

The experience and dedication you deserve

July 3, 2008

Ms. Pamela Pharris Executive Director Georgia Judicial Retirement System Two Northside 75, Suite 300 Atlanta, GA 30318-7778

Dear Ms. Pharris:

Enclosed are 40 bound copies and one unbound copy of the "Georgia Judicial Retirement System Report of the Actuary on the Valuation Prepared as of June 30, 2007".

The valuation indicates that employer contributions at the rate of 3.85% of compensation are sufficient to support the benefits of the System.

Please let us know if there are any questions concerning the report.

Sincerely yours,

Edward A. Macdonald, ASA, FCA, MAAA

President

Managing Director

EAM:kc

Enclosure

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# **GEORGIA JUDICIAL RETIREMENT SYSTEM**

REPORT OF THE ACTUARY ON THE VALUATION PREPARED AS OF JUNE 30, 2007



July 3, 2008

Board of Trustees, Georgia Judicial Retirement System Suite 400, Two Northside 75 Atlanta, GA 30318

#### Members of the Board:

Section 47-23-21 of the law governs the operation of the Georgia Judicial Retirement System. The actuary makes annual valuations of the contingent assets and liabilities of the Retirement System on the basis of regular interest and the tables last adopted by the Board of Trustees. We have submitted the report giving the results of the actuarial valuation of the System prepared as of June 30, 2007. The report indicates that annual employer contributions at the rate of 3.85% of compensation for the fiscal year ending June, 30, 2010 are sufficient to support the benefits of the System.

In preparing the valuation, the actuary relied on data provided by the System. While not verifying data at the source, the actuary performed tests for consistency and reasonableness. Our firm, as actuary, is responsible for all of the actuarial trend data in the financial section of the annual report and the supporting schedules in the actuarial section of the annual report.

In our opinion, the valuation is complete and accurate, and the methodology and assumptions are reasonable as a basis for the valuation. The valuation takes into account the effect of all amendments to the System enacted through the 2007 session of the General Assembly as well as 1.5% Ad Hoc COLAs effective July 1, 2007, January 1, 2008, July 1, 2008 and July 1, 2009.

The System is funded on an actuarial reserve basis. The actuarial assumptions recommended by the actuary and adopted by the Board are in the aggregate reasonably related to the experience under the System and to reasonable expectations of anticipated experience under the System. The assumptions and methods used for funding purposes meet the parameters set for the disclosures presented in the financial section by Governmental Accounting Standards Board (GASB) Statement Nos. 25 and 27. The funding objective of the plan is that contribution rates over time will remain level as a percent of payroll. The valuation method used is the entry age normal cost method. The normal contribution rate to cover current cost has been determined as a level percent of payroll. Gains and losses are reflected in the unfunded accrued liability which is negative and being amortized as a level percent of payroll within a 16-year period.



Board of Trustees July 3, 2008 Page 2

The System is being funded in conformity with the minimum funding standard set forth in Code Section 47-20-10 of the Public Retirement Systems Standards Law. In our opinion the System is operating on an actuarially sound basis. Assuming that contributions to the System are made by the employer from year to year in the future at the rates recommended on the basis of the successive actuarial valuations, the continued sufficiency of the retirement fund to provide the benefits called for under the System may be safely anticipated.

This is to certify that the independent consulting actuary is a member of the American Academy of Actuaries and has experience in performing valuations for public retirement systems, that the valuation was prepared in accordance with principles of practice prescribed by the Actuarial Standards Board, and that the actuarial calculations were performed by qualified actuaries in accordance with accepted actuarial procedures, based on the current provisions of the retirement system and on actuarial assumptions that are internally consistent and reasonably based on the actual experience of the System.

Future actuarial results may differ significantly from the current results presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Since the potential impact of such factors is outside the scope of a normal annual actuarial valuation, an analysis of the range of results is not presented herein.

Sincerely yours,

Edward A. Macdonald, ASA, FCA, MAAA

President

ident Managing Director

EAM:kc



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# GEORGIA JUDICIAL RETIREMENT SYSTEM REPORT OF THE ACTUARY ON THE VALUATION PREPARED AS OF JUNE 30, 2007

## SECTION I - SUMMARY OF PRINCIPAL RESULTS

1. For convenience of reference, the principal results of the current and preceding valuations are summarized below:

| Valuation Date  | June 30, 2007                 | June 30, 2006                 |
|---|-------------------------------|-------------------------------|
| Number of active members Annual compensation                                | 480<br>\$ 48,620,963          | 478<br>\$ 45,307,981          |
| Retired members and beneficiaries: Number Annual allowances                 | 171<br>\$ 9,472,721           | 165<br>\$ 8,916,617           |
| Assets:  Market Value  Actuarial Value                                      | \$ 304,974,000<br>297,090,000 | \$ 269,207,000<br>279,564,000 |
| Unfunded actuarial accrued liability  | \$ (47,811,658)               | \$ (49,727,147)               |
| Amortization period (years)   | 16                            | 18                            |
| Funded Ratio  | 119.2%                        | 121.6%                        |
| For Fiscal Year Ending  | June 30, 2010                 | June 30, 2009                 |
| Annual Required Employer Contribution Rates (ARC): Normal Accrued liability | 12.05%<br><u>(8.20)</u>       | 12.26%<br><u>(8.41)</u>       |
| Total   | 3.85%                         | 3.85%                         |

- 2. The valuation takes into account the effect of amendments of the System enacted through the 2007 session of the General Assembly. The valuation reflects the 1.5% Ad Hoc COLAs effective July 1, 2007, January 1, 2008, July 1, 2008 and July 1, 2009. The major benefit and contribution provisions of the System as reflected in the valuation are summarized in Schedule F.
- 3. Schedule D of this report outlines the full set of actuarial assumptions and methods used to prepare the current valuation. There have been no changes since the previous valuation.



- 4. The entry age actuarial cost method was used to prepare the valuation. Schedule E contains a brief description of this method.
- Comments on the valuation results as of June 30, 2007 are given in Section IV and further discussion of the contributions is set out in Section V.

## **SECTION II - MEMBERSHIP**

- Data regarding the membership of the System for use as a basis of the valuation were furnished by the Retirement System office. The valuation included 480 active members, with annual compensation of \$48,620,963.
- 2. The following table shows the number of retired members and beneficiaries receiving a benefit as of June 30, 2007, together with the amount of their annual allowances payable under the System as of that date.

# THE NUMBER AND ANNUAL RETIREMENT ALLOWANCES OF RETIRED MEMBERS AND BENEFICIARIES RECEIVING BENEFITS AS OF JUNE 30, 2007

| GROUP                             | NUMBER    | ANNUAL<br>RETIREMENT<br>ALLOWANCES |
|-----------------------------------|-----------|------------------------------------|
| Service Retirements               | 121       | \$ 8,071,461                       |
| Disability Retirements            | 2         | 107,117                            |
| Beneficiaries of Deceased Members |           |                                    |
|                                   | <u>48</u> | 1,294,143                          |
| Total                             | 171       | \$ 9,472,721                       |



#### **SECTION III - ASSETS**

- 1. As of June 30, 2007 the total market value of assets amounted to \$304,974,000 as reported by the Auditor of the System. The actuarial value of assets used for the current valuation was \$297,090,000. Schedule B shows the development of the actuarial value of assets as of June 30, 2007.
- 2. Schedule C shows receipts and disbursements of the System for the two years preceding the valuation date and a reconciliation of the fund balances at market value.

## **SECTION IV - COMMENTS ON VALUATION**

- Schedule A of this report contains the valuation balance sheet which shows the present and prospective assets and liabilities of the System as of June 30, 2007. The valuation was prepared in accordance with the actuarial assumptions and methods set forth in Schedule D and the actuarial cost method which is described in Schedule E.
- 2. The valuation balance sheet shows that the System has total prospective liabilities of \$325,113,328, of which \$87,332,595 is for the prospective benefits payable on account of present retired members, beneficiaries of deceased members, and members entitled to deferred vested benefits, and \$237,780,733 is for the prospective benefits payable on account of present active members. Against these liabilities, the System has total present assets for valuation purposes of \$297,090,000 as of June 30, 2007. The difference of \$28,023,328 between the total liabilities and the total present assets represents the present value of contributions to be made in the future. Of this amount, \$31,606,302 is the present value of future contributions expected to be made by or on behalf of members, and the balance of (\$3,582,974) represents the present value of future contributions payable by the employers.
- 3. The employer's contributions to the System consist of normal contributions and accrued liability contributions. The valuation indicates that annual employer normal contributions at the rate of 12.05% of active members' compensation are required to provide the currently accruing benefits of the System.



4. Prospective normal contributions at the rate of 12.05% of active members' compensation have a present value of \$44,228,684. When this amount is subtracted from (\$3,582,974), which is the present value of the total future contributions to be made by the employers, the result is a prospective unfunded actuarial accrued liability of (\$47,811,658).

## SECTION V - CONTRIBUTIONS PAYABLE BY EMPLOYERS

- 1. The contributions of employers consist of a normal contribution and an accrued liability contribution as determined by actuarial valuation.
- The normal contribution rate is calculated as the level percentage rate which, if applied to the compensation of the average member during the entire period of his anticipated covered service, would be required in addition to the contributions of the member to meet the cost of all benefits payable on his behalf. On the basis of the valuation, the normal contribution rate was determined to be 12.05% of active members' compensation.
- 3. The accrued liability contribution at the rate of (8.20%) of active members' compensation is sufficient to amortize the unfunded actuarial accrued liability within 16 years following the valuation date assuming that the total payroll of active members will increase by 3.75% each year.
- 4. The following table summarizes the employer contribution rates, which were determined by the June 30, 2007 valuation and are recommended for use.

# ANNUAL REQUIRED EMPLOYER CONTRIBUTION RATES (ARC) FOR FISCAL YEAR ENDING JUNE 30, 2010

| CONTRIBUTION      | PERCENTAGE OF ACTIVE MEMBERS' COMPENSATION |  |  |  |  |
|-------------------|--|--|--|--|--|
| Normal            | 12.05%                                     |  |  |  |  |
| Accrued Liability | (8.20)                                     |  |  |  |  |
| Total             | 3.85%                                      |  |  |  |  |



## SECTION VI - ACCOUNTING INFORMATION

1. Governmental Accounting Standards Board Statements 25 and 27 set forth certain items of required supplementary information to be disclosed in the financial statements of the System and the employer. One such item is a distribution of the number of employees by type of membership, as follows:

# NUMBER OF ACTIVE AND RETIRED MEMBERS AS OF JUNE 30, 2007

| GROUP  | NUMBER |
|--|--------|
| Retirees and beneficiaries currently receiving benefits                  | 171    |
| Terminated employees entitled to benefits but not yet receiving benefits | 64     |
| Active plan members  | 480    |
| Total  | 715    |

2. Another such item is the schedule of funding progress as shown below.

## SCHEDULE OF FUNDING PROGRESS

(Dollar amounts in thousands)

| Actuarial<br>Valuation<br><u>Date</u> | Actuarial<br>Value of<br>Assets<br>(a) | Actuarial Accrued<br>Liability (AAL)<br>- Entry Age<br>(b) | Unfunded<br>AAL<br>(UAAL)<br>(b-a) | Funded<br>Ratio<br>( a / b ) | Covered<br>Payroll<br>( c ) | UAAL as a<br>Percentage of<br>Covered Payroll<br>((b-a)/c) |
|---------------------------------------|--|--|------------------------------------|------------------------------|-----------------------------|--|
| 6/30/2002                             | \$ 228,417                             | \$ 175,154   | \$ (53,263)                        | 130.4%                       | \$ 38,630                   | (137.9)%   |
| 6/30/2003                             | 237,683                                | 185,825  | (51,858)                           | 127.9                        | 38,867                      | (133.4)  |
| 6/30/2004                             | 250,313                                | 196,502  | (53,811)                           | 127.4                        | 40,908                      | (131.5)  |
| 6/30/2005                             | 264,924                                | 213,060  | (51,864)                           | 124.3                        | 42,916                      | (120.9)  |
| 6/30/2006                             | 279,564                                | 229,837  | (49,727)                           | 121.6                        | 45,308                      | (109.8)  |
| 6/30/2007                             | 297,090                                | 249,278  | (47,812)                           | 119.2                        | 48,621                      | (98.3)   |

All figures prior to 6/30/2005 were reported by the prior actuarial firm.



3. The following shows the schedule of employer contributions (all dollar amounts are in thousands).

| Year   | Annual Required                               | Percentage                       |
|--|---|----------------------------------|
| <u>Ending</u>  | Contribution                                  | Contributed                      |
| 6/30/2002<br>6/30/2003<br>6/30/2004<br>6/30/2005<br>6/30/2006<br>6/30/2007 | \$ 0<br>0<br>1,558<br>1,594<br>1,683<br>1,778 | N/A<br>N/A<br>100%<br>100<br>100 |

All figures prior to 6/30/2005 were reported by the prior actuarial firm.

4. Following is the calculation of the annual pension cost and net pension obligation for the fiscal year ending June 30, 2007.

# Annual Pension Cost and Net Pension Obligation for Fiscal Year Ending June 30, 2007

| (a) | Employer annual required contribution                       | \$<br>1,778,000 |
|-----|---|-----------------|
| (b) | Interest on net pension obligation                          | 92,000          |
| (c) | Adjustment to annual required contribution                  | 135,000         |
| (d) | Annual pension cost (a) + (b) - (c)                         | \$<br>1,735,000 |
| (e) | Employer contributions made for fiscal year ending 06/30/07 | 1,778,000       |
| (f) | Increase (decrease) in net pension obligation (d) – (e)     | \$<br>(43,000)  |
| (g) | Net pension obligation beginning of fiscal year             | <br>1,224,000   |
| (h) | Net pension obligation end of fiscal year (f) + (g)         | \$<br>1.181.000 |

### TREND INFORMATION

(Dollar amounts in thousands)

| Year Ending   | Annual Pension Cost (APC) | Percentage of APC<br>Contributed | Net Pension<br>Obligation |
|---------------|---------------------------|----------------------------------|---------------------------|
| June 30, 2005 | \$ 1,531                  | 104%                             | \$ 1,280                  |
| June 30, 2006 | 1,627                     | 103                              | 1,224                     |
| June 30, 2007 | 1,735                     | 102                              | 1,181                     |



5. The information presented in the required supplementary schedules was determined as part of the actuarial valuation at June 30, 2007. Additional information as of the latest actuarial valuation follows.

| Valuation date                | 6/30/2007                  |  |
|-------------------------------|----------------------------|--|
| Actuarial cost method         | Entry age                  |  |
| Amortization method           | Level percent of pay, open |  |
| Remaining amortization period | 16 years                   |  |
| Asset valuation method        | 7-year smoothed market     |  |
| Actuarial assumptions:        |                            |  |
| Investment rate of return*    | 7.50%                      |  |
| Projected salary increases*   | 6.00%                      |  |
| Cost-of-living adjustments    | None                       |  |
| *Includes inflation at        | 3.75%                      |  |

## **SECTION VII – EXPERIENCE**

The last experience investigation was prepared for the four-year period ending June 30, 2004, and based on the results of the investigation, new rates of separation and mortality were adopted by the Board on April 20, 2006. The next experience investigation will be prepared for the period July 1, 2004 through June 30, 2009.



2. The following table shows the estimated gain or loss from various factors that resulted in an increase of \$1,915,489 in the unfunded accrued liability from (\$49,727,147) to (\$47,811,658) during the fiscal year ending June 30, 2007.

# ANALYSIS OF THE INCREASE IN UNFUNDED ACCRUED LIABILITY

(in thousands of dollars)

| ITEM  | AMOUNT OF<br>INCREASE/<br>(DECREASE)   |
|---|--|
| Interest (7.50) added to previous unfunded accrued liability Accrued liability contribution   | \$ (3,729.5)<br>3,953.2  |
| Experience:  Valuation asset growth Pensioners' mortality Turnover and retirements New entrants Salary increases Method changes Amendments (COLAs) Assumption changes Miscellaneous changes Total | (1,026.0)<br>(154.4)<br>(1,614.7)<br>659.5<br>369.8<br>0.0<br>24.1<br>0.0<br>3,433.5<br>\$ 1,915.5 |



## **SCHEDULE A**

# VALUATION BALANCE SHEET SHOWING THE PRESENT AND PROSPECTIVE ASSETS AND LIABILITIES OF THE GEORGIA JUDICIAL RETIREMENT SYSTEM AS OF JUNE 30, 2007

|      | ACTUARIAL LIABILITIES   | <u></u> |  |             |                    |
|------|---|---------|--|-------------|--------------------|
| (1)  | Present value of prospective benefits payable on account of present retired members, beneficiaries of deceased members, and members entitled to deferred vested benefits  - Service and disability benefits  - Death and survivor benefits  - Deferred vested benefits  Total | \$      | 3 73,230,126<br>9,655,214<br>4,447,255 | \$          | 87,332,595         |
| (2)  | Present value of prospective benefits payable on account of present active members  |         |  |             | 237,780,733        |
| (3)  | TOTAL ACTUARIAL LIABILITIES   |         |  | <u>\$</u> _ | 325,113,328        |
|      | PRESENT AND PROSPECTIVE A   | SS      | SETS                                   |             |                    |
| (4)  | Actuarial value of assets   |         |  | \$          | 297,090,000        |
| (5)  | Present value of total future contributions = (3)-(4)   | \$      | 28,023,328                             |             |                    |
| (6)  | Present value of future member contributions  |         |  |             | 31,606,302         |
| (7)  | Present value of future employer contributions = (5)-(6)  | \$      | (3,582,974)                            |             |                    |
| (8)  | Employer normal contribution rate   |         | 12.05%                                 |             |                    |
| (9)  | Present value of future payroll   | \$ :    | 367,043,024                            |             |                    |
| (10) | Prospective normal contributions = (8) x (9)  |         |  |             | 44,228,684         |
| (11) | Prospective unfunded accrued liability contributions = (7)-(10)   |         |  | -           | (47,811,658)       |
| (12) | TOTAL PRESENT AND PROSPECTIVE ASSETS  |         |  | <u>\$</u>   | <u>325,113,328</u> |



# SCHEDULE B

# DEVELOPMENT OF ACTUARIAL VALUE OF ASSETS

| (1) | Actu   | arial Value Beginning of Year   | \$ | 279,564,000 |
|-----|--|---|----|-------------|
| (2) | Mark   | et Value End of Year  | \$ | 304,974,000 |
| (3) | Mark   | ket Value Beginning of Year   | \$ | 269,207,000 |
| (4) | Cash   | n Flow  |    |             |
|     | (a)  | Contributions   | \$ | 5,818,000   |
|     | (b)  | Benefit Payments  |    | (9,375,000) |
|     | (c)  | Net: (4)(a) + (4)(b)  | \$ | (3,557,000) |
| (5) | Inves  | stment Income   |    |             |
|     | (a)  | Market Total: (2) - (3) - (4)(c)  | \$ | 39,324,000  |
|     | (b)  | Assumed Rate  |    | 7.50%       |
|     | (c)  | Amount for Immediate Recognition: $[(3) \times (5)(b)] + [(4)(c) \times (5)(b) \times 0.5]$ | \$ | 20,057,000  |
|     | (d)  | Amount for Phased-In Recognition: (5)(a) - (5)(c)   |    | 19,267,000  |
| (6) | (6) Phased-In Recognition of Investment Income |   |    |             |
|     | (a)  | Current Year: (5)(d) / 7  | \$ | 2,752,000   |
|     | (b)  | First Prior Year  |    | (1,726,000) |
|     | (c)  | Second Prior Year   |    | 0           |
|     | (d)  | Third Prior Year  |    | 0           |
|     | (e)  | Fourth Prior Year   |    | 0           |
|     | (f)  | Fifth Prior Year  |    | 0           |
|     | (g)  | Sixth Prior Year  |    | 0           |
|     | (h)  | Total Recognized Investment Gain  | \$ | 1,026,000   |
| (7) | Actua  | rial Value End of Year: (1) + (4)(c) + (5)(c) + (6)(h)                                      | \$ | 297,090,000 |
| (8) | Differ   | ence Between Market & Actuarial Values: (2) – (7)   | \$ | 7,884,000   |
| (9) | Rate   | of Return on Actuarial Value  |    | 7.59%       |



# SCHEDULE C

# SUMMARY OF RECEIPTS AND DISBURSEMENTS (Market Value)

|   | YEAR ENDING       |                   |  |  |  |
|---|-------------------|-------------------|--|--|--|
| Receipts for the Year                     | June 30, 2007     | June 30, 2006     |  |  |  |
|   | (\$1,000's)       | (\$1,000's)       |  |  |  |
| Contributions:  Members  Employer         | \$ 4,040<br>1,778 | \$ 4,221<br>1,683 |  |  |  |
| Subtotal                                  | \$ 5,818          | \$ 5,904          |  |  |  |
| Administrative Expense Allotment          | 175               | 175               |  |  |  |
| Investment Earnings                       | 39,324            | 15,665            |  |  |  |
| TOTAL                                     | \$ 45,317         | \$ 21,744         |  |  |  |
| Disbursements for the Year                |                   |                   |  |  |  |
| Benefit Payments                          | \$ 9,299          | \$ 8,902          |  |  |  |
| Refunds to Members                        | 76                | 379               |  |  |  |
| Administration Expense                    | 175               | 175               |  |  |  |
| TOTAL                                     | \$ 9,550          | \$ 9,456          |  |  |  |
| Excess of Receipts over Disbursements     | \$ 35,767         | \$ 12,288         |  |  |  |
| Reconciliation of Asset Balances          |                   |                   |  |  |  |
| Asset Balance as of the Beginning of Year | \$ 269,207        | \$ 256,919        |  |  |  |
| Excess of Receipts over Disbursements     | 35,767            | 12,288            |  |  |  |
| Asset Balance as of the End of Year       | \$ 304,974        | \$ 269,207        |  |  |  |
| Rate of Return                            | 14.70%            | 6.14%             |  |  |  |



## **SCHEDULE D**

## **OUTLINE OF ACTUARIAL ASSUMPTIONS AND METHODS**

Adopted by the Board April 20, 2006, with the exception of the valuation interest rate and rates of salary increases, which were adopted June 16, 2005.

VALUATION INTEREST RATE: 7.50% per annum, compounded annually, net of expenses.

**SALARY INCREASES:** 6.00% per annum.

**SEPARATIONS BEFORE SERVICE RETIREMENT:** Representative values of the assumed annual rates of separation before service retirement are as follows:

|     | Annual Rates of |       |       |     |  |  |  |
|-----|-----------------|-------|-------|-----|--|--|--|
| Age | Withdrawal      | Dea   | Death |     |  |  |  |
|     |                 | Men   | Women |     |  |  |  |
| 20  | 13.0%           | .056% | .029% | .1% |  |  |  |
| 25  | 13.0            | .073  | .030  | .1  |  |  |  |
| 30  | 13.0            | .084  | .040  | .2  |  |  |  |
| 35  | 13.0            | .089  | .055  | .3  |  |  |  |
| 40  | 13.0            | .125  | .082  | .4  |  |  |  |
| 45  | 4.5             | .190  | .111  | .7  |  |  |  |
| 50  | 3.0             | .321  | .173  | 1.0 |  |  |  |
| 55  | 3.0             | .558  | .292  | 1.8 |  |  |  |
| 60  | 3.0             | 1.015 | .583  | 2.9 |  |  |  |
| 65  | 3.0             | 1.803 | 1.076 | 4.7 |  |  |  |

**RETIREMENT:** The assumed annual rates of retirement are shown below.

| <u>Age</u>                                | Annual Rates of Retirement* |  |  |
|---|-----------------------------|--|--|
| 60<br>61 – 64<br>65 – 69<br>70<br>71 – 74 | 25%<br>10<br>12<br>50<br>20 |  |  |
| 75  | 100                         |  |  |

\*In addition, 40% are assumed to retire each year after attaining 24 years of service before age 70.



**DEATHS AFTER RETIREMENT:** The 1994 Group Annuity Mortality Table rated forward two years is used for the period after retirement and for dependent beneficiaries. Representative values of the assumed annual rates of mortality are as follows:

| Age | Men   | Women | Age | Men    | Women  |
|-----|-------|-------|-----|--------|--------|
| 40  | .125% | .082% | 65  | 1.803% | 1.076% |
| 45  | .190  | .111  | 70  | 2.848  | 1.651  |
| 50  | .321  | .173  | 75  | 4.517  | 2.837  |
| 55  | .558  | .292  | 80  | 7.553  | 4.915  |
| 60  | 1.015 | .583  | 85  | 11.567 | 8.402  |

The RP-2000 Disability Mortality Table set forward three years is used for the period after disability.

**ASSET METHOD:** Actuarial Value, as developed in Schedule B. The actuarial value of assets recognizes a portion of the difference between the market value of assets and the expected value of assets, based on the assumed valuation rate of return. The amount recognized each year is 1/7 of the difference between market value and expected market value.

**VALUATION METHOD:** Entry age actuarial cost method. See Schedule E for a brief description of this method.

**SPOUSES:** For members who have elected spouse coverage, husbands are assumed to be three years older than their wives.



### SCHEDULE E

#### **ACTUARIAL COST METHOD**

- 1. The valuation is prepared on the projected benefit basis, under which the present value, at the interest rate assumed to be earned in the future (currently 7.50%), of each member's expected benefits at retirement or death is determined, based on age, service and sex. The calculations take into account the probability of a member's death or termination of employment prior to becoming eligible for a benefit, as well as the possibility of his terminating with a service, disability or survivor's benefit. Future salary increases are also anticipated. The present value of the expected benefits payable on account of the active members is added to the present value of the expected future payments to retired members, beneficiaries and members entitled to deferred vested benefits to obtain the present value of all expected benefits payable from the System on account of the present group of members and beneficiaries.
- The employer contributions required to support the benefits of the System are determined following a level funding approach, and consist of a normal contribution and an unfunded actuarial accrued liability contribution.
- 3. The normal contribution is determined using the entry age actuarial cost method. Under this method, a calculation is made to determine the level amount which, if applied for the average member during the entire period of his anticipated covered service, would be required in addition to the contributions of the member to meet the cost of all benefits payable on his behalf.
- 4. The unfunded actuarial accrued liability contributions are determined by subtracting the present value of prospective employer normal contributions and member contributions, together with the current actuarial value of assets, from the present value of expected benefits to be paid from the System.



#### **SCHEDULE F**

# SUMMARY OF MAIN SYSTEM PROVISIONS AS INTERPRETED FOR VALUATION PURPOSES

Service Retirement Benefit

Eligibility

Age 60 and 16 years of creditable service.

Benefit

Annual benefit is 66-2/3% of the annual salary plus 1% for each year of credited service over 16 years, not to exceed 24

years.

Early Retirement Benefit

Eligibility

Age 60 and 10 years of creditable service.

Benefit

A pro-rata portion of the normal retirement benefit, based on

service not to exceed 16 years.

Disability Retirement Benefit

Eligibility

4 years of creditable service.

Benefit

For members with less than 10 years of creditable service: 1/2 of projected normal retirement benefit. For members with 10 or more years of creditable service: 2/3 of projected

normal retirement benefit.

Death Benefit

Eligibility

10 years of creditable service during which the member has

contributed for spouse coverage.

Benefit

50% of benefit which member was receiving if retired, or would have received had he retired on the date of his death. If under age 60, and the member was a member of a Predecessor Retirement System, an immediate benefit equal to 50% of the benefit which member would have received had he remained employed and retired at age 60. If under age 60 and not a member of a Predecessor Retirement System, an immediate benefit equal to 50% of the benefit which the member would have received if the member were age 60 on the date of death.

If member rejects spouse coverage or dies before contributing for spouse's coverage for at least 10 years, death benefit is return of member's contributions with interest.



## Deferred Vested Retirement Benefit

Eligibility 10 years of creditable service.

Benefit Accrued benefit deferred to age 60.

Termination Benefit If a member terminates for reasons other than retirement, he or his beneficiary is entitled to a return of the member's

accumulated contributions with interest in lieu of any other

benefit.

Contributions Members contribute 7-1/2% of salary, plus 2-1/2% of salary

for up to 16 years if spouse benefit is not rejected.

Employer contributions are actuarially determined and

approved and certified by the Board.

Cost-of-Living Allowance (COLA) There is no automatic provision. The Board or Legislature

can make ad hoc increases.



# SCHEDULE G

# The Number and Average Annual Compensation of Active Members by Age and Service as of June 30, 2007

|                      | Years of Service |          |          |          |                                       |          |              |          |         |                |
|----------------------|------------------|----------|----------|----------|---------------------------------------|----------|--------------|----------|---------|----------------|
| Age                  | Under 1          | 1 to 4   | 5 to 9   | 10 to 14 | 15 to 19                              | 20 to 24 | 25 to 29     | 30 to 34 | 35 & Up | Total          |
| 11. 1. 6-            |                  |          |          | 1000     |                                       |          |              |          |         |                |
| Under 25             | 0                | 0        | 0        | 0        | 0                                     | 0        | 0            | 0        | 0       | 0              |
| Avg. Pay             | 0                | 0        | 0        | 0        | 0                                     | 0        | 0            | 0        | 0       | 0              |
| 25 to 29             | 0                | 0        |          |          |                                       |          |              | _        |         |                |
| Avg. Pay             | 0                | 0        | 0        | 0        | 0                                     | 0        | 0            | 0        | 0       | 0              |
| Avg. r ay            | 0                | 0        | 0        | 0        | 0                                     | 0        | 0            | 0        | 0       | 0              |
| 30 to 34             | 1                | 5        | 1        | 0        | 0                                     | 0        | 0            | 0        | 0       | 7              |
| Avg. Pay             | 190,590          | 67,408   | 74,096   | o        | 0                                     | 0        | 0            | 0        | 0       | 85,961         |
|                      |                  |          |          |          |                                       |          |              |          |         | 00,001         |
| 35 to 39             | 5                | 14       | 8        | 0        | 0                                     | 0        | 0            | 0        | 0       | 27             |
| Avg. Pay             | 103,412          | 80,159   | 85,884   | 0        | 0                                     | 0        | 0            | 0        | 0       | 86,162         |
|                      |                  |          |          |          |                                       |          |              |          |         |                |
| 40 to 44             | 4                | 17       | 11       | 5        | 0                                     | 1        | 0            | 0        | 0       | 38             |
| Avg. Pay             | 120,125          | 92,862   | 95,716   | 78,273   | 0                                     | 73,707   | 0            | 0        | 0       | 94,134         |
| 45 45 40             |                  | 4-       |          |          |                                       |          |              |          |         |                |
| 45 to 49<br>Avg. Pay | 2                | 17       | 19       | 20       | 6                                     | 2        | 0            | 0        | 0       | 66             |
| Avg. Pay             | 80,138           | 98,356   | 105,629  | 105,839  | 106,189                               | 123,106  | 0            | 0        | 0       | 103,627        |
| 50 to 54             | 2                | 18       | 32       | 33       | 11                                    | 16       |              |          |         | 440            |
| Avg. Pay             | 45,088           | 103,620  | 95,173   | 104,065  | 112,610                               | 115,307  | 1<br>118,563 | 0        | 0       | 113<br>102,984 |
| ,                    | ,                | .00,020  | 00,170   | 104,000  | 112,010                               | 110,007  | 110,303      | - 0      | - 0     | 102,904        |
| 55 to 59             | 2                | 17       | 25       | 32       | 10                                    | 20       | 7            | 0        | 1       | 114            |
| Avg. Pay             | 123,333          | 105,809  | 103,170  | 104,041  | 88,318                                | 115,115  | 99,157       | 0        | 112,748 | 104,792        |
|                      |                  |          |          |          | · · · · · · · · · · · · · · · · · · · |          |              |          | ,.      | ,              |
| 60 to 64             | 3                | 3        | 10       | 27       | 10                                    | 12       | 6            | 3        | 0       | 74             |
| Avg. Pay             | 120,252          | 118,563  | 99,715   | 103,463  | 105,915                               | 107,637  | 100,721      | 50,406   | 0       | 102,884        |
|                      |                  |          |          |          |                                       |          |              |          |         |                |
| 65 to 69             | 0                | 3        | 5        | 6        | 4                                     | 11       | 6            | 0        | 0       | 35             |
| Avg. Pay             | 0                | 66,510   | 126,684  | 110,375  | 50,426                                | 120,008  | 93,126       | 0        | 0       | 102,164        |
| 70 & Up              |                  | _        | _        | -        |                                       | _        |              | 5/2200   | 980     |                |
| Avg. Pay             | 0                | 0        | 1 10 563 | 1        | 1                                     | 0        | 3            | 0        | 0       | 6              |
| Avg. Fay             | U                | U        | 118,563  | 43,657   | 56,908                                | 0        | 94,851       | 0        | 0       | 83,947         |
| Total                | 19               | 94       | 112      | 124      | 42                                    | 62       | 23           | 3        | 1       | 480            |
| Avg. Pay             | 107,685          | 94,991   | 99,955   | 102,992  | 97,066                                | 114,175  | 98,274       | 50,406   | 112,748 | 101,294        |
| 5                    | - ,              | 5 .,55 1 | 00,000   | .02,002  | 07,000                                | 114,175  | 30,214       | 50,400   | 112,740 | 101,294        |

Average Age: 53.9 Average Service: 11.4



# SCHEDULE G (Continued)

# NUMBER OF RETIRED MEMBERS AND THEIR BENEFITS BY AGE

| Age       | Number of Members | Total<br>Annual Benefits | Average<br>Annual Benefits |  |
|-----------|-------------------|--------------------------|----------------------------|--|
| Under 50  | 0                 | \$ 0                     | \$ 0                       |  |
| 50 – 54   | 0                 | 0                        | 0                          |  |
| 55 – 59   | 0                 | 0                        | 0                          |  |
| 60 - 64   | 22                | 1,381,906                | 62,814                     |  |
| 65 – 69   | 27                | 1,868,238                | 69,194                     |  |
| 70 – 74   | 28                | 2,203,456                | 78,695                     |  |
| 75 - 79   | 21                | 1,421,799                | 67,705                     |  |
| 80 - 84   | 16                | 830,091                  | 51,881                     |  |
| 85 - 89   | 7                 | 365,971                  | 52,282                     |  |
| 90 - 94   | 0                 | 0                        | 0                          |  |
| 95 & Over | 0                 | 0                        | 0                          |  |
| Total     | 121               | \$ 8,071,461             | \$ 66,706                  |  |

# NUMBER OF BENEFICIARIES AND THEIR BENEFITS BY AGE

| Age       | Number of Members | Total<br>Annual Benefits | Average<br>Annual Benefits |  |
|-----------|-------------------|--------------------------|----------------------------|--|
| Under 50  | 1                 | \$ 6,247                 | \$ 6,247                   |  |
| 50 – 54   | 1                 | 5,512                    | 5,512                      |  |
| 55 – 59   | 2                 | 49,614                   | 24,807                     |  |
| 60 – 64   | 3                 | 111,727                  | 37,242                     |  |
| 65 - 69   | 5                 | 135,169                  | 27,034                     |  |
| 70 – 74   | 7                 | 228,307                  | 32,615                     |  |
| 75 – 79   | 10                | 253,452                  | 25,345                     |  |
| 80 – 84   | 11                | 290,958                  | 26,451                     |  |
| 85 – 89   | 6                 | 174,568                  | 29,095                     |  |
| 90 - 94   | 2                 | 38,589                   | 19,294                     |  |
| 95 & Over | 0                 | 0                        | 0                          |  |
| Total     | 48                | \$ 1,294,143             | \$ 26,961                  |  |



# SCHEDULE G (Continued)

# NUMBER OF DISABLED RETIREES AND THEIR BENEFITS BY AGE

| Age            | Number<br>of Members | Total<br>Annual Benefits | Average<br>Annual Benefits |  |  |
|----------------|----------------------|--------------------------|----------------------------|--|--|
| Under 50       | 1                    | \$ 53,893                | \$ 53,893                  |  |  |
| 50 – 54        | 0                    | 0                        | 0                          |  |  |
| 55 <b>–</b> 59 | 0                    | 0                        | 0                          |  |  |
| 60 - 64        | 1                    | 53,224                   | 53,224                     |  |  |
| 65 - 69        | 0                    | 0                        | 0                          |  |  |
| 70 - 74        | 0                    | 0                        | 0                          |  |  |
| 75 – 79        | 0                    | 0                        | 0                          |  |  |
| 80 - 84        | 0                    | 0                        | 0                          |  |  |
| 85 - 89        | 0                    | 0                        | 0                          |  |  |
| 90 - 94        | 0                    | 0                        | 0                          |  |  |
| 95 & Over      | 0                    | 0                        | 0                          |  |  |
| Total          | 2                    | \$ 107,117               | \$ 53,558                  |  |  |