

ARKANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM ACTUARIAL VALUATION AND EXPERIENCE GAIN/(LOSS) ANALYSIS JUNE 30, 2010

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November 15, 2010

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

Ladies and Gentlemen:

The results of the *June 30, 2010 actuarial valuation* of the Arkansas Public Employees Retirement System together with *the annual gain and loss analysis* for the year ended June 30, 2010 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 Nos. 25 and 27. The results of the valuation may not be applicable for other purposes.

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

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 of the American Academy of Actuaries and in conformance with Title 24 of the Arkansas Code. The actuarial assumptions used for the valuation produce results which, individually and in the aggregate, are reasonable.

Board of Trustees Page 2 November 15, 2010

The signing actuaries are Members of the American Academy of Actuaries (MAAA) as indicated, and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

Respectfully submitted,

Norman Zimas Mita Drapilor

David K. Hoffman

Norman L. Jones, FSA, MAAA Mita D. Drazilov, ASA, MAAA

David L. Hoffman

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# SECTION A VALUATION RESULTS – STATE, LOCAL AND GENERAL ASSEMBLY

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.

*Benefit Changes*. The most recent benefit changes are reflected in the June 30, 2009 valuation. No benefit changes have been adopted for consideration in the June 30, 2010 valuation.

Assumption Changes. Assumptions were updated in the June 30, 2008 valuation.

Method Changes. There have been no changes in methods since the June 30, 2009 valuation.

APERS Status. Based upon the results of the June 30, 2010 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. Funded ratios in the 80% to 95% range are common in public sector retirement plans. **The funded ratio of APERS** has been adversely affected by the recent market downturn (as has virtually all other public employee retirement systems in the country). On a funding value of assets basis, the System has a 74% funded ratio. On a market value of assets basis, the System has a 64% funded ratio.

*Employer Contribution Rates.* Based upon experience through June 30, 2010, the State and Local Government contribution rate will be 13.47% of covered payroll for the fiscal year beginning July 1, 2011.

*District Judges.* Results for the recently incorporated 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, 2011**

	Contributions Express	sed as %'s of Active			
	Payroll and General Assembly Annual \$				
Contribution for	State and Local #	General Assembly			
Normal Cost: Age and service annuities (including DROP and reduced retirement)	8.96%	\$ 27,068			
Separation benefits	1.98%	1,909			
Disability benefits	0.61%	1,154			
Death-in-service annuities Total	0.16% 11.71%	469 \$ 30,600			
Member contributions (ultimate)	5.00%	0			
Employer Normal Cost	6.71%	\$ 30,600			
Unfunded Actuarial Accrued Liabilities	6.76% *	1,121,687 &			
Total Employer Contribution	13.47%	\$1,152,287			

\* Unfunded actuarial accrued liabilities were amortized over a 30 year period.

& Unfunded actuarial accrued liabilities were amortized over an 18 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.

### SUMMARY STATEMENT OF SYSTEM RESOURCES AND OBLIGATIONS YEAR ENDED JUNE 30, 2010

### **Present Resources and Expected Future Resources**

A.	Present Valuation Assets:	
	1. Net assets from system financial statements	\$4,714,159,955
	2. Market value adjustment	695,007,504
	3. Valuation assets	5,409,167,459
B.	Actuarial present value of expected future	
	employer contributions:	
	1. For normal costs	789,849,737
	2. For unfunded actuarial accrued liability	1,895,067,367
	3. Total	2,684,917,104
C.	Actuarial present value of expected future	
	member contributions	588,538,856
D.	Total Present and Expected Future Resources	\$8,682,623,419

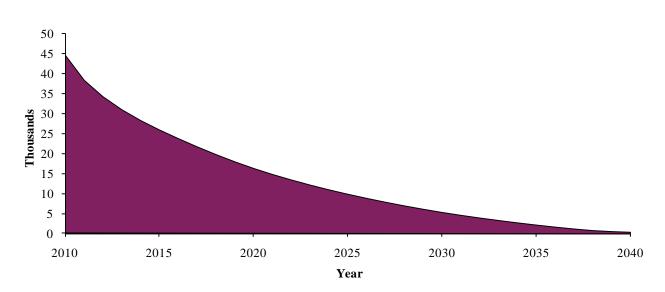
### **Actuarial Present Value of Expected Future Benefit Payments**

A.	To retirees and beneficiaries:	
	1. Annual pensions	\$2,943,472,070
	2. DROP participants: future payments	665,415,686
	3. DROP Reserve: accrued balances	114,274,381
	4. Total	3,723,162,137
B.	To vested terminated members:	336,186,176
C.	To present active members:	
	1. Allocated to service rendered prior to	
	valuation date - actuarial accrued liability	3,244,886,513
	2. Allocated to service likely to be rendered	
	after valuation date	1,378,388,593
	3. Total	4,623,275,106
D.	Total Actuarial Present Value of Expected Future	
	Benefit Payments	\$8,682,623,419

## COMPUTED ACTUARIAL LIABILITIES AND ALLOCATION USING ENTRY AGE ACTUARIAL COST METHOD AS OF JUNE 30, 2010

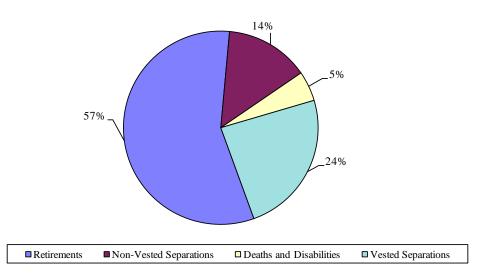
Actuarial Present Value of	Total Present Value	Portion Covered By Future Normal Cost Contributions	Actuarial Accrued Liabilities (1) - (2)
Ponefits to be paid to surrant			
Benefits to be paid to current retirees, beneficiaries, and future			
beneficiaries of current retirees	\$2,943,472,070	\$ 0	\$2,943,472,070
Age and service allowances based on			
total service likely to be rendered by	2,929,674,205	785,137,898	2,144,536,307
present active members			
DROP paricipant benefits likely to be			
paid to present active members and	2 022 571 628	260 550 705	1 752 020 822
current DROP participants	2,022,571,628	269,550,795	1,753,020,833
Separation benefits (refunds of			
contributions and deferred allowances) likely to be paid to present active			
and inactive members	581,987,518	233,063,295	348,924,223
Disability benefits likely to be paid			
to present active members	154,572,190	71,802,894	82,769,296
Death in coming homeful likely to be used			
Death in service benefits likely to be paid on behalf of present active members	50,345,809	18,833,712	31,512,097
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Total	\$8,682,623,420	\$1,378,388,594	\$ 7,304,234,826
Applicable Assets (Funding Value)	5,409,167,459	0	5,409,167,459
Liabilities to be covered by future			
Contributions	\$3,273,455,961	\$1,378,388,594	\$ 1,895,067,367

# EXPECTED DEVELOPMENT OF PRESENT POPULATION JUNE 30, 2010



### **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 45,394 active members. Eventually, 14% of the population is expected to terminate covered employment prior to retirement and forfeit eligibility for an employer provided benefit. About 81% 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-inservice or disability benefits. Within 8 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:

	Employer			Employer
	Accumulation	Transfers as of	July 1, 2010 To:	Accumulation
	Accounts	Deferred Annuity	<b>Retirement Reserve</b>	Accounts
Division	Before Transfers	Accounts	Accounts	After Transfers
State	\$1,238,495,108	\$22,001,919	\$175,466,076	\$ 1,041,027,113
Wildlife	(36,786,318)	(41,367)	1,402,643	(38,147,594)
Penitentiary	(257,073)	0	0	(257,073)
State Constitutional Officers	(663,715)	10,179	467,978	(1,141,872)
Governors	(4,413,165)	0	21,573	(4,434,738)
Quasi-Judicial	(473,682)	0	1	(473,683)
State Capitol Police	1,685,713	0	0	1,685,713
Administrative Officers Courts	305,138	0	0	305,138
Total State	1,197,892,006	21,970,731	177,358,271	998,563,004
General Assembly	(5,858,896)	(98,632)	(117,114)	(5,643,150)
County	192,265,557	2,693,543	25,544,980	164,027,034
County Constitutional Officers	(976,840)	0	(151,268)	(825,572)
Total County	191,288,717	2,693,543	25,393,712	163,201,462
Municipal	104,116,072	2,589,949	24,342,418	77,183,705
School	3,833,170	(1,159,695)	14,135,381	(9,142,516)
Non-State	0	166,864	401,990	(568,854)
Total	\$1,491,271,069	\$26,162,760	\$241,514,658	\$1,223,593,651

## VALUATION RESULTS COMPARATIVE STATEMENT (\$ MILLIONS)

Valuation	Actuarial Accrued			Unfunded Actuarial Accrued Liabilities & Reserves			Contribution Rate Computed Percents		
Date	Liabilities	Valuation	%		Amortiz.	% of	General		
June 30,	& Reserves	Assets	Funded	Dollars	Period *	Payroll	Assembly	State & Local**	
1998 @#	\$2,921	\$ 3,297	112.9 %	\$(376)	30	(41) %		10.00 %	
1999@	3,479	3,712	106.7	(233)	30	(23)	98.05 %	10.00	
2000	3,803	4,121	108.4	(318)	30	(32)		10.00	
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	6,894	5,413	78.5	1,481	30	103	521.36	12.23	
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	504.92	13.47	

\* 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.

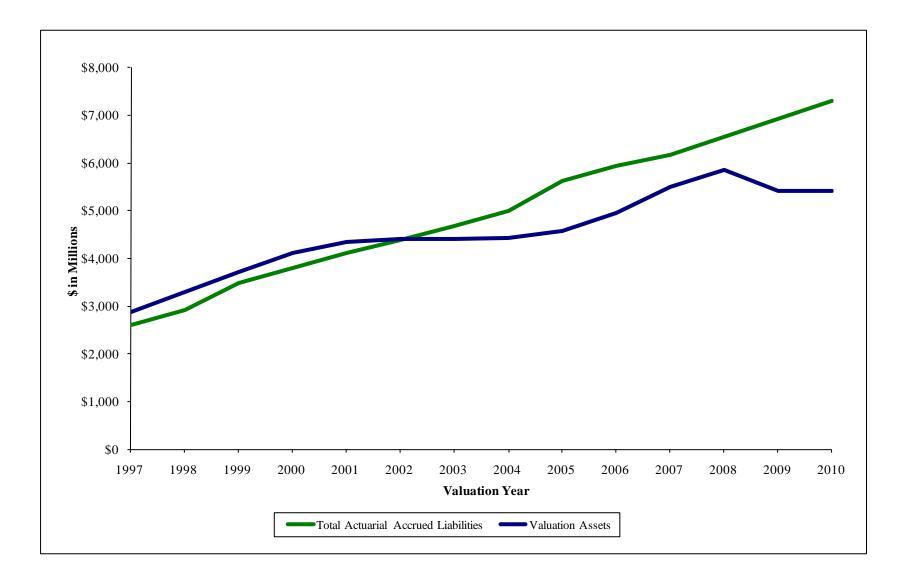
\*\* Local Government rate was 6.00% for the 1998 valuation, 7.00% for the 1999 valuation, and 8.00% for the 2000 valuation.

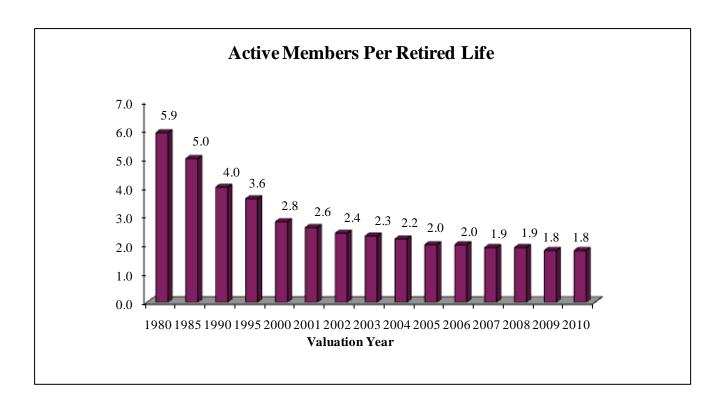
@ After legislated changes in benefit provisions.

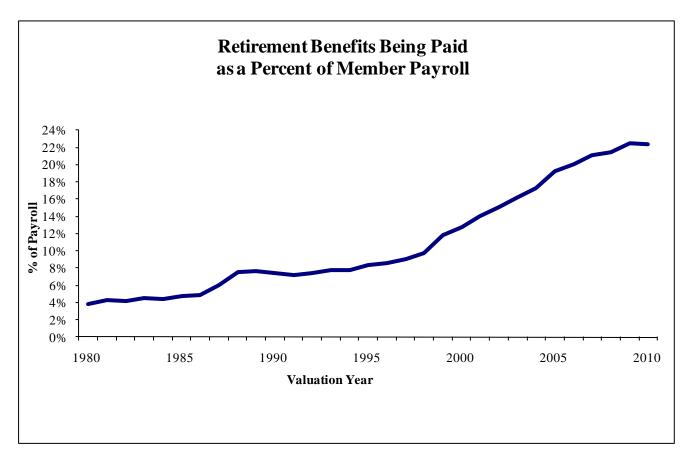
# After changes in actuarial assumptions.

# ACTIVE MEMBERS AND RETIRED LIVES HISTORICAL COMPARATIVE SCHEDULE

ValuationValuation PayrollperDateNo. $\$$ MillionsAverage% Incr.No.Retired $\$$ Million $6/30/84$ *****7,036*\$ 19.1 $6/30/85$ *****7,331*22.0 $6/30/86$ *****7,649*24.1 $6/30/86$ *****30.2 $6/30/86$ ****30.2 $6/30/87$ ****30.2 $6/30/88$ ****9,155* $6/30/89$ ****9,155* $6/30/90$ ****9,747* $6/30/91$ ****10,110* $49.2$ $6/30/91$ ****10,110* $6/30/92$ $39,752$ $\$$ $698.2$ \$17,564NA10,4563.851.9 $6/30/93$ $39,849$ 733.418,4044.8%10,8403.756.8 $6/30/94$ $40,940$ 778.719,0213.3%11,2133.760.7 $6/30/95$ $42,041$ $834.5$ 19,850 $4.4\%$ 11,6833.670.1 $6/30/96$ $42,712$ $889.3$ $20,821$ $4.9\%$ 12,0733.576.2 $6/30/97$ $43,068$ 938.5 $21,791$ $4.7\%$ 12,6443.4 </th <th></th>	
DateNo.\$ MillionsAverage% Incr.No.Retired\$ Million $6/30/84$ *****7,036*\$ 19.1 $6/30/85$ *****7,331*22.0 $6/30/86$ *****7,649*24.1 $6/30/86$ *****30.2 $6/30/86$ ****30.2 $6/30/87$ ****30.2 $6/30/88$ ****9,155* $6/30/89$ ****9,418* $6/30/90$ ****9,747* $6/30/90$ ****10,110* $6/30/91$ ****10,110* $6/30/92$ 39,752\$ 698.2\$ 17,564NA10,4563.851.9 $6/30/93$ 39,849733.418,4044.8%10,8403.756.8 $6/30/94$ 40,940778.719,0213.3%11,2133.760.7 $6/30/95$ 42,041834.519,8504.4%11,6833.670.1 $6/30/96$ 42,712889.320,8214.9%12,0733.576.2 $6/30/97$ 43,068938.521,7914.7%12,6443.484.8 $6/30/98$ 43,047974.722,6443.9%13,4803.2 <td< th=""><th>ns of Pay</th></td<>	ns of Pay
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6/30/88*****9,155*39.6 $6/30/89$ *****9,418*42.9 $6/30/90$ ****9,747*44.9 $6/30/91$ ****10,110*49.2 $6/30/92$ 39,752\$ 698.2\$ 17,564NA10,4563.851.9 $6/30/93$ 39,849733.418,4044.8%10,8403.756.8 $6/30/94$ 40,940778.719,0213.3%11,2133.760.7 $6/30/95$ 42,041834.519,8504.4%11,6833.670.1 $6/30/96$ 42,712889.320,8214.9%12,0733.576.2 $6/30/97$ 43,068938.521,7914.7%12,6443.484.8 $6/30/98$ 43,047974.722,6443.9%13,4803.294.6 $6/30/99$ 43,0641,008.923,4273.5%14,6882.9119.3	4.9%
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6/30/9743,068938.521,7914.7%12,6443.484.86/30/9843,047974.722,6443.9%13,4803.294.66/30/9943,0641,008.923,4273.5%14,6882.9119.3	8.4%
6/30/9843,047974.722,6443.9%13,4803.294.66/30/9943,0641,008.923,4273.5%14,6882.9119.3	8.6%
6/30/99 43,064 1,008.9 23,427 3.5% 14,688 2.9 119.3	9.0%
	9.7%
	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%







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.

*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;
- 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)

	(1)	(2)	(3)		Р	ortion o	fPrese	nt
Val'n.	Active	Retirees	Active Members		V	alues Co	overed	by
Date:	Member	and	(Employer Financed	Valuation		Present	Assets	
June 30	Contr.	Benef.	Portion)	Assets	(1)	(2)	(3)	Total
	STATE DIVISION (including sub-divisions)							
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%
	LOCAL GOV	ERNMENT	DIVISION					
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%
STATE AND LOCAL GOVERNMENT DIVISION								
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%

3,701.7

3,907.3

3,856.7

4,014.9

4,059.9

4,103.5

4,266.1

4,576.1

4,941.1

5,489.3

5,858.1

5,406.8

5,406.8

5,403.5

100%

100%

100%

100%

100%

100%

100%

100%

100%

100%

100%

100%

100%

100%

72%

75%

83%

83%

64%

63%

56%

82%

84%

89%

90%

79%

78%

74%

# After legislated changes in benefit provisions.

15.5

15.5

29.7

45.8

66.4

66.4

92.8

1,878.2

1,990.6

2,268.5

2,463.9

2,750.3

2,750.3

2,928.7

@ After changes in actuarial assumptions.

2005@

2006

2007#

2008@

2009

2009#

2010

**SECTION B** VALUATION DATA

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

The Old Contributory Plan is available to persons who became members of APERS before January l, 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 before January 1, 2005.

### **New Contributory Plan**

### **Non-Contributory Plan**

#### **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 reduced benefit, after age 55 with 5 years of service or any age with 25 years of service. The reduction is equal to 1/2 of 1% for each month retirement proceeds normal retirement age or 1% for each month below 28 years of actual service, whoever is less.

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 1/2 of 1% for each month retirement proceeds normal retirement age or 1% for each month below 28 years of actual service, whoever is less.

#### FINAL AVERAGE COMPENSATION (FAC)

compensation.

Average of highest 36 calendar months of covered 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

### **New Contributory Plan**

### **Non-Contributory Plan**

#### **BENEFIT INCREASES AFTER RETIREMENT**

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

#### MEMBER CONTRIBUTION RATES

pavable. contributions at a rate of 4% annually.

5% of covered compensation (pre-tax). Member No employee contributions for service after January 1, contributions are refundable if APERS-covered 1978. If there is service before January 1, 1978, employment terminates before a monthly benefit is contributions for that period are refundable later in the Members will earn interest on the same manner as under the Contributory Plan.

#### VESTED RETIREMENT BENEFITS

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.

5 years service, and leaving APERS-covered 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.

#### 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

### **New Contributory Plan**

### **Non-Contributory Plan**

#### **DEATH AFTER RETIREMENT**

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

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 decease within 12 months of the date of retirement, a benefit may be payable to the surviving spouse under certain conditions. 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 decease 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.

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).

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

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.

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.

### SUMMARY OF PROVISIONS EVALUATED CREDITED SERVICE

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 6% on the mean balance and are paid to the member at termination of active membership in either a lump sum or as an annuity.

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

#### 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	Increase Beginning	Benefit Dollars	Inflation (Loss)	Purchasing Power At Year End	
June 30	of Year	In Year	In Year#	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)%	9,542	119%
2011	610	20,931			

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

# REVENUES AND EXPENDITURES JULY 1, 2009 THROUGH JUNE 30, 2010 MARKET VALUE (\$ IN MILLIONS)

	Divis		
	State and Local Gov't.	General Assembly	Totals
Balance 7/1/2009	\$4,325.4	\$5.1	\$4,330.5
Revenues			
Member contr.	30.2	0.0	30.2
Employer contr.	168.6	1.0	169.6
Transfers	6.4	0.0	6.4
Other	2.3	0.0	2.3
Investment ret.*	502.0	0.5	502.5
Total	709.3	1.6	710.9
Expenditures			
Benefits paid	319.3	2.0	321.3
Expenses	5.7	0.0	5.7
Total	325.0	2.0	327.0
Reserve Adjustments	(0.3)	(0.0)	(0.3)
Balance 6/30/2010	\$4,709.6	\$4.6	\$4,714.2

\* Net of investment expenses.

Note: Results may not total due to rounding.

# REPORTED ACCRUED ASSETS AVAILABLE FOR BENEFITS JUNE 30, 2010

State and Local	<b>Reported Assets</b>
Retirement System Account	June 30, 2010
Employer Accumulation Account	\$ 1,229,236,801 *
Members Deposit Account	92,745,256
Members Deposit Interest Reserve	4,572,338
Retirement Reserve Account	2,928,740,227 *
Deferred Annuity Reserve Account	335,199,999 *
DROP Reserve	114,269,899
Miscellaneous Reserves	229,756
Total Market Value	4,704,994,276
Funding Value of Assets	5,403,478,179
Valuation Asset Adjustment	698,483,903
Adjusted Employer Accum. Account	\$ 1,927,720,704

General Assembly Retirement System Account	Reported Assets June 30, 2010
Employer Accumulation Account	\$ (5,643,150) *
Members Deposit Account	33,166
Members Deposit Interest Reserve	(7,527)
Retirement Reserve Account	14,731,844 *
Deferred Annuity Reserve Account	887,545 *
DROP Reserve	4,482
Total Market Value	10,006,360
Funding Value of Assets	5,689,280
Valuation Asset Adjustment	(4,317,080)
Adjusted Employer Accum. Account	\$ (9,960,230)

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

### REPORTED ACCRUED ASSETS AVAILABLE FOR BENEFITS JUNE 30, 2010 (CONTINUED)

*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 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:	2009	2010	2011	2012	2013
A.	Funding Value Beginning of Year	\$ 5,866,393,728	\$ 5,413,157,878			
B.	Market Value End of Year	4,330,526,302	4,714,159,955			
C.	Market Value Beginning of Year	5,615,160,621	4,330,526,302			
D.	Non-Investment Net Cash Flow	(110,086,307)	(112,900,732)			
E.	Investment Income					
	E1. Market Total: B - C - D	(1,174,548,012)	496,534,385			
	E2. Assumed Rate	8.00%	8.00%			
	E3. Amount for Immediate Recognition	464,964,523	428,594,522			
	E4. Amount for Phased-In Recognition	(1,639,512,535)	67,939,863			
F.	Phased-In Recognition of Investment Income					
	F1. Current Year: 0.25 x E4	(409,878,134)	16,984,966			
	F2. First Prior Year	(183,949,681)	(281,006,360)	\$ 16,984,966		
	F3. Second Prior Year	128,286,868	(183,949,681)	(281,006,360)	\$ 16,984,966	
	F4. Third Prior Year	44,042,203	128,286,866	(183,949,682)	(281,006,359)	\$ 16,984,965
	F5. Total Phase-Ins	(421,498,744)	(319,684,209)	(447,971,076)	(264,021,393)	16,984,965
G.	Preliminary Funding Value End of Year: A + D + E3 + F5	\$ 5,799,773,200	\$ 5,409,167,459			
H.	Adjustment to Minimum of 75% of B, Maximum 125% of B	(386,615,322)	0			
I.	Funding Value End of Year	\$ 5,413,157,878	\$ 5,409,167,459			
J.	Difference Between Market & Funding Value	(1,082,631,576)	(695,007,504)	(247,036,428)	16,984,965	
K.	Recognized Rate of Return	(5.9)%	2.0%			
L.	Market Rate of Return	(21.1)%	11.6%			
M.	Ratio of Funding Value to Market Value	125%	115%			

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

*Retirees and beneficiaries (including DROP participants) on rolls included* in the valuation totaled 25,880, involving annual annuities of \$342,206,040, distributed as follows:

		Annuities Being Paid July 1, 202		
Division	Number	Monthly	Annualize d	
State & Local	23,871	\$ 23,811,837	\$ 285,742,044	
General Assembly	108	134,800	1,617,600	
Governor	5	14,149	169,788	
Wildlife	82	246,241	2,954,892	
State Constitutional Officers	3	9,891	118,692	
Penitentiary	0	0	0	
Sub-total	24,069	24,216,918	290,603,016	
DROP	1,811	4,300,252	51,603,024	
Totals	25,880	\$ 28,517,170	\$ 342,206,040	

*Inactive members*, entitled to deferred annuities, included in the valuation totaled 12,455, involving estimated deferred monthly annuities of \$4,670,520, distributed as follows:

	Number of	Estimated De	eferred Annuities
Division	Inactive Members	Monthly	Annualize d
State and Local	12,381	\$ 4,655,344	\$ 55,864,125
General Assembly	63	9,816	117,796
Wildlife	9	3,946	47,346
State Constitutional Officers	2	1,415	16,978
Totals	12,455	\$ 4,670,520	\$ 56,046,245

## RETIREMENT SYSTEM TOTALS ANNUITIES BEING PAID RETIREES AND BENEFICIARIES AND DROP PARTICIPANTS JUNE 30, 2010 BY ATTAINED AGE AND TYPE OF RETIREMENT

	]	DROP	Age	& Service*	Ι	Disability	Death-in-Service			Totals
Attained		Annual		Annual		Annual		Annual		Annual
Ages	No.	Amount	No.	Annuities	No.	Annuities	No.	Annuities	No.	Annuities
Under 40			12	\$ 75,528	129	\$ 477,168		\$-	141	\$ 552,696
40-44		\$-	2	29,688	77	421,128	1	5,328	80	456,144
45-49	47	1,132,500	85	1,775,292	188	1,276,428	1	5,064	321	4,189,284
50-54	410	11,351,568	481	11,241,960	346	2,678,448	1	7,884	1,238	25,279,860
55-59	755	23,101,056	1,856	36,092,916	569	4,546,392	3	27,612	3,183	63,767,976
60-64	464	12,930,444	3,710	56,483,676	731	5,796,996	4	15,048	4,909	75,226,164
65-69	114	2,595,600	4,646	52,644,504	488	3,439,644	5	31,428	5,253	58,711,176
70-74	13	294,372	3,817	40,124,964	211	1,557,096	6	46,392	4,047	42,022,824
75-79	6	148,344	2,905	31,709,220	103	870,540	9	67,536	3,023	32,795,640
80-84	2	49,140	1,913	20,236,080	36	321,504	12	72,744	1,963	20,679,468
85-89			1,080	11,856,288	19	209,820	10	75,084	1,109	12,141,192
90-94			467	5,074,848	2	11,172	8	44,976	477	5,130,996
95-99			106	1,080,648			5	38,628	111	1,119,276
Over 100			15	100,956	9	29,148	1	3,240	25	133,344
Totals	1,811	\$51,603,024	21,095	\$268,526,568	2,908	\$21,635,484	66	\$440,964	25,880	\$342,206,040

\* Including survivor beneficiaries of deceased retirees.

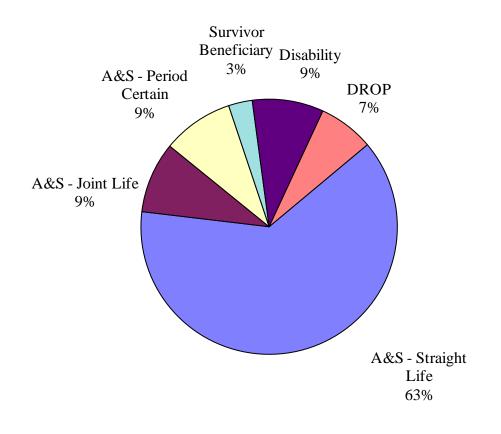
# ANNUITIES BEING PAID JUNE 30, 2010 BY TYPE OF ANNUITY

Type of Annuity	Number	Annual Annuities
Age & Service Retirees		
Life	16,120	\$ 203,495,292
Option A- 60 ( 5 years certain)	835	9,921,204
Option A-120 (10 years certain)	1,565	17,247,864
Option B- 50 (joint and 50% survivor)	883	15,246,840
Option B-75 (joint and 75% survivor)	1,319	18,453,396
Option B-100 (joint and 100% survivor)	75	1,364,124
Totals	20,797	265,728,720
Beneficiaries of Age & Service Retirees		
Life	122	980,160
Option A- 60	1	15,156
Option A-120	5	31,992
Option B- 50	96	852,624
Option B- 75	62	702,252
Option B-100	12	215,664
Totals	298	2,797,848
Total Age & Service Retirees & Beneficiaries	21,095	268,526,568
Disability Retirees		
Life	1,760	13,873,644
Option A- 60	117	897,072
Option A-120	245	1,751,436
Option B- 50	125	954,660
Option B- 75	175	1,316,748
Option B-100	0	0
Totals	2,422	18,793,560
Beneficiaries of Disability Retirees		
Life	69	360,660
Option A- 60	1	17,772
Option A-120	0	0
Option B- 50	11	58,836
Option B-75	405	2,404,656
Option B-100	0	0
Totals	486	2,841,924
Total Disability Retirees & Beneficiaries	2,908	21,635,484
Death-in-Service Beneficiaries	66	440,964
Total Retirees & Beneficiaries	24,069	290,603,016
DROP Participants	1,811	51,603,024
Total Including DROP Participants	25,880	\$ 342,206,040

# SCHEDULE OF AVERAGE BENEFIT PAYMENTS (VOLUNTARY RETIREMENTS STILL RECEIVING BENEFITS AS OF JUNE 30, 2010)

	Years of Credited Service					
	10-14	15-19	20-24	25-29	30+	
Retirement Effective Dates						
July 1, 2009 to June 30, 2010						
Average Monthly Benefit	\$ 420.50	\$ 704.05	\$ 901.92	\$1,576.77	\$2,236.53	
Average Monthly FAS	2,169.32	2,623.70	2,581.40	3,266.19	3,737.84	
Number of Active Retirees	263	187	158	176	80	
Retirement Effective Dates						
July 1, 2008 to June 30, 2009						
Average Monthly Benefit	453.36	710.10	959.21	1,764.44	2,003.49	
Average Monthly FAS	2,146.10	2,527.01	2,648.64	3,195.35	3,268.56	
Number of Active Retirees	264	225	190	324	150	
Retirement Effective Dates						
July 1, 2007 to June 30, 2008						
Average Monthly Benefit	455.20	747.46	881.99	1,746.83	2,178.09	
Average Monthly FAS	2,310.97	2,456.34	2,350.47	3,184.13	3,640.46	
Number of Active Retirees	208	174	161	292	88	
Retirement Effective Dates						
July 1, 2006 to June 30, 2007						
Average Monthly Benefit	470.91	695.75	1,021.95	1,912.56	2,659.66	
Average Monthly FAS	2,180.18	2,445.47	2,611.49	3,189.21	3,723.27	
Number of Active Retirees	236	198	171	291	130	
Retirement Effective Dates						
July 1, 2005 to June 30, 2006						
Average Monthly Benefit	441.85	651.50	866.08	1,835.69	2,176.02	
Average Monthly FAS	2,079.97	2,171.54	2,267.33	3,064.26	3,378.73	
Number of Active Retirees	208	199	147	346	90	
Retirement Effective Dates						
July 1, 2005 to June 30, 2005						
Average Monthly Benefit	447.84	700.81	929.65	1,785.14	2,254.12	
Average Monthly FAS	2,175.52	2,444.51	2,502.29	3,168.79	3,527.48	
Number of Active Retirees	1,179	983	827	1,429	538	

# ANNUITIES BEING PAID BY TYPE JUNE 30, 2010



# NEW RETIREES JUNE 30, 2010

	Age &		
	Service	Disability	
Number	864	78	
Average Age	61.2	54.9	
Average Service	16.2	14.8	
Average Monthly Benefit	763.99	701.33	

# RETIREMENT SYSTEM TOTALS ANNUITIES LIKELY TO BE PAID PRESENT INACTIVE MEMBERS JUNE 30, 2010 BY ATTAINED AGE

Attained Ages	No.	Estimated Annual Annuities
Under 40	2,496	\$ 8,492,727
40-44	2,000	8,364,312
45-49	2,274	10,985,457
50-54	2,528	12,627,679
55-59	1,828	9,510,866
60-64	972	4,613,389
65-69	357	1,451,815
Totals	12,455	\$ 56,046,245

# LIABILITIES FOR DEFERRED ANNUITIES JUNE 30, 2010

Number of Inactive Members	Estimated Annual Annuities	Annuity Liabilities		
12,455	\$ 56,046,245	\$ 336,186,176		

# STATE AND LOCAL DIVISION (EXCLUDING GENERAL ASSEMBLY) ACTIVE MEMBERS IN VALUATION JUNE 30, 2010 BY ATTAINED AGE AND YEARS OF SERVICE

	Years of Service to Valuation Date					Totals			
Attained									Valuation
Age	0-4	5-9	10-14	15-19	20-24	25-29	30 plus	No.	Payroll
							-		-
Under 20	272							272	\$ 3,687,511
20-24	2,215	29						2,244	50,457,583
25-29	3,228	804	14					4,046	113,317,282
30-34	2,657	1,498	390	7	2			4,554	140,257,082
35-39	2,130	1,394	1,007	258	17	2		4,808	159,172,315
40-44	1,839	1,297	1,012	684	371	44	10	5,257	179,886,901
45-49	1,790	1,335	998	813	783	403	55	6,177	219,961,891
50-54	1,659	1,206	1,060	736	834	692	234	6,421	238,110,958
55-59	1,359	1,128	976	796	756	567	258	5,840	215,826,846
60	208	205	165	126	147	77	31	959	34,480,822
61	201	191	166	131	131	73	39	932	32,965,867
62	143	186	138	114	133	70	42	826	30,241,934
63	146	135	125	102	86	71	34	699	25,307,459
64	104	120	99	78	67	45	21	534	19,444,175
65	59	75	77	45	49	27	19	351	12,872,477
66	66	60	54	33	33	27	11	284	9,365,139
67	53	64	34	27	25	17	9	229	7,316,082
68	40	45	30	18	21	17	13	184	6,029,035
69	40	35	26	18	23	14	7	163	5,506,526
70 & over	133	157	111	69	57	45	28	600	18,271,373
Totals	18,342	9,964	6,482	4,055	3,535	2,191	811	45,380	\$1,522,479,258

#### **Group Averages**

Age:	44.8 years
Service:	9.3 years
Annual Pay:	\$33,550

Of the 45,380 active members included in the above schedule, 46 were hired prior to July 1, 1978 and are not covered by the Non-Contributory Plan or the New-Contributory Plan.

#### GENERAL ASSEMBLY SUB-DIVISION ACTIVE MEMBERS IN VALUATION JUNE 30, 2010 BY ATTAINED AGE AND YEARS OF SERVICE

	Years of Service to Valuation Date								
Attained Age	0-4	5-9	10-14	15-19	20-24	25-27	28 Plus	No.	Valuation Payroll
25-29									
30-34									\$ -
35-39									
40-44									
45-49				1	1			2	31,736
50-54		1						1	15,868
55-59			1					1	15,868
60									
62			3		1			4	63,472
63			1					1	15,868
66		1						1	15,868
68				1				1	15,868
71				1				1	15,868
72			1					1	15,868
74				1				1	15,868
Totals		2	6	4	2			14	\$ 222,152

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

#### **Group Averages**

Age:	61.9 years
Service:	13.8 years
Annual Pay:	\$15,868

SECTION C GAIN/(LOSS) ANALYSIS *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.

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, 2009 TO JUNE 30, 2010

	\$ in Millions			
	State and	General		
	Local Division	Assembly	Total	
(1) UAAL* at beginning of year	\$1,513.4	\$11.4	\$ 1,524.8	
(2) Normal cost from last valuation	102.0	0.0	102.0	
(3) Actual employer contributions	168.6	1.0	169.6	
(4) Interest accrual: $[(1) + \frac{1}{2}[(2) - (3)]]x$ .080	118.4	0.9	119.3	
<ul> <li>(5) Expected UAAL before changes:</li> <li>(1) + (2) - (3) + (4)</li> </ul>	1,565.2	11.3	1,576.5	
(6) Increase from benefit changes	0.0	0.0	0.0	
(7) Changes from revised actuarial assumptions and methods	0.0	0.0	0.0	
(8) New entrant liabilities	36.0	0.0	36.0	
<ul> <li>(9) Expected UAAL after changes:</li> <li>(5) + (6) + (7) + (8)</li> </ul>	1,601.2	11.3	1,612.5	
(10) Actual UAAL at end of year	1,884.1	10.9	1,895.0	
(11) Gain/(Loss): (9) - (10)	\$(282.9)	\$ 0.4	\$ (282.5)	

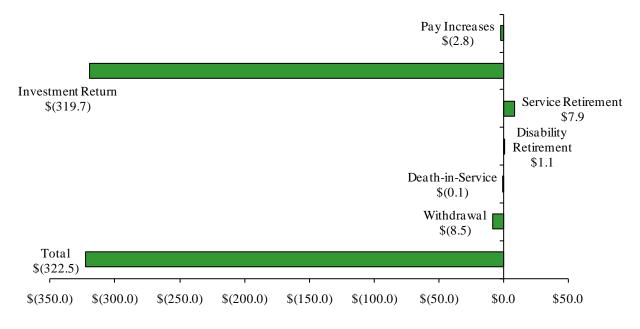
\* Unfunded actuarial accrued liability.

## GAINS/(LOSSES) BY RISK AREA AND BY DIVISION DURING THE PERIOD JULY 1, 2009 TO JUNE 30, 2010

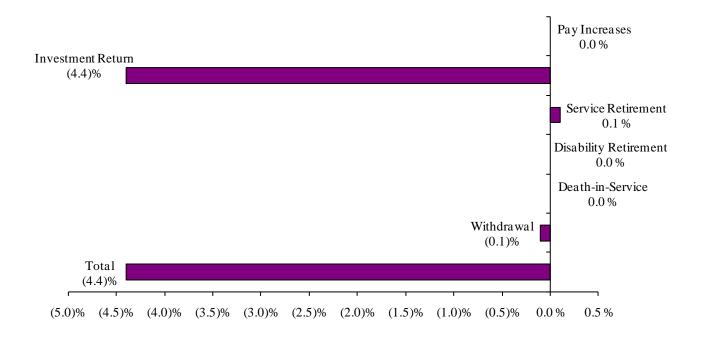
		Gain/(Loss)	) in Period	- (\$ in Mill	lions)		% of
Type of Risk Area	State and Local Divisions			General Assembly		Total	Accrued Liabilities
<b>ECONOMIC RISK AREAS</b> <i>Pay Increases.</i> If there are smaller pay increases than assumed, there is a gain. If greater increases, a loss.	\$	(2.8)	\$	0.0	\$	(2.8)	0.0 %
<i>Investment Return.</i> If there is greater investment return than assumed, there is a gain. If less return, a loss.		(319.2)		(0.5)		(319.7)	(4.4)%
<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.		7.9		0.0		7.9	0.1 %
<i>Disability Retirements.</i> If there are fewer disabilities than assumed, there is a gain. If more, a loss.		0.8		0.0		0.8	0.0 %
<i>Death-in-Service Benefits.</i> If there are fewer claims than assumed, there is a gain. If more, a loss.		(0.1)		0.0		(0.1)	0.0 %
<i>Withdrawal.</i> If more liabilities are released by other separations than assumed, there is a gain. If smaller releases, a loss.		(9.0)		0.5		(8.5)	(0.1)%
Total Active Member Actuarial Gains/(Losses)	\$	(322.5)	\$	0.0	\$	(322.5)	(4.4)%
Retired Life Mortality.		17.0		0.0		17.0	0.2 %
<i>Other.</i> Includes data adjustments at retirement, timing of financial transactions, and miscellaneous unidentified sources.	\$	22.6	\$	0.4	\$	23.0	0.3 %
Total Actuarial Gains/(Losses)	\$	(282.9)	\$	0.4	\$	(282.5)	(3.9)%

#### ACTUARIAL GAINS/(LOSSES) ACTIVE MEMBERS 2009-2010 PLAN YEAR

#### **Amount in \$ Millions**







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

	Gain/(Loss) By Risk Area								Accrued
Year Ending	Pay	Invest-	Age & Service		Death In			xperience /(Loss)	Liability End of
June 30	Increases	ments	Retirement	Disability	Service	Withdrawal	Dollars	% of AAL	Year
1991	\$ (3.7)	\$ (8.2)	\$ 0.2	\$ 0.8	\$ 2.3	\$(13.3)	\$ (21.9)	(4.0)%	\$   955.2 *
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)	7.9	0.8	(0.1)	(8.5)	(322.5)	(4.4)%	7,304.2

\* Excludes liability for retired lives.

#### DEVELOPMENT OF GAIN/(LOSS) FROM INVESTMENT RETURN\* DURING THE PERIOD JULY 1, 2009 TO JUNE 30, 2010

413.2
409.2
728.9
319.7)

\* "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, 2009 TO JUNE 30, 2010 (RETIREMENT WITH UNREDUCED BENEFIT BEGINNING IMMEDIATELY) ATTAINED AGE OF 65 OR OLDER WITH LESS THAN 28 YEARS OF SERVICE

	State & Local				
	Retir	ements			
Ages	Actual	Expected			
65	67	76			
66	40	58			
67	36	47			
68	15	26			
69	11	22			
70	16	20			
71	4	16			
72	7	10			
73	7	11			
74	7	6			
75 & Up	12	27			
	222	319			

Averages, in Years:	
Age at retirement	68.2
Service at retirement	14.6

#### ACTIVE MEMBERS WHO BECAME REDUCED EARLY RETIREES DURING THE PERIOD JULY 1, 2009 TO JUNE 30, 2010 (EARLY RETIREMENTS WITH REDUCED BENEFITS BEGINNING IMMEDIATELY)

	State & Local Early Retirement				
Ages	Actual	Expected			
55	13	13			
56	8	13			
57	11	18			
58	16	17			
59	8	23			
60	22	26			
61	21	34			
62	56	93			
63	51	75			
64	17	35			
Totals	223	347			

Averages, in Years:

Age at retirement	60.4
Service at retirement	17.6

#### ACTIVE MEMBERS WHO RETIRED OR ENTERED THE DROP DURING THE PERIOD JULY 1, 2009 TO JUNE 30, 2010 (28 OR MORE YEARS OF SERVICE)

	State & Local						
	Retir	ement	DROP				
Service	Actual	Expected	Actual	Expected			
28	78	51	144	183			
29	15	38	54	48			
30	16	21	26	33			
31	12	17	16	27			
32	4	11	8	13			
33	9	8	4	9			
34	7	7	2	8			
35	4	5	14				
36	2	3					
37	4	2					
38 & Up		107					
Totals	151	270	268	321			

Averages, in Years:

Age at retirement	59.3	55.9
Service at retirement	29.6	29.1

#### ACTIVE MEMBERS WHO BECAME DISABILITY RETIREES DURING THE PERIOD JULY 1, 2009 TO JUNE 30, 2010 (AND WHO WERE ACTIVE MEMBERS AS OF JUNE 30, 2009)

	State & Local Disabilities	
Ages	Actual	Expected
20-24		0
25-29		1
30- 34	2	2
35- 39	1	3
40- 44	4	6
45-49	12	12
50- 54	14	21
55- 59	23	32
60 & Up	22	28
	78	105

Averages, in Years:	
Age at retirement	54.5
Service at retirement	14.9

#### ACTIVE MEMBERS WHO LEFT ACTIVE STATUS WITH A DEFERRED BENEFIT PAYABLE DURING THE PERIOD JULY 1, 2009 TO JUNE 30, 2010 (VESTED SEPARATIONS)

	State & Local Vested Separations	
Ages	Actual	Expected
Below 30	66	109
30- 34	118	166
35- 39	163	149
40- 44 45- 49	159 148	142 133
50- 54	161	111
55- 59	117	64
60 & Up	93	30
Totals	1,025	904

Averages, in Years:	
Age at retirement	46.8
Service at retirement	11.0

#### ACTIVE MEMBERS WHO LEFT ACTIVE STATUS WITH NO BENEFIT PAYABLE DURING THE PERIOD JULY 1, 2009 TO JUNE 30, 2010 (NON-VESTED SEPARATIONS)

	State & Local Non-Vested Separations	
Service at Termination	Actual Expected	
0	1,551	1,991
1	762	1,058
2	475	731
3	271	438
4	162	130
	3,221	4,348

Averages, in Years:	
Age at retirement	44.1
Service at retirement	1.8

#### MEMBERS ACTIVE BOTH BEGINNING AND END OF YEAR SALARY INCREASES BY AGE GROUP DURING THE PERIOD JULY 1, 2009 TO JUNE 30, 2010

Age		Beginning	Ending Pay		Percentage	e Increase
Groups	Number	Pay	Expected	Actual	Expected	Actual
Below 25	1,510	\$ 32,217,518	\$ 35,501,764	\$ 37,030,080	10.2%	14.9%
25-29	3,206	85,626,964	92,555,092	95,748,948	8.1%	11.8%
30- 34	3,761	111,815,348	119,394,949	121,941,098	6.8%	9.1%
35- 39	4,287	138,046,353	146,536,909	149,171,362	6.2%	8.1%
40-44	4,650	154,101,253	162,973,824	164,593,623	5.8%	6.8%
45-49	5,710	198,257,633	208,877,702	211,084,925	5.4%	6.5%
50- 54	5,888	210,525,278	221,096,275	223,007,159	5.0%	5.9%
55- 59	5,349	189,927,713	199,044,243	200,450,948	4.8%	5.5%
60-64	3,469	119,754,564	125,203,909	125,952,225	4.6%	5.2%
65 & Over	1,554	48,607,006	50,551,286	50,811,884	4.0%	4.5%
Totals	39,384				5.7%	7.1%

# **SECTION D** DISTRICT JUDGES – VALUATION RESULTS, VALUATION DATA, AND FINANCIAL PRINCIPLES

## DISTRICT JUDGES EMPLOYER CONTRIBUTION RATES COMPUTED JUNE 30, 2010

	Contributions Express	ed as %'s of Active
	Payroll and Old Plan Annual \$	
	New Plan and	Still Paying
Contribution for	Paid-Off Old Plan	Old Plan
Normal Cost:		
Age and service annuities (including	17.14%	
reduced retirement)		
Separation benefits	1.34%	
Disability benefits	1.35%	
Death-in-service annuities	0.00%	
Total	19.83%	
Member contributions (ultimate)	5.00%	
Employer Normal Cost	14.83%	
Unfunded Actuarial Accrued Liabilities	9.89% *	\$1,037,080 **
Total Employer Contribution	24.72%	\$1,037,080

\* Unfunded actuarial accrued liabilities were amortized over a 27 year period.

\*\* Unfunded actuarial accrued liabilities were amortized over a 25 year period.

#### DISTRICT JUDGES SUMMARY STATEMENT OF SYSTEM RESOURCES AND OBLIGATIONS YEAR ENDED JUNE 30, 2010

#### **Present Resources and Expected Future Resources**

		Totals
А.	Present Valuation Assets:	
	1. Net assets from system financial statements	\$10,149,749
	2. Market value adjustment	962,772
	3. Valuation assets	11,112,521
B.	Actuarial present value of expected future	
	employer contributions:	
	1. For normal costs	2,882,579
	2. For unfunded actuarial accrued liability	15,662,728
	3. Total	18,545,307
C.	Actuarial present value of expected future	
	member contributions	971,529
D.	Total Present and Expected Future Resources	\$30,629,357

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

A.	To retirees and beneficiaries	\$ 11,937,156
B.	To vested terminated members	9,834,264
C.	<ul><li>To present active members:</li><li>1. Allocated to service rendered prior to valuation date - actuarial accrued liability</li><li>2. Allocated to service likely to be rendered after valuation date</li><li>3. Total</li></ul>	5,003,829 <u>3,854,108</u> 8,857,937
D.	Reserve	0
E.	Total Actuarial Present Value of Expected Future Benefit Payments	\$30,629,357

#### DISTRICT JUDGES COMPUTED ACTUARIAL LIABILITIES AND ALLOCATION USING ENTRY AGE ACTUARIAL COST METHOD AS OF JUNE 30, 2010

	Total Present	Portion Covered By Future Normal	Actuarial Accrued Liabilities
Actuarial Present Value of	Value	Cost Contributions	(1) - (2)
Benefits to be paid to current retirees, beneficiaries, and future beneficiaries of current retirees	\$11,937,156	\$ 0	\$11,937,156
Age and service allowances based on total service likely to be rendered by present active members	8,230,482	3,301,872	4,928,610
Separation benefits (refunds of contributions and deferred allowances) likely to be paid to present active and inactive members	10,151,357	278,390	9,872,967
Disability benefits likely to be paid to present active members	310,362	273,846	36,516
Death in service benefits likely to be paid on behalf of present active members	0	0	0
Total	\$30,629,357	\$3,854,108	\$26,775,249
Applicable Assets (Funding Value)	11,112,521	0	11,112,521
Liabilities to be covered by future contributions	\$19,516,836	\$3,854,108	\$ 15,662,728

### DISTRICT JUDGES SUMMARY OF PROVISIONS EVALUATED

VOLUNTARY RETIREMENT	<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.
FINAL AVERAGE COMPENSATION (FAC)	Average of the final three calendar years of employment.
BENEFIT SERVICE	Service performed on or after January 1, 2005.
ELIGIBILITY SERVICE	Benefit service plus service in Old Local District Judges Plan.
Full Age & Service Retirement Benefit	2.50% of FAC times actual service.
BENEFIT INCREASES AFTER RETIREMENT	Annually, there will be a cost-of-living adjustment equal to 3% of the current benefit.
MEMBER CONTRIBUTION RATES	Active members contribute 5% of their salaries. If a member leaves service before becoming eligible to retire, accumulated contributions may be refunded.
VESTED RETIREMENT BENEFITS	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.
TOTAL AND PERMANENT DISABILITY	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.
DEATH AFTER RETIREMENT	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, 2009 THROUGH JUNE 30, 2010 MARKET VALUE

	Pl	an	
	New Plan and Paid-Off Old Plan	Still Paying Old Plan	Totals
			Totals
Balance 7/1/2009	\$6,005,009	\$2,498,133	\$8,503,142
Adjustment	0	0	0
Revenues			
Member contributions	179,539	0	179,539
Employer contributions	582,523	1,196,400	1,778,923
Other	0	0	0
Investment return	705,157	299,481	1,004,638
Total	\$1,467,219	\$1,495,881	\$2,963,100
Expenditures			
Benefits paid	352,605	918,031	1,270,636
Refunds	0	0	0
Expenses	32,187	13,670	45,857
Total	\$ 384,792	\$ 931,701	\$ 1,316,493
Preliminary Balance	\$7,087,436	\$3,062,313	\$10,149,749
Employer Paid Off			
Old Liability	140,609	(140,609)	0
Balance 6/30/2010	\$7,228,045	\$2,921,704	\$10,149,749

Note: Results may not total due to rounding.

#### DEVELOPMENT OF FUNDING VALUE OF ASSETS NEW PLAN AND PAID-OFF OLD PLAN JUNE 30, 2010

	Valuation Date June 30:	2009	2010	2011	2012	2013
A.	Funding Value Beginning of Year	\$ 8,726,625	\$ 7,506,261			
B.	Market Value End of Year	6,005,009	7,228,045			
C.	Market Value Beginning of Year	8,726,625	6,005,009			
D.	Non-Investment Net Cash Flow	453,109	550,066			
E.	Investment Income					
	E1. Market Total: B - C - D	(3,174,725)	672,970			
	E2. Assumed Rate	8.00%	8.00%			
	E3. Amount for Immediate Recognition	716,022	622,221			
	E4. Amount for Phased-In Recognition	(3,890,747)	50,749			
F.	Phased-In Recognition of Investment Income					
	F1. Current Year: 0.25 x E4	(972,687)	12,687			
	F2. First Prior Year	0	(500,418)	\$ 12,687		
	F3. Second Prior Year	0	0	(500,418)	\$ 12,687	
	F4. Third Prior Year	 0	0	0	(500,416)	\$ 12,688
	F5. Total Phase-Ins	(972,687)	(487,731)	(487,731)	(487,729)	12,688
G.	Preliminary Funding Value End of Year: A + D + E3 + F5	8,923,069	8,190,817			
H.	Adjustment to Minimum of 75% of B, Maximum 125% of B	(1,416,808)	0			
I.	Funding Value End of Year	7,506,261	8,190,817			
J.	Difference Between Market & Funding Value	(1,501,252)	(962,772)			
K.	Recognized Rate of Return	(18.7)%	1.7%			
L.	Market Rate of Return	(35.5)%	10.7%			
M.	Ratio of Funding Value to Market Value	125%	113%			

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.

*Retirees and beneficiaries on rolls included* in the valuation totaled 139, involving monthly annuities of \$111,032, distributed as follows:

	Number of	Annuities Being	Paid July 1, 2009
Plan	<b>Retired Members</b>	s Monthly Annualize	
New Plan	10	\$ 3,739	\$ 44,862
Old Plan Paid Off	29	26,665	319,974
Still Paying Old Plan	100	80,628	967,537
Totals	139	\$111,032	\$1,332,373

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, 2010 was reported to be 100, consisting of 87 original retirees and 13 survivors.

*Inactive members*, entitled to deferred annuities, included in the valuation totaled 143, involving estimated deferred monthly annuities of \$94,047 distributed as follows:

	Number of	Estimated Deferred Annuities	
Plan	Inactive Members	Monthly Annualize	
New Plan	2	\$ 882	\$ 10,587
Old Plan Paid Off	45	37,208	446,491
Still Paying Old Plan	96	55,957	671,481
Totals	143	\$94,047	\$1,128,559

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, 2010 was reported to be 122.

## DISTRICT JUDGES DETAIL BY EMPLOYER

		Deferred	ts Covered	Retiree Mon. Ben.	Deferred Mon. Ben.	Retiree Liability	Deferred Liability	Total Liability	Assets Allocated	Unfunded	25-year Payoff of
Employer	ER ID	Vested	Retired	7/1/2010	7/1/2010	6/30/2010	6/30/2010	6/30/2010	6/30/2010	Liability	Unfunded Liability
Ashdown	90141	2	2	\$ 466.28	\$ 550.08	\$ 42,344	\$ 69,497	\$ 111,841	\$ 20,874	\$ 90,967	\$ 8,198
Ashdown (County)	90941	2	2	771.63	910.30	71,341	115,008	186,349	34,819	151,530	13,656
Batesville	90132	2	1	859.69	514.54	107,847	49,050	156,897	23,018	133,879	12,065
Batesville (Independence Co.)	90932	2	1	859.69	514.54	107,847	49,050	156,897	22,979	133,918	12,069
Beebe	90511	0	1	1,016.67	0.00	111,104	0	111,104	67	111,037	10,007
Benton	90962	1	2	2,398.38	666.67	260,285	81,219	341,504	107,592	233,912	21,080
Benton County - West	90204	2	1	1,000.00	892.53	124,055	81,273	205,328	85,590	119,738	10,791
Berryville	90108	1	2	256.97	475.94	23,014	64,605	87,619	18,137	69,482	6,262
Berryville (County)	90908	2	3	1,356.17	700.94	172,115	80,262	252,377	67,626	184,751	16,651
Biscoe	90159	0	1	150.00	0.00	19,787	0	19,787	202	19,585	1,765
Bryant	90133	0	1	1,035.00	0.00	109,524	0	109,524	-8,945	118,469	10,676
Cabot	90143	3	0	0.00	1,651.12	0	170,812	170,812	85,312	85,500	7,705
Clarendon	90148	1	0	0.00	444.72	0	44,790	44,790	18,969	25,821	2,327
Conway	90123	1	2	3,413.05	966.66	387,773	64,141	451,914	193,423	258,491	23,295
Dequeen	90166	0	3	4,406.12	0.00	467,593	0	467,593	23,139	444,454	40,054
Dermott	90109	2	2	455.00	205.08	52,890	13,751	66,641	1,086	65,555	5,908
Dermott (County)	90909	2	2	455.00	205.08	52,890	13,751	66,641	1,086	65,555	5,908
Devalls Bluff	90359	0	1	225.00	0.00	29,884	0	29,884	346	29,538	2,662
Dewitt	90101	1	1	733.48	519.44	77,473	52,786	130,259	36,090	94,169	8,487
Dumas	90121	2	2	1,208.92	1,564.42	148,925	166,533	315,458	40,751	274,707	24,757
East Camden	90252	2	1	531.53	136.07	67,204	7,237	74,441	19,665	54,776	4,936
Elkins	90172	2	0	0.00	1,074.68	0	119,623	119,623	37,491	82,132	7,402
Greenwood	90265	0	1	771.00	0.00	96,450	0	96,450	-4,145	100,595	9,066
Hamburg	90202	1	1	450.00	457.19	39,367	43,955	83,322	25,831	57,491	5,181
Hampton	90107	1	1	696.00	850.46	70,709	102,216	172,925	70,489	102,436	9,232
Hazen	90459	0	1	683.33	0.00	94,545	0	94,545	1,835	92,710	8,355
Helena	90154	2	2	523.51	27.72	35,960	893	36,853	-11,289	48,142	4,339
Helena (County)	90954	2	2	523.51	27.72	35,960	893	36,853	-11,289	48,142	4,339
Hope	90110	0	3	1,031.05	0.00	103,679	0	103,679	-13,311	116,990	10,543
Hope (County)	90929	0	3	1,031.05	0.00	103,679	0	103,679	-13,311	116,990	10,543
Hot Springs	90126	4	3	5,501.75	3,585.85	595,455	226,257	821,712	111,190	710,522	64,032
not spings	90120	4	3	5,501.75	3,363.63	393,433	220,237	021,/12	111,190	/10,522	04,052

## DISTRICT JUDGES DETAIL BY EMPLOYER

Employer	ER ID	<u>Participan</u> Deferred Vested	<u>nts Covered</u> Retired	Retiree Mon. Ben. 7/1/2010	Deferred Mon. Ben. 7/1/2010	Retiree Liability 6/30/2010	Deferred Liability 6/30/2010	Total Liability 6/30/2010	Assets Allocated 6/30/2010	Unfunded Liability	25-year Payoff of Unfunded Liability
Hoxie	90138	1	1	\$ 298.39	\$ 366.27	\$ 35.946	\$ 43,566	\$ 79,512	\$ 19,564	\$ 59,948	\$ 5,403
Lawrence County	90938	1	1	365.24	651.75	43,999	77,523	121,522	32,817	88,705	7,994
Little Rock	90260	16	9	17,922.96	11,804.79	2,071,366	1,181,331	3,252,697	691,346	2,561,351	230,829
Magnolia	90114	0	1	641.98	0.00	64,758	0	64,758	(279)	65,037	5,861
Magnolia (Columbia County)	90914	0	1	641.98	0.00	64,758	0	64,758	(176)	64,934	5,852
Marked Tree	90256	0	1	948.14	0.00	90,746	0	90,746	(4,898)	95,644	8,619
Marshall	90964	0	1	701.31	0.00	77,450	0	77,450	36,089	41,361	3,727
McCrory	90274	0	1	90.00	0.00	9,720	0	9,720	3,813	5,907	532
Mt. Home	90103	1	4	3,055.71	1,237.29	319,994	157,173	477,167	53,428	423,739	38,187
Newport	90134	1	3	1,555.70	234.22	160,187	16,890	177,077	44,894	132,183	11,912
North Little Rock	90460	12	9	9,420.26	10,828.29	864,529	1,228,291	2,092,820	289,410	1,803,410	162,524
Osceola	90247	1	2	781.25	648.60	50,910	75,167	126,077	22,802	103,275	9,307
Ozark	90124	1	1	531.72	593.47	65,877	72,557	138,434	31,797	106,637	9,610
Ozark (County)	90924	1	1	531.72	593.47	65,877	72,557	138,434	30,188	108,246	9,755
Pocahontas	90161	2	1	113.58	530.57	8,784	51,967	60,751	11,781	48,970	4,413
Pocahontas (County)	90961	2	1	113.58	530.57	8,784	51,967	60,751	11,781	48,970	4,413
Prairie Grove	90372	1	2	1,861.93	233.23	216,042	18,810	234,852	13,212	221,640	19,974
Rison	90113	1	0	0.00	780.00	0	93,747	93,747	35,750	57,997	5,227
Russellville	90158	1	1	597.51	1,218.49	74,229	58,171	132,400	51,259	81,141	7,312
Searcy	90273	1	2	1,383.33	1,179.36	137,521	152,741	290,262	59,610	230,652	20,786
Stuttgart	90201	2	1	283.90	951.56	25,289	112,975	138,264	39,894	98,370	8,865
Stuttgart	90901	2	1	346.98	1,163.02	30,908	138,081	168,989	48,874	120,115	10,825
Trumann	90356	1	2	1,758.59	224.77	149,480	16,125	165,605	(25,274)	190,879	17,202
Tyronza	90456	2	0	0.00	890.76	0	110,722	110,722	58,345	52,377	4,720
Walnut Ridge	90238	1	2	809.44	632.29	69,633	75,208	144,841	31,850	112,991	10,183
Ward	90443	1	0	0.00	173.01	0	9,913	9,913	2,621	7,292	657
West Helena	90254	2	0	0.00	1,048.27	0	121,796	121,796	44,358	77,438	6,979
West Memphis	90218	2	2	2,156.34	2,500.99	161,656	283,172	444,828	267,297	177,531	15,999
Wynne	90519	0	1	906.73	0.00	113,254	0	113,254	34,234	79,020	7,121
UAL>0 as of	6/30/2010	96	100	\$80,628.05	\$55,956.79	\$8,591,396	\$5,838,052	\$14,429,448	\$2,921,704	\$11,507,744	\$1,037,079

#### DISTRICT JUDGES ACTIVE MEMBERS IN VALUATION JUNE 30, 2010 BY ATTAINED AGE AND YEARS OF ELIGIBILITY SERVICE

		Ye	ars of Ser	vice to V	aluation <b>D</b>	Date			Totals
Attained									Valuation
Age	0-4	5-9	10-14	15-19	20-24	25-29	30 plus	No.	Payroll
Under 20									\$-
20-24									
25-29									
30-34									
35-39		1						1	32,700
40-44		2						2	85,107
45-49		5	1					6	363,344
50-54		9	2	1		1		13	790,804
55-59		3	3		1			7	289,855
60				1				1	121,815
61		1		2		3		6	383,136
62		3		1		1		5	341,631
63		1		1	1	1		4	368,114
64							1	1	43,587
65						2		2	142,409
66		1						1	19,317
67				1			2	3	278,532
68				1				1	24,612
69				1				1	121,815
70 & over		2	2				1	5	147,266
Totals		28	8	9	2	8	4	59	\$3,554,044

#### **Group Averages**

Age:	58.2 years
Benefit Service:	5.3 years
Eligibility Service:	13.4 years
Annual Pay:	\$60,238

### DISTRICT JUDGES CHANGE IN UNFUNDED ACTUARIAL ACCRUED LIABILITIES DURING THE PERIOD JULY 1, 2009 TO JUNE 30, 2010

	New Plan and Paid Off Old Plan	Still Paying Old Plan	Total
(1) UAAL* at beginning of year	\$3,432,274	\$12,235,225	\$15,667,499
(2) Normal cost from last valuation	653,435	-	653,435
(3) Actual contributions	762,062	1,196,400	1,958,462
(4) Interest accrual: $[(1) + \frac{1}{2}[(2) - (3)]]x$ .080	270,959	930,962	1,201,921
<ul> <li>(5) Expected UAAL before changes:</li> <li>(1) + (2) - (3) + (4)</li> </ul>	3,612,653	11,969,787	15,582,440
(6) Increase from benefit changes	-	-	-
(7) Changes from revised actuarial assumptions and methods	-	-	-
(8) Transfer of Still Paying Old Plan to Paid Off Old Plan	(2,442)	2,442	-
<ul><li>(9) Expected UAAL after changes:</li><li>(5) + (6) + (7) + (8)</li></ul>	3,610,211	11,972,229	15,582,440
(10) Actual UAAL at end of year	4,154,984	11,507,744	15,662,728
(11) Gain/(Loss): (9) - (10)	\$(544,773)	\$464,485	\$(80,288)

\* Unfunded actuarial accrued liability.

## DISTRICT JUDGES GASB STATEMENTS NO. 25 AND NO. 27 REQUIRED ACTUARIAL INFORMATION SCHEDULE OF FUNDING PROGRESS

Actuarial Valuation Date	Actuarial Value of Assets (a)	Entry Age AAL (b)	UAAL (b)-(a)	Funded Ratio (a)/(b)	Annual Covered Payroll (c)	UAAL as a Percentage of Covered Payroll [(b-a)/(c)]
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%

@ After changes in actuarial assumptions and methods.

This information on pages D-11 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 STATEMENTS NO. 25 AND NO. 27 REQUIRED ACTUARIAL INFORMATION

Year Ended June 30	Annual Required Contribution	Percent 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	1,915,640	93%

#### **Schedule of Employer Contributions**

#### **NPO Development**

		July 1, 2005	July 1, 2006	July 1, 2007	July 1, 2008	July 1, 2009
		- June 30, 2006*	- June 30, 2007	- June 30, 2008	- June 30, 2009	- June 30, 2010
1.	Annual Required Contribution (ARC)	\$1,859,139	\$1,732,368	\$1,525,167	\$1,581,100	\$1,906,776
2.	Interest on Net Pension Obligation (NPO)	(614)	(13,660)	(26,234)	(43,229)	(53,011)
3.	Adjustment to (1)	0	(9,859)	(33,661)	(46,696)	(57,684)
4.	Annual Pension Cost (1)+(2)+(3)	1,858,525	1,708,849	1,465,272	1,491,175	1,796,081
5.	Actual Contribution Made	2,044,902	1,841,634	1,677,709	1,613,454	1,778,923
6.	Increase in NPO (4)-(5)	(186,377)	(132,785)	(212,437)	(122,279)	17,158
7.	NPO Beginning of Year	(8,765)	(195,142)	(327,927)	(540,364)	(662,643)
8.	NPO End of Year	(195,142)	(327,927)	(540,364)	(662,643)	(645,485)

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

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, 2010 is equal to the percent of payroll contribution computed as of June 30, 2009 times projected payroll plus the computed Still Paying Old Plan dollar contribution for unfunded actuarial liability as of June 30, 2009.

#### DISTRICT JUDGES GASB STATEMENTS NO. 25 AND NO. 27 Required Supplementary Information

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	6/30/2010
Actuarial Cost Method	Entry Age Normal
Amortization Method	Level Dollar (New Plan and Paid Off Old Plan) Level Dollar (Still Paying Old Plan)
Remaining Amortzation Period	<ul><li>27 years (New Plan and Paid Off Old Plan)</li><li>25 years (Still Paying Old Plan)</li></ul>
Asset Valuation Method	4-Year Smoothed Market with 25% Corridor (New Plan and Paid Off Old Plan) Market Value (Still Paying Old Plan)
Actuarial Assumptions:	
Investment Rate of Return	8.0%
Projected Salary Increases	4.7% - 9.8%
Including Inflation at	4.0%
Cost-of-living Adjustments	3.0% Annual Compounded Increase
	on benefits for service after January 1, 2005

	Number
Retirees and beneficiaries receiving benefits	100
Terminated plan members entitled to but not yet receiving benefits	122
Current active plan members	<u>59</u>
Total	281

# **SECTION E** ACTUARIAL METHODS AND ASSUMPTIONS AND OTHER TECHNICAL ASSUMPTIONS

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

#### **ECONOMIC ASSUMPTIONS**

*The investment return rate* used in making the valuation was 8.00% 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 4.0%, the 8.00% investment return rate translates to an assumed net real rate of return of 4.0%. This assumption was first used for the June 30, 2002 valuation and for the District Judges division for the June 30, 2007 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 4.0% recognizes inflation. These assumptions were first used for the June 30, 2008 valuation and for the District Judges division for the June 30, 2007 valuation.

*Total active member payroll* is assumed to increase 4.0% 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, 2002 valuation and for the District Judges division for the June 30, 2007 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 Mortality Table projected to 2015, set forward 2 years for men. Related values are shown on page E-3. This assumption was first used for the June 30, 2008 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, 2008 valuation and for the District Judges division for the June 30, 2007 valuation.

*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, 2008 valuation and for the District Judges division for the June 30, 2007 valuation.

*The ultimate entry-age normal actuarial cost method of the valuation* was used in determining liabilities and normal cost (not including the District Judges division). The normal cost is based on the benefits and contribution rate applicable to new hires. While 5.0% of member contributions are assumed in developing the employer normal cost, until such time as all members become contributory, the System will not receive 5.0% of payroll for member contributions. To account for this difference, 5.0% of the present value of future salary for all non-contributory members has been added to the actuarial accrued liability. *The individual entry-age normal actuarial cost method* was used in determining liabilities and normal cost for the District Judges division.

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, Old Plan Still Paying 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 related 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 2015 8.00% INTEREST JUNE 30, 2010

	Present Value of					
Sample	Present	Value of	\$1.00 Mon	thly for Life	Futu	re Life
Attained	\$1.00 Monthly for Life		Increasing 3% Annually		Expectancy (Years)	
Ages	Men	Women	Men	Women	Men	Women
40	\$ 145.15	\$ 147.67	\$ 206.27	\$ 213.28	39.93	44.05
45	141.08	144.37	196.01	204.36	35.15	39.19
50	135.38	139.78	183.34	193.40	30.40	34.38
55	127.66	133.53	168.05	180.10	25.75	29.64
60	117.86	125.50	150.47	164.62	21.30	25.08
65	106.19	115.70	131.24	147.34	17.19	20.80
70	92.55	104.31	110.57	128.75	13.42	16.86
75	76.91	91.31	88.83	109.13	10.04	13.29
80	60.72	76.72	67.92	88.78	7.19	10.09
85	45.92	61.21	49.94	68.73	5.01	7.35

Sample Attaine d	Benefit Increasing	Portion of Age 60 Lives Still Alive	
Ages	3.0% Yearly	Men	Women
60	\$100	100 %	100 %
65	116	96	96
70	134	89	91
75	155	79	81
80	180	63	68

The mortality table was set forward 10 years for disabilities.

Based on RP-2000 Combined male and female mortality tables projected to 2015, set forward 2 years for males.

#### STATE AND LOCAL GOVERNMENT DIVISION AGE-BASED RETIREMENT JUNE 30, 2010

Retirement	Percent of El	igible Active Members
Ages	<b>Retiring Within Next Year</b>	
(with less than		
28 years of service)	Unreduced	Reduced
55		2 %
56		2
57		3
58		3
59		4
60		5
61		7
62		20
63		18
64		15
65	25 %	
66	25	
67	25	
68	20	
69	20	
70	20	
71	20	
72	20	
73	20	
74-77	20	
78	20	
79	20	
80-82	20	
83	20	
84	20	
85	100	

A member was assumed eligible for unreduced retirement after attaining age 65 with 5 years of service or 28 years regardless of age (both unreduced retirement and DROP). 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, 2010

	Percent of Eligible Active Members Retiring Within Next Year		
Service	Retirement	DROP	
28	15 %	25 %	
29	15	20	
30	12	20	
31	12	20	
32	12	15	
33	12	15	
34	12	15	
35	12	15	
36	10		
37	10		
38	100		

#### GENERAL ASSEMBLY DIVISION PROBABILITIES OF RETIREMENT FOR MEMBERS ELIGIBLE TO RETIRE JUNE 30, 2010

Retirement Ages	Percent of Eligible Active Members 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	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, 2010

Retirement Ages	Percent of Eligible Active Members Retiring Within Next Year
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	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, 2010

		Percent of Active Members Separating within the Next Year						Pay Increase Assumptions For An Individual Employee				
Sample	Years of	Withd	lrawal	De	Death		Death Disability		bility	Merit &	Base	Increase
Ages	Service	Men	Women	Men	Women	Men	Women	Seniority	(Economy)	Next Year		
	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	0.01 %	0.01 %	0.01 %	0.01 %	6.60 %	4.00 %	10.60 %		
25		10.0	10.0	0.02	0.01	0.05	0.05	5.10	4.00	9.10		
30		8.8	8.8	0.03	0.01	0.08	0.08	3.20	4.00	7.20		
35		6.2	6.2	0.04	0.02	0.10	0.10	2.30	4.00	6.30		
40		4.4	4.4	0.05	0.03	0.15	0.15	1.90	4.00	5.90		
45		3.4	3.4	0.07	0.04	0.20	0.20	1.50	4.00	5.50		
50		2.7	2.7	0.10	0.06	0.40	0.40	1.10	4.00	5.10		
55		1.9	1.9	0.18	0.12	0.70	0.70	0.80	4.00	4.80		
60		1.2	1.2	0.35	0.23	1.00	1.00	0.70	4.00	4.70		

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

## GENERAL ASSEMBLY DIVISION SEPARATIONS FROM ACTIVE EMPLOYMENT BEFORE SERVICE RETIREMENT JUNE 30, 2010

		Percent of Active Members Separating within the Next Year						
Sample	Years of	Withdrawal		De	Death		Disability	
Ages	Service	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	0.01 %	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	0.05	0.03	0.16	0.16	
45		2.4	2.4	0.07	0.04	0.21	0.21	
50		1.1	1.1	0.10	0.06	0.39	0.39	
55		0.8	0.8	0.18	0.12	0.71	0.71	
60		0.8	0.8	0.35	0.23	1.13	1.13	

# DISTRICT JUDGES SEPARATIONS FROM ACTIVE EMPLOYMENT BEFORE SERVICE RETIREMENT JUNE 30, 2010

		cent of Active ating within th		Pay Increase Assumptions For An Individual Employee			
Sample	Withd	Irawal	Disa	bility	Merit &	Base	Increase
Ages	Men	Women	Men	Women	Seniority	(Economy)	Next
20	2.0 %	2.0 %	0.08 %	0.08 %	2.70 %	4.00 %	6.70 %
25	2.0	2.0	0.08	0.08	2.60	4.00	6.60
30	2.0	2.0	0.08	0.08	2.20	4.00	6.20
35	2.0	2.0	0.08	0.08	1.90	4.00	5.90
40	2.0	2.0	0.20	0.20	1.40	4.00	5.40
45	2.0	2.0	0.26	0.26	1.20	4.00	5.20
50	2.0	2.0	0.49	0.49	0.70	4.00	4.70
55	2.0	2.0	0.89	0.89	0.70	4.00	4.70
60	2.0	2.0	1.41	1.41	0.00	4.00	4.00

#### SUMMARY OF ASSUMPTIONS USED JUNE 30, 2010 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.* The normal cost was increased by 1% of payroll to account for reciprocal service and reinstatement of 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.

#### SUMMARY OF ASSUMPTIONS USED JUNE 30, 2010 MISCELLANEOUS AND TECHNICAL ASSUMPTIONS

*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 DROP duration is 4 years.

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

**SECTION F FINANCIAL PRINCIPLES** 

#### 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: liabilities for service already rendered the accrued assets).

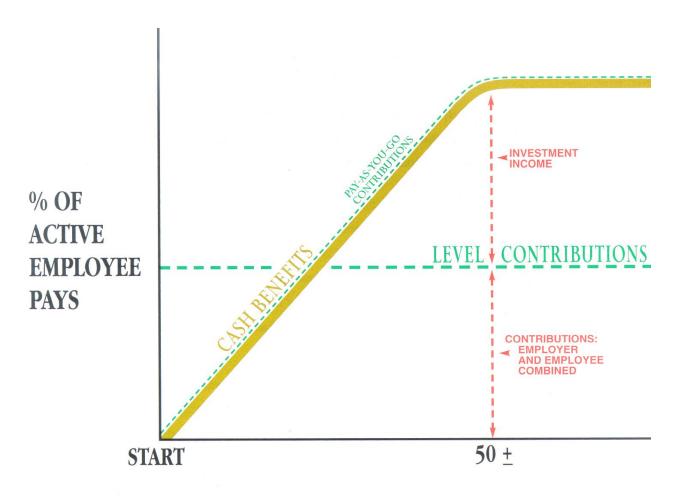
*Computing Contributions to Support Fund Benefits.* From a given schedule of benefits and from employee and asset data, the actuary calculates the contribution rates to support the benefits by means of *an actuarial valuation and a funding method*.

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*.



#### **YEARS OF TIME**

**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 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 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.

*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"**

"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. When a plan's assets equal or exceed the plan's "actuarial accrued liabilities," the plan is said to be "fully funded." This is an unusual condition.

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 20-30 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.

The existence of unfunded actuarial accrued liabilities is not bad but the changes from year to year in 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.

# **SECTION G**

# ACTUARIAL SUPPLEMENTAL INFORMATION REQUIRED BY STATEMENTS NO. 25 AND NO. 27 OF THE GOVERNMENTAL ACCOUNTING STANDARDS BOARD

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.

#### GASB STATEMENTS NO. 25 AND NO. 27 REQUIRED ACTUARIAL INFORMATION SCHEDULE OF FUNDING PROGRESS (\$ MILLIONS)

Actuarial Valuation Date	Actuarial Value of Assets (a)	Entry Age AAL (b)	UAAL (b)-(a)	Funded Ratio (a)/(b)	Annual Covered Payroll (c)	UAAL as a Percentage of Covered Payroll [(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%

@ 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 STATEMENTS NO. 25 AND NO. 27 REQUIRED ACTUARIAL INFORMATION SCHEDULE OF EMPLOYER CONTRIBUTIONS

Year Ended June 30	Annual Required Contribution	Percent Contributed
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%

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, 2010
Actuarial Cost Method	Ultimate Entry Age Normal (State and Local) Entry Age Normal (General Assembly)
Amortization Method	Level Percent-of-Payroll (State and Local) Level Dollar (General Assembly)
Remaining Amortzation Period	30 years (State and Local) 18 years (General Assembly)
Asset Valuation Method	4-Year Smoothed Market with 25% Corridor
Actuarial Assumptions: Investment Rate of Return Projected Salary Increases Including Inflation at Cost-of-Living Adjustments	8.0% 4.7% - 10.6% 4.0% 3.0% Annual Compounded Increase
	Number
Retirees and beneficiaries receiving benefit	s # 25,880
Terminated plan members entitled to but not yet receiving benefits	12,455
Active plan members	45,394
Total # Includes DROP participants.	83,729

November 15, 2010

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, 2010 Actuarial Valuation and Gain/(Loss) Analysis of Financial Experience

Dear Gail:

Enclosed are 40 copies of this report.

Sincerely,

Norman Z. mas

Norman L. Jones

NLJ:bd Enclosures

cc: David Hoffman Mita Drazilov