/2013 as described in Exhibit 6.

EXHIBIT 3

**PENSION ACCOUNTING
AND
FINANCIAL DISCLOSURE**

The Governmental Accounting Standards Board (GASB) was established as an arm of the Financial Accounting Foundation in April 1984 by amendment to the Foundation's certificate of incorporation and by-laws. GASB's objective is to promulgate standards of financial accounting and reporting relative to the activities and transactions of state and local governmental entities. The following disclosures and statistical tables are in accordance with the GASB's Statement No. 25.

SCHEDULE OF FUNDING PROGRESS

(Dollar amounts in thousands)

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability(AAL) ¹ (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Payroll ((b-a)/c)
2004	288,865	477,085	188,220	60.6	47,923	392.8
2005	322,482	516,427	193,945	62.4	49,290	393.5
2006	379,704	546,238	166,534	69.5	49,256	338.1
2007	428,880	587,527	158,646	73.0	49,763	318.8
2008	438,075	637,832	199,757	68.7	56,728	352.1
2009	395,905	678,307	282,402	58.4	59,556	474.2
2010	391,669	704,747	313,078	55.6	59,340	527.6
2011	401,146	740,257	339,111	54.2	58,592	578.8
2012	415,966	759,653	343,687	54.8	57,828	594.3
2013 ¹	474,235	797,839	323,604	59.4	51,262	631.4

The total actuarial accrued liability determined using the Individual Entry Age Normal Cost Method increased by \$38,186,871 from June 30, 2012 to June 30, 2013 which includes a \$26,210,291 increase in Actuarial Accrued Liability resulting from a change in actuarial assumptions effective July 1, 2013. There was a \$12,256,998 decrease to the Unfunded Actuarial Accrued Liability resulting from a change in Actuarial Asset Valuation Method.

From all other sources, there was a net experience gain of \$25,552,428.

Fiscal year gains/losses are summarized on page 3 under "Change in Unfunded Liability".

¹Actuarial discount rate changed from 7.50% to 7.0% effective July 1, 2013

EXHIBIT 3 (Continued)**Pension Accounting & Financial Disclosure****SUPPLEMENTARY INFORMATION****SCHEDULE OF EMPLOYER CONTRIBUTIONS**

<u>Fiscal Year</u>	<u>Actuarial Required Contribution</u> ¹	<u>Percent Contributed</u>	<u>Annual Pension Cost (APC)</u> ¹	<u>Actual Contribution</u> ¹	<u>Percentage of APC Contributed</u>	<u>Net Pension Obligation</u> ¹
2004	30,288,239	87.0	33,855,791	26,347,773	77.8	-3,304,234
2005	33,658,907	87.4	35,886,584	29,432,635	82.0	3,149,715
2006	36,698,310	102.1	37,621,412	37,483,229	99.6	3,287,896
2007	18,482,551	226.8	18,615,913	41,919,040	225.2	-20,015,231
2008	16,208,885	116.7	19,099,665	18,908,564	99.0	-19,824,130
2009	20,705,663	96.0	23,854,267	19,868,911	83.3	-15,838,774
2010	34,935,975	84.9	39,150,610	29,641,699	75.7	-6,329,863
2011	36,257,596	101.0	40,921,425	36,605,608	89.5	-2,014,046
2012	38,052,718	101.5	42,932,245	38,604,718	89.9	2,313,481
2013	43,891,264	100.7	43,439,116	44,207,440	101.8	1,545,157

Analysis of the percentage contributed over a period of years will give a relative indication of the funding progress for the liabilities of the Louisiana State Police Retirement System.

The difference between the Actuarial Required Contribution and the APC is the amortization payment for the Net Pension Obligation (see Exhibit A).

Development of Net Pension Obligation

Actuarial Required Contribution	43,891,264
Interest on Net Pension Obligation (+)	173,511
Amortization of Net Pension obligation (-)	625,659
Annual Pension Cost	43,439,116
Employer Contribution ²	44,207,440
Increase (decrease) in Net Pension Obligation	-768,324
Net Pension Obligation - Beginning of Year	2,313,481
Net Pension Obligation - End of Year	1,545,157

¹ Actuarial Contributions, the Annual Pension Cost (APC), and the actual employer contribution made have been adjusted with interest at the valuation rate to the end of the fiscal year in accordance with GASB's Statement No. 27, paragraph 21.

EXHIBIT 3 (Continued)**Pension Accounting & Financial Disclosure****STATISTICAL DATA****COMPARATIVE SUMMARY OF REVENUES BY SOURCE
AND EXPENSES BY TYPE****Revenues by Source**

<u>Fiscal Year End</u>	<u>Members Contribution</u>	<u>Employer Contribution</u> ¹	<u>Investment Income</u>	<u>Total</u>
2004	4,090,079	26,252,523	31,363,198	61,705,800
2005	4,182,096	30,177,649	27,796,776	62,156,521
2006	3,997,156	37,560,697	25,561,079	67,118,932
2007	4,020,197	41,558,739	63,735,798	109,314,734
2008	4,608,593	19,677,101	-23,624,875	660,819
2009	4,919,092	20,678,164	-78,942,049	-53,344,793
2010	5,449,494	29,094,780	38,365,956	72,910,230
2011	5,150,698	37,842,609	81,237,540	124,230,847
2012	4,937,096	38,765,515	2,371,982	46,074,593
2013	4,723,595	43,909,267	63,279,904	111,912,766

Expenses by Type

<u>Fiscal Year End</u>	<u>Benefits</u>	<u>Refunds</u>	<u>Administrative Expenses</u>	<u>Total</u>
2004	23,889,741	298,653	429,177	24,617,571
2005	25,216,731	309,370	416,736	25,942,837
2006	27,039,512	218,572	415,344	27,673,428
2007	30,430,391	162,483	432,781	31,025,655
2008	33,321,008	507,995	575,536	34,404,539
2009	36,091,478	113,351	587,347	36,985,796
2010	39,960,755	66,707	558,408	40,585,870
2011	42,882,032 ²	117,592	557,328	43,556,952
2012	41,070,548	77,350	541,505	41,612,053
2013	41,493,531	372,314	574,173	42,440,018

¹Includes transfers and miscellaneous income²Includes disability settlement of \$3,100,000

EXHIBIT 4

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 "error-free data", 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 database. Prior to processing, suspicious data and data containing errors were purged from the data base and processed separately based on the following error types:

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

This year there were no records purged from the database containing errors or categorized as suspicious data, which is consistent with recent years' reporting. Suspicious data are not necessarily errors, but is data which falls outside the parameters of the editing process for further checking.

Salary data contained in the profiles and valuation report may exceed the sums reported by internal audit due to salary annualization. Retiree data reflects the benefit amount in pay status on the 1st day of the next fiscal year. In the valuation process, membership data with fractional service annualizes the salary in the first year of employment.

The following is a summary by participant status of the data submitted for valuation:

	----- June 30 -----		
	---2013---	---2012---	---2011---
	<u>Census</u>	<u>Census</u>	<u>Census</u>
Active Members	933	979	1,033
Regular Retirees	841	833	823
Disability Retirees	54	54	54
Survivors	339	335	330
Vested & Reciprocals	37	34	31
DROP Participants	<u>0</u>	<u>0</u>	<u>2</u>
TOTAL	2,204	2,235	2,273

MEMBERSHIP PROFILE
CATEGORIZED BY AGE AND YEARS EMPLOYED

LOUISIANA STATE POLICE
ACTIVE MEMBERS

CELLS DEPICT - MEMBER COUNT
TOTAL SALARY

VALUATION DATE 6/30/2013

Age	YEARS EMPLOYED									Total
	(0-1)	[1-5)	[5-10)	[10-15)	[15-20)	[20-25)	[25-30)	[30-35)	[35-)	
[0-19)	0	0	0	0	0	0	0	0	0	0
:	0	0	0	0	0	0	0	0	0	0
:	:	:	:	:	:	:	:	:	:	:
[20-24)	0	0	0	0	0	0	0	0	0	0
:	0	0	0	0	0	0	0	0	0	0
:	:	:	:	:	:	:	:	:	:	:
[25-29)	0	17	18	0	0	0	0	0	0	35
:	0	668666	736511	0	0	0	0	0	0	1405177
:	:	:	:	:	:	:	:	:	:	:
[30-34)	0	17	92	20	2	0	0	0	0	131
:	0	662058	3871307	943317	81866	0	0	0	0	5558548
:	:	:	:	:	:	:	:	:	:	:
[35-39)	0	10	48	98	39	2	0	0	0	197
:	0	393336	2057362	4869024	2122708	95432	0	0	0	9537862
:	:	:	:	:	:	:	:	:	:	:
[40-44)	0	3	26	56	174	33	0	0	0	292
:	0	122721	1120616	2891997	10700119	2158964	0	0	0	16994417
:	:	:	:	:	:	:	:	:	:	:
[45-49)	0	2	10	17	83	82	7	0	0	201
:	0	78667	434196	905446	5167836	5643713	528449	0	0	12758307
:	:	:	:	:	:	:	:	:	:	:
[50-54)	0	1	2	5	16	27	13	0	0	64
:	0	39333	85328	247102	980635	1798858	917786	0	0	4069042
:	:	:	:	:	:	:	:	:	:	:
[55-59)	0	0	0	0	2	4	1	0	0	7
:	0	0	0	0	125980	265445	100009	0	0	491434
:	:	:	:	:	:	:	:	:	:	:
[60-64)	0	0	0	0	2	0	0	0	0	2
:	0	0	0	0	117378	0	0	0	0	117378
:	:	:	:	:	:	:	:	:	:	:
[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	0	50	196	196	318	148	21	0	0	929
salary	0	1964781	8305320	9856886	19296522	9962412	1546244	0	0	50932165

AVERAGES --- Attained Age 41.42
Service Years 14.63
Active Salary 54,825

MEMBERSHIP PROFILE
CATEGORIZED BY AGE AND YEARS EMPLOYED

LOUISIANA STATE POLICE
ACTIVE AFTER DROP

CELLS DEPICT - MEMBER COUNT
TOTAL SALARY
DROP BENEFITS

VALUATION DATE 6/30/2013

Age	YEARS EMPLOYED									Total	
	(0-1)	[1-2)	[2-3)	[3-4)	[4-5)	[5-10)	[10-15)	[15-20)	[20-)		
[0-34)	0	0	0	0	0	0	0	0	0	0	0
[35-39)	0	0	0	0	0	0	0	0	0	0	0
[40-44)	0	0	0	0	0	0	0	0	0	0	0
[45-49)	0	0	0	0	0	0	0	0	0	0	0
[50-54)	0	0	0	0	1	0	0	0	0	0	1
					129184	0	0	0	0	0	129184
					66696	0	0	0	0	0	66696
[55-59)	0	0	0	1	1	1	0	0	0	0	3
				63756	72713	63756	0	0	0	0	200225
				47616	48132	40284	0	0	0	0	136032
[60-64)	0	0	0	0	0	0	0	0	0	0	0
[65-69)	0	0	0	0	0	0	0	0	0	0	0
[70-74)	0	0	0	0	0	0	0	0	0	0	0
TOTALS	0	0	0	1	2	1	0	0	0	0	4
count	0	0	0	63756	201897	63756	0	0	0	0	329409
salary	0	0	0	47616	114828	40284	0	0	0	0	202728
benefit											

AVERAGES --- Attained Age 57.18
Post Drop Years 4.73
Active Salary 82,352
Annual Benefit 50,682

MEMBERSHIP PROFILE
CATEGORIZED BY AGE AND YEARS RETIRED

LOUISIANA STATE POLICE
REGULAR RETIREES

CELLS DEPICT - MEMBER COUNT
TOTAL BENEFITS

VALUATION DATE 6/30/2013

Age	YEARS RETIRED									Total	
	(0-1)	[1-2)	[2-3)	[3-4)	[4-5)	[5-10)	[10-15)	[15-20)	[20-)		
[0-39)	0	0	0	0	0	0	0	0	0	0	0
[40-44)	2	0	0	0	0	0	0	0	0	0	2
[45-49)	1	3	2	0	0	0	0	0	0	0	6
[50-54)	12	14	9	3	7	15	0	1	0	0	61
[55-59)	3	7	13	2	10	94	3	12	4	0	148
[60-64)	1	3	2	0	0	9	66	65	60	0	206
[65-69)	0	0	2	0	0	1	11	58	113	0	185
[70-74)	0	0	0	0	0	0	1	12	93	0	106
[75-79)	0	0	0	0	0	0	0	1	61	0	62
[80-84)	0	0	0	0	0	0	0	0	49	0	49
[85-89)	0	0	0	0	0	0	0	0	12	0	12
[90-99)	0	0	0	0	0	0	0	0	4	0	4
TOTALS	19	27	28	5	17	119	81	149	396	0	841
benefit	1071552	1519440	1596144	309408	1042332	7297164	4548528	5958264	8582988	80616	31925820

AVERAGES --- Attained Age 65.80
Years Retired 18.55
Annual Benefit 37,962

MEMBERSHIP PROFILE
CATEGORIZED BY AGE AND YEARS RETIRED

LOUISIANA STATE POLICE
DISABILITY RETIREES

CELLS DEPICT - MEMBER COUNT
TOTAL BENEFITS

VALUATION DATE 6/30/2013

Age	YEARS RETIRED									Total
	(0-1)	[1-2)	[2-3)	[3-4)	[4-5)	[5-10)	[10-15)	[15-20)	[20-)	
[0-39)	0	0	0	0	0	0	0	0	0	0
[40-44)	0	0	0	1	1	1	1	0	0	4
[45-49)	1	1	0	0	1	1	1	1	0	6
[50-54)	0	0	0	0	1	0	1	1	0	3
[55-59)	0	0	0	0	0	1	0	1	5	7
[60-64)	0	0	0	0	0	0	0	2	10	12
[65-69)	0	0	0	0	0	0	0	0	12	12
[70-74)	0	0	0	0	0	0	0	1	4	5
[75-79)	0	0	0	0	0	0	0	0	1	1
[80-84)	0	0	0	0	0	0	0	0	4	4
[85-89)	0	0	0	0	0	0	0	0	0	0
[90-99)	0	0	0	0	0	0	0	0	0	0
TOTALS	1	1	0	1	3	3	3	6	36	54
benefit	37344	37944	0	38340	118992	89016	84384	136728	827040	1369788

AVERAGES --- Attained Age 61.90
Years Retired 22.81
Annual Benefit 25,366

MEMBERSHIP PROFILE
CATEGORIZED BY AGE AND YEARS RETIRED

LOUISIANA STATE POLICE
SURVIVOR BENEFITS

CELLS DEPICT - MEMBER COUNT
TOTAL BENEFITS

VALUATION DATE 6/30/2013

Age	YEARS RETIRED									Total
	(0-1)	[1-2)	[2-3)	[3-4)	[4-5)	[5-10)	[10-15)	[15-20)	[20-)	
[0-39)	0	0	0	1	0	1	0	3	3	8
	0	0	0	42972	0	16944	0	34764	29064	123744
[40-44)	0	0	0	0	0	0	0	1	0	1
	0	0	0	0	0	0	0	6972	0	6972
[45-49)	1	0	0	0	0	0	1	0	0	2
	18696	0	0	0	0	0	8964	0	0	27660
[50-54)	1	0	1	0	0	2	2	2	4	12
	60480	0	14676	0	0	51696	16416	41868	58812	243948
[55-59)	2	2	1	0	0	4	0	1	13	23
	120876	93312	9672	0	0	83616	0	9084	169452	486012
[60-64)	2	2	0	0	1	5	5	3	30	48
	77220	119028	0	0	40680	134544	87828	25416	442692	927408
[65-69)	1	1	0	0	1	2	5	2	37	49
	23772	62004	0	0	25344	107112	148260	21648	601620	989760
[70-74)	1	1	1	0	0	0	1	1	40	45
	32580	30096	46440	0	0	0	37032	10356	837468	993972
[75-79)	1	0	1	0	0	0	0	0	56	58
	50484	0	30912	0	0	0	0	0	1058748	1140144
[80-84)	0	0	0	0	0	0	0	0	53	53
	0	0	0	0	0	0	0	0	885456	885456
[85-89)	0	0	0	0	0	0	1	0	26	27
	0	0	0	0	0	0	72	0	425916	425988
[90-99)	0	0	0	0	0	0	0	0	13	13
	0	0	0	0	0	0	0	0	223812	223812
TOTALS	9	6	4	1	2	14	15	13	275	339
benefit	384108	304440	101700	42972	66024	393912	298572	150108	4733040	6474876

AVERAGES --- Attained Age 71.67
Years Retired 87.93
Annual Benefit 19,100

MEMBERSHIP PROFILE
CATEGORIZED BY AGE AND YEARS EMPLOYED

LOUISIANA STATE POLICE
TERM-VESTED/RECIPROCAL

CELLS DEPICT - MEMBER COUNT
TOTAL BENEFITS

VALUATION DATE 6/30/2013

Age	YEARS EMPLOYED									Total
	(0-1)	[1-5)	[5-10)	[10-15)	[15-20)	[20-25)	[25-30)	[30-35)	[35-)	
[0-19)	0	0	0	0	0	0	0	0	0	0
[20-24)	0	0	0	0	0	0	0	0	0	0
[25-29)	0	0	0	0	0	0	0	0	0	0
[30-34)	0	0	0	1	0	0	0	0	0	1
[35-39)	0	0	0	5	0	0	0	0	0	5
[40-44)	0	0	0	8	6	0	0	0	0	14
[45-49)	0	0	1	7	3	4	0	0	0	15
[50-54)	0	0	0	1	0	0	0	0	0	1
[55-59)	0	0	0	0	0	0	0	0	0	0
[60-64)	0	0	0	0	0	0	0	0	0	0
[65-69)	0	0	0	0	0	0	0	0	0	0
[70-74)	0	0	0	0	0	0	0	0	1	1
TOTALS	0	0	1	22	9	4	0	0	1	37
benefit	0	0	8244	419844	311328	133284	0	0	0	872700

AVERAGES --- Attained Age 45.27
Service Years 15.39
Annual Benefit 23,586

EXHIBIT 5

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; 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 5 (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 available to retirees who have not participated in DROP. Election pays up to 36 months of regular benefits in lump-sum, with monthly annuity actuarially reduced for life.

An increasing annuity option 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 5 (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:

HB 658 of 2007 establishes an Experience Account, which is credited with 50% of the excess investment experience gain and debited with 50% of the net investment experience loss. Balances in the experience account accrue interest at the actuarial yield for the System portfolio. If the balance of the Experience Account is sufficient to grant retirees a COLA, the Board may (with concurrence from the Legislature) grant such COLA not to exceed the lesser of the CPI-U or 3%. Benefits are restricted to those retirees who have attained the age of 60 and have been retired for at least one year.

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

Instead of terminating employees and accepting a service retirement allowance, any member who has 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 5 (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 of 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 6**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 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 discount 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 requires disclosure of certain actuarial liabilities for Public Employee Retirement Systems. The disclosures illustrated in Exhibit 3 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 13, 2013, effective July 1, 2013. A detailed copy of the Experience Study with adopted recommendations is available at the retirement office.

EXHIBIT 6 (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		
<u>1 year</u>	<u>2 year</u>	<u>3 year</u>
.1065	.0533	.1185

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.

The remaining 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 base upon the members' years of service and are illustrated in the rate tables at the end of this exhibit.

EXHIBIT 6 (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:

<u>Age at Death</u>	<u>Number of Minor Chn.</u>	<u>Years for Youngest Child to Attain Majority</u>
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%
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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 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:

Expenses are included in Aggregate Normal Cost and are assumed to be \$575,000 per year. Investment Manager fees are not included in Normal Cost but are treated as a direct offset to investment income. The Employer portion of the Normal Cost excludes the allocation for administrative expenses.

COST OF LIVING:

Cost-of-living raises may be granted from the Experience Account provided there are sufficient funds needed to offset the increase in liability of the COLA.

ACTUARIAL TABLES AND RATES
PRIOR RATES

Age	- Death Rates -		Disability Rates	Termination Rates	Retirement Rates	DROP Rates	Dur	Salary Scale
	Male	Female						
18	.000316	.000188	.0020	.0300	.0000	.000	1	1.1550
19	.000331	.000190	.0020	.0300	.0000	.000	2	1.0600
20	.000345	.000191	.0020	.0300	.0000	.000	3	1.0400
21	.000357	.000192	.0020	.0300	.0000	.000	4	1.0400
22	.000366	.000194	.0020	.0300	.0000	.000	5	1.0500
23	.000373	.000197	.0020	.0300	.0000	.000	6	1.0500
24	.000376	.000201	.0020	.0300	.0000	.000	7	1.0500
25	.000376	.000207	.0020	.0300	.0000	.000	8	1.0500
26	.000378	.000214	.0020	.0300	.0000	.000	9	1.0550
27	.000382	.000223	.0020	.0300	.0000	.000	10	1.0600
28	.000393	.000235	.0020	.0300	.0000	.000	11	1.0500
29	.000412	.000248	.0020	.0300	.0000	.000	12	1.0500
30	.000444	.000264	.0020	.0300	.0000	.000	13	1.0500
31	.000499	.000307	.0020	.0250	.0000	.000	14	1.0500
32	.000562	.000350	.0020	.0250	.0000	.000	15	1.0500
33	.000631	.000394	.0020	.0250	.0000	.000	16	1.0500
34	.000702	.000435	.0020	.0250	.0000	.000	17	1.0500
35	.000773	.000475	.0020	.0250	.0000	.000	18	1.0500
36	.000841	.000514	.0020	.0250	.0000	.000	19	1.0600
37	.000904	.000554	.0020	.0200	.0000	.000	20	1.0600
38	.000964	.000598	.0020	.0200	.0000	.000	21	1.0700
39	.001021	.000648	.0020	.0200	.0000	.000	22	1.0600
40	.001079	.000706	.0020	.0200	.0000	.000	23	1.0600
41	.001142	.000774	.0020	.0200	.0000	.000	24	1.0650
42	.001215	.000852	.0020	.0200	.0000	.000	25	1.0650
43	.001299	.000937	.0020	.0100	.0000	.000	26	1.0650
44	.001397	.001029	.0020	.0100	.0000	.000	27	1.0700
45	.001508	.001124	.0020	.0100	.0000	.000	28	1.0700
46	.001616	.001223	.0020	.0100	.0000	.000	29	1.0700
47	.001734	.001326	.0020	.0100	.1000	.000	30	1.0700
48	.001860	.001434	.0020	.0100	.1000	.400	31	1.0450
49	.001995	.001550	.0020	.0100	.1000	.400	32	1.0450
50	.002138	.001676	.0020	.0100	.2500	.400	33	1.0450
51	.002449	.001852	.0020	.0100	.2500	.050	34	1.0450
52	.002667	.002018	.0020	.0100	.2700	.050	35	1.0450
53	.002916	.002207	.0020	.0100	.2700	.050	36	1.0450
54	.003196	.002424	.0020	.0100	.2700	.050	37	1.0450
55	.003624	.002717	.0020	.0100	.2700	.050	38	1.0450
56	.004200	.003090	.0020	.0100	.4200	.050	39	1.0450
57	.004693	.003478	.0020	.0100	.5000	.050	40	1.0450
58	.005273	.003923	.0020	.0100	.5000	.050	41	1.0450
59	.005945	.004441	.0020	.0100	.5000	.000	42	1.0450
60	.006747	.005055	.0020	.0100	.5000	.000	43	1.0450
61	.007676	.005814	.0020	.0000	.5000	.000	44	1.0450
62	.008757	.006657	.0020	.0000	.5000	.000	45	1.0450
63	.010012	.007648	.0020	.0000	.9900	.000	46	1.0450
64	.011280	.008619	.0020	.0000	.9900	.000	47	1.0450
65	.012737	.009706	.0000	.0000	.9900	.000	48	1.0450
66	.014409	.010954	.0000	.0000	.9900	.000	49	1.0450
67	.016075	.012163	.0000	.0000	.9900	.000	50	1.0450
68	.017871	.013445	.0000	.0000	.9900	.000	51	1.0450
69	.019802	.014860	.0000	.0000	.9900	.000	52	1.0450
70	.022206	.016742	.0000	.0000	.9900	.000	53	1.0450
71	.024570	.018579	.0000	.0000	.9900	.000	54	1.0450
72	.027281	.020665	.0000	.0000	.9900	.000	55	1.0450
73	.030387	.022970	.0000	.0000	.9900	.000	56	1.0450
74	.033900	.025458	.0000	.0000	.9900	.000	57	1.0450

ACTUARIAL TABLES AND RATES
NEW RATES 7/1/2013

Age	- Death Rates -		Disability Rates	Termination Rates	Retirement Rates	Dur	Salary Scale
	Male	Female					
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 A

**AMORTIZATION of UNFUNDED
ACTUARIAL ACCRUED LIABILITY
JUNE 30, 2013**

<u>DATE</u> <u>6/30</u>	<u>DESCRIPTION</u>	<u>AMTZ.</u> <u>METHOD</u>	<u>AMTZ.</u> <u>PERIOD</u>	<u>INITIAL</u> <u>LIABILITY</u>	<u>YEARS</u> <u>REMAING</u>	<u>REMAINING</u> <u>BALANCE</u>	<u>MID-YEAR</u> <u>PAYMENT</u> ¹
1993	Initial Liability	L	16	171,274,213	0	0	0
1993	Change in Liability	L	20	21,465,804	16	19,248,610	1,969,834
1994	Change in Liability	L	20	-1,381,660	16	-1,238,949	-126,790
1995	Change in Liability	L	20	20,128,380	16	18,049,328	1,847,104
1996	Change in Liability	L	20	-9,762,782	16	-8,754,388	-895,893
1997	Change in Liability	L	20	4,409,601	16	3,954,135	404,652
1998	Change in Liability	L	20	-2,444,207	16	-2,191,746	-224,296
1999	Change in Liability	L	20	12,418,148	16	11,135,483	1,139,566
2000	Change in Liability	L	20	-21,262,939	16	-19,066,699	-1,951,218
2001	Change in Liability	L	20	14,218,540	16	12,749,913	1,304,781
2002	Change in Liability	L	20	36,882,500	16	33,072,922	3,384,565
2003	Change in Assumptions	L	24	14,644,647	20	13,593,297	1,240,430
2003	Change in Liability	L	20	60,111,382	16	53,902,503	5,516,191
2004	Change in Liability	L	20	16,579,889	16	14,867,359	1,521,473
2005	Change in Liability	L	20	14,086,441	16	12,631,459	1,292,639
2006	Change in Liability	L	20	-11,718,142	16	-10,507,780	-1,075,329
2007	Change in Liability	L	20	13,788,779	16	12,364,542	1,265,343
2008	Change in Assumptions	L	29	9,487,421	25	9,041,918	750,083
2008	Change in Liability	L	20	29,944,312	16	26,851,377	2,747,875
2009	Change in Assumptions	L	30	1,032,469	26	987,806	80,751
2009	Change in Benefits	L	10	671,120	6	458,930	93,079
2009	Change in Liability	L	30	74,940,622	26	71,698,789	5,861,249
2010	Change in Liability	L	30	26,844,661	27	26,005,923	2,097,396
2011	Change in Liability	L	30	28,079,134	28	27,515,647	2,191,657
2012	Change in Liability	L	30	7,358,996	29	7,287,825	573,839
2013	Change in Method	L	30	-12,256,998	30	-12,256,998	-954,891
2013	Change in Assumptions	L	30	26,210,291	30	26,210,291	2,041,934
2013	Change in Liability	L	30	-25,552,428	30	-25,552,428	-1,990,685
TOTAL OUTSTANDING BALANCE						322,059,039	30,105,359
EMPLOYER'S CREDIT BALANCE							
2009	Contribution Variance	L	5	836,752	1	192,387	199,007
2010	Contribution Variance	L	5	5,294,276	2	2,349,602	1,256,318
2011	Contribution Variance	L	5	-348,011	3	-223,687	-82,401
2012	Contribution Variance	L	5	-552,001	4	-456,966	-130,422
2013	Contribution Variance	L	5	-316,179	5	-316,179	-74,548
TOTAL EMPLOYER CREDIT						1,545,157	1,167,954
TOTAL UNFUNDED ACTUARIAL ACCRUED LIABILITY						323,604,196	

¹ Effective 6/30/2006, the accumulated balance of \$50,084,124 in the Texaco Settlement Fund exceeded the outstanding balance of the Initial Unfunded Actuarial Liability liquidating the amortization schedule.

NOTE: Effective July 1, 1990, Actuarial Valuation Rate changed from 7% to 7.5%.
Effective July 1, 2013, Actuarial Valuation Rate changed from 7.5% to 7.0%.