

**ARKANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM**  
**ACTUARIAL VALUATION AND EXPERIENCE**  
**GAIN/(LOSS) ANALYSIS**  
**JUNE 30, 2014**

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November 11, 2014

The Board of Trustees  
Arkansas Public Employees Retirement System  
Little Rock, Arkansas

Ladies and Gentlemen:

The results of the ***June 30, 2014 actuarial valuation*** of the Arkansas Public Employees Retirement System together with ***the annual gain and loss analysis*** for the year ended June 30, 2014 are presented in this report. The purpose of the valuation and gain/loss analysis is to measure funding progress in relation to the actuarial cost method, to determine employer contribution rates and to determine actuarial information for Governmental Accounting Standards Board (GASB) Statement No.27. A separate report will be issued to provide actuarial information for GASB Statement No. 67.

This report should not be relied on for any other purpose than those described above. It was prepared at the request of the Board and is intended for use by the Retirement System and those designated or approved by the Board. This report may be provided to parties other than the System only in its entirety and only with permission of the Board.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as: plan experience differing from that anticipated by the economic and 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. Due to the limited scope of the actuary's assignment, the actuary did not perform an analysis of the potential range of such future measurements.

***The actuarial methods and assumptions*** used in the actuarial valuation are summarized in Section E of this report. The assumptions are established by the Board after consulting with the actuary. The actuarial assumptions used for the valuation produce results which, individually and in the aggregate, are reasonable.

***The cooperation of the Executive Director and the APERS staff*** in furnishing the materials required for these valuations is acknowledged with appreciation.

Board of Trustees  
November 11, 2014  
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This report has been prepared by actuaries who have substantial experience valuing public employee retirement systems. To the best of our knowledge, this report is complete and accurate and was made in accordance with standards of practice promulgated by the Actuarial Standards Board and in conformance with Title 24 of the Arkansas Code.

The signing actuaries are independent of the plan sponsor.

Mita Drazilov is a Member of the American Academy of Actuaries (MAAA) and meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

Respectfully submitted,



Mita D. Drazilov, ASA, MAAA



David L. Hoffman

MDD/DLH:bd

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**SECTION A**  
**VALUATION RESULTS**

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## COMMENTS

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**General Financial Objective.** Section 24-2-701 of the Arkansas Code provides as follows:

The general financial objective of each Arkansas public employee retirement plan shall be to establish and receive contributions that, expressed as percentages of active member payroll, will remain approximately level from generation to generation of Arkansas citizens. More specifically, contributions received each year shall be sufficient both:

- (1) To fully cover the costs of benefit commitments being made to members for their service being rendered in that year; and
- (2)(A) To make a level payment that, if paid annually over a reasonable period of future years, will fully cover the unfunded costs of benefit commitments for service previously rendered.
- (B) Alternatively, if the costs of benefit commitments for service previously rendered are overfunded, the plan may deduct a level payment that, if deducted annually over a reasonable period of future years, will fully liquidate the overfunded portion of such costs.

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**Benefit Changes.** The most recent benefit changes were reflected in the June 30, 2009 valuation. No benefit changes have been adopted for consideration in the June 30, 2014 valuation.

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**Assumption Changes.** Economic assumptions were updated in the June 30, 2014 valuation to a 7.75% investment return assumption and a 3.75% wage inflation assumption.

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**Method Changes.** The amortization period was updated for the June 30, 2014 valuation to a 23-year period. There have been no other changes in methods since the June 30, 2013 valuation.

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**APERS Status.** Based upon the results of the June 30, 2014 actuarial valuation, **APERS continues to satisfy the general financial objective** of level contribution financing.

**APERS Reserve Strength.** As a by-product of achieving level contribution financing, actuarial accrued liabilities usually become more and more funded over a period of years. **The funded ratio of APERS** has been adversely affected by the market downturn in late 2008 and early 2009 (as has virtually all other public employee retirement systems in the country). On a funding value of assets basis, the System has a 78% funded ratio. On a market value of assets basis, the System has an 85% funded ratio.

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**Employer Contribution Rates.** Based upon experience through June 30, 2014, the State and Local Government contribution rate (including General Assembly members) will be 14.50% of covered payroll for the fiscal year beginning July 1, 2015.

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**District Judges.** Results for the District Judges are presented in Section D. These results are not included in any of the numbers presented in Sections A, B, C and G.

**EMPLOYER CONTRIBUTION RATES COMPUTED  
FOR FISCAL YEAR BEGINNING JULY 1, 2015**

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| Contribution for  | Contributions Expressed as %'s of Active Payroll |
|---|--|
|   | State and Local and General Assembly             |
| Normal Cost:  |  |
| Age and service annuities (including DROP and reduced retirement) | 7.83%  |
| Separation benefits   | 1.61%  |
| Disability benefits   | 0.61%  |
| Death-in-service annuities  | 0.21%  |
| Total   | 10.26%   |
| Member contributions  | 2.93%  |
| Employer Normal Cost  | 7.33%  |
| Unfunded Actuarial Accrued Liabilities #                          | 7.17% *  |
| <b>Total Employer Contribution</b>                                | <b>14.50%</b>                                    |

\* *Unfunded actuarial accrued liabilities were amortized over a 23-year period.*

# *Included in this total is the Wildlife rate fixed at 12% of payroll (in addition to the rate shown above) and the School rate fixed at 4% of payroll.*

*Note: State and Local payroll includes an estimate of payroll for DROP participants and retired members returned to work.*



**SUMMARY STATEMENT OF SYSTEM RESOURCES AND OBLIGATIONS**  
**YEAR ENDED JUNE 30, 2014**

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**Present Resources and Expected Future Resources**

|      |  |                                |
|------|--|--------------------------------|
| A.   | Present Valuation Assets:  |                                |
|      | 1. Net assets from system financial statements   | \$7,512,167,348                |
|      | 2. Market value adjustment   | (617,288,575)                  |
|      | 3. Valuation assets  | <u>6,894,878,773</u>           |
| <br> |  |                                |
| B.   | Actuarial present value of expected future employer contributions:                     |                                |
|      | 1. For normal costs  | 977,908,773                    |
|      | 2. For unfunded actuarial accrued liability  | 1,968,763,507                  |
|      | 3. Total   | <u>2,946,672,280</u>           |
| <br> |  |                                |
| C.   | Actuarial present value of expected future member contributions                        | <u>428,073,686</u>             |
| <br> |  |                                |
| D.   | Total Present and Expected Future Resources  | <u><u>\$10,269,624,739</u></u> |
| <br> |  |                                |
| A.   | To retirees and beneficiaries:   |                                |
|      | 1. Annual pensions   | \$4,246,725,967                |
|      | 2. DROP participants: future payments  | 688,276,739                    |
|      | 3. DROP Reserve: accrued balances  | 115,700,346                    |
|      | 4. Total   | <u>5,050,703,052</u>           |
| <br> |  |                                |
| B.   | To vested terminated members   | 422,580,872                    |
| <br> |  |                                |
| C.   | To present active members:   |                                |
|      | 1. Allocated to service rendered prior to valuation date - actuarial accrued liability | 3,390,358,356                  |
|      | 2. Allocated to service likely to be rendered after valuation date                     | 1,405,982,459                  |
|      | 3. Total   | <u>4,796,340,815</u>           |
| <br> |  |                                |
| D.   | Total Actuarial Present Value of Expected Future Benefit Payments                      | <u><u>\$10,269,624,739</u></u> |

**COMPUTED ACTUARIAL LIABILITIES AND  
ALLOCATION USING ENTRY AGE ACTUARIAL COST METHOD  
AS OF JUNE 30, 2014**

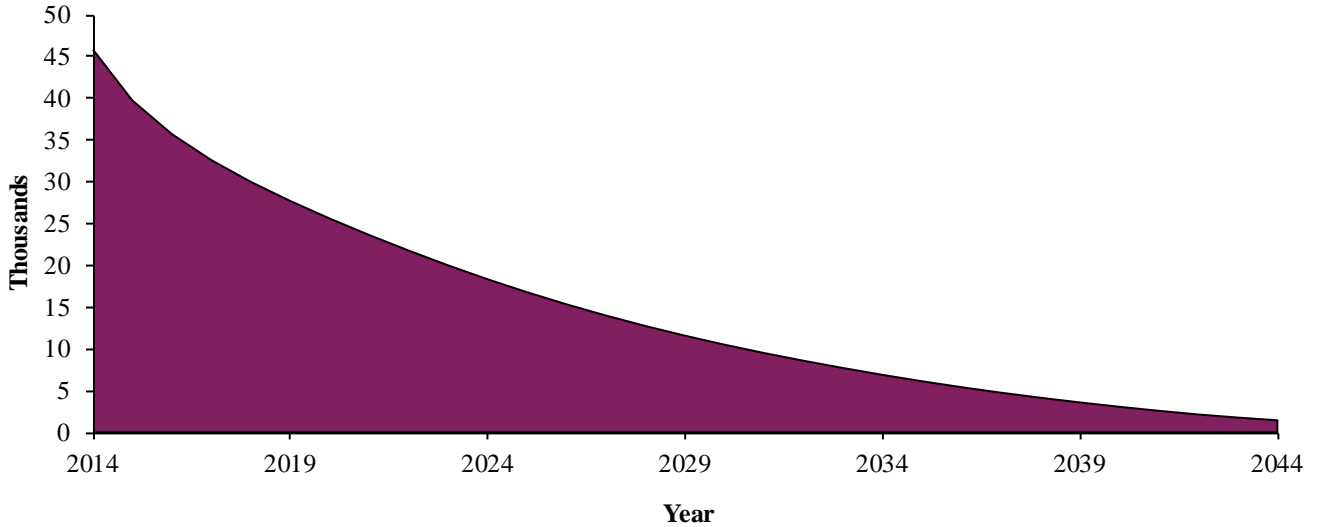
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| <b>Actuarial Present Value of</b>   | <b>Total<br/>Present<br/>Value</b> | <b>Portion<br/>Covered By<br/>Future Normal<br/>Cost Contributions</b> | <b>Actuarial<br/>Accrued<br/>Liabilities<br/>(1) - (2)</b> |
|---|------------------------------------|--|--|
| Benefits to be paid to current retirees, beneficiaries, and future beneficiaries of current retirees                            | \$4,246,725,967                    | \$ 0   | \$4,246,725,967  |
| Age and service allowances based on total service likely to be rendered by present active members                               | 4,251,480,388                      | 1,072,986,613  | 3,178,493,775  |
| DROP participant benefits likely to be paid to present active members and current DROP participants                             | 803,977,085                        | 0  | 803,977,085  |
| Separation benefits (refunds of contributions and deferred allowances) likely to be paid to present active and inactive members | 711,313,540                        | 220,626,877  | 490,686,663  |
| Disability benefits likely to be paid to present active members   | 175,281,447                        | 83,591,550   | 91,689,897   |
| Death-in-service benefits likely to be paid on behalf of present active members   | 80,846,312                         | 28,777,419   | 52,068,893   |
| <b>Total</b>  | <b>\$10,269,624,739</b>            | <b>\$1,405,982,459</b>   | <b>\$ 8,863,642,280</b>                                    |
| Applicable assets (funding value)   | 6,894,878,773                      | 0  | 6,894,878,773  |
| <b>Liabilities to be covered by future contributions</b>  | <b>\$ 3,374,745,966</b>            | <b>\$1,405,982,459</b>   | <b>\$ 1,968,763,507</b>                                    |

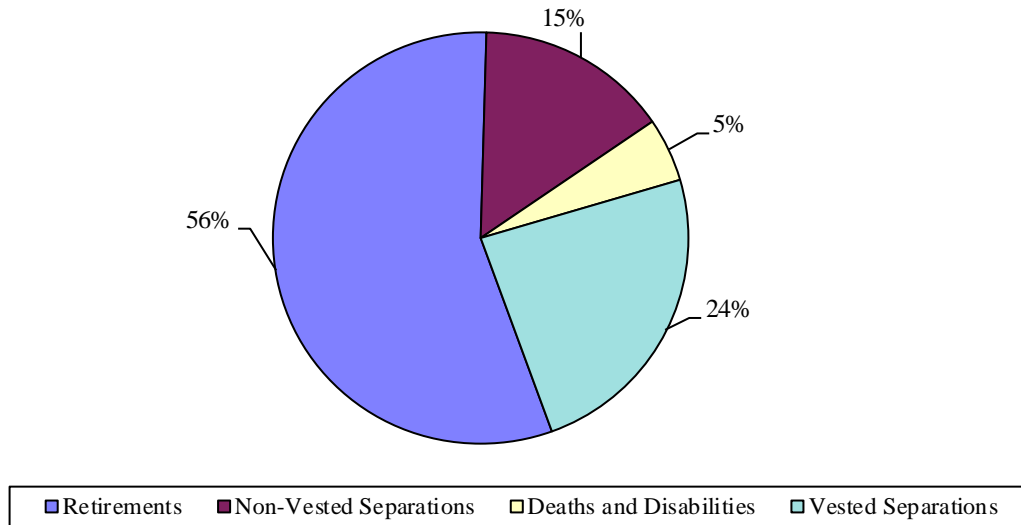
**EXPECTED DEVELOPMENT OF PRESENT POPULATION  
JUNE 30, 2014**

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**Closed Group Population Projection**



**Expected Termination Type from Active Employment**



The charts show the expected future development of the present population in simplified terms. The Retirement System presently covers 45,841 active members. Eventually, 15% of the population is expected to terminate covered employment prior to retirement and forfeit eligibility for an employer provided benefit. About 80% of the present population is expected to receive monthly retirement benefits either by retiring directly from active service, retiring from DROP, or retiring from vested deferred status. About 5% of the present population is expected to become eligible for death-in-service or disability benefits. Within 9 years, over half of the covered membership is expected to consist of new hires.

**RECOMMENDED TRANSFERS  
TO FULLY FUND THE DEFERRED ANNUITY ACCOUNTS AND RETIREMENT RESERVE ACCOUNTS**

Each year the actuary recommends transfers to the Deferred Annuity Accounts and the Retirement Reserve Accounts from the Employer Accumulation Accounts. These transfers place in the Deferred Annuity Account and the Retirement Reserve Account sufficient assets to cover the computed liabilities for future deferred annuity payments to present reported inactive members and for future retirement annuities to present retired members.

This year's transfer amounts are given below:

| Division                       | Employer Accumulation Accounts Before Transfers | Transfers as of July 1, 2014 to: |                             | Employer Accumulation Accounts After Transfers |
|--------------------------------|---|----------------------------------|-----------------------------|--|
|                                |   | Deferred Annuity Accounts        | Retirement Reserve Accounts |  |
| State                          | \$2,384,996,410                                 | \$20,266,826                     | \$349,511,761               | \$ 2,015,217,823                               |
| Wildlife                       | (68,010,618)                                    | 35,950                           | 6,721,998                   | (74,768,566)                                   |
| Penitentiary                   | (456,924)                                       | 0                                | (0)                         | (456,924)                                      |
| State Constitutional Officers  | (1,825,432)                                     | (172,540)                        | 85,631                      | (1,738,523)                                    |
| Governors                      | (6,851,392)                                     | 0                                | 77,101                      | (6,928,493)                                    |
| Quasi-Judicial                 | (841,928)                                       | 0                                | (0)                         | (841,928)                                      |
| State Capitol Police           | 3,290,853                                       | 0                                | (37)                        | 3,290,890                                      |
| Administrative Officers Courts | 701,616   | 0                                | (3,910)                     | 705,526  |
| Total State                    | 2,311,002,585                                   | 20,130,236                       | 356,392,544                 | 1,934,479,805                                  |
| General Assembly               | (5,830,302)                                     | (119,210)                        | 418,263                     | (6,129,355)                                    |
| County                         | 460,178,043                                     | 8,448,475                        | 69,823,357                  | 381,906,211                                    |
| County Constitutional Officers | (1,043,738)                                     | 0                                | (195,000)                   | (848,738)                                      |
| Total County                   | 459,134,305                                     | 8,448,475                        | 69,628,357                  | 381,057,473                                    |
| Municipal                      | 255,798,193                                     | 4,849,048                        | 34,590,696                  | 216,358,449                                    |
| School                         | (28,390,580)                                    | (1,406,814)                      | 24,853,149                  | (51,836,915)                                   |
| Non-State                      | 9,210,097                                       | 119,497                          | 344,078                     | 8,746,522                                      |
| <b>Total</b>                   | <b>\$3,000,924,298</b>                          | <b>\$32,021,232</b>              | <b>\$486,227,087</b>        | <b>\$2,482,675,979</b>                         |

**VALUATION RESULTS  
COMPARATIVE STATEMENT  
(\$ MILLIONS)**

| Valuation<br>Date<br>June 30, | Actuarial<br>Accrued<br>Liabilities<br>& Reserves | Valuation<br>Assets | %<br>Funded | Unfunded Actuarial Accrued<br>Liabilities & Reserves |                      |                 | Contribution Rate<br>Computed Percents |                 |
|-------------------------------|---|---------------------|-------------|--|----------------------|-----------------|--|-----------------|
|                               |   |                     |             | Dollars  | Amortiz.<br>Period * | % of<br>Payroll | General<br>Assembly                    | State & Local** |
| 2001 @                        | \$4,111   | \$ 4,342            | 105.6 %     | \$(231)  | 50                   | (22) %          | 148.78 %                               | 10.00 %         |
| 2002 #                        | 4,398   | 4,404               | 100.1       | (6)  | 6                    | (1)             | 150.95                                 | 10.00           |
| 2003 #                        | 4,674   | 4,416               | 94.5        | 258  | 30                   | 22              | 222.80                                 | 11.09           |
| 2004                          | 5,005   | 4,438               | 88.7        | 567  | 30                   | 48              | 201.39                                 | 12.54           |
| 2005 @#                       | 5,619   | 4,584               | 81.6        | 1,035  | 22                   | 85              | 459.47                                 | 12.54           |
| 2006                          | 5,936   | 4,949               | 83.4        | 987  | 19                   | 78              | 464.67                                 | 12.54           |
| 2007 @                        | 6,174   | 5,498               | 89.1        | 676  | 18                   | 52              | 410.58                                 | 11.01           |
| 2008 #                        | 6,543   | 5,866               | 89.7        | 677  | 14                   | 49              | 408.06                                 | 11.00           |
| 2009 @                        | 6,938   | 5,413               | 78.0        | 1,525  | 30                   | 106             | 521.36                                 | 12.46           |
| 2010                          | 7,304   | 5,409               | 74.1        | 1,895  | 30                   | 124             | 518.69                                 | 13.47           |
| 2011 #                        | 7,734   | 5,467               | 70.7        | 2,267  | 30                   | 147             | 939.81                                 | 14.24           |
| 2012                          | 8,163   | 5,625               | 68.9        | 2,538  | 30                   | 151             |  | 14.88           |
| 2013 #                        | 8,284   | 6,159               | 74.3        | 2,125  | 25                   | 126             |  | 14.76           |
| <b>2014</b>                   | <b>8,655</b>                                      | <b>6,895</b>        | <b>79.7</b> | <b>1,760</b>   | <b>18</b>            | <b>101</b>      |  | <b>14.50</b>    |
| <b>2014 #</b>                 | <b>8,864</b>                                      | <b>6,895</b>        | <b>77.8</b> | <b>1,969</b>   | <b>23</b>            | <b>113</b>      |  | <b>14.50</b>    |

\* Amortization period is for State division prior to 2001, State and Local division for 2001 and later and may be rounded above. General Assembly unfunded actuarial accrued liabilities are amortized over an 18-year period as of June 30, 2008.

\*\* Local Government rate was 6.00% for the 1998 valuation, 7.00% for the 1999 valuation, and 8.00% for the 2000 valuation. Beginning with the June 30, 2012 valuation, results include General Assembly.

@ After legislated changes in benefit provisions.

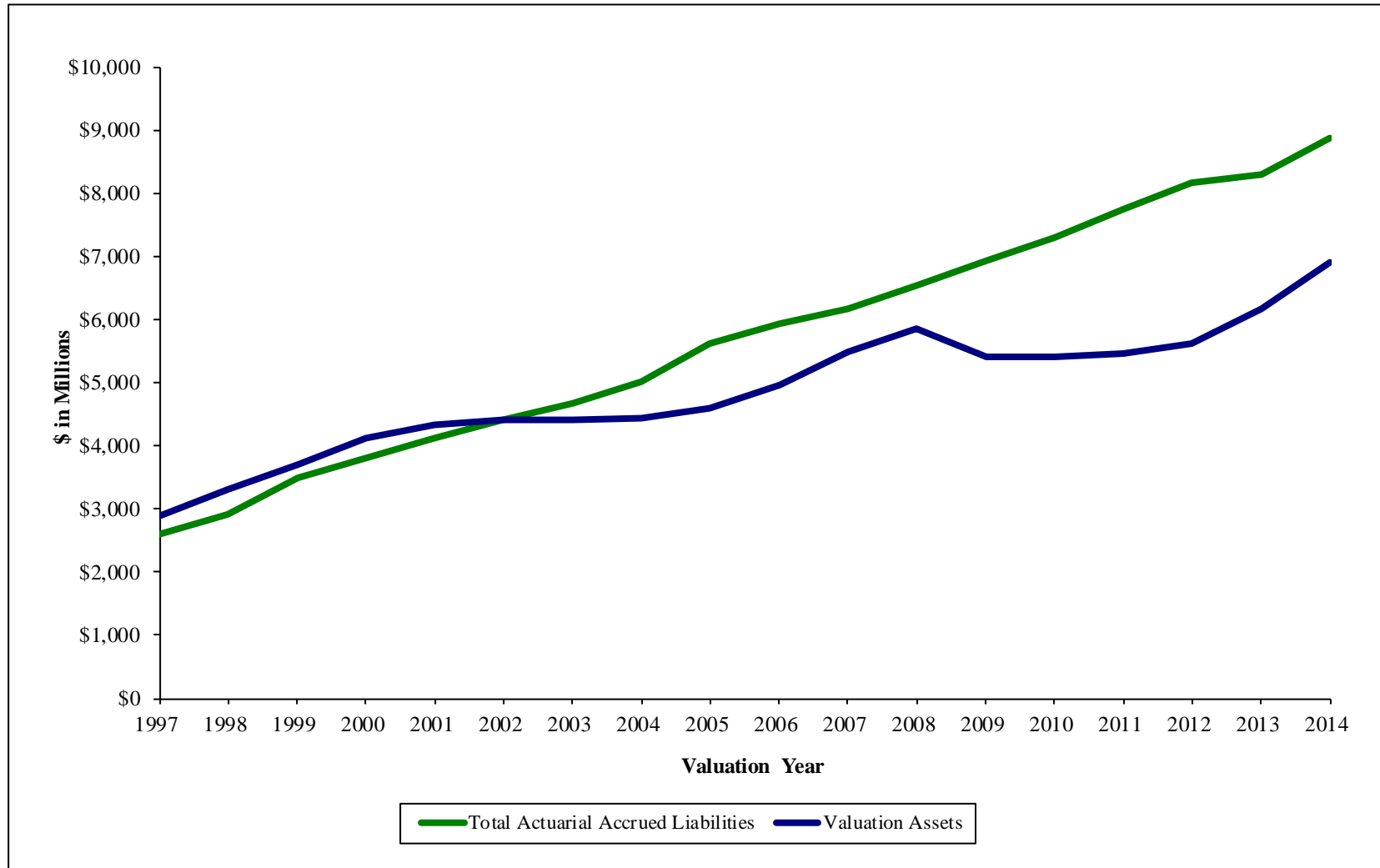
# After changes in actuarial assumptions.

## ACTIVE MEMBERS AND RETIRED LIVES HISTORICAL COMPARATIVE SCHEDULE

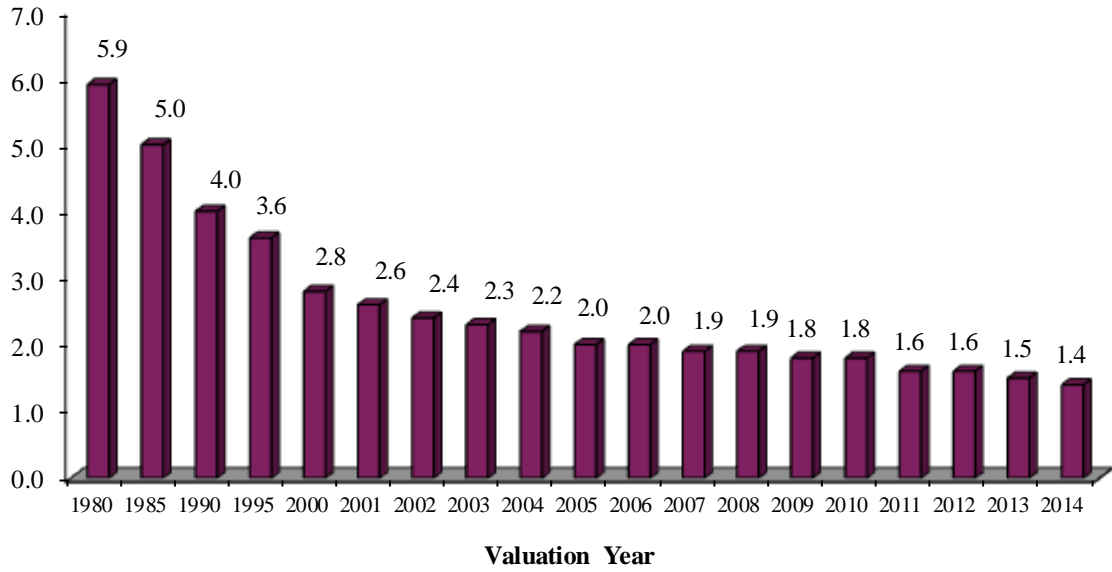
| Valuation<br>Date | Active Members |                   |               |             | Retired Lives |                          |                 |                  |
|-------------------|----------------|-------------------|---------------|-------------|---------------|--------------------------|-----------------|------------------|
|                   | No.            | Valuation Payroll |               |             | No.           | Active<br>per<br>Retired | Annual Benefits |                  |
|                   |                | \$ Millions       | Average       | % Incr.     |               |                          | \$ Millions     | As a %<br>of Pay |
| 6/30/84           | *              | *                 | *             | *           | 7,036         | *                        | \$ 19.1         | 4.4%             |
| 6/30/85           | *              | *                 | *             | *           | 7,331         | *                        | 22.0            | 4.8%             |
| 6/30/86           | *              | *                 | *             | *           | 7,649         | *                        | 24.1            | 4.9%             |
| 6/30/87           | *              | *                 | *             | *           | 8,074         | *                        | 30.2            | 6.0%             |
| 6/30/88           | *              | *                 | *             | *           | 9,155         | *                        | 39.6            | 7.5%             |
| 6/30/89           | *              | *                 | *             | *           | 9,418         | *                        | 42.9            | 7.6%             |
| 6/30/90           | *              | *                 | *             | *           | 9,747         | *                        | 44.9            | 7.4%             |
| 6/30/91           | *              | *                 | *             | *           | 10,110        | *                        | 49.2            | 7.6%             |
| 6/30/92           | 39,752         | \$ 698.2          | \$ 17,564     | NA          | 10,456        | 3.8                      | 51.9            | 7.4%             |
| 6/30/93           | 39,849         | 733.4             | 18,404        | 4.8%        | 10,840        | 3.7                      | 56.8            | 7.7%             |
| 6/30/94           | 40,940         | 778.7             | 19,021        | 3.3%        | 11,213        | 3.7                      | 60.7            | 7.8%             |
| 6/30/95           | 42,041         | 834.5             | 19,850        | 4.4%        | 11,683        | 3.6                      | 70.1            | 8.4%             |
| 6/30/96           | 42,712         | 889.3             | 20,821        | 4.9%        | 12,073        | 3.5                      | 76.2            | 8.6%             |
| 6/30/97           | 43,068         | 938.5             | 21,791        | 4.7%        | 12,644        | 3.4                      | 84.8            | 9.0%             |
| 6/30/98           | 43,047         | 974.7             | 22,644        | 3.9%        | 13,480        | 3.2                      | 94.6            | 9.7%             |
| 6/30/99           | 43,064         | 1,008.9           | 23,427        | 3.5%        | 14,688        | 2.9                      | 119.3           | 11.8%            |
| 6/30/00           | 43,121         | 1,050.0           | 24,351        | 3.9%        | 15,544        | 2.8                      | 133.6           | 12.7%            |
| 6/30/01           | 42,556         | 1,070.1           | 25,146        | 3.3%        | 16,643        | 2.6                      | 150.0           | 14.0%            |
| 6/30/02           | 42,230         | 1,111.5           | 26,320        | 4.7%        | 17,748        | 2.4                      | 167.6           | 15.1%            |
| 6/30/03           | 42,879         | 1,147.9           | 26,772        | 1.7%        | 18,838        | 2.3                      | 186.0           | 16.2%            |
| 6/30/04           | 42,826         | 1,175.8           | 27,455        | 2.6%        | 19,872        | 2.2                      | 203.4           | 17.3%            |
| 6/30/05           | 42,938         | 1,214.9           | 28,295        | 3.1%        | 21,080        | 2.0                      | 232.9           | 19.2%            |
| 6/30/06           | 43,453         | 1,267.1           | 29,159        | 3.1%        | 22,234        | 2.0                      | 254.7           | 20.1%            |
| 6/30/07           | 43,630         | 1,302.6           | 29,855        | 2.4%        | 22,409        | 1.9                      | 274.8           | 21.1%            |
| 6/30/08           | 44,357         | 1,379.8           | 31,106        | 4.2%        | 23,555        | 1.9                      | 297.0           | 21.5%            |
| 6/30/09           | 44,702         | 1,433.7           | 32,073        | 3.1%        | 24,972        | 1.8                      | 323.1           | 22.5%            |
| 6/30/10           | 45,394         | 1,522.7           | 33,544        | 4.6%        | 25,880        | 1.8                      | 342.2           | 22.5%            |
| 6/30/11           | 45,145         | 1,542.9           | 34,177        | 1.9%        | 28,137        | 1.6                      | 375.7           | 24.3%            |
| 6/30/12           | 45,937         | 1,606.1           | 34,962        | 2.3%        | 29,282        | 1.6                      | 399.5           | 24.9%            |
| 6/30/13           | 45,707         | 1,612.7           | 35,285        | 0.9%        | 30,533        | 1.5                      | 426.2           | 26.4%            |
| <b>6/30/14</b>    | <b>45,841</b>  | <b>1,638.0</b>    | <b>35,735</b> | <b>1.3%</b> | <b>31,914</b> | <b>1.4</b>               | <b>457.1</b>    | <b>27.9%</b>     |

The above valuation payroll results do not include DROP payroll.

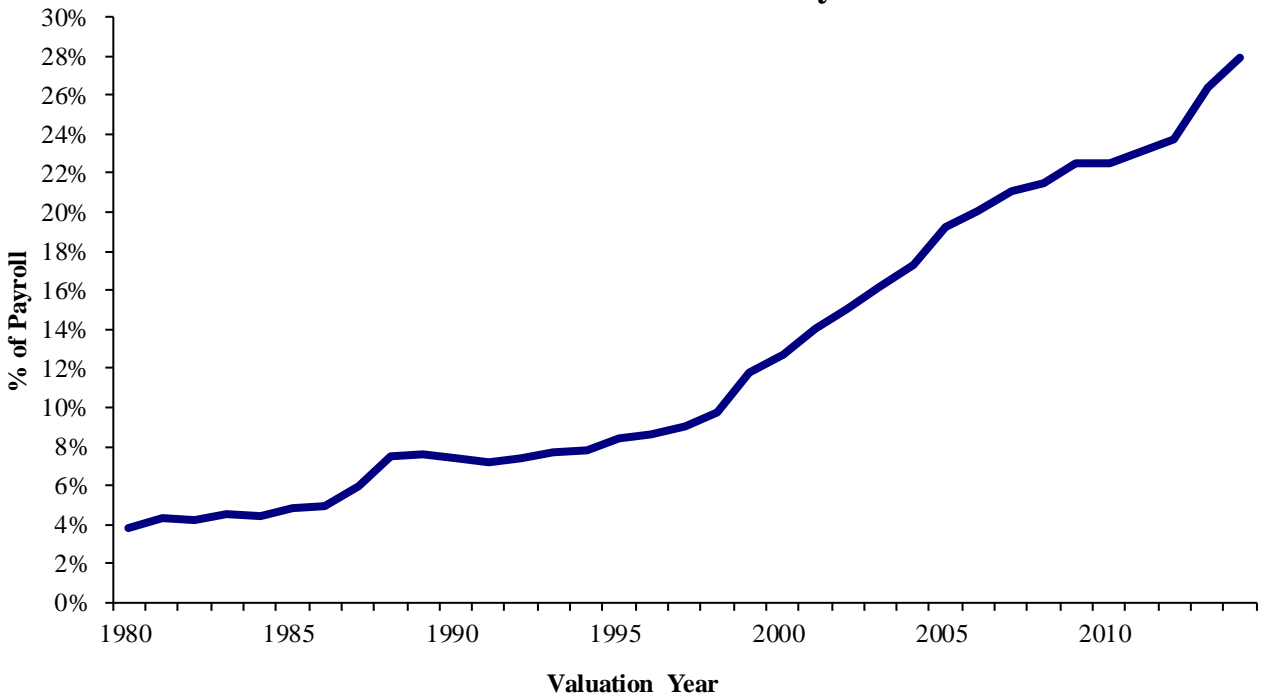
## ACTUARIAL ACCRUED LIABILITIES & ASSETS



### Active Members Per Retired Life



### Retirement Benefits Being Paid as a Percent of Member Payroll





## SHORT CONDITION TEST

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The APERS funding objective is to meet long-term benefit promises through contributions that remain approximately level from year to year as a percent of member payroll. If the contributions to the System are level in concept and soundly executed, the System will *pay all promised benefits when due -- the ultimate test of financial soundness*. Testing for level contribution rates is *the* long-term condition test.

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*A short condition test* is one means of checking a System's progress under its funding program. In a short condition test, the Plan's present assets (cash and investments) are compared with:

- 1) Active member contributions on deposit;
- 2) The liabilities for future benefits to present retired lives; and
- 3) The liabilities for service already rendered by active members.

In a System that has been following the discipline of level percent-of-payroll financing, the liabilities for active member contributions on deposit (liability 1) and the liabilities for future benefits to present retired lives (liability 2) will be fully covered by present assets (except in unusual circumstances). In addition, the liabilities for service already rendered by active members (liability 3) will be partially covered by the remainder of present assets. The larger the funded portion of liability 3, the stronger the condition of the System. Liability 3 being fully funded is uncommon.

**SHORT CONDITION TEST**  
**10-YEAR COMPARATIVE STATEMENT**  
**(\$ IN MILLIONS)**

| Val'n.<br>Date:<br>June 30                      | Entry Age Accrued Liability |                           |  | Valuation<br>Assets | Portion of Present<br>Values Covered by<br>Present Assets |             |            |            |
|---|-----------------------------|---------------------------|--|---------------------|---|-------------|------------|------------|
|   | (1)                         | (2)                       | (3)  |                     | (1)   | (2)         | (3)        | Total      |
|   | Active<br>Member<br>Contr.  | Retirees<br>and<br>Benef. | Active Members<br>(Employer Financed<br>Portion) |                     |   |             |            |            |
| <i>STATE DIVISION (including sub-divisions)</i> |                             |                           |  |                     |   |             |            |            |
| 1998@   | \$17.2                      | \$ 640.3                  | \$1,395.9  | \$2,328.5           | 100%  | 100%        | 119%       | 113%       |
| 1999@#  | 16.9                        | 784.0                     | 1,634.2  | 2,637.1             | 100%  | 100%        | 112%       | 108%       |
| 2000  | 15.8                        | 747.5                     | 1,865.7  | 2,943.3             | 100%  | 100%        | 117%       | 112%       |
| <i>LOCAL GOVERNMENT DIVISION</i>                |                             |                           |  |                     |   |             |            |            |
| 1998@   | \$ 8.8                      | \$ 337.9                  | \$ 501.1   | \$ 968.1            | 100%  | 100%        | 124%       | 114%       |
| 1999#   | 8.8                         | 446.9                     | 587.9  | 1,074.7             | 100%  | 100%        | 105%       | 103%       |
| 2000  | 7.6                         | 440.0                     | 706.0  | 1,178.1             | 100%  | 100%        | 103%       | 102%       |
| <i>STATE AND LOCAL GOVERNMENT DIVISION</i>      |                             |                           |  |                     |   |             |            |            |
| 2001#   | \$23.4                      | \$1,305.0                 | \$2,759.2  | \$4,335.5           | 100%  | 100%        | 109%       | 106%       |
| 2002@   | 20.5                        | 1,502.7                   | 2,850.8  | 4,397.2             | 100%  | 100%        | 101%       | 101%       |
| 2003@   | 20.5                        | 1,624.7                   | 3,004.7  | 4,408.3             | 100%  | 100%        | 92%        | 95%        |
| 2004  | 20.5                        | 1,762.2                   | 3,197.6  | 4,429.9             | 100%  | 100%        | 83%        | 89%        |
| 2005@   | 15.5                        | 1,878.2                   | 3,701.7  | 4,576.1             | 100%  | 100%        | 72%        | 82%        |
| 2006  | 15.5                        | 1,990.6                   | 3,907.3  | 4,941.1             | 100%  | 100%        | 75%        | 84%        |
| 2007#   | 29.7                        | 2,268.5                   | 3,856.7  | 5,489.3             | 100%  | 100%        | 83%        | 89%        |
| 2008@   | 45.8                        | 2,463.9                   | 4,014.9  | 5,858.1             | 100%  | 100%        | 83%        | 90%        |
| 2009  | 66.4                        | 2,750.3                   | 4,059.9  | 5,406.8             | 100%  | 100%        | 64%        | 79%        |
| 2009#   | 66.4                        | 2,750.3                   | 4,103.5  | 5,406.8             | 100%  | 100%        | 63%        | 78%        |
| 2010  | 92.8                        | 2,928.7                   | 4,266.1  | 5,403.5             | 100%  | 100%        | 56%        | 74%        |
| 2011@   | 119.2                       | 3,268.3                   | 4,327.8  | 5,462.6             | 100%  | 100%        | 48%        | 71%        |
| 2012  | 122.1                       | 3,518.7                   | 4,521.9  | 5,625.4             | 100%  | 100%        | 44%        | 69%        |
| 2013@   | 147.9                       | 3,855.2                   | 4,281.1  | 6,159.3             | 100%  | 100%        | 50%        | 74%        |
| <b>2014@</b>                                    | <b>176.3</b>                | <b>4,246.7</b>            | <b>4,440.6</b>                                   | <b>6,894.9</b>      | <b>100%</b>   | <b>100%</b> | <b>56%</b> | <b>78%</b> |

# After legislated changes in benefit provisions.

@ After changes in actuarial assumptions.

## SUMMARY OF RISK MEASURES

| Valuation Date<br>June 30, | Funded Ratio    |                 | UAAL                   | Total Actuarial Value         |                              |                              | Standard Deviation of                |
|----------------------------|-----------------|-----------------|------------------------|-------------------------------|------------------------------|------------------------------|--------------------------------------|
|                            | Based on<br>AVA | Based on<br>MVA | Amortization<br>Period | Total UAAL /<br>Total Payroll | of Assets /<br>Total Payroll | Total AAL /<br>Total Payroll | Investment Return /<br>Total Payroll |
| 2005 @#                    | 82 %            | 83 %            | 22                     | 0.9                           | 3.8                          | 4.6                          | **                                   |
| 2006                       | 83              | 87              | 19                     | 0.8                           | 3.9                          | 4.7                          | **                                   |
| 2007 @                     | 89              | 97              | 18                     | 0.5                           | 4.2                          | 4.7                          | **                                   |
| 2008 #                     | 90              | 86              | 14                     | 0.5                           | 4.3                          | 4.7                          | **                                   |
| 2009 @                     | 78              | 62              | 30                     | 1.1                           | 3.8                          | 4.8                          | **                                   |
| 2010                       | 74              | 65              | 30                     | 1.2                           | 3.6                          | 4.8                          | **                                   |
| 2011 #                     | 71              | 75              | 30                     | 1.5                           | 3.4                          | 4.8                          | **                                   |
| 2012                       | 69              | 70              | 30                     | 1.5                           | 3.3                          | 4.8                          | **                                   |
| 2013 #                     | 74              | 77              | 25                     | 1.3                           | 3.6                          | 4.9                          | **                                   |
| 2014 #                     | 78              | 85              | 23                     | 1.1                           | 4.0                          | 5.1                          | 59 %                                 |

@ After legislated changes in benefit provisions.

# After changes in actuarial assumptions.

\*\* Unavailable. This measurement will be built prospectively beginning with the June 30, 2014 valuation.

**Funded ratio:** The funded ratio is expected to trend toward 100% by June 30, 2037 under the current amortization period.

**UAAL Amortization Period:** The statutory amortization period is expected to decrease by one year each year.

**UAAL / Total Payroll:** The ratio of the unfunded actuarial accrued liability to payroll is expected to trend toward to 0% by June 30, 2037.

**Funding Value of Assets / Total Payroll:** As the funded ratio increases, this ratio is expected to converge to the ratio of Total AAL / Payroll.

**Total AAL / Total Payroll:** Total AAL / Total Payroll is expected to grow as the system matures.

**Standard Deviation of Investment Return / Total Payroll:** This measure illustrates the impact of a one standard deviation change in investment return as a percent of payroll. Investment return experience other than expected ultimately affects the employer contribution rates. The higher the ratio of this risk metric, the greater the expected volatility in employer contribution rates. Absent changes in investment policy, this metric is expected to increase as the assets grow to 100% of the AAL.

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**SECTION B**  
**VALUATION DATA**

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**SUMMARY OF PROVISIONS EVALUATED  
(EXCLUDES SPECIAL PROVISIONS FOR GENERAL ASSEMBLY)  
(LAST CHANGED AS OF 7/1/2009)**

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The Old Contributory Plan is available to persons who became members of APERS before January 1, 1978. The Non-Contributory Plan applies to all persons first hired after January 1, 1978 and before July 1, 2005 in APERS-covered employment. The New Contributory Plan applies to all persons hired after July 1, 2005 in APERS-covered employment or Non-Contributory members who elected to participate in the New Contributory Plan.

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**New Contributory Plan**

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**Non-Contributory Plan**

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**VOLUNTARY RETIREMENT**

*With a full benefit*, after either (a) age 65 with 5 years of service, or (b) 28 years of actual service, regardless of age. For sheriff and public safety members, the age 65 requirement is reduced 1 month for each 2 months of actual service, but not below age 55 (age 52 for sheriff members with a minimum of 10 years of actual service).

*With a full benefit*, after either (a) age 65 with 5 years of service, or (b) 28 years of actual service, regardless of age. For sheriff and public safety members, the age 65 requirement is reduced 1 month for each 2 months of actual service, but not below age 55 (age 52 for sheriff members with a minimum of 10 years of actual service).

*With a reduced benefit*, after age 55 with 5 years of service or any age with 25 years of service. The reduction is equal to ½ of 1% for each month retirement proceeds normal retirement age or 1% for each month below 28 years of actual service, whichever is less.

*With a reduced benefit*, after age 55 with 5 years of service or any age with 25 years of service. The reduction is equal to ½ of 1% for each month retirement proceeds normal retirement age or 1% for each month below 28 years of actual service, whichever is less.

**FINAL AVERAGE COMPENSATION (FAC)**

Average of highest 36 calendar months of covered compensation.

Average of highest 36 calendar months of covered compensation.

**FULL AGE & SERVICE RETIREMENT BENEFIT**

2.00% of FAC times years of service (2.03% for service prior to July 1, 2007), plus .5% of FAC times years of service over 28 years for service after July 1, 2009. The minimum monthly benefit is \$150 minus any age and beneficiary option reductions.

1.72% of FAC times years and months of credited service (1.75% for service prior to July 1, 2007), plus .5% of FAC times years of service over 28 years for service after July 1, 2009. If retirement is prior to age 62, an additional .33% of FAC times years of service will be paid until age 62. The portion of the APERS benefit based on service before 1978 cannot be less than the amount provided by contributory provisions in effect at the time of retirement. The minimum monthly benefit is \$150 minus any age and beneficiary option reductions.

# SUMMARY OF PROVISIONS EVALUATED

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## New Contributory Plan

## Non-Contributory Plan

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### BENEFIT INCREASES AFTER RETIREMENT

Annually, there will be a cost-of-living adjustment equal to 3% of the current benefit.

Annually, there will be a cost-of-living adjustment equal to 3% of the current benefit.

### MEMBER CONTRIBUTION RATES

5% of covered compensation (pre-tax). Member contributions are refundable if APERS-covered employment terminates before a monthly benefit is payable. Members will earn interest on the contributions at a rate of 4% annually.

No employee contributions for service after January 1, 1978. If there is service before January 1, 1978, contributions for that period are refundable later in the same manner as under the Contributory Plan.

### VESTED RETIREMENT BENEFITS

5 years service, and leaving APERS-covered employment before full retirement age. Deferred full retirement benefit, based on service and pay at termination, begins at age 65. A death benefit is payable to surviving spouse of member who dies before benefit commencement.

5 years service and leaving APERS-covered employment before full retirement age. Deferred full retirement benefit, based on service and pay at termination, begins at age 65. A death benefit is payable to surviving spouse of member who dies before benefit commencement.

In place of deferred full benefit, at age 55 or older a qualifying member can elect an immediate reduced benefit.

In place of deferred full benefit, at age 55 or older a qualifying member can elect an immediate reduced benefit.

### TOTAL AND PERMANENT DISABILITY

Disabled after 5 years service, including credit for 18 of the 24 months preceding disability.

Disabled after 5 years service, including credit for 18 of the 24 months preceding disability.

Amount is computed as an age & service benefit, based on service and pay at disability.

Amount is computed as an age & service benefit, based on service and compensation at disability.

## SUMMARY OF PROVISIONS EVALUATED

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### New Contributory Plan

### Non-Contributory Plan

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#### DEATH AFTER RETIREMENT

If death occurs before total monthly benefit payments equal member's accumulated contributions, the difference is refunded.

Member contributions before 1978 are protected in the same manner as under the Contributory Plan.

A retiring member can also elect an optional form of benefit, which provides beneficiary protection paid for by reducing the retired member's benefit amount. Should the member elect a straight life benefit and die within 12 months of the date of retirement, a benefit may be payable to the surviving spouse under certain conditions.

A retiring member can also elect an optional form of benefit, which provides beneficiary protection paid for by reducing the retired member's benefit amount. Should the member elect a straight life benefit and die within 12 months of the date of retirement, a benefit may be payable to the surviving spouse under certain conditions.

#### DEATH WHILE IN APERS-COVERED EMPLOYMENT

Member's accumulated contributions are refundable.

Member's accumulated contributions before 1978 are refundable.

If the member had 5 years service, monthly benefits are payable instead. Surviving spouse receives a benefit computed as if member had retired and elected the Joint & 75% Survivor Option. Payment begins immediately.

If the member had 5 years service, monthly benefits are payable instead. Surviving spouse receives a benefit computed as if member had retired and elected the Joint & 75% Survivor Option. Payment begins immediately.

Each dependent child receives benefit of 10% of compensation (maximum of 25% for all children).

Each dependent child receives benefit of 10% of compensation (maximum of 25% for all children).

Dependent parents benefits are payable if neither spouse nor children's benefits are payable.

Dependent parents benefits are payable if neither spouse nor children's benefits are payable.

## SUMMARY OF PROVISIONS EVALUATED CREDITED SERVICE

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| Membership Group   | Service Credits  |
|--|--|
| Public Safety Members (including State Capitol Police and Wildlife Sub-Division members) hired before July 1, 1997 | 1-1/2 times regular rate with 5 years actual service required to meet benefit eligibility rules.   |
| Governor (hired before July 1, 1999)   | 3 times regular rate with 5 years actual service required to meet death-in-service eligibility and 4 years actual service required for other benefit eligibility.          |
| Elected State Constitutional Officers (hired before July 1, 1999)  | 2-1/2 times regular rate with 5 years actual service required to meet benefit eligibility.   |
| General Assembly   | Regular crediting rate with 5 years of actual service required to meet death-in-service eligibility and 10 years of actual service required for other benefit eligibility. |
| Other Elected Public Officials (municipal and county officials)  | 2 times regular rate with 5 years actual service required to meet benefit eligibility.   |
| All Other Members  | Regular rate.  |

### **ARKANSAS PUBLIC EMPLOYEES DEFERRED RETIREMENT OPTION PLAN**

Members with 28 years of actual service in APERS or in combination with a reciprocal system are eligible to participate.

Members, for a maximum of 7 years, may continue employment and have 75% of their accrued benefit (at date of participation with 30 or more years of service) paid into the Deferred Retirement Option Plan in lieu of any further benefit accruals.

The payments into the Deferred Retirement Option Plan accumulate with interest at a rate established by the Board. The interest is paid on the mean balance and is paid to the member at termination of active membership in either a lump sum or as an annuity.

Employer contributions continue for members participating in the DROP.



**SUMMARY OF PROVISIONS EVALUATED**  
**GENERAL ASSEMBLY DIVISION**  
**ADDITIONAL BENEFIT PROVISIONS**

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**VOLUNTARY RETIREMENT ELIGIBILITY**

Age 65 with 10 or more years of credited service, 28 years of actual service regardless of age, or age 55 with 12 or more years of actual service, 10 of which must be as a member of the General Assembly. In addition, a member of the General Assembly who was a member of the General Assembly on July 1, 1979, or holding any other Arkansas elective office on July 1, 1979, is eligible to retire with 17.5 years of actual service regardless of age.

**VESTING**

Termination of employment prior to normal retirement age after completing 10 or more years of credited service.

**RETIREMENT BENEFIT**

\$35.00 per month times years of General Assembly service. The amount is \$40.00 per month per year of service for any member who served as Speaker of the House of Representatives or President Pro Tempore of the Senate.

**DISABILITY**

Eligibility: 10 years of credited service.

Amount: Accrued retirement benefit.

**DEATH-IN-SERVICE**

Eligibility: 5 years of service.

Amount - Less than 10 years in General Assembly: Same as for regular members.

Amount - 10 or more years in General Assembly: 100% of the benefit the member would have been entitled to had he or she been at retirement age payable to an eligible surviving spouse.

**DEATH-AFTER-RETIREMENT**

100% of the benefit the member was receiving payable to an eligible surviving spouse.

**PARTICIPATION**

A member of the General Assembly may, at any time, elect either (i) to be covered by regular benefit provisions, or (ii) to discontinue an APERS membership.

**SUMMARY OF PROVISIONS EVALUATED**  
**ILLUSTRATION OF BENEFIT CHANGES DURING RECENT**  
**YEARS OF RETIREMENT & RELATED CHANGES IN PURCHASING POWER**

| Year Ended<br>June 30 | Increase<br>Beginning<br>of Year | Benefit<br>Dollars<br>In Year | Inflation<br>(Loss)<br>In Year# | Purchasing Power<br>at Year End |           |
|-----------------------|----------------------------------|-------------------------------|---------------------------------|---------------------------------|-----------|
|                       |                                  |                               |                                 | 1985 \$                         | % of 1985 |
| 1985                  | --                               | \$ 8,000                      | (3.7)%                          | \$8,000                         | 100%      |
| 1986                  | \$ 240                           | 8,240                         | (1.7)%                          | 8,102                           | 101%      |
| 1987                  | 240                              | 8,480                         | (3.7)%                          | 8,041                           | 101%      |
| 1988                  | 240                              | 8,720                         | (3.9)%                          | 7,958                           | 99%       |
| 1989                  | 240                              | 8,960                         | (5.1)%                          | 7,780                           | 97%       |
| 1990                  | 240                              | 9,200                         | (4.7)%                          | 7,630                           | 95%       |
| 1991                  | 240                              | 9,440                         | (4.7)%                          | 7,478                           | 93%       |
| 1992                  | 661                              | 10,101                        | (3.1)%                          | 7,761                           | 97%       |
| 1993                  | 303                              | 10,404                        | (3.0)%                          | 7,761                           | 97%       |
| 1994                  | 584                              | 10,988                        | (2.5)%                          | 7,996                           | 100%      |
| 1995                  | 275                              | 11,263                        | (3.0)%                          | 7,958                           | 99%       |
| 1996                  | 1,064                            | 12,327                        | (2.8)%                          | 8,472                           | 106%      |
| 1997                  | 345                              | 12,672                        | (3.0)%                          | 8,506                           | 106%      |
| 1998                  | 760                              | 13,432                        | (2.3)%                          | 8,761                           | 110%      |
| 1999                  | 309                              | 13,741                        | (1.7)%                          | 8,896                           | 111%      |
| 2000                  | 990                              | 14,731                        | (3.7)%                          | 9,194                           | 115%      |
| 2001                  | 442                              | 15,173                        | (3.2)%                          | 9,172                           | 115%      |
| 2002                  | 713                              | 15,886                        | (1.1)%                          | 9,502                           | 119%      |
| 2003                  | 477                              | 16,363                        | (2.1)%                          | 9,586                           | 120%      |
| 2004                  | 491                              | 16,854                        | (3.0)%                          | 9,586                           | 120%      |
| 2005                  | 506                              | 17,360                        | (3.2)%                          | 9,570                           | 120%      |
| 2006                  | 521                              | 17,881                        | (4.1)%                          | 9,465                           | 118%      |
| 2007                  | 715                              | 18,596                        | (2.4)%                          | 9,617                           | 120%      |
| 2008                  | 558                              | 19,154                        | (5.6)%                          | 9,380                           | 118%      |
| 2009                  | 575                              | 19,729                        | 2.1 %                           | 9,864                           | 123%      |
| 2010                  | 592                              | 20,321                        | (1.2)%                          | 10,036                          | 125%      |
| 2011                  | 610                              | 20,931                        | (3.6)%                          | 9,962                           | 125%      |
| 2012                  | 628                              | 21,559                        | (1.4)%                          | 10,118                          | 126%      |
| 2013                  | 647                              | 22,205                        | (2.0)%                          | 10,221                          | 128%      |
| 2014                  | 666                              | 22,871                        | (2.0)%                          | 10,322                          | 129%      |
| 2015                  | 686                              | 23,558                        |                                 |                                 |           |

# Based on Consumer Price Index, All Urban Consumers, United States City Average (July values).

**REVENUES AND EXPENDITURES**  
**JULY 1, 2013 THROUGH JUNE 30, 2014**  
**MARKET VALUE**  
**(\$ IN MILLIONS)**

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|                          | <b>Totals</b>    |
|--------------------------|------------------|
| <b>Balance 7/1/2013</b>  | <b>\$6,418.5</b> |
| Revenues                 |                  |
| Member contributions     | 47.1             |
| Employer contributions   | 262.3            |
| Transfers                | 5.4              |
| Other                    | 3.3              |
| Investment return*       | 1,205.3          |
| Total                    | 1,523.5          |
| Expenditures             |                  |
| Benefits paid            | 422.5            |
| Expenses                 | 6.8              |
| Total                    | 429.4            |
| Reserve Adjustments      | (0.5)            |
| <b>Balance 6/30/2014</b> | <b>\$7,512.2</b> |

\* Net of investment expenses.

Note: Results may not total due to rounding.

**REPORTED ACCRUED ASSETS AVAILABLE FOR BENEFITS  
JUNE 30, 2014**

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| <b>Retirement System Account</b> | <b>Reported Assets<br/>June 30, 2014</b> |
|----------------------------------|--|
| Employer Accumulation Account    | \$ 2,482,675,979 *                       |
| Members Deposit Account          | 220,737,453                              |
| Members Deposit Interest Reserve | 23,623,762                               |
| Retirement Reserve Account       | 4,246,725,967 *                          |
| Deferred Annuity Reserve Account | 422,580,872 *                            |
| DROP Reserve                     | 115,700,346                              |
| Miscellaneous Reserves           | 122,969                                  |
| Total Market Value               | <u>7,512,167,348</u>                     |
| Funding Value of Assets          | 6,894,878,773                            |
| Valuation Asset Adjustment       | (617,288,575)                            |
| Adjusted Employer Accum. Account | \$ 1,865,387,404                         |

\* After recommended reserve transfers (see page A-6).

**REPORTED ACCRUED ASSETS AVAILABLE FOR BENEFITS**  
**JUNE 30, 2014**  
**(CONCLUDED)**

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*The Employers Accumulation Account* represents employer contributions accumulated for benefits on behalf of present members.

*The Members Deposit Account* represents member contributions accumulated for (1) monthly benefits at retirement, and (2) refunds upon termination if monthly benefits are not payable.

*The Members Deposit Interest Reserve Account* represents interest credited on member contributions.

*The Retirement Reserve Account* represents reserves, from employer and member contributions, held for the monthly benefits being paid to present retired lives.

*The Deferred Annuity Account* represents employer reserves held for future monthly benefits to present inactive members.

*In financing the liabilities*, the above Fund balances were applied to the actuarial accrued liabilities.

## DEVELOPMENT OF FUNDING VALUE OF ASSETS

| Valuation Date June 30:                                   | 2012                    | 2013                    | 2014                    | 2015           | 2016           | 2017           |
|---|-------------------------|-------------------------|-------------------------|----------------|----------------|----------------|
| A. Funding Value Beginning of Year                        | \$ 5,467,472,476        | \$ 5,625,388,129        | \$ 6,159,333,771        |                |                |                |
| B. Market Value End of Year                               | 5,677,707,897           | 6,418,518,612           | 7,512,167,348           |                |                |                |
| C. Market Value Beginning of Year                         | 5,784,994,854           | 5,677,707,897           | 6,418,518,612           |                |                |                |
| D. Non-Investment Net Cash Flow                           | (86,550,171)            | (102,964,014)           | (104,393,272)           |                |                |                |
| E. Investment Income                                      |                         |                         |                         |                |                |                |
| E1. Market Total: B - C - D                               | (20,736,786)            | 843,774,729             | 1,198,042,008           |                |                |                |
| E2. Assumed Rate  | 8.00%                   | 8.00%                   | 8.00%                   | 7.75%          |                |                |
| E3. Amount for Immediate Recognition                      | 433,980,193             | 445,965,313             | 488,624,527             |                |                |                |
| E4. Amount for Phased-In Recognition                      | (454,716,979)           | 397,809,416             | 709,417,481             |                |                |                |
| F. Phased-In Recognition of Investment Income             |                         |                         |                         |                |                |                |
| F1. Current Year: 0.25 x E4                               | (113,679,245)           | 99,452,354              | 177,354,370             |                |                |                |
| F2. First Prior Year                                      | 188,186,269             | (113,679,245)           | 99,452,354              | \$ 177,354,370 |                |                |
| F3. Second Prior Year                                     | 16,984,966              | 188,186,269             | (113,679,245)           | 99,452,354     | \$ 177,354,370 |                |
| F4. Third Prior Year                                      | (281,006,359)           | 16,984,965              | 188,186,268             | (113,679,244)  | 99,452,354     | \$ 177,354,371 |
| F5. Total Phase-Ins                                       | (189,514,369)           | 190,944,343             | 351,313,747             | 163,127,480    | 276,806,724    | 177,354,371    |
| G. Preliminary Funding Value End of Year: A + D + E3 + F5 | \$ 5,625,388,129        | \$ 6,159,333,771        | \$ 6,894,878,773        |                |                |                |
| H. Adjustment to Minimum of 75% of B, Maximum 125% of B   | 0                       | 0                       | 0                       |                |                |                |
| <b>I. Funding Value End of Year</b>                       | <b>\$ 5,625,388,129</b> | <b>\$ 6,159,333,771</b> | <b>\$ 6,894,878,773</b> |                |                |                |
| J. Difference Between Market & Funding Value              | 52,319,768              | 259,184,841             | 617,288,575             |                |                |                |
| <b>K. Recognized Rate of Return</b>                       | <b>4.5%</b>             | <b>11.4%</b>            | <b>13.8%</b>            |                |                |                |
| L. Market Rate of Return                                  | (0.4)%                  | 15.0%                   | 18.8%                   |                |                |                |
| M. Ratio of Funding Value to Market Value                 | 99%                     | 96%                     | 92%                     |                |                |                |

The Funding Value of Assets recognizes assumed investment return (line E3) fully each year. Differences between actual and assumed investment return (Line E4) are phased-in over a closed 4-year period. During periods when investment performance exceeds the assumed rate, Funding Value of Assets will tend to be less than Market Value. During periods when investment performance is less than the assumed rate, Funding Value of Assets will tend to be greater than Market Value. If assumed rates are exactly realized for 3 consecutive years, Funding Value will become equal to Market Value.

## SUMMARY OF ANNUITANTS ON ROLLS

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*Retirees and beneficiaries (including DROP participants) on rolls included* in the valuation totaled 31,914, involving annual annuities of \$457,088,299, distributed as follows:

| Division                      | Number        | Annuities Being Paid July 1, 2014 |                       |
|-------------------------------|---------------|-----------------------------------|-----------------------|
|                               |               | Monthly                           | Annualized            |
| State & Local                 | 30,000        | \$ 33,215,562                     | \$ 398,586,739        |
| General Assembly              | 123           | 165,107                           | 1,981,286             |
| Governor                      | 6             | 17,676                            | 212,112               |
| Wildlife                      | 101           | 320,856                           | 3,850,273             |
| State Constitutional Officers | 5             | 16,652                            | 199,821               |
| Penitentiary                  | 0             | 0                                 | 0                     |
| <b>Sub-total</b>              | <b>30,235</b> | <b>33,735,853</b>                 | <b>404,830,231</b>    |
| DROP                          | 1,679         | 4,354,839                         | 52,258,068            |
| <b>Totals</b>                 | <b>31,914</b> | <b>\$ 38,090,692</b>              | <b>\$ 457,088,299</b> |

*Inactive members*, entitled to deferred annuities, included in the valuation totaled 13,514, involving estimated deferred monthly annuities of \$5,475,278, distributed as follows:

| Division                      | Number of Inactive Members | Estimated Deferred Annuities |                      |
|-------------------------------|----------------------------|------------------------------|----------------------|
|                               |                            | Monthly                      | Annualized           |
| State and Local               | 13,449                     | \$ 5,462,009                 | \$ 65,544,105        |
| General Assembly              | 56                         | 8,924                        | 107,087              |
| Wildlife                      | 8                          | 3,656                        | 43,876               |
| State Constitutional Officers | 1                          | 689                          | 8,271                |
| <b>Totals</b>                 | <b>13,514</b>              | <b>\$ 5,475,278</b>          | <b>\$ 65,703,340</b> |

**RETIREMENT SYSTEM TOTALS  
 ANNUITIES BEING PAID RETIREES AND BENEFICIARIES  
 AND DROP PARTICIPANTS  
 JUNE 30, 2014  
 BY ATTAINED AGE AND TYPE OF RETIREMENT**

| Attained<br>Ages | DROP         |                     | Age & Service* |                      | Disability   |                     | Death-in-Service |                     | Totals        |                       |
|------------------|--------------|---------------------|----------------|----------------------|--------------|---------------------|------------------|---------------------|---------------|-----------------------|
|                  | No.          | Annual<br>Amount    | No.            | Annual<br>Annuities  | No.          | Annual<br>Annuities | No.              | Annual<br>Annuities | No.           | Annual<br>Annuities   |
| Under 40         |              |                     | 146            | \$ 779,570           | 83           | \$ 346,308          |                  | \$ -                | 229           | \$ 1,125,878          |
| 40-44            |              | \$ -                | 43             | 330,382              | 70           | 463,152             | 1                | 6,000               | 114           | 799,534               |
| 45-49            | 24           | 669,612             | 112            | 1,969,034            | 141          | 1,038,396           |                  |                     | 277           | 3,677,042             |
| 50-54            | 310          | 9,196,332           | 541            | 12,260,355           | 348          | 2,897,880           | 1                | 5,700               | 1,200         | 24,360,267            |
| 55-59            | 669          | 22,550,208          | 2,262          | 41,119,308           | 579          | 5,121,840           | 2                | 14,976              | 3,512         | 68,806,332            |
| 60-64            | 523          | 15,898,704          | 4,518          | 73,939,682           | 788          | 7,001,016           |                  |                     | 5,829         | 96,839,402            |
| 65-69            | 132          | 3,286,056           | 6,403          | 88,405,584           | 687          | 5,945,952           | 3                | 12,540              | 7,225         | 97,650,132            |
| 70-74            | 17           | 508,488             | 4,949          | 61,130,832           | 337          | 2,802,720           | 5                | 35,388              | 5,308         | 64,477,428            |
| 75-79            | 3            | 89,316              | 3,607          | 42,947,724           | 153          | 1,341,132           | 5                | 49,248              | 3,768         | 44,427,420            |
| 80-84            | 1            | 59,352              | 2,376          | 29,329,464           | 46           | 435,228             | 7                | 58,044              | 2,430         | 29,882,088            |
| 85-89            |              |                     | 1,248          | 15,983,520           | 15           | 188,628             | 8                | 53,148              | 1,271         | 16,225,296            |
| 90-94            |              |                     | 523            | 6,484,848            | 4            | 32,292              | 7                | 50,940              | 534           | 6,568,080             |
| 95-99            |              |                     | 141            | 1,819,620            |              |                     | 4                | 25,212              | 145           | 1,844,832             |
| Over 100         |              |                     | 61             | 360,756              | 9            | 34,080              | 2                | 9,732               | 72            | 404,568               |
| <b>Totals</b>    | <b>1,679</b> | <b>\$52,258,068</b> | <b>26,930</b>  | <b>\$376,860,679</b> | <b>3,260</b> | <b>\$27,648,624</b> | <b>45</b>        | <b>\$320,928</b>    | <b>31,914</b> | <b>\$ 457,088,299</b> |

\* Including survivor beneficiaries of deceased retirees and QDRO alternate payees.



**ANNUITIES BEING PAID JUNE 30, 2014  
BY TYPE OF ANNUITY**

| <u>Type of Annuity</u>                                      | <u>Number</u> | <u>Annual Annuities</u> |
|---|---------------|-------------------------|
| <b>Age &amp; Service Retirees</b>                           |               |                         |
| Life  | 18,552        | \$ 266,317,975          |
| Option A- 60 ( 5 years certain)                             | 1,204         | 15,298,718              |
| Option A-120 (10 years certain)                             | 2,195         | 26,194,440              |
| Option B- 50 (joint and 50% survivor)                       | 1,193         | 22,440,435              |
| Option B- 75 (joint and 75% survivor)                       | 2,251         | 32,062,471              |
| Option B-100 (joint and 100% survivor)                      | 63            | 1,330,802               |
| <b>Totals</b>   | <b>25,458</b> | <b>363,644,841</b>      |
| <b>Beneficiaries of Age &amp; Service Retirees</b>          |               |                         |
| Life  | 219           | 1,661,857               |
| Option A- 60  | 26            | 212,040                 |
| Option A-120  | 193           | 1,792,646               |
| Option B- 50  | 319           | 2,622,625               |
| Option B- 75  | 519           | 5,110,367               |
| Option B-100  | 32            | 606,828                 |
| <b>Totals</b>   | <b>1,308</b>  | <b>12,006,363</b>       |
| <b>Total Age &amp; Service Retirees &amp; Beneficiaries</b> | <b>26,766</b> | <b>375,651,204</b>      |
| <b>Disability Retirees</b>                                  |               |                         |
| Life  | 2,020         | 17,835,012              |
| Option A- 60  | 139           | 1,137,924               |
| Option A-120  | 343           | 2,875,236               |
| Option B- 50  | 145           | 1,294,800               |
| Option B- 75  | 243           | 1,988,640               |
| Option B-100  | 0             | 0                       |
| <b>Totals</b>   | <b>2,890</b>  | <b>25,131,612</b>       |
| <b>Beneficiaries of Disability Retirees</b>                 |               |                         |
| Life  | 55            | 328,476                 |
| Option A- 60  | 0             | 0                       |
| Option A-120  | 0             | 0                       |
| Option B- 50  | 0             | 0                       |
| Option B- 75  | 315           | 2,188,536               |
| Option B-100  | 0             | 0                       |
| <b>Beneficiaries of Disability Retirees</b>                 | <b>370</b>    | <b>2,517,012</b>        |
| <b>Total Disability Retirees &amp; Beneficiaries</b>        | <b>3,260</b>  | <b>27,648,624</b>       |
| <b>QDRO Alternate Payees</b>                                | <b>164</b>    | <b>1,209,475</b>        |
| <b>Death-in-Service Beneficiaries</b>                       | <b>45</b>     | <b>320,928</b>          |
| <b>Total Retirees &amp; Beneficiaries</b>                   | <b>30,235</b> | <b>404,830,231</b>      |
| <b>DROP Participants</b>                                    | <b>1,679</b>  | <b>52,258,068</b>       |
| <b>Total Including DROP Participants</b>                    | <b>31,914</b> | <b>\$ 457,088,299</b>   |

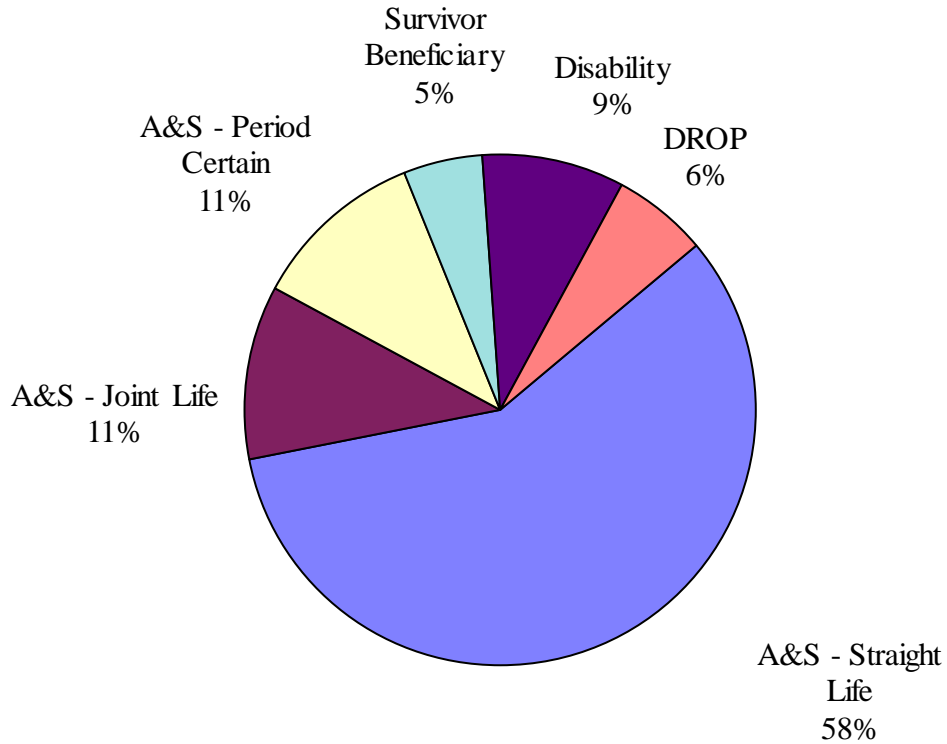
The average monthly benefit payable is \$1,193.54.

**SCHEDULE OF AVERAGE BENEFIT PAYMENTS  
(VOLUNTARY RETIREMENTS STILL RECEIVING  
BENEFITS AS OF JUNE 30, 2014)**

|   | Years of Credited Service |           |             |            |            |
|---|---------------------------|-----------|-------------|------------|------------|
|   | 10-14                     | 15-19     | 20-24       | 25-29      | 30+        |
| <b>Retirement Effective Dates</b><br><b>July 1, 2013 to June 30, 2014</b> |                           |           |             |            |            |
| Average Monthly Benefit   | \$ 379.72                 | \$ 804.56 | \$ 1,207.24 | \$1,688.93 | \$2,479.21 |
| Average Monthly FAS   | 2,309.88                  | 2,915.76  | 3,367.25    | 3,496.79   | 3,930.04   |
| Number of Active Retirees   | 804                       | 241       | 186         | 289        | 115        |
| <b>Retirement Effective Dates</b><br><b>July 1, 2012 to June 30, 2013</b> |                           |           |             |            |            |
| Average Monthly Benefit   | 394.49                    | 777.21    | 1,212.19    | 1,689.26   | 2,528.22   |
| Average Monthly FAS   | 2,334.79                  | 2,821.56  | 3,287.84    | 3,520.94   | 4,126.51   |
| Number of Active Retirees   | 845                       | 230       | 192         | 289        | 147        |
| <b>Retirement Effective Dates</b><br><b>July 1, 2011 to June 30, 2012</b> |                           |           |             |            |            |
| Average Monthly Benefit   | 359.22                    | 796.70    | 1,141.41    | 1,996.93   | 2,393.13   |
| Average Monthly FAS   | 2,146.27                  | 2,822.81  | 3,144.98    | 3,759.45   | 3,663.40   |
| Number of Active Retirees   | 773                       | 223       | 187         | 280        | 102        |
| <b>Retirement Effective Dates</b><br><b>July 1, 2010 to June 30, 2011</b> |                           |           |             |            |            |
| Average Monthly Benefit   | 372.68                    | 801.28    | 1,098.09    | 1,819.72   | 2,664.41   |
| Average Monthly FAS   | 2,160.58                  | 2,701.81  | 2,980.81    | 3,464.61   | 4,009.20   |
| Number of Active Retirees   | 659                       | 204       | 187         | 276        | 151        |
| <b>Retirement Effective Dates</b><br><b>July 1, 2009 to June 30, 2010</b> |                           |           |             |            |            |
| Average Monthly Benefit   | 347.84                    | 724.36    | 986.77      | 1,879.39   | 2,531.56   |
| Average Monthly FAS   | 1,957.72                  | 2,551.44  | 2,601.11    | 3,352.63   | 3,824.32   |
| Number of Active Retirees   | 620                       | 180       | 159         | 226        | 106        |
| <b>Retirement Effective Dates</b><br><b>July 1, 2008 to June 30, 2009</b> |                           |           |             |            |            |
| Average Monthly Benefit   | 339.53                    | 740.82    | 1,034.55    | 1,947.12   | 2,350.56   |
| Average Monthly FAS   | 1,864.11                  | 2,516.01  | 2,664.59    | 3,210.36   | 3,412.94   |
| Number of Active Retirees   | 660                       | 220       | 184         | 382        | 170        |
| <b>Retirement Effective Dates</b><br><b>July 1, 2007 to June 30, 2008</b> |                           |           |             |            |            |
| Average Monthly Benefit   | 363.12                    | 786.38    | 943.75      | 1,955.95   | 2,558.47   |
| Average Monthly FAS   | 1,878.90                  | 2,511.29  | 2,415.27    | 3,260.64   | 3,684.55   |
| Number of Active Retirees   | 517                       | 172       | 155         | 359        | 93         |
| <b>Retirement Effective Dates</b><br><b>July 1, 2006 to June 30, 2007</b> |                           |           |             |            |            |
| Average Monthly Benefit   | 378.67                    | 768.78    | 1,064.47    | 2,176.91   | 3,033.46   |
| Average Monthly FAS   | 1,867.90                  | 2,443.30  | 2,637.75    | 3,308.60   | 3,835.49   |
| Number of Active Retirees   | 518                       | 189       | 176         | 434        | 199        |
| <b>Retirement Effective Dates</b><br><b>July 1, 2005 to June 30, 2006</b> |                           |           |             |            |            |
| Average Monthly Benefit   | 372.41                    | 680.62    | 977.34      | 2,165.28   | 2,793.10   |
| Average Monthly FAS   | 1,800.74                  | 2,152.16  | 2,370.68    | 3,236.92   | 3,589.65   |
| Number of Active Retirees   | 489                       | 198       | 147         | 472        | 137        |
| <b>Retirement Effective Dates</b><br><b>July 1, 2004 to June 30, 2005</b> |                           |           |             |            |            |
| Average Monthly Benefit   | 344.58                    | 650.44    | 963.41      | 2,115.67   | 2,703.29   |
| Average Monthly FAS   | 1,731.99                  | 1,997.81  | 2,324.08    | 3,145.60   | 3,468.59   |
| Number of Active Retirees   | 504                       | 162       | 142         | 391        | 184        |
| <b>Retirement Effective Dates</b><br><b>July 1, 2004 to June 30, 2014</b> |                           |           |             |            |            |
| Average Monthly Benefit   | 366.46                    | 1,386.10  | 2,168.26    | 2,357.71   | 6,228.80   |
| Average Monthly FAS   | 1,271.98                  | 1,481.71  | 1,642.38    | 1,411.03   | 1,740.02   |
| Number of Active Retirees   | 6,389                     | 2,019     | 1,715       | 3,398      | 1,404      |

**ANNUITIES BEING PAID BY TYPE  
JUNE 30, 2014**

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**NEW RETIREES  
JUNE 30, 2014**

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|                                | <u>New Retirees June 30, 2014</u> |                   |
|--------------------------------|-----------------------------------|-------------------|
|                                | <u>Age &amp;<br/>Service</u>      | <u>Disability</u> |
| <b>Number*</b>                 | 1,622                             | 160               |
| <b>Average Age (yrs.)</b>      | 62.2                              | 52.9              |
| <b>Average Service (yrs.)</b>  | 16.9                              | 13.7              |
| <b>Average Monthly Benefit</b> | \$921.73                          | \$674.79          |

\* May include members who become new retirees from a non-active status.

**RETIREMENT SYSTEM TOTALS  
 ANNUITIES LIKELY TO BE PAID PRESENT INACTIVE MEMBERS  
 JUNE 30, 2014  
 BY ATTAINED AGE**

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| <b>Attained<br/>Ages</b> | <b>No.</b>    | <b>Estimated<br/>Annual<br/>Annuities</b> |
|--------------------------|---------------|---|
| Under 40                 | 2,182         | \$ 9,011,847                              |
| 40-44                    | 2,072         | 9,419,453                                 |
| 45-49                    | 2,462         | 12,098,860                                |
| 50-54                    | 2,701         | 14,750,874                                |
| 55-59                    | 2,013         | 10,417,564                                |
| 60-64                    | 1,402         | 7,238,929                                 |
| 65-69                    | 682           | 2,765,813                                 |
| <b>Totals</b>            | <b>13,514</b> | <b>\$ 65,703,340</b>                      |

**LIABILITIES FOR DEFERRED ANNUITIES JUNE 30, 2014**

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| <b>Number of<br/>Inactive<br/>Members</b> | <b>Estimated<br/>Annual<br/>Annuities</b> | <b>Annuity<br/>Liabilities</b> |
|---|---|--------------------------------|
| 13,514                                    | \$ 65,703,340                             | \$ 422,580,872                 |

**STATE AND LOCAL DIVISION  
(EXCLUDING GENERAL ASSEMBLY)  
ACTIVE MEMBERS\* IN VALUATION JUNE 30, 2014  
BY ATTAINED AGE AND YEARS OF SERVICE**

| Attained Age  | Years of Service to Valuation Date |               |              |              |              |              |            | Totals        |                        |
|---------------|------------------------------------|---------------|--------------|--------------|--------------|--------------|------------|---------------|------------------------|
|               | 0-4                                | 5-9           | 10-14        | 15-19        | 20-24        | 25-29        | 30 plus    | No.           | Valuation Payroll      |
| Under 20      | 250                                |               |              |              |              |              |            | 250           | \$ 3,899,661           |
| 20-24         | 2,315                              | 30            |              |              |              |              |            | 2,345         | 55,848,882             |
| 25-29         | 3,274                              | 808           | 25           |              |              |              |            | 4,107         | 120,724,772            |
| 30-34         | 2,578                              | 1,707         | 520          | 10           | 1            |              |            | 4,816         | 160,015,528            |
| 35-39         | 2,052                              | 1,488         | 992          | 303          | 10           | 2            | 1          | 4,848         | 170,510,673            |
| 40-44         | 1,807                              | 1,356         | 1,135        | 781          | 229          | 30           | 13         | 5,351         | 198,486,431            |
| 45-49         | 1,819                              | 1,225         | 971          | 843          | 619          | 327          | 66         | 5,870         | 218,051,325            |
| 50-54         | 1,535                              | 1,229         | 1,076        | 836          | 677          | 674          | 211        | 6,238         | 242,475,166            |
| 55-59         | 1,222                              | 1,181         | 988          | 783          | 640          | 590          | 277        | 5,681         | 223,312,311            |
| 60            | 203                                | 200           | 177          | 158          | 125          | 112          | 57         | 1,032         | 41,282,059             |
| 61            | 187                                | 192           | 200          | 169          | 123          | 89           | 47         | 1,007         | 39,701,022             |
| 62            | 138                                | 192           | 154          | 136          | 106          | 82           | 34         | 842           | 32,660,063             |
| 63            | 128                                | 140           | 103          | 86           | 80           | 73           | 28         | 638           | 25,424,475             |
| 64            | 81                                 | 121           | 119          | 87           | 72           | 49           | 28         | 557           | 21,878,080             |
| 65            | 81                                 | 118           | 106          | 60           | 67           | 48           | 19         | 499           | 19,552,506             |
| 66            | 73                                 | 72            | 75           | 57           | 37           | 40           | 21         | 375           | 14,698,510             |
| 67            | 66                                 | 66            | 57           | 38           | 35           | 19           | 20         | 301           | 10,858,692             |
| 68            | 47                                 | 58            | 48           | 44           | 28           | 18           | 14         | 257           | 10,253,595             |
| 69            | 29                                 | 29            | 23           | 28           | 13           | 17           | 7          | 146           | 5,500,994              |
| 70 & over     | 139                                | 146           | 137          | 100          | 63           | 46           | 46         | 677           | 22,837,564             |
| <b>Totals</b> | <b>18,024</b>                      | <b>10,358</b> | <b>6,906</b> | <b>4,519</b> | <b>2,925</b> | <b>2,216</b> | <b>889</b> | <b>45,837</b> | <b>\$1,637,972,309</b> |

\* Not including DROP participants.

**Group Averages**

|             |            |
|-------------|------------|
| Age:        | 44.9 years |
| Service:    | 9.3 years  |
| Annual Pay: | \$35,735   |

**GENERAL ASSEMBLY SUB-DIVISION  
ACTIVE MEMBERS IN VALUATION JUNE 30, 2014  
BY ATTAINED AGE AND YEARS OF SERVICE**

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| Attained Age  | Years of Service to Valuation Date |          |          |          |       |       |         | No.      | Valuation Payroll |
|---------------|------------------------------------|----------|----------|----------|-------|-------|---------|----------|-------------------|
|               | 0-4                                | 5-9      | 10-14    | 15-19    | 20-24 | 25-27 | 28 Plus |          |                   |
| 25-29         |                                    |          |          |          |       |       |         |          |                   |
| 30-34         |                                    |          |          |          |       |       |         |          |                   |
| 35-39         |                                    |          |          |          |       |       |         |          |                   |
| 40-44         |                                    | 1        |          |          |       |       |         | 1        | \$ 15,868         |
| 45-49         |                                    |          |          |          |       |       |         |          |                   |
| 50-54         |                                    |          |          |          |       |       |         |          |                   |
| 55-59         |                                    |          | 1        |          |       |       |         | 1        | 15,868            |
| 60            |                                    |          |          | 1        |       |       |         | 1        | 15,868            |
| 61            |                                    |          |          |          |       |       |         |          |                   |
| 62            |                                    |          |          |          |       |       |         |          |                   |
| 63            |                                    |          |          |          |       |       |         |          |                   |
| 64            |                                    |          |          |          |       |       |         |          |                   |
| 65            |                                    |          |          |          |       |       |         |          |                   |
| 66            |                                    |          |          |          |       |       |         |          |                   |
| 67            |                                    |          |          |          |       |       |         |          |                   |
| 68            |                                    |          |          |          |       |       |         |          |                   |
| 69            |                                    |          |          |          |       |       |         |          |                   |
| 70            |                                    |          | 1        |          |       |       |         | 1        | 15,868            |
| <b>Totals</b> |                                    | <b>1</b> | <b>2</b> | <b>1</b> |       |       |         | <b>4</b> | <b>\$ 63,472</b>  |

While not used in the computations, the following *group averages* are computed and shown for their general interest.

**Group Averages**

|             |            |
|-------------|------------|
| Age:        | 57.0 years |
| Service:    | 11.5 years |
| Annual Pay: | \$15,868   |

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**SECTION C**  
**GAIN/(LOSS) ANALYSIS**

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## GAIN/(LOSS) ANALYSIS COMMENTS

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***Purpose of Gain/(Loss) Analysis.*** Regular actuarial valuations give valuable information about the composite change in unfunded actuarial accrued liabilities – whether or not the liabilities are increasing or decreasing and by how much.

But valuations do not show the portion of the change attributable to each risk area within the Retirement System: the rate of investment return which plan assets earn; the rates of withdrawal of active members who leave covered employment; the rates of mortality; the rates of disability; the rates of pay increases; and the ages at actual retirement. In an actuarial valuation, assumptions must be made as to what these rates will be, for the next year and for decades in the future.

***The objective of a gain and loss analysis is to determine the portion of the change in actuarial condition (unfunded actuarial accrued liabilities) attributable to each risk area.***

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The fact that actual experience differs from assumed experience is to be expected – ***the future cannot be predicted with precision.*** The economic risk areas (particularly investment return and pay increases) are volatile. Inflation directly affects economic risk areas, and inflation seems to defy reliable prediction.

Changes in the valuation assumed experience for a risk area should be made when the differences between assumed and actual experience have been observed to be sizable and persistent. A gain and loss analysis covering a relatively short period may or may not be indicative of ***long-term trends, which are the basis of actuarial assumptions.***



**CHANGES IN UNFUNDED ACTUARIAL ACCRUED LIABILITIES  
DURING THE PERIOD JULY 1, 2013 TO JUNE 30, 2014**

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|   | <b>Total<br/>(\$ in millions)</b> |
|---|-----------------------------------|
| (1) UAAL* at beginning of year  | \$ 2,124.8                        |
| (2) Normal cost from last valuation                                   | 121.0                             |
| (3) Actual employer contributions                                     | 262.3                             |
| (4) Interest accrual:<br>$[(1) + \frac{1}{2}[(2) - (3)]] \times .080$ | 164.3                             |
| (5) Expected UAAL before changes:<br>$(1) + (2) - (3) + (4)$          | 2,147.8                           |
| (6) Increase from benefit changes                                     | 0.0                               |
| (7) Changes from revised actuarial assumptions<br>and methods         | 209.0                             |
| (8) New entrant liabilities   | 37.2                              |
| (9) Expected UAAL after changes:<br>$(5) + (6) + (7) + (8)$           | 2,394.0                           |
| (10) Actual UAAL at end of year                                       | 1,968.8                           |
| <hr/>   |                                   |
| (11) Gain/(Loss): $(9) - (10)$  | \$ 425.2                          |

\* *Unfunded actuarial accrued liability.*

**GAINS/(LOSSES) BY RISK AREA  
DURING THE PERIOD JULY 1, 2013 TO JUNE 30, 2014**

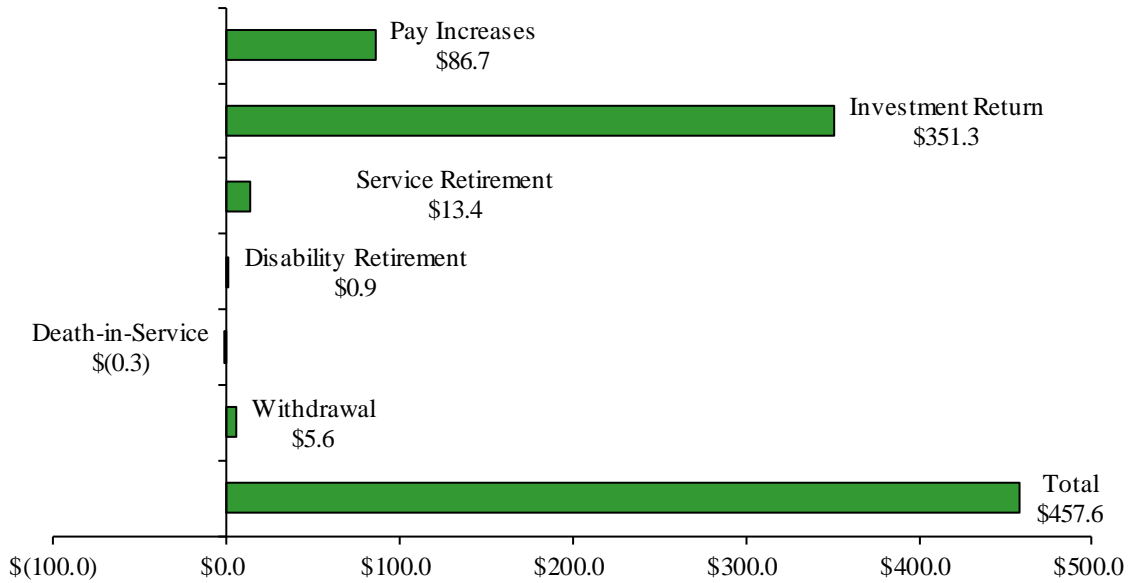
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| Type of Risk Area  | Total<br>(\$ in millions) | % of<br>Accrued<br>Liabilities |
|--|---------------------------|--------------------------------|
| <b>ECONOMIC RISK AREAS .....</b>   |                           |                                |
| <i>Pay Increases.</i> If there are smaller pay increases than assumed, there is a gain. If greater increases, a loss.  | \$ 86.7                   | 1.0 %                          |
| <i>Investment Return.</i> If there is greater investment return than assumed, there is a gain. If less return, a loss.   | 351.3                     | 4.0 %                          |
| <b>NON-ECONOMIC RISK AREAS .....</b>   |                           |                                |
| <i>Non-Casualty Retirements.</i> If members retire at older ages or with lower final average pays than assumed, there is a gain. If younger ages or higher average pays, a loss. | 13.4                      | 0.2 %                          |
| <i>Disability Retirements.</i> If there are fewer disabilities than assumed, there is a gain. If more, a loss.   | 0.9                       | 0.0 %                          |
| <i>Death-in-Service Benefits.</i> If there are fewer claims than assumed, there is a gain. If more, a loss.  | (0.3)                     | 0.0 %                          |
| <i>Withdrawal.</i> If more liabilities are released by other separations than assumed, there is a gain. If smaller releases, a loss.   | 5.6                       | 0.1 %                          |
| <b>Total Active Member Actuarial Gains/(Losses)</b>  | <b>\$ 457.6</b>           | <b>5.3 %</b>                   |
| <i>Retired Life Mortality.</i>   | 39.9                      | 0.5 %                          |
| <i>Other.</i> Includes data adjustments at retirement, timing of financial transactions, and miscellaneous unidentified sources.   | (72.3)                    | (0.8)%                         |
| <b>Total Actuarial Gains/(Losses)</b>  | <b>\$ 425.2</b>           | <b>5.0 %</b>                   |

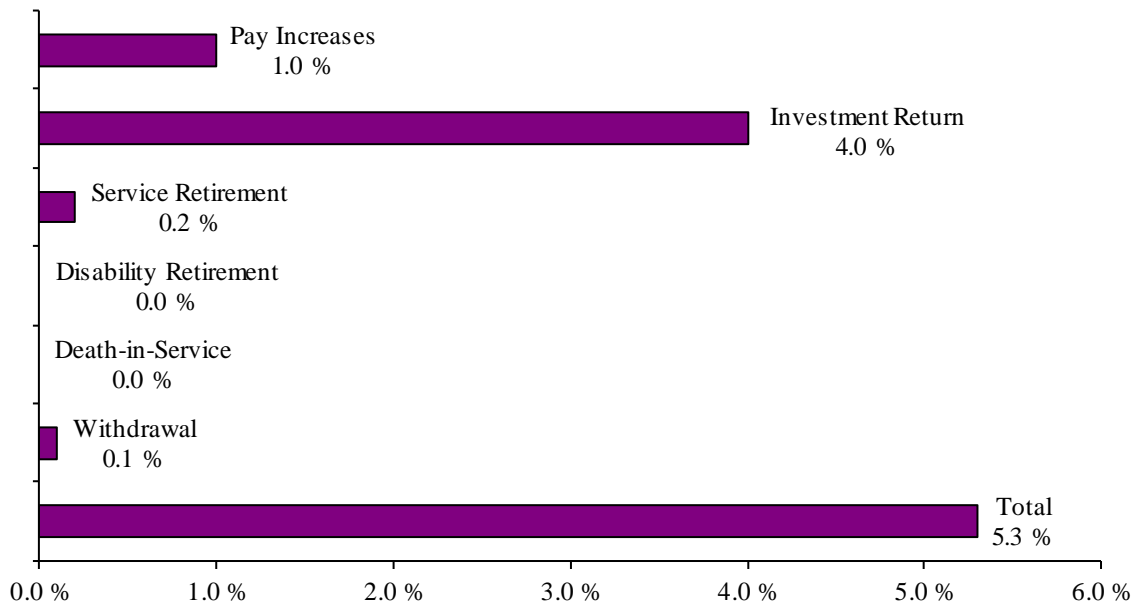
**ACTUARIAL GAINS/(LOSSES)  
ACTIVE MEMBERS  
2013-2014 PLAN YEAR**

---

**Amount in \$ Millions**



**% of Accrued Liabilities**



**ACTUARIAL GAINS/(LOSSES) BY RISK AREA**  
**ACTIVE MEMBERS - COMPARATIVE STATEMENT**  
**(\$ IN MILLIONS)**

| Year<br>Ending<br>June 30 | Gain/(Loss) By Risk Area |                  |                                |            |                      |            | Total Experience<br>Gain/(Loss) |              | Accrued<br>Liability<br>End of<br>Year |
|---------------------------|--------------------------|------------------|--------------------------------|------------|----------------------|------------|---------------------------------|--------------|--|
|                           | Pay<br>Increases         | Invest-<br>ments | Age &<br>Service<br>Retirement | Disability | Death-In-<br>Service | Withdrawal | Dollars                         | % of AAL     |  |
| 1992                      | \$2.7                    | \$27.9           | \$ 2.7                         | \$ 1.2     | \$ 2.1               | \$(6.1)    | \$30.5                          | 3.2 %        | \$ 1,607.6                             |
| 1993                      | (2.6)                    | 36.3             | 1.6                            | 1.3        | 3.1                  | 4.2        | 43.9                            | 2.7 %        | 1,711.3                                |
| 1994                      | 26.0                     | 21.5             | 3.8                            | 1.4        | 2.4                  | (2.2)      | 52.9                            | 3.1 %        | 1,853.8                                |
| 1995                      | 32.0                     | 68.1             | (2.1)                          | (1.5)      | (3.0)                | (1.7)      | 91.8                            | 4.5 %        | 2,057.4                                |
| 1996                      | (0.7)                    | 103.5            | 5.7                            | 2.9        | 1.4                  | 5.3        | 118.1                           | 5.8 %        | 2,290.6                                |
| 1997                      | (2.2)                    | 155.3            | 7.7                            | 3.6        | 1.9                  | 4.9        | 171.2                           | 7.5 %        | 2,605.6                                |
| 1998                      | 18.2                     | 197.4            | (4.4)                          | 4.2        | 2.1                  | 20.6       | 238.1                           | 9.1 %        | 2,882.5                                |
| 1999                      | (0.6)                    | 153.1            | (0.3)                          | 3.2        | (0.1)                | 25.8       | 181.1                           | 5.5 %        | 3,478.7                                |
| 2000                      | (13.1)                   | 134.1            | 2.2                            | 2.8        | (0.1)                | 20.7       | 146.6                           | 4.2 %        | 3,803.4                                |
| 2001                      | 31.3                     | (37.0)           | 3.3                            | 3.0        | 0.1                  | 18.9       | 19.6                            | 0.5 %        | 4,111.0                                |
| 2002                      | 5.4                      | (247.1)          | 3.7                            | (2.5)      | 0.5                  | (4.2)      | (244.2)                         | (5.6)%       | 4,398.0                                |
| 2003                      | 36.0                     | (292.6)          | 11.2                           | 3.3        | (0.1)                | 15.2       | (227.0)                         | (4.9)%       | 4,398.0                                |
| 2004                      | 16.2                     | (274.0)          | 18.4                           | 0.5        | 0.2                  | 8.6        | (230.0)                         | (4.6)%       | 5,004.5                                |
| 2005                      | 46.7                     | (143.4)          | 20.1                           | 0.5        | 0.5                  | 28.5       | (47.1)                          | (0.8)%       | 5,619.4                                |
| 2006                      | (15.4)                   | 46.5             | 17.0                           | 0.8        | 0.0                  | 11.4       | 60.3                            | 1.0 %        | 5,936.3                                |
| 2007                      | 53.2                     | 215.5            | 12.4                           | 0.8        | 0.1                  | 17.2       | 299.2                           | 4.8 %        | 6,173.8                                |
| 2008                      | (35.8)                   | (0.5)            | (1.4)                          | 0.9        | 0.1                  | 10.0       | (26.7)                          | (0.4)%       | 6,542.7                                |
| 2009                      | 1.9                      | (808.1)          | (7.3)                          | 1.1        | 0.0                  | 4.9        | (807.5)                         | (11.6)%      | 6,937.9                                |
| 2010                      | (2.8)                    | (319.7)          | (2.1)                          | 2.4        | (0.1)                | (7.7)      | (330.0)                         | (4.5)%       | 7,304.2                                |
| 2011                      | 65.1                     | (259.8)          | 10.7                           | (5.9)      | (0.1)                | 7.7        | (182.3)                         | (2.4)%       | 7,734.1                                |
| 2012                      | 35.8                     | (189.5)          | 11.1                           | 0.8        | (0.2)                | (4.2)      | (146.1)                         | (1.8)%       | 8,162.7                                |
| 2013                      | 89.2                     | 190.9            | 27.6                           | 0.8        | (0.3)                | 3.4        | 311.6                           | 3.7 %        | 8,284.2                                |
| <b>2014</b>               | <b>86.7</b>              | <b>351.3</b>     | <b>13.4</b>                    | <b>0.9</b> | <b>(0.3)</b>         | <b>5.6</b> | <b>457.6</b>                    | <b>5.3 %</b> | <b>8,863.6</b>                         |

**DEVELOPMENT OF GAIN/(LOSS)  
FROM INVESTMENT RETURN\*  
DURING THE PERIOD JULY 1, 2013 TO JUNE 30, 2014**

---

|   | <u>\$ Millions</u> |
|---|--------------------|
| 1. Total Assets Beginning of Year           | \$ 6,159.3         |
| 2. Total Assets End of Year (Funding Value) |                    |
| a. Actual                                   | \$ 6,894.9         |
| b. If net investment return had been 8.00%  | <u>\$ 6,543.6</u>  |
| 3. Gain/(Loss): 2a. minus 2b.               | \$ 351.3           |

\* *“Investment return” as used in this Gain/(Loss) Analysis means essentially: assumed investment income; plus/minus a four-year phase-in of differences between actual and assumed investment return (see page B-10).*

**ACTIVE MEMBERS WHO BECAME AGE & SERVICE RETIREES  
DURING THE PERIOD JULY 1, 2013 TO JUNE 30, 2014  
(RETIREMENT WITH UNREDUCED BENEFIT  
BEGINNING IMMEDIATELY)  
ATTAINED AGE OF 65 OR OLDER WITH LESS  
THAN 28 YEARS OF SERVICE**

---

| Ages    | State & Local Retirements |            |
|---------|---------------------------|------------|
|         | Actual#                   | Expected   |
| 65      | 99                        | 95         |
| 66      | 90                        | 76         |
| 67      | 58                        | 64         |
| 68      | 23                        | 23         |
| 69      | 21                        | 18         |
| 70      | 15                        | 20         |
| 71      | 15                        | 16         |
| 72      | 11                        | 13         |
| 73      | 11                        | 10         |
| 74      | 4                         | 9          |
| 75 & Up | 30                        | 36         |
|         | <b>377</b>                | <b>379</b> |

# Additionally, there were 25 new age and service retirees with less than 28 years of non-reciprocal service and under the age of 65.

Averages, in Years:

Age at retirement      68.3

Service at retirement    14.4

**ACTIVE MEMBERS WHO BECAME REDUCED EARLY RETIREES  
DURING THE PERIOD JULY 1, 2013 TO JUNE 30, 2014  
(EARLY RETIREMENTS WITH REDUCED BENEFITS  
BEGINNING IMMEDIATELY)**

---

| Ages          | State & Local<br>Early Retirement |            |
|---------------|-----------------------------------|------------|
|               | Actual#                           | Expected   |
| 55            | 10                                | 12         |
| 56            | 14                                | 12         |
| 57            | 11                                | 18         |
| 58            | 20                                | 17         |
| 59            | 22                                | 23         |
| 60            | 26                                | 30         |
| 61            | 17                                | 27         |
| 62            | 92                                | 80         |
| 63            | 86                                | 67         |
| 64            | 60                                | 45         |
| <b>Totals</b> | <b>358</b>                        | <b>333</b> |

*# Additionally, there were 42 new early retirees under the age of 55.*

Averages, in Years:

|                       |      |
|-----------------------|------|
| Age at retirement     | 60.9 |
| Service at retirement | 15.1 |

**ACTIVE MEMBERS WHO RETIRED OR ENTERED THE DROP  
DURING THE PERIOD JULY 1, 2013 TO JUNE 30, 2014  
(28 OR MORE YEARS OF SERVICE)**

---

| Service       | State & Local |            |            |          |
|---------------|---------------|------------|------------|----------|
|               | Retirement    |            | DROP       |          |
|               | Actual        | Expected   | Actual     | Expected |
| 28            | 72            | 56         | 110        | n/a      |
| 29            | 37            | 33         | 25         | n/a      |
| 30            | 17            | 19         | 20         | n/a      |
| 31            | 10            | 13         | 14         | n/a      |
| 32            | 11            | 14         | 8          | n/a      |
| 33            | 5             | 9          | 3          | n/a      |
| 34            | 8             | 7          | 1          | n/a      |
| 35            | 2             | 11         | 17         | n/a      |
| 36            | 4             | 11         |            |          |
| 37            | 1             | 8          |            |          |
| 38 & Up       | 21            | 46         |            |          |
| <b>Totals</b> | <b>188</b>    | <b>228</b> | <b>198</b> |          |

Averages, in Years:

|                       |      |      |
|-----------------------|------|------|
| Age at retirement     | 60.6 | 57.1 |
| Service at retirement | 31.8 | 29.0 |



**ACTIVE MEMBERS WHO BECAME DISABILITY RETIREES  
DURING THE PERIOD JULY 1, 2013 TO JUNE 30, 2014  
(AND WHO WERE ACTIVE MEMBERS AS OF JUNE 30, 2013)**

---

| Ages    | State & Local Disabilities |            |
|---------|----------------------------|------------|
|         | Actual                     | Expected   |
| 20- 24  | 1                          | 0          |
| 25- 29  |                            | 1          |
| 30- 34  | 1                          | 2          |
| 35- 39  | 3                          | 3          |
| 40- 44  | 5                          | 6          |
| 45- 49  | 3                          | 11         |
| 50- 54  | 16                         | 21         |
| 55- 59  | 26                         | 32         |
| 60 & Up | 24                         | 32         |
|         | <b>79</b>                  | <b>108</b> |

Averages, in Years:

Age at retirement            54.7

Service at retirement        14.3

**ACTIVE MEMBERS WHO LEFT ACTIVE STATUS WITH A  
DEFERRED BENEFIT PAYABLE  
DURING THE PERIOD JULY 1, 2013 TO JUNE 30, 2014  
(VESTED SEPARATIONS)**

---

| <b>Ages</b>   | <b>State &amp; Local<br/>Vested Separations</b> |                 |
|---------------|---|-----------------|
|               | <b>Actual</b>                                   | <b>Expected</b> |
| Below 30      | 130   | 121             |
| 30- 34        | 272   | 211             |
| 35- 39        | 230   | 176             |
| 40- 44        | 242   | 166             |
| 45- 49        | 245   | 146             |
| 50- 54        | 216   | 126             |
| 55- 59        | 168   | 82              |
| 60 & Up       | 161   | 49              |
| <b>Totals</b> | <b>1,664</b>                                    | <b>1,077</b>    |

Averages, in Years:

Age at termination      47.3

Service at termination   10.8

**ACTIVE MEMBERS WHO LEFT ACTIVE STATUS WITH  
NO BENEFIT PAYABLE  
DURING THE PERIOD JULY 1, 2013 TO JUNE 30, 2014  
(NON-VESTED SEPARATIONS)**

---

| Service at Termination | State & Local<br>Non-Vested Separations |              |
|------------------------|---|--------------|
|                        | Actual                                  | Expected     |
| 0                      | 1,638                                   | 2,029        |
| 1                      | 865                                     | 1,051        |
| 2                      | 581                                     | 672          |
| 3                      | 343                                     | 396          |
| 4                      |   | 119          |
|                        | <b>3,427</b>                            | <b>4,266</b> |

Averages, in Years:

|                        |      |
|------------------------|------|
| Age at termination     | 44.2 |
| Service at termination | 1.5  |

**MEMBERS ACTIVE BOTH BEGINNING AND END OF YEAR  
SALARY INCREASES BY AGE GROUP  
DURING THE PERIOD JULY 1, 2013 TO JUNE 30, 2014**

---

| Age Groups    | Number        | Beginning Pay | Ending Pay    |               | Percentage Increase |             |
|---------------|---------------|---------------|---------------|---------------|---------------------|-------------|
|               |               |               | Expected      | Actual        | Expected            | Actual      |
| Below 25      | 1,403         | \$ 33,610,018 | \$ 37,024,364 | \$ 37,522,671 | 10.2%               | 11.6%       |
| 25- 29        | 3,103         | 91,726,313    | 99,170,319    | 98,330,417    | 8.1%                | 7.2%        |
| 30- 34        | 3,964         | 131,615,092   | 140,512,786   | 138,817,676   | 6.8%                | 5.5%        |
| 35- 39        | 4,180         | 147,586,021   | 156,673,880   | 154,180,779   | 6.2%                | 4.5%        |
| 40- 44        | 4,783         | 176,858,502   | 187,036,486   | 183,381,828   | 5.8%                | 3.7%        |
| 45- 49        | 5,514         | 205,573,436   | 216,587,871   | 213,020,592   | 5.4%                | 3.6%        |
| 50- 54        | 5,687         | 219,398,748   | 230,410,620   | 225,427,238   | 5.0%                | 2.7%        |
| 55- 59        | 5,223         | 204,047,758   | 213,842,050   | 209,496,227   | 4.8%                | 2.7%        |
| 60-64         | 3,658         | 143,201,053   | 149,707,143   | 146,592,439   | 4.5%                | 2.4%        |
| 65 & Over     | 1,826         | 67,114,252    | 69,798,822    | 68,548,427    | 4.0%                | 2.1%        |
| <b>Totals</b> | <b>39,341</b> |               |               |               | <b>5.6%</b>         | <b>3.8%</b> |

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**SECTION D**

**DISTRICT JUDGES – VALUATION RESULTS AND  
VALUATION DATA**

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**DISTRICT JUDGES**  
**EMPLOYER CONTRIBUTION RATES COMPUTED JUNE 30, 2014**

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| Contribution for   | Contributions Expressed as %'s of Active Payroll and Old Plan Annual \$ |                       |
|--|---|-----------------------|
|  | New Plan and Paid-Off Old Plan  | Still Paying Old Plan |
| Normal Cost:   |   |                       |
| Age and service annuities (including reduced retirement) | 18.11%  |                       |
| Separation benefits                                      | 1.40%   |                       |
| Disability benefits                                      | 1.39%   |                       |
| Death-in-service annuities                               | 0.00%   |                       |
| Total  | 20.90%  |                       |
| Member contributions                                     | 5.00%   |                       |
| Employer Normal Cost                                     | 15.90%  |                       |
| Unfunded Actuarial Accrued Liabilities                   | 8.79% *   | \$870,536 **          |
| <b>Total Employer Contribution</b>                       | <b>24.69%</b>   | <b>\$870,536</b>      |

\* Unfunded actuarial accrued liabilities were amortized over a 14-year period.

\*\* Unfunded actuarial accrued liabilities were amortized over a 21-year period.

**DISTRICT JUDGES**  
**SUMMARY STATEMENT OF SYSTEM RESOURCES AND OBLIGATIONS**  
**YEAR ENDED JUNE 30, 2014**

---

**Present Resources and Expected Future Resources**

|   | <b>Totals</b> |
|---|---------------|
| A. Present Valuation Assets:  |               |
| 1. Net assets from system financial statements                        | \$19,377,072  |
| 2. Market value adjustment  | (814,197)     |
| 3. Valuation assets   | 18,562,875    |
| B. Actuarial present value of expected future employer contributions: |               |
| 1. For normal costs   | 1,979,503     |
| 2. For unfunded actuarial accrued liability                           | 11,442,263    |
| 3. Total  | 13,421,766    |
| C. Actuarial present value of expected future member contributions    | 626,131       |
| D. Total Present and Expected Future Resources                        | \$32,610,772  |

**Actuarial Present Value of Expected Future Benefit Payments and Reserves**

|  |               |
|--|---------------|
| A. To retirees and beneficiaries   | \$ 13,497,816 |
| B. To vested terminated members  | 8,705,664     |
| C. To present active members:  |               |
| 1. Allocated to service rendered prior to valuation date - actuarial accrued liability | 7,801,658     |
| 2. Allocated to service likely to be rendered after valuation date                     | 2,605,634     |
| 3. Total   | 10,407,292    |
| D. Reserve   | 0             |
| E. Total Actuarial Present Value of Expected Future Benefit Payments                   | \$32,610,772  |

**DISTRICT JUDGES  
COMPUTED ACTUARIAL LIABILITIES AND  
ALLOCATION USING ENTRY AGE ACTUARIAL COST METHOD  
AS OF JUNE 30, 2014**

---

| <b>Actuarial Present Value of</b>   | <b>(1)<br/>Total<br/>Present<br/>Value</b> | <b>(2)<br/>Portion<br/>Covered By<br/>Future Normal<br/>Cost Contributions</b> | <b>Actuarial<br/>Accrued<br/>Liabilities<br/>(1) - (2)</b> |
|---|--|--|--|
| Benefits to be paid to current retirees, beneficiaries, and future beneficiaries of current retirees                            | \$13,497,816                               | \$ 0   | \$13,497,816   |
| Age and service allowances based on total service likely to be rendered by present active members                               | 9,949,426                                  | 2,234,821  | 7,714,605  |
| Separation benefits (refunds of contributions and deferred allowances) likely to be paid to present active and inactive members | 8,952,001                                  | 188,485  | 8,763,516  |
| Disability benefits likely to be paid to present active members   | 211,529                                    | 182,328  | 29,201   |
| Death in service benefits likely to be paid on behalf of present active members   | 0  | 0  | 0  |
| <b>Total</b>  | <b>\$32,610,772</b>                        | <b>\$2,605,634</b>   | <b>\$30,005,138</b>  |
| Applicable assets (funding value)   | 18,562,875                                 | 0  | 18,562,875   |
| <b>Liabilities to be covered by future contributions</b>  | <b>\$14,047,897</b>                        | <b>\$2,605,634</b>   | <b>\$11,442,263</b>  |



**DISTRICT JUDGES**  
**SUMMARY OF PROVISIONS EVALUATED**

---

|  |   |
|--|---|
| <b>VOLUNTARY RETIREMENT</b>                      | <i>With a full benefit</i> , after either (a) age 50 with 20 years of eligibility service, (b) age 60 with 16 years of eligibility service, or (c) age 65 with 8 years of eligibility service.  |
| <b>FINAL AVERAGE COMPENSATION (FAC)</b>          | Average of the final three calendar years of employment.  |
| <b>BENEFIT SERVICE</b>                           | Service performed on or after January 1, 2005.  |
| <b>ELIGIBILITY SERVICE</b>                       | Benefit service plus service in Old Local District Judges Plan.   |
| <b>FULL AGE &amp; SERVICE RETIREMENT BENEFIT</b> | 2.50% of FAC times actual service.  |
| <b>BENEFIT INCREASES AFTER RETIREMENT</b>        | Annually, there will be a cost-of-living adjustment equal to 3% of the current benefit.   |
| <b>MEMBER CONTRIBUTION RATES</b>                 | Active members contribute 5% of their salaries. If a member leaves service before becoming eligible to retire, accumulated contributions may be refunded.   |
| <b>VESTED RETIREMENT BENEFITS</b>                | 8 years of eligibility service. Deferred full retirement benefit, based on benefit service and pay at termination, begins when member would have been eligible for voluntary retirement.  |
| <b>TOTAL AND PERMANENT DISABILITY</b>            | An active member with 3 or more consecutive years of eligibility service who becomes totally and permanently disabled may be retired and receive a disability annuity computed in the same manner as an age and service annuity.  |
| <b>DEATH AFTER RETIREMENT</b>                    | If the member was eligible for normal retirement at the time of death, an eligible beneficiary will begin receiving a 50% joint and survivor pension computed in the same manner as a service retirement pension as if the member had retired the last day of his life. |

**DISTRICT JUDGES  
REVENUES AND EXPENDITURES  
JULY 1, 2013 THROUGH JUNE 30, 2014  
MARKET VALUE**

---

|                                    | Plan                                 |                          | Totals              |
|------------------------------------|--------------------------------------|--------------------------|---------------------|
|                                    | New Plan and<br>Paid-Off<br>Old Plan | Still Paying<br>Old Plan |                     |
| <b>Balance 7/1/2013</b>            | \$12,701,797                         | \$3,717,464              | \$16,419,261        |
| Adjustment                         | 0                                    | 0                        | 0                   |
| Revenues                           |                                      |                          |                     |
| Member contributions               | 155,367                              | 0                        | 155,367             |
| Employer contributions             | 779,855                              | 969,681                  | 1,749,536           |
| Other                              | 0                                    | 0                        | 0                   |
| Investment return                  | 2,035,884                            | 585,566                  | 2,621,450           |
| Total                              | \$2,971,106                          | \$1,555,247              | \$ 4,526,353        |
| Expenditures                       |                                      |                          |                     |
| Benefits paid                      | 505,529                              | 974,364                  | 1,479,893           |
| Refunds                            | 0                                    | 0                        | 0                   |
| Expenses                           | 68,847                               | 19,802                   | 88,649              |
| Total                              | \$ 574,376                           | \$994,166                | \$ 1,568,542        |
| Preliminary Balance                | \$15,098,527                         | \$4,278,545              | \$19,377,072        |
| Employer Paid Off<br>Old Liability | 9,413                                | (9,413)                  | 0                   |
| <b>Balance 6/30/2014</b>           | <b>\$15,107,940</b>                  | <b>\$4,269,132</b>       | <b>\$19,377,072</b> |

Note: Results may not total due to rounding.

**DEVELOPMENT OF FUNDING VALUE OF ASSETS  
NEW PLAN AND PAID-OFF OLD PLAN  
JUNE 30, 2014**

| Valuation Date June 30:                                   | 2012              | 2013              | 2014              | 2015       | 2016       | 2017       |
|---|-------------------|-------------------|-------------------|------------|------------|------------|
| A. Funding Value Beginning of Year                        | \$ 9,267,914      | \$ 10,221,498     | \$ 12,373,072     |            |            |            |
| B. Market Value End of Year                               | 10,195,478        | 12,701,797        | 15,107,940        |            |            |            |
| C. Market Value Beginning of Year                         | 9,664,591         | 10,195,478        | 12,701,797        |            |            |            |
| D. Non-Investment Net Cash Flow                           | 592,528           | 1,045,466         | 439,106           |            |            |            |
| E. Investment Income                                      |                   |                   |                   |            |            |            |
| E1. Market Total: B - C - D                               | (61,641)          | 1,460,853         | 1,967,037         |            |            |            |
| E2. Assumed Rate  | 8.00%             | 8.00%             | 8.00%             | 7.75%      |            |            |
| E3. Amount for Immediate Recognition                      | 764,830           | 859,002           | 1,007,185         |            |            |            |
| E4. Amount for Phased-In Recognition                      | (826,471)         | 601,851           | 959,852           |            |            |            |
| F. Phased-In Recognition of Investment Income             |                   |                   |                   |            |            |            |
| F1. Current Year: 0.25 x E4                               | (206,618)         | 150,463           | 239,963           |            |            |            |
| F2. First Prior Year                                      | 290,573           | (206,618)         | 150,463           | \$ 239,963 |            |            |
| F3. Second Prior Year                                     | 12,687            | 290,573           | (206,618)         | 150,463    | \$ 239,963 |            |
| F4. Third Prior Year                                      | (500,416)         | 12,688            | 290,572           | (206,617)  | 150,462    | \$ 239,963 |
| F5. Total Phase-Ins                                       | (403,774)         | 247,106           | 474,380           | 183,809    | 390,425    | 239,963    |
| G. Preliminary Funding Value End of Year: A + D + E3 + F5 | 10,221,498        | 12,373,072        | 14,293,743        |            |            |            |
| H. Adjustment to Minimum of 75% of B, Maximum 125% of B   | 0                 | 0                 | 0                 |            |            |            |
| <b>I. Funding Value End of Year</b>                       | <b>10,221,498</b> | <b>12,373,072</b> | <b>14,293,743</b> |            |            |            |
| J. Difference Between Market & Funding Value              | (26,020)          | 328,725           | 814,197           |            |            |            |
| <b>K. Recognized Rate of Return</b>                       | <b>3.8%</b>       | <b>10.3%</b>      | <b>11.8%</b>      |            |            |            |
| L. Market Rate of Return                                  | (0.6)%            | 13.6%             | 15.2%             |            |            |            |
| M. Ratio of Funding Value to Market Value                 | 100%              | 97%               | 95%               |            |            |            |

The Funding Value of Assets recognizes assumed investment return (line E3) fully each year. Differences between actual and assumed investment return (Line E4) are phased-in over a closed 4-year period. During periods when investment performance exceeds the assumed rate, Funding Value of Assets will tend to be less than Market Value. During periods when investment performance is less than the assumed rate, Funding Value of Assets will tend to be greater than Market Value. If assumed rates are exactly realized for 3 consecutive years, Funding Value will become equal to Market Value.

**DISTRICT JUDGES**  
**SUMMARY OF ANNUITANTS ON ROLLS**

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*Retirees and beneficiaries on rolls included* in the valuation totaled 141, involving monthly annuities of \$123,218, distributed as follows:

| Plan                  | Number of Retired Members | Annuities Being Paid July 1, 2014 |                     |
|-----------------------|---------------------------|-----------------------------------|---------------------|
|                       |                           | Monthly                           | Annualized          |
| New Plan              | 18                        | \$ 9,646                          | \$ 115,750          |
| Old Plan Paid Off     | 32                        | 33,032                            | 396,387             |
| Still Paying Old Plan | 91                        | 80,540                            | 966,484             |
| <b>Totals</b>         | <b>141</b>                | <b>\$ 123,218</b>                 | <b>\$ 1,478,621</b> |

A retiree's monthly benefit may be allocated to more than one employer or more than one plan. The actual number of retired members as of June 30, 2014 was reported to be 102, consisting of 88 original retirees and 14 survivors.

Actual Number of Retired Members: 102

Average Age: 72.1 years

Average Age at Retirement: 64.0 years

Average Years of Service: 10.0 years

Average Monthly Benefit: \$1,208.02

*Inactive members*, entitled to deferred annuities, included in the valuation totaled 125, involving estimated deferred monthly annuities of \$78,279 distributed as follows:

| Plan                  | Number of Inactive Members | Estimated Deferred Annuities |                   |
|-----------------------|----------------------------|------------------------------|-------------------|
|                       |                            | Monthly                      | Annualized        |
| New Plan              | 6                          | \$ 4,825                     | \$ 57,899         |
| Old Plan Paid Off     | 40                         | 30,629                       | 367,547           |
| Still Paying Old Plan | 79                         | 42,825                       | 513,896           |
| <b>Totals</b>         | <b>125</b>                 | <b>\$ 78,279</b>             | <b>\$ 939,342</b> |

An inactive member's monthly benefit may be allocated to more than one employer or more than one plan. The actual number of deferred members as of June 30, 2014 was reported to be 105.

## DISTRICT JUDGES DETAIL BY EMPLOYER

| Employer                      | ER ID | Participants Covered |         | Retiree               | Deferred              | Retiree                | Deferred               | Total                  | Assets                 | Unfunded  | 21-year            |
|-------------------------------|-------|----------------------|---------|-----------------------|-----------------------|------------------------|------------------------|------------------------|------------------------|-----------|--------------------|
|                               |       | Deferred             | Retired | Mon. Ben.<br>7/1/2014 | Mon. Ben.<br>7/1/2014 | Liability<br>6/30/2014 | Liability<br>6/30/2014 | Liability<br>6/30/2014 | Allocated<br>6/30/2014 | Liability | Unfunded Liability |
| Ashdown                       | 90141 | 2                    | 2       | \$ 466.28             | \$ 550.08             | \$ 37,980              | \$ 69,292              | \$ 107,272             | \$ 43,010              | \$ 64,262 | \$ 6,061           |
| Ashdown (County)              | 90941 | 2                    | 2       | 771.63                | 910.30                | 64,230                 | 114,668                | 178,898                | 72,004                 | 106,894   | 10,082             |
| Batesville                    | 90132 | 2                    | 1       | 859.69                | 514.54                | 104,887                | 57,441                 | 162,328                | 44,912                 | 117,416   | 11,074             |
| Batesville (Independence Co.) | 90932 | 2                    | 1       | 859.69                | 514.54                | 104,887                | 57,441                 | 162,328                | 44,871                 | 117,457   | 11,078             |
| Beebe                         | 90511 | 0                    | 1       | 1,016.67              | 0.00                  | 103,669                | 0                      | 103,669                | (9,956)                | 113,625   | 10,716             |
| Benton                        | 90962 | 0                    | 2       | 2,398.38              | 0.00                  | 242,684                | 0                      | 242,684                | 120,495                | 122,189   | 11,524             |
| Benton County - West          | 90204 | 2                    | 1       | 1,000.00              | 892.53                | 120,372                | 109,704                | 230,076                | 129,833                | 100,243   | 9,454              |
| Berryville                    | 90108 | 1                    | 1       | 152.78                | 475.94                | 17,364                 | 63,497                 | 80,861                 | 42,221                 | 38,640    | 3,644              |
| Berryville (County)           | 90908 | 2                    | 2       | 1,251.98              | 700.94                | 163,924                | 85,696                 | 249,620                | 105,913                | 143,707   | 13,555             |
| Biscoe                        | 90159 | 0                    | 1       | 150.00                | 0.00                  | 19,350                 | 0                      | 19,350                 | 195                    | 19,155    | 1,807              |
| Bryant                        | 90133 | 0                    | 1       | 517.50                | 0.00                  | 48,305                 | 0                      | 48,305                 | (15,548)               | 63,853    | 6,022              |
| Cabot                         | 90143 | 3                    | 0       | 0.00                  | 1,651.12              | 0                      | 195,602                | 195,602                | 169,165                | 26,437    | 2,493              |
| Clarendon                     | 90148 | 1                    | 0       | 0.00                  | 444.72                | 0                      | 62,790                 | 62,790                 | 41,718                 | 21,072    | 1,987              |
| Conway                        | 90123 | 1                    | 2       | 3,413.05              | 966.66                | 365,729                | 91,096                 | 456,825                | 211,864                | 244,961   | 23,103             |
| Dequeen                       | 90166 | 0                    | 3       | 4,406.12              | 0.00                  | 443,024                | 0                      | 443,024                | (29,595)               | 472,619   | 44,575             |
| Dermott                       | 90109 | 2                    | 1       | 312.50                | 205.08                | 37,437                 | 19,493                 | 56,930                 | 5,934                  | 50,996    | 4,810              |
| Dermott (County)              | 90909 | 2                    | 1       | 312.50                | 205.08                | 37,437                 | 19,493                 | 56,930                 | 5,934                  | 50,996    | 4,810              |
| Devalls Bluff                 | 90359 | 0                    | 1       | 225.00                | 0.00                  | 29,277                 | 0                      | 29,277                 | 427                    | 28,850    | 2,721              |
| Dewitt                        | 90101 | 1                    | 1       | 733.48                | 519.44                | 72,673                 | 65,574                 | 138,247                | 55,442                 | 82,805    | 7,810              |
| Dumas                         | 90121 | 1                    | 3       | 1,968.16              | 805.18                | 217,769                | 105,905                | 323,674                | 103,131                | 220,543   | 20,800             |
| East Camden                   | 90252 | 2                    | 1       | 531.53                | 136.07                | 64,925                 | 10,392                 | 75,317                 | 24,016                 | 51,301    | 4,838              |
| Elkins                        | 90172 | 2                    | 0       | 0.00                  | 1,074.68              | 0                      | 123,054                | 123,054                | 90,387                 | 32,667    | 3,081              |
| Greenwood                     | 90265 | 0                    | 1       | 771.00                | 0.00                  | 92,932                 | 0                      | 92,932                 | (7,076)                | 100,008   | 9,432              |
| Hamburg                       | 90202 | 1                    | 1       | 450.00                | 457.19                | 35,888                 | 58,728                 | 94,616                 | 43,763                 | 50,853    | 4,796              |
| Hampton                       | 90107 | 1                    | 1       | 696.00                | 850.46                | 64,921                 | 98,348                 | 163,269                | 110,350                | 52,919    | 4,991              |
| Hazen                         | 90459 | 0                    | 1       | 683.33                | 0.00                  | 93,595                 | 0                      | 93,595                 | 3,826                  | 89,769    | 8,466              |
| Helena                        | 90154 | 2                    | 1       | 384.38                | 27.72                 | 21,643                 | 1,341                  | 22,984                 | (24,551)               | 47,535    | 4,483              |
| Helena (County)               | 90954 | 2                    | 1       | 384.38                | 27.72                 | 21,643                 | 1,341                  | 22,984                 | (24,551)               | 47,535    | 4,483              |
| Hope                          | 90110 | 0                    | 2       | 762.50                | 0.00                  | 81,677                 | 0                      | 81,677                 | (24,371)               | 106,048   | 10,002             |
| Hope (County)                 | 90929 | 0                    | 2       | 762.50                | 0.00                  | 81,677                 | 0                      | 81,677                 | (24,371)               | 106,048   | 10,002             |
| Hot Springs                   | 90126 | 4                    | 3       | 4,772.59              | 3,592.02              | 514,756                | 323,073                | 837,829                | 176,160                | 661,669   | 62,405             |

## DISTRICT JUDGES DETAIL BY EMPLOYER

| Employer                        | ER ID | Participants Covered |           | Retiree            | Deferred           | Retiree             | Deferred            | Total               | Assets              | Unfunded Liability | 21-year Payoff of Unfunded Liability |
|---------------------------------|-------|----------------------|-----------|--------------------|--------------------|---------------------|---------------------|---------------------|---------------------|--------------------|--------------------------------------|
|                                 |       | Deferred Vested      | Retired   | Mon. Ben. 7/1/2014 | Mon. Ben. 7/1/2014 | Liability 6/30/2014 | Liability 6/30/2014 | Liability 6/30/2014 | Allocated 6/30/2014 |                    |                                      |
| Hoxie                           | 90138 | 0                    | 2         | \$ 664.66          | \$ 0.00            | \$ 76,409           | \$ 0                | \$ 76,409           | \$ 30,446           | \$ 45,963          | \$ 4,335                             |
| Lawrence County                 | 90938 | 0                    | 2         | 1,016.99           | 0.00               | 116,739             | 0                   | 116,739             | 52,768              | 63,971             | 6,033                                |
| Little Rock                     | 90260 | 14                   | 10        | 19,924.20          | 9,535.27           | 2,240,849           | 1,142,806           | 3,383,655           | 1,067,830           | 2,315,825          | 218,415                              |
| Magnolia                        | 90114 | 0                    | 1         | 641.98             | 0.00               | 60,621              | 0                   | 60,621              | 26,813              | 33,808             | 3,189                                |
| Magnolia (Columbia County)      | 90914 | 0                    | 1         | 641.98             | 0.00               | 60,621              | 0                   | 60,621              | (8,687)             | 69,308             | 6,537                                |
| Marked Tree                     | 90256 | 0                    | 1         | 948.14             | 0.00               | 82,329              | 0                   | 82,329              | (7,915)             | 90,244             | 8,511                                |
| Marshall                        | 90964 | 0                    | 1         | 701.31             | 0.00               | 73,264              | 0                   | 73,264              | 30,652              | 42,612             | 4,019                                |
| Mt. Home                        | 90103 | 1                    | 2         | 2,336.96           | 1,237.29           | 241,237             | 152,948             | 394,185             | 90,719              | 303,466            | 28,621                               |
| Newport                         | 90134 | 1                    | 3         | 1,555.70           | 234.22             | 148,174             | 23,951              | 172,125             | 38,716              | 133,409            | 12,582                               |
| North Little Rock               | 90460 | 11                   | 9         | 10,588.85          | 9,354.80           | 1,014,579           | 1,073,772           | 2,088,351           | 656,905             | 1,431,446          | 135,005                              |
| Osceola                         | 90247 | 1                    | 1         | 500.00             | 648.60             | 32,412              | 97,132              | 129,544             | 40,512              | 89,032             | 8,397                                |
| Ozark                           | 90124 | 1                    | 1         | 531.72             | 593.47             | 63,320              | 70,238              | 133,558             | 62,450              | 71,108             | 6,706                                |
| Ozark (County)                  | 90924 | 1                    | 1         | 531.72             | 593.47             | 63,320              | 70,238              | 133,558             | 60,645              | 72,913             | 6,877                                |
| Pocahontas                      | 90161 | 1                    | 1         | 466.18             | 210.07             | 63,412              | 19,524              | 82,936              | 21,976              | 60,960             | 5,749                                |
| Pocahontas (County)             | 90961 | 1                    | 1         | 466.18             | 210.07             | 63,412              | 19,524              | 82,936              | 20,997              | 61,939             | 5,842                                |
| Prairie Grove                   | 90372 | 1                    | 2         | 1,861.93           | 233.23             | 206,882             | 24,118              | 231,000             | 10,778              | 220,222            | 20,770                               |
| Rison                           | 90113 | 1                    | 0         | 0.00               | 780.00             | 0                   | 90,200              | 90,200              | 77,141              | 13,059             | 1,232                                |
| Searcy                          | 90273 | 1                    | 2         | 1,383.33           | 1,179.36           | 126,520             | 148,430             | 274,950             | 105,495             | 169,455            | 15,982                               |
| Stuttgart                       | 90201 | 1                    | 2         | 704.61             | 530.85             | 60,228              | 71,220              | 131,448             | 73,310              | 58,138             | 5,483                                |
| Stuttgart                       | 90901 | 1                    | 2         | 861.18             | 648.82             | 73,611              | 87,047              | 160,658             | 89,895              | 70,763             | 6,674                                |
| Trumann                         | 90356 | 1                    | 0         | 0.00               | 224.77             | 0                   | 22,882              | 22,882              | (6,140)             | 29,022             | 2,737                                |
| Tyronza                         | 90456 | 1                    | 1         | 850.64             | 40.12              | 109,305             | 3,118               | 112,423             | 76,966              | 35,457             | 3,344                                |
| Walnut Ridge                    | 90238 | 0                    | 3         | 1,441.73           | 0.00               | 136,218             | 0                   | 136,218             | 37,429              | 98,789             | 9,317                                |
| West Helena                     | 90254 | 2                    | 0         | 0.00               | 1,048.27           | 0                   | 121,069             | 121,069             | 98,402              | 22,667             | 2,138                                |
| Wynne                           | 90519 | 0                    | 1         | 906.73             | 0.00               | 109,021             | 0                   | 109,021             | 35,477              | 73,544             | 6,936                                |
| <b>UAL&gt;0 as of 6/30/2014</b> |       | <b>79</b>            | <b>91</b> | <b>\$80,540.34</b> | <b>\$42,824.69</b> | <b>\$8,527,138</b>  | <b>\$4,972,186</b>  | <b>\$13,499,324</b> | <b>\$4,269,132</b>  | <b>\$9,230,192</b> | <b>\$870,536</b>                     |

**DISTRICT JUDGES**  
**ACTIVE MEMBERS IN VALUATION JUNE 30, 2014**  
**BY ATTAINED AGE AND YEARS OF ELIGIBILITY SERVICE**

| Attained Age  | Years of Service to Valuation Date |           |          |          |          |          |          | Totals    |                    |
|---------------|------------------------------------|-----------|----------|----------|----------|----------|----------|-----------|--------------------|
|               | 0-4                                | 5-9       | 10-14    | 15-19    | 20-24    | 25-29    | 30 plus  | No.       | Valuation Payroll  |
| Under 20      |                                    |           |          |          |          |          |          |           |                    |
| 20-24         |                                    |           |          |          |          |          |          |           |                    |
| 25-29         |                                    |           |          |          |          |          |          |           |                    |
| 30-34         |                                    |           |          |          |          |          |          |           |                    |
| 35-39         |                                    |           |          |          |          |          |          |           |                    |
| 40-44         |                                    | 1         |          |          |          |          |          | 1         | \$ 34,662          |
| 45-49         |                                    |           |          |          |          |          |          |           |                    |
| 50-54         |                                    | 3         | 3        |          |          |          |          | 6         | 454,767            |
| 55-59         |                                    | 6         | 1        | 2        | 1        |          | 1        | 11        | 673,636            |
| 60            |                                    |           |          |          |          | 1        |          | 1         | 24,509             |
| 61            |                                    |           |          |          |          |          |          |           |                    |
| 62            |                                    |           | 1        |          |          |          |          | 1         | 49,265             |
| 63            |                                    |           |          | 2        |          |          |          | 2         | 148,684            |
| 64            |                                    |           |          | 1        |          |          |          | 1         | 124,251            |
| 65            |                                    | 1         |          |          | 2        | 2        | 1        | 6         | 448,006            |
| 66            |                                    | 2         |          |          | 1        |          | 1        | 4         | 336,554            |
| 67            |                                    | 1         |          |          | 1        |          |          | 2         | 248,502            |
| 68            |                                    |           |          |          |          |          | 1        | 1         | 124,251            |
| 69            |                                    |           |          |          |          |          | 1        | 1         | 37,266             |
| 70 & over     |                                    | 3         |          | 1        | 1        |          | 2        | 7         | 403,671            |
| <b>Totals</b> |                                    | <b>17</b> | <b>5</b> | <b>6</b> | <b>6</b> | <b>3</b> | <b>7</b> | <b>44</b> | <b>\$3,108,024</b> |

**Group Averages**

|                      |            |
|----------------------|------------|
| Age:                 | 61.9 years |
| Benefit Service:     | 9.3 years  |
| Eligibility Service: | 17.6 years |
| Annual Pay:          | \$70,637   |

**DISTRICT JUDGES**  
**CHANGE IN UNFUNDED ACTUARIAL ACCRUED LIABILITIES**  
**DURING THE PERIOD JULY 1, 2013 TO JUNE 30, 2014**

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|   | <b>New Plan and<br/>Paid Off<br/>Old Plan</b> | <b>Still Paying<br/>Old Plan</b> | <b>Total</b> |
|---|---|----------------------------------|--------------|
| (1) UAAL* at beginning of year                                | \$2,901,782                                   | \$9,831,391                      | \$12,733,173 |
| (2) Normal cost from last valuation                           | 631,861                                       | -                                | 631,861      |
| (3) Actual contributions                                      | 935,222                                       | 969,681                          | 1,904,903    |
| (4) Interest accrual:<br>[(1) + ½[(2) - (3)]]x .080           | 220,008                                       | 747,724                          | 967,732      |
| (5) Expected UAAL before changes:<br>(1) + (2) - (3) + (4)    | 2,818,429                                     | 9,609,434                        | 12,427,863   |
| (6) Increase from benefit changes                             | -   | -                                | -            |
| (7) Changes from revised actuarial assumptions<br>and methods | 360,021                                       | 257,869                          | 617,890      |
| (8) Expected UAAL after changes:<br>(5) + (6) + (7)           | 3,178,450                                     | 9,867,303                        | 13,045,753   |
| (9) Actual UAAL at end of year                                | 2,212,071                                     | 9,230,192                        | 11,442,263   |
| (10) Gain/(Loss): (8) - (9)                                   | \$966,379                                     | \$637,111                        | \$1,603,490  |

\* *Unfunded actuarial accrued liability.*



**DISTRICT JUDGES  
GASB STATEMENT NO. 27  
REQUIRED ACTUARIAL INFORMATION  
SCHEDULE OF FUNDING PROGRESS**

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| <b>Actuarial<br/>Valuation<br/>Date</b> | <b>Actuarial<br/>Value of<br/>Assets<br/>(a)</b> | <b>Entry Age<br/>AAL<br/>(b)</b> | <b>UAAL<br/>(b)-(a)</b> | <b>Funded<br/>Ratio<br/>(a)/(b)</b> | <b>Annual<br/>Covered<br/>Payroll<br/>(c)</b> | <b>UAAL as a<br/>Percentage of<br/>Covered Payroll<br/>[(b-a)/(c)]</b> |
|---|--|----------------------------------|-------------------------|-------------------------------------|---|--|
| 12/31/04                                | \$ 0   | \$ 0                             | \$ 0                    | 100.0 %                             | \$1,841,022                                   | 0.0%   |
| 6/30/05                                 | 7,569,919  | 24,134,114                       | 16,564,195              | 31.4 %                              | 3,222,495                                     | 514.0%   |
| 6/30/06                                 | 10,141,040                                       | 24,943,381                       | 14,802,341              | 40.7 %                              | 3,313,454                                     | 446.7%   |
| 6/30/07                                 | 12,582,548                                       | 24,387,433                       | 11,804,885              | 51.6 %                              | 3,366,861                                     | 350.6%   |
| 6/30/08 @                               | 12,398,225                                       | 24,797,303                       | 12,399,078              | 50.0 %                              | 3,526,319                                     | 351.6%   |
| 6/30/09                                 | 10,004,394                                       | 25,671,893                       | 15,667,499              | 39.0 %                              | 3,368,169                                     | 465.2%   |
| 6/30/10                                 | 11,112,521                                       | 26,775,249                       | 15,662,728              | 41.5 %                              | 3,554,044                                     | 440.7%   |
| 6/30/11                                 | 12,950,730                                       | 27,524,848                       | 14,574,118              | 47.1 %                              | 3,345,497                                     | 435.6%   |
| 6/30/12                                 | 13,925,350                                       | 28,343,368                       | 14,418,018              | 49.1 %                              | 3,374,982                                     | 427.2%   |
| 6/30/13 @                               | 16,090,536                                       | 28,823,709                       | 12,733,173              | 55.8 %                              | 2,989,465                                     | 425.9%   |
| <b>6/30/14</b>                          | <b>18,562,875</b>                                | <b>29,387,248</b>                | <b>10,824,373</b>       | <b>63.2 %</b>                       | <b>3,108,024</b>                              | <b>348.3%</b>  |
| <b>6/30/14 @</b>                        | <b>18,562,875</b>                                | <b>30,005,138</b>                | <b>11,442,263</b>       | <b>61.9 %</b>                       | <b>3,108,024</b>                              | <b>368.2%</b>  |

@ After changes in actuarial assumptions and methods.

This information on pages D-12 through D-14 is presented in draft form for review by the System's auditor. Please let us know if there are any items that the auditor changes so that we may maintain consistency with the System's financial statements.

**DISTRICT JUDGES**  
**GASB STATEMENT NO. 27 REQUIRED ACTUARIAL INFORMATION**

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**Schedule of Employer Contributions**

| Year Ended<br>June 30 | Annual Required<br>Contribution | Percent<br>Contributed |
|-----------------------|---------------------------------|------------------------|
| 2005*                 | \$ 357,182                      | 102%                   |
| 2006*                 | 1,859,139                       | 110%                   |
| 2007                  | 1,732,368                       | 106%                   |
| 2008                  | 1,525,167                       | 110%                   |
| 2009                  | 1,581,100                       | 102%                   |
| 2010                  | 1,906,776                       | 93%                    |
| 2011                  | 1,950,782                       | 95%                    |
| 2012                  | 1,805,741                       | 102%                   |
| 2013                  | 1,814,954                       | 103%                   |
| 2014                  | 1,699,063                       | 103%                   |

\* 2005 and 2006 information was taken from the report of the previous actuary and was not audited by GRS.

**NPO Development**

|   | July 1, 2007<br><u>- June 30, 2008</u> | July 1, 2008<br><u>- June 30, 2009</u> | July 1, 2009<br><u>- June 30, 2010</u> | July 1, 2010<br><u>- June 30, 2011</u> | July 1, 2011<br><u>- June 30, 2012</u> | July 1, 2012<br><u>- June 30, 2013</u> | July 1, 2013<br><u>- June 30, 2014</u> |
|---|--|--|--|--|--|--|--|
| 1. Annual Required Contribution (ARC)       | \$1,525,167                            | \$1,581,100                            | \$1,906,776                            | \$1,950,782                            | \$1,805,741                            | \$1,814,954                            | \$1,699,063                            |
| 2. Interest on Net Pension Obligation (NPO) | (24,657)                               | (36,302)                               | (38,657)                               | (28,156)                               | (19,642)                               | (22,634)                               | (26,754)                               |
| 3. Adjustment to (1)                        | (31,637)                               | (39,213)                               | (42,065)                               | (30,963)                               | (21,850)                               | (25,497)                               | (32,938)                               |
| 4. Annual Pension Cost (1)+(2)-(3)          | 1,532,147                              | 1,584,011                              | 1,910,184                              | 1,953,589                              | 1,807,949                              | 1,817,817                              | 1,705,247                              |
| 5. Actual Contribution Made                 | 1,677,709                              | 1,613,454                              | 1,778,923                              | 1,847,163                              | 1,845,349                              | 1,869,310                              | 1,749,536                              |
| 6. Increase in NPO (4)-(5)                  | (145,562)                              | (29,443)                               | 131,261                                | 106,426                                | (37,400)                               | (51,493)                               | (44,289)                               |
| 7. NPO Beginning of Year                    | (308,209)                              | (453,771)                              | (483,214)                              | (351,953)                              | (245,527)                              | (282,927)                              | (334,420)                              |
| 8. NPO End of Year                          | (453,771)                              | (483,214)                              | (351,953)                              | (245,527)                              | (282,927)                              | (334,420)                              | (378,709)                              |

New Plan and Paid-Off Old Plan contributions are determined as a percent-of-pay and contributed periodically throughout the year. The ARC shown for fiscal year ended June 30, 2014 is equal to the percent-of-payroll contribution computed as of June 30, 2013 times projected payroll plus the computed Still Paying Old Plan dollar contribution for unfunded actuarial liability as of June 30, 2013.

**DISTRICT JUDGES  
GASB STATEMENT NO. 27  
REQUIRED SUPPLEMENTARY INFORMATION**

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The information presented in the required supplementary schedules was determined as part of the actuarial valuations at the dates indicated. Additional information as of the latest valuation date follows:

|  |  |
|--|--|
| Valuation Date                                       | 6/30/2014  |
| Actuarial Cost Method                                | Entry Age Normal   |
| Amortization Method                                  | Level Dollar (New Plan and<br>Paid Off Old Plan)<br>Level Dollar (Still Paying Old Plan)                             |
| Remaining Amortization Period                        | 14 -year closed (New Plan and Paid<br>Off Old Plan)<br>21 -year closed (Still Paying Old Plan)                       |
| Asset Valuation Method                               | 4-Year Smoothed Market with 25% Corridor<br>(New Plan and Paid Off Old Plan)<br>Market Value (Still Paying Old Plan) |
| Actuarial Assumptions:                               |  |
| Investment Rate of Return                            | 7.75%  |
| Projected Salary Increases<br>Including Inflation at | 3.75% - 7.71%  |
| Cost-of-living Adjustments                           | 0.00%  |
|  | 3.0% Annual Compounded Increase<br>on benefits for service after January 1, 2005                                     |

|   | <u>Number</u> |
|---|---------------|
| Retirees and beneficiaries receiving benefits                         | 102           |
| Terminated plan members entitled to but<br>not yet receiving benefits | 105           |
| Current active plan members   | <u>44</u>     |
| Total   | 251           |

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**SECTION E**

**ACTUARIAL METHODS AND ASSUMPTIONS AND  
OTHER TECHNICAL ASSUMPTIONS**

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**SUMMARY OF ASSUMPTIONS USED FOR  
APERS ACTUARIAL VALUATIONS  
ASSUMPTIONS ADOPTED BY BOARD OF TRUSTEES  
AFTER CONSULTING WITH ACTUARY**

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In accordance with Section 24-4-105 of the Arkansas Code, the Board of Trustees adopts the actuarial assumptions used for actuarial valuation purposes.

***ECONOMIC ASSUMPTIONS***

***The investment return rate*** used in making the valuation was 7.75% per year, compounded annually (net after investment and administrative expenses). This rate of return is not the assumed real rate of return. The real rate of return is the portion of investment return which is more than the wage inflation rate. Considering the assumed wage inflation rate of 3.75%, the 7.75% investment return rate translates to an assumed net real rate of return of 4.0%. This assumption was first used for the June 30, 2014 valuation and for the District Judges division for the June 30, 2014 valuation.

***Pay increase assumptions*** for individual active members are shown on pages E-8 and E-10. Part of the assumption for each age is for a merit and/or seniority increase, and the other 3.75% recognizes wage inflation. These assumptions were first used for the June 30, 2014 valuation and for the District Judges division for the June 30, 2014 valuation.

***Total active member payroll*** is assumed to increase 3.75% a year, which is the portion of the individual pay increase assumptions attributable to wage inflation. This assumption was first used for the June 30, 2014 valuation and for the District Judges division for the June 30, 2014 valuation.

***The number of active members*** is assumed to continue at the present number.

***NON-ECONOMIC ASSUMPTIONS***

***The mortality table*** used to measure retired life mortality was the RP-2000 Combined Healthy mortality table, projected to 2020 using Projection Scale BB, set-forward 2 years for males and 1 year for females. Related values are shown on page E-3. Based upon the experience observed during the most recent experience study, it appears that at the time of the study the current table provides for an approximate 15% margin for future mortality improvement. This assumption was first used for the June 30, 2013 valuation.

*The probabilities of retirement* for members eligible to retire are shown on pages E-4 through E-7. These probabilities were first used for the June 30, 2013 valuation and for the June 30, 2007 valuation for the District Judges division.

*The probabilities of withdrawal* from service, *death-in-service* and *disability* are shown for sample ages on pages E-8 through E-10. These probabilities were first used for the June 30, 2013 valuation and for the District Judges division for the June 30, 2013 valuation.

*The individual entry-age normal actuarial cost method of the valuation* was used in determining liabilities and normal cost.

Differences in the past between assumed experience and actual experience (actuarial gains and losses) become part of actuarial accrued liabilities.

Unfunded actuarial accrued liabilities are amortized to produce contribution amounts (principal and interest) which are level percent-of-payroll contributions. For the District Judges division, unfunded actuarial accrued liabilities are amortized as a level dollar contribution.

*Recognizing the special circumstances of the General Assembly division*, modifications of the above assumptions were made where appropriate.

*Present assets (cash & investments) were valued on a market related basis in which differences between actual and assumed returns are phased-in over a four-year period (including District Judges New Plan and Paid Off Old Plan). The funding value of assets may not deviate from the market value of assets by more than 25%. District Judges Still Paying Old Plan present assets (cash & investments) were valued on a market value basis.*

*The data about persons now covered and about present assets* were furnished by the System's administrative staff. Although examined for general reasonableness, the data was not audited by the Actuary.

The actuarial valuation computations were made by or under the supervision of a Member of the American Academy of Actuaries (MAAA).

**SINGLE LIFE RETIREMENT VALUES**  
**BASED ON RP -2000 COMBINED, PROJECTED TO 2020**  
**7.75% INTEREST**  
**JUNE 30, 2014**

---

| Sample Attained Ages | Present Value of \$1.00 Monthly for Life |           | Present Value of \$1.00 Monthly for Life Increasing 3% Annually |           | Future Life Expectancy (Years) |       |
|----------------------|--|-----------|---|-----------|--------------------------------|-------|
|                      | Men                                      | Women     | Men   | Women     | Men                            | Women |
| 40                   | \$ 148.79                                | \$ 151.36 | \$ 213.63   | \$ 220.62 | 40.56                          | 44.21 |
| 45                   | 144.51                                   | 147.87    | 202.83  | 211.12    | 35.81                          | 39.39 |
| 50                   | 138.75                                   | 143.19    | 189.86  | 199.70    | 31.13                          | 34.64 |
| 55                   | 131.27                                   | 136.95    | 174.68  | 186.08    | 26.58                          | 29.98 |
| 60                   | 121.95                                   | 128.83    | 157.43  | 170.13    | 22.23                          | 25.44 |
| 65                   | 110.72                                   | 118.82    | 138.40  | 152.20    | 18.14                          | 21.14 |
| 70                   | 97.36                                    | 107.05    | 117.68  | 132.83    | 14.35                          | 17.16 |
| 75                   | 82.38                                    | 93.70     | 96.25   | 112.51    | 10.95                          | 13.56 |
| 80                   | 66.49                                    | 78.92     | 75.15   | 91.71     | 8.02                           | 10.35 |
| 85                   | 50.66                                    | 63.41     | 55.53   | 71.45     | 5.60                           | 7.59  |

| Sample Attained Ages | Benefit Increasing 3.0% Yearly | Portion of Age 60 Lives Still Alive |       |
|----------------------|--------------------------------|-------------------------------------|-------|
|                      |                                | Men                                 | Women |
| 60                   | \$100                          | 100 %                               | 100 % |
| 65                   | 116                            | 96                                  | 97    |
| 70                   | 134                            | 90                                  | 92    |
| 75                   | 155                            | 80                                  | 84    |
| 80                   | 180                            | 66                                  | 72    |

The mortality table was set forward 10 years for disabilities.

Based on RP-2000 Combined Healthy mortality table, projected to 2020 using Projection Scale BB, set-forward 2 years for males and 1 year for females.

**STATE AND LOCAL GOVERNMENT DIVISION  
AGE-BASED RETIREMENT  
JUNE 30, 2014**

---

| <b>Retirement<br/>Ages<br/>(with less than<br/>28 years of service)</b> | <b>Percent of Eligible Active Members<br/>Retiring Within Next Year</b> |                |
|---|---|----------------|
|   | <b>Unreduced</b>  | <b>Reduced</b> |
| 55  |   | 2 %            |
| 56  |   | 2              |
| 57  |   | 3              |
| 58  |   | 3              |
| 59  |   | 4              |
| 60  |   | 5              |
| 61  |   | 5              |
| 62  |   | 18             |
| 63  |   | 17             |
| 64  |   | 13             |
| 65  | 23 %  |                |
| 66  | 23  |                |
| 67  | 23  |                |
| 68  | 15  |                |
| 69  | 15  |                |
| 70  | 17  |                |
| 71  | 17  |                |
| 72  | 17  |                |
| 73  | 17  |                |
| 74-77   | 20  |                |
| 78  | 15  |                |
| 79  | 20  |                |
| 80-82   | 20  |                |
| 83  | 20  |                |
| 84  | 20  |                |
| 85 & Over   | 100   |                |

A member was assumed eligible for unreduced retirement after attaining age 65 with 5 years of service or 28 years regardless of age. A member was assumed eligible for reduced retirement after attaining age 55 with 10 or more years of service.



**STATE AND LOCAL GOVERNMENT DIVISION  
SERVICE BASED RETIREMENT  
JUNE 30, 2014**

---

| <b>Service</b> | <b>Percent of Eligible Active Members<br/>Retiring Within Next Year</b> |
|----------------|---|
| 28             | 15 %  |
| 29             | 13  |
| 30             | 11  |
| 31             | 11  |
| 32             | 12  |
| 33             | 12  |
| 34             | 12  |
| 35             | 20  |
| 36             | 25  |
| 37             | 25  |
| 38             | 30  |
| 39             | 30  |
| 40 & Over      | 100   |

**GENERAL ASSEMBLY DIVISION  
PROBABILITIES OF RETIREMENT  
FOR MEMBERS ELIGIBLE TO RETIRE  
JUNE 30, 2014**

---

| Retirement<br>Ages | Percent of Eligible Active Members<br>Retiring Within Next Year |
|--------------------|---|
| 50                 | 30 %  |
| 51                 | 30  |
| 52                 | 30  |
| 53                 | 30  |
| 54                 | 30  |
| 55                 | 30  |
| 56                 | 30  |
| 57                 | 30  |
| 58                 | 30  |
| 59                 | 30  |
| 60                 | 30  |
| 61                 | 30  |
| 62                 | 50  |
| 63                 | 30  |
| 64                 | 30  |
| 65                 | 50  |
| 66                 | 30  |
| 67-79              | 20  |
| 80 & Over          | 100   |

Member may retire at age 50 with 20 or more years of service, age 60 with 16 or more years of service, or age 65 with 8 or more years of service.

**DISTRICT JUDGES DIVISION  
AGE-BASED RETIREMENT  
JUNE 30, 2014**

---

| <b>Retirement<br/>Ages</b> | <b>Percent of Eligible Active Members<br/>Retiring Within Next Year</b> |
|----------------------------|---|
| 50                         | 10 %  |
| 51                         | 10  |
| 52                         | 10  |
| 53                         | 10  |
| 54                         | 10  |
| 55                         | 12  |
| 56                         | 12  |
| 57                         | 14  |
| 58                         | 14  |
| 59                         | 14  |
| 60                         | 18  |
| 61                         | 18  |
| 62-73                      | 30  |
| 74 & Over                  | 100   |

Members may retire at age 50 with 20 or more years of service, age 60 with 16 or more years of service, or age 65 with 8 or more years of service.

**STATE AND LOCAL GOVERNMENT DIVISION**  
**SEPARATIONS FROM ACTIVE EMPLOYMENT BEFORE SERVICE RETIREMENT**  
**JUNE 30, 2014**

| Sample<br>Ages | Years of<br>Service | Percent of Active Members<br>Separating within the Next Year |        |        |        |            |        | Pay Increase Assumptions<br>For An Individual Employee |                   |                       |
|----------------|---------------------|--|--------|--------|--------|------------|--------|--|-------------------|-----------------------|
|                |                     | Withdrawal   |        | Death  |        | Disability |        | Merit &<br>Seniority                                   | Base<br>(Economy) | Increase<br>Next Year |
|                |                     | Men  | Women  | Men    | Women  | Men        | Women  |  |                   |                       |
|                | 0                   | 40.0 %   | 40.0 % |        |        |            |        |  |                   |                       |
|                | 1                   | 25.0   | 25.0   |        |        |            |        |  |                   |                       |
|                | 2                   | 20.0   | 20.0   |        |        |            |        |  |                   |                       |
|                | 3                   | 15.0   | 15.0   |        |        |            |        |  |                   |                       |
|                | 4                   | 12.0   | 12.0   |        |        |            |        |  |                   |                       |
| 20             | 5+                  | 10.0   | 10.0   | 0.02 % | 0.01 % | 0.01 %     | 0.01 % | 6.60 %   | 3.75 %            | 10.35 %               |
| 25             |                     | 10.0   | 10.0   | 0.02   | 0.01   | 0.05       | 0.05   | 5.10   | 3.75              | 8.85                  |
| 30             |                     | 8.8  | 8.8    | 0.03   | 0.01   | 0.08       | 0.08   | 3.20   | 3.75              | 6.95                  |
| 35             |                     | 6.2  | 6.2    | 0.04   | 0.02   | 0.10       | 0.10   | 2.30   | 3.75              | 6.05                  |
| 40             |                     | 4.4  | 4.4    | 0.06   | 0.03   | 0.15       | 0.15   | 1.90   | 3.75              | 5.65                  |
| 45             |                     | 3.4  | 3.4    | 0.08   | 0.05   | 0.20       | 0.20   | 1.50   | 3.75              | 5.25                  |
| 50             |                     | 2.7  | 2.7    | 0.13   | 0.08   | 0.40       | 0.40   | 1.10   | 3.75              | 4.85                  |
| 55             |                     | 1.9  | 1.9    | 0.22   | 0.12   | 0.70       | 0.70   | 0.80   | 3.75              | 4.55                  |
| 60             | 1.2                 | 1.2  | 0.37   | 0.21   | 1.00   | 1.00       | 0.70   | 3.75   | 4.45              |                       |

Pay increase rates are age based only, and not service based.

**GENERAL ASSEMBLY DIVISION  
SEPARATIONS FROM ACTIVE EMPLOYMENT BEFORE  
SERVICE RETIREMENT  
JUNE 30, 2014**

---

| Sample<br>Ages | Years of<br>Service | Percent of Active Members<br>Separating within the Next Year |        |        |        |            |        |
|----------------|---------------------|--|--------|--------|--------|------------|--------|
|                |                     | Withdrawal   |        | Death  |        | Disability |        |
|                |                     | Men  | Women  | Men    | Women  | Men        | Women  |
|                | 0                   | 30.0 %   | 30.0 % |        |        |            |        |
|                | 1                   | 25.0   | 25.0   |        |        |            |        |
|                | 2                   | 20.0   | 20.0   |        |        |            |        |
|                | 3                   | 15.0   | 15.0   |        |        |            |        |
|                | 4                   | 12.0   | 12.0   |        |        |            |        |
| 20             | 5+                  | 9.0  | 9.0    | 0.02 % | 0.01 % | 0.06 %     | 0.06 % |
| 25             |                     | 8.3  | 8.3    | 0.02   | 0.01   | 0.06       | 0.06   |
| 30             |                     | 5.3  | 5.3    | 0.03   | 0.01   | 0.06       | 0.06   |
| 35             |                     | 3.0  | 3.0    | 0.04   | 0.02   | 0.06       | 0.06   |
| 40             |                     | 2.6  | 2.6    | 0.06   | 0.04   | 0.16       | 0.16   |
| 45             |                     | 2.4  | 2.4    | 0.08   | 0.06   | 0.22       | 0.22   |
| 50             |                     | 1.1  | 1.1    | 0.13   | 0.09   | 0.39       | 0.39   |
| 55             |                     | 0.8  | 0.8    | 0.22   | 0.14   | 0.71       | 0.71   |
| 60             |                     | 0.8  | 0.8    | 0.37   | 0.23   | 1.13       | 1.13   |

**DISTRICT JUDGES**  
**SEPARATIONS FROM ACTIVE EMPLOYMENT BEFORE**  
**SERVICE RETIREMENT**  
**JUNE 30, 2014**

---

| Sample<br>Ages | Percent of Active Members<br>Separating within the Next Year |       |            |        | Pay Increase Assumptions<br>For An Individual Employee |                   |                  |
|----------------|--|-------|------------|--------|--|-------------------|------------------|
|                | Withdrawal   |       | Disability |        | Merit &<br>Seniority                                   | Base<br>(Economy) | Increase<br>Next |
|                | Men  | Women | Men        | Women  |  |                   |                  |
| 20             | 2.0 %  | 2.0 % | 0.08 %     | 0.08 % | 2.70 %   | 3.75 %            | 6.45 %           |
| 25             | 2.0  | 2.0   | 0.08       | 0.08   | 2.60   | 3.75              | 6.35             |
| 30             | 2.0  | 2.0   | 0.08       | 0.08   | 2.20   | 3.75              | 5.95             |
| 35             | 2.0  | 2.0   | 0.08       | 0.08   | 1.90   | 3.75              | 5.65             |
| 40             | 2.0  | 2.0   | 0.20       | 0.20   | 1.40   | 3.75              | 5.15             |
| 45             | 2.0  | 2.0   | 0.27       | 0.27   | 1.20   | 3.75              | 4.95             |
| 50             | 2.0  | 2.0   | 0.49       | 0.49   | 0.70   | 3.75              | 4.45             |
| 55             | 2.0  | 2.0   | 0.89       | 0.89   | 0.70   | 3.75              | 4.45             |
| 60             | 2.0  | 2.0   | 1.41       | 1.41   | 0.00   | 3.75              | 3.75             |

**SUMMARY OF ASSUMPTIONS USED**  
**JUNE 30, 2014**  
**MISCELLANEOUS AND TECHNICAL ASSUMPTIONS**

---

***Marriage Assumption.*** 80% of males and 80% of females are assumed to be married for purposes of death-in-service benefits. District Judges division - 100% of males and 100% of females are assumed to be married for purposes of death-in-service benefits. 80% of males and 80% of females are assumed to be married for purposes of death-after-retirement benefits for active member valuation purposes.

***Pay Increase Timing.*** Beginning of (Fiscal) year. This is equivalent to assuming that reported pays represent amounts paid to members during the year ended on the valuation date.

***Decrement Timing.*** Decrements of all types are assumed to occur mid-year.

***Other Liability Adjustments.*** Active member non-refund normal costs and actuarial accrued liabilities were increased by 1.5% to reflect non-reported reciprocal service.

***Eligibility Testing.*** Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.

***Benefit Service.*** Exact fractional service is used to determine the amount of benefit payable.

***Decrement Relativity.*** Decrement rates are used directly from the experience study, without adjustment for multiple decrement table effects.

***Normal Form of Benefit.*** The assumed normal form of benefit is the straight life form.

***District Judges Division Old Plan Deferred Members.*** For members that are eligible for a deferred benefit in the Old Plan and are currently active in the New Plan, it is assumed that the deferred benefit will commence at the first age at which the member is eligible to receive the benefit.

***Incidence of Contributions.*** Contributions are assumed to be received continuously throughout the year based upon the computed percent of payroll shown in this report, and the actual payroll payable at the time contributions are made. New entrant normal cost contributions are applied to the funding of new entrant benefits.

***DROP Duration.*** We assume on average the total DROP duration is 4 years for those members currently participating in the DROP.

**SUMMARY OF ASSUMPTIONS USED**  
**JUNE 30, 2014**  
**MISCELLANEOUS AND TECHNICAL ASSUMPTIONS**

---

***DROP Interest Credit.*** The current interest rate credit for DROP accounts is assumed to be 3.0%.

***Payroll for DROP Participants and Retired Members Returned to Work.*** Employers now contribute on the pays of DROP participants and retired members returned to work. We estimated payroll subject to this provision. For the June 30, 2014 valuation the estimated payroll for these members was \$107,000,000.

***Pre-Retirement Mortality.*** The weighting of duty and ordinary deaths-in-service is 0%/100%.



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**SECTION F**  
**FINANCIAL PRINCIPLES**

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## **FINANCIAL PRINCIPLES AND OPERATIONAL TECHNIQUES OF APERS**

***Promises Made, and To Be Paid For.*** As each year is completed, APERS in effect hands an “IOU” to each member then acquiring a year of service credit --- the “IOU” says: “The Arkansas Public Employees Retirement System owes you one year’s worth of retirement benefits, payments in cash commencing when you qualify for retirement.”

The related *key financial questions* are:

***Which generation of taxpayers contributes the money to cover the IOU?***

***The present taxpayers***, who receive the benefit of the member’s present year of service? ***Or the future taxpayers***, who happen to be in Arkansas at the time the IOU becomes a cash demand, years and often decades later?

***The law governing APERS financing intends that this year’s taxpayers contribute the money to cover the IOUs being handed out this year.*** With this financial objective, ***the employer contribution rate is expected to remain approximately level from generation to generation of taxpayers.***

There are systems which have a design for deferring contributions to future taxpayers. Lured by a lower contribution rate now, they put aside the consequence that the contribution rate must then relentlessly grow to a level much higher than would be required if a level contribution pattern were followed.

An inevitable by-product of the level-cost design is the accumulation of reserve assets, for decades, and the income produced when the assets are invested. ***Investment income*** becomes ***the third and largest contributor*** for benefits to employees, and is interlocked with the contribution amounts required from employees and employers.

Translated to actuarial terminology, this level-cost objective means that the contribution rates must total at least the following:

Normal Cost (the cost of members' service being rendered this year)

... plus ...

Interest on Unfunded Actuarial Accrued Liabilities (unfunded actuarial accrued liabilities are the difference between: the actuarial accrued liabilities for service already rendered and the actuarial value of assets).

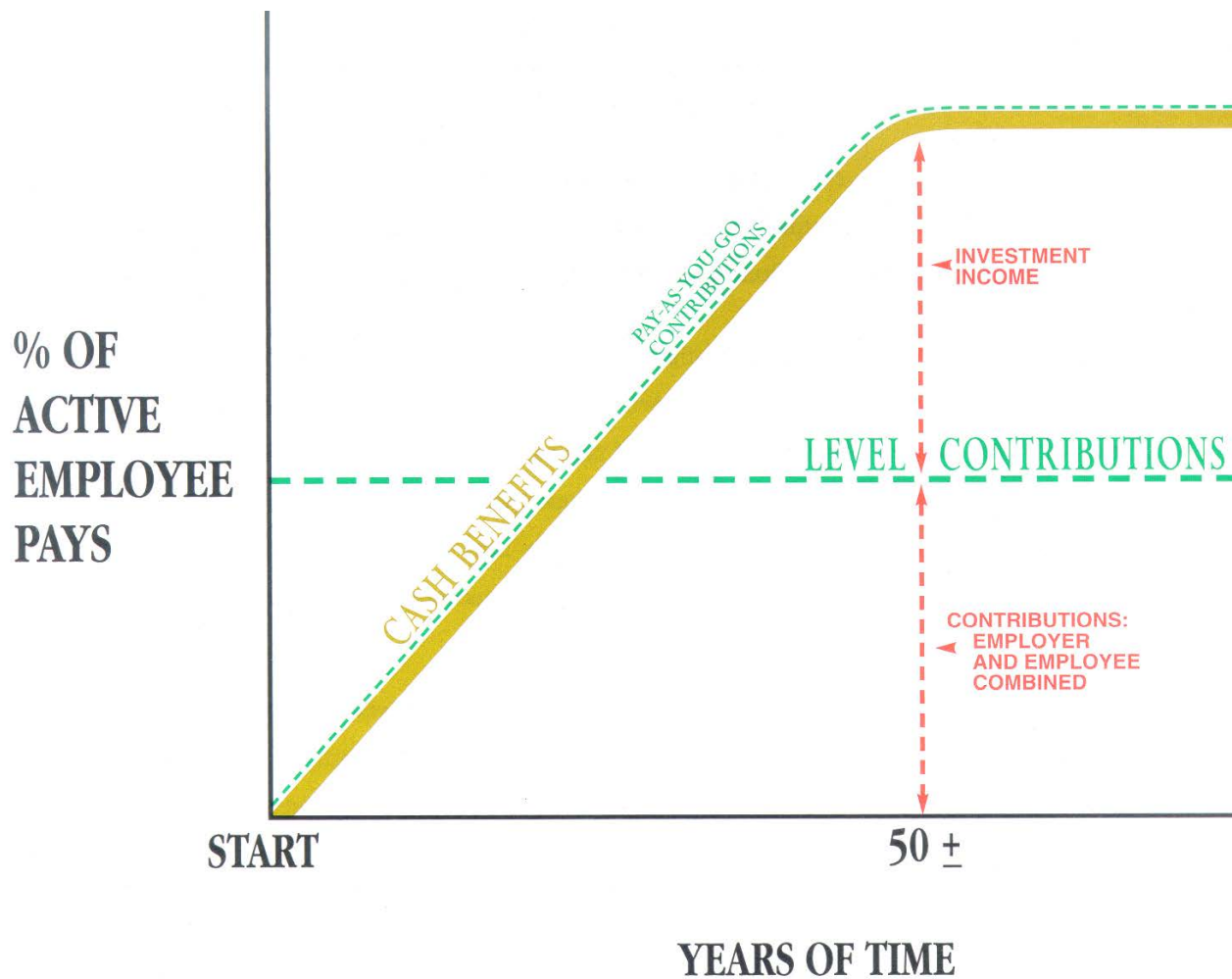
***Computing Contributions to Support Fund Benefits.*** From a given schedule of benefits and from employee and asset data, the actuary calculates the contribution rates to support the benefits by means of ***an actuarial valuation and a funding method.***

An actuarial valuation has a number of ingredients such as: the rate of investment return which plan assets will earn; the rates of withdrawal of active members who leave covered employment; the rates of mortality; the rates of disability; the rates of pay increases; and the assumed age or ages at actual retirement.

In an actuarial valuation, assumptions must be made as to what the above rates will be for the next year and for decades in the future. The assumptions are established by the Retirement Board after receiving the advice of the actuary.

***Reconciling Differences Between Assumed Experience and Actual Experience.*** Once actual experience has occurred and has been observed, it will not coincide exactly with assumed experience, regardless of the skill of the actuary and the many calculations made. The future cannot be predicted with 100% precision.

APERS copes with these continually changing differences by having annual actuarial valuations. Each actuarial valuation is a complete recalculation of assumed future experience, taking into account all past differences between assumed and actual experience. The result is ***continuing adjustments in financial position.***



**CASH BENEFITS LINE.** This relentlessly increasing line is the fundamental reality of retirement plan financing. It happens each time a new benefit is added for future retirements (and happens regardless of the design for contributing for benefits).

**LEVEL CONTRIBUTION LINE.** Determining the level contribution line requires detailed assumptions concerning a variety of experiences in future decades, including:

Economic Risk Areas

- Rates of investment return
- Rates of pay increase
- Changes in active member group size

Non-Economic Risk Areas

- Ages at actual retirement
- Rates of mortality
- Rates of withdrawal of active members (turnover)
- Rates of disability

## THE ACTUARIAL VALUATION PROCESS

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*The financing diagram* on the preceding page shows the relationship between *the two fundamentally different philosophies of paying* for retirement benefits: the method where contributions match cash benefit payments (or barely exceed cash benefit payments, as in the Federal Social Security program) which is thus an *increasing contribution method*; and, the *level contribution method* which attempts to equalize contributions between the generations.

---

*The actuarial valuation* is the mathematical process by which the level contribution rate is determined. The activity constituting the valuation may be summarized as follows:

- A. **Census Data**, including:
  - Retired lives now receiving benefits
  - Former employees with vested benefits not yet payable
  - Active employees
- B. + **Asset data** (cash & investments)
- C. + **Benefit provisions** that establish eligibility and amounts of payments to members
- D. + **Assumptions concerning future experience** in various risk areas
- E. + **The funding method** for employer contributions (the long-term, planned pattern for employer contributions)
- F. + **Mathematically combining the assumptions, the funding method, and the data**
- G. = Determination of:
  - Plan Financial position; and/or
  - New Employer Contribution Rate

## GLOSSARY

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***Actuarial Accrued Liability.*** The difference between (i) the actuarial present value of future plan benefits, and (ii) the actuarial present value of future normal cost. Sometimes referred to as “accrued liability” or “past service liability.”

***Accrued Service.*** The service credited under the plan which was rendered before the date of the actuarial valuation.

***Accumulated Benefit Obligation.*** The actuarial present value of vested and non-vested benefits based on service to date and past and current salary levels.

***Actuarial Assumptions.*** Estimates of future plan experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and salary increases. Decrement assumptions (rates of mortality, disability, turnover and retirement) are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (salary increases and investment income) consist of an underlying rate in an inflation-free environment plus a provision for a long-term average rate of inflation.

***Actuarial Cost Method.*** A mathematical budgeting procedure for allocating the dollar amount of the “actuarial present value of future plan benefits” between the actuarial present value of future normal cost and the actuarial accrued liability. Sometimes referred to as the “actuarial funding method.”

***Actuarial Equivalent.*** A single amount or series of amounts of equal value to another single amount or series of amounts, computed on the basis of the rate(s) of interest and mortality tables used by the plan.

***Actuarial Present Value.*** The amount of funds presently required to provide a payment or series of payments in the future. It is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

***Amortization.*** Paying off an interest-bearing liability by means of periodic payments of interest and principal, as opposed to paying it off with a lump sum payment.

## GLOSSARY

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***Experience Gain (Loss).*** A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions during the period between two actuarial valuation dates, in accordance with the actuarial cost method being used.

***Normal Cost.*** The annual cost assigned, under the actuarial funding method, to current and subsequent plan years. Sometimes referred to as “current service cost.” Any payment toward the unfunded actuarial accrued liability is not part of the normal cost.

***Plan Termination Liability.*** The actuarial present value of future plan benefits based on the assumption that there will be no further accruals for future service and salary. The termination liability will generally be less than the liabilities computed on a “going concern” basis and is not normally determined in a routine actuarial valuation.

***Reserve Account.*** An account used to indicate that funds have been set aside for a specific purpose and are not generally available for other uses.

***Unfunded Actuarial Accrued Liability.*** The difference between the actuarial accrued liability and valuation assets. Sometimes referred to as “unfunded accrued liability.”

***Valuation Assets.*** The value of current plan assets recognized for valuation purposes. Generally based on a phase-in of differences between actual and assumed market rates of return.

## MEANING OF “UNFUNDED ACTUARIAL ACCRUED LIABILITIES”

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“*Actuarial accrued liabilities*” are *the present value of the portions of promised benefits that are not covered by future normal cost contributions* --- a liability has been established (“accrued”) because the service has been rendered but the resulting monthly cash benefit may not be payable until years in the future.

If “actuarial accrued liabilities” at any time exceed the plan’s accrued assets (cash & investments), the difference is “*unfunded actuarial accrued liabilities.*” This is the common condition. It is less common when a plan’s assets equal or exceed the plan’s “actuarial accrued liabilities.”

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Each time a plan adds a new benefit which applies to service already rendered, an “actuarial accrued liability” is created, which is also an “unfunded actuarial accrued liability” because the plan can’t print instant cash to cover the value of the new benefit promises. Payment for such unfunded actuarial accrued liabilities is spread over a period of years, commonly in the 15-30 year range.

Unfunded actuarial accrued liabilities can occur in another way: if actual plan experience is less favorable than assumed, the difference is added to unfunded actuarial accrued liabilities. For example, in plans where benefits are directly related to an employee’s pay near time of retirement, unfunded actuarial accrued liabilities increased rapidly during the 1970’s because unexpected rates of pay increase created additional actuarial accrued liabilities which could not be matched by reasonable investment results. Most of the unexpected pay increases were the direct result of inflation, which is a very destructive force on financial stability.

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The existence of unfunded actuarial accrued liabilities is not bad but the changes from year to year in the amount of unfunded actuarial accrued liabilities are important --- “bad” or “good” or somewhere in between.

Nor are unfunded actuarial accrued liabilities a bill payable immediately, but it is important that policy-makers prevent the amount from becoming unreasonably high and *it is vital for plans to have a sound method for making payments toward them* so that they are controlled.



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## **SECTION G**

### **ACTUARIAL SUPPLEMENTAL INFORMATION REQUIRED BY STATEMENT NO. 27 OF THE GOVERNMENTAL ACCOUNTING STANDARDS BOARD**

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**This information is presented in draft form for review by the System's auditor. Please let us know if there are any items that the auditor changes so that we may maintain consistency with the System's financial statements.**

**The information on the following pages should be used for Employer Reporting under GASB Statement No. 27. Information to be used for plan reporting is now issued in a separate report in accordance with GASB Statement No. 67.**

**GASB STATEMENT NO. 27**  
**REQUIRED ACTUARIAL INFORMATION**  
**SCHEDULE OF FUNDING PROGRESS**  
**(\$ MILLIONS)**

| Actuarial<br>Valuation<br>Date | Actuarial<br>Value of<br>Assets<br>(a) | Entry Age<br>AAL<br>(b) | UAAL<br>(b)-(a) | Funded<br>Ratio<br>(a)/(b) | Annual<br>Covered<br>Payroll<br>(c) | UAAL as a<br>Percentage of<br>Covered Payroll<br>[(b-a)/(c)] |
|--------------------------------|--|-------------------------|-----------------|----------------------------|-------------------------------------|--|
| 6/30/95                        | \$2,248                                | \$2,060                 | \$ (188)        | 109.1 %                    | \$ 835                              | (22.5)%  |
| 6/30/96                        | 2,522                                  | 2,291                   | (231)           | 110.1 %                    | 889                                 | (26.0)%  |
| 6/30/97                        | 2,876                                  | 2,607                   | (269)           | 110.3 %                    | 939                                 | (28.6)%  |
| 6/30/98 @ #                    | 3,297                                  | 2,921                   | (376)           | 112.9 %                    | 975                                 | (38.6)%  |
| 6/30/99 @                      | 3,712                                  | 3,479                   | (233)           | 106.7 %                    | 1,009                               | (23.1)%  |
| 6/30/00                        | 4,121                                  | 3,803                   | (318)           | 108.4 %                    | 1,050                               | (30.3)%  |
| 6/30/01 @                      | 4,342                                  | 4,111                   | (231)           | 105.6 %                    | 1,070                               | (21.6)%  |
| 6/30/02 #                      | 4,404                                  | 4,398                   | (6)             | 100.1 %                    | 1,112                               | (0.5)%   |
| 6/30/03 #                      | 4,416                                  | 4,674                   | 258             | 94.5 %                     | 1,148                               | 22.5%  |
| 6/30/04                        | 4,438                                  | 5,005                   | 567             | 88.7 %                     | 1,176                               | 48.2%  |
| 6/30/05                        | 4,584                                  | 5,323                   | 739             | 86.1 %                     | 1,215                               | 60.8%  |
| 6/30/05 @ #                    | 4,584                                  | 5,619                   | 1,035           | 81.6 %                     | 1,215                               | 85.2%  |
| 6/30/06                        | 4,949                                  | 5,936                   | 987             | 83.4 %                     | 1,267                               | 77.9%  |
| 6/30/07 @                      | 5,498                                  | 6,174                   | 676             | 89.1 %                     | 1,303                               | 51.9%  |
| 6/30/08 #                      | 5,866                                  | 6,543                   | 677             | 89.7 %                     | 1,380                               | 49.1%  |
| 6/30/09 @                      | 5,413                                  | 6,938                   | 1,525           | 78.0 %                     | 1,434                               | 106.3%   |
| 6/30/10                        | 5,409                                  | 7,304                   | 1,895           | 74.1 %                     | 1,523                               | 124.4%   |
| 6/30/11 #                      | 5,467                                  | 7,734                   | 2,267           | 70.7 %                     | 1,623                               | 139.7%   |
| 6/30/12                        | 5,625                                  | 8,163                   | 2,538           | 68.9 %                     | 1,686                               | 150.5%   |
| 6/30/13 #                      | 6,159                                  | 8,284                   | 2,125           | 74.3 %                     | 1,693                               | 125.5%   |
| <b>6/30/14</b>                 | <b>6,895</b>                           | <b>8,655</b>            | <b>1,760</b>    | <b>79.7 %</b>              | <b>1,745</b>                        | <b>100.9%</b>  |
| <b>6/30/14 #</b>               | <b>6,895</b>                           | <b>8,864</b>            | <b>1,969</b>    | <b>77.8 %</b>              | <b>1,745</b>                        | <b>112.8%</b>  |

@ After legislated changes in benefit provisions.

# After changes in actuarial assumptions.

Please note that the difference between columns (b) and (a) may not equal the UAAL due to rounding.

**GASB STATEMENT NO. 27**  
**REQUIRED ACTUARIAL INFORMATION**  
**SCHEDULE OF EMPLOYER CONTRIBUTIONS**

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| <b>Year Ended<br/>June 30</b> | <b>Annual Required<br/>Contribution</b> | <b>Percent<br/>Contributed</b> |
|-------------------------------|---|--------------------------------|
| 1994                          | \$ 75,710,660                           | 100%                           |
| 1995                          | 75,028,320                              | 100%                           |
| 1996                          | 76,772,911                              | 100%                           |
| 1997                          | 82,050,663                              | 100%                           |
| 1998                          | 87,528,945                              | 100%                           |
| 1999                          | 93,322,444                              | 100%                           |
| 2000                          | 96,348,947                              | 100%                           |
| 2001                          | 100,925,338                             | 100%                           |
| 2002                          | 109,037,491                             | 100%                           |
| 2003                          | 115,690,798                             | 100%                           |
| 2004                          | 118,419,346                             | 100%                           |
| 2005                          | 135,027,447                             | 100%                           |
| 2006                          | 158,152,183                             | 100%                           |
| 2007                          | 163,223,695                             | 100%                           |
| 2008                          | 173,462,377                             | 100%                           |
| 2009                          | 159,232,361                             | 100%                           |
| 2010                          | 169,604,041                             | 100%                           |
| 2011                          | 195,628,572                             | 100%                           |
| 2012                          | 229,631,149                             | 100%                           |
| 2013                          | 249,540,632                             | 100%                           |
| <b>2014</b>                   | <b>262,300,624</b>                      | <b>100%</b>                    |

**GASB STATEMENT NO. 27**  
**REQUIRED SUPPLEMENTARY INFORMATION**

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The information presented in the required supplementary schedules was determined as part of the actuarial valuations at the dates indicated. Additional information as of the latest valuation date follows:

|  |  |
|--|--|
| Valuation Date                                       | June 30, 2014                            |
| Actuarial Cost Method                                | Entry Age Normal Cost                    |
| Amortization Method                                  | Level Percent-of-Payroll                 |
| Remaining Amortization Period                        | 23 year closed                           |
| Asset Valuation Method                               | 4-Year Smoothed Market with 25% Corridor |
| Actuarial Assumptions:                               |  |
| Investment Rate of Return                            | 7.75%                                    |
| Projected Salary Increases<br>Including Inflation at | 3.75% - 10.35%                           |
| Cost-of-Living Adjustments                           | 3.75%                                    |
|  | 3.0% Annual Compounded Increase          |

|   | <u>Number</u> |
|---|---------------|
| Retirees and beneficiaries receiving benefits #                       | 31,914        |
| Terminated plan members entitled to but<br>not yet receiving benefits | 13,514        |
| Active plan members   | <u>45,841</u> |
| Total   | 91,269        |

# Includes DROP participants.

November 11, 2014


Ms. Gail H. Stone, Executive Director  
Arkansas Public Employees Retirement System  
One Union National Plaza  
124 West Capitol, Suite 400  
Little Rock, Arkansas 72201

**Re: Report of the June 30, 2014 Actuarial Valuation and Gain/(Loss) Analysis of  
Financial Experience**

Dear Gail:

Enclosed are 40 copies of this report.

Sincerely,



Mita D. Drazilov, ASA, MAAA

MDD:bd  
Enclosures

cc: David Hoffman