

LOUISIANA STATE EMPLOYEES'
RETIREMENT SYSTEM
JUNE 30, 1993
ACTUARIAL VALUATION

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

HALL ACTUARIAL ASSOCIATES

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Baton Rouge, LA 70806
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September 28, 1993

Board of Trustees
LOUISIANA STATE EMPLOYEES'
RETIREMENT SYSTEM
Post Office Box 44213
Baton Rouge, Louisiana 70804-4213

Ladies and Gentlemen:

This report presents the results of the actuarial valuation of assets and liabilities, as well as funding requirements, for the Louisiana State Employees' Retirement System as of June 30, 1993.

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 Employees' 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 certified by Postlethwaite & Netterville, Certified Public Accountants.

The present values shown herein have been estimated on the basis of actuarial methods as specified in Louisiana Revised Statutes Title 11 Section 22(6), and assumptions which are appropriate for the purposes of this valuation, are reasonable in the aggregate and when applied in combination represents my best estimates of the anticipated experience under the plan.

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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:

	<u>June 30, 1993</u>	<u>-----Prior Years-----</u>	
		<u>June 30, 1992</u>	<u>June 30, 1991</u>
I. Membership Census			
1) Retirees	25,887	25,602	25,129
2) Actives	68,463	67,798	70,927
3) DROP	521	538	346
II. Annual Benefits	\$ 258,006,601	\$ 252,746,768	\$ 237,750,804
III. Total Payroll	1,504,147,368	1,454,370,594	1,368,479,924
IV. Assets	3,044,726,905	2,802,666,924	2,519,154,734
V. Experience Account	26,706,597	27,274,847	N/A
VI. Investment Yield			
Realized Income	6.38%	10.92%	9.96%
Actuarial Value	8.05%	10.40%	10.00%
VII. Cost to Fund Annual Pension Accruals (Normal Costs)	199,518,564 13.26%	187,654,358 12.90%	175,166,466 12.80%
VIII. Unfunded Actuarial Accrued Liability	2,078,682,672	2,081,841,850	1,982,569,933
IX. Funded Percentage	59.43%	57.38%	55.94%
X. Funding Requirements to Pay (Mid-year Payment)			
1) Employee Contribution Rate	119,469,491 7.689%	115,536,720 7.682%	106,154,511 7.5%
2) Employer Contribution Rate - Current Year	186,691,176 12.0%	181,016,661 12.0%	185,288,551 13.1%
3) Projected Employer Contribution - Next Year	196,748,840 11.9%	190,935,676 11.9%	185,436,747 12.3%*

The above funding requirements measure the cost of benefits that were in effect on June 30, 1993, plus Acts of the 1993 Legislative Session which have prospective effects on current active members.

*Excludes funding for COLA granted pursuant to Act 5 of the Third Extraordinary Session.

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Current Funding

The Actuarial Valuation for the plan year ending June 30, 1993 discloses a general increase in the value of the plan's unfunded accrued liability as well as prospective funding requirements. It is generally appropriate for the current valuation process to disclose the source or cause of any significant changes in the plan from year to year. Changes that occur are usually the result of changes in actuarial assumptions, gains or losses resulting from actual experience which differs significantly from expected plan experience.

The basic elements of the annual required contribution are the normal cost and amortization of the Unfunded Actuarial Liability (UAL). The normal cost is the annual cost to provide an additional year of benefit accrual. The normal cost is divided into two parts, the employee portion and the employer portion, both expressed as a percentage of payroll. 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.

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 6/30/92		\$ 2,081,841,850
INCREASES		
Interest on Unfunded Liability	\$ 171,751,952	
Experience Account Allocation	(2,765,143)	
Experience Loss/(Gain)	<u>(63,821,480)</u>	
Incurred Increases	105,165,329	
DECREASES		
Investment Gains	(5,530,287)	
Employer Amtz. Payment	116,766,556	
Employer Credit	<u>(2,911,762)</u>	
Incurred Decreases	108,324,507	
Unfunded Liability 6/30/93		\$ 2,078,682,672

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The employer contribution rate established by the Actuarial Forecast Committee for the 1993-1994 plan year was 11.9%. The actual employer contribution rates determined by this valuation for the current plan year is 12.0%, and 11.9% when adjusted for the prior year's employer credit. The current adjusted rate represents a slight change in the required employer's contributions when compared to the projected rates. Since the increase in required contributions is attributable to many factors, the following sections address the source and respective impact to the required employer contribution rate.

Investment Experience

The investment yield on the actuarial value of assets during the last five (5) years has been as follows for plan years ending June 30:

<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>	<u>5 Yr. Aver.</u>
10.1%	10.3%	10.0%	10.40%	8.05%	9.75%

The net actuarial rate of return assumed in the valuation was 8.25%. For the plan year ending June 30, 1993 the net yield to Actuarial Assets was less than the long term Actuarial Investment Assumption used to project benefits. The result was a net investment experience loss of \$5,530,287 below valuation investment income.

Act 572 of 1993 establishes the Experience Account. Each year the fund is credited/debited with 50% of the net investment experience gain/loss together with interest on the beginning account balance for the purpose of granting cost-of-living benefits for retirees. This year \$2,765,143 will be deducted from the Experience Account with a like amount used to increase future employer contributions.

Act 257 of 1992 as amended requires this investment gain to be amortized over the later of the year 2029 or a fifteen year period as a 4.5% increasing annuity. Therefore, as a result of the shared investment experience loss, the employer's contribution will be increased by \$2,911,762 during the next 36 years. This amortization debit represents a .05% increase in the rate projected by the Actuarial Forecast Committee.

Plan Experience

The actuary is charged with making the best estimate of future plan experience to properly fund future benefits. If the actual experience differs from the projected experience a gain or loss occurs. This gain or loss is then amortized over the later of the year 2029 or a fifteen year period to make a mid-course adjustment in future funding requirements. During the 1992-1993 plan year, the system incurred a \$63,821,480 experience gain. This gain will decrease the employer's contribution by \$3,380,000 during the next 36 years and represents a .21% decrease in the rate projected by the Actuarial Forecast Committee.

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Funding as a Percentage of Payroll

The funding requirements mandated by Act 81 require the employee to contribute 7.5% of payroll for the plan year beginning in 1989. The employer will pay a percentage of the normal cost plus a dollar amount sufficient to amortize the unfunded liability over a 40 year period. However, in no event can the employer contribution rate drop below 12% without regard to employer credits without a corresponding adjustment to the employee contribution rate. To convert the dollar amortization payment to a percentage of payroll would suggest that the aggregate employer contribution rate would remain level as a percentage of pay provided aggregate salaries increase in unison with the rate of increase in annuity payments. This would imply that aggregate salaries should increase at a rate of at least 4.5% during the next thirty-seven (37) years. To determine whether this is a reasonable expectation, aggregate salary growth during the past seven (7) years is illustrated as follows:

<u>June 30</u>	<u>Payroll/\$1000</u>	<u>Percent Increase</u>
1988	1,111,015	1.6%
1989	1,141,080	2.7%
1990	1,226,065	7.4%
1991	1,368,480	11.6%
1992	1,454,370	6.3%
1993	1,504,147	6.2%

During the last five (5) years the aggregate salaries have increased at an annualized rate of 6.2%. If this trend continues during the next five (5) years the percentage of pay required to amortize the unfunded liability can be expected to slightly decrease in the absence of other experience gains or losses.

Comments and Disclosures

Exhibit 3 "Pension Accounting and Financial Disclosure" contains the ten (10) year comparative statistical studies required by the Governmental Accounting Standards Board.

Finally, the actuarial disclosure form required by the Actuarial Department of the Legislative Auditor's office (see Exhibit 7) makes specific provisions for the determination of whether or not a retirement system is systematically approaching the targeted funding ration.

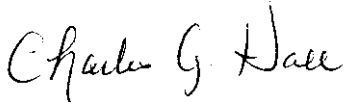
This is an important consideration for both retired members and members of the Board of Trustees. The Board is specifically prohibited from granting a cost-of-living raise in the absence of the Experience Account Fund to retirees and survivors by Act 256 of the 1986 regular legislative session unless the system has met the Funding Target.

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For the plan year ending June 30, 1993 the funding target is .65524, which is greater than the current .59430 funding ratio. Therefore, the Board is prohibited from granting a cost-of-living increase by statute.

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, ASA, MAAA
Actuary

CGH/tt

Enclosure

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HALL ACTUARIAL ASSOCIATES

EXHIBIT 1
DEVELOPMENT
OF
COSTS, LIABILITIES AND CONTRIBUTIONS

Normal Costs and Accrued Liabilities are calculated in accordance with the Projected Unit Credit 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, 1993</u>		<u>---Prior Year---</u> <u>June 30, 1991</u>	
		<u>Dollar</u> <u>Amount</u>	<u>% of</u> <u>Salary</u>	<u>Dollar</u> <u>Amount</u>	<u>% of</u> <u>Salary</u>
I. Normal Costs					
(to fund annual pension accruals)					
Active Members with Complete Data					
a)	Retirement Benefits	\$ 152,247,378	10.12%	\$ 142,218,886	9.78%
b)	Disability Benefits	7,509,398	.50%	7,148,991	.49%
c)	Survivor Benefits	8,114,019	.54%	7,651,007	.53%
d)	Voluntary Termination	27,347,729	1.82%	27,635,474	1.90%
e)	Expenses	<u>4,300,000</u>	<u>.28%</u>	<u>3,000,000</u>	<u>.20%</u>
	TOTAL	199,518,524	13.26%	187,654,358	12.90%
II. Actuarial Accrued Liability					
a)	Active Members				
1)	Retirement Benefits	2,292,099,826		2,126,571,048	
2)	Disability Benefits	96,845,729		90,896,980	
3)	Survivor Benefits	88,010,304		83,331,971	
4)	Voluntary Termination	163,024,349		150,613,185	
5)	DROP Deposits	<u>21,436,653</u>		<u>N/A</u>	
		2,661,416,861		2,451,413,184	
b)	Retired and Inactive Members				
1)	Regular Retirees	1,875,623,577		1,878,066,370	
2)	Disabled Retirees	60,928,600		68,027,959	
3)	Survivors	280,808,599		240,598,093	
4)	Vested Deferred	22,616,419		25,392,850	
5)	Contributions Refunded	7,652,144		2,685,887	
6)	DROP Deferral	109,861,514		109,922,882	
7)	DROP Deposits	<u>13,069,147</u>		<u>10,989,439</u>	
		2,370,560,000		2,335,683,480	
c)	SUB TOTAL	5,031,976,861		4,787,096,664	

HALL ACTUARIAL ASSOCIATES

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

	<u>June 30, 1993</u>	<u>----Prior Year----</u> <u>June 30, 1992</u>
II. Actuarial Accrued Liability		
c) SUB TOTAL (Preceding page)	\$ 5,031,976,861	\$ 4,787,096,664
d) Adjustments to Regular Plan		
1) Active Judges	82,993,694	88,749,876
2) Active Legislators	<u>8,439,022</u>	<u>8,662,234</u>
Adjusted TOTAL	5,123,409,577	4,884,508,774
III. Assets	3,044,726,905	2,802,666,924
IV. Unfunded Actuarial Accrued Liabilities - Projected Unit Credit*	2,078,682,672	2,081,841,850
a) Change over prior year	(3,159,178)	99,271,917
b) Funded Percentage	59.43%	57.38%
V. Employer Contributions To Fund Current Plan Year*		
a) Employer Portion of Normal Cost	82,194,513	78,207,621
b) Amortization Payments	106,519,504	105,537,435
c) Prior Contribution Variance	<u>(2,022,841)</u>	<u>(2,728,395)</u>
TOTAL Required Contribution	186,691,176	181,016,661
	12.0%	12.0%
Plus State Appropriation	3,449,541	3,300,996
Actuarial Forecast Rate**	11.9%	11.9%
VI. Projected Employer Contributions To Fund Next Plan Year*		
a) Employer Portion of Normal Cost	87,457,870	83,368,629
b) Amortization Payments	110,922,091	109,899,556
c) Prior Contribution Variance	<u>(1,631,121)</u>	<u>(2,332,509)</u>
TOTAL Projected Contribution	196,748,840	190,935,676
	11.9%	11.9%
Plus State Appropriation	3,604,770	3,449,541
VII. Current Payroll	1,504,147,368	1,454,370,594
Projected Payroll - Mid Year	1,553,771,505	1,503,992,713
Projected Payroll - Next Year	1,653,267,858	1,603,242,878

*Dollar Amounts reflect estimated payments due mid-year on January 1st per Act 81.

**Constitutional Minimum is 12% without regards to Employer Credits.

EXHIBIT 2
FINANCIAL SUMMARY
STATEMENT OF REVENUES AND EXPENSES
FOR FISCAL YEAR ENDING

	<u>June 30, 1993</u>	<u>-----Prior Years-----</u> <u>June 30, 1992</u>	<u>June 30, 1991</u>
<u>OPERATING REVENUES:</u>			
1. Contribution Income			
Member	\$ 114,443,629	\$ 109,370,451	\$ 102,446,164
Employer	177,407,603	205,072,699	142,951,649
2. Other Income			
Legislative Appropriations	3,301,000	3,917,102	3,426,547
Miscellaneous	<u>6,118,816</u>	<u>6,246,552</u>	<u>5,055,495</u>
TOTAL CONTRIBUTIONS	301,271,048	324,606,804	253,879,855
3. Investment Income			
Realized Income	186,157,194	277,560,124	226,880,011
Less, investment expenses	<u>-6,754,812</u>	<u>-3,907,551</u>	<u>-1,612,590</u>
TOTAL INVESTMENT INCOME	179,402,382	273,652,573	225,267,421
4. Total Revenues	480,673,430	598,259,377	479,147,276
<u>OPERATING EXPENSES:</u>			
1. General Administration	4,307,150	2,973,182	2,667,230
Other Expenses	395,774	520,988	478,160
2. Benefits Paid			
a) Pension Benefits	261,822,720	250,765,789	240,622,226
b) Return of Contrib.	<u>21,720,224</u>	<u>22,955,119</u>	<u>26,880,996</u>
3. Total Operating Expenses	288,245,868	278,080,890	266,722,735
<u>NET INCOME:</u>	192,427,562	320,178,487	212,424,541

HALL ACTUARIAL ASSOCIATES

EXHIBIT 2 (Continued)
Financial Summary
FINANCIAL SUMMARY
STATEMENT OF ASSETS
FOR FISCAL YEAR ENDING

	<u>June 30, 1993</u>	<u>-----Prior Years-----</u> <u>June 30, 1992</u>	<u>June 30, 1991</u>
<u>ASSETS:</u>			
1. Short Term Assets			
Cash in Banks	\$ 11,660,282	\$ 17,693,855	\$ 587,476
Commercial/Certificates	199,965,382	150,508,461	42,895,391
Securities	0	0	258,718,293
2. Bonds (at amortized cost)			
U.S. Government Agency	83,337,760	92,563,992	225,542,518
United States Issues	684,080,124	699,571,900	594,916,253
Corporate Issues	470,188,772	283,396,171	345,857,864
Long Term/Financial	286,151,141	362,742,980	333,270,687
3. Equities			
Common Stock	813,304,346	828,341,383	490,793,975
Foreign Stock	311,270,137	217,399,953	0
Preferred Stock	10,051,742	11,442,554	6,390,043
Fixed Assets	5,581,342	5,277,425	5,436,954
Mortgages - Real Estate	103,032,658	96,266,026	91,986,767
4. Receivables - Payables	<u>17,416,312</u>	<u>38,407,736</u>	<u>87,037,728</u>
TOTAL ASSETS			
Equities at Cost	2,996,039,998	2,803,612,436	2,483,433,949
Equities at Market	3,229,361,411	2,881,522,572	2,536,978,218
Market Value	3,238,127,283	2,942,146,597	2,558,068,390
<u>RATIO: ASSETS/EXPENSES:</u>	10.20	9.78	9.30
<u>INVESTMENT YIELD:</u>			
Realized Income	6.38%	10.92%	9.96%
Yield to Actuarial Value	8.05%	10.40%	10.00%
Five Year Actuarial Value	9.75%	10.10%	10.00%
Yield to Market Value	9.60%	13.08%	9.05%
DROP Account Yield	7.55%	9.90%	N/A

HALL ACTUARIAL ASSOCIATES

EXHIBIT 2 (Continued)
Financial Summary
FINANCIAL SUMMARY
STATEMENT OF ASSETS
FOR FISCAL YEAR ENDING

	<u>June 30, 1993</u>	<u>-----Prior Years-----</u>	
		<u>June 30, 1992</u>	<u>June 30, 1991</u>
<u>ACTUARIAL VALUE OF ASSETS:</u>			
TOTAL ASSETS	\$ 3,229,361,411	\$ 2,881,522,572	\$ 2,536,978,218
Change in Unrealized (G/L)			
Plan Year - 2 (wt. 1/4)	2,697,378	12,354,912	38,491,979
Plan Year - 1 (wt. 2/4)	62,857,846	2,697,378	12,354,912
Plan Year (wt. 3/4)	<u>167,766,189</u>	<u>62,857,846</u>	<u>2,697,378</u>
Actuarial Value of Assets	3,071,433,502	2,829,941,771	2,519,154,734
<u>EXPERIENCE ACCOUNT FUND:</u>			
Prior Year Ending Balance	27,274,847	0	N/A
Experience Account Allocation	(2,765,143)	27,274,847	N/A
Benefit Disbursements	0	0	N/A
Accumulated Interest	2,196,893	0	N/A
Fund Balance - Year End	26,706,597	27,274,847	N/A
<u>DEVELOPMENT OF ACTUARIAL VALUATION ASSETS</u> :			
Total Fund Assets	3,071,433,502	2,829,941,771	2,519,154,734
Experience Account Fund	<u>26,706,597</u>	<u>27,274,847</u>	<u>N/A</u>
Valuation Assets	3,044,726,905	2,802,666,924	2,519,154,734

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. GASB is the successor organization to the National Council on Governmental Accounting. The following disclosures and statistical tables are in accordance with the NCGA's Statement No. 6.

	<u>June 30, 1993</u>		<u>June 30, 1992</u>	
	<u>Dollar Amt.</u>	<u>% of Payroll</u>	<u>Dollar Amt.</u>	<u>% of Payroll</u>
Actuarial Present Value of projected benefits for:				
1) Retirees & Beneficiaries	\$2,340,291,437	156%	\$2,307,604,743	153%
2) Terminated vested members	<u>30,268,563</u>	<u>2%</u>	<u>28,078,737</u>	<u>2%</u>
TOTAL	2,370,560,000	158%	2,335,683,480	155%
Actuarial Present Value of Credited Projected Benefits for active members:				
1) Member Contributions	790,606,581	52%	728,977,409	48%
2) Employer Contributions				
Vested Portion	1,625,666,317	108%	1,500,767,157	100%
Non-vested Portion	<u>336,576,679</u>	<u>22%</u>	<u>319,080,728</u>	<u>21%</u>
TOTAL	2,752,849,577	182%	2,548,825,294	169%
Total Actuarial Present Value of Credited Projected Benefits	5,123,409,577	340%	4,884,508,774	324%

The total actuarial present value of credited projected benefits increased by \$238,900,803 from June 30, 1992 to June 30, 1993. There were no significant changes in benefit provisions during the year. The increase in total Actuarial Present Value of Credited Projected Benefits due to Legislative approved increase in Survivor Benefits was \$240,374. There was a net experience gain of \$61,537,084 after deducting \$2,765,143 of investment income from the Experience Account in accordance with Act 572.

EXHIBIT 3 (Continued)**Pension Accounting & Financial Disclosure****STATISTICAL DATA**

**Comparative Summary of Net Assets Available for Benefits
and
Total Actuarial Present Value of Credited Projected Benefits**

<u>Fiscal Year</u>	<u>Net Assets Available for Benefits</u>	<u>Total Actuarial Present Value of Credited Projected Benefits*</u>	<u>Percentage Funded</u>
1984	1,362,152,461	2,783,530,447	48.9
1985	1,520,811,190	3,043,552,222	50.0
1986	1,715,788,614	3,209,233,411	53.5

1987*	1,874,257,838	3,564,219,401	52.6
1988	2,019,831,530	3,845,252,565	52.5
1989	2,173,401,501	4,021,932,977	54.0
1990	2,321,259,028	4,210,106,529	55.1
1991	2,516,742,397	4,499,312,330	55.9
1992	2,802,666,924	4,884,508,774	57.4
1993	3,044,726,905	5,123,409,577	59.4

Analysis of the percentage funded over a period of years will give a relative indication of the financial strength of the Louisiana State Employees' Retirement System.

*Credited Projected Benefits were calculated beginning with the June 30, 1987 Actuarial valuation in accordance with The National Council on Governmental Accounting Statement No. 6. Prior to 1987, "Entry Age Normal" accrued benefits are illustrated.

EXHIBIT 3 (Continued)**Pension Accounting & Financial Disclosure****STATISTICAL DATA**

**Comparative Summary of Unfunded Actuarial Present Value
of Credited Projected Benefits
and
Annual Active Member Payroll**

<u>Fiscal Year</u>	<u>Unfunded Actuarial Present Value of Credited Projected Benefits*</u>	<u>Annual Active Member Payroll</u>	<u>Percentage Payroll</u>
1984	1,421,377,986	1,125,544,718	126.3
1985	1,522,741,032	1,146,506,762	132.8
1986	1,493,444,797	1,136,202,813	131.4

1987*	1,689,961,563	1,093,997,409	154.5
1988	1,825,421,035	1,111,015,208	159.0
1989	1,848,531,476	1,141,080,541	162.0
1990	1,888,847,501	1,226,065,067	154.1
1991	1,982,569,933	1,368,479,924	144.9
1992	2,081,841,850	1,454,370,594	143.1
1993	2,078,682,672	1,504,147,368	138.2

*Unfunded Actuarial Present Value of Credited Projected Benefits were calculated beginning with the June 30, 1987 Actuarial Valuation in accordance with The National Council on Governmental Accounting Statement No. 6. Prior to 1987, "Entry Age Normal" unfunded actuarial liabilities are illustrated.

EXHIBIT 3 (Continued)**Pension Accounting & Financial Disclosure****STATISTICAL DATA**

**Comparative Summary of Actuarial Values and
Percentage Covered by Net Assets Available for Benefits
(in million of dollars)**

Actuarial Present Value of Credited Projected Benefits* for

	(1)	(2)	(3)	(4)		Percentage Covered			
	Retirees	Terminated	Current	Actives	Net Assets	by Net Assets			
	and	Vested	Member.	Emplr.	Available				
<u>Fiscal</u>	<u>Survivors</u>	<u>Members</u>	<u>Contr.</u>	<u>Contr.</u>	<u>for Benefits</u>	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>
<u>Year</u>									
1987	2202.2	31.6	494.0	836.4	1874.3	85.1	0.	0.	0.
1988	2017.7	34.6	539.1	1,253.8	2019.8	100.	6.1	0.	0.
1989	2164.7	23.8	574.3	1,259.1	2173.4	100.	100.	36.6	0.
1990	2088.0	20.2	615.4	1,486.4	2321.2	100.	100.	34.6	0.
1991	2155.5	17.9	674.2	1,651.6	2516.7	100.	100.	50.9	0.
1992	2307.6	28.1	728.9	1,819.8	2802.7	100.	100.	64.1	0.
1993	2340.3	30.3	790.6	1,962.2	3044.7	100.	100.	85.3	0.

*Actuarial Present Value of Credited Projected Benefits were calculated beginning with the June 30, 1987 Actuarial Valuation in accordance with The National Council on Governmental Accounting Standard No. 6. Prior to 1987, "Entry Age Normal" accrued benefits were calculated but are not illustrated.

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</u>	<u>Members Contribution</u>	<u>Employer Contribution</u>	<u>Investment Income</u>	<u>Total</u>
1984	81,484,685	107,174,862	115,686,648	304,346,195
1985	82,716,304	119,696,836	143,986,873	345,400,013
1986	83,300,765	124,935,186	183,191,469	391,427,420
1987	80,984,576	121,880,055	183,843,426	386,708,057
1988	81,197,631	125,430,030	160,911,687	375,065,821
1989	81,925,366	134,314,360	181,179,170	397,418,896
1990	92,339,927	99,536,184	206,633,219	398,509,330
1991	104,020,927	149,859,389	225,267,421	479,147,276
1992	110,481,391	214,125,413	273,259,377	598,259,377
1993	114,443,629	186,827,419	179,402,382	480,673,430

Expenses by Type

<u>Fiscal Year</u>	<u>Benefits</u>	<u>Refunds</u>	<u>Administrative Expenses**</u>	<u>Total</u>
1984	131,705,715	17,514,050	1,488,420	150,708,185
1985*	163,504,275	17,844,634	5,392,375	186,741,284
1986	175,141,258	19,929,641	1,379,097	196,449,996
1987	202,019,494	24,736,748	1,482,591	226,756,242
1988	223,013,862	24,792,168	1,904,259	249,710,289
1989	228,603,084	32,548,038	2,267,848	263,418,970
1990	234,066,890	26,880,996	2,577,670	263,525,556
1991	240,622,226	22,955,119	3,145,390	266,722,735
1992	250,765,789	23,820,931	3,494,170	278,080,890
1993	261,822,720	21,720,224	4,702,924	288,245,868

*Beginning in 1985, expenses for professional investment advisory services are treated as an offset to Investment Income.

**Includes other expenses incurred not directly related to the administration of daily operation.

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 cellar 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 data base. 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.

There were numerous records purged from the data base containing errors or categorized as suspicious data which is not necessarily significant. These records had the basic characteristic of a terminated non-vested participant which have balances of \$50 or less in their accumulated employee contribution account. Suspicious data are not necessarily errors, but data which falls outside the parameters of the editing process for further checking. There were 20,169 records for terminated non-vested members due a refund. Finally, 600 terminated vested members and Reciprocal Recognition records were purged as data in error. These participants were assumed to possess the same characteristics as the participants with "good data" in the same cohort.

Salary data contained in the profiles and valuation report exceed the amount reported by internal audit due to salary annualization. In the valuation process, membership data with fractional service in the first year of employment annualizes the salary.

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

	---1993---	---1992---
	<u>Census</u>	<u>Census</u>
Active Members	68,463	67,798
Regular Retirees	20,120	19,730
Disability Retirees	956	1,035
Survivors	4,211	4,096
Vested & Reciprocals	600	741
Due Refunds	20,169	20,122
DROP Participants	<u>521</u>	<u>538</u>
TOTAL	115,040	114,060

HALL ACTUARIAL ASSOCIATES

MEMBERSHIP PROFILE
CATEGORIZED BY AGE AND YEARS EMPLOYED
STATE EMPLOYEES' SYSTEM
ACTIVE REGULAR MEMBERS
CELLS DEPICT - MEMBER COUNT
TOTAL SALARY
VALUATION DATE 6/30/93

Age/Years :	(0-1)	(1-5)	(5-10)	(10-15)	(15-20)	(20-25)	(25-30)	(30-35)	(35-)	:	Total :
[0 - 19) :	171	71	0	0	0	0	0	0	0	:	242 :
:	940686	830109	0	0	0	0	0	0	0	:	1770795 :
:	:	:	:	:	:	:	:	:	:	:	:
[20 - 24) :	925	1281	10	0	0	0	0	0	0	:	2216 :
:	7484776	19115752	158884	0	0	0	0	0	0	:	26759413 :
:	:	:	:	:	:	:	:	:	:	:	:
[25 - 29) :	1349	3767	837	149	0	0	0	0	0	:	6102 :
:	13681314	69932255	14978520	2891517	0	0	0	0	0	:	101483605 :
:	:	:	:	:	:	:	:	:	:	:	:
[30 - 34) :	1189	3640	1814	2396	220	1	1	0	1	:	9262 :
:	13682557	70197491	38288995	51593114	5229894	35332	14288	0	16076	:	179057747 :
:	:	:	:	:	:	:	:	:	:	:	:
[35 - 39) :	1500	3404	1556	3107	1894	125	1	0	1	:	11588 :
:	18199015	67855147	34138458	76761762	49687323	3193090	27435	0	24840	:	249887071 :
:	:	:	:	:	:	:	:	:	:	:	:
[40 - 44) :	867	2772	1239	2212	2443	1327	91	0	3	:	10954 :
:	10187917	56041415	27666167	55213224	72219965	38753156	2566045	0	97223	:	262745114 :
:	:	:	:	:	:	:	:	:	:	:	:
[45 - 49) :	630	1922	1015	1578	1550	1334	841	43	1	:	8914 :
:	7449644	40040165	22376247	38899732	43482355	41867202	25413327	1282906	32586	:	220844163 :
:	:	:	:	:	:	:	:	:	:	:	:
[50 - 54) :	345	1200	628	1091	1017	794	937	226	10	:	6248 :
:	4341982	24607954	14308003	25552055	26484675	22191638	29366481	7174544	313428	:	154340760 :
:	:	:	:	:	:	:	:	:	:	:	:
[55 - 59) :	169	664	550	846	810	585	344	152	37	:	4157 :
:	2319104	14033889	12390299	19892215	19897216	14916615	9727709	5549213	1230795	:	99957054 :
:	:	:	:	:	:	:	:	:	:	:	:
[60 - 64) :	78	242	310	478	400	279	150	57	42	:	2036 :
:	1257106	5441973	6876171	11739102	9874324	7296191	3976094	2131232	1531413	:	50123606 :
:	:	:	:	:	:	:	:	:	:	:	:
[65 - 69) :	43	31	74	111	119	78	43	12	14	:	525 :
:	835325	764328	1820096	2713644	3061735	2256420	1296824	393003	440615	:	13581990 :
:	:	:	:	:	:	:	:	:	:	:	:
[70 - 74) :	15	7	2	45	49	28	17	9	9	:	181 :
:	326149	128933	48348	1014617	1435518	681993	408845	221648	256869	:	4522920 :
:	:	:	:	:	:	:	:	:	:	:	:
Total :	7281	19001	8035	12013	8502	4551	2425	499	118	:	62425 :
Total :	80705575	368989411	173050187	286270983	231373005	131191637	72797048	16752545	3943844	:	1365074236 :

AVERAGES :
 Attained Age 41.49
 Service Years 9.83
 Active Salary 21,867

HALL ACTUARIAL ASSOCIATES

MEMBERSHIP PROFILE
CATEGORIZED BY AGE AND YEARS EMPLOYED
STATE EMPLOYEES' SYSTEM
ACTIVE LEGISLATORS
CELLS DEPICT - MEMBER COUNT
TOTAL SALARY
VALUATION DATE 6/30/93

Age/Years :	(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) :	0	0	0	0	0	0	0	0	0	0 :
:	0	0	0	0	0	0	0	0	0	0 :
[25 - 29) :	0	2	0	0	0	0	0	0	0	2 :
:	0	53250	0	0	0	0	0	0	0	53250 :
[30 - 34) :	0	6	3	0	0	0	0	0	0	9 :
:	0	160884	83175	0	0	0	0	0	0	244059 :
[35 - 39) :	2	10	2	2	0	0	0	0	0	16 :
:	25034	269700	56400	52575	0	0	0	0	0	403709 :
[40 - 44) :	0	6	7	3	1	0	0	0	0	17 :
:	0	161700	261012	84150	29100	0	0	0	0	535962 :
[45 - 49) :	0	5	9	5	5	2	0	0	0	26 :
:	0	134400	275979	125152	146925	53850	0	0	0	736306 :
[50 - 54) :	0	4	5	5	3	3	0	0	0	20 :
:	0	113175	139650	155720	81225	81825	0	0	0	571595 :
[55 - 59) :	2	4	3	2	0	0	3	0	0	14 :
:	29623	109725	86700	54075	0	0	114468	0	0	394591 :
[60 - 64) :	0	1	0	1	0	1	0	2	0	5 :
:	0	24275	0	29025	0	26250	0	73779	0	153329 :
[65 - 69) :	0	0	1	0	0	1	0	0	0	2 :
:	0	0	27525	0	0	28125	0	0	0	55650 :
[70 - 74) :	0	1	0	0	0	0	1	0	1	3 :
:	0	27000	0	0	0	0	44199	0	54843	126042 :
Total :	4	39	30	18	9	7	4	2	1	114 :
Total :	54657	1054109	930441	500697	257250	190050	158667	73779	54843	3274493 :

AVERAGES : **Attained Age** 47.63
 Service Years 9.31
 Active Salary 28,724

HALL ACTUARIAL ASSOCIATES

MEMBERSHIP PROFILE
CATEGORIZED BY AGE AND YEARS EMPLOYED
STATE EMPLOYEES' SYSTEM
ACTIVE JUDGES
CELLS DEPICT - MEMBER COUNT
TOTAL SALARY
VALUATION DATE 6/30/93

Age/Years :	(0-1)	[1-5)	[5-10)	[10-15)	[15-20)	[20-25)	[25-30)	[30-35)	[35-)	:	Total :
<hr/>											
[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	0	0	0	0	0	0	0	0	:	0 :
:	0	0	0	0	0	0	0	0	0	:	0 :
:										:	:
[30 - 34) :	2	2	1	0	0	0	0	0	0	:	5 :
:	63985	129346	45204	0	0	0	0	0	0	:	238535 :
:										:	:
[35 - 39) :	8	15	1	3	0	0	0	0	0	:	27 :
:	367877	1147710	84000	197160	0	0	0	0	0	:	1796747 :
:										:	:
[40 - 44) :	11	24	14	8	2	0	0	0	0	:	59 :
:	457584	1808288	1099620	599192	168000	0	0	0	0	:	4132684 :
:										:	:
[45 - 49) :	5	11	13	23	17	1	0	0	0	:	70 :
:	271734	782821	1049915	1820227	1274144	84000	0	0	0	:	5282841 :
:										:	:
[50 - 54) :	1	9	5	12	11	4	1	0	0	:	43 :
:	18000	731250	364776	1012539	866740	351012	89004	0	0	:	3433321 :
:										:	:
[55 - 59) :	2	2	5	7	11	14	7	0	0	:	48 :
:	110367	168000	390773	563870	829980	1110702	601848	0	0	:	3775540 :
:										:	:
[60 - 64) :	0	2	7	6	8	5	6	1	0	:	35 :
:	0	173004	554993	509004	673470	453000	517608	84004	0	:	2965083 :
:										:	:
[65 - 69) :	1	2	0	2	3	2	2	4	2	:	18 :
:	84000	168424	0	168000	257004	182346	131048	323352	195600	:	1509774 :
:										:	:
[70 - 74) :	0	0	0	0	0	0	0	1	0	:	1 :
:	0	0	0	0	0	0	0	84000	0	:	84000 :
:										:	:
Total :	30	67	46	61	52	26	16	6	2	:	306 :
Total :	1373547	5108843	3589281	4869992	4069338	2181060	1339508	491356	195600	:	23218525 :

AVERAGES : **Attained Age** 50.55
 Service Years 11.54
 Active Salary 75,878

HALL ACTUARIAL ASSOCIATES

MEMBERSHIP PROFILE
CATEGORIZED BY AGE AND YEARS EMPLOYED
STATE EMPLOYEES' SYSTEM
ACTIVE WILDLIFE AGENTS
CELLS DEPICT - MEMBER COUNT
TOTAL SALARY
VALUATION DATE 6/30/93

Age/Years :	(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) :	10	7	0	0	0	0	0	0	0	:	17 :
:	73707	143259	0	0	0	0	0	0	0	:	216966 :
:										:	:
[25 - 29) :	6	21	2	1	0	0	0	0	0	:	30 :
:	45364	451108	52499	26940	0	0	0	0	0	:	575911 :
:										:	:
[30 - 34) :	3	20	5	10	0	0	0	0	0	:	38 :
:	26499	424102	120037	264618	0	0	0	0	0	:	835256 :
:										:	:
[35 - 39) :	3	2	5	12	11	0	0	0	0	:	33 :
:	22682	45476	133333	328122	341958	0	0	0	0	:	871571 :
:										:	:
[40 - 44) :	1	4	5	13	18	2	0	0	0	:	43 :
:	3008	89802	131258	353366	571599	70164	0	0	0	:	1219197 :
:										:	:
[45 - 49) :	0	2	5	10	12	7	0	0	0	:	36 :
:	0	50686	127315	262306	378535	256969	0	0	0	:	1075811 :
:										:	:
[50 - 54) :	0	0	0	2	5	5	0	0	0	:	12 :
:	0	0	0	51238	157580	167786	0	0	0	:	376604 :
:										:	:
[55 - 59) :	1	0	0	3	1	4	0	0	0	:	9 :
:	23000	0	0	79156	29754	130837	0	0	0	:	262747 :
:										:	:
[60 - 64) :	0	0	0	1	1	1	0	0	0	:	3 :
:	0	0	0	22485	27249	30172	0	0	0	:	79906 :
:										:	:
[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 :
:										:	:
Total :	24	56	22	52	48	19	0	0	0	:	221 :
Total :	194260	1204433	564442	1388231	1506675	655928	0	0	0	:	5513969 :

AVERAGES : **Attained Age** 38.82
 Service Years 10.05
 Active Salary 24,950

HALL ACTUARIAL ASSOCIATES

MEMBERSHIP PROFILE
CATEGORIZED BY AGE AND YEARS EMPLOYED

STATE EMPLOYEES' SYSTEM
CORRECTIONS before 1986

CELLS DEPICT - MEMBER COUNT
TOTAL SALARY

VALUATION DATE 6/30/93

Age/Years :	(0-1)	[1-5)	[5-10)	[10-15)	[15-20)	[20-25)	[25-30)	[30-35)	[35-)	:	Total :
<hr/>											
[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	0	69	13	0	0	0	0	0	:	82 :
:	0	0	1426970	313057	0	0	0	0	0	:	1740027 :
:										:	:
[30 - 34) :	0	0	119	170	22	0	0	0	0	:	311 :
:	0	0	2631279	4188063	580110	0	0	0	0	:	7399452 :
:										:	:
[35 - 39) :	0	0	104	182	112	11	0	0	0	:	409 :
:	0	0	2321080	4730254	3089616	333233	0	0	0	:	10474183 :
:										:	:
[40 - 44) :	0	0	79	165	137	41	3	0	0	:	425 :
:	0	0	1754937	4293949	4184969	1423391	80750	0	0	:	11737996 :
:										:	:
[45 - 49) :	0	0	70	124	73	44	10	1	0	:	322 :
:	0	0	1543966	3212385	2193683	1540170	388675	29415	0	:	8908294 :
:										:	:
[50 - 54) :	0	0	52	86	49	6	12	0	0	:	205 :
:	0	0	1142668	2232575	1341165	203547	440525	0	0	:	5360480 :
:										:	:
[55 - 59) :	0	0	29	66	46	12	3	3	0	:	159 :
:	0	0	626597	1653456	1266924	302396	118448	126775	0	:	4094596 :
:										:	:
[60 - 64) :	0	0	17	33	14	3	0	0	0	:	67 :
:	0	0	371313	798521	359574	96110	0	0	0	:	1625518 :
:										:	:
[65 - 69) :	0	0	3	5	2	1	1	1	0	:	13 :
:	0	0	68689	119988	49200	24600	44154	24600	0	:	331231 :
:										:	:
[70 - 74) :	0	0	0	1	0	0	2	0	0	:	3 :
:	0	0	0	24600	0	0	64549	0	0	:	89149 :
<hr/>											
Total :	0	0	542	845	455	118	31	5	0	:	1996 :
Total :	0	0	11887499	21566848	13065241	3923447	1137101	180790	0	:	51760926 :
<hr/>											

AVERAGES : Attained Age 43.20
 Service Years 13.28
 Active Salary 25,932

HALL ACTUARIAL ASSOCIATES

MEMBERSHIP PROFILE
CATEGORIZED BY AGE AND YEARS EMPLOYED

STATE EMPLOYEES' SYSTEM
CORRECTIONS after 1986

CELLS DEPICT - MEMBER COUNT
TOTAL SALARY

VALUATION DATE 6/30/93

Age/Years :	(0-1)	(1-5)	(5-10)	(10-15)	(15-20)	(20-25)	(25-30)	(30-35)	(35-)	: Total :
[0 - 19) :	71	0	0	0	0	0	0	0	0	: 71 :
: 537028	0	0	0	0	0	0	0	0	0	: 537028 :
: :										: :
[20 - 24) :	211	385	1	0	0	0	0	0	0	: 597 :
: 1624074	6557085	20412	0	0	0	0	0	0	0	: 8201571 :
: :										: :
[25 - 29) :	182	650	42	0	0	0	0	0	0	: 874 :
: 1694137	11941396	795097	0	0	0	0	0	0	0	: 14430630 :
: :										: :
[30 - 34) :	106	421	49	0	0	0	0	0	0	: 576 :
: 1179597	7802140	947795	0	0	0	0	0	0	0	: 9929532 :
: :										: :
[35 - 39) :	110	257	83	0	0	0	0	0	0	: 450 :
: 1194760	4846290	1603792	0	0	0	0	0	0	0	: 7644842 :
: :										: :
[40 - 44) :	60	245	46	0	0	0	0	0	0	: 351 :
: 580143	4660284	930786	0	0	0	0	0	0	0	: 6171213 :
: :										: :
[45 - 49) :	48	146	34	0	0	0	0	0	0	: 228 :
: 555760	2787061	662725	0	0	0	0	0	0	0	: 4005546 :
: :										: :
[50 - 54) :	20	99	17	0	0	0	0	0	0	: 136 :
: 216476	1805288	326797	0	0	0	0	0	0	0	: 2348561 :
: :										: :
[55 - 59) :	10	51	20	0	0	0	0	0	0	: 81 :
: 106912	976912	401517	0	0	0	0	0	0	0	: 1485341 :
: :										: :
[60 - 64) :	8	17	4	0	0	0	0	0	0	: 29 :
: 152986	335712	77321	0	0	0	0	0	0	0	: 566019 :
: :										: :
[65 - 69) :	1	3	0	0	0	0	0	0	0	: 4 :
: 26488	69000	0	0	0	0	0	0	0	0	: 95488 :
: :										: :
[70 - 74) :	2	1	1	0	0	0	0	0	0	: 4 :
: 46000	23000	17952	0	0	0	0	0	0	0	: 86952 :
: :										: :
Total :	829	2275	297	0	0	0	0	0	0	: 3401 :
Total :	7914361	41804169	5784194	0	0	0	0	0	0	: 55502724 :

AVERAGES : Attained Age 33.64
 Service Years 2.67
 Active Salary 16,320

HALL ACTUARIAL ASSOCIATES

MEMBERSHIP PROFILE
CATEGORIZED BY AGE AND YEARS RETIRED
STATE EMPLOYEES' SYSTEM
ALL REGULAR RETIREES
CELLS DEPICT - MEMBER COUNT
TOTAL BENEFIT
VALUATION DATE 6/30/93

Age/Years :	(0-1)	(1-2)	(2-3)	(3-4)	(4-5)	(5-10)	(10-15)	(15-20)	(20-)	:	Total :
[0 - 39) :	2	0	0	0	0	2	0	0	0	:	4 :
:	34057	0	0	0	0	22853	0	0	0	:	56910 :
:										:	
[40 - 44) :	4	4	4	3	0	2	0	0	0	:	17 :
:	58016	58061	38638	33707	0	26061	0	0	0	:	214483 :
:										:	
[45 - 49) :	19	15	7	5	7	14	0	0	0	:	67 :
:	319136	331674	112660	77683	103983	185521	0	0	0	:	1130658 :
:										:	
[50 - 54) :	69	42	26	29	21	258	4	0	0	:	449 :
:	1283838	747820	393748	480371	356631	4152474	46519	0	0	:	7461401 :
:										:	
[55 - 59) :	168	106	87	86	88	1190	36	3	1	:	1765 :
:	2518168	1532054	1439215	1593285	1470481	18407744	450016	26564	4037	:	27441563 :
:										:	
[60 - 64) :	378	300	242	225	215	1783	365	72	10	:	3590 :
:	3412291	2939054	2749790	2436995	2640806	24482079	4754176	669021	49187	:	44133399 :
:										:	
[65 - 69) :	194	191	180	296	368	2187	915	214	26	:	4571 :
:	1797873	1607189	1984135	2813308	3333713	24667733	11962480	2377365	147459	:	50691254 :
:										:	
[70 - 74) :	38	48	62	79	125	1528	1724	528	46	:	4178 :
:	390001	583316	923803	788082	1247346	16449347	17077945	5870366	348015	:	43678221 :
:										:	
[75 - 79) :	1	1	5	6	8	345	1266	995	148	:	2775 :
:	19961	16649	119453	45551	111035	4257172	10711525	8787517	1245148	:	25314011 :
:										:	
[80 - 84) :	0	0	1	0	1	21	112	1064	488	:	1687 :
:	0	0	13017	0	21092	362199	1152429	8145996	3411938	:	13106670 :
:										:	
[85 - 89) :	0	0	0	0	0	1	9	110	670	:	790 :
:	0	0	0	0	0	35526	84387	971531	4089687	:	5181132 :
:										:	
[90 - 99) :	0	0	0	1	0	0	0	8	218	:	227 :
:	0	0	0	8107	0	0	0	108912	1264115	:	1381134 :
:										:	
Total :	873	707	614	730	833	7331	4431	2994	1607	:	20120 :
Total :	9833342	7815815	7774457	8277090	9285087	93048709	46239477	26957272	10559587	:	219790837 :

AVERAGES :
 Attained Age 70.03
 Years Retired 10.40
 Annual Benefit 10,924

HALL ACTUARIAL ASSOCIATES

MEMBERSHIP PROFILE
CATEGORIZED BY AGE AND YEARS RETIRED
STATE EMPLOYEES' SYSTEM
ALL DISABILITY RETIREES
CELLS DEPICT - MEMBER COUNT
TOTAL BENEFIT
VALUATION DATE 6/30/93

Age/Years :	(0-1)	(1-2)	(2-3)	(3-4)	(4-5)	(5-10)	(10-15)	(15-20)	(20-)	Total :
[0 - 39) :	11	9	8	7	8	6	1	0	0	50 :
:	66024	49842	47409	32728	40865	29304	3414	0	0	269585 :
[40 - 44) :	16	13	17	5	6	20	3	0	0	80 :
:	144962	102108	128711	41691	39074	144581	17400	0	0	618527 :
[45 - 49) :	30	25	21	20	21	56	13	2	0	188 :
:	282824	195378	164992	135664	147436	440955	67114	7185	0	1441548 :
[50 - 54) :	37	39	27	32	24	91	35	7	0	292 :
:	319773	333924	204585	283752	200883	702252	240324	40698	0	2326191 :
[55 - 59) :	29	32	38	26	44	94	50	18	2	333 :
:	214515	240454	280109	155334	322284	620317	287828	112423	6577	2239841 :
[60 - 64) :	0	2	1	0	0	4	4	2	0	13 :
:	0	11289	39492	0	0	25509	35508	10673	0	122472 :
[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 :
[75 - 79) :	0	0	0	0	0	0	0	0	0	0 :
:	0	0	0	0	0	0	0	0	0	0 :
[80 - 84) :	0	0	0	0	0	0	0	0	0	0 :
:	0	0	0	0	0	0	0	0	0	0 :
[85 - 89) :	0	0	0	0	0	0	0	0	0	0 :
:	0	0	0	0	0	0	0	0	0	0 :
[90 - 99) :	0	0	0	0	0	0	0	0	0	0 :
:	0	0	0	0	0	0	0	0	0	0 :
Total :	123	120	112	90	103	271	106	29	2	956 :
Total :	1028098	932995	865297	649169	750542	1962917	651589	170979	6577	7018164 :

AVERAGES :
 Attained Age 51.86
 Years Retired 5.27
 Annual Benefit 7,341

HALL ACTUARIAL ASSOCIATES

MEMBERSHIP PROFILE
CATEGORIZED BY AGE AND YEARS RETIRED
STATE EMPLOYEES' SYSTEM
ALL SURVIVOR BENEFITS
CELLS DEPICT - MEMBER COUNT
TOTAL BENEFIT
VALUATION DATE 6/30/93

Age/Years :	(0-1)	(1-2)	(2-3)	(3-4)	(4-5)	(5-10)	(10-15)	(15-20)	(20-)	Total :
[0 - 39) :	3	9	2	5	11	28	19	18	10	105 :
:	47248	125073	73196	86663	140583	300736	160491	94953	48420	1077363 :
:										:
[40 - 44) :	3	3	0	3	5	29	14	2	0	59 :
:	121708	33785	0	51434	87130	355146	125977	9733	0	784913 :
:										:
[45 - 49) :	5	4	8	6	12	44	23	5	4	111 :
:	56511	29382	63360	96062	129959	481910	223368	25817	9885	1116253 :
:										:
[50 - 54) :	31	65	62	36	38	63	44	11	8	358 :
:	429774	976696	690108	530699	406889	739614	384027	79845	36193	4273845 :
:										:
[55 - 59) :	5	5	6	1	3	414	69	39	7	549 :
:	74457	87843	36936	2860	62566	4171125	475756	252190	34738	5198470 :
:										:
[60 - 64) :	0	2	5	7	3	39	674	75	19	824 :
:	0	15341	30921	39153	11121	309636	4937025	438689	82495	5864381 :
:										:
[65 - 69) :	0	1	2	4	6	65	67	889	48	1082 :
:	0	12598	11973	15609	35775	520271	566389	5480637	234497	6877749 :
:										:
[70 - 74) :	0	0	2	1	3	40	57	61	480	644 :
:	0	0	10839	3150	40820	331996	386415	349310	2518641	3641172 :
:										:
[75 - 79) :	0	0	0	0	0	9	32	58	221	320 :
:	0	0	0	0	0	56674	240391	310826	1018405	1626295 :
:										:
[80 - 84) :	0	0	0	0	0	1	3	19	104	127 :
:	0	0	0	0	0	5168	31968	108466	438945	584547 :
:										:
[85 - 89) :	0	0	0	0	0	0	1	2	25	28 :
:	0	0	0	0	0	0	20017	20134	95673	135823 :
:										:
[90 - 99) :	0	0	0	0	0	0	0	0	4	4 :
:	0	0	0	0	0	0	0	0	16786	16786 :
:										:
Total :	47	89	87	63	81	732	1003	1179	930	4211 :
Total :	729698	1280718	917332	825630	914842	7272276	7551825	7170600	4534679	31197600 :

AVERAGES :
 Attained Age 64.20
 Years Retired 15.05
 Annual Benefit 7,409

HALL ACTUARIAL ASSOCIATES

MEMBERSHIP PROFILE
CATEGORIZED BY AGE AND YEARS RETIRED
STATE EMPLOYEES' SYSTEM
DROP PARTICIPANTS
CELLS DEPICT - MEMBER COUNT
TOTAL BENEFIT
VALUATION DATE 6/30/93

Age/Years :	(0-1)	(1-2)	(2-3)	(3-4)	(4-5)	(5-10)	(10-15)	(15-20)	(20-)	Total :
[0 - 39) :	1	0	0	0	0	0	0	0	0	1 :
:	13218	0	0	0	0	0	0	0	0	13218 :
[40 - 44) :	4	0	0	0	0	0	0	0	0	4 :
:	55914	0	0	0	0	0	0	0	0	55914 :
[45 - 49) :	11	0	0	0	0	0	0	0	0	11 :
:	215411	0	0	0	0	0	0	0	0	215411 :
[50 - 54) :	39	16	0	0	0	0	0	0	0	55 :
:	1002622	359679	0	0	0	0	0	0	0	1362301 :
[55 - 59) :	97	43	0	0	0	0	0	0	0	140 :
:	2313906	1056408	0	0	0	0	0	0	0	3370314 :
[60 - 64) :	138	59	0	0	0	0	0	0	0	197 :
:	2158623	1214991	0	0	0	0	0	0	0	3373614 :
[65 - 69) :	50	46	0	0	0	0	0	0	0	96 :
:	931086	878645	0	0	0	0	0	0	0	1809731 :
[70 - 74) :	9	4	0	0	0	0	0	0	0	13 :
:	155731	99575	0	0	0	0	0	0	0	255306 :
[75 - 79) :	4	0	0	0	0	0	0	0	0	4 :
:	185284	0	0	0	0	0	0	0	0	185284 :
[80 - 84) :	0	0	0	0	0	0	0	0	0	0 :
:	0	0	0	0	0	0	0	0	0	0 :
[85 - 89) :	0	0	0	0	0	0	0	0	0	0 :
:	0	0	0	0	0	0	0	0	0	0 :
[90 - 99) :	0	0	0	0	0	0	0	0	0	0 :
:	0	0	0	0	0	0	0	0	0	0 :
Total :	353	168	0	0	0	0	0	0	0	521 :
Total :	7031795	3609297	0	0	0	0	0	0	0	10641093 :

AVERAGES : **Attained Age** 60.77
 Years Retired 0.82
 Annual Benefit 20,424

HALL ACTUARIAL ASSOCIATES

MEMBERSHIP PROFILE
CATEGORIZED BY AGE AND YEARS EMPLOYED
STATE EMPLOYEES' SYSTEM
TERMINATED VESTED
CELLS DEPICT - MEMBER COUNT
TOTAL BENEFIT
VALUATION DATE 6/30/93

Age/Years :	(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) :	0	0	0	0	0	1	0	0	0	:	1 :
:	0	0	0	0	0	3062	0	0	0	:	3062 :
:										:	:
[25 - 29) :	0	1	0	0	0	0	0	0	0	:	1 :
:	0	438	0	0	0	0	0	0	0	:	438 :
:										:	:
[30 - 34) :	0	3	1	8	2	0	0	0	0	:	14 :
:	0	3038	460	47478	11063	0	0	0	0	:	62039 :
:										:	:
[35 - 39) :	0	0	0	22	26	2	0	0	0	:	50 :
:	0	0	0	139970	167894	8286	0	0	0	:	316150 :
:										:	:
[40 - 44) :	0	0	0	30	63	26	2	0	0	:	121 :
:	0	0	0	203746	539862	256305	12219	0	0	:	1012132 :
:										:	:
[45 - 49) :	0	1	0	21	39	38	17	0	0	:	116 :
:	0	1097	0	148010	388931	330368	145569	0	0	:	1013975 :
:										:	:
[50 - 54) :	0	0	0	24	36	25	36	5	0	:	126 :
:	0	0	0	238025	335436	286582	353813	43075	0	:	1256930 :
:										:	:
[55 - 59) :	0	0	0	27	28	19	11	9	7	:	101 :
:	0	0	0	142854	189388	175450	84400	76510	30433	:	699036 :
:										:	:
[60 - 64) :	0	0	0	3	6	8	5	3	2	:	27 :
:	0	0	0	15697	56023	69197	30297	45090	7371	:	223675 :
:										:	:
[65 - 69) :	0	0	0	4	3	3	6	0	4	:	20 :
:	0	0	0	21172	19426	26738	44531	0	27819	:	139685 :
:										:	:
[70 - 74) :	0	0	0	0	0	3	8	3	9	:	23 :
:	0	0	0	0	0	39783	36684	15901	29154	:	121521 :
<hr/>											
Total :	0	5	1	139	203	125	85	20	22	:	600 :
Total :	0	4574	460	956951	1708023	1195771	707513	180576	94776	:	4848644 :
<hr/>											

AVERAGES : **Attained Age** 50.53
 Service Years 19.93
 Annual Benefit 8,081

EXHIBIT 5**PRINCIPLE PROVISIONS OF THE PLAN
(Including Acts of 1990 Regular Session)****EFFECTIVE DATE:**

July 1, 1947; last amendment date - July 1, 1993.

EMPLOYEE:

Any person legally occupying a position in the state service.

EMPLOYER:

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

**ELIGIBILITY FOR
PARTICIPATION:**

Conditions of employment in state service except the following: elected or appointed officials or employees who are contributing members of any other state system; public officials and state employees who receive a per diem in lieu of compensation; persons employed prior to 1/1/73 who work on a part-time basis and elect not to participate; patient or inmate help in state charitable, penal or correctional institutions; part-time students, interns and resident physicians; independent contractors; employees who are age 60 or older at time of employment; retirees of the retirement system who return to work under certain conditions; judges who failed to elect membership prior to 10/2/76; civilian employees who on 11/1/81 were within five years of retirement eligibility in the Federal Civil Service Retirement and Disability Fund; teachers employed after 9/10/82; nurses employed from employment pools at state charity hospitals.

SERVICE:

Service as an "Employee", defined above.

CREDITABLE SERVICE:

For service prior to January 1, 1973: 1/4 year granted for each 89 day interval of service, not to exceed 1 credit per fiscal year. Minimum 50 days required for 1st Quarter credit.

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

EXHIBIT 5 (Continued)
Principle Provisions**ADDITIONAL**
CREDITABLE SERVICE:

1. Credit for service cancelled by withdrawal of accumulated contributions may be restored by member by paying into system the amount withdrawn plus regular interest.
2. Maximum of 4 years of credit for military service may be obtained for each member with at least 2 years service, contingent on payment of Employer and Employee contributions plus compound interest on compensation member would have received for such period.
3. Credit for educational leave or any period of training, up to a maximum of three years, for which a stipend was paid and the member was bound to return to the employ and does return to the employ of such agency.
4. Credit for service which was classified as a job appointment or emergency appointment not to exceed 2 years credit.
5. At retirement, all accumulated unused sick and annual leave shall be credited based on the following schedule:

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

EARNABLE COMPENSATION:

The base pay earned by an employee for a given pay period as reported by the employing agency including the full amount earned, expense allowances, per diem paid to members of the legislature, the clerk or sergeant-at-arms of the house and the president and secretary of the senate.

AVERAGE FINAL
COMPENSATION FOR
BENEFIT PURPOSES:

The average annual earned compensation for the thirty-six highest months of successive employment, or the highest thirty-six successive joined months where interruption of service occurred; part-time employees use the base pay the part-time employee would have received had employment been full-time.

EXHIBIT 5 (Continued)
Principle Provisions

ACCUMULATED CONTRIBUTIONS:

The sum of all amounts deducted from the earned compensation of a member and credited to the individual account in the employee's savings account, together with regular interest credited prior to July 1969.

EMPLOYEE CONTRIBUTIONS:

		<u>After June 30, 1989</u>
Individual Employees	7% of Compensation	7.5%
Agents of DOC	8.5% of Compensation	9.0%
Wild Life Agents	8% of Compensation	8.5%
Legislators, Judges	11% of Compensation	11.5%

EMPLOYER CONTRIBUTIONS:

9% of Compensation by statute; 9.2% effective 8/1/80; 10.2% effective 7/1/84; 11.2% effective 9/11/85. Act 81 of 1988 requires employer rate to be actuarially determined and set annually.

RETIREMENT BENEFIT:

NORMAL RETIREMENT:

Eligibility:

Written application to the Board and,

1. Member has attained age 60 and 10 years of accredited service, or age 55 and 25 years of accredited service, or at any age and 30 years of accredited service.
2. Certain members of the Department of Public Safety and Corrections, 20 years of accredited service at any age (age 50 if employed after August 15, 1986, regardless of service).
3. Service as a judge or court officer, 18 years of creditable service regardless of age, or age 50 and 20 years of accredited service, or age 55 and 12 years of accredited service, or age 70 without regard to accredited service.
4. Members of the legislature, governor, lieutenant governor and state treasurer, 16 years of such service without regard to age, or age 50 with 20 years of accredited service with 12 years of such service, or age 55 with 12 years of such service.

Benefit:

1. Annual pension equal to 2 1/2 percent of average compensation for each year of creditable service, plus \$300 supplemental benefit.
2. Annual pension equal to 2 1/2 percent of average compensation for each year of creditable service, plus \$300 supplemental benefit.

EXHIBIT 5 (Continued)**Principle Provisions**

3. Annual pension equal to 3 1/2 percent of average compensation for each year of creditable service as a judge or court officer, plus benefit described in (1) above for other state service.
4. Annual pension equal to 3 1/2 percent of average compensation for each year of creditable service as a legislator, governor, lieutenant governor or state treasurer, plus benefit described in (1) above for other state service.

NOTE:

- A. Benefit not to exceed 100% of average earnable compensation.
- B. Retiree who returns to work shall have benefits suspended while so re-employed; benefit in same amount shall resume after re-employment ceases, but shall include any Cost-of-Living benefits or increases granted during suspension (these are not retroactive). Retirees who return to work during a July 1 to June 30 year will not have his benefits reduced if his compensation does not exceed 50% of his average final compensation.
- C. The \$300 annual supplemental benefit is discontinued to persons who become members of the retirement system after 6/30/86 (Act 608 of 1986).
- D. For members employed after January 1, 1990, the annual pension cannot exceed the maximum benefit provided under Section 415(b)(2)(F) of the Internal Revenue Service Code as adjusted for inflation and form of benefit other than life annuity or qualified joint and survivor annuity for retirement ages as follows:

<u>AGE</u>	<u>MAXIMUM</u>	<u>AGE</u>	<u>MAXIMUM</u>	<u>AGE</u>	<u>MAXIMUM</u>
48	\$21,280	56	\$44,912	64	\$103,256
49	23,290	57	49,550	65	115,641
50	25,507	58	54,744	66	126,668
51	27,962	59	60,573	67	139,130
52	30,677	60	67,133	68	153,271
53	33,690	61	74,535	69	169,401
54	37,036	62	82,912	70	187,867
55	40,759	63	92,422		

EXHIBIT 5 (Continued)**Principle Provisions****COST-OF-LIVING BENEFITS:**

1. Discretionary Board approved supplemental cost-of-living adjustments based on the difference in the all-items Consumer Price Index for the two immediate preceding calendar years not to exceed 3% in any year, from excess interest earnings, provided the system is approaching full funding.

2. **Under Act 798 of 1980:**

A. Cost-of-living adjustments for retirees based on their date of retirement as follows:

<u>Retirement Date</u>	<u>Increase</u>
7/2/78 - 7/1/79	3%
7/2/77 - 7/1/78	6%
7/1/77 and earlier	9% (of 10/1/77 benefit)

B. 1979 cost-of-living raise of 10% for those who retired on or before 7/1/80 is a permanent raise.

3. **Under Act 852 of 1981:**

Cost-of-living for recipients who retired on or before July 1, 1978, payable on January 1, 1982 as follows:

Retiree, beneficiary or survivor

1. At least 62 but less than 65, 4% of benefit of October 1, 1977, or initial benefit if retired after October 1, 1977, but not greater than \$400 annually,

2. 65 or older 7% of benefit of October 1, 1977 or initial benefit if retired after October 1, 1977, but not greater than \$700 annually.

3. Disability retirees and surviving children not subject to the above age restrictions, and their COL is 7%, but not greater than \$700 per person.

4. **Under Act 443 of 1984:**

7% Cost-of-living increase to retirees, beneficiaries and survivors who are receiving a benefit by 9/1/84. It is effective 9/1/84 and must be paid by the retirement system by 11/1/84.

No increase can be more than \$100/month. If the increase is only partially funded for a given year, the increase shall be reduced in direct proportion.

NOTE:

In no case may the increase cause annual benefits to exceed \$24,000.

5. **Act 5 of Third Extraordinary Session:**

Effective January 1, 1992, retirees, beneficiaries and survivors who have been receiving benefits since July 1, 1990 receives \$1 per month increase for each year of service plus \$1 per month for each year retired.

EXHIBIT 5 (Continued)**Principle Provisions****6. Act 572 of 1992:**

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 average actuarial yield for the System portfolio. Once the balance of the experience account accumulates to a sum sufficient to grant retirees a COLA, the Board may grant such COLA with legislative approval.

DISABILITY RETIREMENT:**Eligibility:**

10 years of creditable service; certification of disability by medical board (medical examination may be required once in every year for the first 5 years of disability retirement, and once in every 2 years thereafter, until age 60.)

Benefit:

- 1) The disability retirement annuity shall be equivalent to the regular retirement formula without reduction by reason of age for all classes of membership.
- 2) For judges and court officers, the benefit in (1) but not less than 50% of current salary.
- 3) For certain Wild Life agents; partial disabilities not eligible for (1) above receive 75% of the benefit in (1); total disability in-line-of-duty receive 60% of average compensation.

SURVIVOR'S BENEFITS:**Eligibility:**

1. Surviving spouse with minor children, legally married two years prior to date of death of a member with 10 years of service credit, 2 of which were earned immediately prior to death, or 20 years of service regardless of date earned.
2. Surviving spouse of a deceased member with 5 years of service credit, 2 of which were earned immediately prior to death, or 20 years of service regardless of date earned.
3. Surviving minor child, with no spouse of a deceased member with 5 years of service credit, 2 of which were earned immediately prior to death, or 20 years of service regardless of date earned.
4. Surviving handicapped or mentally retarded children.
5. Surviving spouse of a judge or court officer.
6. Beneficiary not eligible for (1), (2), (3), (4) or (5).

EXHIBIT 5 (Continued)

Principle Provisions

Benefit:

1. Greater of 75% of member's average compensation or \$300 per month. One-third of the benefit is designated for survivor, two-thirds for minor children.
2. Greater of 50% of member's average compensation or \$200 per month.
3. Greater of 75% of member's average compensation or \$300 per month.
4. Continuation of minor child's benefit described above in (1) or (2) whichever is applicable.
5. Survivor's benefit described in (1) or (2), but not less than the greater of 1/3 the member's compensation or 50% of the retirement pay which such member was entitled or receiving prior to death.
6. Return of member's accumulated contributions.

OPTIONAL FORMSOF BENEFIT:

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

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

Option 2 - Reduced retirement allowance, if member dies, to be continued to designated beneficiary for his lifetime.

Option 3 - 1/2 of reduced retirement allowance, if member dies, to be continued to designated beneficiary for his lifetime.

Option 4 - Other benefits of equal actuarial value may be elected with approval of board.

- A. 90% of the maximum retirement allowance to member; if member dies, 55% of the maximum retirement allowance continued to beneficiary.
- B. 90% of the maximum retirement allowance to member; if member dies, 55% of the maximum retirement allowance continues to beneficiary adjusted based on the age and relationship of the beneficiary to the member.
- C. Special reversionary annuities to Options 2, 3, and 4. Member's reduced benefit reverts to the maximum if the beneficiary predeceases the annuitant.

EXHIBIT 5 (Continued)**Principle Provisions****REFUND OF CONTRIBUTIONS:**

If a member ceases to be a member, except by death or retirement, he shall be paid such part of the amount of the accumulated contributions credited to his individual account in annuity savings fund as he shall demand, plus any accumulated interest thereon as of 6/30/71; if member of legislature, no interest. No interest credited after 6/30/71. Death prior to retirement - accumulated contributions credited to individual account in annuity savings fund are returnable to designated beneficiary, if any; otherwise, to his estate.

WITHDRAWAL AFTER 10 YEARS**OF CREDITABLE SERVICE:**

Any member with credit for 10 years of service who withdraws from service may elect to leave accumulated contributions in system until age 60, when he may apply for retirement and begin receiving a retirement benefit based on the credits he had at date of withdrawal.

EXHIBIT 6**ACTUARIAL COST METHODS AND ASSUMPTIONS****COST METHOD:**

The individual "Projected Unit Credit" cost method was 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 accumulated from the participant's attained age to the anticipated retirement dates. That portion of the actuarial present value attributable to current year benefit accruals is called the Normal Cost. The actuarial present value of future benefits in proportion to service accrued on the date of valuation is called the actuarial accrued liability.

ACCOUNTING DISCLOSURE:

The Governmental Accounting Standards Board Statement No. 5 requires the disclosure of "Credited Projected Benefits" for Public Employee Retirement Systems. The actuarial present value of credited projected benefits are the accumulated accrued benefits of each individual participant projected with salary increases for active members to anticipated retirement. The development of this disclosure utilizes the same actuarial assumptions in the development of funding requirements and actuarial accrued liabilities.

MORTALITY ASSUMPTIONS:

Pre-retirement deaths and post-retirement life expectancies were projected in accordance with the experience of the 1983 Sex Distinct Graduated Group Annuity Mortality Table, with female age set at attained age plus one.

DISABILITY ASSUMPTION:

Rates of total and permanent disability were projected by age in accordance with the 1981-86 disability experience study of the Retirement System. For mortality after disability, rates were on the Eleventh Actuarial Valuation of the Railroad Retirement Systems for permanent disabilities.

RETIREMENT ASSUMPTION:

Retirement without reduction in benefits can occur at any given age after satisfying the service eligibility requirements. Absent from the plan is a traditional "Normal Retirement Age". Since the age and service requirements are varied, the frequency of retirements will depend on the exposure plus intangibles such as health, economy, Social Security and other work patterns. The retirement rates were projected based on the 1981-86 experience study of the Retirement System.

EXHIBIT 6 (Continued)
Cost Methods & Assumptions

HALL ACTUARIAL ASSOCIATES

TERMINATION ASSUMPTIONS:

Voluntary termination or withdrawal rates were derived from the 1981-86 termination experience study of the Retirement System. During the first five years of employment, the probability of voluntarily terminating is a multiple of the attained age rate as follows:

	<u>Regular Members</u>	<u>Corrections & Wildlife</u>
1st year	1.3x	1.6x
2nd year	1.0x	1.2x
3rd year	1.0x	1.1x
4th year	1.0x	1.1x
5th year	1.0x	1.0x

Furthermore, for members terminating with ten (10) or more years of service, it is assumed that 80% will not withdraw their accumulated employee contributions.

SALARY GROWTH:

The rate of annual salary growth is based on the 1981-86 salary growth experience study of the Retirement System.

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	1.3	17
30	1.8	15
35	2.2	13
40	2.1	10
45	1.7	8
50	1.2	4

REMARRIAGE:

Annuities payable to the 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 "Mortality and Remarriage Experience for Widow's Beneficiaries under OASDI."

EXHIBIT 6 (Continued)
Cost Methods & Assumptions

ASSUMPTION FOR INCOMPLETE DATA:

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

INVESTMENT EARNINGS:

An effective annual rate of 8 1/4%, net expenses.

ASSET VALUATION:

Bonds are valued at amortized cost. Fixed assets are valued at cost minus depreciation. For the Plan Year Ending June 30, 1988 equities are valued on a four year weighted average. The computation of the average actuarial value of assets is the sum of the bonds at amortized cost, plus a weighted average of the change in the unrealized losses or (gains) in the market value of equities offset against the market value of equities. This value is a modification of the average value methodology determined in accordance with Reg. 1.412(c)(2)-1-(6)&(7) of the Internal Revenue Service Code and is subject to the Corridor Limits defined therein. The four year average value will be phased in over the next three year period.

ADMINISTRATIVE EXPENSES:

These expenses are included in Normal Cost and are assumed to be \$4,300,000 per year. Investment Expenses are not included in Normal Cost but are treated as a direct offset to investment income.

HALL ACTUARIAL ASSOCIATES

ACTUARIAL TABLES AND RATES
(STATE EMPLOYEES' ASSUMPTIONS)

Age	- Death Rates - Male	Female	Remarriage Rates	Disability Rates	Retirement Rates	Dur	Termination Rates	Salary Scale
20	.00041	.00022	.09350	.00000	.00000	1	.27500	1.11750
21	.00043	.00023	.09151	.00000	.00000	2	.32400	1.10750
22	.00045	.00024	.08954	.00000	.00000	3	.16400	1.09750
23	.00047	.00026	.08756	.00000	.00000	4	.13700	1.08250
24	.00049	.00028	.08568	.00000	.00000	5	.11800	1.07750
25	.00051	.00029	.08402	.00000	.00000	6	.11000	1.07250
26	.00054	.00031	.08225	.00000	.00000	7	.10100	1.07050
27	.00056	.00033	.08027	.00000	.00000	8	.08500	1.06850
28	.00060	.00035	.07802	.00000	.00000	9	.07100	1.06650
29	.00063	.00038	.07555	.00000	.00000	10	.05800	1.06350
30	.00067	.00040	.07281	.00020	.00000	11	.03200	1.06050
31	.00071	.00043	.06976	.00020	.00000	12	.02400	1.05750
32	.00076	.00046	.06651	.00030	.00000	13	.02000	1.05450
33	.00081	.00049	.06308	.00030	.00000	14	.02000	1.05150
34	.00087	.00052	.05945	.00040	.00000	15	.01700	1.04850
35	.00095	.00055	.05581	.00050	.00000	16	.01700	1.04550
36	.00100	.00059	.05230	.00060	.00000	17	.01300	1.04250
37	.00107	.00063	.04890	.00080	.00000	18	.01300	1.04250
38	.00115	.00068	.04569	.00100	.00000	19	.01300	1.04250
39	.00125	.00073	.04271	.00120	.00000	20	.01300	1.04250
40	.00137	.00079	.03992	.00130	.50000	21	.01200	1.04250
41	.00152	.00086	.03769	.00140	.50000	22	.01200	1.04250
42	.00169	.00093	.03479	.00150	.50000	23	.01200	1.04250
43	.00190	.00102	.03255	.00170	.50000	24	.01200	1.04250
44	.00214	.00112	.03037	.00200	.65000	25	.01100	1.04250
45	.00242	.00124	.02821	.00240	.65000	26	.01100	1.04250
46	.00274	.00137	.02631	.00280	.32000	27	.00800	1.04250
47	.00310	.00151	.02455	.00320	.32000	28	.00700	1.04250
48	.00348	.00167	.02302	.00360	.42000	29	.00600	1.04250
49	.00390	.00183	.02154	.00450	.43000	30	.01400	1.04250
50	.00434	.00199	.02018	.00540	.43000	31	.01300	1.04250
51	.00480	.00216	.01888	.00670	.42000	32	.01300	1.04250
52	.00528	.00235	.01807	.00800	.42000	33	.02000	1.04250
53	.00577	.00257	.01733	.00670	.42000	34	.01500	1.04250
54	.00628	.00282	.01670	.00540	.42000	35	.01500	1.04250
55	.00681	.00311	.01622	.00670	.47000	36	.01500	1.04250
56	.00735	.00344	.01595	.00920	.34000	37	.01500	1.04250
57	.00793	.00382	.01584	.01040	.32000	38	.01500	1.04250
58	.00857	.00424	.01588	.01140	.32000	39	.00000	1.04350
59	.00931	.00471	.01621	.01040	.32000	40	.00000	1.04550
60	.01017	.00522	.01682	.00400	.32000	41	.00000	1.04850
61	.01118	.00578	.01764	.00330	.27000	42	.00000	1.05150
62	.01236	.00640	.01905	.00250	.27000	43	.00000	1.05450
63	.01376	.00709	.02061	.00250	.27000	44	.00000	1.05750
64	.01540	.00784	.02238	.00300	.27000	45	.00000	1.05750
65	.01732	.00868	.02446	.00400	.44000	46	.00000	1.05750
66	.01953	.00964	.02683	.00000	.32000	47	.00000	1.05750
67	.02200	.01077	.02951	.00000	.32000	48	.00000	1.05750
68	.02469	.01213	.03208	.00000	.32000	49	.00000	1.05750
69	.02757	.01376	.03504	.00000	.42000	50	.00000	1.05750
70	.03058	.01569	.03851	.00000	.50000	51	.00000	1.05750

ACTUARIAL TABLES AND RATES
(JUDGES & LEGISLATORS ASSUMPTIONS)

Age	- Death Rates - Male Female	Remarriage Rates	Disability Rates	Retirement Rates	Dur	Termination Rates	Salary Scale
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21	.00043 .00023	.09151	.00000	.00000	2	.32400	1.04750
22	.00045 .00024	.08954	.00000	.00000	3	.16400	1.04750
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36	.00100 .00059	.05230	.00060	.00000	17	.01300	1.04750
37	.00107 .00063	.04890	.00080	.00000	18	.01300	1.04750
38	.00115 .00068	.04569	.00100	.00000	19	.01300	1.04750
39	.00125 .00073	.04271	.00120	.00000	20	.01300	1.04750
40	.00137 .00079	.03992	.00130	.50000	21	.01200	1.04750
41	.00152 .00086	.03769	.00140	.50000	22	.01200	1.04750
42	.00169 .00093	.03479	.00150	.50000	23	.01200	1.04750
43	.00190 .00102	.03255	.00170	.50000	24	.01200	1.04750
44	.00214 .00112	.03037	.00200	.65000	25	.01100	1.04750
45	.00242 .00124	.02821	.00240	.65000	26	.01100	1.04750
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52	.00528 .00235	.01807	.00800	.42000	33	.02000	1.04750
53	.00577 .00257	.01733	.00670	.42000	34	.01500	1.04750
54	.00628 .00282	.01670	.00540	.42000	35	.01500	1.04750
55	.00681 .00311	.01622	.00670	.47000	36	.01500	1.04750
56	.00735 .00344	.01595	.00920	.34000	37	.01500	1.04750
57	.00793 .00382	.01584	.01040	.32000	38	.01500	1.04750
58	.00857 .00424	.01588	.01140	.32000	39	.00000	1.04750
59	.00931 .00471	.01621	.01040	.32000	40	.00000	1.04750
60	.01017 .00522	.01682	.00400	.32000	41	.00000	1.04750
61	.01118 .00578	.01764	.00330	.27000	42	.00000	1.04750
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64	.01540 .00784	.02238	.00300	.27000	45	.00000	1.04750
65	.01732 .00868	.02446	.00400	.44000	46	.00000	1.04750
66	.01953 .00964	.02683	.00000	.32000	47	.00000	1.04750
67	.02200 .01077	.02951	.00000	.32000	48	.00000	1.04750
68	.02469 .01213	.03208	.00000	.32000	49	.00000	1.04750
69	.02757 .01376	.03504	.00000	.42000	50	.00000	1.04750
70	.03058 .01569	.03851	.00000	.50000	51	.00000	1.04750

HALL ACTUARIAL ASSOCIATES

EXHIBIT 7**LEGISLATIVE AUDITOR'S REPORT****6 Actuarial information for STATE EMPLOYEES' RETIREMENT SYSTEM.**(a) Most recent actuarial valuation date: June 30, 1993.(b) This valuation sets forth information concerning contributions applicable to the plan fiscal year beginning July 1, 1993, and ending June 30, 1994.

(c) Data used in this valuation

(i) Number of participants as of the valuation date:

Active members.	68,463
Regular retirees. .+ DROP	20,541
Disability retirees	956
Survivors receiving benefits.	4,211
Terminated employees due benefits upon attaining retirement age	600
Terminated employees due refunds.	20,169

(ii) Payroll of active members on the valuation date 1,504,147,368(iii) Annual benefits in payment on the valuation date. 258,006,601(d) Actuarially required contribution for those systems to which R.S.11:102 applies
Funding Method Projected Unit Credit.Unfunded Accrued Liability as of the end of fiscal 1988 1,825,421,035Amortization Method Increasing Annuity.Remaining Unamortized Portion of the initial unfunded liability . . 2,155,232,774Current Unfunded Accrued Liability under this method. 2,078,682,672

Actuarially required employer contribution: (at Mid-year)

(i) Employer Normal Cost. 82,194,513

Amortization Payments for Previous Years (Detail on Exhibit A):

(ii) Previous year's unpaid underpayment or (overpayment). (2,022,841)(iii) Initial Unfunded Liability (Excludes \$3,449,541 appropriation). 104,597,315(iv) Gains and Losses (1,226,276)(v) Changes in Assumption or Asset Valuation Method. (5,452,964)(vi) Changes in funding method. 0(vii) Changes in plan provisions 8,601,429(viii) Total employer contribution required (Sum of 6(d)(i) - (vii)). 186,691,176(ix) Estimated projected payroll for the coming fiscal year 1,553,771,505(x) Required Employer Contribution Rate (6(d)(viii)/6(d)(ix)). . . 12.0%+ Appropriation. 3,449,541(e) Actuarially required contribution for those systems to which R.S. 11:103 applies
Funding Method Not Applicable.(f) Average yield on investments last fiscal year. 8.05%

(g) Actuarial information for accounting purposes (GASB) 5 results)

Pension Benefit Obligation:

(i) Present retirees and beneficiaries. 2,340,291,437(ii) Terminated participants due benefits at retirement age. . . 22,616,419(iii) Terminated participants due a refund of their contributions 1,652,144

(iv) Active Members:

(1) Accumulated employee contributions. 790,606,581(2) Employer-financed vested portion. 1,625,666,317(3) Employer-financed nonvested portion 336,576,679(v) Total PBO (sum of 6(g)(i) through 6(g)(iv)) 5,123,409,577Actuarial value of assets. 3,044,726,905Unfunded (Assets in Excess of) Pension Benefit Obligation. 2,078,682,672

HALL ACTUARIAL ASSOCIATES

Exhibit 7 (Continued)

Legislative Auditor's Report

(g) Actuarial assumptions used

Interest rate used 8.25%

Give the name (or source reference) of the particular table used or attach a copy of the table used for the each of the following. Indicate where appropriate that no assumption is made with regard to a particular aspect of the valuation.

	<u>Males</u>	<u>Females</u>
Mortality rates (healthy)		
Mortality rates (disabled)	See copies of pages 20 - 24 of the 6/30/93	
Termination rates	Actuarial Valuation Report Attached	
Retirement rates		
Disability rates		
Salary scales		

(h) Cost of Living Target Ratio and Funded Ratio of the System: (This section must be completed by state and statewide retirement systems only).

(i) Funded Ratio of the System as of the 1986 fiscal year end53464

(ii) Number of fiscal years elapsed since the 1986 fiscal year end multiplied by one-thirtieth of the difference between one hundred percent and the amount in (6)(h)(i)10858

(iii) Changes in Funded Ratio due to mergers or changes in methods or assumptions after the 1986 fiscal year end;

<u>Date of Change</u>	<u>Change in Funded Ratio</u>
-----------------------	-------------------------------

<u>6/30/87</u>	<u>(.03148)</u>
<u>6/30/88</u>	<u>.02822</u>
<u>6/30/89</u>	<u>.02420</u>
<u>6/30/91</u>	<u>(.00781)</u>

Total Change in Funded Ratio01313

(iv) Number of fiscal years elapsed since the date of each change in (6)(h)(iii) multiplied by one-thirtieth of the amount of such change in funded ratio and of opposite arithmetic sign of such change;

<u>Date of Change</u>	<u>Amortization of Change</u>
-----------------------	-------------------------------

<u>6/30/87</u>	<u>.00630</u>
<u>6/30/88</u>	<u>(.00470)</u>
<u>6/30/89</u>	<u>(.00323)</u>
<u>6/30/91</u>	<u>.00052</u>

Total Amortization of Changes (.00111)

(v) Target Ratio as of the end of the just completed fiscal year.65524
(Sum of (6)(h) (i) through (iv))

(vi) Actual Funded Ratio of the system as of the just completed fiscal year .59430

(vii) According to my actuarial calculations this system has ___ has not X met the target ratio required to grant a cost of living increase to current benefit recipients.

To the best of my knowledge, the information supplied in item 6 and on statements attached to item 6, if any, is complete and accurate. In my opinion the assumptions used are in the aggregate reasonably related to the experience of the system and to reasonable expectations and represent my best estimate of anticipated experience under the system.

Date September 30, 1993 Signature of Actuary Charles G. Haer

HALL ACTUARIAL ASSOCIATES

EXHIBIT A

**AMORTIZATION OF UNFUNDED
ACTUARIAL ACCRUED LIABILITY
JUNE 30, 1993**

	<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>REMAIN</u>	<u>REMAINING</u> <u>BALANCE</u>	<u>MID-YEAR</u> <u>PAYMENT</u>
1)	1988	Initial Liability	I	40	1,825,421,035	36	2,155,232,774	108,046,857*
2)	1989	Experience Gain	I	15(L)	(51,766,931)	36	(47,099,991)	(2,361,233)
3)	1989	Actuarial Assumption	I	30(L)	(171,979,344)	36	(172,452,160)	(8,645,430)
4)	1990	Experience Loss	I	15(L)	110,124,801	36	105,002,368	5,264,014
5)	1991	Actuarial Assumption	I	30(L)	62,288,922	36	63,680,769	3,192,465
6)	1991	Experience Gain	I	15(L)	(16,696,068)	36	(16,592,512)	(831,821)
7)	1992	Legislative COLA	L	12	66,577,000	11	63,120,396	8,601,429
8)	1992	Change in Liability	I	37	6,064,124	36	1,651,904	82,814
9)	1993	Change in Liability	I	36	(67,422,552)	36	(67,422,552)	(3,380,050)
TOTAL OUTSTANDING BALANCE							<u>2,085,120,996</u>	
EMPLOYER'S CREDIT BALANCE								
	1992	Contribution Variance L	L	5	(11,259,859)	4	(9,350,086)	(2,728,395)
	1993	Contribution Variance L	L	5	2,911,762	5	2,911,762	705,554
TOTAL UNFUNDED ACTUARIAL ACCRUED LIABILITY							<u>\$2,078,682,672</u>	

***Note:** LSU and Unfunded Judges equals 3.192635% of the Initial Liability mid-year payment.

Effective July 1, 1992, Amortization Periods changed in accordance with Act 257.