

Hall Actuarial Associates

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September 22, 2003

Board of Trustees

LOUISIANA SCHOOL EMPLOYEES'
RETIREMENT SYSTEM

Post Office Box 44516
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Ladies and Gentlemen:

This report presents the results of the actuarial valuation of assets and liabilities, as well as funding requirements, for the Louisiana School Employees' Retirement System as of June 30, 2003.

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 School 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 provided by Duplantier, Hrapmann, Hogan & Maher, Certified Public Accountants.

The present values shown herein have been estimated on the basis of actuarial cost method specified in Louisiana Revised Statutes Title 11 Section 22(5). The Actuarial Assumptions, which have been approved by the Board of Trustees, 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.

Board of Trustees
September 22, 2003

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

| | <u>June 30, 2003</u> | <u>-----Prior Years-----</u> | |
|---|----------------------|------------------------------|----------------------|
| | | <u>June 30, 2002</u> | <u>June 30, 2001</u> |
| I. Membership Census | | | |
| 1) Retirees | 10,068 | 9,702 | 9,391 |
| 2) Actives | 14,486 | 14,638 | 14,633 |
| 3) DROP | 792 | 796 | 766 |
| II. Annual Benefits | \$ 87,990,540 | \$ 84,202,836 | \$ 78,138,372 |
| III. Total Payroll | 268,656,243 | 258,876,355 | 249,674,197 |
| IV. Valuation Assets | 1,369,601,530 | 1,433,859,734 | 1,516,236,897 |
| V. Investment Yield | | | |
| Actuarial Value | -.83% | -1.78% ¹ | 1.77% |
| Market Value | 3.76% | -2.42% ¹ | 1.85% |
| VI. Cost to Fund Annual Pension Accruals (Normal Costs) | 49,881,086 18.56% | 42,389,427 16.37% | 40,665,544 16.29% |
| VII. Unfunded Actuarial Accrued Liability | 361,195,218 | 148,212,168 | -43,814,340 |
| VIII. Funded Percentage | 79.1% | 90.6% | 103.0% |
| IX. Funding Requirements to Pay (Mid-year Payment) | | | |
| 1) Employee Contribution Rate | 20,373,583 7.50% | 19,598,651 7.50% | 18,725,564 7.50% |
| 2) Employer Contribution Rate - Current Year | 47,222,922 17.4% | 28,989,602 11.1% | 17,784,367 7.1% |
| 3) Projected Employer Contribution - Next Year | 52,424,018 18.8% | 29,828,084 11.2% | 18,259,167 7.0% |
| X. Employer Credit Account | 5,749,723 | 36,384,255 | 55,565,376 |

The above funding requirements measure the cost of benefits that were in effect on June 30, 2003, plus Acts of the 2003 Legislative Session which have prospective effects on the current active members.

¹The investment yields initially published have been restated.

²The employer rates indicated are tabular rates. The Constitutional Amendment No. 3 mandates that the employer rate shall not be less than the employee rate of 6%.

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Current Funding

The Actuarial Valuation for the plan year ending June 30, 2003 discloses an increase in the plan's unfunded actuarial accrued liability. The system's current unfunded accrued liability increased from a prior year balance of 148.2 million to the current deficit of 361.2 million. It is generally appropriate for the current valuation process to disclose the source and cause of any significant 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 6/30/2002 | | \$ 148,212,168 |
| INCREASES | | |
| Interest on Unfunded Liability | \$ 11,115,913 | |
| Investment Loss | 148,648,324 | |
| Assumption Changes | 92,831,804 | |
| Cost of Living Increase | <u>0</u> | |
| Incurred Increases | 252,596,041 | |
| DECREASES | | |
| Amortization Payment | \$ 8,315,502 | |
| Experience Gain | <u>31,297,489</u> | |
| Incurred Decreases | 39,612,991 | |
| Unfunded Liability 6/30/2003 (Surplus) | | \$ 361,195,218 |

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The Board of Trustees approved a five year Experience Study during the fiscal year which altered the actuarial assumptions as illustrated in Exhibit 6. The adopted rates are subject to the Legislative Actuary's review and are utilized in this valuation. The new assumptions are illustrated in Exhibit 6 along with the prior year's assumptions. A copy of the Study dated March 14, 2003 can be obtained from the Retirement System Office. The change in assumptions increased the actuarial liability \$92,831,804.

The Constitution requires a minimum 6.00% employer contribution. In recent years, the actuarially required employer contribution rate has been less than the 6.00% required minimum. Act 278 of the 1999 regular session provided for the establishment of an Employer Credit Account consisting of the accumulated excess employer contributions which exceed the actuarially required employer rate. The account has a current balance of 5.9 million which is available to offset future required employer contributions.

This year, the employer contribution rate exceeds the 6.00% minimum requirement. The recommended rate of 11.2% for the current fiscal year is largely the result of investment experience losses and changes in actuarial assumptions.

Disclosures

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

Finally, the actuarial disclosure form required by the Legislative Auditor's office makes specific provisions for the determination of whether or not a System is systematically approaching a 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 to retirees and survivors by Act 256 of the 1986 regular session unless the system has met the Funding Target.

For the plan year ending June 30, 2003 the funding target is 1.00, which is greater than the current .79131 funding ratio. Therefore, the Board is prohibited from entertaining a cost-of-living increase to retirees as required 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, FCA,MAAA,ASA
Consulting Actuary

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EXHIBIT 1
DEVELOPMENT
OF
COSTS, LIABILITIES AND CONTRIBUTIONS

Normal Costs and Accrued Liabilities are calculated in accordance with the Individual Entry Age Normal Actuarial Cost Method, and the Actuarial Assumptions outlined in Exhibit 6 based on the Provisions of the Plan as summarized in Exhibit 5.

| | <u>June 30, 2003</u> | | ---Prior Year--- <u>June 30, 2002</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 | \$ 36,859,708 | 13.72% | \$ 28,563,029 | 11.03% |
| b) Disability Benefits | 2,879,912 | 1.07% | 3,152,141 | 1.22% |
| c) Survivor Benefits | 2,640,009 | .98% | 2,767,781 | 1.07% |
| d) Voluntary Termination | 5,101,457 | 1.90% | 5,706,476 | 2.20% |
| e) Expenses | <u>2,400,000</u> | <u>.89%</u> | <u>2,200,000</u> | <u>.85%</u> |
| TOTAL | 49,881,086 | 18.56% | 42,389,427 | 16.37% |
| II. Actuarial Accrued Liability | | | | |
| a) Active Members | | | | |
| 1) Retirement Benefits | \$ 692,614,396 | | \$ 591,645,829 | |
| 2) Disability Benefits | 25,894,258 | | 35,477,029 | |
| 3) Survivor Benefits | 18,832,659 | | 25,558,268 | |
| 4) Voluntary Termination | <u>27,661,720</u> | | <u>29,854,799</u> | |
| | 765,003,033 | | 682,535,925 | |
| b) Retired and Inactive Members | | | | |
| 1) Regular Retirees | 623,674,329 | | 585,103,357 | |
| 2) Disabled Retirees | 26,111,179 | | 35,737,045 | |
| 3) Survivors | 94,827,728 | | 87,986,179 | |
| 4) Vested Deferred & Reciprocals | 1,666,915 | | 2,188,655 | |
| 5) Contributions Refunded | 6,923,178 | | 7,753,340 | |
| 6) DROP Deferred Benefits | 165,481,678 | | 136,971,128 | |
| 7) DROP Account Balances | <u>47,108,708</u> | | <u>43,796,273</u> | |
| | 965,793,715 | | 899,535,977 | |
| c) TOTAL | 1,730,796,748 | | 1,582,071,902 | |

Exhibit 1 (Continued)
Costs, Liabilities & Contributions

| | <u>June 30, 2003</u> | <u>June 30, 2002</u> |
|--|----------------------|----------------------|
| II. Actuarial Accrued Liability | | |
| TOTAL (Preceding page) | \$ 1,730,796,748 | \$ 1,582,071,902 |
| III. Assets | 1,369,601,530 | 1,433,859,734 |
| IV. Unfunded Actuarial Accrued Liabilities - (Surplus) | 361,195,218 | 148,212,168 |
| a) Change over prior year | 212,983,050 | 192,026,508 |
| b) Funded Percentage | 79.13% | 90.63% |
| V. Employer Contributions To Fund Current Plan Year* | | |
| a) Employer Portion of Normal Cost | 27,636,213 | 20,969,420 |
| b) Amortization Payments | 19,601,108 | 8,027,467 |
| c) Previous Year (Short-fall) | <u>-14,399</u> | <u>-7,285</u> |
| TOTAL Required Contribution | 47,222,922 | 28,989,602 |
| | 17.4% | 11.1% |
| Actuarial Forecast Rate | 11.2% | 7.0% |
| VI. Projected Employer Contributions To Fund Next Plan Year* | | |
| a) Employer Portion of Normal Cost | 28,366,610 | 21,453,779 |
| b) Amortization Payments | 20,483,158 | 8,388,704 |
| c) Short-fall Charge | <u>3,574,250</u> | <u>-14,399</u> |
| TOTAL Projected Contribution | 52,424,018 | 29,828,084 |
| | 18.8% | 11.2% |
| VII. Current Payroll | 268,656,243 | 258,876,355 |
| Projected Payroll - Mid Year | 271,647,776 | 261,315,359 |
| Projected Payroll - Next Year | 278,827,152 | 267,351,310 |

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

EXHIBIT 2

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

| | <u>June 30, 2003</u> | -----Prior Years----- | |
|-----------------------------------|----------------------|-----------------------|----------------------|
| | | <u>June 30, 2002</u> | <u>June 30, 2001</u> |
| <u>OPERATING REVENUES:</u> | | | |
| 1. Contribution Income | | | |
| Member | \$ 19,820,210 | \$ 18,827,944 | \$ 15,574,349 |
| Employer | 29,312,635 | 15,240,880 | 14,527,016 |
| 2. Other Income | | | |
| Legislative Appropriations | 0 | 0 | 0 |
| Transfers | 0 | 610,107 | 71,765 |
| Miscellaneous | 0 | 15,260 | 0 |
| TOTAL CONTRIBUTIONS | <u>49,132,845</u> | <u>34,694,191</u> | <u>30,173,130</u> |
| 3. Investment Income | | | |
| Investments | 52,488,183 | -32,455,526 | -25,935,772 |
| Less, Manager Fees | <u>-2,362,111</u> | <u>-2,531,030</u> | <u>-2,810,316</u> |
| TOTAL INVESTMENT INCOME | <u>50,126,072</u> | <u>-34,986,556</u> | <u>-28,746,088</u> |
| 4. Total Revenues | 99,258,917 | -292,365 | 1,427,042 |
| <u>OPERATING EXPENSES:</u> | | | |
| 1. General Administration | 2,404,706 | 2,194,150 | 2,020,864 |
| Other Expenses | 163,662 | 172,121 | 567,369 |
| Employer Credit Expense | 29,253,899 | 15,134,981 | 14,432,160 |
| 2. Benefits Paid | | | |
| a) Pension Benefits | 97,598,053 | 89,516,977 | 81,885,206 |
| b) Return of Contrib. | 2,420,242 | 1,992,256 | 2,389,111 |
| c) Transfers Out | <u>225,192</u> | <u>0</u> | <u>0</u> |
| TOTAL BENEFITS PAID | <u>100,243,487</u> | <u>91,509,233</u> | <u>84,274,317</u> |
| 3. Total Operating Expenses | 132,065,754 | 109,010,485 | 101,294,710 |
| <u>NET INCREASE:</u> | -32,806,837 | -109,302,850 | -99,867,668 |

EXHIBIT 2 (Continued)
Financial Summary

FINANCIAL SUMMARY
STATEMENT OF ASSETS
FOR FISCAL YEAR ENDING

| | <u>June 30, 2003</u> | -----Prior Years----- | |
|-----------------------------------|----------------------|-----------------------|----------------------|
| | | <u>June 30, 2002</u> | <u>June 30, 2001</u> |
| ASSETS: | | | |
| 1. Short Term Assets | | | |
| Cash in Banks | \$ 13,294,279 | \$ 4,807,269 | \$ 2,522,776 |
| Securities | 134,008,164 | 71,001,982 | 90,325,916 |
| 2. Bonds (at amortized cost) | | | |
| Foreign Issues | 0 | 5,755,282 | 0 |
| Bonds - General | 257,124,959 | 379,722,910 | 390,239,778 |
| Corporate Issues | 174,491,869 | 208,958,367 | 288,288,433 |
| U.S. Government Obligations | 97,611,243 | 78,163,387 | 30,490,702 |
| 3. Equities, | | | |
| Common Stock - Domestic | 584,637,174 | 540,572,342 | 629,601,392 |
| - Foreign | 81,548,422 | 89,736,320 | 83,864,421 |
| 4. Real Estate | 1,700,000 | 3,292,010 | 3,038,799 |
| 5. Property and Equipment | 3,982,246 | 4,125,355 | 4,263,813 |
| 6. Receivables - Payables | <u>-4,207,587</u> | <u>-9,137,618</u> | <u>-36,335,574</u> |
| | | | |
| TOTAL ASSETS | | | |
| Market Value | 1,344,190,769 | 1,376,997,606 | 1,486,300,456 |
| Valued at Cost | 1,303,077,674 | 1,362,994,638 | 1,410,066,067 |
| | | | |
| INVESTMENT YIELD: | | | |
| Yield to Actuarial Value | - .83% | -1.78% ¹ | 1.77% |
| DROP Account Yield | 0.00% | 0.00% ¹ | 1.27% |
| Yield to Market Value | 3.76% | -2.42% ¹ | -1.85% |
| | | | |
| EMPLOYER CREDIT ACCOUNT: | | | |
| Prior Year End Balance | 36,384,255 | 55,565,376 | 58,667,456 |
| + Excess Added | 0 | 0 | 10,610,482 |
| - Contribution Credited | 30,302,842 | 18,357,808 | 14,715,920 |
| + Accumulated Interest | -175,147 | -823,313 | 1,003,358 |
| Fund Balance - Year End | 5,906,266 | 36,384,255 | 55,565,376 |
| | | | |
| Actuarial Value of Assets: | | | |
| TOTAL ASSETS | 1,344,190,769 | 1,376,977,606 | 1,486,300,456 |
| Change in Unrealized (G/L) | | | |
| Plan Year - 2 (wt. 1/4) | -82,155,646 | -21,999,978 | -51,540,373 |
| Plan Year - 1 (wt. 2/4) | -62,251,421 | -82,155,646 | -21,999,978 |
| Plan Year (wt. 3/4) | <u>27,130,127</u> | <u>-62,251,421</u> | <u>-82,155,646</u> |
| | | | |
| Actuarial Value of Assets | 1,375,507,796 | 1,470,243,989 | 1,571,802,273 |
| Less, Employer Credit Account | -5,906,266 | -36,384,255 | -55,565,376 |
| Valuation Assets | 1,369,601,530 | 1,433,859,734 | 1,516,236,897 |

¹The investment yields initially published have been restated.

EXHIBIT 3

**PENSION ACCOUNTING
AND
FINANCIAL DISCLOSURE**

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

SCHEDULE OF FUNDING PROGRESS

(Dollar amounts in thousands)

| Actuarial Valuation Date | Actuarial Value of Assets (a) | Actuarial Accrued Liability(AAL) (b) | Unfunded AAL (UAAL) (b-a) | Funded Ratio (a/b) | Covered Payroll (c) | UAAL as a Percentage of Payroll ((b-a)/c) |
|--------------------------------|--|---|------------------------------------|--------------------------|---------------------------|--|
| 1994 | 932,112 | 854,867 | - 77,245 | 109.0 | 203,270 | - 38.0 |
| 1995 | 986,376 | 908,811 | - 77,565 | 108.5 | 205,467 | - 37.8 |
| 1996 | 1,066,498 | 970,569 | - 95,929 | 109.9 | 211,178 | - 45.4 |
| 1997 | 1,173,453 | 1,067,252 | -106,201 | 110.0 | 219,265 | - 48.4 |
| 1998 | 1,344,551 | 1,142,253 | -202,298 | 117.7 | 225,734 | - 89.6 |
| 1999 | 1,464,041 | 1,213,230 | -250,811 | 120.7 | 236,001 | -106.3 |
| 2000 | 1,556,270 | 1,291,823 | -264,447 | 120.5 | 241,128 | -109.7 |
| 2001 | 1,516,236 | 1,472,423 | - 43,814 | 103.0 | 249,674 | - 17.5 |
| 2002 | 1,433,859 | 1,582,071 | 148,212 | 90.6 | 258,876 | 57.3 |
| 2003 | 1,433,859 | 1,730,796 | 361,195 | 79.1 | 268,656 | 134.4 |

The total actuarial accrued liability determined using the Individual Entry Age Normal cost method increased by \$148,724,846 from June 30, 2002 to June 30, 2003. From all sources there was a net experience loss of \$210,182,640. The Employer Credit Account established by Act 278 of the 1999 regular legislative session has a current balance of \$5,906,266.

EXHIBIT 3 (Continued)

Pension Accounting & Financial Disclosure

SUPPLEMENTARY INFORMATION

SCHEDULE OF EMPLOYER CONTRIBUTIONS

| <u>Fiscal Year</u> | <u>Actuarial Required Contribution</u> | <u>Percent Contributed</u> | <u>Annual Pension Cost (APC)</u> | <u>Actual Contribution</u> | <u>Percentage of APC Contributed</u> | <u>Net Pension Obligation</u> ¹ |
|--------------------|--|----------------------------|----------------------------------|----------------------------|--------------------------------------|--|
| 1994 | 11,591,250 | 108.5 | 12,063,450 | 12,581,273 | 104.3 | -245,716 |
| 1995 | 12,241,039 | 99.1 | 10,553,411 | 12,135,206 | 119.2 | -562,282 |
| 1996 | 12,918,080 | 99.2 | 11,015,178 | 12,816,141 | 116.4 | -376,327 |
| 1997 | 13,591,133 | 98.0 | 10,439,624 | 13,686,530 | 131.1 | -395,566 |
| 1998 | 14,061,639 | 99.8 | 10,423,229 | 14,031,797 | 134.6 | -271,657 |
| 1999 | 14,722,610 | 100.4 | 6,053,772 | 14,783,009 | 244.2 | -127,822 |
| 2000 | 14,841,241 | 100.0 | 606,683 | 14,841,242 | 2446.3 | -48,216 |
| 2001 | 15,257,791 | 100.0 | 543,354 | 15,257,791 | 2808.1 | -46,733 |
| 2002 | 15,616,982 | 100.0 | 581,417 | 15,616,983 | 2686.0 | -19,944 |
| 2003 | 16,440,025 | 100.0 | 13,856,760 | 16,440,025 | 118.6 | -13,887 |

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

The difference between the Actuarial Required Contribution and the APC is the amortization payment for the Net Pension Obligation (see Exhibit A), plus a constitutional mandated amount to bring the total employer contribution up to 6% of covered payroll.

**DEVELOPMENT OF NET
PENSION OBLIGATION:**

| | |
|---|------------|
| Actuarial Required Contribution | 16,440,025 |
| Interest on Net Pension Obligation | -1,496 |
| Amortization of Net Pension Obligation | -7,553 |
| Annual Pension Cost | 13,856,760 |
| Employer Contribution | 16,440,025 |
| Increase (decrease) in Net Pension Obligation | 6,057 |
| Net Pension Obligation Beginning of Year | -19,944 |
| Net Pension Obligation End of Year | -13,887 |

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

EXHIBIT 3 (Continued)

Pension Accounting & Financial Disclosure

STATISTICAL DATA

COMPARATIVE SUMMARY OF REVENUES BY SOURCE
AND EXPENSES BY TYPE

Revenues by Source

| <u>Fiscal Year</u> | <u>Members Contribution</u> | <u>Employer Contribution</u> | <u>Investment Income</u> | <u>Total</u> |
|------------------------|---------------------------------|----------------------------------|------------------------------|--------------|
| 1994 | 12,694,280 | 12,581,273 | 82,978,612 | 108,254,165 |
| 1995 | 12,955,100 | 12,135,206 | 73,841,435 | 98,931,741 |
| 1996 | 13,671,635 | 12,816,141 | 83,679,068 | 110,166,844 |
| 1997 | 13,873,112 | 13,200,462 | 108,558,771 | 135,632,345 |
| 1998 | 14,353,380 | 13,533,467 | 157,957,573 | 185,844,420 |
| 1999 | 15,028,064 | 14,258,000 | 128,912,738 ¹ | 158,198,802 |
| 2000 | 15,149,157 | 81,777 ² | 119,308,696 | 134,539,630 |
| 2001 | 15,574,349 | 74,856 ² | -28,746,088 | -13,096,883 |
| 2002 | 18,827,944 | 105,899 ² | -34,986,556 | -16,052,713 |
| 2003 | 19,820,210 | 58,736 ² | 50,126,072 | 70,005,018 |

Expenses by Type

| <u>Fiscal Year</u> | <u>Benefits</u> | <u>Refunds</u> | <u>Administrative Expenses</u> | <u>Total</u> |
|------------------------|-----------------|----------------|------------------------------------|--------------|
| 1994 | 41,246,395 | 2,347,722 | 1,218,375 | 44,812,492 |
| 1995 | 45,676,699 | 1,840,488 | 1,286,575 | 48,803,762 |
| 1996 | 51,659,703 | 2,301,807 | 1,741,965 | 55,703,475 |
| 1997 | 55,816,364 | 2,112,016 | 1,737,126 | 59,665,506 |
| 1998 | 60,675,915 | 2,328,958 | 1,820,670 | 64,825,543 |
| 1999 | 67,402,758 | 2,369,474 | 2,236,188 | 72,008,420 |
| 2000 | 75,855,391 | 2,243,027 | 2,285,482 | 80,383,900 |
| 2001 | 81,885,206 | 2,389,111 | 2,588,233 | 86,862,550 |
| 2002 | 89,516,977 | 1,992,256 | 2,366,271 | 93,875,504 |
| 2003 | 97,598,053 | 2,420,242 | 2,793,560 | 105,811,855 |

¹Prior to 6/30/99, reported realized investment income. A change in Asset Valuation Method now reports realized and unrealized investment income at Market (see Exhibit 6)

²Employer Contributions minus Employer Contribution Credit.

EXHIBIT 4

CENSUS DATA

GENERAL COMMENTS

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

The validity of the results of any actuarial valuation is dependent upon the accuracy of the 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

This year there were seven records purged from the data base containing errors or categorized as suspicious data which is a significant reduction when compared to previous years. Suspicious data are not necessarily errors, but data which falls outside the parameters of the editing process for further checking.

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 of the data submitted for valuation:

| | <u>2003 Census</u> | <u>2002 Census</u> |
|---------------------|--------------------|--------------------|
| Active Members | 14,486 | 14,638 |
| Regular Retirees | 8,079 | 7,527 |
| Disability Retirees | 557 | 789 |
| Survivors | 1,432 | 1,386 |
| Terminated Vested | 61 | 63 |
| DROP Participants | <u>792</u> | <u>796</u> |
| TOTAL | 25,407 | 25,199 |

Hall Actuarial Associates

MEMBERSHIP PROFILE
CATEGORIZED BY AGE AND YEARS EMPLOYED

LSER RETIREMENT SYSTEM
REGULAR ACTIVE MEMBERS

CELLS DEPICT - MEMBER COUNT
TOTAL SALARY

VALUATION DATE 6/30/2003

| Age/Years | (0-1) | [1-5) | [5-10) | [10-15) | [15-20) | [20-25) | [25-30) | [30-35) | [35-) | Total |
|------------|----------|----------|----------|----------|----------|----------|----------|---------|--------|-----------|
| [0 - 19) | 13 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15 |
| | 157076 | 35716 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 192792 |
| [20 - 24) | 48 | 68 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 118 |
| | 482686 | 1182605 | 40681 | 0 | 0 | 0 | 0 | 0 | 0 | 1705972 |
| [25 - 29) | 55 | 213 | 60 | 2 | 0 | 0 | 0 | 0 | 0 | 330 |
| | 738268 | 3490475 | 1198832 | 48924 | 0 | 0 | 0 | 0 | 0 | 5476499 |
| [30 - 34) | 83 | 388 | 219 | 61 | 4 | 0 | 0 | 0 | 0 | 755 |
| | 1053351 | 6628049 | 3850530 | 1241848 | 102950 | 0 | 0 | 0 | 0 | 12876728 |
| [35 - 39) | 141 | 629 | 467 | 221 | 70 | 12 | 0 | 0 | 0 | 1540 |
| | 1675840 | 10301132 | 8189612 | 4306173 | 1578710 | 314632 | 0 | 0 | 0 | 26366099 |
| [40 - 44) | 152 | 755 | 671 | 422 | 216 | 184 | 16 | 0 | 0 | 2416 |
| | 1972084 | 12050313 | 11742288 | 7942754 | 4928208 | 5217362 | 472957 | 0 | 0 | 44325966 |
| [45 - 49) | 159 | 603 | 668 | 556 | 304 | 310 | 202 | 2 | 0 | 2804 |
| | 2120051 | 10132137 | 11565285 | 10600949 | 6095292 | 6557579 | 5187771 | 67395 | 0 | 52326459 |
| [50 - 54) | 98 | 491 | 544 | 517 | 365 | 393 | 378 | 25 | 1 | 2812 |
| | 1312631 | 8087750 | 9576491 | 9408993 | 6947208 | 8135080 | 8772438 | 571048 | 33256 | 52844895 |
| [55 - 59) | 56 | 324 | 429 | 391 | 340 | 440 | 91 | 6 | 1 | 2078 |
| | 668577 | 5096503 | 7218651 | 7273114 | 6502267 | 8327703 | 1906875 | 131278 | 35701 | 37160669 |
| [60 - 64) | 23 | 117 | 233 | 99 | 57 | 60 | 53 | 8 | 4 | 654 |
| | 330043 | 1780721 | 3914919 | 1647526 | 1213117 | 1073414 | 889587 | 157804 | 116251 | 11123382 |
| [65 - 69) | 11 | 64 | 76 | 29 | 16 | 19 | 17 | 10 | 0 | 242 |
| | 93843 | 951729 | 1298783 | 478262 | 311121 | 275616 | 252329 | 190442 | 0 | 3852125 |
| [70 - 74) | 2 | 22 | 19 | 6 | 4 | 7 | 5 | 6 | 1 | 72 |
| | 26940 | 341316 | 301032 | 109549 | 52236 | 106502 | 73541 | 79938 | 37660 | 1128714 |
| Total | 841 | 3676 | 3388 | 2304 | 1376 | 1425 | 762 | 57 | 7 | 13836 |
| Total | 10631390 | 60078446 | 58897104 | 43058092 | 27731109 | 30007888 | 17555498 | 1197905 | 222868 | 249380300 |

AVERAGES : Attained Age 47.68
Service Years 10.43
Active Salary 18,024

Hall Actuarial Associates

MEMBERSHIP PROFILE
CATEGORIZED BY AGE AND YEARS EMPLOYED

LSEER RETIREMENT SYSTEM
ACTIVE AFTER DROP

CELLS DEPICT - MEMBER COUNT VALUATION DATE 6/30/2003
TOTAL SALARY
DROP BENEFITS

| Age/Years | (0-1) | [1-2) | [2-3) | [3-4) | [4-5) | [5-10) | [10-15) | [15-20) | [20-) | Total |
|------------|---------|---------|---------|---------|---------|--------|---------|---------|--------|----------|
| [0 - 34) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| [35 - 39) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| [40 - 44) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| [45 - 49) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| [50 - 54) | 5 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 |
| [55 - 59) | 37 | 43 | 3 | 0 | 3 | 0 | 0 | 0 | 0 | 86 |
| [60 - 64) | 129 | 124 | 27 | 12 | 13 | 0 | 0 | 0 | 0 | 305 |
| [65 - 69) | 18 | 37 | 54 | 44 | 30 | 4 | 0 | 0 | 0 | 187 |
| [70 - 74) | 8 | 7 | 9 | 8 | 10 | 18 | 0 | 0 | 0 | 60 |
| Total | 197 | 218 | 93 | 64 | 56 | 22 | 0 | 0 | 0 | 650 |
| Total | 3371633 | 3633776 | 1658962 | 1195993 | 1037741 | 398744 | 0 | 0 | 0 | 11296849 |
| Total | 1744740 | 1867296 | 721440 | 470076 | 437472 | 148104 | 0 | 0 | 0 | 5389128 |

AVERAGES : Attained Age 64.20
Post Drop Years 1.89
Active Salary 17,380
Annual Benefit 8,291

Hall Actuarial Associates

MEMBERSHIP PROFILE
CATEGORIZED BY AGE AND YEARS RETIRED

LSER RETIREMENT SYSTEM
REGULAR RETIREES

CELLS DEPICT - MEMBER COUNT
TOTAL BENEFITS

VALUATION DATE 6/30/2003

| 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 |
| [40 - 44) | 7 | 2 | 3 | 3 | 1 | 0 | 0 | 0 | 0 | 16 |
| [45 - 49) | 15 | 6 | 6 | 8 | 4 | 5 | 0 | 0 | 0 | 44 |
| [50 - 54) | 27 | 31 | 22 | 15 | 16 | 22 | 1 | 0 | 1 | 135 |
| [55 - 59) | 53 | 45 | 66 | 98 | 64 | 98 | 28 | 5 | 0 | 457 |
| [60 - 64) | 64 | 126 | 128 | 240 | 250 | 577 | 91 | 36 | 3 | 1515 |
| [65 - 69) | 20 | 34 | 46 | 75 | 88 | 1281 | 280 | 62 | 16 | 1902 |
| [70 - 74) | 7 | 8 | 13 | 22 | 24 | 740 | 804 | 156 | 37 | 1811 |
| [75 - 79) | 3 | 4 | 1 | 6 | 6 | 138 | 504 | 469 | 79 | 1210 |
| [80 - 84) | 0 | 0 | 0 | 0 | 2 | 21 | 82 | 302 | 243 | 650 |
| [85 - 89) | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 27 | 202 | 231 |
| [90 - 99) | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 105 | 108 |
| Total | 196 | 257 | 285 | 467 | 455 | 2882 | 1792 | 1059 | 686 | 8079 |
| Total | 2211612 | 2815440 | 2517132 | 4057344 | 3895572 | 23936544 | 16533888 | 10598700 | 6640656 | 73206888 |

AVERAGES : Attained Age 70.35
Years Retired 10.25
Annual Benefit 9,061

Hall Actuarial Associates

MEMBERSHIP PROFILE
CATEGORIZED BY AGE AND YEARS RETIRED

LSER RETIREMENT SYSTEM
DISABILITY RETIREES

CELLS DEPICT - MEMBER COUNT
TOTAL BENEFITS

VALUATION DATE 6/30/2003

| Age/Years | (0-1) | [1-2) | [2-3) | [3-4) | [4-5) | [5-10) | [10-15) | [15-20) | [20-) | Total |
|-----------|--------|--------|--------|--------|--------|--------|---------|---------|--------|---------|
| [0 - 39) | 1 | 1 | 2 | 1 | 1 | 4 | 1 | 0 | 0 | 11 |
| | 5496 | 6048 | 15276 | 2784 | 3972 | 15744 | 5388 | 0 | 0 | 54708 |
| [40 - 44) | 10 | 9 | 1 | 1 | 6 | 10 | 2 | 2 | 0 | 41 |
| | 62952 | 71364 | 17448 | 6468 | 35016 | 61512 | 9948 | 14748 | 0 | 279456 |
| [45 - 49) | 13 | 12 | 17 | 11 | 7 | 27 | 10 | 5 | 0 | 102 |
| | 90120 | 95556 | 97548 | 67380 | 49032 | 156084 | 58092 | 29088 | 0 | 642900 |
| [50 - 54) | 20 | 21 | 27 | 5 | 13 | 54 | 33 | 10 | 0 | 183 |
| | 182712 | 169332 | 177756 | 59616 | 64896 | 317232 | 201060 | 56832 | 0 | 1229436 |
| [55 - 59) | 20 | 14 | 7 | 22 | 18 | 57 | 35 | 11 | 2 | 186 |
| | 124236 | 99420 | 35652 | 130752 | 89652 | 311820 | 182712 | 59976 | 9420 | 1043640 |
| [60 - 64) | 4 | 5 | 1 | 3 | 1 | 3 | 2 | 2 | 0 | 21 |
| | 17664 | 20940 | 4848 | 12612 | 4404 | 14676 | 9912 | 9720 | 0 | 94776 |
| [65 - 69) | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 4596 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4596 |
| [70 - 74) | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 4 |
| | 0 | 3492 | 0 | 0 | 0 | 0 | 0 | 264 | 11424 | 15180 |
| [75 - 79) | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| | 0 | 9300 | 8040 | 0 | 0 | 0 | 0 | 0 | 0 | 17340 |
| [80 - 84) | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 2 |
| | 0 | 0 | 5064 | 0 | 0 | 0 | 0 | 0 | 5004 | 10068 |
| [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 | 2 | 2 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4968 | 4968 |
| Total | 69 | 65 | 58 | 43 | 46 | 155 | 83 | 31 | 7 | 557 |
| Total | 487776 | 475452 | 361632 | 279612 | 246972 | 877068 | 467112 | 170628 | 30816 | 3397068 |

AVERAGES : Attained Age 53.48
Years Retired 6.21
Annual Benefit 6,099

Hall Actuarial Associates

MEMBERSHIP PROFILE
CATEGORIZED BY AGE AND YEARS RETIRED

LSER RETIREMENT SYSTEM
SURVIVOR BENEFITS

CELLS DEPICT - MEMBER COUNT
TOTAL BENEFITS

VALUATION DATE 6/30/2003

| Age/Years | (0-1) | [1-2) | [2-3) | [3-4) | [4-5) | [5-10) | [10-15) | [15-20) | [20-) | Total |
|--------------|----------------|---------------|---------------|---------------|---------------|----------------|----------------|----------------|----------------|-----------------|
| [0 - 39) | 16 | 7 | 7 | 6 | 5 | 27 | 12 | 2 | 1 | 83 |
| | 115776 | 58596 | 93048 | 50988 | 42960 | 242988 | 119796 | 14496 | 3312 | 741960 |
| [40 - 44) | 16 | 3 | 1 | 2 | 0 | 5 | 0 | 1 | 2 | 30 |
| | 132600 | 24516 | 11268 | 12816 | 0 | 37548 | 0 | 11892 | 8928 | 239568 |
| [45 - 49) | 13 | 2 | 7 | 1 | 4 | 10 | 4 | 4 | 1 | 46 |
| | 101484 | 15216 | 62340 | 3060 | 20244 | 75180 | 32592 | 31560 | 6024 | 347700 |
| [50 - 54) | 15 | 8 | 7 | 7 | 8 | 15 | 7 | 2 | 3 | 72 |
| | 120756 | 65160 | 67296 | 74664 | 82116 | 102756 | 72336 | 6936 | 13272 | 605292 |
| [55 - 59) | 26 | 10 | 7 | 6 | 10 | 25 | 8 | 4 | 2 | 98 |
| | 239964 | 60960 | 53244 | 43632 | 77136 | 184380 | 63768 | 36288 | 10644 | 770016 |
| [60 - 64) | 46 | 10 | 6 | 11 | 8 | 30 | 30 | 14 | 4 | 159 |
| | 400716 | 69492 | 48792 | 86856 | 51432 | 201456 | 240816 | 132600 | 18180 | 1250340 |
| [65 - 69) | 44 | 11 | 13 | 10 | 5 | 49 | 35 | 19 | 5 | 191 |
| | 324252 | 65688 | 90888 | 70512 | 33276 | 357768 | 290988 | 159672 | 38952 | 1431996 |
| [70 - 74) | 55 | 11 | 19 | 12 | 13 | 54 | 47 | 22 | 12 | 245 |
| | 404736 | 97992 | 163008 | 90120 | 79620 | 442512 | 391248 | 159096 | 96960 | 1925292 |
| [75 - 79) | 25 | 9 | 12 | 10 | 6 | 59 | 39 | 27 | 19 | 206 |
| | 185556 | 110952 | 84312 | 65220 | 58248 | 489312 | 313008 | 247848 | 151128 | 1705584 |
| [80 - 84) | 7 | 9 | 11 | 6 | 8 | 29 | 33 | 25 | 37 | 165 |
| | 55956 | 54324 | 81888 | 47916 | 68952 | 237708 | 247152 | 226056 | 279108 | 1299060 |
| [85 - 89) | 2 | 6 | 4 | 0 | 1 | 13 | 18 | 12 | 41 | 97 |
| | 18732 | 38724 | 32820 | 0 | 13944 | 106056 | 158604 | 114540 | 305496 | 788916 |
| [90 - 99) | 1 | 0 | 2 | 0 | 1 | 6 | 5 | 5 | 20 | 40 |
| | 4200 | 0 | 11268 | 0 | 3996 | 44532 | 34788 | 42036 | 140040 | 280860 |
| Total | 266 | 86 | 96 | 71 | 69 | 322 | 238 | 137 | 147 | 1432 |
| Total | 2104728 | 661620 | 800172 | 545784 | 531924 | 2522196 | 1965096 | 1183020 | 1072044 | 11386584 |

AVERAGES : Attained Age 68.13
Years Retired 8.76
Annual Benefit 7,952

Hall Actuarial Associates

MEMBERSHIP PROFILE
CATEGORIZED BY AGE AND YEARS RETIRED

LSEER RETIREMENT SYSTEM
DROP PARTICIPANTS

CELLS DEPICT - MEMBER COUNT
TOTAL BENEFITS

VALUATION DATE 6/30/2003

| 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 |
| [40 - 44) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| [45 - 49) | 1 36612 | 1 12564 | 0 0 | 0 0 | 0 0 | 0 0 | 0 0 | 0 0 | 0 0 | 2 49176 |
| [50 - 54) | 14 315192 | 25 530124 | 11 204216 | 0 0 | 0 0 | 0 0 | 0 0 | 0 0 | 0 0 | 50 1049532 |
| [55 - 59) | 81 1369632 | 135 2147880 | 60 727332 | 1 10752 | 0 0 | 0 0 | 0 0 | 0 0 | 0 0 | 277 4255596 |
| [60 - 64) | 118 1219152 | 171 1604700 | 135 1087608 | 0 0 | 0 0 | 0 0 | 0 0 | 0 0 | 0 0 | 424 3911460 |
| [65 - 69) | 5 28068 | 13 88032 | 9 49428 | 0 0 | 0 0 | 0 0 | 0 0 | 0 0 | 0 0 | 27 165528 |
| [70 - 74) | 2 19116 | 5 42576 | 3 20400 | 0 0 | 0 0 | 0 0 | 0 0 | 0 0 | 0 0 | 10 82092 |
| [75 - 79) | 0 0 | 1 21612 | 0 0 | 0 0 | 0 0 | 0 0 | 0 0 | 0 0 | 0 0 | 1 21612 |
| [80 - 84) | 0 0 | 0 0 | 1 8496 | 0 0 | 0 0 | 0 0 | 0 0 | 0 0 | 0 0 | 1 8496 |
| [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 | 221 | 351 | 219 | 1 | 0 | 0 | 0 | 0 | 0 | 792 |
| Total | 2987772 | 4447488 | 2097480 | 10752 | 0 | 0 | 0 | 0 | 0 | 9543492 |

AVERAGES : Attained Age 59.93
Years Retired 1.51
Annual Benefit 12,050

Hall Actuarial Associates

MEMBERSHIP PROFILE
CATEGORIZED BY AGE AND YEARS EMPLOYED

LSEER RETIREMENT SYSTEM
TERM-VESTED/RECIPROCAL

CELLS DEPICT - MEMBER COUNT
TOTAL BENEFITS

VALUATION DATE 6/30/2003

| 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 |
| [20 - 24) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| [25 - 29) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| [30 - 34) | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 3 |
| [35 - 39) | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| [40 - 44) | 0 | 1 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 4 |
| [45 - 49) | 0 | 0 | 1 | 5 | 1 | 0 | 0 | 0 | 0 | 7 |
| [50 - 54) | 0 | 2 | 1 | 7 | 3 | 0 | 0 | 0 | 0 | 13 |
| [55 - 59) | 0 | 0 | 0 | 19 | 6 | 0 | 0 | 0 | 0 | 25 |
| [60 - 64) | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| [65 - 69) | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| [70 - 74) | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 3 |
| Total | 0 | 8 | 8 | 33 | 12 | 0 | 0 | 0 | 0 | 61 |
| Total | 0 | 6190 | 18226 | 167514 | 63583 | 0 | 0 | 0 | 0 | 255513 |

AVERAGES : Attained Age 54.42
Service Years 11.26
Annual Benefit 4,189

EXHIBIT 5

PRINCIPLE PROVISIONS OF THE PLAN
(Including Acts of 2000 Regular Session)

EFFECTIVE DATE:

July 1, 1947; last amendment date - July 1, 2003.

EMPLOYEE:

Any school bus driver, school janitor, school custodian, school maintenance employee, school bus aide, monitor or attendant or other regular school employee helping with the transportation of school children, and who is a legal employee of a parish or city school board of the State of Louisiana.

EMPLOYER:

The State of Louisiana, or any parish or city school board from which any employee receives his compensation.

ELIGIBILITY FOR PARTICIPATION:

Contingent upon approval of application filed with the Board of Trustees within 90-days of the date of Employment. However, no employee who is a member of any other retirement system supported in whole or in part by public funds shall be entitled to membership in this retirement system.

SERVICE:

Service as an "Employee", defined above.

CREDITABLE SERVICE:

Prior Service plus Membership Service, for which credit is allowed.

PRIOR SERVICE:

Service prior to July 1, 1947 for which prior service certificates are issued; granted without cost if certified.

MEMBERSHIP SERVICE:

Service as an "Employee" while a member of the system.

EXHIBIT 5 (Continued)
Principle Provisions

ADDITIONAL
CREDITABLE SERVICE:

1. Credit for service canceled by withdrawal of accumulated contributions may be restored by member by paying into system the amount withdrawn plus regular interest from date withdrawn until paid.
2. Maximum of 4 years of credit for military service may purchased.
3. Conversion of Sick Leave and Annual Leave at retirement, or death May be converted to membership credit.
4. Part-time employees shall accrue a full year of creditable service for each full year of part-time service for benefit eligibility purposes.
5. Out of State service with other school systems may be purchased.

EARNABLE COMPENSATION:

The compensation earned by a member for any given period. Where compensation includes maintenance, the employing agency shall fix the value of that part of compensation not paid directly.

AVERAGE FINALCOMPENSATION:

The average annual earnable compensation of a member for the 36 highest successive months of employment or the highest 36 successive joined months of employment where interruption of service occurred (Effective 7/6/84); the average compensation of a member for purposes of computing benefits cannot increase more than 25% per year (Effective 1/1/87).

ACCUMULATED CONTRIBUTIONS:

Sum of all amounts deducted from compensation of a member plus any interest credited to his individual account in annuity savings fund plus any other amounts credited to the member's account.

EMPLOYEE CONTRIBUTIONS:

- 7% of earnable compensation.
- 6.65% effective Sept.1, 1990 (Act 340 of 1990).
- 7.00% effective Jan. 1, 1992 (Act 375 of 1991).
- 6.35% effective July 1, 1992 (Act 248 of 1992).
- 7.50% effective July 1, 2001 (Act 897 of 2001).

EXHIBIT 5 (Continued)
Principle Provisions

EMPLOYER CONTRIBUTIONS:

"Normal contribution" rate plus "accrued liability contribution" rate, as determined by the actuary and Board of Trustees. Eff. July 1, 1985, 10.18%. Act 81 of 1988 requires employer rate to be actuarially determined annually.

RETIREMENT BENEFIT:

NORMAL RETIREMENT:

Eligibility:

Written application to the Board of Trustees and the 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.

Benefit:

An annuity which shall be the actuarial equivalent of accumulated employee contributions at retirement date, plus

A pension, which together with the above annuity, provides a total allowance equal to 2 1/2% of average final compensation times the years of creditable service (including creditable unused sick and annual leave), plus an additional 1/2% of average final compensation times the years of creditable service in excess of 20 years, plus a two dollars per month for each year of credited service supplemental benefit, not to exceed average final compensation.

Act 278 of the 1999 regular legislative session provides a 3% accrual rate for each year of service earned after July 1, 1999, regardless of prior service earned.

Act 897 of the 2001 regular legislative session increases the accrual rate to 3 1/3% for active members after July 1, 2001 for all years of service.

EARLY-REDUCED RETIREMENT:

Eligibility:

20 years of service credit regardless of attained age.

Benefit:

Normal retirement benefit based upon service accrued to date, actuarially reduced from the earliest date member would be eligible if employment had continued to earliest normal retirement date.

COST OF LIVING BENEFITS:

1. Prior to July 1, 1970 Board may grant supplemental COLA not in excess of 2% from investment income, minimum \$20 per month.

EXHIBIT 5 (Continued)
Principle Provisions

After July 29, 1970 Board may grant supplemental COLA not in excess of 3% from investment income, minimum \$30 per month.

2. Under Act 798 of 1980:

A. COLA adjustments for retirees based on their date of retirement.

| <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 COLA of 10% for those who retired on or before 7/1/80 .

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 for Retirees or survivors

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.

No increase can be more than \$100/month.

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

Act 278 of the 1999 regular legislative session permits the granting of COLA's in the form of \$1 for each year of service, \$1 for each year retired, plus \$1 for each year of service in excess of 30 years. Those 65 and older may receive an additional benefit equal to 2% of their current benefit.

DISABILITY RETIREMENT:

Eligibility:

5 years of creditable service; certification of disability by medical board (medical examination required once in every year for the first 5 years of disability retirement, and once in every 3 years thereafter, until age 60).

EXHIBIT 5 (Continued)
Principle Provisions

Benefit:

An annuity which shall be the actuarial equivalent of accumulated employee contributions at retirement date, plus

A pension, which together with the above annuity, provides a total allowance equal to 2 1/2% of average final compensation times the years of creditable service (including creditable unused sick and annual leave), plus a two dollars per month for each year of credited service supplemental benefit, not to exceed final average compensation. Act 500 of 1989 provides a minimum disability benefit of 33 1/3% of average final compensation.

NOTE: The supplemental benefit is discontinued to persons who become members of the retirement system after 6/30/86 (Act 608 of 1986).

SURVIVOR'S BENEFITS:

Eligibility:

1. Surviving Spouse with minor children of;
-an active member with 5 years of creditable service with at least 2 years earned immediately prior to death or,
-a member with 20 years of service at the time of death.
2. Surviving Spouse without minor children of;
-an active member with 10 years of creditable service with at least 2 years earned immediately prior to death or,
-a member with 20 years of service at the time of death.
3. Minor children with no spouse or spouse without legal custody of;
-an active member with 5 years of creditable service with at least 2 years earned immediately prior to death or,
-a member with 20 years of service at the time of death.
4. Beneficiary not eligible for (1), (2) or (3)

Benefits:

1. Greater of 75% of member's final average compensation or \$300 per month. Benefit ceases upon remarriage if less than 20 years of service and less than attained age 55.
2. Greater of 50% of member's final average compensation or \$200 per month. Benefit ceases upon remarriage if less than 20 years of service and less than attained age 55.
3. Greater of 75% of member's final average compensation or \$300 per month.
4. Return of member's accumulated contributions.

EXHIBIT 5 (Continued)
Principle Provisions

NOTE: Handicapped or mentally retarded children of a deceased member, regardless of age, who are dependent upon a surviving spouse or legal guardian shall be payable in accordance with minor children benefits of this section. The benefit payable shall be reduced by state assistance received.

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.

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

NOTE: Revisionary annuities are available for Option 2 and Option 3, which provides a return to the maximum benefit if the spouse pre-deceases the retiree.

REFUND OF CONTRIBUTIONS:

If a member ceases to be eligible, 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.

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 5 (Continued)
Principle Provisions

DEFERRED RETIREMENT OPTION PLAN:
(Act 56 of 1991)

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

Eligibility:

Ten (10) years at age sixty (60), twenty-five (25) years at age fifty-five (55), or thirty (30) years of creditable service including reciprocal service, but excluding conversion of sick and annual leave, and eligible to receive a service retirement allowance. However, all unused sick and annual leave is convertible after plan participation when member has terminated employment.

Benefit:

Duration of participation is specified and cannot exceed the period terminating on the third anniversary at the earliest date the member qualified for regular retirement.

Upon termination of employment at the end of or prior to the end of the specified period of participation, a participant will receive, at his option:

- (1) lump sum payment (equal to the payments to the account);
- (2) a true annuity based upon his account; or
- (3) any other method of payment if approved by the board of trustees. Monthly benefits being paid into the fund during participation will begin being paid to the retiree.

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

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

- (1) payment into account shall cease;
- (2) payment from account shall not be made until employment is terminated; and
- (3) the participant shall resume active contributing membership in the system.

EXHIBIT 5 (Continued)
Principle Provisions

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

- (1) If additional service was less than 36 months, average compensation figure used to calculate additional benefit shall be that used to calculate original benefit.
- (2) If additional service was 36 or more months, the average compensation figure used to calculate the additional benefit shall be based on compensation during the period of additional service.

NOTE:

DROP Accounts shall earn interest subsequent to the termination of DROP participation at a rate of half of one percentage point below the percentage rate of return of the System's investment portfolio as certified by the actuary on an annual basis.

Effective 1/1/2004 new DROP accounts are credited with Money Market rates or self directed accounts approved by the Board of Trustees.

EXHIBIT 6

ACTUARIAL COST METHODS AND ASSUMPTIONS

COST METHOD:

The individual "Entry Age Normal" 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 allocated on a level basis as percentage of payroll for each participant between entry age and assumed retirement age(s). That portion of the actuarial present value attributable to current year benefit accruals is called the Normal Cost. The actuarial present value of future benefits in excess of the actuarial present value of future normal costs is called the actuarial accrued liability.

ASSET VALUATION:

For the Plan Year ending prior to June 30, 1999 equities are valued at a four year weighted average. The computation of the actuarial value of assets is the sum of the bonds at amortized cost, less a weighted average of unrealized losses or (gains) in the market value of equities, plus the market value of Equities

Effective June 30, 1999 the Board of Trustees approved a change in the Asset Valuation Method. The Actuarial Value of Assets is the market value of assets adjusted for a four year weighted average in the unrealized gain or loss in the value of all assets. This value is determined in accordance with 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.

ACCOUNTING DISCLOSURE:

The Governmental Accounting Standards Board Statement No. 25 requires disclosure of certain actuarial liabilities for Public Employee Retirement Systems. The disclosures illustrated in Exhibit 3 were developed using the Entry Age Normal cost method. The statement of assets provided by the independent auditors was a copy of the final draft prior to publication. Should the statement of assets received differ from the final audit report, a revised actuarial statement will be issued to the extent that any difference in reporting affects the employer's contribution rate or the yield to the Actuarial Value of Assets.

ACTUARIAL ASSUMPTIONS:

The Retirement System is required to conduct an experience study every five years, but the scope of such a study is not necessarily limited to a five year period. The current five year observation period (1997-2001) was chosen to coincide with the most recent period of data reporting following the restructuring of the Deferred Retirement Option Program.

EXHIBIT 6 (Continued)
Cost Methods & Assumptions

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 with the most recent Experience Study. For mortality after disability, rates were on the Eleventh Actuarial Valuation of the Railroad Retirement System for permanent disabilities.

RETIREMENT/DROP ASSUMPTION:

Retirement rates are based on age and service eligibility requirements for normal benefits. Age and service requirements vary by plan. DROP is viewed as an alternative form of benefit accrual since mandatory termination is not required following participation. Therefore, at eligibility, the probability of DROP accrual is determine in conjunction with regular benefit accrual. Retirement rates and DROP probabilities are based on the most recent Experience Study and are illustrated in the rate tables at the end of this exhibit.

TERMINATION ASSUMPTIONS:

Voluntary termination or withdrawal rates are based on the most recent Experience Study. During the first five years of employment, the probability of voluntarily terminating is a multiple of the attained age rate in prior reports and a multiple of service duration in the current valuation as follows:

| | -- PRIOR ASUMPTIONS -- | -- CURRENT ASSUMPTIONS -- |
|----------|------------------------|---------------------------|
| 1st year | 2.50x | 1.10x |
| 2nd year | 1.00x | 1.00x |
| 3rd year | 1.00x | 1.00x |
| 4th year | 1.00x | 1.00x |
| 5th year | 1.00x | 1.00x |

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 rates of annual salary growth are based upon the members years of service and are illustrated in the rate tables at the end of this exhibit.

EXHIBIT 6 (Continued)
Cost Methods & Assumptions

FAMILY STATISTICS:

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

| <u>Age at Death</u> | <u>Number of Minor Chn.</u> | <u>Years for Youngest Child to Attain Majority</u> |
|-------------------------|---------------------------------|--|
| 25 | 1.3 | 17 |
| 30 | 1.8 | 15 |
| 35 | 2.2 | 13 |
| 40 | 2.1 | 10 |
| 45 | 1.7 | 8 |
| 50 | 1.2 | 4 |

ASSUMPTION FOR INCOMPLETE DATA:

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

INVESTMENT EARNINGS:

An effective annual rate of 7.5%, net expenses.

ADMINISTRATIVE EXPENSES:

Operating expenses are included in Aggregate Normal Cost and are assumed to be \$2,400,000 per year. Investment Manager Fees are not included in Operating Expenses, but are treated as a direct offset to investment income. The Employer portion of the Normal Cost excludes an allocation for administrative expenses.

As a result of the change in Asset Valuation Method, the reporting of realized income has been changed to realized, plus unrealized income for valuations beginning on June 30, 1999 and thereafter.

COST-OF-LIVING:

The liability for cost-of-living raises already granted is included in the retiree reserve.

ACTUARIAL TABLES AND RATES
 OLD RATES PRIOR TO 6/30/2003

| Age | - Death Rates - | | Remarriage | Disability | Retirement | | Termination | Salary |
|-----|-----------------|--------|------------|------------|------------|-----|-------------|---------|
| | Male | Female | Rates | Rates | Rates | Dur | Rates | Scale |
| 20 | .00050 | .00026 | .09350 | .00000 | .00000 | 1 | .15000 | 1.04000 |
| 21 | .00052 | .00028 | .09152 | .00000 | .00000 | 2 | .10010 | 1.04000 |
| 22 | .00054 | .00029 | .08954 | .00000 | .00000 | 3 | .06600 | 1.04000 |
| 23 | .00057 | .00031 | .08757 | .00000 | .00000 | 4 | .05200 | 1.04000 |
| 24 | .00059 | .00033 | .08569 | .00000 | .00000 | 5 | .05270 | 1.04000 |
| 25 | .00062 | .00035 | .08402 | .00010 | .00000 | 6 | .04180 | 1.04000 |
| 26 | .00065 | .00037 | .08225 | .00010 | .00000 | 7 | .03360 | 1.04000 |
| 27 | .00068 | .00039 | .08028 | .00010 | .00000 | 8 | .02650 | 1.04000 |
| 28 | .00072 | .00041 | .07802 | .00010 | .00000 | 9 | .02550 | 1.04000 |
| 29 | .00076 | .00044 | .07556 | .00010 | .00000 | 10 | .02370 | 1.04000 |
| 30 | .00081 | .00047 | .07281 | .00010 | .00000 | 11 | .02160 | 1.03500 |
| 31 | .00086 | .00050 | .06976 | .00010 | .00000 | 12 | .02180 | 1.03500 |
| 32 | .00092 | .00053 | .06652 | .00010 | .00000 | 13 | .02280 | 1.03500 |
| 33 | .00098 | .00057 | .06308 | .00100 | .00000 | 14 | .02210 | 1.03500 |
| 34 | .00105 | .00061 | .05945 | .00100 | .00000 | 15 | .02030 | 1.03500 |
| 35 | .00112 | .00065 | .05582 | .00170 | .00000 | 16 | .02360 | 1.03500 |
| 36 | .00120 | .00070 | .05230 | .00080 | .00000 | 17 | .02000 | 1.03500 |
| 37 | .00130 | .00075 | .04890 | .00160 | .00000 | 18 | .01680 | 1.03500 |
| 38 | .00140 | .00081 | .04570 | .00150 | .00000 | 19 | .01680 | 1.03500 |
| 39 | .00151 | .00087 | .04271 | .00210 | .00000 | 20 | .01570 | 1.03500 |
| 40 | .00163 | .00094 | .03993 | .00260 | .00000 | 21 | .02250 | 1.03500 |
| 41 | .00179 | .00101 | .03769 | .00300 | .00000 | 22 | .01580 | 1.03500 |
| 42 | .00200 | .00109 | .03480 | .00120 | .00000 | 23 | .02030 | 1.03500 |
| 43 | .00226 | .00119 | .03256 | .00140 | .00000 | 24 | .01870 | 1.03500 |
| 44 | .00257 | .00129 | .03037 | .00160 | .00000 | 25 | .01910 | 1.03500 |
| 45 | .00292 | .00140 | .02822 | .00270 | .00000 | 26 | .01150 | 1.03500 |
| 46 | .00332 | .00152 | .02632 | .00420 | .00000 | 27 | .01040 | 1.03500 |
| 47 | .00375 | .00165 | .02455 | .00310 | .00000 | 28 | .01220 | 1.03500 |
| 48 | .00423 | .00180 | .02303 | .00750 | .00000 | 29 | .05380 | 1.03500 |
| 49 | .00474 | .00197 | .02154 | .00690 | .00000 | 30 | .05020 | 1.03500 |
| 50 | .00528 | .00215 | .02019 | .00590 | .66000 | 31 | .04360 | 1.03500 |
| 51 | .00587 | .00232 | .01889 | .00750 | .56000 | 32 | .01690 | 1.03500 |
| 52 | .00648 | .00252 | .01808 | .01010 | .25000 | 33 | .02130 | 1.03500 |
| 53 | .00713 | .00274 | .01733 | .00860 | .16000 | 34 | .02130 | 1.03500 |
| 54 | .00781 | .00298 | .01671 | .00860 | .38000 | 35 | .02140 | 1.03500 |
| 55 | .00852 | .00326 | .01622 | .00770 | .31000 | 36 | .03390 | 1.03500 |
| 56 | .00926 | .00357 | .01596 | .01360 | .22000 | 37 | .00000 | 1.03500 |
| 57 | .01004 | .00395 | .01584 | .00810 | .22000 | 38 | .00000 | 1.03500 |
| 58 | .01089 | .00439 | .01589 | .01230 | .20000 | 39 | .00000 | 1.03500 |
| 59 | .01192 | .00490 | .01622 | .01340 | .35000 | 40 | .00000 | 1.03500 |
| 60 | .01312 | .00549 | .01682 | .00240 | .14000 | 41 | .00000 | 1.03500 |
| 61 | .01444 | .00616 | .01764 | .00280 | .12000 | 42 | .00000 | 1.03500 |
| 62 | .01586 | .00690 | .01906 | .00120 | .20000 | 43 | .00000 | 1.03500 |
| 63 | .01741 | .00771 | .02061 | .00140 | .16000 | 44 | .00000 | 1.03500 |
| 64 | .01919 | .00861 | .02239 | .00180 | .20000 | 45 | .00000 | 1.03500 |
| 65 | .02126 | .00956 | .02446 | .00000 | .36000 | 46 | .00000 | 1.03500 |
| 66 | .02364 | .01057 | .02684 | .00000 | .28000 | 47 | .00000 | 1.03500 |
| 67 | .02632 | .01162 | .02952 | .00000 | .26000 | 48 | .00000 | 1.03500 |
| 68 | .02919 | .01288 | .03209 | .00000 | .25000 | 49 | .00000 | 1.03500 |
| 69 | .03244 | .01446 | .03504 | .00000 | .30000 | 50 | .00000 | 1.03500 |
| 70 | .03611 | .01648 | .03851 | .00000 | .41000 | 51 | .00000 | 1.03500 |
| 71 | .04001 | .01900 | .04211 | .00000 | .32000 | 52 | .00000 | 1.03500 |
| 72 | .04383 | .02191 | .04563 | .00000 | .34000 | 53 | .00000 | 1.03500 |
| 73 | .04749 | .02511 | .04909 | .00000 | .35000 | 54 | .00000 | 1.03500 |
| 74 | .05122 | .02863 | .05262 | .00000 | .50000 | 55 | .00000 | 1.03500 |

ACTUARIAL TABLES AND RATES
NEW RATES 6/30/2003

| Age | - Death Rates - | | Disability Rates | Termination Rates | Retirement Rates | DROP Rates | Dur | Salary Scale |
|-----|-----------------|--------|------------------|-------------------|------------------|------------|-----|--------------|
| | Male | Female | | | | | | |
| 18 | .00039 | .00020 | .0000 | .0000 | .0000 | .000 | 1 | 1.0800 |
| 19 | .00041 | .00021 | .0000 | .0400 | .0000 | .000 | 2 | 1.0600 |
| 20 | .00042 | .00022 | .0000 | .1600 | .0000 | .000 | 3 | 1.0400 |
| 21 | .00044 | .00024 | .0000 | .1500 | .0000 | .000 | 4 | 1.0400 |
| 22 | .00045 | .00025 | .0000 | .1300 | .0000 | .000 | 5 | 1.0400 |
| 23 | .00047 | .00027 | .0000 | .1300 | .0000 | .000 | 6 | 1.0400 |
| 24 | .00049 | .00028 | .0000 | .1300 | .0000 | .000 | 7 | 1.0400 |
| 25 | .00052 | .00030 | .0001 | .0750 | .0000 | .000 | 8 | 1.0400 |
| 26 | .00054 | .00032 | .0001 | .0650 | .0000 | .000 | 9 | 1.0400 |
| 27 | .00057 | .00034 | .0001 | .0650 | .0000 | .000 | 10 | 1.0400 |
| 28 | .00060 | .00036 | .0001 | .0650 | .0000 | .000 | 11 | 1.0400 |
| 29 | .00064 | .00038 | .0001 | .0650 | .0000 | .000 | 12 | 1.0400 |
| 30 | .00067 | .00040 | .0001 | .0650 | .0000 | .000 | 13 | 1.0400 |
| 31 | .00072 | .00043 | .0001 | .0650 | .0000 | .000 | 14 | 1.0400 |
| 32 | .00076 | .00046 | .0001 | .0650 | .0000 | .000 | 15 | 1.0400 |
| 33 | .00082 | .00049 | .0010 | .0500 | .0000 | .000 | 16 | 1.0400 |
| 34 | .00087 | .00053 | .0010 | .0550 | .0000 | .000 | 17 | 1.0400 |
| 35 | .00096 | .00056 | .0015 | .0550 | .0000 | .000 | 18 | 1.0400 |
| 36 | .00101 | .00060 | .0015 | .0500 | .0000 | .000 | 19 | 1.0400 |
| 37 | .00107 | .00064 | .0015 | .0500 | .0000 | .000 | 20 | 1.0400 |
| 38 | .00115 | .00069 | .0015 | .0400 | .0000 | .000 | 21 | 1.0400 |
| 39 | .00125 | .00074 | .0025 | .0400 | .0000 | .000 | 22 | 1.0400 |
| 40 | .00138 | .00080 | .0025 | .0350 | .0000 | .000 | 23 | 1.0400 |
| 41 | .00152 | .00086 | .0025 | .0350 | .0000 | .000 | 24 | 1.0400 |
| 42 | .00170 | .00094 | .0025 | .0350 | .0000 | .000 | 25 | 1.0400 |
| 43 | .00191 | .00102 | .0030 | .0300 | .0000 | .000 | 26 | 1.0400 |
| 44 | .00215 | .00112 | .0030 | .0300 | .0000 | .000 | 27 | 1.0400 |
| 45 | .00243 | .00124 | .0030 | .0300 | .0000 | .000 | 28 | 1.0400 |
| 46 | .00275 | .00137 | .0040 | .0250 | .0000 | .000 | 29 | 1.0400 |
| 47 | .00310 | .00152 | .0050 | .0250 | .6000 | .500 | 30 | 1.0400 |
| 48 | .00349 | .00167 | .0070 | .0250 | .6000 | .500 | 31 | 1.0450 |
| 49 | .00390 | .00183 | .0070 | .0200 | .6000 | .500 | 32 | 1.0450 |
| 50 | .00434 | .00199 | .0070 | .0200 | .6000 | .500 | 33 | 1.0450 |
| 51 | .00480 | .00217 | .0070 | .0200 | .6000 | .500 | 34 | 1.0450 |
| 52 | .00528 | .00236 | .0085 | .0200 | .6000 | .300 | 35 | 1.0450 |
| 53 | .00578 | .00257 | .0095 | .0160 | .6000 | .300 | 36 | 1.0450 |
| 54 | .00629 | .00282 | .0060 | .0160 | .4500 | .300 | 37 | 1.0450 |
| 55 | .00681 | .00311 | .0060 | .0160 | .4000 | .400 | 38 | 1.0450 |
| 56 | .00735 | .00345 | .0075 | .0160 | .4000 | .400 | 39 | 1.0450 |
| 57 | .00793 | .00383 | .0060 | .0160 | .4000 | .300 | 40 | 1.0450 |
| 58 | .00858 | .00425 | .0045 | .0160 | .4000 | .300 | 41 | 1.0450 |
| 59 | .00932 | .00471 | .0045 | .0160 | .4500 | .300 | 42 | 1.0450 |
| 60 | .01018 | .00523 | .0035 | .0160 | .3500 | .300 | 43 | 1.0450 |
| 61 | .01118 | .00579 | .0020 | .0200 | .2200 | .250 | 44 | 1.0450 |
| 62 | .01237 | .00641 | .0020 | .0200 | .2200 | .250 | 45 | 1.0450 |
| 63 | .01377 | .00710 | .0020 | .0200 | .2200 | .250 | 46 | 1.0450 |
| 64 | .01541 | .00785 | .0020 | .0200 | .2500 | .250 | 47 | 1.0450 |
| 65 | .01732 | .00869 | .0010 | .0200 | .3000 | .250 | 48 | 1.0450 |
| 66 | .01953 | .00965 | .0010 | .0200 | .2000 | .250 | 49 | 1.0450 |
| 67 | .02200 | .01078 | .0010 | .0200 | .2000 | .250 | 50 | 1.0450 |
| 68 | .02470 | .01214 | .0010 | .0200 | .2000 | .150 | 51 | 1.0450 |
| 69 | .02757 | .01376 | .0010 | .0200 | .2000 | .100 | 52 | 1.0450 |
| 70 | .03059 | .01570 | .0000 | .0200 | .2000 | .100 | 53 | 1.0450 |
| 71 | .03373 | .01796 | .0000 | .0200 | .2000 | .000 | 54 | 1.0450 |
| 72 | .03708 | .02053 | .0000 | .0200 | .5000 | .000 | 55 | 1.0450 |
| 73 | .04076 | .02344 | .0000 | .0200 | .5000 | .000 | 56 | 1.0450 |
| 74 | .04488 | .02666 | .0000 | .0200 | .9900 | .000 | 57 | 1.0450 |

EXHIBIT 7

DEVELOPMENT OF TARGET RATIO

Funded Ratio of the System as of the 1986 fiscal year end71000

Number of fiscal years elapsed since the 1986 fiscal year end
multiplied by one-thirtieth of the difference between one hundred
percent and the initial Funded Ratio.16433

Changes in Funded Ratio after the 1986 fiscal year end;

| <u>Date of Change</u> | <u>Change in funded Ratio</u> |
|-----------------------|-------------------------------|
| <u>6/30/87</u> | <u>.17100</u> |
| <u>6/30/90</u> | <u>.06690</u> |
| <u>6/30/96</u> | <u>.03694</u> |
| <u>6/30/99</u> | <u>.00388</u> |
| <u>6/30/03</u> | <u>-.04485</u> |

Total Change in Funded Ratio23387

Number of fiscal years elapsed since the date of each change
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>-.09120</u> |
| <u>6/30/90</u> | <u>-.02899</u> |
| <u>6/30/96</u> | <u>-.00862</u> |
| <u>6/30/99</u> | <u>-.00052</u> |
| <u>6/30/03</u> | <u>.00000</u> |

Total Amortization of Changes -.12933

Target Ratio as of the end of the just completed fiscal year.97887

Actual Funded Ratio of the system as of the just completed fiscal year. .79131

This system has not met the target ratio required to grant a cost of living increase to current benefit recipients.

EXHIBIT A

AMORTIZATION OF UNFUNDED
ACTUARIAL ACCRUED LIABILITY
JUNE 30, 2003

| <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> |
|--|-----------------------|-------------------------------|-------------------------------|------------------------------------|-------------------------------|------------------------------------|-----------------------------------|
| 1993 | Change in Liability | I | 36 | -50,948,883 | 26 | -64,499,679 | -3,582,609 |
| 1994 | Change in Liability | I | 35 | -24,621,173 | 26 | -30,319,082 | -1,684,061 |
| 1995 | Change in Liability | I | 34 | 2,097,463 | 26 | 2,514,277 | 139,654 |
| 1996 | Change in Liability | I | 33 | -16,513,271 | 26 | -19,284,637 | -1,071,157 |
| 1997 | Change in Liability | I | 32 | -7,808,758 | 26 | -8,891,830 | -493,893 |
| 1998 | Change in Liability | I | 31 | -93,612,794 | 26 | -104,033,140 | -5,778,479 |
| 1999 | Change in Liability | I | 30 | -43,880,482 | 26 | -47,638,650 | -2,646,069 |
| 2000 | Change in Liability | I | 29 | -8,058,052 | 26 | -8,555,089 | -475,189 |
| 2001 | Change in Liability | I | 28 | 226,295,356 | 26 | 235,215,071 | 13,064,926 |
| 2002 | Change in Liability | I | 27 | 192,883,146 | 26 | 196,519,224 | 10,915,581 |
| 2003 | Change in Assumptions | I | 30 | 92,831,804 | 30 | 92,831,804 | 4,694,199 |
| 2003 | Change in Liability | I | 26 | 117,350,836 | 26 | <u>117,350,836</u> | <u>6,518,205</u> |
| TOTAL OUTSTANDING BALANCE | | | | | | 361,209,105 | 19,601,108 |
| EMPLOYERS' CREDIT BALANCE | | | | | | | |
| 1999 | Contribution Variance | L | 5 | -60,400 | 1 | -13,887 | -14,399 |
| 2000 | Contribution Variance | L | 5 | 0 | 2 | 0 | 0 |
| 2001 | Contribution Variance | L | 5 | 0 | 3 | 0 | 0 |
| 2002 | Contribution Variance | L | 5 | 0 | 4 | 0 | 0 |
| 2003 | Contribution Variance | L | 5 | 0 | 5 | <u>0</u> | <u>0</u> |
| TOTAL CREDIT BALANCE | | | | | | -13,887 | -14,399 |
| TOTAL UNFUNDED ACTUARIAL ACCRUED LIABILITY | | | | | | 361,195,218 | |

NOTE: Effective July 1, 1990, Actuarial Valuation Rate changed from 7% to 7 1/2%.
Effective July 1, 1992, Amortization Period changed in accordance with Act 257.