September 17, 2007

Board of Trustees
TEACHERS' RETIREMENT SYSTEM OF LOUISIANA
Post Office Box 94123, Capitol Station
Baton Rouge, Louisiana 70804-9123

Ladies and Gentlemen:
This report presents the results of the actuarial valuation of assets and liabilities, as well as funding requirements, for the Teachers' Retirement System of Louisiana as of June 30, 2007.

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 Teachers' 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 provided by Hawthorn, Waymouth and Carroll, Certified Public Accountants.

The present values shown herein have been estimated on the basis of the actuarial cost method specified in Louisiana Revised Statutes Title 11 Section 22(13). 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
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A brief summary of the more important figures developed in this valuation, with comparable results from previous valuations are as follows:


The above funding requirements measure the cost of benefits that were in effect on June 30, 2007.
${ }^{1}$ This is the minimum required contribution rate and contribution, per Act 588 of 2004. Without regard to this minimum, the current year contribution rate would be $14.6 \%$ and the projected rate would be $14.8 \%$.

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## Current Funding

The Actuarial Valuation for the plan year ending June 30, 2007 discloses a decrease in the value of the plan's unfunded accrued liability resulting from favorable investment experience. Prospective funding requirements have decreased as a percentage of payroll. 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.

The following gain/loss analysis is presented to assist the Board of Trustees in reconciling changes in the unfunded actuarial accrued liability:

## CHANGE IN UNFUNDED LIABILITY

Unfunded Liability 6/30/2006
\$ 6,554,989,762

## INCREASES

| Interest on Unfunded Liability | $\$ 540,786,655$ |
| :--- | ---: |
| Experience Account Allocation | $298,918,100$ |
| Retiree Cola | $297,686,651$ |
| Experience Loss | $292,737,680$ |
| Total Increases | $1,430,129,086$ |

DECREASES

| Investment Gain | $\$ 1,076,635,486$ |
| :--- | ---: |
| Employer Amortization Payment | $322,684,972$ |
| Employer Shortfall Credit | $37,534,025$ |
| Experience Account Distribution | $297,686,651$ |
| Total Decreases | $1,734,541,134$ |

Unfunded Liability 6/30/2007
\$ 6,250,577,714

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The employer contribution rate established by the Public Retirement Systems' Actuarial Committee for the 2007-2008 plan year was $16.6 \%$. The employer contribution rate determined by this valuation for the current plan year is $14.6 \%$. Per Act 588 of 2004, the statutory minimum required employer contribution is $15.5 \%$. The difference will be credited to the Employer Credit Account. The current adjusted minimum rate of $15.5 \%$ is less than the required employer's contributions (16.6\%), which should produce an employer contribution credit of $1.1 \%$.

Since the contribution rate is attributable to many factors, the following sections address the source and respective impact to the required employer contribution rate.

## Legislative Changes

As mentioned above, Act 588 of 2004 established a minimum employer contribution rate of $15.5 \%$. The Act also established an Employer Credit Account, which is to be credited if the minimum employer contribution rate of $15.5 \%$ exceeds the actuarially required contribution rate (ARC). The ARC is $14.6 \%$ for 2007-2008 and is projected to be $14.8 \%$ for $2008-2009$. Both the current and projected rates are below the statutory minimum of $15.5 \%$, therefore are subject to the minimum rate. The Act also made significant changes to prospective funding. The outstanding balances of changes in liabilities from 1993 to 2000 were re-amortized as a level dollar amount to 2029. The amortization period for changes in liabilities beginning with 2001 were extended to a thirty year period from the date of occurrence.

## Actuarial Assets/Valuation Assets

The Actuarial Value of assets represents the gross actuarial assets determined in accordance with the methodology set forth in Exhibit 6 to fund all liabilities of the pension plan as well as side-fund accounts dedicated for other programs. The Valuation Assets exclude the side-fund accounts for purposes of determining the employer contribution rate as illustrated on page 13 of Exhibit 2. The side-fund accounts excluded are as follows:

- LSU Agriculture and Extension Service Fund:

Participants of the LSU Agriculture and Extension Service receive supplement benefits from TRSL equal to the difference between the TRSL benefit formula and the Federal Civil Service formula. The funding is recorded separately in the side-fund with assets co-mingled with the Actuarial Value of assets. The current balance is $\$-409,216$.

- Initial UAL Amortization Fund:

This fund, originally established as the Texaco Settlement Fund, accumulates Texaco Settlement contributions as a separate account invested at TRSL's actuarial rate of return. Act 642 of 2006 adds a special appropriation to liquidate the initial unfunded actuarial liability (UAL) in the same manner as the Texaco Settlement Fund. Once the value of the account equals the outstanding balance of the initial UAL, the account and initial liability will be liquidated. The current account balance and allocation is as follows:

| Texaco Settlement Fund | $\$$ | $260,542,924$ |
| :--- | ---: | ---: |
| Legislative Appropriations | $\$$ | $30,412,669$ |
| Total IUAL Amortization Fund | $\$$ | $290,955,593$ |
|  |  |  |
| $-4-$ |  |  |

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## - Experience Account Fund:

This fund accumulates $50 \%$ of the excess investment gain or loss relative to the actuarial valuation rate of $8.25 \%$. The account is used to fund COLA'S for retirees. The benefit granted must be funded at $100 \%$ of actuarial cost. Act 588 of 2004 restricts the account accumulation to no more than the reserve for two COLA's. Given the recent large investment gains, the current account balance would exceed this limit, therefore is limited to $\$ 617,106,814$, the projected cost of two $3 \%$ COLA's.

## Investment Experience

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

| $\underline{\mathbf{2 0 0 3}}$ | $\underline{\mathbf{2 0 0 4}}$ | 5 YEAR <br>  <br> $-5.55 \%$ | $9.85 \%$ | $\underline{\mathbf{2 0 0 5}}$ | $\underline{\mathbf{2 0 0 6}}$ |
| :--- | :--- | :--- | :--- | :--- | ---: |

The net actuarial rate of return assumed in the valuation was $8.25 \%$. For the plan year ending June 30, 2007 the net realized actuarial rate of return was greater than the long-term investment assumption used to project benefits. The result was a net investment experience gain of $\$ 1,076,635,486$ above projected investment income.

## 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 statutory period to make a mid-course adjustment in future funding requirements. During the 2006-2007 plan year, the system incurred an experience loss in the amount of $\$ 292,737,680$.

The gains/losses incurred are beyond the control of the Board of Trustees, but the Trustees should understand the source of the experience to effectively communicate with the legislature.

The demographic changes illustrated in Exhibit 4 indicate the system continues to exhibit properties of an aging population which is indicative of the continuing problem the state faces in its ability to attract and retain graduates to the profession. Recall that one of the characteristics of the Projected Unit Credit cost method is to accelerate funding requirements for an aging population, even if all assumptions are realized.

## Funding as a Percentage of Payroll

Act 81 of 1987 requires the employee to contribute $8 \%$ of payroll beginning in 1989. The employer pays a percentage of the normal cost plus a dollar amount sufficient to amortize the initial unfunded liability over a 40 -year period with payments increasing $4.5 \%$ annually. Changes to the UAL are amortized as an increasing (I) or level dollar (L) payment, as indicated in Exhibit A. The employer contribution rate cannot drop below $11.8 \%$, without regard to employer credits, and without a corresponding adjustment to the employee contribution rate. Maintaining the amortization payment as a level percentage of payroll requires aggregate

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payroll to increase at the same rate as the increase in amortization payments. To determine whether this is a reasonable statutorily required expectation, aggregate salary growth from all sources, including ORP participants, during the past 10-years is illustrated as follows:

| June 30 | Payroll/\$1,000 | Percent Increase |
| :---: | ---: | :---: |
| 1997 | $2,661,350$ | $4.3 \%$ |
| 1998 | $2,922,936$ | $9.8 \%$ |
| 1999 | $3,017,833$ | $3.2 \%$ |
| 2000 | $3,162,097$ | $4.8 \%$ |
| 2001 | $3,212,474$ | $1.6 \%$ |
| 2002 | $3,506,647$ | $9.2 \%$ |
| 2003 | $3,605,232$ | $2.8 \%$ |
| 2004 | $3,684,014$ | $2.2 \%$ |
| 2005 | $3,904,342$ | $6.0 \%$ |
| 2006 | $3,750,238$ | $-3.9 \%$ |
| 2007 | $4,062,069$ | $8.3 \%$ |

During the last 10 years the aggregate salaries have increased at an annualized rate of $4.32 \%$. If this trend continues, the percentage of pay required to amortize the unfunded liability can be expected to increase in the absence of other experience gains or losses.

## Disclosures

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

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,

Shelley R. Johnson, ACA, MAAA, ASA
Actuary

Charles G. Hall, FCA, MAAA, ASA
Actuary

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## EXHIBIT 1

## DEVELOPMENT <br> OF <br> COSTS, LIABILITIES AND CONTRIBUTIONS

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

|  | ---- Prior Year ---- |
| :--- | :---: |
| June 30, 2007 | June 30, 2006 |


|  | Dollar Amount | \% of Salary | Dollar Amount |
| :---: | :---: | :---: | :---: |
| I. Normal Costs (annual pension accruals) |  |  |  |
| Active Members with Complete Data |  |  |  |
| a) Retirement Benefits | 411,670,848 | 12.77\% | 371,460,266 |
| b) Disability Benefits | 11,514,955 | 0.36\% | 10,304,086 |
| c) Survivor Benefits | 13,112,350 | 0.41\% | 11,791,452 |
| d) Voluntary Termination | 45,262,514 | 1.40\% | 38,151,281 |
| e) Expenses | 13,900,000 | 0.43\% | 13,300,000 |
| TOTAL | 495,460,667 | 15.37\% | 445,007,085 |
| II. Actuarial Accrued Liability |  |  |  |
| a) Active Members |  |  |  |
| 1) Retirement Benefits | 5,870,926,124 |  | 5,493,705,964 |
| 2) Disability Benefits | 124,252,142 |  | 116,494,158 |
| 3) Survivor Benefits | 141,323,990 |  | 132,796,208 |
| 4) Voluntary Termination | 237,879,773 |  | 217,797,668 |
|  | 6,374,382,029 |  | 5,960,793,998 |
| b) Retired and Inctive Members |  |  |  |
| 1) Regular Retirees | 9,824,221,877 |  | 9,127,469,509 |
| 2) Disability Benefits | 272,221,168 |  | 178,577,416 |
| 3) Survivors | 608,088,390 |  | 577,715,779 |
| 4) Vested Deferred ${ }^{1}$ | 387,576,704 |  | 393,296,541 |
| 5) Contributions Refunded ${ }^{2}$ | 60,354,617 |  | 55,522,676 |
| 6) DROP Deferred Benefits | 2,089,347,478 |  | 2,175,650,923 |
| 7) DROP Account Balances | 1,156,137,449 |  | 921,753,766 |
|  | 14,397,947,683 |  | 13,429,986,610 |
| c) Total | 20,772,329,712 |  | 19,390,780,608 |

${ }^{1}$ Includes pending Retirement/Drop applications for 2007
${ }^{2}$ Includes terminated employee and rehired retiree contributions to be refunded.

## Exhibit 1 (Continued)

## Costs, Liabilities \& Contributions

|  | June 30, 2007 | ---- Prior Year ---- June 30, 2006 |
| :---: | :---: | :---: |
| II. Actuarial Accrued Liability | 20,772,329,712 | 19,390,780,608 |
| III. Valuation Assets | 14,521,751,998 | 12,835,790,846 |
| IV. Unfunded Actuarial Accrued |  |  |
| Liabilities - Projected Unit Credit ${ }^{1}$ | 6,250,577,714 | 6,554,989,762 |
| a) Change over prior year | -304,412,048 | -257,653,560 |
| b) Funded Percentage | 69.9\% | 66.2\% |
| V. Employer Contributions |  |  |
| To Fund Current Plan Year ${ }^{1}$ |  |  |
| a) Employer Portion of Normal Cost | 230,996,459 | 206,823,704 |
| b) Amortization Payments | 302,730,068 | 319,686,876 |
| c) Prior Contribution Variance | -11,296,216 | -13,850,173 |
| TOTAL Required Contribution | 522,430,311 | 512,660,407 |
| TOTAL Contribution Rate | 14.6\% | 15.8\% |
| Minimum Required Contribution Rate | 15.5\% |  |
| Minimum Required Contribution ${ }^{2}$ | 556,830,052 |  |
| PERSAC Approved rate ${ }^{1}$ | 16.6\% | 15.8\% |
| Employer Normal Cost Rate | 6.9453\% | 6.9336\% |

VI. Projected Employer Contributions

To Fund Next Plan Year ${ }^{1}$
a) Employer Portion of Normal Cost
b) Amortization Payments

237,870,342
212,907,364
c) Prior Contribution Variance

331,817,102

TOTAL Required Contribution
TOTAL Required Contribution Rate
-22,889,937
345,120,780

546,797,507
-1,223,063
14.8\%

556,805,081
16.6\%

| Minimum Required Contribution Rate | $15.5 \%$ |
| :--- | ---: |
| Minimum Required Contribution ${ }^{2}$ | $574,349,034$ |


| VII. Current Payroll | $3,224,562,742$ | $2,892,959,473$ |
| :--- | ---: | ---: |
| Projected Payroll - Mid Year | $3,325,919,746$ | $2,982,914,354$ |
| Projected Payroll - Next Year | $3,424,890,892$ | $3,070,655,919$ |
| ORP - Salary Adjustment Factor $^{3}$ | 1.14921 | 1.15842 |

${ }^{1}$ Dollar Amounts reflect estimated payments due mid-year on January 1st per Act 81. Constitutional Minimum is $11.8 \%$ without regard to the statutory minimum of $15.5 \%$.
${ }^{2}$ The Minimum Required Contribution is the required contribution using the statutory minimum rate, $15.5 \%$.
${ }^{3}$ The ORP salary adjustment factor is used to convert amortization payments to percentage of payroll.

## EXHIBIT 2

# FINANCIAL SUMMARY <br> STATEMENT OF REVENUES AND EXPENSES <br> FOR FISCAL YEAR ENDING 

----- Prior Years -----<br>June 30, 2007<br>June 30, 2006<br>June 30, 2005

## OPERATING REVENUES:

1. Contribution Income

| Member | $\$$ | $282,326,101$ | $\$$ | $258,412,024$ | $\$$ |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Employer |  | $541,763,650$ | $501,167,762$ | $514,585,371$ |  |
| IUAL Appropriations |  | 0 | $26,400,000$ | 0 |  |
| Other Appropriations |  | 53,200 | 53,200 | 95,093 |  |
| ORP - Unfunded | $49,429,250$ | $49,293,547$ | $48,754,970$ |  |  |
| LSU Coop/Ext | $1,228,150$ | $1,228,150$ | $1,647,822$ |  |  |
| Miscellaneous | $1,345,603$ | $1,134,772$ | $1,487,075$ |  |  |
| TOTAL CONTRIBUTIONS | $876,145,954$ | $837,689,455$ | $837,189,512$ |  |  |

2. Investment Income

| Investments | $2,654,772,398$ | $1,770,675,206$ | $1,164,270,344$ |
| :--- | ---: | ---: | ---: |
| Less Advisor Fees | $-32,298,534$ | $-29,802,772$ | $-26,020,649$ |
| TOTAL INVESTMENT INCOME | $2,622,473,864$ | $1,740,872,434$ | $1,138,249,695$ |
|  |  |  |  |
| Total Revenues | $3,498,619,818$ | $2,578,561,889$ | $1,975,439,207$ |

## OPERATING EXPENSES:

| 1. General Administration | $13,864,239$ | $13,343,504$ | $12,240,915$ |
| :--- | ---: | ---: | ---: |
| Other Expenses | 506,521 | 488,341 | 476,270 |

2. Benefits Paid

| a) Pension Benefits | $1,295,552,338$ | $1,204,472,977$ | $1,139,814,334$ |
| :--- | ---: | ---: | ---: |
| b) Return of Contrib. | $47,579,251$ | $38,556,907$ | $30,391,992$ |
| TOTAL BENEFITS PAID | $1,343,131,589$ | $1,243,029,884$ | $1,170,206,326$ |
| Total Expenses | $1,357,502,349$ | $1,256,861,729$ | $1,182,923,511$ |
|  |  |  |  |
| ET MARKET VALUE INCREASE: | $2,141,117,469$ | $1,321,700,160$ | $792,515,696$ |

## EXHIBIT 2 (Continued)

## Financial Summary

# FINANCIAL SUMMARY <br> STATEMENT OF ASSETS <br> FOR FISCAL YEAR ENDING 

ASSETS:

1. Short Term Assets
Cash in Banks
Domestic issues
Foreign Issues
2. Bonds
Domestic issues
Foreign Issues
3. Equities (at market)
Domestic
International
Private Equity
4. Other Assets
Real Estate Trust
Fixtures/Properties
Receivables less Payables
TOTAL ASSETS - Market Value
Cost Value

| June 30, 2007 |  | ----Prior Years--- |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | June 30, 2006 |  | June 30, 2005 |  |
| \$ | 15,294,772 | \$ | 59,572,968 | \$ | 24,677,100 |
|  | 981,706,327 |  | 178,839,314 |  | 256,739,631 |
|  |  |  | 24,802,808 |  | 40,210,400 |


| $1,908,652,650$ | $2,121,505,657$ | $1,913,039,451$ |
| ---: | ---: | ---: |
| $772,811,203$ | $449,917,634$ | $497,213,792$ |
|  |  |  |
| $5,956,585,766$ | $5,630,073,349$ | $5,796,790,445$ |
| $3,601,296,445$ | $3,188,085,062$ | $1,969,333,622$ |
| $2,824,436,837$ | $2,162,400,411$ | $2,017,705,197$ |

## ACTUARIAL VALUE OF ASSETS:

| TOTAL ASSETS | $\$ 16,148,730,217$ | $\$ 14,007,612,748$ | $\$ 12,685,912,588$ |
| :--- | ---: | ---: | ---: | ---: |
| Change in Unrealized (G/L) |  |  |  |
| Plan Year - 2 (wt. 1/4) | $143,238,760$ | $561,550,408$ | $503,225,833$ |
| Plan Year - $\mathbf{1}$ (wt. 2/4) | $230,352,613$ | $143,238,760$ | $561,550,408$ |
| Plan Year (wt. 3/4) | $757,785,376$ | $230,352,613$ | $143,238,760$ |
| Actuarial Value of Assets | $15,429,405,189$ | $13,622,841,306$ | $12,171,901,856$ |

## INVESTMENT YIELD:

| Yield to Actuarial Value | $15.20 \%$ | $15.65 \%$ | $9.87 \%$ |
| :--- | :--- | :--- | :--- |
| Five Year Actuarial Value | $8.72 \%$ | $4.42 \%$ | $1.44 \%$ |
| Yield to Market Value | $19.05 \%$ | $13.97 \%$ | $9.71 \%$ |
| DROP Account Yield | $14.70 \%$ | $15.15 \%$ | $9.37 \%$ |

## EXHIBIT 2 (Continued)

## Financial Summary

> FINANCIAL SUMMARY
> STATEMENT OF ASSETS
> FOR FISCAL YEAR ENDING
---- Prior Years ----

|  | ---- Prior Years ---- |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | June 30, 2007 |  | June 30, 2006 |  | June 30, 2005 |  |
| EMPLOYER CREDIT ACCOUNT ${ }^{\mathbf{1}}$ : |  |  |  |  |  |  |
| Prior Year Ending Balance | \$ | - | \$ | - | \$ | - |
| + Contributions |  | - |  | - |  | - |
| - Disbursements |  | - |  | - |  | - |
| + Accumulated Interest |  | - |  | - |  | - |
| Account Balance - Year End |  | - |  | - |  | - |
| LSU AG/EXT SERVICE: |  |  |  |  |  |  |
| Prior Year Ending Balance | \$ | $(132,576)$ | \$ | $(9,347)$ | \$ | $(368,646)$ |
| + Contributions |  | 1,228,150 |  | 1,228,150 |  | 1,647,822 |
| - Benefit Disbursements |  | 1,467,120 |  | 1,341,378 |  | 1,270,335 |
| + Accumulated Interest |  | $(37,670)$ |  | $(10,001)$ |  | $(18,188)$ |
| Fund Balance - Year End |  | $(409,216)$ |  | $(132,576)$ |  | $(9,347)$ |

## INITIAL UAL FUND:

Prior Year Ending Balance

+ Current Year Allocation
+ Accumulated Interest
Fund Balance - Year End


## EXPERIENCE ACCOUNT FUND:

Prior Year Ending Balance

+ Experience Account Allocation
- Benefit Disbursements
+ Accumulated Interest
Fund Balance - Year End
\$ 252,566,705
\$ 195,560,290
\$ 177,998,352
26,400,000

| $38,388,888$ | $30,606,415$ | $17,561,938$ |
| ---: | ---: | ---: |
| $290,955,593$ | $252,566,705$ | $195,560,290$ |

DEVELOPMENT OF
VALUATION ASSETS:
Actuarial Value of Assets
15,429,405,189 \$ 13,622,841,306 \$ 12,171,901,856

- Employer Credit Account
- LSU Ag/Ext Service Account
- Initial UAL Amortization Fund
- Experience Account Fund

Valuation Assets
$(409,216) \quad(132,576)$
$(9,347)$
290,955,593 252,566,705 195,560,290

| $617,106,814$ | $534,616,331$ | $89,229,521$ |
| ---: | ---: | ---: |
| $14,521,751,998$ | $12,835,790,846$ | $11,887,121,392$ |

${ }^{1}$ The Employer Credit Account was created by ACT 588 of 2004.

## EXHIBIT 3

## PENSION ACCOUNTING <br> AND <br> FINANCIAL DISCLOSURE

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

## SCHEDULE OF FUNDING PROGRESS

(Dollar amounts in thousands)

| Actuarial <br> Valuation Date | Actuarial Value of Assets ${ }^{1}$ <br> (a) | Actuarial Accrued Liability (AAL) <br> (b) | $\begin{gathered} \text { Unfunded } \\ \text { AAL (UAAL)² } \\ \text { (b-a) } \end{gathered}$ | Funded Ratio (a/b) | Covered Payroll (c) | UAAL as a Percentage of Payroll ((ba)/c) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1998 | 9,071,749 | 13,185,190 | 4,113,441 | 68.8\% | 2,485,058 | 165.5\% |
| 1999 | 10,092,093 | 13,913,416 | 3,821,323 | 72.5\% | 2,569,479 | 148.7\% |
| 2000 | 11,368,692 | 14,596,441 | 3,227,749 | 77.9\% | 2,563,634 | 125.9\% |
| 2001 | 12,062,136 | 15,390,417 | 3,328,281 | 78.4\% | 2,582,831 | 128.9\% |
| 2002 | 12,019,552 | 16,263,239 | 4,243,687 | 73.9\% | 2,777,667 | 152.8\% |
| 2003 | 11,826,926 | 17,196,812 | 5,369,886 | 68.8\% | 2,977,885 | 180.3\% |
| 2004 | 11,409,404 | 18,067,486 | 6,658,082 | 63.1\% | 3,017,087 | 220.7\% |
| 2005 | 12,082,682 | 18,699,765 | 6,617,083 | 64.6\% | 3,132,169 | 211.3\% |
| 2006 | 13,088,358 | 19,390,781 | 6,302,423 | 67.5\% | 2,892,959 | 217.9\% |
| 2007 | 14,812,298 | 20,772,330 | 5,960,032 | 71.3\% | 3,224,566 | 184.8\% |

The total actuarial accrued liability determined using the Projected Unit Credit cost method increased by $\$ 1,381,549,103$ from June 30, 2006 to June 30, 2007. There was a net experience gain to the fund from all sources of \$485,035,058.
${ }^{1}$ The Actuarial Value of Assets for GASB reporting includes the Initial UAL Amortization Fund Assets in the Valuation Assets (see page 12).
${ }^{2}$ UAAL differs from the UFAL for funding purposes. UFAL for funding purposes excludes Texaco Settlement Fund Assets (see page 12).

## EXHIBIT 3 (Continued)

## Pension Accounting \& Financial Disclosure

## SUPPLEMENTARY INFORMATION

## SCHEDULE OF EMPLOYER CONTRIBUTIONS

| Fiscal Year | Actuarial <br> Required <br> Contribution | Percent Contributed | Annual Pension Cost (APC) | Actual Contribution | Percentage of APC <br> Contributed | Net Pension Obligation ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1998 | 458,498,592 | 101.7 | 453,058,482 | 466,539,858 | 102.9 | -132,719 |
| 1999 | 452,835,560 | 108.5 | 449,891,479 | 491,119,749 | 109.2 | -41,360,991 |
| 2000 | 437,710,389 | 107.5 | 444,575,883 | 470,320,825 | 105.8 | -67,105,933 |
| 2001 | 404,060,783 | 110.2 | 416,196,824 | 445,371,171 | 107 | -96,280,280 |
| 2002 | 421,195,131 | 104.9 | 443,053,905 | 441,801,709 | 99.7 | -95,028,086 |
| 2003 | 479,077,364 | 98 | 506,747,733 | 469,346,469 | 92.6 | -57,626,822 |
| 2004 | 527,899,270 | 94.4 | 554,174,817 | 498,236,803 | 89.9 | -1,688,806 |
| 2005 | 555,169,630 | 105.6 | 568,930,106 | 586,216,595 | 103.0 | -18,975,295 |
| 2006 | 555,342,400 | 103.1 | 567,282,575 | 572,773,243 | 101.0 | -24,465,963 |
| 2007 | 578,895,501 | 106.5 | 584,362,449 | 616,429,526 | 105.5 | -56,533,040 |

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

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

## DEVELOPMENT OF NET PENSION OBLIGATION:

(1) Actuarial Required Contribution
578,895,501
(2) Interest on Net Pension Obligation
$-2,018,442$
(3) Amortization of Net Pension Obligation
$-7,485,390$
(4) Annual Pension Cost (1)+(2)-(3)
584,362,449
(5) Employer Contribution
616,429,526
(6) Increase (decrease) in Net Pension Obligation
-32,067,077
(7) Net Pension Obligation Beginning of Year
-24,465,963
(8) Net Pension Obligation End of Year (6)+(7)
-56,533,040

[^0]
## EXHIBIT 3 (Continued)

## Pension Accounting \& Financial Disclosure

STATISTICAL DATA
COMPARATIVE SUMMARY OF REVENUES BY SOURCE AND EXPENSES BY TYPE

| Revenues by Source |  |  |  |  |
| :---: | :---: | :---: | ---: | ---: |
| Fiscal <br> Year | Members <br> Contribution | Employer <br> Contribution $^{1}$ | Investment <br> Income | Total |
| 1998 | $208,275,106$ | $449,771,623$ | $1,603,472,505$ | $2,261,519,234$ |
| 1999 | $216,102,491$ | $472,810,074$ | $936,761,062$ | $1,625,673,627$ |
| 2000 | $224,684,434$ | $452,965,401$ | $1,525,771,416$ | $2,203,421,251$ |
| 2001 | $226,754,298$ | $429,112,566$ | $-594,326,474$ | $61,540,390$ |
| 2002 | $246,119,537$ | $427,674,482$ | $-946,882,960$ | $-273,088,941$ |
| 2003 | $251,297,406$ | $451,337,304$ | $226,342,205$ | $928,976,915$ |
| 2004 | $264,999,131$ | $479,348,663$ | $1,741,769,825$ | $2,486,117,619$ |
| 2005 | $270,619,181$ | $564,922,509$ | $1,138,249,695$ | $1,973,791,385$ |
| 2006 | $258,412,024$ | $579,277,431^{2}$ | $1,740,872,434$ | $2,578,561,889$ |
|  |  |  |  |  |
| 2007 | $282,326,101$ | $593,819,853$ | $2,622,473,864$ | $3,498,619,818$ |


| Expenses by Type |  |  |  |  |
| :---: | ---: | ---: | ---: | ---: |
| Fiscal <br> Year | Benefits | Refunds | Administrative <br> Expenses $^{4}$ | Total |
| 1998 | $664,147,264$ | $21,360,841$ | $6,705,255$ | $692,213,360$ |
| 1999 | $735,328,349$ | $21,238,599$ | $7,044,432$ | $763,611,380$ |
| 2000 | $791,183,546$ | $22,458,244$ | $7,733,662$ | $821,375,452$ |
| 2001 | $858,979,906$ | $26,948,712$ | $8,655,615$ | $894,584,233$ |
| 2002 | $920,593,341$ | $23,432,297$ | $9,361,965$ | $953,387,603$ |
| 2003 | $1,003,327,453$ | $22,287,120$ | $11,178,783$ | $1,036,793,356$ |
| 2004 | $1,075,298,667$ | $26,714,645$ | $11,385,025$ | $1,113,398,337$ |
| 2005 | $1,139,814,334$ | $30,391,992$ | $12,717,185$ | $1,182,923,511$ |
| 2006 | $1,204,472,977$ | $38,556,907$ | $13,831,845$ | $1,256,861,729$ |
| 2007 | $1,295,552,338$ | $47,579,251$ |  | $14,370,760$ |
| $1,357,502,349$ |  |  |  |  |

[^1]
## 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, records identified as containing suspicious data were assumed to possess the same characteristics of "good data" in the same cohort 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

Suspicious data are not necessarily errors, but data which falls outside the parameters of the editing process for further checking.

The Terminated Vested status is overstated. It contains a number of retirement and DROP applications awaiting final certification.

In the 2006 Actuarial Valuation, there was a shift of approximately 1,000 disability members to regular retirement status resulting from a revision in the interpretation and implementation of the disability statute. For purposes of this valuation, these members were recategorized as disability members.

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

|  | 2007 |  | 2006 |  |
| :--- | ---: | ---: | ---: | ---: |
| Active Members | Census | Avg. Salary | Census | Avg. Salary |
| TRS - Regular Plan | 72,432 | 37,595 | 71,240 | 34,013 |
| TRS - University Plan | 5,889 | 55,148 | 5,656 | 51,063 |
| TRS - Plan A | 253 | 22,318 | 339 | 20,419 |
| TRS - Plan B | 1,222 | 15,853 | 1,221 | 14,229 |
| TRS - Post DROP | 2,876 | 52,753 | 2,891 | 48,780 |
| Total | 82,672 | 39,005 | 81,347 | 35,370 |

## EXHIBIT 4 (Continued)

## Census Data

|  | $\mathbf{2 0 0 7}$ <br> Census | $\mathbf{2 0 0 6}$ <br> Census |
| :--- | ---: | ---: |
| Retired and Inactive Members | 50,566 | 49,776 |
| Regular Retirees | 3,961 | 2,865 |
| Disability Retirees | 3,715 | 4,042 |
| DROP Participants | 5,003 | 4,871 |
| Survivors | 6,624 | 7,039 |
| Vested \& Reciprocals | 11,966 | 12,749 |
| $\quad$ Due Refunds | 81,835 | 81,342 |
| Total |  |  |
|  | 164,507 | 162,689 |

Salary data contained in the profiles and valuation report exceed the sums 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.

Actuarial Salaries

Actual Salaries for which
contributions were received \$3,534,649,761

## Demographic Trends

The table on the following page illustrates the demographic changes by sex and age groups that the retirement system has experienced since June 30,1979 . A review of these changes is necessary to fully appreciate the changes in funding that the system is experiencing. Traditionally, benefit increases through plan amendments, large salary growth and cost of living increases were well recognized as cost contributors, but the potential cost impact resulting from these socio-economic changes can vary depending on the changing demographic structure of the plan as follows:

The retirement system continues to incur increased funding (although offset by experience gains) due to a decline in male teachers. The ratio of males to females has declined from .406 to .204 during the last twentyeight (28) years. Funding requirements for females is $1 \%$ of payroll greater than their male counterparts.

## EXHIBIT 4 (Continued)

## Employee Census

## Demographic Change

## Active Participants




| : Age/Years: | (0-1) | [1-5) | [5-10) | [10-15) | [15-20) | [20-25) | [25-30) | [30-35) | [35- ) | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| : |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  | : |
| :[ $0-19$ ): | : 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| , | 121629 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 121629 |
| : |  |  |  |  |  |  |  |  |  |  |
| : |  |  |  |  |  |  |  |  |  | : |
| :[20-24): | : 799 | 1244 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 2046 |
| : | 26620652 | 42706409 | 64595 | 0 | 0 | 0 | $\bigcirc$ | 0 | 0 | 69391656 |
| : |  |  |  |  |  |  |  |  |  | : |
| : |  |  |  |  |  |  |  |  |  | : |
| :[25-29): | : 1232 | 5038 | 1536 | 2 | 0 | 0 | 0 | 0 | 0 | 7808 |
| [ | 39465016 | 174812938 | 58032509 | 39690 | 0 | 0 | 0 | 0 | 0 | :272350153 |
| : |  |  |  |  |  |  |  |  |  | : |
| : |  |  |  |  |  |  |  |  |  | : |
| :[30-34): | : 866 | 3303 | 4050 | 984 | 1 | 0 | 0 | 0 | 0 | 9204 |
| [ | 27354615 | 110408191 | 158019293 | 41350492 | 26679 | 0 | $\bigcirc$ | 0 | $\bigcirc$ | :337159270 |
| : |  |  |  |  |  |  |  |  |  | : |
| : |  |  |  |  |  |  |  |  |  | : |
| :[35-39): | : 767 | 2794 | 2976 | 3291 | 914 | 4 | 0 | 0 | 0 | : 10746 |
| [ | 23569594 | 89810822 | 108818049 | 141123673 | 41274107 | 94429 | 0 | 0 | 0 | :404690674 |
| : |  |  |  |  |  |  |  |  |  | : |
| : |  |  |  |  |  |  |  |  |  | : |
| : [40-44): | : 660 | 2396 | 2587 | 2195 | 2740 | 954 | 14 | 0 | 0 | : 11546 |
| [ | 19968018 | 72633805 | 83775037 | 84410401 | 124079074 | 44565366 | 495422 | 0 | 0 | :429927123 |
| : |  |  |  |  |  |  |  |  |  | : |
| : |  |  |  |  |  |  |  |  |  | $: 12050$ |
| : [45-49): | : 542 | 1946 | 2427 | 2362 | 2156 | 2059 | 1154 | 4 | 0 | : 12650 |
| [ | 16970041 | 58514676 | 77391359 | 83366335 | 89269874 | 98068279 | 57176184 | 100706 | 0 | :480857454 |
| : |  |  |  |  |  |  |  |  |  | : |
| : |  |  |  |  |  |  |  |  |  | : |
| :[50-54): | 421 | 1538 | 1864 | 2148 | 2332 | 1899 | 2847 | 180 | 0 | : 13229 |
| : | 14015867 | 48970183 | 62761237 | 75828843 | 93364385 | 89340401 | 149638231 | 10832555 | 0 | :544751702 |
| : |  |  |  |  |  |  |  |  |  | : |
| : |  |  |  |  |  |  |  |  |  | : |
| :[55-59): | 285 | 1053 | 1302 | 1572 | 1866 | 1633 | 426 | 158 | 17 | 8312 |
| : | 10051988 | 38160827 | 46342603 | 58415640 | 75525086 | 75696681 | 23747283 | 11164634 | 1230968 | :340335710 |
| : |  |  |  |  |  |  |  |  |  | : |
| : |  |  |  |  |  |  |  |  |  | : |
| :[60-64): | 93 | 412 | 552 | 453 | 635 | 587 | 253 | 87 | 42 | 3114 |
| : | 3513882 | 15438225 | 19807863 | 16801379 | 27345776 | 29471100 | 16281279 | 6843215 | 3549059 | :139051778 |
| : |  |  |  |  |  |  |  |  |  | : |
| : |  |  |  |  |  |  |  |  |  | : |
| :[65-69): | 40 | 105 | 133 | 100 | 131 | 119 | 122 | 46 | 56 | : 852 |
| : | 1224533 | 3583329 | 4606775 | 3731408 | 5990639 | 6717406 | 7144714 | 2975535 | 4362448 | : 40336787 |
| : |  |  |  |  |  |  |  |  |  | : |
| : |  |  |  |  |  |  |  |  |  | : |
| :[70-74): | 10 | 36 | 34 | 27 | 30 | 37 | 48 | 31 | 30 | : 283 |
| , | : 336055 | 1487747 | 1270245 | 786757 | 1367926 | 2035315 | 2824785 | 1439165 | 2324620 | : 13872615 |
| : |  |  |  |  |  |  |  |  |  | : |
| . |  |  |  |  |  |  |  |  |  | : |
| Total | 5721 | 19865 | 17464 | 13134 | 10805 | 7292 | 4864 | 506 | 145 | 79796 |
| : | :183211889 | 656527152 | 620889565 | 505854618 | 458243546 | 345988977 | 257307898 | 33355810 | 11467095 | :3072846550 |
| . |  |  |  |  |  |  |  |  |  | : |


| AVERAGES | $--\quad$ Attained Age | 43.84 |  |
| :--- | :--- | :--- | ---: |
|  |  | Service Years | 10.62 |
|  | Active Salary | 38,509 |  |



| AVERAGES --- | Attained Age | 61.83 |  |
| :--- | ---: | :--- | ---: |
|  |  | Post Drop Years | 3.18 |
|  | Active Salary | 52,753 |  |
|  |  | Annual Benefit | 28,446 |

MEMBERSHIP PROFILE
CATEGORIZED BY AGE AND YEARS EMPLOYED
$\begin{array}{ll}\text { CELLS DEPICT } & \text { MEMBER COUNT } \\ \text { TOTAL SALARY }\end{array}$

TOTAL SALARY

TRS RETIREMENT SYSTEM ACTIVE - TEACHERS

VALUATION DATE 6/30/2007


| AVERAGES -- | Attained Age | 43.54 |
| ---: | :--- | ---: | ---: |
|  | Service Years | 10.61 |
|  | Active Salary | 37,595 |

MEMBERSHIP PROFILE
CATEGORIZED BY AGE AND YEARS EMPLOYED
CELLS DEPICT $\quad-\quad$ MEMBER COUNT
TOTAL SALARY

TRS RETIREMENT SYSTEM ACTIVE - LSU

VALUATION DATE 6/30/2007

AVERAGES ---Attained Age
Service Years
Active Salary 45.66
9.98
59,989

MEMBERSHIP PROFILE
CATEGORIZED BY AGE AND YEARS EMPLOYED
CELLS DEPICT - MEMBER COUNT

TRS RETIREMENT SYSTEM ACTIVE - UNIVERSITY

VALUATION DATE 6/30/2007


| AVERAGES | Attained Age | 46.23 |  |
| :--- | :--- | :--- | ---: |
|  |  | Service Years | 10.32 |
|  | Active Salary | 50,134 |  |


| MEMBERSHIP PROFILE |  | TRS RETIREMENT SYSTEM |
| :--- | :--- | :--- |
| CATEGORIZED BY AGE AND YEARS EMPLOYED | ACTIVE - LUNCH PLAN A |  |
| CELLS DEPICT $-\quad$ MEMBER COUNT | VALUATION DATE | $6 / 30 / 2007$ |
|  | TOTAL SALARY |  |



| AVERAGES --- | Attained Age | 54.48 |  |
| :--- | :--- | :--- | ---: |
|  |  | Service Years | 25.44 |
|  | Active Salary | 22,318 |  |

MEMBERSHIP PROFILE
CATEGORIZED BY AGE AND YEARS EMPLOYED
CELLS DEPICT - MEMBER COUNT

TRS RETIREMENT SYSTEM ACTIVE - LUNCH PLAN B

VALUATION DATE 6/30/2007

AVERAGES --Attained Age
Service Years
Active Salary
49.71
10.67
15,853

MEMBERSHIP PROFILE
CATEGORIZED BY AGE AND YEARS RETIRED
CELLS DEPICT - MEMBER COUNT

TRS RETIREMENT SYSTEM REGULAR RETIREES

VALUATION DATE 6/30/2007


| AVERAGES | --- | Attained Age | 69.18 |
| :--- | :--- | :--- | ---: |
|  |  | Years Retired | 11.43 |
|  | Annual Benefit | 21,730 |  |

MEMBERSHIP PROFILE
CATEGORIZED BY AGE AND YEARS RETIRED
CELLS DEPICT
MEMBER COUNT

TOTAL BENEFITS

TRS RETIREMENT SYSTEM DISABILITY RETIREES

VALUATION DATE 6/30/2007


$\qquad$

$$
\begin{array}{cccr}
\text { AVERAGES }--- & \text { Attained Age } & 63.12 \\
& \text { Years Retired } & 12.72 \\
& \text { Annual Benefit } & 10,697
\end{array}
$$

MEMBERSHIP PROFILE
CATEGORIZED BY AGE AND YEARS RETIRED
CELLS DEPICT
MEMBER COUNT

TOTAL BENEFITS
TRS RETIREMENT SYSTEM SURVIVOR BENEFITS

VALUATION DATE 6/30/2007


$$
\begin{array}{lllr}
\text { AVERAGES } & --- & \text { Attained Age } & 67.20 \\
& & \text { Years Retired } & 10.32 \\
& & \text { Annual Benefit } & 15,389
\end{array}
$$

| MEMBERSHIP PROFILE | TRS RETIREMENT SYSTEM |
| :--- | :--- |
| CATEGORIZED BY AGE AND YEARS EMPLOYED | TERM-VESTED/RECIPROCAL |
| CELLS DEPICT $-\quad$ MEMBER COUNT | VALUATION DATE |
|  | TOTAL BENEFITS |



| AVERAGES | -- | Attained Age | 48.61 |
| :--- | :--- | :--- | ---: |
|  |  | Service Years | 13.08 |
|  |  | Annual Benefit | 10,354 |

TRS RETIREMENT SYSTEM
MEMBERSHIP PROFILE
CATEGORIZED BY AGE AND YEARS RETIRED

DROP PARTICIPANTS
CELLS DEPICT
MEMBER COUNT
VALUATION DATE 6/30/2007


$$
\begin{array}{lllr}
\text { AVERAGES } & --- & \text { Attained Age } & 56.80 \\
& & \text { Years Retired } & 1.67 \\
& & \text { Annual Benefit } & 30,094
\end{array}
$$

## EXHIBIT 5

## PRINCIPLE PROVISIONS OF THE PLAN

## EFFECTIVE DATE:

August 1, 1936; last amendment date - July, 2004.

## EMPLOYER:

The State of Louisiana, the parish school board, the city school board, the State Board of Education, the State Board of Supervisors, University or any other agency of and within the State by which a teacher is paid.

## ELIGIBILITY FOR

## PARTICIPATION:

Condition of employment for all teachers

## CREDITABLE SERVICE:

Service as a teacher while member of the system.

## ADDITIONAL SERVICE:

1. Credit for service canceled by withdrawal of accumulated contributions may be restored by member by paying the amount withdrawn plus interest.
2. Service rendered in public school system of another state may be purchased at the actuarial cost of the additional retirement benefit, or at the member's option receive service credit based on the funds actually transferred.
3. Credit for service in non-public or parochial schools may be purchased at the actuarial cost of the additional retirement benefit, or at the member's option receive service credit based on the funds actually transferred.
4. Maximum of 4 years of credit for military service may be obtained for each member, contingent on payment of Actuarial Cost.
5. Credit for legislative service of former teacher, now legislator, may be purchased at the actuarial cost.
6. Conversion of Sick Leave to Membership Service: At retirement, or at death before retirement of member with surviving spouse or dependent or both who are entitled to benefits, unused accumulated sick leave will be added to membership service; however, leave accumulated after January 30, 1990 can be converted to a maximum one year service credit, on following basis:

## EXHIBIT 5 (Continued)

Principle Provisions

## EARNABLE COMPENSATION:

The compensation earned by a member for qualifying service.

| Prior to 6/30/88 |  |
| :---: | :---: |
| Credited Service | Accumulated |
| (portion of a year) | Sick Days |
| 0.25 | $25-45$ |
| 0.50 | $46-90$ |
| 0.75 | $91-135$ |
| 1.00 | $136-180$ |


| After 6/29/88 (by Member Classification) <br>  <br> Credited Service <br> (portion of a year) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 0.1 | 9 Month | 10 Month | 11 Month | 12 Month |
| 0.2 | $10-18$ | $11-20$ | $12-22$ | $13-24$ |
| 0.3 | $37-54$ | $21-40$ | $23-44$ | $25-48$ |
| 0.4 | $55-72$ | $61-60$ | $45-66$ | $49-72$ |
| 0.5 | $73-90$ | $81-100$ | $67-88$ | $73-96$ |
| 0.6 | $91-108$ | $101-120$ | $111-110$ | $97-120$ |
| 0.7 | $109-126$ | $121-140$ | $133-14$ | $121-144-168$ |
| 0.8 | $127-144$ | $141-160$ | $155-176$ | $169-192$ |
| 0.9 | $145-162$ | $161-180$ | $177-198$ | $193-216$ |
| 1.0 | $163-180$ | $181-200$ | $199-220$ | $217-240$ |

## AVERAGE FINAL COMPENSATION

The average annual earnable compensation is the 36 highest successive months of employment or the highest 36 successive joined months where interruption of service occurred; the average compensation for purposes of computing benefits cannot increase more than $10 \%$ per year; Per R.S. 11:892, if the maximum benefit accrual ( $100 \%$ ) is reached, employee contributions are discontinued, average final compensation is not limited to the years for which employee contributions were made. Compensation is limited by the 401a(17) compensation limit of the Internal Revenue Code for certain members.

Includes workmen's compensation, and PIP's program in accordance with the following:

| Years of Participation | \% of Earnings to <br> be Included |
| :---: | :---: |
| 3 | $60 \%$ |
| 4 | $80 \%$ |
| 5 | $100 \%$ |

## EXHIBIT 5 (Continued)

## Principle Provisions

However, if member completed at least two years and subsequently becomes disabled, he shall receive $40 \%$ of such earnings. If he has completed one year and becomes disabled, he shall receive $20 \%$ of such earnings.

## ACCUMULATED CONTRIBUTIONS:

Sum of all amounts deducted from compensation of members.

## EMPLOYEE CONTRIBUTIONS:

$8 \%$ of earnable compensation. Prior to $7 / 1 / 89,7 \%$ of earnable compensation.

## EMPLOYER CONTRIBUTIONS:

Determined in accordance with Act 81 of the 1988 Session based on the Public Retirement Systems' Actuarial Committee's recommendation to the Legislature.

## NORMAL RETIREMENT BENEFIT:

Eligibility:
Written application to Board, and

1. Age 60 and 5 years of accredited service, or 20 years of creditable teaching service if employed prior to July 1, 1999. Members employed on or after July 1, 1999 may retire with 20 years of creditable teaching service, actuarially reduced from Normal Eligibility requirements.
2. Age 55 and 25 years of creditable service, or at age 65 and 20 years of creditable service (excluding military service), or at 30 years of creditable service at any age. Conversion of unused sick and annual leave cannot be used to obtain retirement eligibility.

## Benefit:

Annuity which shall be the actuarial equivalent of accumulated employee contributions at retirement date, and

1. Annual pension, which, together with annuity, provides total allowance equal to $2 \%$ of average final compensation times years of creditable service (including unused sick leave), plus \$300 annual supplemental benefit.
2. Annual pension, which, together with annuity, provides total allowance equal to $21 / 2 \%$ of average final compensation times years of creditable service (including unused sick leave), plus $\$ 300$ annual supplemental benefit.

## NOTE:

A. Benefit not to exceed $100 \%$ of average earnable compensation.
B. Legislator's benefits to be calculated on basis of either Teacher's or Legislator's salary but not both - for new legislators (their option to choose); employee contribution to be $12 \%$ of either salary and expense allowance as legislator, not both.

## EXHIBIT 5 (Continued)

## Principle Provisions

C. Retiree who returns to work shall have benefits suspended during the twelve month period following initial retirement.
D. The $\$ 300$ annual supplemental benefit is discontinued to members of the retirement system who enroll or become members after 6/30/86 (Act 608 of 1986).
E. For Members employed on or after July 1, 1999, the annual pension cannot exceed the maximum benefit provided under Section 415(b) 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:

| Age | Maximum | Age | Maximum | Age | Maximum |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 48 | $\$ 39,506$ | 56 | $\$ 93,202$ | 64 | $\$ 180,000$ |
| 49 | 43,191 | 57 | 102,643 | 65 | 180,000 |
| 50 | 47,254 | 58 | 113,184 | 66 | 193,134 |
| 51 | 51,738 | 59 | 124,976 | 67 | 207,463 |
| 52 | 56,693 | 60 | 138,201 | 68 | 223,114 |
| 53 | 62,176 | 61 | 153,068 | 69 | 240,228 |
| 54 | 68,254 | 62 | 180,000 | 70 | 258,969 |
| 55 | 84,727 | 63 | 180,000 |  |  |

## COST OF LIVING BENEFITS:

Cost of Living Adjustments (COLA's) may be granted, with legislative approval, provided there are sufficient funds in the Experience Account to fully fund the COLA on an actuarial basis. The Experience Account 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. The balance of the Experience Account is limited to the cost of two COLA's. The COLA is limited to the lesser of $3 \%$ or the increase in the CPI-U for the calendar year immediately preceding the COLA. The COLA is further limited to $2 \%$ if the investment return does not exceed $8.25 \%$. Benefits are restricted to those retirees who have attained the age of 55 and have been retired for at least one year. The minimum age 55 for the receipt of a COLA does not apply to disability retirees. The COLA shall be based on the first seventy thousand dollars of the retiree's annual benefit, indexed annually for years after 2001.

## 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: Act 572 of 1995

1. If ineligible for service retirement at disability, a pension equal to $21 / 2 \%$ of average compensation multiplied by years of service. Benefit shall not be more than $50 \%$ of average compensation. However, in no event shall the benefit be less than the lesser of $40 \%$ of the state minimum salary for a beginning teacher with a bachelor's degree or $75 \%$ of average compensation.
2. Additional $50 \%$ of member's benefit payable if minor child is present, but total amount to family limited to $75 \%$ of final average compensation.
3. Upon attainment of the earliest age for retirement eligibility had member continued in service without further change in compensation, member shall become a regular retiree with benefits based on years of creditable service but not less than the disability benefit. Minor children benefit for disability continue for as long as the retiree has a minor child.
4. Upon death of a disability retiree, surviving spouse, married to retiree at least two years prior to death of the disability retiree, shall receive $75 \%$ of disability benefit. Upon death of an unmarried retiree with minor children, the benefit shall equal $50 \%$ of disability benefit.
5. Upon recovery of disability as determined by the board of trustees, upon advice of the medical board, and returns to active membership for at least three years starting no later than one year after recovery, then he shall be credited with one year of service for each year disabled for purposes of establishing benefit eligibility, but not for computation of benefits.

## SURVIVOR'S BENEFITS:

## (Effective July 13, 1978)

## 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 creditable service regardless of when earned or whether in active service at 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 creditable service regardless of when earned or whether in active service at time of death.
3. Beneficiary not eligible for 1 or 2 .

## Benefits:

1. Surviving Spouse (with minor children)-

Greater of:
A.) $\$ 600$ per month, or

## EXHIBIT 5 (Continued)

## Principle Provisions

B.) $50 \%$ of benefit, based on $21 / 2 \%$ formula, that would have been payable upon service retirement at age 60 had member continued in service to age 60 without change in compensation. $50 \%$ of spouse's benefit payable for each minor child (not greater than two), with total benefit to family at least equal to the Option 2, accrued Benefit based on actual service credit. Benefits to spouse cease upon remarriage, but resume upon subsequent divorce or death of new spouse; however, if the member was eligible to retire or had reached age 55 on the date of his death, benefits shall not cease upon remarriage. When minor children are no longer present, spouse's benefit reverts to benefit in B , for eligible spouse.
2. Surviving Spouse (without minor children) -

Greater of:
A.) $\$ 600$ per month, or
B.) Option 2 equivalent of Accrued Benefit based on actual service and the $21 / 2 \%$ formula. Spouse's benefit payable for life. Benefits to spouse cease upon remarriage, but resume upon subsequent divorce or death of new spouse; however, if the member was eligible to retire on the date of his death, benefits shall not cease upon remarriage.
3. Beneficiary not eligible for 1 or $2-$

Return of member's accumulated contributions.

## REFUND OF CONTRIBUTIONS:

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.

## TERMINATION WITH VESTED SERVICE:

Any member with credit for 5 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.

## 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 l - 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.
Options 2A, 3A, 4A - Same as Options 2, 3, and 4, except that reduced benefit reverts back to maximum if beneficiary predeceases retiree.

## EXHIBIT 5 (Continued)

## Principle Provisions

Initial Lump Sum Benefit Option - Members eligible but did not participate in DROP may elect an actuarially reduced pension and receive a lump-sum equal to not more than 36 months of the maximum monthly pension.

## DEFERRED RETIREMENT OPTION PLAN:

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

## NORMAL ELIGIBILITY:

Any member who is eligible to receive a $2.5 \%$ service retirement allowance, or who has 10 years of service credit, exclusive of military service, at age 60 may begin participation on the first retirement eligibility date for a period not to exceed the 3rd anniversary of retirement eligibility.

## BENEFIT:

Upon termination of employment, 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) Other methods of payment approved by the board of trustees.

If a participant dies during the period of participation in the program, his account balance shall be paid to the beneficiary, or if none, to his estate in any form approved by the Board of Trustees.

If employment is not terminated at the end of DROP participation, then:
(1) payment into account shall cease;
(2) payment from account only upon termination of employment; and
(3) the participant shall resume active contributing membership.

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 initial benefit shall be that used.
(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.

DROP Accounts shall earn interest following termination of DROP at a rate $0.5 \%$ below the actuarial rate of the System's investment portfolio.

Effective 1/1/2004 new DROP accounts are credited with Money Market rates.

EXHIBIT 5 (Continued)

## Principle Provisions

## DESCRIPTION OF BENEFITS <br> FOR MERGED LSU EMPLOYEES

## GENERAL:

Eligibility for benefits based on the eligibility requirements of the Teachers' plan, except for deaths and disabilities before 1984. All service, funded and non-funded, used in determining eligibility.

Final Average Salary was the average of the three highest years, except for academic year employees who retired within three years after $1 / 1 / 79$. For this group, any salary used in the Final Average Salary calculation, which was earned before $1 / 1 / 79$, was increased by $2 / 9$ ths.

The Social Security breakpoint average, for service under the funded LSU plan, was frozen at the 12/31/78 level. That is, the breakpoint average for funded service was calculated as of $12 / 31 / 78$ and kept constant. This produced the following breakpoint averages:

| Social Security Breakpoint Average (for LSU funded service) |  |
| :---: | :---: |
| Calendar Year of Entry | Breakpoint Average |
| 1971 or before | 13,400 |
| 1972 | 13,800 |
| 1973 | 14,600 |
| 1974 | 15,360 |
| 1975 | 15,900 |
| 1976 | 16,500 |
| 1977 | 17,100 |
| 1978 | 17,700 |

## Retirement Benefits:

Retirement benefits calculated using LSU funded service with the LSU formula and service after $12 / 31 / 78$ with the Teacher's formula. Thus, the "funded" benefit is 1) $11 / 3 \%$ of final average salary under the Social Security breakpoint average plus $21 / 2 \%$ of final average salary over the Social Security breakpoint average, times years of "funded" service with LSU before $12 / 31 / 78$, plus 2 ) $21 / 2 \%$ (or $2 \%$ if total service less than 20 years) times final average salary times years since $1 / 1 / 79$, plus $\$ 300$.

## Survivor's Benefits

For deaths after 1983, the provisions of the Teachers' plan apply. However, the benefit is calculated using all service, funded and non-funded, then prorated by service between the funded and non-funded portions. Children's benefits are also prorated into the funded and non-funded portions.

## Disability Benefits

For disabilities after 1983, the provisions of the Teachers' plan apply. However, the benefit is calculated using all service, then prorating by service between the funded and non-funded portions. Children's benefits are also prorated.

## Exhibit 5 (Continued)

## Principle Provisions

## Vesting Benefits

Benefits for terminating vested members was determined as outlined under "Retirement Benefits."

## Refund of Contributions

Terminating members allowed a refund of accumulated contributions as described by the Teachers' plan.

## Cooperative Extension personnel

The LSU employees eligible for the supplemental benefit described in Section 700.2 of Act 643 of 1978. The benefit is equal to $1 \%$ for the first five years of service, $3 / 4 \%$ for the next five years, and $1 / 2 \%$ thereafter. The funded benefit is the benefit based on service after September 12, 1975.

## Optional Forms of Benefits:

Retiring members may elect options as described by the Teachers' plan.

## Deferred Retirement Option Plan:

Eligible members may participate under same requirements as described by the Teachers' plan.

EXHIBIT 5 (Continued)

## Principle Provisions

## DESCRIPTION OF BENEFITS FOR MERGED SCHOOL LUNCH EMPLOYEES

## EFFECTIVE DATE:

January 1, 1953; Revised July 1, 1980.

1. Effective July 1, 1980, all employees shall become members of this system and shall be placed in the applicable plan as outlined below:
A.) Those participating in both the regular and the supplemental plan or only in the supplemental plan shall become members of Plan A.
B.) Those participating only in the regular plan shall become members of Plan B.
2. All individuals who become employed after July 1, 1980, shall become members of Plan A or Plan B as determined by the agreement in effect for each employer.

## CREDITABLE SERVICE:

Service as an employee while member of the system.

## MILITARY SERVICE:

Maximum of 4 years of credit may be purchased.

## ADDITIONAL CREDITABLE SERVICE:

Credit for service canceled by withdrawal of accumulated contributions may be restored by paying into system the amount withdrawn plus regular interest.

## EMPLOYEE CONTRIBUTIONS:

Plan A: $\quad 9.10 \%$ of monthly earnings
Plan B: $5 \%$ of monthly earnings

## EMPLOYER CONTRIBUTIONS:

Plan A: Actuarial Required Amount (Effective 7/1/89)
Plan B: $\quad$ Actuarial Required Amount (Effective 7/1/89)

EXHIBIT 5 (Continued)

## Principle Provisions

## SCHOOL LUNCH PLAN A

## RETIREMENT BENEFIT:

## NORMAL RETIREMENT:

## Eligibility:

1. Age 60 and 5 years of creditable service.
2. Age 55 and 25 years of creditable service.
3. 30 years of creditable service, regardless of age.

Benefit:
$3 \%$ of average final compensation times years of creditable service. For Members of only the supplemental plan prior to $7 / 1 / 80$ and $\left({ }^{*}\right)$. Those Members who were age 60 or older at the time the member's employer terminated its agreement with the Department of Health, Education and Welfare, and who became a member of the retirement system because of this termination: $1 \%$ of average final compensation plus two dollars per month for each year of service credited prior to $7 / 1 / 80$, plus $3 \%$ of average final compensation for each year of service credited after 7/1/80.
*These members shall be eligible to retire upon reaching age 70, with less than 10 years of creditable service.

## NOTE:

Benefit not to exceed $100 \%$ of average final compensation.

## DISABILITY RETIREMENT:

## Eligibility:

5 years of creditable service; certification of disability by the State Medical Disability Board.

## Benefit:

Normal retirement allowance if eligible; otherwise, an amount equal to the normal retirement allowance to which the member would have been entitled had he met eligibility requirements; provided the amount is not less than $60 \%$, nor more than $100 \%$ of average final compensation, in the event no optional selection is made.

## EXHIBIT 5 (Continued)

## Principle Provisions

## SURVIVOR'S BENEFITS:

## Eligibility:

1. Surviving spouse of member with 5 or more years of service credit with at least 2 years earned immediately prior to death, or 20 years of service credit regardless of when earned or whether the deceased member was in active service at the time of death, with minor children.
2. Surviving spouse of member with 10 or more years of service credit with at least 2 years earned immediately prior to death, or 20 years of service credit regardless of when earned or whether the deceased member was in active service at the time of death, without minor children.
3. Beneficiary not eligible for 1 or 2 .

## Benefit:

1. Greater of:
A. $\$ 600$ per month, or
B. $50 \%$ of benefit, based on $3 \%$ factor, that would have been payable upon retirement at age 60 had member continued in service to age 60 without change in compensation. $50 \%$ of spouse's benefit payable for each minor child (maximum two children), with total benefit to family at least equal to the Option 2 benefit. Accrued Benefit based on actual service credit. Benefits to spouse cease upon remarriage, but resume upon subsequent death or divorce. When minor children are not longer present, spouse's benefit reverts to benefit in B, if spouse is eligible for such benefit.
2. Greater of:
A. $\$ 600$ per month, or
B. Option 2 equivalent of Accrued Benefit based on actual service and the $3 \%$ factor. Surviving spouse must have been married to the deceased member at least one year prior to death. If the member had not been eligible for retirement upon date of death, benefits to spouse cease upon remarriage, but resume upon subsequent death or divorce of new spouse.
3. Return of member's accumulated contributions.

EXHIBIT 5 (Continued)
Principle Provisions

## SCHOOL LUNCH PLAN B

## RETIREMENT BENEFIT:

## NORMAL RETIREMENT:

Eligibility:
1.Age 60 and 10 years of creditable service.
2.Age 55 and 30 years of creditable service.

Benefit:
Annual pension which provides total allowance equal to $2 \%$ of average final compensation times years of creditable service. (Maximum $\$ 70$ per month for each year of creditable service).

NOTE:
Benefit reduced by 3\% for each year under age 62, unless member has 25 years of creditable service.

## DISABILITY RETIREMENT:

## Eligibility:

5 years of creditable service; certification of disability by the State Medical Disability Board.

## Benefit:

Normal retirement allowance if eligible therefore; otherwise 2\% of average final compensation times years of creditable service; provided amount not less than $30 \%$, nor more than $75 \%$ of average final compensation, in the event no optional selection is made.

## SURVIVOR'S BENEFITS:

Eligibility: 20 or more years of creditable service.
Benefit: Option 2 benefit.

## EXHIBIT 5 (Continued)

## Principle Provisions

## OPTIONAL FORMS OF BENEFIT:

A member may elect to receive his benefit in a retirement allowance payable throughout his life, or 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 the maximum pension.

Options 2-4 are available in an "a" version which provides the same survivor benefit at the death of the retiree, but reverts to the maximum benefit if the survivor predeceases the retiree.

## RETURN OF CONTRIBUTIONS:

Should a member not eligible to retire cease to be an employee, he shall be paid the amount of his accumulated contributions upon demand. Should a members death occur prior to retirement with no survivors eligible for benefits, his accumulated contributions are returnable to a designated beneficiary, if any; otherwise, to his estate.

## TERMINATION WITH VESTED SERVICE:

Any member with credit for 5 years of service who withdraws from service may elect to leave accumulated contributions in system until his earliest normal retirement date, when he may apply for retirement and begin
receiving a retirement benefit based on average final compensation and creditable service at date of withdrawal.

## Deferred Retirement Option Plan:

Retiring members may elect options as described by the Teachers' plan.

## EXHIBIT 6

## ACTUARIAL COST METHODS AND ASSUMPTIONS

## COST METHOD:

The "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 date(s).That portion of the actuarial present value attributable to the current year's projected benefit accruals is called the Normal Cost. The actuarial present value of future projected benefits in proportion to service accrued on the date of valuation is called the actuarial accrued liability.

## ASSET VALUATION:

Prior to June 30, 1997 the actuarial value of assets was the sum of the bonds at amortized cost, plus a weighted average of average unrealized loss (or gain) in the market value of equities.

For the Plan Year Ending June 30, 1997 and thereafter, the computation of the Actuarial Value of Assets is the market value of assets adjusted for a four year weighted average of the unrealized gain or loss in the value of all assets. This value is 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.

## ACCOUNTING DISCLOSURE:

The Governmental Accounting Standards Board Statement No. 25 requires the disclosure of "Credited Projected Benefits" for Public Employee Retirement Systems. The disclosures illustrated in Exhibit 3 were developed using the Projected Unit Credit cost method. The statement of assets provided by the audit staff was 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, but only 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. The rates are projected separately for Teachers, School Lunch Plan and Plan B, and University personnel. The current and prior rate tables are illustrated at the end of this exhibit.

## 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 ages set at attained age plus one.

## EXHIBIT 6 (Continued)

## Cost Methods \& Assumptions

## DISABILITY ASSUMPTION:

Rates for total and permanent disability were projected by age in accordance with the most recent Experience Study. The rates are based upon attained age at occurrence. For mortality after disability, rates were based 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 determined in conjunction with regular benefit accrual. Retirement rates and DROP probabilities are based on the most recent Experience Study.

## 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 employment duration in the current valuation as follows:

| $1^{\text {st }}$ | 1.25 x (teachers only) |
| :---: | :---: |
| $2^{\text {nd }}$ | 1.00 x |
| $3^{\text {rd }}$ | 1.00 x |
| $4^{\text {th }}$ | 1.00 x |
| $5^{\text {th }}$ | 1.00 x |

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 base upon the member's years of service and are illustrated in the rate tables at the end of this exhibit.

## FAMILY STATISTICS:

The composition of the family was based on Age-Specific Fertility Rates from the 1983 Vital Statistics of the United States. Eighty percent 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:

## EXHIBIT 6 (Continued)

Cost Methods \& Assumptions

| Age at <br> Death | Number of <br> Minor <br> Children | Years for Youngest <br> Child to Attain Majority |
| :---: | :---: | :---: |
| 25 | 1.3 | 15 |
| 30 | 1.8 | 13 |
| 35 | 2.2 | 11 |
| 40 | 2.1 | 9 |
| 45 | 1.7 | 6 |
| 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."

## 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 $81 / 4 \%$, net expenses for professional asset management advisors.

## ADMINISTRATIVE EXPENSES:

Expenses are included in Aggregate Normal Cost and are assumed to be $\$ 13,900,000$ per year. Investment Expenses for professional asset management advisors are not included in Normal Cost but are treated as a direct offset to investment income. The Employer portion of Normal Cost excludes an allocation for Administrative expenses.

ACTUARIAL TABLES AND RATES (TEACHERS)

| Age | - Death Male | Rates Female |
| :---: | :---: | :---: |
| 18 | . 00039 | . 00020 |
| 19 | . 00041 | . 00021 |
| 20 | . 00042 | . 00022 |
| 21 | . 00044 | . 00024 |
| 22 | . 00045 | . 00025 |
| 23 | . 00047 | . 00027 |
| 24 | . 00049 | . 00028 |
| 25 | . 00052 | . 00030 |
| 26 | . 00054 | . 00032 |
| 27 | . 00057 | . 00034 |
| 28 | . 00060 | . 00036 |
| 29 | . 00064 | . 00038 |
| 30 | . 00067 | . 00040 |
| 31 | . 00072 | . 00043 |
| 32 | . 00076 | . 00046 |
| 33 | . 00082 | . 00049 |
| 34 | . 00087 | . 00053 |
| 35 | . 00096 | . 00056 |
| 36 | . 00101 | . 00060 |
| 37 | . 00107 | . 00064 |
| 38 | . 00115 | . 00069 |
| 39 | . 00125 | . 00074 |
| 40 | . 00138 | . 00080 |
| 41 | . 00152 | . 00086 |
| 42 | . 00170 | . 00094 |
| 43 | . 00191 | . 00102 |
| 44 | . 00215 | . 00112 |
| 45 | . 00243 | . 00124 |
| 46 | . 00275 | . 00137 |
| 47 | . 00310 | . 00152 |
| 48 | . 00349 | . 00167 |
| 49 | . 00390 | . 00183 |
| 50 | . 00434 | . 00199 |
| 51 | . 00480 | . 00217 |
| 52 | . 00528 | . 00236 |
| 53 | . 00578 | . 00257 |
| 54 | . 00629 | . 00282 |
| 55 | . 00681 | . 00311 |
| 56 | . 00735 | . 00345 |
| 57 | . 00793 | . 00383 |
| 58 | . 00858 | . 00425 |
| 59 | . 00932 | . 00471 |
| 60 | . 01018 | . 00523 |
| 61 | . 01118 | . 00579 |
| 62 | . 01237 | . 00641 |
| 63 | . 01377 | . 00710 |
| 64 | . 01541 | . 00785 |
| 65 | . 01732 | . 00869 |
| 66 | . 01953 | . 00965 |
| 67 | . 02200 | . 01078 |
| 68 | . 02470 | . 01214 |
| 69 | . 02757 | . 01376 |
| 70 | . 03059 | . 01570 |
| 71 | . 03373 | . 01796 |
| 72 | . 03708 | . 02053 |
| 73 | . 04076 | . 02344 |
| 74 | . 04488 | 02666 |


| Disability | Termination | Retirement |  |  | Salary |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Rates | Rates | Rates | Rates | Dur | Scale |
| . 0000 | . 0000 | . 0000 | . 000 | 1 | 1.0780 |
| . 0000 | . 0600 | . 0000 | . 000 | 2 | 1.0760 |
| . 0000 | . 1000 | . 0000 | . 000 | 3 | 1.0720 |
| . 0000 | . 0900 | . 0000 | . 000 | 4 | 1.0700 |
| . 0000 | . 0400 | . 0000 | . 000 | 5 | 1.0680 |
| . 0001 | . 0500 | . 0000 | . 000 | 6 | 1.0680 |
| . 0001 | . 0700 | . 0000 | . 000 | 7 | 1.0680 |
| . 0001 | . 0700 | . 0000 | . 000 | 8 | 1.0680 |
| . 0001 | . 0800 | . 0000 | . 000 | 9 | 1.0670 |
| . 0001 | . 0800 | . 0000 | . 000 | 10 | 1.0650 |
| . 0001 | . 0800 | . 0000 | . 000 | 11 | 1.0640 |
| . 0001 | . 0800 | . 0000 | . 000 | 12 | 1.0640 |
| . 0003 | . 0800 | . 0000 | . 000 | 13 | 1.0640 |
| . 0003 | . 0800 | . 0000 | . 000 | 14 | 1.0600 |
| . 0004 | . 0700 | . 0000 | . 000 | 15 | 1.0580 |
| . 0004 | . 0600 | . 0000 | . 000 | 16 | 1.0580 |
| . 0006 | . 0600 | . 0000 | . 000 | 17 | 1.0580 |
| . 0006 | . 0500 | . 0000 | . 000 | 18 | 1.0550 |
| . 0007 | . 0500 | . 0000 | . 000 | 19 | 1.0550 |
| . 0007 | . 0400 | . 0000 | . 000 | 20 | 1.0550 |
| . 0008 | . 0400 | . 0500 | . 000 | 21 | 1.0550 |
| . 0009 | . 0300 | . 0600 | . 000 | 22 | 1.0550 |
| . 0010 | . 0300 | . 0400 | . 000 | 23 | 1.0520 |
| . 0014 | . 0300 | . 0400 | . 000 | 24 | 1.0520 |
| . 0016 | . 0300 | . 0300 | . 000 | 25 | 1.0520 |
| . 0017 | . 0200 | . 0300 | . 000 | 26 | 1.0520 |
| . 0017 | . 0200 | . 0300 | . 000 | 27 | 1.0460 |
| . 0018 | . 0200 | . 0300 | . 000 | 28 | 1.0420 |
| . 0018 | . 0200 | . 0300 | . 000 | 29 | 1.0380 |
| . 0019 | . 0200 | . 0300 | . 000 | 30 | 1.0380 |
| . 0020 | . 0200 | . 0300 | . 000 | 31 | 1.0380 |
| . 0021 | . 0200 | . 0300 | . 000 | 32 | 1.0380 |
| . 0024 | . 0200 | . 0300 | . 000 | 33 | 1.0380 |
| . 0024 | . 0200 | . 0300 | . 050 | 34 | 1.0550 |
| . 0024 | . 0200 | . 0300 | . 150 | 35 | 1.0320 |
| . 0024 | . 0200 | . 0500 | . 150 | 36 | 1.0320 |
| . 0032 | . 0200 | . 1000 | . 350 | 37 | 1.0320 |
| . 0047 | . 0200 | . 2300 | . 550 | 38 | 1.0320 |
| . 0054 | . 0200 | . 2300 | . 100 | 39 | 1.0320 |
| . 0056 | . 0200 | . 4000 | . 100 | 40 | 1.0320 |
| . 0056 | . 0200 | . 4000 | . 100 | 41 | 1.0320 |
| . 0056 | . 0200 | . 2600 | . 150 | 42 | 1.0320 |
| . 0056 | . 0200 | . 2600 | . 200 | 43 | 1.0320 |
| . 0056 | . 0200 | . 2600 | . 070 | 44 | 1.0320 |
| . 0054 | . 0200 | . 3300 | . 050 | 45 | 1.0320 |
| . 0035 | . 0200 | . 3300 | . 050 | 46 | 1.0320 |
| . 0035 | . 0200 | . 3300 | . 050 | 47 | 1.0320 |
| . 0035 | . 0200 | . 3300 | . 050 | 48 | 1.0320 |
| . 0038 | . 0200 | . 4000 | . 050 | 49 | 1.0320 |
| . 0050 | . 0200 | . 4000 | . 050 | 50 | 1.0320 |
| . 0050 | . 0200 | . 3600 | . 050 | 51 | 1.0320 |
| . 0050 | . 0200 | . 3600 | . 050 | 52 | 1.0320 |
| . 0050 | . 0200 | . 3600 | . 050 | 53 | 1.0320 |
| . 0050 | . 0200 | . 3600 | . 000 | 54 | 1.0320 |
| . 0050 | . 0200 | . 5000 | . 000 | 55 | 1.0320 |
| . 0050 | . 0200 | . 9900 | . 000 | 56 | 1.0320 |
| . 0050 | . 0200 | . 9900 | . 000 | 57 | 1.0320 |

ACTUARIAL TABLES AND RATES (PLAN A)

|  | - Death Male | Rates - Female |
| :---: | :---: | :---: |
| Age |  |  |
| 18 | . 00039 | . 00020 |
| 19 | . 00041 | . 00021 |
| 20 | . 00042 | . 00022 |
| 21 | . 00044 | . 00024 |
| 22 | . 00045 | . 00025 |
| 23 | . 00047 | . 00027 |
| 24 | . 00049 | . 00028 |
| 25 | . 00052 | . 00030 |
| 26 | . 00054 | . 00032 |
| 27 | . 00057 | . 00034 |
| 28 | . 00060 | . 00036 |
| 29 | . 00064 | . 00038 |
| 30 | . 00067 | . 00040 |
| 31 | . 00072 | . 00043 |
| 32 | . 00076 | . 00046 |
| 33 | . 00082 | . 00049 |
| 34 | . 00087 | . 00053 |
| 35 | . 00096 | . 00056 |
| 36 | . 00101 | . 00060 |
| 37 | . 00107 | . 00064 |
| 38 | . 00115 | . 00069 |
| 39 | . 00125 | . 00074 |
| 40 | . 00138 | . 00080 |
| 41 | . 00152 | . 00086 |
| 42 | . 00170 | . 00094 |
| 43 | . 00191 | . 00102 |
| 44 | . 00215 | . 00112 |
| 45 | . 00243 | . 00124 |
| 46 | . 00275 | . 00137 |
| 47 | . 00310 | . 00152 |
| 48 | . 00349 | . 00167 |
| 49 | . 00390 | . 00183 |
| 50 | . 00434 | . 00199 |
| 51 | . 00480 | . 00217 |
| 52 | . 00528 | . 00236 |
| 53 | . 00578 | . 00257 |
| 54 | . 00629 | . 00282 |
| 55 | . 00681 | . 00311 |
| 56 | . 00735 | . 00345 |
| 57 | . 00793 | . 00383 |
| 58 | . 00858 | . 00425 |
| 59 | . 00932 | . 00471 |
| 60 | . 01018 | . 00523 |
| 61 | . 01118 | . 00579 |
| 62 | . 01237 | . 00641 |
| 63 | . 01377 | . 00710 |
| 64 | . 01541 | . 00785 |
| 65 | . 01732 | . 00869 |
| 66 | . 01953 | . 00965 |
| 67 | . 02200 | . 01078 |
| 68 | . 02470 | . 01214 |
| 69 | . 02757 | . 01376 |
| 70 | . 03059 | . 01570 |
| 71 | . 03373 | . 01796 |
| 72 | . 03708 | . 02053 |
| 73 | . 04076 | . 02344 |
| 74 | . 04488 | . 02666 |


| Disability | Termination | Retirement |  |  | Salary |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Rates | Rates | Rates | Rates | Dur | Scale |
| . 0000 | . 0000 | . 0000 | . 000 | 1 | 1.0780 |
| . 0000 | . 0000 | . 0000 | . 000 | 2 | 1.0770 |
| . 0000 | . 0000 | . 0000 | . 000 | 3 | 1.0720 |
| . 0000 | . 0000 | . 0000 | . 000 | 4 | 1.0680 |
| . 0000 | . 0000 | . 0000 | . 000 | 5 | 1.0650 |
| . 0000 | . 0000 | . 0000 | . 000 | 6 | 1.0650 |
| . 0000 | . 0000 | . 0000 | . 000 | 7 | 1.0650 |
| . 0000 | . 0000 | . 0000 | . 000 | 8 | 1.0650 |
| . 0000 | . 0000 | . 0000 | . 000 | 9 | 1.0400 |
| . 0000 | . 0000 | . 0000 | . 000 | 10 | 1.0400 |
| . 0000 | . 0000 | . 0000 | . 000 | 11 | 1.0400 |
| . 0000 | . 0000 | . 0000 | . 000 | 12 | 1.0400 |
| . 0000 | . 0100 | . 0000 | . 000 | 13 | 1.0400 |
| . 0001 | . 0100 | . 0000 | . 000 | 14 | 1.0600 |
| . 0001 | . 0100 | . 0000 | . 000 | 15 | 1.0600 |
| . 0001 | . 0100 | . 0000 | . 000 | 16 | 1.0600 |
| . 0001 | . 0100 | . 0000 | . 000 | 17 | 1.0550 |
| . 0001 | . 0100 | . 0000 | . 000 | 18 | 1.0450 |
| . 0001 | . 0100 | . 0000 | . 000 | 19 | 1.0450 |
| . 0001 | . 0100 | . 0000 | . 000 | 20 | 1.0450 |
| . 0001 | . 0100 | . 0000 | . 000 | 21 | 1.0450 |
| . 0001 | . 0100 | . 0000 | . 000 | 22 | 1.0450 |
| . 0001 | . 0100 | . 0000 | . 000 | 23 | 1.0450 |
| . 0001 | . 0100 | . 0000 | . 000 | 24 | 1.0450 |
| . 0070 | . 0100 | . 0000 | . 000 | 25 | 1.0400 |
| . 0070 | . 0100 | . 0000 | . 000 | 26 | 1.0320 |
| . 0070 | . 0100 | . 0000 | . 000 | 27 | 1.0320 |
| . 0070 | . 0100 | . 0000 | . 000 | 28 | 1.0320 |
| . 0070 | . 0100 | . 0000 | . 000 | 29 | 1.0320 |
| . 0200 | . 0100 | . 0000 | . 000 | 30 | 1.0320 |
| . 0200 | . 0100 | . 0000 | . 000 | 31 | 1.0320 |
| . 0200 | . 0100 | . 0100 | . 000 | 32 | 1.0320 |
| . 0200 | . 0100 | . 0100 | . 000 | 33 | 1.0320 |
| . 0200 | . 0100 | . 0100 | . 000 | 34 | 1.0320 |
| . 0200 | . 0100 | . 0300 | . 000 | 35 | 1.0320 |
| . 0200 | . 0100 | . 0300 | . 000 | 36 | 1.0320 |
| . 0200 | . 0100 | . 0300 | . 100 | 37 | 1.0320 |
| . 0200 | . 0100 | . 1000 | . 370 | 38 | 1.0320 |
| . 0300 | . 0100 | . 1000 | . 150 | 39 | 1.0320 |
| . 0300 | . 0100 | . 1500 | . 150 | 40 | 1.0320 |
| . 0300 | . 0100 | . 2000 | . 250 | 41 | 1.0320 |
| . 0300 | . 0100 | . 3500 | . 520 | 42 | 1.0320 |
| . 0060 | . 0100 | . 3500 | . 520 | 43 | 1.0320 |
| . 0060 | . 0100 | . 3000 | . 250 | 44 | 1.0320 |
| . 0060 | . 0100 | . 4000 | . 150 | 45 | 1.0320 |
| . 0060 | . 0100 | . 5000 | . 150 | 46 | 1.0320 |
| . 0060 | . 0100 | . 5000 | . 150 | 47 | 1.0320 |
| . 0000 | . 0100 | . 4000 | . 150 | 48 | 1.0320 |
| . 0000 | . 0100 | . 4000 | . 150 | 49 | 1.0320 |
| . 0000 | . 0100 | . 3200 | . 150 | 50 | 1.0320 |
| . 0000 | . 0100 | . 3200 | . 150 | 51 | 1.0320 |
| . 0000 | . 0100 | . 3200 | . 150 | 52 | 1.0320 |
| . 0000 | . 0100 | . 3200 | . 150 | 53 | 1.0320 |
| . 0000 | . 0100 | . 3200 | . 150 | 54 | 1.0320 |
| . 0000 | . 0100 | . 3200 | . 150 | 55 | 1.0320 |
| . 0000 | . 0100 | . 3200 | . 150 | 56 | 1.0320 |
| . 0000 | . 0100 | . 9900 | . 150 | 57 | 1.0320 |

ACTUARIAL TABLES AND RATES (PLAN B)

| Age | - Death Male | Rates Female | Disability Rates | Termination Rates | Retirement Rates | DROP <br> Rates | Dur | Salary Scale |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 18 | . 00039 | . 00020 | . 0000 | . 0000 | . 0000 | . 000 | 1 | 1.0650 |
| 19 | . 00041 | . 00021 | . 0000 | . 0000 | . 0000 | . 000 | 2 | 1.0650 |
| 20 | . 00042 | . 00022 | . 0000 | . 0000 | . 0000 | . 000 | 3 | 1.0650 |
| 21 | . 00044 | . 00024 | . 0000 | . 0000 | . 0000 | . 000 | 4 | 1.0600 |
| 22 | . 00045 | . 00025 | . 0000 | . 2000 | . 0000 | . 000 | 5 | 1.0600 |
| 23 | . 00047 | . 00027 | . 0000 | . 2000 | . 0000 | . 000 | 6 | 1.0550 |
| 24 | . 00049 | . 00028 | . 0000 | . 2000 | . 0000 | . 000 | 7 | 1.0520 |
| 25 | . 00052 | . 00030 | . 0000 | . 1600 | . 0000 | . 000 | 8 | 1.0520 |
| 26 | . 00054 | . 00032 | . 0000 | . 0400 | . 0000 | . 000 | 9 | 1.0520 |
| 27 | . 00057 | . 00034 | . 0000 | . 0400 | . 0000 | . 000 | 10 | 1.0520 |
| 28 | . 00060 | . 00036 | . 0000 | . 0400 | . 0000 | . 000 | 11 | 1.0450 |
| 29 | . 00064 | . 00038 | . 0000 | . 1400 | . 0000 | . 000 | 12 | 1.0450 |
| 30 | . 00067 | . 00040 | . 0000 | . 0900 | . 0000 | . 000 | 13 | 1.0450 |
| 31 | . 00072 | . 00043 | . 0002 | . 0600 | . 0000 | . 000 | 14 | 1.0450 |
| 32 | . 00076 | . 00046 | . 0003 | . 0500 | . 0000 | . 000 | 15 | 1.0400 |
| 33 | . 00082 | . 00049 | . 0003 | . 0500 | . 0000 | . 000 | 16 | 1.0400 |
| 34 | . 00087 | . 00053 | . 0004 | . 0500 | . 0000 | . 000 | 17 | 1.0400 |
| 35 | . 00096 | . 00056 | . 0005 | . 0400 | . 0000 | . 000 | 18 | 1.0400 |
| 36 | . 00101 | . 00060 | . 0006 | . 0400 | . 0000 | . 000 | 19 | 1.0400 |
| 37 | . 00107 | . 00064 | . 0008 | . 0400 | . 0000 | . 000 | 20 | 1.0320 |
| 38 | . 00115 | . 00069 | . 0010 | . 0400 | . 0000 | . 000 | 21 | 1.0320 |
| 39 | . 00125 | . 00074 | . 0012 | . 0400 | . 0000 | . 000 | 22 | 1.0320 |
| 40 | . 00138 | . 00080 | . 0013 | . 0400 | . 0000 | . 000 | 23 | 1.0320 |
| 41 | . 00152 | . 00086 | . 0014 | . 0300 | . 0000 | . 000 | 24 | 1.0320 |
| 42 | . 00170 | . 00094 | . 0030 | . 0300 | . 0000 | . 000 | 25 | 1.0320 |
| 43 | . 00191 | . 00102 | . 0030 | . 0300 | . 0000 | . 000 | 26 | 1.0320 |
| 44 | . 00215 | . 00112 | . 0040 | . 0300 | . 0000 | . 000 | 27 | 1.0300 |
| 45 | . 00243 | . 00124 | . 0040 | . 0300 | . 0000 | . 000 | 28 | 1.0030 |
| 46 | . 00275 | . 00137 | . 0080 | . 0300 | . 0000 | . 000 | 29 | 1.0300 |
| 47 | . 00310 | . 00152 | . 0080 | . 0300 | . 0000 | . 000 | 30 | 1.0300 |
| 48 | . 00349 | . 00167 | . 0080 | . 0300 | . 0000 | . 000 | 31 | 1.0300 |
| 49 | . 00390 | . 00183 | . 0080 | . 0200 | . 0000 | . 000 | 32 | 1.0250 |
| 50 | . 00434 | . 00199 | . 0080 | . 0200 | . 0000 | . 000 | 33 | 1.0250 |
| 51 | . 00480 | . 00217 | . 0080 | . 0200 | . 0000 | . 000 | 34 | 1.0250 |
| 52 | . 00528 | . 00236 | . 0150 | . 0200 | . 0000 | . 000 | 35 | 1.0250 |
| 53 | . 00578 | . 00257 | . 0150 | . 0200 | . 0000 | . 000 | 36 | 1.0250 |
| 54 | . 00629 | . 00282 | . 0300 | . 0200 | . 0000 | . 500 | 37 | 1.0250 |
| 55 | . 00681 | . 00311 | . 0300 | . 0200 | . 5000 | . 500 | 38 | 1.0250 |
| 56 | . 00735 | . 00345 | . 0250 | . 0200 | . 3300 | . 120 | 39 | 1.0250 |
| 57 | . 00793 | . 00383 | . 0250 | . 0200 | . 3300 | . 120 | 40 | 1.0250 |
| 58 | . 00858 | . 00425 | . 0250 | . 0200 | . 3300 | . 120 | 41 | 1.0250 |
| 59 | . 00932 | . 00471 | . 0150 | . 0200 | . 3300 | . 120 | 42 | 1.0250 |
| 60 | . 01018 | . 00523 | . 0150 | . 0200 | . 3300 | . 120 | 43 | 1.0250 |
| 61 | . 01118 | . 00579 | . 0060 | . 0200 | . 3300 | . 020 | 44 | 1.0250 |
| 62 | . 01237 | . 00641 | . 0060 | . 0200 | . 5500 | . 020 | 45 | 1.0250 |
| 63 | . 01377 | . 00710 | . 0060 | . 0200 | . 5500 | . 020 | 46 | 1.0250 |
| 64 | . 01541 | . 00785 | . 0060 | . 0200 | . 4000 | . 020 | 47 | 1.0250 |
| 65 | . 01732 | . 00869 | . 0600 | . 0200 | . 4000 | . 020 | 48 | 1.0250 |
| 66 | . 01953 | . 00965 | . 0600 | . 0200 | . 4000 | . 020 | 49 | 1.0250 |
| 67 | . 02200 | . 01078 | . 0600 | . 0200 | . 4000 | . 020 | 50 | 1.0250 |
| 68 | . 02470 | . 01214 | . 0600 | . 0200 | . 4000 | . 020 | 51 | 1.0250 |
| 69 | . 02757 | . 01376 | . 0000 | . 0200 | . 2500 | . 020 | 52 | 1.0250 |
| 70 | . 03059 | . 01570 | . 0000 | . 0200 | . 2500 | . 020 | 53 | 1.0250 |
| 71 | . 03373 | . 01796 | . 0000 | . 0200 | . 2500 | . 020 | 54 | 1.0250 |
| 72 | . 03708 | . 02053 | . 0000 | . 0200 | . 2500 | . 020 | 55 | 1.0250 |
| 73 | . 04076 | . 02344 | . 0000 | . 0200 | . 2500 | . 020 | 56 | 1.0250 |
| 74 | . 04488 | . 02666 | . 0000 | . 0200 | . 9900 | . 020 | 57 | 1.0250 |

ACTUARIAL TABLES AND RATES (UNIVERSITIES)

|  | - Death | Rates - | Disability | Termination | Retirement |  |  | Salary |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Male | Female | Rates | Rates | Rates | Rates | Dur | Scale |
| 18 | . 00039 | . 00020 | . 0000 | . 0500 | . 0000 | . 000 | 1 | 1.0900 |
| 19 | . 00041 | . 00021 | . 0000 | . 0500 | . 0000 | . 000 | 2 | 1.0800 |
| 20 | . 00042 | . 00022 | . 0000 | . 0500 | . 0000 | . 000 | 3 | 1.0700 |
| 21 | . 00044 | . 00024 | . 0000 | . 0500 | . 0000 | . 000 | 4 | 1.0650 |
| 22 | . 00045 | . 00025 | . 0000 | . 0500 | . 0000 | . 000 | 5 | 1.0650 |
| 23 | . 00047 | . 00027 | . 0001 | . 0500 | . 0000 | . 000 | 6 | 1.0620 |
| 24 | . 00049 | . 00028 | . 0001 | . 0500 | . 0000 | . 000 | 7 | 1.0620 |
| 25 | . 00052 | . 00030 | . 0001 | . 1400 | . 0000 | . 000 | 8 | 1.0620 |
| 26 | . 00054 | . 00032 | . 0001 | . 1400 | . 0000 | . 000 | 9 | 1.0620 |
| 27 | . 00057 | . 00034 | . 0001 | . 1200 | . 0000 | . 000 | 10 | 1.0620 |
| 28 | . 00060 | . 00036 | . 0001 | . 1200 | . 0000 | . 000 | 11 | 1.0700 |
| 29 | . 00064 | . 00038 | . 0001 | . 1200 | . 0000 | . 000 | 12 | 1.0620 |
| 30 | . 00067 | . 00040 | . 0001 | . 1200 | . 0000 | . 000 | 13 | 1.0620 |
| 31 | . 00072 | . 00043 | . 0001 | . 1400 | . 0000 | . 000 | 14 | 1.0620 |
| 32 | . 00076 | . 00046 | . 0001 | . 1400 | . 0000 | . 000 | 15 | 1.0620 |
| 33 | . 00082 | . 00049 | . 0001 | . 1400 | . 0000 | . 000 | 16 | 1.0600 |
| 34 | . 00087 | . 00053 | . 0001 | . 1400 | . 0000 | . 000 | 17 | 1.0600 |
| 35 | . 00096 | . 00056 | . 0001 | . 1400 | . 0000 | . 000 | 18 | 1.0600 |
| 36 | . 00101 | . 00060 | . 0005 | . 0900 | . 0000 | . 000 | 19 | 1.0550 |
| 37 | . 00107 | . 00064 | . 0005 | . 0900 | . 0000 | . 000 | 20 | 1.0550 |
| 38 | . 00115 | . 00069 | . 0005 | . 0900 | . 0000 | . 000 | 21 | 1.0550 |
| 39 | . 00125 | . 00074 | . 0005 | . 0900 | . 0000 | . 000 | 22 | 1.0550 |
| 40 | . 00138 | . 00080 | . 0005 | . 0900 | . 1100 | . 000 | 23 | 1.0550 |
| 41 | . 00152 | . 00086 | . 0010 | . 0800 | . 1100 | . 000 | 24 | 1.0550 |
| 42 | . 00170 | . 00094 | . 0010 | . 0600 | . 1100 | . 000 | 25 | 1.0550 |
| 43 | . 00191 | . 00102 | . 0010 | . 0600 | . 1100 | . 000 | 26 | 1.0550 |
| 44 | . 00215 | . 00112 | . 0010 | . 0400 | . 1100 | . 000 | 27 | 1.0500 |
| 45 | . 00243 | . 00124 | . 0010 | . 0400 | . 1100 | . 000 | 28 | 1.0500 |
| 46 | . 00275 | . 00137 | . 0010 | . 0400 | . 0800 | . 000 | 29 | 1.0500 |
| 47 | . 00310 | . 00152 | . 0010 | . 0400 | . 0500 | . 000 | 30 | 1.0450 |
| 48 | . 00349 | . 00167 | . 0010 | . 0300 | . 0400 | . 000 | 31 | 1.0450 |
| 49 | . 00390 | . 00183 | . 0005 | . 0300 | . 0400 | . 000 | 32 | 1.0450 |
| 50 | . 00434 | . 00199 | . 0005 | . 0200 | . 0300 | . 000 | 33 | 1.0450 |
| 51 | . 00480 | . 00217 | . 0005 | . 0200 | . 0300 | . 050 | 34 | 1.0400 |
| 52 | . 00528 | . 00236 | . 0005 | . 0200 | . 0400 | . 100 | 35 | 1.0400 |
| 53 | . 00578 | . 00257 | . 0005 | . 0200 | . 0500 | . 100 | 36 | 1.0400 |
| 54 | . 00629 | . 00282 | . 0005 | . 0200 | . 0900 | . 100 | 37 | 1.0350 |
| 55 | . 00681 | . 00311 | . 0005 | . 0200 | . 1500 | . 200 | 38 | 1.0350 |
| 56 | . 00735 | . 00345 | . 0005 | . 0200 | . 1800 | . 050 | 39 | 1.0350 |
| 57 | . 00793 | . 00383 | . 0005 | . 0200 | . 2400 | . 050 | 40 | 1.0350 |
| 58 | . 00858 | . 00425 | . 0020 | . 0200 | . 3400 | . 050 | 41 | 1.0350 |
| 59 | . 00932 | . 00471 | . 0020 | . 0200 | . 2000 | . 060 | 42 | 1.0350 |
| 60 | . 01018 | . 00523 | . 0020 | . 0200 | . 2000 | . 090 | 43 | 1.0350 |
| 61 | . 01118 | . 00579 | . 0020 | . 0200 | . 2000 | . 020 | 44 | 1.0350 |
| 62 | . 01237 | . 00641 | . 0020 | . 0200 | . 2000 | . 020 | 45 | 1.0350 |
| 63 | . 01377 | . 00710 | . 0005 | . 0200 | . 2000 | . 020 | 46 | 1.0350 |
| 64 | . 01541 | . 00785 | . 0005 | . 0100 | . 2000 | . 020 | 47 | 1.0350 |
| 65 | . 01732 | . 00869 | . 0005 | . 0100 | . 3000 | . 020 | 48 | 1.0350 |
| 66 | . 01953 | . 00965 | . 0005 | . 0100 | . 3000 | . 020 | 49 | 1.0350 |
| 67 | . 02200 | . 01078 | . 0005 | . 0100 | . 3000 | . 020 | 50 | 1.0350 |
| 68 | . 02470 | . 01214 | . 0005 | . 0100 | . 3000 | . 020 | 51 | 1.0350 |
| 69 | . 02757 | . 01376 | . 0005 | . 0100 | . 3000 | . 050 | 52 | 1.0350 |
| 70 | . 03059 | . 01570 | . 0005 | . 0100 | . 3000 | . 020 | 53 | 1.0350 |
| 71 | . 03373 | . 01796 | . 0005 | . 0100 | . 3000 | . 020 | 54 | 1.0350 |
| 72 | . 03708 | . 02053 | . 0005 | . 0100 | . 5000 | . 060 | 55 | 1.0350 |
| 73 | . 04076 | . 02344 | . 0005 | . 0100 | . 5000 | . 060 | 56 | 1.0350 |
| 74 | . 04488 | . 02666 | . 0005 | . 0100 | . 9900 | . 060 | 57 | 1.0350 |

## Exhibit A

AMORTIZATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITY
June 30, 2007

| Date | Description | Amtz. <br> Method | Amtz. <br> Period |  | nitial Liability | Years <br> Remain |  | aining Balance |  | Mid-Year <br> Payment |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2003 | Initial Liability | I | 26 | \$ | 6,285,061,957 | 22 | \$ | 6,738,754,728 | \$ | 450,124,698 |
| 1993 | Change in Liability | L | 25 |  | $(838,057,486)$ | 22 |  | $(802,091,743)$ |  | $(77,075,133)$ |
| 1994 | Change in Liability | L | 25 |  | $(285,027,105)$ | 22 |  | $(272,794,995)$ |  | $(26,213,598)$ |
| 1995 | Change in Liability | L | 25 |  | $(11,255,751)$ | 22 |  | $(10,772,704)$ |  | $(1,035,178)$ |
| 1996 | Change in Liability | L | 25 |  | $(227,335,061)$ | 22 |  | $(217,578,840)$ |  | $(20,907,731)$ |
| 1997 | Change in Liability | L | 25 |  | 72,828,575 | 22 |  | 69,703,093 |  | 6,697,956 |
| 1998 | Change in Liability | L | 25 |  | $(312,542,081)$ | 22 |  | $(299,129,149)$ |  | $(28,744,117)$ |
| 1999 | Change in Liability | L | 25 |  | $(361,354,605)$ | 22 |  | $(345,846,854)$ |  | $(33,233,346)$ |
| 2000 | Change in Liability | L | 25 |  | $(672,461,184)$ | 22 |  | $(643,602,107)$ |  | $(61,845,442)$ |
| 2001 | Change in Liability | I | 27 |  | 59,149,207 | 24 |  | 62,764,910 |  | 3,962,289 |
| 2002 | Change in Liability | I | 28 |  | 859,751,039 | 25 |  | 916,106,002 |  | 56,365,498 |
| 2003 | Change in Liability | I | 29 |  | 2,115,958,339 | 26 |  | 2,263,312,146 |  | 135,926,011 |
| 2004 | Change in Liability | L | 30 |  | 27,253,793 | 27 |  | 26,506,037 |  | 2,381,906 |
| 2005 | Change in Liability | L | 30 |  | $(230,622,183)$ | 28 |  | $(226,573,065)$ |  | $(20,155,736)$ |
| 2006 | Change in Liability | L | 30 |  | $(470,579,056)$ | 29 |  | $(466,611,647)$ |  | $(41,127,297)$ |
| 2007 | Change in Liability | L | 30 |  | $(485,035,058)$ | 30 |  | $(485,035,058)$ |  | $(42,390,712)$ |
|  | Total Outstanding Balance |  |  |  |  |  | \$ | 6,307,110,754 | \$ | 302,730,068 |
| Employers Credit Balance |  |  |  |  |  |  |  |  |  |  |
| 2003 | Contribution Variance | L | 5 |  | 9,730,820 | 1 |  | 2,266,260 |  | 2,357,891 |
| 2004 | Contribution Variance | L | 5 |  | 29,662,467 | 2 |  | 13,289,991 |  | 7,187,561 |
| 2005 | Contribution Variance | L | 5 |  | $(31,046,965)$ | 3 |  | $(20,080,849)$ |  | $(7,523,041)$ |
| 2006 | Contribution Variance | L | 5 |  | $(17,430,843)$ | 4 |  | $(14,474,417)$ |  | $(4,223,696)$ |
| 2007 | Contribution Variance | L | 5 |  | $(37,534,025)$ | 5 |  | $(37,534,025)$ |  | $(9,094,931)$ |


| Total Credit Balance | $\$$ | $(56,533,040)$ | $\$(11,296,216)$ |
| :--- | :--- | :--- | :--- |
| Total Unfunded Actuarial Accrued Liability | $\$$ | $6,250,577,714$ |  |


[^0]:    ${ }^{1}$ 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.

[^1]:    ${ }^{1}$ Includes Miscellaneous Contribution/Income in addition to direct employer contributions.
    ${ }^{2}$ Includes $\$ 26,400,000$ legislative appropriation from Act 642 of 2006.

