

HALL ACTUARIAL ASSOCIATES

**LOUISIANA STATE EMPLOYEES'
RETIREMENT SYSTEM
JUNE 30, 1992
ACTUARIAL VALUATION**

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

HALL ACTUARIAL ASSOCIATES

1433 Ridgeway Court
Baton Rouge, LA 70806
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October 26, 1992

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, 1992.

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 Coopers and Lybrand, 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.

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

	<u>June 30, 1992</u>	<u>Prior Years</u> <u>June 30, 1991</u>	<u>June 30, 1990</u>
I. Membership Census			
1) Retirees	25,602	25,129	24,920
2) Actives	67,798	70,927	66,711
3) DROP	538	346	N/A
II. Annual Benefits	\$ 252,746,768	\$ 237,750,804	\$ 235,696,106
III. Total Payroll	1,454,370,594	1,368,479,924	1,226,065,067
IV. Assets	2,802,666,924	2,519,154,734	2,321,259,028
V. Experience Account	27,274,847	N/A	N/A
VI. Investment Yield			
Realized Income	10.92%	9.96%	9.85%
Actuarial Value	10.40%	10.00%	10.27%
VII. Cost to Fund Annual Pension Accruals (Normal Costs)	187,654,358 12.90%	175,166,466 12.80%	156,222,504 12.74%
VIII. Unfunded Actuarial Accrued Liability	2,081,841,850	1,982,569,933	1,888,847,501
IX. Funded Percentage	57.38%	55.94%	55.14%
X. Funding Requirements to Pay (Mid-year Payment)			
1) Employee Contribution Rate	115,536,720 7.682%	106,154,511 7.5%	94,982,406 7.5%
2) Employer Contribution Rate - Current Year	181,016,661 12.0%	185,288,551 13.1%	163,177,125 12.9%
3) Projected Employer Contribution - Next Year	190,935,676 11.9%	185,436,747 12.3%*	186,259,770 13.8%

The above funding requirements measure the cost of benefits that were in effect on June 30, 1992, plus Acts of the 1992 Legislative Session which have prospective effects on current active members.

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

Current Funding

The Actuarial Valuation for the plan year ending June 30, 1992 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 6/30/91		\$ 1,982,569,933
INCREASES		
Interest on Unfunded Liability	\$ 163,562,019	
Experience Account Allocation	27,274,847	
Cost of Living Benefit	66,577,000	
Experience Loss	<u>30,287,806</u>	
Incurred Increases	287,701,672	
DECREASES		
Investment Gains	54,549,694	
Employer Amtz. Payment	122,620,202	
Employer Credit	<u>11,259,859</u>	
Incurred Decreases	188,429,755	
Unfunded Liability 6/30/92		\$ 2,081,841,850

The employer contribution rate established by the Actuarial Forecast Committee for the 1992-1993 plan year was 11.9%. The actual employer contribution rates determined by this valuation for the current plan year is 12.1%, and 12.0% 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>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>5 Yr. Aver.</u>
9.8%	10.1%	10.3%	10.00%	10.40%	10.10%

The net actuarial rate of return assumed in the valuation was 8.25%. For the plan year ending June 30, 1992 the net yield to Actuarial Assets was more than the long term Actuarial Investment Assumption used to project benefits. The result was a net investment experience gain of \$54,549,694 above projected investment income.

Act 572 of 1992 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 \$27,274,847 will be credited to the Experience Account with a like amount used to reduce 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 gain, the employer's contribution will be reduced by \$1,349,082 during the next 37 years. This amortization credit represents a .09% reduction 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 1991-1992 plan year, the system suffered a \$30,287,806 experience loss. This loss will increase the employer's contribution by \$1,498,111 during the next fifteen years and represents a .10% increase in the rate projected by the Actuarial Forecast Committee.

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. 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>
1986	1,136,203	(.9%)
1987	1,093,997	(3.7%)
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%

During the last five (5) years the aggregate salaries have increased at an annualized rate of 5.86%. 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 ratio.

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.

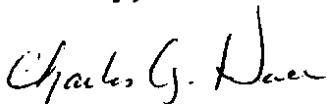
Board of Trustees
October 26, 1992
Page Six

HALL ACTUARIAL ASSOCIATES

For the plan year ending June 30, 1992 the funding target is .64017, which is greater than the current .57379 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, A.S.A., M.A.A.A.
Actuary

CGH/tt

Enclosure

TABLE OF CONTENTS

	<u>Pages</u>
EXHIBIT 1	
DEVELOPMENT OF COSTS, LIABILITIES & CONTRIBUTIONS	
Provides a detail by benefit type of the cost to accrue annual pension benefits, liabilities accrued to date, and funding requirements	1 - 2
EXHIBIT 2	
FINANCIAL SUMMARY	
Contains the statement of revenue and expenses as well as assets available to pay pension benefits	3 - 5
EXHIBIT 3	
PENSION ACCOUNTING AND FINANCIAL DISCLOSURE	
NCGA STMT 6 changes in credited projected benefits	6 -10
EXHIBIT 4	
CENSUS DATA	
Describes the employee data, data processing for valuation purposes and depicts employee profiles by classification, age and service	11 - 11k
EXHIBIT 5	
PRINCIPLE PROVISIONS OF THE RETIREMENT SYSTEM	
Restates in summary outline form the basic plan provisions which were incorporated in the projected retirement pension benefit	12 - 19
EXHIBIT 6	
ACTUARIAL COST METHODS AND ASSUMPTIONS	
Discloses rates of mortality, disability, retirement termination and other assumptions which are presumed to reflect the experience of the retirement system in aggregate	20 - 24
EXHIBIT 7	
LEGISLATIVE AUDITOR'S REPORT	
Actuarial disclosures to the Legislative Auditor's Office	25 - 27

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, 1992</u>		<u>---Prior Year---</u> <u>June 30, 1991</u>	
	<u>Dollar Amount</u>	<u>% of Salary</u>	<u>Dollar Amount</u>	<u>% of Salary</u>
I. Normal Costs				
(to fund annual pension accruals)				
Active Members with Complete Data				
a) Retirement Benefits	\$ 142,218,886	9.78%	\$ 121,434,956	9.68%
b) Disability Benefits	7,148,991	.49%	6,638,642	.49%
c) Survivor Benefits	7,651,007	.53%	7,205,686	.53%
d) Voluntary Termination	27,635,474	1.90%	26,142,182	1.90%
e) Expenses	3,000,000	.20%	2,700,000	.20%
TOTAL	<u>187,654,358</u>	<u>12.90%</u>	<u>175,166,466</u>	<u>12.80%</u>
II. Actuarial Accrued Liability				
a) Active Members				
1) Retirement Benefits	2,126,571,048		1,924,481,888	
2) Disability Benefits	90,896,980		83,400,041	
3) Survivor Benefits	83,331,971		77,923,081	
4) Voluntary Termination	150,613,185		142,009,145	
	<u>2,451,413,184</u>		<u>2,227,814,155</u>	
b) Retired and Inactive Members				
1) Regular Retirees	1,878,066,370		1,763,485,747	
2) Disabled Retirees	68,027,959		106,344,048	
3) Survivors	240,598,093		215,959,769	
4) Vested Deferred	25,392,850		12,114,634	
5) Contributions Refunded	2,685,887		5,768,659	
6) DROP Deferral	109,922,882		67,375,400	
7) DROP Deposits	10,989,439		2,412,337	
	<u>2,335,683,480</u>		<u>2,173,460,594</u>	
c) SUB TOTAL	4,787,096,664		4,401,274,749	

Exhibit 1 (Continued)Costs, Liabilities & ContributionsHALL ACTUARIAL ASSOCIATES

	<u>June 30, 1992</u>	<u>—Prior Year— June 30, 1991</u>
II. Actuarial Accrued Liability		
c) SUB TOTAL (Preceding page)	\$ 4,787,096,664	\$ 4,401,274,749
d) Adjustments to Regular Plan		
1) Active Judges	88,749,876	86,499,591
2) Active Legislators	8,662,234	11,537,990
Adjusted TOTAL	<u>4,884,508,774</u>	<u>4,499,312,330</u>
III. Assets	2,802,666,924	2,516,742,397
IV. Unfunded Actuarial Accrued Liabilities - Projected Unit Credit*	2,081,841,850	1,982,569,933
a) Change over prior year	99,271,917	93,722,432
b) Funded Percentage	57.38%	55.94%
V. Employer Contributions To Fund Current Plan Year*		
a) Employer Portion of Normal Cost	78,207,621	72,653,899
b) Amortization Payments	105,537,435	113,937,915
c) Prior Contribution Variance	<u>(2,728,395)</u>	<u>(1,303,263)</u>
TOTAL Required Contribution	181,016,661	185,288,551
	12.0%	13.1%
Plus State Appropriation	3,300,996	3,917,102
Actuarial Forecast Rate	11.9%	13.8%
VI. Projected Employer Contributions To Fund Next Plan Year*		
a) Employer Portion of Normal Cost	83,368,629	77,472,987
b) Amortization Payments	109,899,556	118,688,904
c) Prior Contribution Variance	<u>(2,332,509)</u>	<u>(10,725,144)</u>
TOTAL Projected Contribution	190,935,676	185,436,747
	11.9%	12.3%**
Plus State Appropriation	3,449,541	4,073,786
VII. Current Payroll		
Projected Payroll - Mid Year	1,454,370,594	1,368,479,924
Projected Payroll - Next Year	1,503,992,713	1,415,393,487
	1,603,242,878	1,509,275,660

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

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

HALL ACTUARIAL ASSOCIATES

EXHIBIT 2

**FINANCIAL SUMMARY
STATEMENT OF REVENUES AND EXPENSES
FOR FISCAL YEAR ENDING**

	<u>June 30, 1992</u>	<u>-----Prior Years-----</u> <u>June 30, 1991</u>	<u>June 30, 1990</u>
<u>OPERATING REVENUES:</u>			
1. Contribution Income			
Member	\$ 109,370,451	\$ 102,446,164	\$ 91,552,972
Employer	205,072,699	142,951,649	93,724,467
2. Other Income			
Legislative Appropriations	3,917,102	3,426,547	3,336,498
Miscellaneous	6,246,552	5,055,495	3,262,174
TOTAL CONTRIBUTIONS	<u>324,606,804</u>	<u>253,879,855</u>	<u>191,876,111</u>
3. Investment Income			
Realized Income	277,560,124	226,880,011	207,570,969
Less, investment expenses	-3,907,551	-1,612,590	-937,750
TOTAL INVESTMENT INCOME	<u>273,652,573</u>	<u>225,267,421</u>	<u>206,633,219</u>
4. Total Revenues	598,259,377	479,147,276	398,509,330
<u>OPERATING EXPENSES:</u>			
1. General Administration	2,973,182	2,667,230	2,098,180
Other Expenses	520,988	478,160	479,490
2. Benefits Paid			
a) Pension Benefits	250,765,789	240,622,226	234,066,890
b) Return of Contrib.	<u>23,820,931</u>	<u>22,955,119</u>	<u>26,880,996</u>
3. Total Operating Expenses	278,080,890	266,722,735	263,525,556
<u>NET INCOME:</u>	320,178,487	212,424,541	134,983,774

EXHIBIT 2 (Continued)
Financial Summary

HALL ACTUARIAL ASSOCIATES

FINANCIAL SUMMARY
STATEMENT OF ASSETS
FOR FISCAL YEAR ENDING

	<u>June 30, 1992</u>	<u>June 30, 1991</u>	<u>Prior Years</u> <u>June 30, 1990</u>
ASSETS:			
1. Short Term Assets			
Cash in Banks	\$ 17,693,855	\$ 587,476	\$ 737,635
Commercial/Certificates	150,508,461	42,895,391	30,455,734
Securities	0	258,718,293	119,993,709
2. Bonds (at amortized cost)			
U.S. Government Agency	92,563,992	225,542,518	426,710,507
United States Issues	699,571,900	594,916,253	664,016,754
Corporate Issues	283,396,171	345,857,864	174,836,669
Long Term/Financial	362,742,980	333,270,687	219,619,388
3. Equities			
Common Stock	828,341,383	490,793,975	534,201,809
Foreign Stock	217,399,953	0	0
Preferred Stock	11,442,554	6,390,043	5,965,627
Fixed Assets	5,277,425	5,436,954	5,648,222
Mortgages - Real Estate	96,266,026	91,986,767	66,001,640
4. Receivables - Payables	<u>38,407,736</u>	<u>87,037,728</u>	<u>20,409,316</u>
TOTAL ASSETS			
Equities at Cost	2,803,612,436	2,483,433,949	2,268,597,070
Equities at Market	2,881,522,572	2,536,978,218	2,359,880,281
Market Value	2,942,146,597	2,558,068,390	2,353,328,804
RATIO: ASSETS/EXPENSES:	9.78	9.30	8.61

INVESTMENT YIELD:

Realized Income	10.92%	9.96%	9.85%
Yield to Actuarial Value	10.40%	10.00%	10.27%
Five Year Actuarial Value	10.10%	10.00%	10.58%
Yield to Market Value	13.08%	9.05%	9.66%
DROP Account Yield	9.90%	N/A	N/A

EXHIBIT 2 (Continued)
Financial Summary

HALL ACTUARIAL ASSOCIATES

**FINANCIAL SUMMARY
 STATEMENT OF ASSETS
 FOR FISCAL YEAR ENDING**

	<u>June 30, 1992</u>	<u>-----Prior Years-----</u> <u>June 30, 1991</u>	<u>June 30, 1990</u>
<u>ACTUARIAL VALUE OF ASSETS:</u>			
TOTAL ASSETS	\$ 2,881,522,572	\$ 2,536,978,218	\$ 2,359,880,281
Change in Unrealized (G/L)			
Plan Year - 2 (wt. 1/4)	12,354,912	38,491,979	40,436,320
Plan Year - 1 (wt. 2/4)	2,697,378	12,354,912	38,491,979
Plan Year (wt. 3/4)	<u>62,857,846</u>	<u>2,697,378</u>	<u>12,354,912</u>
Actuarial Value of Assets	2,829,941,771	2,519,154,734	2,321,259,028
<u>EXPERIENCE ACCOUNT FUND:</u>			
Prior Year Ending Balance	0	N/A	N/A
Experience Account Allocation	27,274,847	N/A	N/A
Benefit Disbursements	0	N/A	N/A
Accumulated Interest	0	N/A	N/A
Fund Balance - Year End	27,274,847	N/A	N/A
<u>DEVELOPMENT OF ACTUARIAL VALUATION ASSETS :</u>			
Total Fund Assets	2,829,941,771	2,519,154,734	2,321,259,028
Experience Account Fund	<u>27,274,847</u>	<u>N/A</u>	<u>N/A</u>
Valuation Assets	2,802,666,924	2,519,154,734	2,321,259,028

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, 1992</u>		<u>June 30, 1991</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	\$2,307,604,743	153%	\$2,155,577,301	158%
2) Terminated vested members	<u>28,078,737</u>	<u>2%</u>	<u>17,883,293</u>	<u>1%</u>
TOTAL	2,335,683,480	155%	2,173,460,594	159%
Actuarial Present Value of Credited Projected Benefits for active members:				
1) Member Contributions	728,977,409	48%	674,210,732	49%
2) Employer Contributions				
Vested Portion	1,500,767,157	100%	1,312,863,335	96%
Non-vested Portion	<u>319,080,728</u>	<u>21%</u>	<u>338,777,669</u>	<u>25%</u>
TOTAL	2,548,825,294	169%	2,325,851,736	170%
Total Actuarial Present Value of Credited Projected Benefits	4,884,508,774	324%	4,499,312,330	329%

The total actuarial present value of credited projected benefits increased by \$385,196,444 from June 30, 1991 to June 30, 1992. There were no changes in benefit provisions during the year. The increase in total Actuarial Present Value of Credited Projected Benefits due to Legislative approved increase in Cost-of-Living benefits for retirees was \$66,577,000. There was a net experience loss of \$1,602,176 after allocating \$27,274,847 of investment income to the Experience Account in accordance with Act 572.

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

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

Fiscal Year	Net Assets Available for Benefits	Total Actuarial Present Value of Credited Projected Benefits*	Percentage Funded
1983	1,202,159,339	2,800,646,912	42.9
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
<hr/>			
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

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)**HALL ACTUARIAL ASSOCIATES****Pension Accounting & Financial Disclosure****STATISTICAL DATA**

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

Fiscal Year	Unfunded Actuarial Present Value of Credited Projected Benefits*	Annual Active Member Payroll	Percentage Payroll
1983	1,598,487,573	1,118,060,866	143.0
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
<hr/>			
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

*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)**HALL ACTUARIAL ASSOCIATES****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

Fiscal Year	(1)	(2)	(3)		Net Assets Available for Benefits	Percentage Covered by Net Assets			
	Retirees and Survivors	Terminated Vested Members	Current Member. Contr.	Actives Emplr. Contr.		(1)	(2)	(3)	(4)
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.

*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****HALL ACTUARIAL ASSOCIATES****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>
1983	78,280,970	106,583,169	109,111,393	293,975,532
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

Expenses by Type				
<u>Fiscal Year</u>	<u>Benefits</u>	<u>Refunds</u>	<u>Administrative Expenses**</u>	<u>Total</u>
1983	114,083,975	14,330,594	3,603,662	132,018,231
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

*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 20,122 records for terminated non-vested members due a refund. Finally, 741 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:

	—1992— <u>Census</u>	—1991— <u>Census</u>
Active Members	67,798	70,927
Regular Retirees	19,730	18,876
Disability Retirees	1,035	1,910
Survivors	4,096	3,951
Vested & Reciprocals	741	392
Due Refunds	20,122	13,367
DROP Participants	<u>538</u>	<u>346</u>
TOTAL	114,060	109,769

 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 6/30/92

Age/Years :	(0-1)	[1-5)	[5-10)	[10-15)	[15-20)	[20-25)	[25-30)	[30-35)	[35-)	:	Total :
[0 - 19) :	227	16	0	0	0	0	0	0	0	:	243 :
:	4179070	186960	0	0	0	0	0	0	0	:	4366030 :
[20 - 24) :	1048	1414	35	0	0	0	0	0	0	:	2497 :
:	22280480	20801354	503930	0	0	0	0	0	0	:	43585764 :
[25 - 29) :	1573	3475	1117	250	1	0	0	0	0	:	6416 :
:	40715532	62483975	19680423	4656000	17987	0	0	0	0	:	127553917 :
[30 - 34) :	1478	2783	2530	2679	205	2	0	1	2	:	9680 :
:	41596832	50940032	52186310	56861775	4677485	62798	0	16897	39236	:	206381365 :
[35 - 39) :	1715	2688	1879	3271	1796	112	3	0	0	:	11464 :
:	48627110	51297792	40090344	79452590	47028260	2945152	70545	0	0	:	269511793 :
[40 - 44) :	991	2026	1766	2231	2462	1167	94	0	2	:	10739 :
:	27097904	39972980	38133238	54092826	70752956	33550083	2556330	0	73158	:	266229475 :
[45 - 49) :	662	1309	1280	1534	1366	1167	787	40	0	:	8145 :
:	19047064	26020302	27886080	36355800	36451710	35095191	23317236	1090960	0	:	205264343 :
[50 - 54) :	360	799	820	1143	1011	771	860	184	9	:	5957 :
:	10458000	15689963	17408600	25762077	25336671	20669739	25683900	5765640	249147	:	147023737 :
[55 - 59) :	209	583	515	913	774	542	306	125	50	:	4017 :
:	6315980	11970739	11440210	20649321	18352314	13338620	8343702	4484750	1599500	:	96495136 :
[60 - 64) :	89	181	321	535	403	282	142	51	29	:	2033 :
:	3039528	3544161	7296330	11960995	9859798	7099632	3690864	1585335	1077408	:	49154051 :
[65 - 69) :	36	8	71	119	131	78	30	16	14	:	503 :
:	1469736	132208	1719975	2777341	3397223	2138682	794610	371184	374794	:	13175753 :
[70 - 74) :	7	4	4	47	42	20	19	12	4	:	159 :
:	333410	89124	77844	1046784	1148532	526340	474962	397524	63588	:	4158108 :
Total :	8395	15286	10338	12722	8191	4141	2241	429	110	:	61853 :
:	225160646	283129590	216423284	293615509	217022936	115426237	64932149	13712290	3476831	:	1432899472 :

 AVERAGES : Attained Age 41.10
 Service Years 9.47
 Active Salary 21,346

HALL ACTUARIAL ASSOCIATES

MEMBERSHIP PROFILE
CATEGORIZED BY AGE AND YEARS EMPLOYED
STATE EMPLOYEES' SYSTEM
ACTIVE LEGISLATORS
CELLS DEPICT - MEMBER COUNT
TOTAL SALARY
VALUATION DATE 6/30/92

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	1	0	0	0	0	0	0	1 :
:	0	0	27900	0	0	0	0	0	0	27900 :
[25 - 29) :	3	0	0	0	0	0	0	0	0	3 :
:	90090	0	0	0	0	0	0	0	0	90090 :
[30 - 34) :	6	5	1	0	0	0	0	0	0	12 :
:	176580	92070	27975	0	0	0	0	0	0	296625 :
[35 - 39) :	6	4	3	2	0	0	0	0	0	15 :
:	171552	84336	82275	51750	0	0	0	0	0	389913 :
[40 - 44) :	10	1	8	4	3	0	0	0	0	26 :
:	248180	11407	234416	108076	81150	0	0	0	0	683229 :
[45 - 49) :	2	4	5	4	7	3	0	0	0	25 :
:	59112	81240	134850	107924	191177	81525	0	0	0	655828 :
[50 - 54) :	3	3	3	4	3	2	1	1	0	20 :
:	91320	48165	80100	104744	88404	51826	25200	26550	0	516309 :
[55 - 59) :	3	2	1	1	0	1	1	0	0	9 :
:	85008	53250	11557	25500	0	26175	34317	0	0	235807 :
[60 - 64) :	1	0	1	0	1	1	2	2	0	8 :
:	11300	0	25575	0	26850	27600	53250	71680	0	216255 :
[65 - 69) :	0	1	0	0	0	0	0	2	0	3 :
:	0	26250	0	0	0	0	0	55050	0	81300 :
[70 - 74) :	0	1	0	0	0	0	0	0	1	2 :
:	0	25275	0	0	0	0	0	0	52908	78183 :
Total :	34	21	23	15	14	7	4	5	1	124 :
:	933142	421993	624648	397994	387581	187126	112767	153280	52908	3271439 :

AVERAGES :
 Attained Age 46.65
 Service Years 9.49
 Active Salary 22,620

HALL ACTUARIAL ASSOCIATES

MEMBERSHIP PROFILE
CATEGORIZED BY AGE AND YEARS EMPLOYED
STATE EMPLOYEES' SYSTEM
ACTIVE JUDGES
CELLS DEPICT - MEMBER COUNT
TOTAL SALARY
VALUATION DATE 6/30/92

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	0	0	0	0	0	0	0	0	:	0 :
:	0	0	0	0	0	0	0	0	0	:	0 :
[30 - 34) :	0	3	1	0	0	0	0	0	0	:	4 :
:	0	207684	41604	0	0	0	0	0	0	:	249288 :
[35 - 39) :	3	22	2	2	0	0	0	0	0	:	29 :
:	280320	1670130	168700	146810	0	0	0	0	0	:	2265960 :
[40 - 44) :	1	18	12	13	2	0	0	0	0	:	46 :
:	108944	1407042	923316	1011686	168700	0	0	0	0	:	3619688 :
[45 - 49) :	0	18	8	29	11	1	0	0	0	:	67 :
:	0	1371150	632176	2163777	929995	84350	0	0	0	:	5181448 :
[50 - 54) :	0	9	6	6	10	4	1	0	0	:	36 :
:	0	724833	487476	505464	815950	347408	89354	0	0	:	2970485 :
[55 - 59) :	0	3	5	9	12	14	9	1	0	:	53 :
:	0	253050	419470	690210	959184	1136002	756243	84354	0	:	4298513 :
[60 - 64) :	1	2	7	6	5	6	7	7	0	:	41 :
:	44502	168880	554911	517434	421750	538344	562016	575701	0	:	3383538 :
[65 - 69) :	2	0	2	4	2	4	1	3	1	:	19 :
:	285020	0	156810	342404	168700	337400	84350	255300	83716	:	1713700 :
[70 - 74) :	0	0	0	0	0	0	0	1	2	:	3 :
:	0	0	0	0	0	0	0	84350	168136	:	252486 :
Total :	7	75	43	69	42	29	18	12	3	:	298 :
:	718786	5802769	3384463	5377785	3464279	2443504	1491963	999705	251852	:	23935106 :

AVERAGES :
 Attained Age 51.52
 Service Years 12.71
 Active Salary 79,113

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 6/30/92

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) :	7	3	0	0	0	0	0	0	0	10 :
:	152544	60633	0	0	0	0	0	0	0	213177 :
[25 - 29) :	10	17	5	0	0	0	0	0	0	32 :
:	241300	333931	114910	0	0	0	0	0	0	690141 :
[30 - 34) :	6	9	8	9	0	0	0	0	0	32 :
:	138948	174438	176344	223533	0	0	0	0	0	713263 :
[35 - 39) :	1	1	3	16	10	0	0	0	0	31 :
:	24308	23114	71034	404080	295770	0	0	0	0	818306 :
[40 - 44) :	0	4	9	10	16	3	0	0	0	42 :
:	0	77748	211518	268340	475632	100782	0	0	0	1134020 :
[45 - 49) :	0	2	6	12	6	7	0	0	0	33 :
:	0	43786	142746	307140	175656	233940	0	0	0	903268 :
[50 - 54) :	1	0	1	4	6	3	0	0	0	15 :
:	44002	0	21537	111408	176094	100338	0	0	0	453379 :
[55 - 59) :	0	0	2	2	3	4	0	0	0	11 :
:	0	0	45704	47734	79509	124224	0	0	0	297171 :
[60 - 64) :	0	0	0	0	0	0	0	0	0	0 :
:	0	0	0	0	0	0	0	0	0	0 :
[65 - 69) :	0	0	0	0	0	0	0	0	0	0 :
:	0	0	0	0	0	0	0	0	0	0 :
[70 - 74) :	0	0	0	0	0	0	0	0	0	0 :
:	0	0	0	0	0	0	0	0	0	0 :
Total :	25	36	34	53	41	17	0	0	0	206 :
:	601102	713650	783793	1362235	1202661	559284	0	0	0	5222725 :

AVERAGES :
 Attained Age 39.21
 Service Years 10.26
 Active Salary 23,894

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 6/30/92

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	4	0	0	0	0	0	0	:	4 :
:	0	0	70876	0	0	0	0	0	0	:	70876 :
[25 - 29) :	0	0	121	27	0	0	0	0	0	:	148 :
:	0	0	2373415	635391	0	0	0	0	0	:	3008806 :
[30 - 34) :	0	0	157	156	23	0	0	0	0	:	336 :
:	0	0	3307676	3784716	596045	0	0	0	0	:	7688437 :
[35 - 39) :	0	0	129	198	117	7	0	0	0	:	451 :
:	0	0	2716611	4979304	3125655	195293	0	0	0	:	11016863 :
[40 - 44) :	0	0	131	148	134	41	0	1	0	:	455 :
:	0	0	2744843	3719092	3979666	1383176	0	31581	0	:	11858358 :
[45 - 49) :	0	0	82	104	70	31	13	0	1	:	301 :
:	0	0	1760212	2585544	1993110	1079358	476151	0	31330	:	7925705 :
[50 - 54) :	0	0	63	70	43	10	10	0	0	:	196 :
:	0	0	1359855	1715140	1132491	297220	341910	0	0	:	4846616 :
[55 - 59) :	0	0	43	70	37	9	2	2	0	:	163 :
:	0	0	874835	1682100	952269	235053	54710	79178	0	:	3878145 :
[60 - 64) :	0	0	19	32	15	4	2	2	1	:	75 :
:	0	0	399532	752320	372645	113448	63276	29610	50397	:	1781228 :
[65 - 69) :	0	0	1	4	2	2	0	0	1	:	10 :
:	0	0	19790	91688	46098	80902	0	0	53398	:	291876 :
[70 - 74) :	0	0	0	2	0	0	2	0	0	:	4 :
:	0	0	0	46104	0	0	61360	0	0	:	107464 :
Total :	0	0	750	811	441	104	29	5	3	:	2143 :
:	0	0	15627645	19991399	12197979	3384450	997407	140369	135125	:	52474374 :

AVERAGES : **Attained Age** 42.48
 Service Years 12.51
 Active Salary 24,486

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 6/30/92

Age/Years :	(0-1)	[1-5)	[5-10)	[10-15)	[15-20)	[20-25)	[25-30)	[30-35)	[35-)	Total :
[0 - 19) :	3	0	0	0	0	0	0	0	0	3 :
:	116892	0	0	0	0	0	0	0	0	116892 :
[20 - 24) :	285	384	1	0	0	0	0	0	0	670 :
:	5962200	6202368	15772	0	0	0	0	0	0	12180340 :
[25 - 29) :	268	545	1	0	0	0	0	0	0	814 :
:	7824528	9223035	21464	0	0	0	0	0	0	17069027 :
[30 - 34) :	174	321	40	0	0	0	0	0	0	535 :
:	5163276	5378034	722760	0	0	0	0	0	0	11264070 :
[35 - 39) :	132	273	20	0	0	0	0	0	0	425 :
:	3773352	4682769	367640	0	0	0	0	0	0	8823761 :
[40 - 44) :	97	203	18	0	0	0	0	0	0	318 :
:	2995942	3554936	338148	0	0	0	0	0	0	6889026 :
[45 - 49) :	65	124	12	0	0	0	0	0	0	201 :
:	2097030	2146316	218832	0	0	0	0	0	0	4462178 :
[50 - 54) :	37	68	11	0	0	0	0	0	0	116 :
:	1007732	1147432	191609	0	0	0	0	0	0	2346773 :
[55 - 59) :	13	39	16	0	0	0	0	0	0	68 :
:	389922	690768	290176	0	0	0	0	0	0	1370866 :
[60 - 64) :	16	6	0	0	0	0	0	0	0	22 :
:	612032	101460	0	0	0	0	0	0	0	713492 :
[65 - 69) :	1	0	0	0	0	0	0	0	0	1 :
:	46000	0	0	0	0	0	0	0	0	46000 :
[70 - 74) :	3	1	0	0	0	0	0	0	0	4 :
:	110568	16601	0	0	0	0	0	0	0	127169 :
Total :	1094	1964	119	0	0	0	0	0	0	3177 :
:	30099474	33143719	2166401	0	0	0	0	0	0	65409594 :

AVERAGES : Attained Age 33.14
 Service Years 1.97
 Active Salary 15,851

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 6/30/92

Age/Years :	(0-1)	[1-2)	[2-3)	[3-4)	[4-5)	[5-10)	[10-15)	[15-20)	[20-)	Total :
[0 - 39) :	2	1	0	0	1	1	0	0	1	6 :
:	30268	8008	0	0	5314	17538	0	0	3409	64539 :
[40 - 44) :	2	4	3	1	2	1	0	0	0	13 :
:	54581	47754	32688	13644	21615	15326	0	0	0	185611 :
[45 - 49) :	19	7	7	7	2	26	0	0	0	68 :
:	372341	112411	104209	103850	30652	355726	0	0	0	1079192 :
[50 - 54) :	42	30	32	30	16	360	4	0	0	514 :
:	879459	474343	561578	514865	291006	5962572	40972	0	0	8724796 :
[55 - 59) :	87	98	98	108	57	1317	32	2	0	1799 :
:	1381934	1597008	1749480	1734690	1133289	19746821	417929	11717	0	27772871 :
[60 - 64) :	285	257	288	254	151	1871	337	48	13	3504 :
:	2960893	2787786	2963214	2876329	1793567	25501000	4201867	369409	63579	43517649 :
[65 - 69) :	141	172	229	345	197	2371	870	205	17	4547 :
:	1512450	2029792	2102807	3095444	1967695	26629341	10930740	2081576	82617	50432466 :
[70 - 74) :	27	48	64	94	74	1666	1648	437	33	4091 :
:	422124	796213	664466	1001625	956396	17819919	15629625	4862901	199151	42352424 :
[75 - 79) :	1	2	2	3	7	372	1182	988	129	2686 :
:	16648	29280	18036	35010	102070	4145058	9555634	8299506	1023089	23224334 :
[80 - 84) :	0	0	0	1	1	13	100	1108	377	1600 :
:	0	0	0	21092	8316	237381	1128552	8141667	2491390	12028400 :
[85 - 89) :	0	0	0	0	0	1	5	142	537	685 :
:	0	0	0	0	0	35525	37765	1145962	3073064	4292318 :
[90 - 99) :	0	0	1	0	0	0	0	10	206	217 :
:	0	0	8107	0	0	0	0	109711	1159737	1277556 :
Total :	606	619	724	843	508	7999	4178	2940	1313	19730 :
:	7630702	7882599	8204589	9396553	6309925	100466210	41943088	25022451	8096040	214952161 :

AVERAGES :
 Attained Age 69.80
 Years Retired 10.08
 Annual Benefit 10,894

HALL ACTUARIAL ASSOCIATES

MEMBERSHIP PROFILE
CATEGORIZED BY AGE AND YEARS RETIRED
STATE EMPLOYEES' SYSTEM
ALL DISABILITY BENEFITS
CELLS DEPICT - MEMBER COUNT
TOTAL BENEFIT
VALUATION DATE 6/30/92

Age/Years :	(0-1)	[1-2)	[2-3)	[3-4)	[4-5)	[5-10)	[10-15)	[15-20)	[20-)	Total
[0 - 39) :	7	10	6	9	4	9	0	0	0	45
:	42186	59362	28684	44616	29930	46036	0	0	0	250815
[40 - 44) :	11	20	7	11	4	22	2	0	0	77
:	79531	148960	53670	79398	28474	144878	11248	0	0	546162
[45 - 49) :	25	20	25	23	18	56	13	3	0	183
:	222628	149049	196707	151795	122751	448475	75211	11262	0	1377881
[50 - 54) :	31	31	34	30	25	75	28	6	1	261
:	274454	243282	293853	250770	174036	578606	204031	27712	1672	2048419
[55 - 59) :	21	45	28	44	29	133	56	13	1	370
:	152171	387251	165956	310950	196244	1043146	365709	66577	4904	2692911
[60 - 64) :	2	2	3	1	5	34	15	7	0	69
:	28359	17399	18594	6609	57412	323514	124899	25841	0	602632
[65 - 69) :	0	0	0	0	0	3	5	2	0	10
:	0	0	0	0	0	24607	34761	8757	0	68126
[70 - 74) :	0	0	0	0	0	0	3	8	0	11
:	0	0	0	0	0	0	39487	48430	0	87918
[75 - 79) :	0	0	0	0	0	0	1	4	3	8
:	0	0	0	0	0	0	4620	22037	12290	38949
[80 - 84) :	0	0	0	0	0	0	0	0	1	1
:	0	0	0	0	0	0	0	0	3069	3069
[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 :	97	128	103	118	85	332	123	43	6	1035
:	799330	1005305	757466	844140	608849	2609264	859970	210620	21937	7716886

AVERAGES :
 Attained Age 53.27
 Years Retired 5.84
 Annual Benefit 7,455

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 6/30/92

Age/Years :	(0-1)	[1-2)	[2-3)	[3-4)	[4-5)	[5-10)	[10-15)	[15-20)	[20-)	Total :
[0 - 39) :	29	29	10	11	13	35	10	6	5	148 :
:	619716	371592	167523	134347	147146	384482	94610	43814	20636	1983868 :
[40 - 44) :	1	0	1	6	11	27	13	2	0	61 :
:	59680	0	17067	85537	146793	344336	129605	8982	0	792003 :
[45 - 49) :	2	8	5	11	10	53	17	11	3	120 :
:	42682	65208	92383	143065	110540	602837	137537	74331	10772	1279359 :
[50 - 54) :	15	12	16	13	6	70	39	12	5	188 :
:	235742	124637	274896	159609	75388	769316	264999	87296	18232	2010119 :
[55 - 59) :	11	15	9	13	10	110	72	34	5	279 :
:	193256	136599	119006	155231	147073	1035627	496489	220172	15890	2519348 :
[60 - 64) :	6	5	13	12	12	169	146	85	10	458 :
:	88901	43023	121506	97999	118845	1570550	1046837	503800	38735	3630200 :
[65 - 69) :	6	3	4	7	17	187	247	173	35	679 :
:	85412	24174	19280	77473	207655	1668853	1881332	1048564	164786	5177535 :
[70 - 74) :	1	4	1	6	7	100	251	289	81	740 :
:	35576	77842	6282	68493	63286	870198	1685875	1647239	398080	4852875 :
[75 - 79) :	0	2	0	1	0	33	157	342	135	670 :
:	0	19851	0	3327	0	271288	1093123	1966988	648197	4002778 :
[80 - 84) :	1	0	0	1	0	6	36	182	227	453 :
:	8895	0	0	5766	0	41921	217668	1052495	1072313	2399060 :
[85 - 89) :	0	0	0	0	0	0	8	31	177	216 :
:	0	0	0	0	0	0	49581	176205	817123	1042910 :
[90 - 99) :	0	0	0	0	0	0	1	9	74	84 :
:	0	0	0	0	0	0	3540	49371	334749	387661 :
Total :	72	78	59	81	86	790	997	1176	757	4096 :
:	1369864	862930	817946	930851	1016728	7559415	7101201	6879264	3539518	30077721 :

AVERAGES :
 Attained Age 68.83
 Years Retired 14.56
 Annual Benefit 7,343

HALL ACTUARIAL ASSOCIATES

MEMBERSHIP PROFILE
CATEGORIZED BY AGE AND YEARS RETIRED

STATE EMPLOYEES' SYSTEM
DROP PARTICIPANTS

CELLS DEPICT - MEMBER COUNT
TOTAL BENEFIT

VALUATION DATE 6/30/92

Age/Years :	(0-1)	[1-2)	[2-3)	[3-4)	[4-5)	[5-10)	[10-15)	[15-20)	[20-)	:	Total :
[0 - 39) :	0	0	0	0	0	0	0	0	0	:	0 :
:	0	0	0	0	0	0	0	0	0	:	0 :
[40 - 44) :	0	0	0	0	0	0	0	0	0	:	0 :
:	0	0	0	0	0	0	0	0	0	:	0 :
[45 - 49) :	0	0	0	0	0	0	0	0	0	:	0 :
:	0	0	0	0	0	0	0	0	0	:	0 :
[50 - 54) :	27	26	0	0	0	0	0	0	0	:	53 :
:	669854	557243	0	0	0	0	0	0	0	:	1227098 :
[55 - 59) :	58	80	0	0	0	0	0	0	0	:	138 :
:	1547823	1795288	0	0	0	0	0	0	0	:	3343111 :
[60 - 64) :	85	110	0	0	0	0	0	0	0	:	195 :
:	1667976	1740335	0	0	0	0	0	0	0	:	3408311 :
[65 - 69) :	47	84	0	0	0	0	0	0	0	:	131 :
:	1009472	1358920	0	0	0	0	0	0	0	:	2368393 :
[70 - 74) :	6	14	0	0	0	0	0	0	0	:	20 :
:	195970	192837	0	0	0	0	0	0	0	:	388808 :
[75 - 79) :	0	1	0	0	0	0	0	0	0	:	1 :
:	0	17461	0	0	0	0	0	0	0	:	17461 :
[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 :	223	315	0	0	0	0	0	0	0	:	538 :
:	5091097	5662087	0	0	0	0	0	0	0	:	10753184 :

AVERAGES : Attained Age 61.89
 Years Retired 1.04
 Annual Benefit 19,987

HALL ACTUARIAL ASSOCIATES

MEMBERSHIP PROFILE
CATEGORIZED BY AGE AND YEARS EMPLOYED

STATE EMPLOYEES' SYSTEM
TERMINATED VESTED

CELLS DEPICT - MEMBER COUNT
TOTAL BENEFIT

VALUATION DATE 6/30/92

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	3006	0	0	0	:	3006 :
[25 - 29) :	0	0	0	1	0	0	0	0	0	:	1 :
:	0	0	0	4411	0	0	0	0	0	:	4411 :
[30 - 34) :	0	0	1	25	3	0	0	0	0	:	29 :
:	0	0	445	123225	13173	0	0	0	0	:	136843 :
[35 - 39) :	0	0	0	53	41	3	0	0	0	:	97 :
:	0	0	0	304803	265229	8637	0	0	0	:	578669 :
[40 - 44) :	0	1	0	46	79	19	6	0	0	:	151 :
:	0	112	0	312386	612171	178448	38256	0	0	:	1141373 :
[45 - 49) :	0	1	0	27	50	35	15	0	0	:	128 :
:	0	394	0	175797	477100	344645	154410	0	0	:	1152346 :
[50 - 54) :	0	0	1	32	37	30	35	6	0	:	141 :
:	0	0	709	244544	349502	304530	337400	82416	0	:	1319101 :
[55 - 59) :	0	0	0	36	30	21	7	10	8	:	112 :
:	0	0	0	178992	198210	173061	58436	115030	28544	:	752273 :
[60 - 64) :	0	0	0	8	8	6	8	4	3	:	37 :
:	0	0	0	82256	57144	47724	44144	73508	9489	:	314265 :
[65 - 69) :	0	0	0	3	2	6	5	0	5	:	21 :
:	0	0	0	15051	15618	42000	44130	0	31505	:	148304 :
[70 - 74) :	0	0	0	1	0	4	7	5	6	:	23 :
:	0	0	0	6274	0	50732	29309	18125	22110	:	126550 :
Total :	0	2	2	232	250	125	83	25	22	:	741 :
:	0	506	1154	1447739	1988147	1152783	706085	289079	91648	:	5677141 :

AVERAGES : Attained Age 49.20
 Service Years 18.90
 Annual Benefit 7,661

EXHIBIT 5

PRINCIPLE PROVISIONS OF THE PLAN
(Including Acts of 1990 Regular Session)

EFFECTIVE DATE:

July 1, 1947; last amendment date - July 1, 1992.

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

HALL ACTUARIAL ASSOCIATES

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

HALL ACTUARIAL ASSOCIATES

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

HALL ACTUARIAL ASSOCIATES

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	\$20,651	56	\$43,584	64	\$100,202
49	22,601	57	48,085	65	112,221
50	24,753	58	53,125	66	122,922
51	27,135	59	58,782	67	135,015
52	29,770	60	65,148	68	148,738
53	32,694	61	72,331	69	164,391
54	35,941	62	80,460	70	182,311
55	39,554	63	89,689		

EXHIBIT 5 (Continued)
Principle Provisions

HALL ACTUARIAL ASSOCIATES

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

HALL ACTUARIAL ASSOCIATES

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

HALL ACTUARIAL ASSOCIATES

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 FORMS
OF BENEFIT:

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

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

Option 2 - 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

HALL ACTUARIAL ASSOCIATES

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.

HALL ACTUARIAL ASSOCIATES

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

HALL ACTUARIAL ASSOCIATES

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 \$3,000,000 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	- Death Rates - 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

HALL ACTUARIAL ASSOCIATES
ACTUARIAL TABLES AND RATES
(JUDGES & LEGISLATORS ASSUMPTIONS)

Age	Death Rates - Male	Death Rates - Female	Remarriage Rates	Disability Rates	Retirement Rates	Dur	Termination Rates	Salary Scale
20	.00041	.00022	.09350	.00000	.00000	1	.27500	1.04750
21	.00043	.00023	.09151	.00000	.00000	2	.32400	1.04750
22	.00045	.00024	.08954	.00000	.00000	3	.16400	1.04750
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57	.00793	.00382	.01584	.01040	.32000	38	.01500	1.04750
58	.00857	.00424	.01588	.01140	.32000	39	.00000	1.04750
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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: <u>June 30, 1992</u> .	
(b) This valuation sets forth information concerning contributions applicable to the plan fiscal year beginning <u>July 1, 1992</u> , and ending <u>June 30, 1993</u> .	
(c) Data used in this valuation	
(i) Number of participants as of the valuation date:	
Active members.	67,798
Regular retirees. .+ DROP	20,268
Disability retirees	1,035
Survivors receiving benefits.	4,096
Terminated employees due benefits upon attaining retirement age	741
Terminated employees due refunds.	20,122
(ii) Payroll of active members on the valuation date	1,454,370,594
(iii) Annual benefits in payment on the valuation date.	252,746,768
(d) Actuarially required contribution for those systems to which R.S. 11:102 applies	
Funding Method <u>Projected Unit Credit</u> .	
Unfunded Accrued Liability as of the end of fiscal 1988	1,825,421,035
Amortization Method <u>Increasing Annuity</u> .	
Remaining Unamortized Portion of the initial unfunded liability	2,090,353,247
Current Unfunded Accrued Liability under this method.	2,081,841,850
Actuarially required employer contribution: (at Mid-year)	
(i) Employer Normal Cost.	78,207,621
Amortization Payments for Previous Years (Detail on Exhibit A):	
(ii) Previous year's unpaid underpayment or (overpayment)	(2,728,395)
(iii) Initial Unfunded Liability (Excludes \$3,300,996 appropriation)	100,093,126
(iv) Gains and Losses	2,061,028
(v) Changes in Assumption or Asset Valuation Method.	(5,218,148)
(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)).	181,016,661
(ix) Estimated projected payroll for the coming fiscal year	1,503,992,713
(x) Required Employer Contribution Rate (6(d)(viii)/6(d)(ix)).	12.0%
+ Appropriation.	
3,300,996	
(e) Actuarially required contribution for those systems to which R.S. 11:103 applies	
Funding Method <u>Not Applicable</u> .	
(f) Average yield on investments last fiscal year.	
10.75%	
(g) Actuarial information for accounting purposes (GASB) 5 results)	
Pension Benefit Obligation:	
(i) Present retirees and beneficiaries.	2,307,604,743
(ii) Terminated participants due benefits at retirement age.	25,382,850
(iii) Terminated participants due a refund of their contributions	2,685,887
(iv) Active Members:	
(1) Accumulated employee contributions.	728,977,409
(2) Employer-financed vested portion.	1,500,767,157
(3) Employer-financed nonvested portion	319,080,728
(v) Total PBO (sum of 6(g)(i) through 6(g)(iv))	4,884,508,774
Actuarial value of assets.	2,802,666,924
Unfunded (Assets in Excess of) Pension Benefit Obligation.	2,081,841,850

Exhibit 7 (Continued)
Legislative Auditor's Report

HALL ACTUARIAL ASSOCIATES

(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.

	Males	Females
Mortality rates (healthy)		
Mortality rates (disabled)	See copies of pages -	of the 6/30/92
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)09307
(iii) Changes in Funded Ratio due to mergers or changes in methods or assumptions after the 1986 fiscal year end;

Date of Change	Change in funded Ratio
6/30/87	(.03148)
6/30/88	.02822
6/30/89	.02420
6/30/91	(.00781)

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;

Date of Change	Amortization of Change
6/30/87	.00525
6/30/88	(.00376)
6/30/89	(.00242)
6/30/91	.00026

Total Amortization of Changes (.00067)

- (v) Target Ratio as of the end of the just completed fiscal year.64017
(Sum of (6)(h) (i) through (iv))

- (vi) Actual Funded Ratio of the system as of the just completed fiscal year .57379
(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 October 5, 1992

Signature of Actuary

Charles G. Hall

HALL ACTUARIAL ASSOCIATES

EXHIBIT A
**AMORTIZATION OF UNFUNDED
ACTUARIAL ACCRUED LIABILITY
JUNE 30, 1992**

	<u>DATE 6/30</u>	<u>DESCRIPTION</u>	<u>AMTZ. METHOD</u>	<u>AMTZ. PERIOD</u>	<u>INITIAL LIABILITY</u>	<u>YEARS REMAIN</u>	<u>REMAINING BALANCE</u>	<u>MID-YEAR PAYMENT</u>
1)	1988	Initial Liability	I	40	1,825,421,035	37	2,090,353,247	103,394,122*
2)	1989	Experience Gain	I	15(L)	(51,766,931)	37	(45,682,128)	(2,259,553)
3)	1989	Actuarial Assumption	I	30(L)	(171,979,344)	37	(167,260,788)	(8,273,139)
4)	1990	Experience Loss	I	15(L)	110,124,801	37	101,841,455	5,037,334
5)	1991	Actuarial Assumption	I	30(L)	62,288,922	37	61,763,770	3,054,991
6)	1991	Experience Gain	I	15(L)	(16,696,068)	37	(16,093,023)	(796,001)
7)	1992	Legislative COLA	L	12	66,577,000	12	66,577,000	8,601,429
8)	1992	Change in Liability	I	37	6,064,124	37	1,602,176	79,248

TOTAL OUTSTANDING BALANCE2,093,101,709**EMPLOYER'S CREDIT BALANCE**

1992	Contribution Variance L	L	5	(11,259,859)	5	(11,259,859)	(2,728,395)
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**TOTAL UNFUNDED ACTUARIAL
ACCRUED LIABILITY**
\$2,081,841,850

*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.