

ARKANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
ACTUARIAL VALUATION AND EXPERIENCE GAIN/(LOSS)
ANALYSIS
JUNE 30, 2009

#### **OUTLINE OF CONTENTS**

Section	Pages	Items
		Cover letter
${f A}$		Valuation Results
	1	Comments
	2	Computed Contributions
	3	Summary Statement of Resources and Obligations
	4	Computed Actuarial Liabilities
	5	Expected Development of Present Population
	6	Recommended Transfers
	7-10	Comparative Statements
	11-12	Short Condition Test
В		Valuation Data
	1-6	Summary of Benefit Provisions Evaluated
	7	Revenues and Expenditures
	8-9	Assets
	10	Development of Funding Value of Assets
	11-18	Member Data
$\mathbf{C}$		Gain/(Loss) Analysis
	1	Comments
	2	Changes in UAAL
	3-4	Experience Gain/(Loss): By Risk Area
	5	Experience Gain/(Loss): Comparative Statement
	6	Gain/(Loss) from Investment Return
	7-13	Actual and Expected Terminations by Decrement
	7-13	Actual and Expected Terminations by Decrement
D		District Judges Valuation Results, Valuation Data, and Financial Principles
	1-3	Results
	4	Benefit Provisions
	5-6	Assets
	7-10	Valuation Data
	11	Gain/(Loss) Analysis
	12-14	Actuarial and Required Supplemental Information Required by
	12-14	Statements No. 25 and No. 27 of the Governmental Accounting Standards Board
E		Actuarial Methods and Assumptions and
_		Other Technical Assumptions
	1-12	Methods and Assumptions
	1-12	Methods and Assumptions

#### **OUTLINE OF CONTENTS**

Section	Pages	Items
${f F}$		Financial Principles
	1-2	Principles and Operational Techniques
	3	Financing Diagram
	4	The Actuarial Valuation Process
	5-6	Glossary
	7	Meaning of "Unfunded Actuarial Accrued Liabilities"
G	1-3	Actuarial Supplemental Information Required by Statements No. 25 and No. 27 of the Governmental Accounting Standards Board

November 4, 2009

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

Ladies and Gentlemen:

The results of the *June 30, 2009 actuarial valuation* of the Arkansas Public Employees Retirement System together with *the annual gain and loss analysis* for the year ended June 30, 2009 are presented in this report. The purpose of the valuation and gain/loss analysis is to measure funding progress and to determine employer contribution rates for the coming year.

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.

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.

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Respectfully submitted,

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

David L. Hoffman

DLH:bd

#### **SECTION A**

VALUATION RESULTS - STATE, LOCAL AND GENERAL ASSEMBLY

#### **COMMENTS**

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*. Benefit changes are reflected in the June 30, 2009 valuation. Normal retirement benefits now include an additional .5% of FAC times years of service over 28 years for service after July 1, 2009.

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

*Method Changes*. The Board adopted a 25% asset corridor. The use of the corridor limits divergence of funding value of assets and market value of assets, accelerating contributions into the system in the near term. The funded ratio dropped from 84% to 78% as a result.

APERS Status. Based upon the results of the June 30, 2009 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 78% funded ratio. On a market value of assets basis, the System has a 62% funded ratio.

*Employer Contribution Rates.* Based upon experience through June 30, 2009 and changes in benefits in 2009, the State and Local Government contribution rate will be 12.46% of covered payroll for the fiscal year beginning July 1, 2010.

*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, 2010

	Contributions Expressed 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)	8.95%	\$ 30,806			
Separation benefits	1.98%	2,327			
Disability benefits	0.61%	1,359			
Death-in-service annuities Total	0.16% 11.70%	553 \$ 35,046			
Member contributions (ultimate)	5.00%	0			
Employer Normal Cost	6.70%	\$ 35,046			
Unfunded Actuarial Accrued Liabilities	5.76% *	1,166,250 &			
Total Employer Contribution	12.46%	\$1,201,296			

<sup>\*</sup> Unfunded actuarial accrued liabilities were amortized over a 30 year period.

<sup>&</sup>amp; Unfunded actuarial accrued liabilities were amortized over an 18 year period.

<sup>#</sup> 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, 2009

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

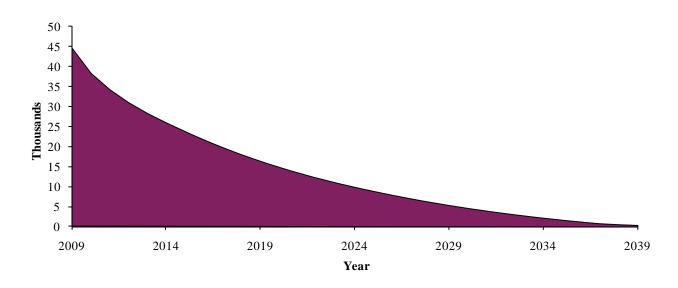
A.	Present Valuation Assets:	
	1. Net assets from system financial statements	\$4,330,526,302
	2. Market value adjustment	1,082,631,576
	3. Valuation assets	5,413,157,878
D	A standiel grassent webs of swanted fature	
В.	Actuarial present value of expected future employer contributions:	
	1. For normal costs	742,504,281
	2. For unfunded actuarial accrued liability	1,524,750,832
	3. Total	2,267,255,113
C.	Actuarial present value of expected future	
C.	member contributions	554,020,111
	member contributions	334,020,111
D.	Total Present and Expected Future Resources	\$8,234,433,102
A.	To retirees and beneficiaries:	
	1. Annual pensions	\$2,766,044,720
	2. DROP participants: future payments	659,166,573
	3. DROP Reserve: accrued balances	110,650,336
	4. Total	3,535,861,629
B.	To vested terminated members:	323,466,216
C.	To present active members:	
	1. Allocated to service rendered prior to	
	valuation date - actuarial accrued liability	3,078,580,865
	2. Allocated to service likely to be rendered	
	after valuation date	1,296,524,392
	3. Total	4,375,105,257
D.	Total Actuarial Present Value of Expected Future	
	Benefit Payments	\$8,234,433,102

## COMPUTED ACTUARIAL LIABILITIES AND ALLOCATION USING ENTRY AGE ACTUARIAL COST METHOD AS OF JUNE 30, 2009

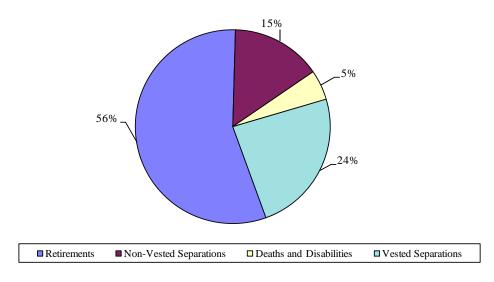
Actuarial Present Value of	Total Present Value	Portion Covered By Future Normal Cost Contributions	Actuarial Accrued Liabilities (1) - (2)
Benefits to be paid to current retirees, beneficiaries, and future beneficiaries of current retirees	\$2,766,044,720	\$ 0	\$2,766,044,720
Age and service allowances based on total service likely to be rendered by present active members	2,766,632,209	735,841,845	2,030,790,364
DROP paricipant benefits likely to be paid to present active members and current DROP participants	1,956,043,965	255,957,292	1,700,086,673
Separation benefits (refunds of contributions and deferred allowances) likely to be paid to present active and inactive members	553,139,804	219,399,755	333,740,049
Disability benefits likely to be paid to present active members	145,685,628	67,595,005	78,090,623
Death in service benefits likely to be paid on behalf of present active members	46,886,776	17,730,495	29,156,281
Total	\$8,234,433,102	\$1,296,524,392	\$6,937,908,710
Applicable Assets (Funding Value)	5,413,157,878	0	5,413,157,878
Liabilities to be covered by future Contributions	\$2,821,275,224	\$1,296,524,392	\$ 1,524,750,832

### EXPECTED DEVELOPMENT OF PRESENT POPULATION JUNE 30, 2009

#### **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 44,687 active members (excluding General Assembly members). Eventually, 15% of the population is expected to terminate covered employment prior to retirement and forfeit eligibility for an employer provided benefit. About 80% of the present population is expected to receive monthly retirement benefits either by retiring directly from active service, retiring from DROP, or retiring from vested deferred status. About 5% of the present population is expected to become eligible for death-in-service or disability benefits. Within 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 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, 2009 To:	Accumulation
	Accounts	Deferred Annuity	Retirement Reserve	Accounts
Division	Before Transfers	Accounts	Accounts	After Transfers
State	\$1,176,506,224	\$13,541,432	\$231,661,242	\$ 931,303,550
Wildlife	(30,748,671)	31,493	3,730,014	(34,510,178)
Penitentiary	(228,326)	0	0	(228,326)
State Constitutional Officers	(532,577)	(123,550)	262,064	(671,091)
Governors	(4,074,541)	0	54,703	(4,129,244)
Quasi-Judicial	(420,677)	0	16	(420,693)
State Capitol Police	1,410,412	0	0	1,410,412
Administrative Officers Courts	265,844	0	0	265,844
Total State	1,142,177,688	13,449,375	235,708,039	893,020,274
General Assembly	(6,158,547)	14,106	577,601	(6,750,254)
County	192,931,681	4,398,923	69,794,989	118,737,769
County Constitutional Officers	(841,647)	0	129,878	(971,525)
Total County	192,090,034	4,398,923	69,924,867	117,766,244
Municipal	104,116,072	1,429,393	26,243,241	76,443,438
School	6,321,418	(80,343)	27,745,612	(21,343,851)
Non-State	2,948,109	45,899	1,183,731	1,718,479
Total	\$1,441,494,774	\$19,257,353	\$361,383,091	\$1,060,854,330

## 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	Funde d	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

<sup>\*</sup> 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.

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

<sup>@</sup> After legislated changes in benefit provisions.

<sup>#</sup> After changes in actuarial assumptions.

### ACTIVE MEMBERS AND RETIRED LIVES HISTORICAL COMPARATIVE SCHEDULE

**Active Members** 

Valuation		Valu	ation Payroll			per		As a %
Date	No.	\$ Millions	Average	% Incr.	No.	Retired	\$ Millions	of Pay
6/30/84	*	*	*	*	7,036	*	\$ 19.1	4.4%
6/30/85	*	*	*	*	7,331	*	22.0	4.8%
6/30/86	*	*	*	*	7,649	*	24.1	4.9%
6/30/87	*	*	*	*	8,074	*	30.2	6.0%
6/30/88	*	*	*	*	9,155	*	39.6	7.5%
6/30/89	*	*	*	*	9,418	*	42.9	7.6%
6/30/90	*	*	*	*	9,747	*	44.9	7.4%
6/30/91	*	*	*	*	10,110	*	49.2	7.6%
6/30/92	39,752	\$ 698.2	\$ 17,564	NA	10,456	3.8	51.9	7.4%
6/30/93	39,849	733.4	18,404	4.8%	10,840	3.7	56.8	7.7%
6/30/94	40,940	778.7	19,021	3.3%	11,213	3.7	60.7	7.8%
6/30/95	42,041	834.5	19,850	4.4%	11,683	3.6	70.1	8.4%
6/30/96	42,712	889.3	20,821	4.9%	12,073	3.5	76.2	8.6%
6/30/97	43,068	938.5	21,791	4.7%	12,644	3.4	84.8	9.0%
6/30/98	43,047	974.7	22,644	3.9%	13,480	3.2	94.6	9.7%
6/30/99	43,064	1,008.9	23,427	3.5%	14,688	2.9	119.3	11.8%
6/30/00	43,121	1,050.0	24,351	3.9%	15,544	2.8	133.6	12.7%

3.3%

4.7%

1.7%

2.6%

3.1%

3.1%

2.4%

4.2%

3.1%

25,146

26,320

26,772

27,455

28,295

29,159

29,855

31,106

32,073

42,556

42,230

42,879

42,826

42,938

43,453

43,630

44,357

44,702

1,070.1

1,111.5

1,147.9

1,175.8

1,214.9

1,267.1

1,302.6

1,379.8

1,433.7

6/30/01

6/30/02

6/30/03

6/30/04

6/30/05

6/30/06

6/30/07

6/30/08

6/30/09

**Retired Lives** 

**Active** 

2.6

2.4

2.3

2.2

2.0

2.0

1.9

1.9

1.8

16,643

17,748

18,838

19,872

21,080

22,234

22,409

23,555

24,972

150.0

167.6

186.0

203.4

232.9

254.7

274.8

297.0

323.1

14.0%

15.1%

16.2%

17.3%

19.2%

20.1%

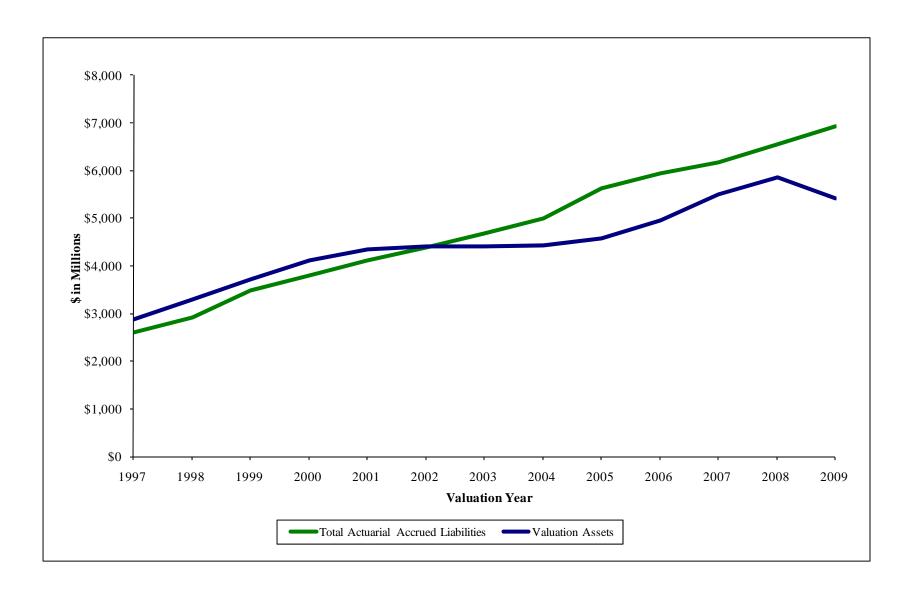
21.1%

21.5%

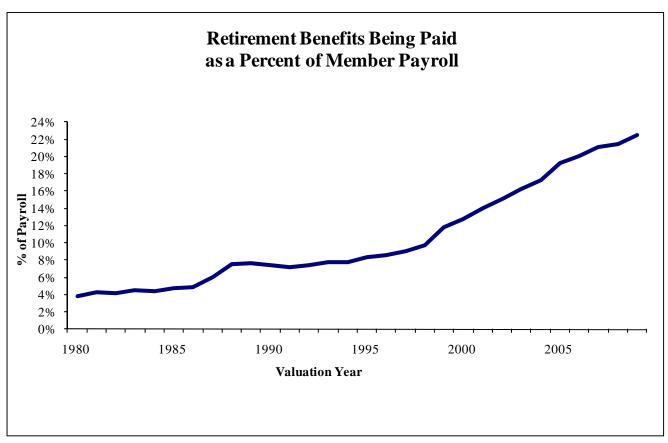
22.5%

**Annual Benefits** 

#### **ACTUARIAL ACCRUED LIABILITIES & ASSETS**







#### **SHORT CONDITION TEST**

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 TESTS 10-YEAR COMPARATIVE STATEMENT (\$ IN MILLIONS)

	En	try Age Acci	rued Liability					
	(1)	(2)	(3)		P	ortion o	f Presei	nt
Val'n.	Active	Retirees	<b>Active Members</b>		V	alues C	overed	by
Date:	Member	and	(Employer Financed	Valuation		Present	Assets	
June 30	Contr.	Benef.	Portion)	Assets	(1)	(2)	(3)	Total
		•	ling 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 GO	VERNMENT DIVISION	7				
2001#	\$23.4	\$1,305.0	\$2,759.2	\$4,335.5	100%	100%	109%	106%
2002@	20.5	1,502.7	2,850.8	4,397.2	100%	100%	101%	101%
2003@	20.5	1,624.7	3,004.7	4,408.3	100%	100%	92%	95%
2004	20.5	1,762.2	3,197.6	4,429.9	100%	100%	83%	89%
2005@	15.5	1,878.2	3,701.7	4,576.1	100%	100%	72%	82%
2006	15.5	1,990.6	3,907.3	4,941.1	100%	100%	75%	84%
2007#	29.7	2,268.5	3,856.7	5,489.3	100%	100%	83%	89%
2008@	45.8	2,463.9	4,014.9	5,858.1	100%	100%	83%	90%
2009	66.4	2,750.3	4,059.9	5,406.8	100%	100%	64%	79%
2009#	66.4	2,750.3	4,103.5	5,406.8	100%	100%	63%	78%

<sup>#</sup> After legislated changes in benefit provisions.

<sup>@</sup> After changes in actuarial assumptions.

### 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 I, 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 elect 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 ½ of 1% for each month retirement proceeds normal retirement age.

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

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

#### 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.

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.

#### **New Contributory Plan**

#### **Non-Contributory Plan**

#### BENEFIT INCREASES AFTER RETIREMENT

equal to 3% of the current benefit.

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.

#### MEMBER CONTRIBUTION RATES

are refundable if APERS-covered employment contributions were for 5 or more years, interest credits are included in the refund). Members will earn interest on the contributions at a rate of 4% annually.

5% of covered compensation. Member contributions No employee contributions for service after January 1, 1978. If there is service before January 1, 1978, terminates before a monthly benefit is payable (if contributions for that period are refundable later in the same manner as under the Contributory Plan.

#### VESTED RETIREMENT BENEFITS

5 years service, and leaving APERS-covered 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 equal to full amount reduced by ½ of 1% for each month of difference in benefit beginning ages.

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 equal to full amount reduced by ½ of 1% for each month of difference in benefit beginning ages.

#### TOTAL AND PERMANENT DISABILITY

of the 24 months preceding disability.

Disabled after 5 years service, including credit for 18 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.

#### **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. 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.

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.

Member's accumulated contributions before 1978 are refundable.

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

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

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

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

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

#### SUMMARY OF PROVISIONS EVALUATED **CREDITED SERVICE**

#### **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	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	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		

required to meet death-in-service eligibility and 10 years of actual service required for other benefit eligibility.

Other Elected Public 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)	At Ye	ing Power
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			

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

# REVENUES AND EXPENDITURES JULY 1, 2008 THROUGH JUNE 30, 2009 MARKET VALUE (\$ IN MILLIONS)

	Divi	sion	
	State and Local Gov't.	General Assembly	Totals
Balance 7/1/2008	\$5,607.4	\$7.8	\$5,615.2
Revenues			
Member contr.	23.5	0.0	23.5
Employer contr.	159.0	0.2	159.2
Transfers	6.3	0.0	6.3
Other	2.2	0.0	2.2
Investment ret.*	(1,168.3)	(0.9)	(1,169.2)
Total	(977.3)	(0.7)	(978.0)
Expenditures			
Benefits paid	299.3	2.0	301.4
Expenses	5.2	0.0	5.2
Total	304.5	2.0	306.6
Reserve Adjustments	(0.1)	(0.0)	(0.1)
Balance 6/30/2009	\$4,325.5	\$5.0	\$4,330.5

<sup>\*</sup> Net of investment expenses.

Note: Results may not total due to rounding.

# STATE & LOCAL GOVERNMENT DIVISION (EXCLUDING GENERAL ASSEMBLY) REPORTED ACCRUED ASSETS AVAILABLE FOR BENEFITS JUNE 30, 2009

Retirement System Account	Reported Assets June 30, 2009
Employer Accumulation Account	\$ 1,067,604,584 *
Members Deposit Account	66,410,508
Members Deposit Interest Reserve	2,938,031
Retirement Reserve Account	2,750,322,303 *
Deferred Annuity Reserve Account	322,480,039 *
DROP Reserve	110,648,471
Miscellaneous Reserves	147,240
Total Market Value	4,320,551,176
Funding Value of Assets	5,406,806,342
Valuation Asset Adjustment	1,086,255,166
Adjusted Employer Accum. Account	\$ 2,153,859,750

<sup>\*</sup> After recommended reserve transfers (see page A-6).

*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.

# GENERAL ASSEMBLY SUB-DIVISION REPORTED ASSETS APPLICABLE TO ACTIVE MEMBER LIABILITIES MEMBERS DEPOSIT ACCOUNT & EMPLOYERS ACCUMULATION ACCOUNT

The balances at June 30, 2009 were reported to be as follows:

Retirement System Account	Reported Assets June 30, 2009
Employer Accumulation Account	\$ (6,750,254) *
Members Deposit Account	22,526
Members Deposit Interest Reserve	(7,601)
Retirement Reserve Account	15,722,413 *
Deferred Annuity Reserve Account	986,177 *
DROP Reserve	1,865
Total Market Value	9,975,126
Funding Value of Assets	6,351,536
Valuation Asset Adjustment	(3,623,590)
Adjusted Employer Accum. Account	\$ (10,373,844)

<sup>\*</sup> After recommended reserve transfers (see page A-6).

*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:	2007	2008	2009	2010	2011	2012
A.	Funding Value Beginning of Year	\$ 4,949,014,050	\$ 5,497,526,020	\$ 5,866,393,728			
B.	Market Value End of Year	5,981,614,449	5,615,160,621	4,330,526,302			
C.	Market Value Beginning of Year	5,135,503,145	5,981,614,449	5,615,160,621			
D.	Non-Investment Net Cash Flow	(60,565,732)	(67,780,729)	(110,086,307)			
E. F.	Investment Income E1. Market Total: B - C - D E2. Assumed Rate E3. Amount for Immediate Recognition E4. Amount for Phased-In Recognition Phased-In Recognition of Investment Income	906,677,036 8.00% 393,529,566 513,147,470	(298,673,099) 8.00% 437,125,626 (735,798,725)	(1,174,548,012) 8.00% 464,964,523 (1,639,512,535)			
	F1. Current Year: 0.25 x E4 F2. First Prior Year	128,286,868 44,042,203	(183,949,681) 128,286,868	(409,878,134) (183,949,681)	\$(281,006,360)		
	F3. Second Prior Year	11,143,420	44,042,203	128,286,868	(183,949,681)	\$(281,006,360)	
	F4. Third Prior Year	32,075,645	11,143,421	44,042,203	128,286,866	(183,949,682)	\$(281,006,359)
	F5. Total Phase-Ins	215,548,136	(477,189)	(421,498,744)	(336,669,175)	(464,956,042)	(281,006,359)
G.	Preliminary Funding Value End of Year: A + D + E3 + F5	\$ 5,497,526,020	\$ 5,866,393,728	5,799,773,200			
H.	Adjustment to Minimum of 75% of B, Maximum 125% of B	0	0	(386,615,322)			
I.	Funding Value End of Year	5,497,526,020	5,866,393,728	5,413,157,878			
J.	Difference Between Market & Funding Value	484,088,429	(251,233,107)	(1,082,631,576)			
K.	Recognized Rate of Return	12.4%	8.0%	(5.9)%			
L.	Market Rate of Return	17.8%	(5.0)%	(21.1)%			
M.	Ratio of Funding Value to Market Value	92%	104%	125%			

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 24,972, involving annual annuities of \$323,131,452, distributed as follows:

		Annuities Being Paid July 1, 20		
Division	Number	Monthly	Annualize d	
State & Local	22,975	\$ 22,273,578	\$ 267,282,936	
General Assembly	114	143,030	1,716,360	
Governor	5	13,762	165,144	
Wildlife	83	241,676	2,900,112	
State Constitutional Officers	2	5,237	62,844	
Penitentiary	0	0	0	
Sub-total	23,179	22,677,283	272,127,396	
DROP	1,793	4,250,338	51,004,056	
Totals	24,972	\$ 26,927,621	\$ 323,131,452	

*Inactive members*, entitled to deferred annuities, included in the valuation totaled 12,310, involving estimated deferred monthly annuities of \$4,569,102, distributed as follows:

	Number of	Estimated Deferred Annuities			
Division	Inactive Members	Monthly	Annualize d		
State and Local	12,231	\$ 4,551,561	\$ 54,618,728		
General Assembly	66	10,747	128,959		
Wildlife	11	5,379	64,553		
State Constitutional Officers	2	1,415	16,978		
Totals	12,310	\$ 4,569,102	\$ 54,829,218		

# RETIREMENT SYSTEM TOTALS ANNUITIES BEING PAID RETIREES AND BENEFICIARIES AND DROP PARTICIPANTS

#### **JUNE 30, 2009**

#### BY ATTAINED AGE AND TYPE OF RETIREMENT

		DROP	Age	Age & Service*		Disability	Death	-in-Service	Totals		
Attaine d		Annual		Annual		Annual		Annual		Annual	
Ages	No.	Amount	No.	Annuities	No.	Annuities	No.	Annuities	No.	Annuities	
Under 40			5	\$ 41,388	137	\$ 501,564	2	\$ 10,968	144	\$ 553,920	
40-44	1	\$ 37,536	2	28,968	77	422,256			80	488,760	
45-49	46	1,141,152	87	1,880,364	183	1,167,816	1	4,908	317	4,194,240	
50-54	439	12,074,880	506	11,992,380	356	2,661,672	2	12,924	1,303	26,741,856	
55-59	718	22,026,576	1,747	34,685,688	571	4,505,532	3	30,492	3,039	61,248,288	
60-64	454	12,669,204	3,535	51,062,064	688	5,114,136	4	14,616	4,681	68,860,020	
65-69	112	2,499,648	4,451	48,371,136	443	3,156,984	5	30,516	5,011	54,058,284	
70-74	14	319,656	3,723	38,139,396	198	1,458,840	6	45,024	3,941	39,962,916	
75-79	8	207,492	2,790	29,119,692	91	753,612	11	87,552	2,900	30,168,348	
80-84	1	27,912	1,845	19,403,472	32	256,644	15	94,152	1,893	19,782,180	
85-89			1,054	10,946,160	17	184,860	12	92,700	1,083	11,223,720	
90-94			460	4,854,684			9	48,072	469	4,902,756	
95-99			90	829,008			4	32,592	94	861,600	
Over 100			8	56,556	8	24,852	1	3,156	17	84,564	
Totals	1,793	\$51,004,056	20,303	\$251,410,956	2,801	\$20,208,768	75	\$507,672	24,972	\$323,131,452	

<sup>\*</sup> Including survivor beneficiaries of deceased retirees.

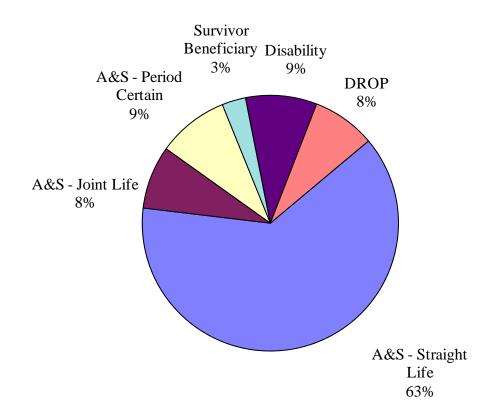
#### ANNUITIES BEING PAID JUNE 30, 2009 BY TYPE OF ANNUITY

Type of Annuity	Number	Annual Annuities
Age & Service Retirees		
Life	15,702	\$ 192,156,240
Option A- 60 (5 years certain)	762	8,978,892
Option A-120 (10 years certain)	1,453	15,635,244
Option B- 50 (joint and 50% survivor)	827	14,060,832
Option B- 75 (joint and 75% survivor)	1,189	16,441,776
Option B-100 (joint and 100% survivor)	77	1,404,600
Totals	20,010	248,677,584
Beneficiaries of Age & Service Retirees		
Life	115	939,096
Option A- 60	0	0
Option A-120	1	6,612
Option B- 50	97	803,004
Option B- 75	65	722,640
Option B-100	15	262,020
Totals	293	2,733,372
Total Age & Service Retirees & Beneficiaries	20,303	251,410,956
Disability Retirees		
Life	1,689	12,887,184
Option A- 60	113	829,476
Option A-120	228	1,639,164
Option B- 50	115	885,960
Option B- 75	164	1,184,364
Option B-100	0	0
Totals	2,309	17,426,148
Beneficiaries of Disability Retirees		
Life	77	405,708
Option A- 60	0	0
Option A-120	0	0
Option B- 50	10	46,788
Option B- 75	405	2,330,124
Option B-100	0	0
Totals	492	2,782,620
Total Disability Retirees & Beneficiaries	2,801	20,208,768
Death-in-Service Beneficiaries	75	507,672
Total Retirees & Beneficiaries	23,179	272,127,396
DROP Participants	1,793	51,004,056
<b>Total Including DROP Participants</b>	24,972	\$ 323,131,452

## SCHEDULE OF AVERAGE BENEFIT PAYMENTS (VOLUNTARY RETIREMENTS STILL RECEIVING BENEFITS AS OF JUNE 30, 2009)

	Years of Credited Service						
	10-14	15-19	20-24	25-29	30+		
Retirement Effective Dates							
July 1, 2008 to June 30, 2009							
Average Monthly Benefit	\$ 450.96	\$ 711.17	\$ 938.05	\$1,739.73	\$1,911.75		
Average Monthly FAS	2,150.92	2,520.45	2,638.71	3,187.95	3,215.66		
Number of Active Retirees	270	229	198	308	151		
Retirement Effective Dates							
July 1, 2007 to June 30, 2008							
Average Monthly Benefit	455.07	730.81	873.02	1,671.99	2,152.60		
Average Monthly FAS	2,296.15	2,441.44	2,341.94	3,156.31	3,703.75		
Number of Active Retirees	215	180	164	280	85		
Retirement Effective Dates							
July 1, 2006 to June 30, 2007							
Average Monthly Benefit	458.43	688.96	998.06	1,835.15	2,590.95		
Average Monthly FAS	2,168.79	2,442.60	2,628.36	3,135.13	3,664.27		
Number of Active Retirees	238	204	170	275	133		
Retirement Effective Dates							
July 1, 2005 to June 30, 2006							
Average Monthly Benefit	440.49	641.62	852.76	1,764.15	2,093.34		
Average Monthly FAS	2,080.87	2,172.20	2,276.97	3,019.47	3,324.53		
Number of Active Retirees	209	199	151	331	91		
Retirement Effective Dates							
July 1, 2004 to June 30, 2005							
Average Monthly Benefit	416.89	608.49	860.21	1,743.77	2,287.10		
Average Monthly FAS	1,976.73	2,041.45	2,291.28	2,973.91	3,308.01		
Number of Active Retirees	183	172	149	319	143		
Retirement Effective Dates							
July 1, 2004 to June 30, 2009							
Average Monthly Benefit	445.79	678.15	908.07	1,750.73	2,211.93		
Average Monthly FAS	2,141.02	2,335.70	2,450.22	3,090.51	3,421.74		
Number of Active Retirees	1,115	984	832	1,513	603		

### ANNUITIES BEING PAID BY TYPE JUNE 30, 2009



# RETIREMENT SYSTEM TOTALS ANNUITIES LIKELY TO BE PAID PRESENT INACTIVE MEMBERS JUNE 30, 2009 BY ATTAINED AGE

Attained		Estimated Annual
Ages	No.	Annuities
Under 40	2,593	\$ 8,658,038
40-44	1,974	8,219,231
45-49	2,320	11,371,727
50-54	2,406	12,019,045
55-59	1,816	9,146,794
60-64	886	4,179,859
65-69	315	1,234,524
		. ,
Totals	12,310	\$ 54,829,218

#### LIABILITIES FOR DEFERRED ANNUITIES JUNE 30, 2009

Number of Inactive Members	Estimated Annual Annuities	Annuity Liabilities
12,310	\$ 54,829,218	\$ 323,466,216

# STATE AND LOCAL DIVISION (EXCLUDING GENERAL ASSEMBLY) ACTIVE MEMBERS IN VALUATION JUNE 30, 2009 BY ATTAINED AGE AND YEARS OF SERVICE

		Ye		Totals					
Attained									Valuation
Age	0-4	5-9	10-14	15-19	20-24	25-29	30 plus	No.	Payroll
Under 20	325							325	\$ 4,406,600
20-24	2,234	42						2,276	49,034,822
25-29	3,308	745	18					4,071	107,321,104
30-34	2,552	1,360	362	8	2			4,284	126,509,612
35-39	2,145	1,445	955	268	29	4		4,846	154,348,433
40-44	1,832	1,254	951	713	369	47	14	5,180	169,656,960
45-49	1,841	1,322	974	779	832	414	62	6,224	213,425,459
50-54	1,630	1,261	990	777	846	667	205	6,376	227,291,944
55-59	1,336	1,125	940	789	751	528	231	5,700	201,251,469
60	221	190	161	151	128	81	41	973	33,625,441
61	167	201	136	138	131	76	40	889	31,058,740
62	190	157	132	125	111	77	33	825	28,067,773
63	139	137	100	83	73	53	22	607	20,850,119
64	76	92	84	55	58	38	19	422	14,528,900
65	71	73	61	43	52	30	13	343	11,020,890
66	64	69	34	45	37	14	8	271	8,236,031
67	47	47	32	20	25	20	12	203	6,553,047
68	51	41	26	20	24	16	9	187	6,203,340
69	37	31	26	13	14	9	5	135	4,301,526
70 & over	157	128	89	67	54	34	21	550	15,805,768
Totals	18,423	9,720	6,071	4,094	3,536	2,108	735	44,687	\$1,433,497,978

#### **Group Averages**

Age:	44.6 years
Service:	9.2 years
Annual Pay:	\$32,079

Of the 44,687 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, 2009 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	1		3	46,083
50-54		1						1	15,361
55-59			1					1	15,361
60									
61			3	1				4	61,444
62			1					1	15,361
65		1						1	15,361
67			1					1	15,361
70			1					1	15,361
71			1					1	15,361
73				1				1	15,361
Totals		2	9	2	1	1		15	\$ 230,415

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

#### **Group Averages**

Age:	60.0 years
Service:	13.8 years
Annual Pay:	\$15,361

### SECTION C GAIN/(LOSS) ANALYSIS

#### GAIN/(LOSS) ANALYSIS COMMENTS

*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, 2008 TO JUNE 30, 2009

	\$		
	State and	General	_
	<b>Local Division</b>	Assembly	Total
(1) UAAL* at beginning of year	\$666.5	\$9.8	\$ 676.3
(2) Normal cost from last valuation	90.8	0.0	90.8
(3) Actual employer contributions	159.0	0.2	159.2
(4) Interest accrual: $[(1) + \frac{1}{2}[(2) - (3)]] \times .080$	50.6	0.8	51.4
(5) Expected UAAL before changes: (1) + (2) - (3) + (4)	648.9	10.4	659.3
(6) Increase from benefit changes	43.5	0.0	43.5
(7) Changes from revised actuarial assumptions and methods	0.0	0.0	0.0
(8) New entrant liabilities	33.0	0.0	33.0
<ul> <li>(9) Expected UAAL after changes:</li> <li>(5) + (6) + (7) + (8)</li> </ul>	725.4 1,513.4	10.4 11.4	735.8
(10) Actual UAAL at end of year			1,524.8
(11) Gain/(Loss): (9) - (10)	\$(788.0)	\$(1.0)	\$ (789.0)

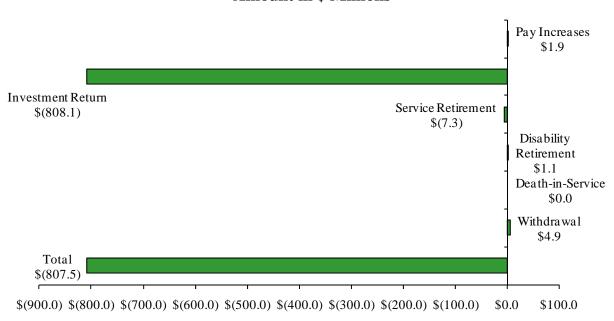
<sup>\*</sup> Unfunded actuarial accrued liability.

#### GAINS/(LOSSES) BY RISK AREA AND BY DIVISION DURING THE PERIOD JULY 1, 2008 TO JUNE 30, 2009

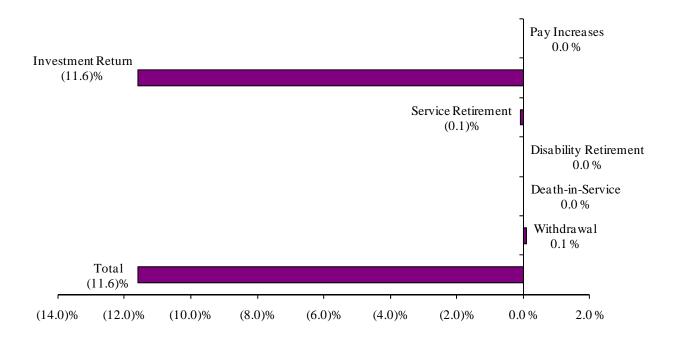
	Gain/(Loss) in Period - (\$ in Millions)					% of	
T		State and		General			Accrued
Type of Risk Area	Local	Divisions	Ass	embly		Total	Liabilities
<b>ECONOMIC RISK AREAS</b> Pay Increases. If there are smaller pay increases than assumed, there is a gain. If greater increases, a loss.	\$	1.9	\$	0.0	\$	1.9	0.0 %
<i>Investment Return.</i> If there is greater investment return than assumed, there is a gain. If less return, a loss.		(807.4)		(0.7)		(808.1)	(11.6)%
NON-ECONOMIC RISK AREAS  Non-Casualty Retirements. 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.		(7.3)		0.0		(7.3)	(0.1)%
Disability Retirements. If there are fewer disabilities than assumed, there is a gain. If more, a loss.		1.1		0.0		1.1	0.0 %
Death-in-Service Benefits. If there are fewer claims than assumed, there is a gain. If more, a loss.		0.0		0.0		0.0	0.0 %
Withdrawal. If more liabilities are released by other separations than assumed, there is a gain. If smaller releases, a loss.		4.9		0.0		4.9	0.1 %
Total Active Member Actuarial Gains/(Losses)	\$	(806.8)	\$	(0.7)	\$	(807.5)	(11.6)%
Retired Life Mortality.		13.8		0.0		13.8	0.2 %
<i>Other.</i> Includes data adjustments at retirement, timing of financial transactions, and miscellaneous unidentified	ø	<b>5</b> 0		(0.2)	<b>ሱ</b>	47	0.1.0/
sources.		5.0		(0.3)	\$	4.7	0.1 %
Total Actuarial Gains/(Losses)	\$	(788.0)	\$	(1.0)	\$	(789.0)	(11.3)%

### ACTUARIAL GAINS/(LOSSES) ACTIVE MEMBERS 2008-2009 PLAN YEAR

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



#### % of Accrued Liabilities



# 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	June 30 Increases ments Retirement Disability	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

<sup>\*</sup> Excludes liability for retired lives.

## DEVELOPMENT OF GAIN/(LOSS) FROM INVESTMENT RETURN\* DURING THE PERIOD JULY 1, 2008 TO JUNE 30, 2009

	_	\$ Millions
1.	Total Assets Beginning of Year	\$5,866.4
2.	Total Assets End of Year (Funding Value)	
	a. Actual	5,413.2
	b. If net investment return had been 8.00%	6,221.3
3.	Gain/(Loss): 2a. minus 2b.	\$(808.1)

<sup>\* &</sup>quot;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, 2008 TO JUNE 30, 2009 (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	72	76			
66	64	64			
67	35	40			
68	25	27			
69	15	22			
70	13	18			
71	13	12			
72	11	12			
73	7	7			
74	10	9			
75 & Up	16	22			
	281	309			

Averages, in Years:

Age at retirement 68.5

Service at retirement 14.7

## ACTIVE MEMBERS WHO BECAME REDUCED EARLY RETIREES DURING THE PERIOD JULY 1, 2008 TO JUNE 30, 2009 (EARLY RETIREMENTS WITH REDUCED BENEFITS BEGINNING IMMEDIATELY)

	State & Local Early Retirement			
Ages	Actual	Expected		
55	16	13		
56	13	12		
57	11	17		
58	12	17		
59	14	21		
60	38	26		
61	24	34		
62	90	102		
63	41	46		
64	26	35		
Totals	285	323		

Averages, in Years:

Age at retirement 60.5 Service at retirement 18.1

#### ACTIVE MEMBERS WHO RETIRED OR ENTERED THE DROP DURING THE PERIOD JULY 1, 2008 TO JUNE 30, 2009 (28 OR MORE YEARS OF SERVICE)

	State & Local					
	Retir	ement	DI	ROP		
Service	Actual	Expected	Actual	Expected		
28	182	59	164	199		
29	38	42	68	53		
30	21	26	47	41		
31	17	16	19	18		
32	5	9	10	10		
33	10	9	6	11		
34	7	6	2	7		
35	6	5	17			
36	5	3				
37	3	2				
38 & Up	29	116				
Totals	323	293	333	339		

Averages, in Years:

Age at retirement	58.7	56.6
Service at retirement	31.2	29.5

## ACTIVE MEMBERS WHO BECAME DISABILITY RETIREES DURING THE PERIOD JULY 1, 2008 TO JUNE 30, 2009 (AND WHO WERE ACTIVE MEMBERS AS OF JUNE 30, 2008)

	State & Local Disabilities			
Ages	Actual	Expected		
20- 24		0		
25- 29		0		
30- 34		2		
35- 39		3		
40- 44	4	6		
45- 49	8	12		
50- 54	16	21		
55- 59	26	31		
60 & Up	27	27		
	81	103		

Averages, in Years:

Age at retirement 56.1 Service at retirement 15.9

# ACTIVE MEMBERS WHO LEFT ACTIVE STATUS WITH A DEFERRED BENEFIT PAYABLE DURING THE PERIOD JULY 1, 2008 TO JUNE 30, 2009 (VESTED SEPARATIONS)

	State & Local Vested Separations			
Ages	Actual	Expected		
Below 30	80	94		
30- 34	152	154		
35- 39	203	153		
40- 44 45- 49	186 212	144 136		
50- 54	191	108		
55- 59	124	65		
60 & Up	104	34		
	1,252	888		

Averages, in Years:

Age at retirement 46.7 Service at retirement 10.9

# ACTIVE MEMBERS WHO LEFT ACTIVE STATUS WITH NO BENEFIT PAYABLE DURING THE PERIOD JULY 1, 2008 TO JUNE 30, 2009 (NON-VESTED SEPARATIONS)

	State & Local				
	Non-Vested	Separations			
Service at Termination	Actual	Expected			
0	1,709	2,001			
1	901	1,104			
2	512	670			
3	366	437			
4	165	126			
	3,653	4,337			

Age at retirement 44.4
Service at retirement 1.8

## MEMBERS ACTIVE BOTH BEGINNING AND END OF YEAR SALARY INCREASES BY AGE GROUP DURING THE PERIOD JULY 1, 2008 TO JUNE 30, 2009

Age		Beginning	Ending Pay		Percentage	e Increase
Groups	Number	Pay	Expected	Actual	Expected	Actual
Below 25	1,416	\$ 29,625,300	\$ 32,643,370	\$ 33,370,580	10.2%	12.6%
25- 29	3,107	81,231,431	87,810,908	88,708,422	8.1%	9.2%
30- 34	3,466	101,388,158	108,250,638	108,718,220	6.8%	7.2%
35- 39	4,164	130,179,006	138,190,944	139,186,413	6.2%	6.9%
40- 44	4,695	151,732,990	160,458,759	161,244,044	5.8%	6.3%
45- 49	5,643	189,271,949	199,404,094	201,136,476	5.4%	6.3%
50- 54	5,770	200,982,415	211,070,259	212,437,472	5.0%	5.7%
55- 59	5,173	177,103,698	185,604,676	186,818,816	4.8%	5.5%
60-64	3,188	105,345,864	110,145,395	110,851,324	4.6%	5.2%
65 & Over	1,383	41,044,715	42,686,504	43,091,814	4.0%	5.0%
Totals	38,005	-	-	_	5.7%	6.4%

#### **SECTION D**

DISTRICT JUDGES - VALUATION RESULTS, VALUATION DATA, AND FINANCIAL PRINCIPLES

### DISTRICT JUDGES EMPLOYER CONTRIBUTION RATES COMPUTED JUNE 30, 2009

	<b>Contributions Express</b>	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	17.10%						
reduced retirement)							
Separation benefits	1.36%						
Disability benefits	1.36%						
Disability beliefits	1.30%						
Death-in-service annuities	0.00%						
Total	19.82%						
Member contributions (ultimate)	5.00%						
Employer Normal Cost	14.82%						
Unfunded Actuarial Accrued Liabilities	8.53% *	\$1,088,850 **					
Total Employer Contribution	23.35%	\$1,088,850					

<sup>\*</sup> Unfunded actuarial accrued liabilities were amortized over a 28 year period.

<sup>\*\*</sup> Unfunded actuarial accrued liabilities were amortized over a 26 year period.

## DISTRICT JUDGES SUMMARY STATEMENT OF SYSTEM RESOURCES AND OBLIGATIONS YEAR ENDED JUNE 30, 2009

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

		<b>Totals</b>
A.	Present Valuation Assets:	
	1. Net assets from system financial statements	\$8,503,142
	2. Market value adjustment	1,501,252
	3. Valuation assets	10,004,394
B.	Actuarial present value of expected future employer contributions:	
	1. For normal costs	2,984,466
	2. For unfunded actuarial accrued liability	15,667,499
	3. Total	18,651,965
C.	Actuarial present value of expected future	
	member contributions	1,005,954
D.	Total Present and Expected Future Resources	\$29,662,313

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

A.	To retirees and beneficiaries	\$ 11,009,990
B.	To vested terminated members	10,763,508
C.	To present active members:  1. Allocated to service rendered prior to valuation date - actuarial accrued liability  2. Allocated to service likely to be rendered	3,898,395
	after valuation date	3,990,420
	3. Total	7,888,815
D.	Reserve	0
E.	Total Actuarial Present Value of Expected Future Benefit Payments	\$29,662,313

# DISTRICT JUDGES COMPUTED ACTUARIAL LIABILITIES AND ALLOCATION USING ENTRY AGE ACTUARIAL COST METHOD AS OF JUNE 30, 2009

Actuarial Present Value of	Total Present Value	Portion Covered By Future Normal Cost Contributions	Actuarial Accrued Liabilities (1) - (2)
Benefits to be paid to current retirees, beneficiaries, and future			
beneficiaries of current retirees	\$11,009,990	\$ 0	\$11,009,990
Age and service allowances based on total service likely to be rendered by present active members	7,290,331	3,426,678	3,863,653
Separation benefits (refunds of contributions and deferred allowances) likely to be paid to present active and inactive members	11,063,076	284,769	10,778,307
Disability benefits likely to be paid to present active members	298,916	278,973	19,943
Death in service benefits likely to be paid on behalf of present active members	0	0	0
Total	\$29,662,313	\$3,990,420	\$25,671,893
Applicable Assets (Funding Value)	10,004,394	0	10,004,394
Liabilities to be covered by future contributions	\$19,657,919	\$3,990,420	\$ 15,667,499

### DISTRICT JUDGES SUMMARY OF PROVISIONS EVALUATED

VOLUNTARY RETIREMENT With a full benefit, 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, 2008 THROUGH JUNE 30, 2009 MARKET VALUE

	Pl		
	New Plan and		
	Paid-Off	Still Paying	
	Old Plan	Old Plan	Totals
Balance 7/1/2008	\$8,726,625	\$3,671,600	\$12,398,225
Adjustment	0	0	0
Revenues			
Member contributions	187,536	0	187,536
Employer contributions	595,139	1,018,315	1,613,454
Other	(2,646)	(1,113)	(3,759)
Investment return	(3,066,801)	(1,284,403)	(4,351,204)
Total	\$(2,286,772)	\$(267,201)	\$(2,553,973)
Expenditures			
Benefits paid	308,130	861,067	1,169,197
Refunds	18,790	0	18,790
Expenses	107,924	45,199	153,123
Total	\$434,844	\$906,266	\$1,341,110
Preliminary Balance	\$6,005,009	\$2,498,133	\$8,503,142
Employer Paid Off			
Old Liability	0	0	0
Balance 6/30/2009	\$6,005,009	\$2,498,133	\$8,503,142

Note: Results may not total due to rounding.

#### DEVELOPMENT OF FUNDING VALUE OF ASSETS NEW PLAN AND PAID-OFF OLD PLAN JUNE 30, 2009

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

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

### DISTRICT JUDGES SUMMARY OF ANNUITANTS ON ROLLS

**Retirees and beneficiaries on rolls included** in the valuation totaled 132, involving monthly annuities of \$101,731, distributed as follows:

	Number of	Annuities Being Paid July 1, 2009				
Plan	Retired Members	Monthly	Annualize d			
New Plan	9	\$ 3,061	\$ 36,731			
Old Plan Paid Off	27	23,523	282,276			
Still Paying Old Plan	96	75,147	901,760			
Totals	132	\$101,731	\$1,220,767			

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, 2009 was reported to be 100, consisting of 88 original retirees and 12 survivors.

*Inactive members*, entitled to deferred annuities, included in the valuation totaled 147, involving estimated deferred monthly annuities of \$103,831 distributed as follows:

	Number of	Estimated Deferred Annuities				
Plan	Inactive Members	Monthly	Annualize d			
New Plan	1	\$ 732	\$ 8,787			
Old Plan Paid Off	42	39,216	470,587			
Still Paying Old Plan	104	63,883	766,597			
Totals	147	\$103,831	\$1,245,971			

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, 2009 was reported to be 125.

### DISTRICT JUDGES DETAIL BY EMPLOYER

		<u>Participant</u>	ts Covered	Retiree	Deferred	Retiree	Deferred	Total	Assets		26-year
F1	ED ID	Deferred	D - 42 3	Mon. Ben.	Mon. Ben. 7/1/2009	Liability	Liability	Liability	Allocated	Unfunded	Payoff of
Employer Ashdown	<b>ER ID</b> 90141	Vested 2	Retired 2	<b>7/1/2009</b> \$ 466.28	\$ 550.08	<b>6/30/2009</b> \$ 43,666.00	<b>6/30/2009</b> \$ 70,086.00	<b>6/30/2009</b> \$ 113,752.00	<b>6/30/2009</b> \$ 15,869	<b>Liability</b> \$ 97,883	Unfunded Liability \$ 8,711
Ashdown (County)	90941	2	2		910.30	73,543	115,983	189,526	26,416	163,110	14,516
Bates ville	90132	2	1	859.69	514.54	109,345	45,350	154,695	19,092	135,603	12,068
Bates ville (Independence Co.)	90932	2	1	859.69	514.54	109,345	45,350	154,695	19,075	135,620	12,069
Beebe	90511	0	1	1,016.67	0.00	113,553	0	113,553	2,243	111,310	9,906
Benton	90962	1	2	,	666.67	266,002	82,502	348,504	103,728	244,776	21,783
Benton County - West	90204	3	0	,	1,892.53	0		200,944	78,250	122,694	10,919
Berryville	90108	1	2		475.94	23,555	65,229	88,784	12,871	75,913	6,756
Berryville (County)	90908	2	3		700.94	174,098	79,714	253,812	60,096	193,716	17,239
Biscoe	90159	0	1	150.00	0.00	20,012	0	20,012	219	19,793	1,761
Booneville (County)	90942	2	1	203.98	189.65	26,848	14,714	41,562	6,715	34,847	3,101
Bryant	90133	0	1	1,035.00	0.00	112,200	0	112,200	-6,286	118,486	10,544
Cabot	90143	3	0	0.00	1,651.12	0	160,306	160,306	69,265	91,041	8,102
Clarendon	90148	1	0	0.00	444.72	0	41,451	41,451	14,864	26,587	2,366
Conway	90123	2	1	1,600.55	4,591.66	174,193	477,328	651,521	150,359	501,162	44,600
Dequeen	90166	0	3	4,406.12	0.00	478,199	0	478,199	33,526	444,673	39,573
Dermott	90109	2	2	455.00	205.08	53,818	12,727	66,545	590	65,955	5,870
Dermott (County)	90909	2	2	455.00	205.08	53,818	12,727	66,545	590	65,955	5,870
Devalls Bluff	90359	0	1	225.00	0.00	30,211	0	30,211	353	29,858	2,657
Dewitt	90101	1	1	733.48	519.44	79,362	48,731	128,093	32,874	95,219	8,474
Dumas	90121	2	2	1,208.92	1,564.42	151,207	161,900	313,107	26,287	286,820	25,525
East Camden	90252	2	1	531.53	136.07	68,139	6,691	74,830	19,091	55,739	4,960
Elkins	90172	2	0	0.00	1,074.68	0	119,981	119,981	25,859	94,122	8,376
Greenwood	90265	0	1	771.00	0.00	97,850	0	97,850	-3,520	101,370	9,021
Hamburg	90202	1	1	450.00	457.19	40,742	40,606	81,348	22,107	59,241	5,272
Hampton	90107	1	1	696.00	850.46	72,553	103,928	176,481	61,836	114,645	10,203
Hazen	90459	0	1	683.33	0.00	95,340	0	95,340	1,513	93,827	8,350
Helena	90154	2	2		27.72	37,632	824	38,456	-8,156	46,612	4,148
Helena (County)	90954	2	2		27.72	37,632	824	38,456	-8,156	46,612	4,148
Hope	90110	0	3	,	0.00	105,940	0	105,940	-10,059	115,999	10,323
Hope (County)	90929	0	3	,	0.00	105,940	0	105,940	-10,059	115,999	10,323
Hot Springs	90126	4	3	- ,	3,585.85	607,597	209,244	816,841	102,662	714,179	63,557
Hoxie	90138	1	1	298.39	366.27	36,540	44,331	80,871	15,526	65,345	5,815

### DISTRICT JUDGES DETAIL BY EMPLOYER

		<u>Participant</u>	s Covered	Retiree	Deferred	Retiree	Deferred	Total	Assets		26-year
		Deferred		Mon. Ben.	Mon. Ben.	Liability	Liability	Liability	Allocated	Unfunded	Payoff of
Employer	ER ID	Vested	Retired	7/1/2009	7/1/2009	6/30/2009	6/30/2009	6/30/2009	6/30/2009	Liability	Unfunded Liability
Lawrence County	90938	1	1	\$ 365.24	\$ 651.75	\$ 44,726	\$ 78,883	\$ 123,609	\$ 25,429	\$ 98,180	\$ 8,737
Little Rock	90260	16	9	17,922.96	11,804.79	2,107,805	1,118,529	3,226,334	606,567	2,619,767	233,141
Magnolia	90114	0	1	641.98	0.00	66,452	0	66,452	1,585	64,867	5,773
Magnolia (Columbia County)	90914	0	1	641.98	0.00	66,452	0	66,452	1,585	64,867	5,773
Marked Tree	90256	0	1	948.14	0.00	93,236	0	93,236	(4,419)	97,655	8,691
Marshall	90964	0	1	701.31	0.00	79,121	0	79,121	36,999	42,122	3,749
McCrory	90274	0	1	90.00	0.00	9,928	0	9,928	3,962	5,966	531
Mt. Home	90103	2	2	1,089.54	2,844.09	85,838	356,236	442,074	30,149	411,925	36,658
Newport	90134	1	3	1,555.70	234.22	164,049	15,623	179,672	47,033	132,639	11,804
North Little Rock	90460	12	9	9,420.26	10,828.29	889,327	1,216,245	2,105,572	208,016	1,897,556	168,869
Osceola	90247	1	2	781.25	648.60	53,105	69,576	122,681	20,872	101,809	9,060
Ozark	90124	1	1	531.72	593.47	66,846	73,653	140,499	23,393	117,106	10,422
Ozark (County)	90924	1	1	531.72	593.47	66,846	73,653	140,499	23,393	117,106	10,422
Pocahontas	90161	2	1	113.58	530.57	9,106	47,968	57,074	7,751	49,323	4,389
Pocahontas (County)	90961	2	1	113.58	530.57	9,106	47,968	57,074	7,751	49,323	4,389
Prairie Grove	90372	1	2	1,861.93	233.23	219,565	17,244	236,809	14,341	222,468	19,798
Rison	90113	1	0	0.00	780.00	0	95,318	95,318	26,423	68,895	6,131
Russellville	90158	1	1	597.51	1,218.49	75,374	53,762	129,136	46,032	83,104	7,396
Searcy	90273	1	2	1,383.33	1,179.36	140,968	154,651	295,619	48,667	246,952	21,977
Stuttgart	90201	2	1	283.90	951.56	26,084	114,834	140,918	29,831	111,087	9,886
Stuttgart	90901	2	1	346.98	1,163.02	31,880	140,353	172,233	36,573	135,660	12,073
Trumann	90356	1	2	1,758.59	224.77	153,922	14,913	168,835	(18,596)	187,431	16,680
Tyronza	90456	2	0	0.00	890.76	0	102,233	102,233	48,055	54,178	4,821
Walnut Ridge	90238	1	2	809.44	632.29	71,811	76,528	148,339	25,841	122,498	10,901
Ward	90443	1	0	0.00	173.01	0	9,168	9,168	1,736	7,432	661
West Helena	90254	2	0	0.00	1,048.27	0	123,012	123,012	32,347	90,665	8,069
West Memphis	90218	2	2	2,156.34	2,500.99	166,426	284,628	451,054	250,263	200,791	17,869
Wrightsville	90760	2	0	0.00	739.80	0	93,093	93,093	16,137	76,956	6,849
Wynne	90519	1	0	0.00	765.05	0	96,963	96,963	24,777	72,186	6,424
UAL>0 as of	6/30/2009	104	96	\$75,146.63	\$63,883.09	\$8.096.853	\$6.636.505	\$14,733,358	\$2,498,133	\$12,235,225	\$1,088,850

## DISTRICT JUDGES ACTIVE MEMBERS IN VALUATION JUNE 30, 2009 BY ATTAINED AGE AND YEARS OF ELIGIBILITY 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									\$ -		
20-24											
25-29											
30-34											
35-39	1							1	32,100		
40-44	2	1						3	184,476		
45-49	5	2						7	369,752		
50-54	8	1	2	1		1		13	646,981		
55-59	2	1	3		1			7	375,413		
								_	220 52 5		
60	1			2	2	1		6	329,736		
61	3		1	1		4		5	312,730		
62	1			1	1	1		4	349,399		
63						_	1	1	39,445		
64						2		2	138,102		
65	1							1	17,577		
66				1			2	3	217,619		
67				1		1		2	120,495		
68			1					1	87,855		
69	2							2	62,000		
70 & over			2				1	3	84,489		
Totals	26	5	9	7	4	6	4	61	\$3,368,169		

#### **Group Averages**

Age:	57.2 years
Benefit Service:	4.2 years
Eligibility Service:	12.3 years
Annual Pay:	\$55,216

## DISTRICT JUDGES CHANGE IN UNFUNDED ACTUARIAL ACCRUED LIABILITIES DURING THE PERIOD JULY 1, 2008 TO JUNE 30, 2009

	New Plan and Paid Off Old Plan	Still Paying Old Plan	Total
(1) UAAL* at beginning of year	\$1,096,682	\$11,302,396	\$12,399,078
(2) Normal cost from last valuation	671,482	-	671,482
(3) Actual contributions	782,675	1,018,315	1,800,990
(4) Interest accrual: $[(1) + \frac{1}{2}[(2) - (3)]] \times .080$	83,287	863,459	946,746
(5) Expected UAAL before changes: (1) + (2) - (3) + (4)	1,068,776	11,147,540	12,216,316
(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	-	-	-
(9) Expected UAAL after changes: (5) + (6) + (7) + (8)	1,068,776	11,147,540	12,216,316
(10) Actual UAAL at end of year	3,432,274	12,235,225	15,667,499
(11) Gain/(Loss): (9) - (10)	\$(2,363,498)	\$(1,087,685)	\$(3,451,183)

<sup>\*</sup> 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%

<sup>@</sup> After changes in actuarial assumptions and methods.

This information on pages D-11 through D-13 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

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

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%

#### **NPO Development**

		January 1, 2005	<b>July 1, 2005</b>	July 1, 2006	July 1, 2007	July 1, 2008
		- June 30, 2005*	- June 30, 2006*	- June 30, 2007	- June 30, 2008	- June 30, 2009
1.	Annual Required Contribution (ARC)	\$357,182	\$1,859,139	\$1,732,368	\$1,525,167	\$1,581,100
2.	Interest on Net Pension Obligation (NPO)	0	(614)	(13,660)	(26,234)	(43,229)
3.	Adjustment to (1)	0	0	(9,859)	(33,661)	(46,696)
4.	Annual Pension Cost (1)+(2)+(3)	357,182	1,858,525	1,708,849	1,465,272	1,491,175
5.	Actual Contribution Made	365,947	2,044,902	1,841,634	1,677,709	1,613,454
6.	Increase in NPO (4)-(5)	(8,765)	(186,377)	(132,785)	(212,437)	(122,279)
7.	NPO Beginning of Year	0	(8,765)	(195,142)	(327,927)	(540,364)
8.	NPO End of Year	(8,765)	(195,142)	(327,927)	(540,364)	(662,643)

<sup>\* 2005</sup> and 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, 2009 is equal to the percent of payroll contribution computed as of June 30, 2008 times projected payroll plus the computed Still Paying Old Plan dollar contribution for unfunded actuarial liability as of June 30, 2008.

## 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	6/30/2009
Actuarial Cost Method	Entry Age
Amortization Method	Level Percent-of-Payroll (New Plan and Paid Off Old Plan) Level Dollar (Still Paying Old Plan)
Remaining Amortzation Period	28 years (New Plan and Paid Off Old Plan) 26 years (Still Paying Old Plan)
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

	Number
Retirees and beneficiaries receiving benefits	100
Terminated plan members entitled to but not yet receiving benefits	125
Current active plan members	<u>61</u>
Total	286

on benefits for service after January 1, 2005

#### **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 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, 2009

			Present	Value of		
Sample	Present	Value of	\$1.00 Mon	thly for Life	Futu	re Life
Attaine d	\$1.00 Mont	thly for Life	Increasing 3	3% Annually	Expectan	cy (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, 2009

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, 2009

	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, 2009

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, 2009

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, 2009

**Percent of Active Members Pay Increase Assumptions** For An Individual Employee Separating within the Next Year Sample Years of Withdrawal **Disability** Merit & Death Base **Increase Service** Men Men Women Ages Women Men Women **Seniority** (Economy) Next Year 0 40.0 % 40.0 % 25.0 25.0 20.0 20.0 15.0 15.0 3 12.0 12.0 4 10.0 0.01 % 20 5+ 10.0 0.01 % 0.01 % 0.01 % 6.60 % 4.00 % 10.60 % 10.0 10.0 0.02 0.01 0.05 25 0.05 5.10 4.00 9.10 30 8.8 8.8 0.03 0.08 0.01 0.08 3.20 4.00 7.20 6.2 6.2 0.04 0.02 0.10 0.10 35 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 2.7 50 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

0.23

1.00

1.00

0.70

4.00

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

1.2

0.35

1.2

60

4.70

## GENERAL ASSEMBLY DIVISION SEPARATIONS FROM ACTIVE EMPLOYMENT BEFORE SERVICE RETIREMENT JUNE 30, 2009

Percent of Active Members Separating within the Next Year

Sample	Years of	Withdrawal		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, 2009

		cent of Active		Pay Increase Assumptions For An Individual Employee			
Sample	Sample Separating within the Sample Withdrawal		Disability		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, 2009 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, 2009 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).

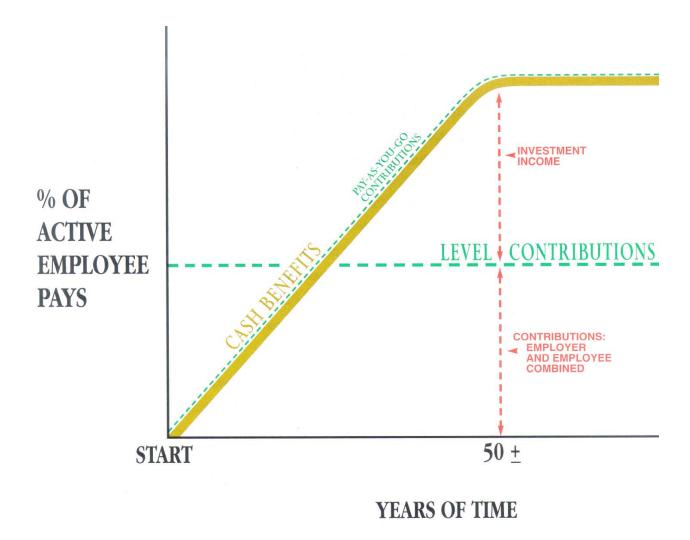
Computing Contributions to Support Fund Benefits. From a given schedule of benefits and from employee and asset data, the actuary calculates the contribution rates to support the benefits by means of an actuarial valuation and a funding method.

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*.



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

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

Economic Risk Areas

Rates of investment return

Rates of pay increase

Changes in active member group size

Non-Economic Risk Areas

Ages at actual retirement

Rates of mortality

Rates of withdrawal of active members (turnover)

Rates of disability

#### THE ACTUARIAL VALUATION PROCESS

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

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

A. *Census Data*, including:

Retired lives now receiving benefits Former employees with vested benefits not yet payable Active employees

- B. + Asset data (cash & investments)
- C. + Benefit provisions that establish eligibility and amounts of payments to members
- D. + Assumptions concerning future experience in various risk areas
- E. + *The funding method* for employer contributions (the long-term, planned pattern for employer contributions)
- F. + Mathematically combining the assumptions, the funding method, and the data
- G. = Determination of:

Plan Financial position; and/or New Employer Contribution Rate

#### **GLOSSARY**

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

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

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

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

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

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

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

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

#### **GLOSSARY**

**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	6,894	1,481	78.5 %	1,434	103.3%
6/30/09 @	5,413	6,938	1,525	78.0 %	1,434	106.3%

<sup>@</sup> After legislated changes in benefit provisions.

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

<sup>#</sup> After changes in actuarial assumptions.

#### 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%

### 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 June 30, 2009

Actuarial Cost Method Entry Age

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 8.0%
Projected Salary Increases 4.7% - 10.6%
Including Inflation at 4.0%

Cost-of-Living Adjustments 3.0% Annual Compounded Increase

<sup>#</sup> Includes DROP participants.

November 4, 2009

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, 2009 Actuarial Valuation and Gain/(Loss) Analysis of Financial Experience

Dear Gail:

Enclosed are 40 copies of this report.

Norman Z. mas

Sincerely,

Norman L. Jones

NLJ:bd Enclosures

cc: David Hoffman Mita Drazilov