

MISSOURI STATE EMPLOYEES' RETIREMENT SYSTEM
ANNUAL ACTUARIAL VALUATION
JUNE 30, 2008

Missouri State Employees' Retirement System
Annual Actuarial Valuation as of June 30, 2008

Table of Contents

Pages

1	Cover Letter
2-6	Financial Principles
	Valuation Results
7-9	Employer Contribution Rate
10	Recognized vs. Actual Return
11	Actuarial Present Values
12	Comments on Valuation Results
13-16	Comparative Schedule
	Gain (Loss) Analysis
17-18	Comments
19-21	Derivation of Gain (Loss)
22	Comparative Statement
23	Development of Gain (Loss) from Investment Income
24-30	Member Experience
	Data Used in Valuations
31-39	Summary of Benefit Provisions
40-42	Retired Lives
43-44	Active & Inactive Members
45-46	Financial Information
	Cash Flow Projection
47	The Nature of Actuarial Projections
48-51	Basic Cash Flow Projections
	Appendix
52-58	Actuarial Assumptions and Methods
59-61	Supplemental Disclosure Information
62-63	Glossary
64-65	Financing Unfunded Actuarial Accrued Liabilities
66-67	Active Member Breakdown by Male and Female
68	History of Results from the Investment Universe

September 12, 2008

Board of Trustees
Missouri State Employees'
Retirement System
907 Wildwood Drive
Jefferson City, Missouri 65102

Re: Actuarial Valuation as of June 30, 2008

Presented in this report are the results of the **annual actuarial valuation** of the Missouri State Employees' Retirement System. The purpose of the valuation was to measure the System's funding progress and to determine the level cost employer contribution rate for the fiscal year beginning July 1, 2009.

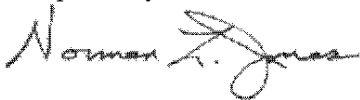
The date of the valuation was **June 30, 2008**.

The valuation was based upon data, furnished by the MOSERS' staff, concerning active, inactive and retired members along with pertinent financial information. The complete cooperation of the MOSERS' staff in furnishing materials requested is hereby acknowledged with appreciation.

Your attention is directed particularly to the presentation of contribution rates on page 7 and the comments on page 12.

The actuaries submitting this report are Members of the American Academy of Actuaries (M.A.A.A.) as indicated, and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Respectfully submitted,



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FINANCIAL PRINCIPLES

Financial Principles and Operational Techniques

Promises Made, and Eventually Paid. As each year is completed, MOSERS in effect hands an "IOU" to each member then acquiring a year of service credit --- the "IOU" says: "The Missouri State Employees' Retirement System owes you certain retirement benefits -- payments in cash commencing when you qualify for retirement."

The related key financial question is, 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 Missouri at the time the IOU becomes a cash demand?

The law governing MOSERS' financing intends that this year's taxpayers contribute the money to cover the IOUs being handed out this year. By following this principle, *funds will be accumulated during members' working years, which, combined with income on invested assets, will be sufficient to pay benefits throughout retirement.*

An inevitable by-product of this financing design is the accumulation of reserve assets, for decades, and the income produced when the assets are invested. Over time, *investment income becomes the largest contributor* toward benefits, and directly influences the contribution amount required from the employer.

In actuarial terminology, the minimum level percent of payroll contribution rate consists of:

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: actuarial liabilities for members' service already rendered; and the actuarial value of MOSERS' accrued assets).

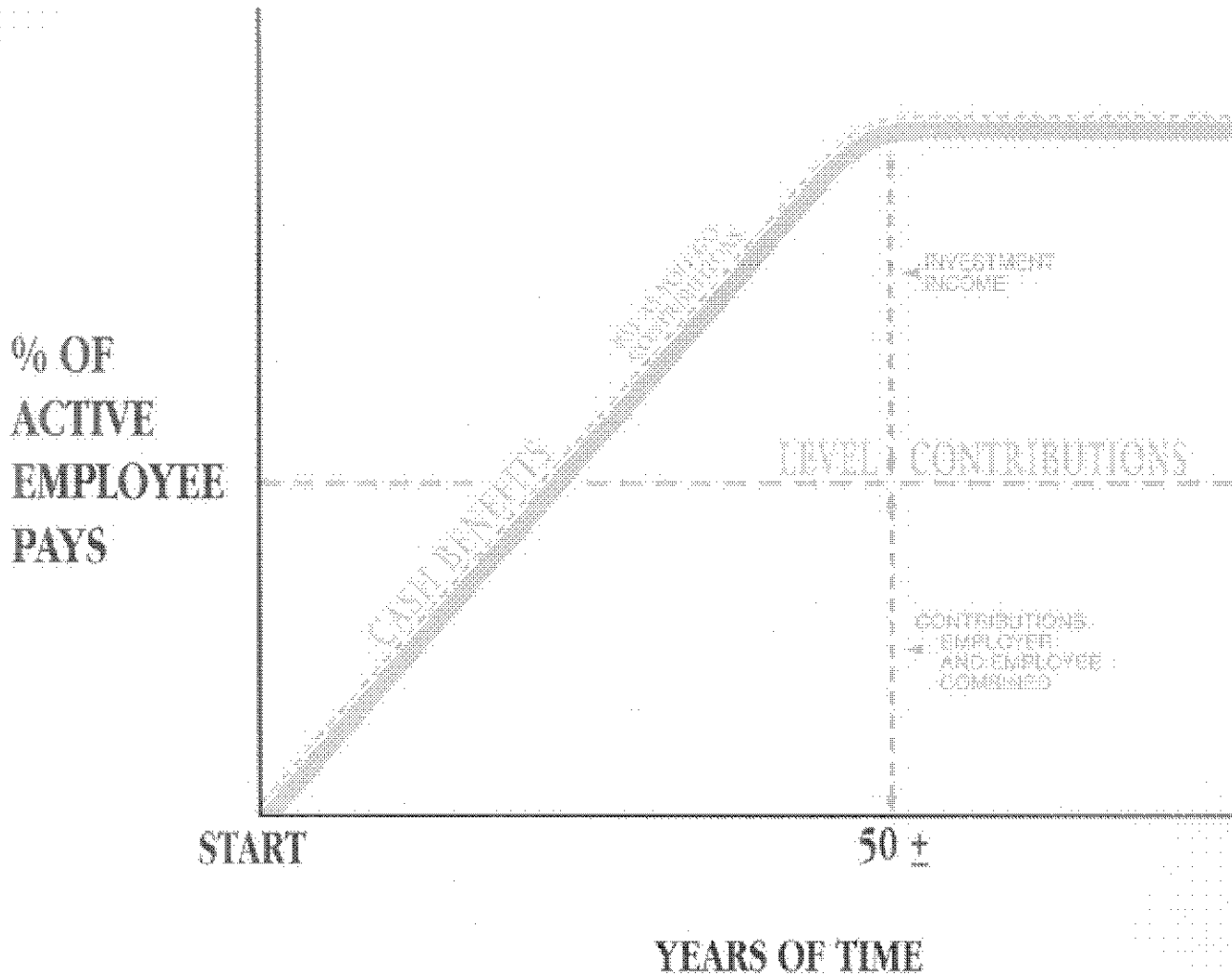
Computing Contributions To Support Funded Benefits. From a given schedule of benefits and from the member data and asset data provided, the actuary determines the contribution rates to support the benefits, by means of *an actuarial valuation and a funding method.*

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

In an actuarial valuation, assumptions are made as to what the above rates will be, for the next year and for decades in the future. Only the subsequent actual experience of the plan can indicate the degree of accuracy of the assumptions.

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

MOSERS 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, and contribution rates.*



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

An *actuarial valuation* is the mathematical process by which actuarial present values and contribution rates are determined. The flow of activity constituting the valuation may be summarized as follows:

- A. ***Census Data***, furnished by the system administrative staff, including:
 - Retired lives now receiving benefits
 - Former members with vested benefits not yet payable
 - Active members
- + B. ***Benefit Provisions*** governing future payments from the retirement system.
- + C. ***Asset data*** (cash & investments), furnished by the system administrative staff.
- + D. ***Assumptions concerning future experiences*** in various risk areas, which assumptions are established by the Board of Trustees after consulting with the actuary.
- + 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***
 - The employer contribution rate.***

Meaning of "Unfunded Actuarial Accrued Liabilities"

"Actuarial accrued liabilities" are *the portion of the present value of plan promises to pay benefits in the future which 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. Actuarial accrued liabilities are the result of complex mathematical calculations, which are made annually by the plan's actuary.

If "actuarial accrued liabilities" at any time exceed the actuarial value of the plan's accrued assets, the difference is *"unfunded actuarial accrued liabilities."* This is the common condition. If the plan's assets equaled the plan's "actuarial accrued liabilities," the plan would be termed "fully funded."

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 financial experience is less favorable than assumed financial experience, the difference is added to unfunded actuarial accrued liabilities. In plans where benefits are directly related to an employee's pay near time of retirement, unfunded actuarial accrued liabilities increase when unexpected rates of pay increase create additional actuarial accrued liabilities which are not offset by favorable experience in other areas.

The existence of unfunded actuarial accrued liabilities is not bad, but the changes from year to year in the amount of unfunded actuarial accrued liabilities are important and should be monitored.

Unfunded actuarial accrued liabilities are not 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 will be controlled.

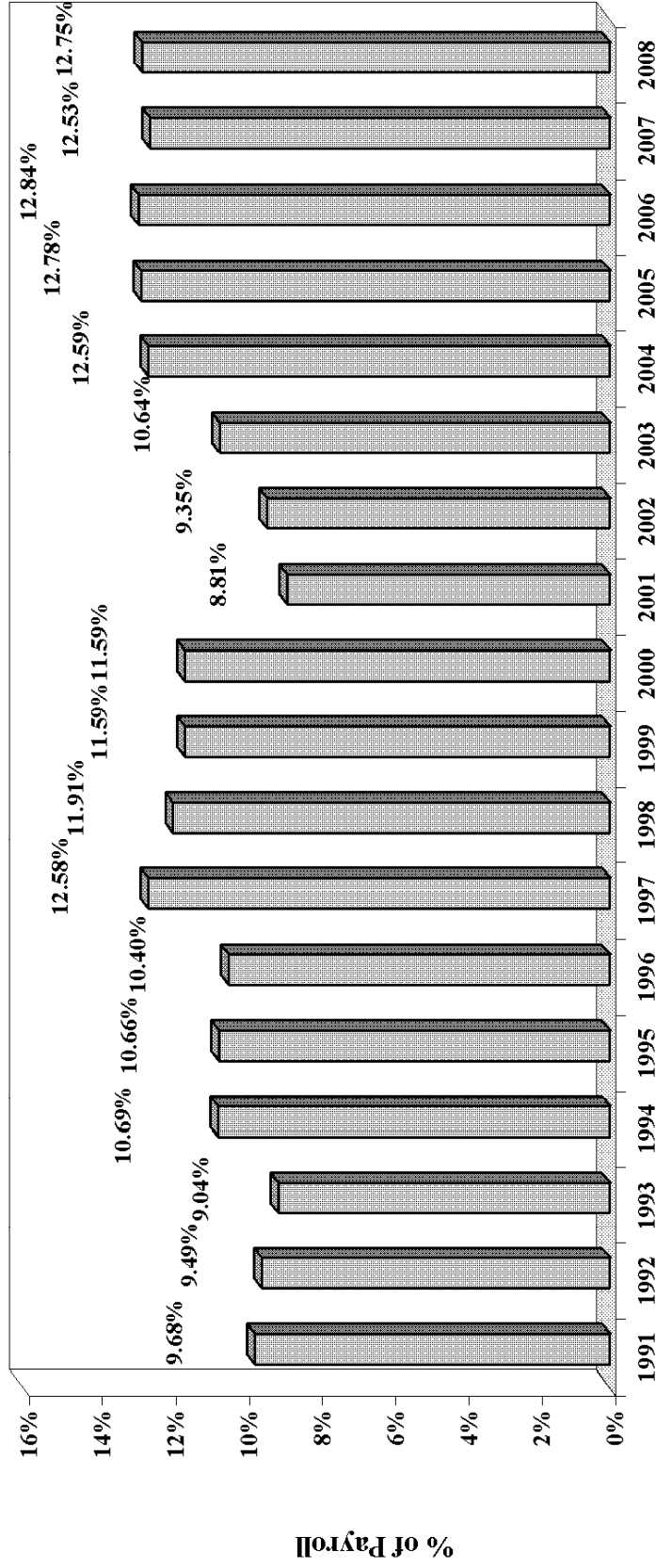
VALUATION RESULTS

Computed Employer Contribution Rate
Expressed as Percents of Active Member Payroll
June 30, 2008

Contributions for the Fiscal Year Beginning July 1, 2008	Contribution Expressed as Percents of Payroll
Normal Cost	
Service retirement benefits	7.60 %
Disability benefits	0.51
Survivor benefits	0.24
Administrative expenses	<u>0.36</u>
Total	8.71
Unfunded Actuarial Accrued Liabilities (UAAL) (30-year level percent-of-payroll amortization*)	<u>4.04</u>
TOTAL COMPUTED EMPLOYER CONTRIBUTION RATE	12.75 %

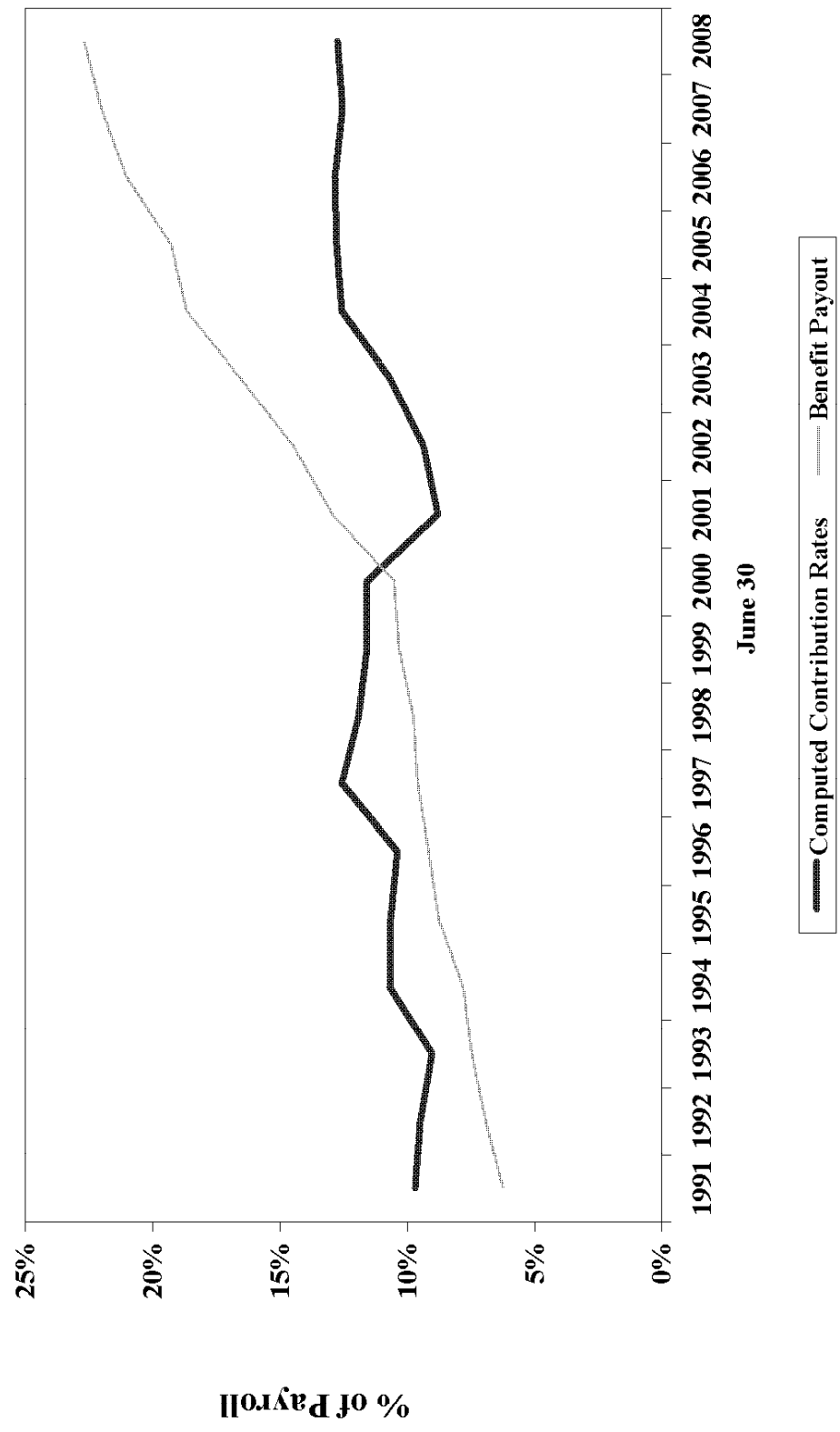
* This corresponds to an amortization factor of 16.65656 assuming payroll growth of 4% per year. Amortization period a year ago was 30 years.

Computed Contribution Rates

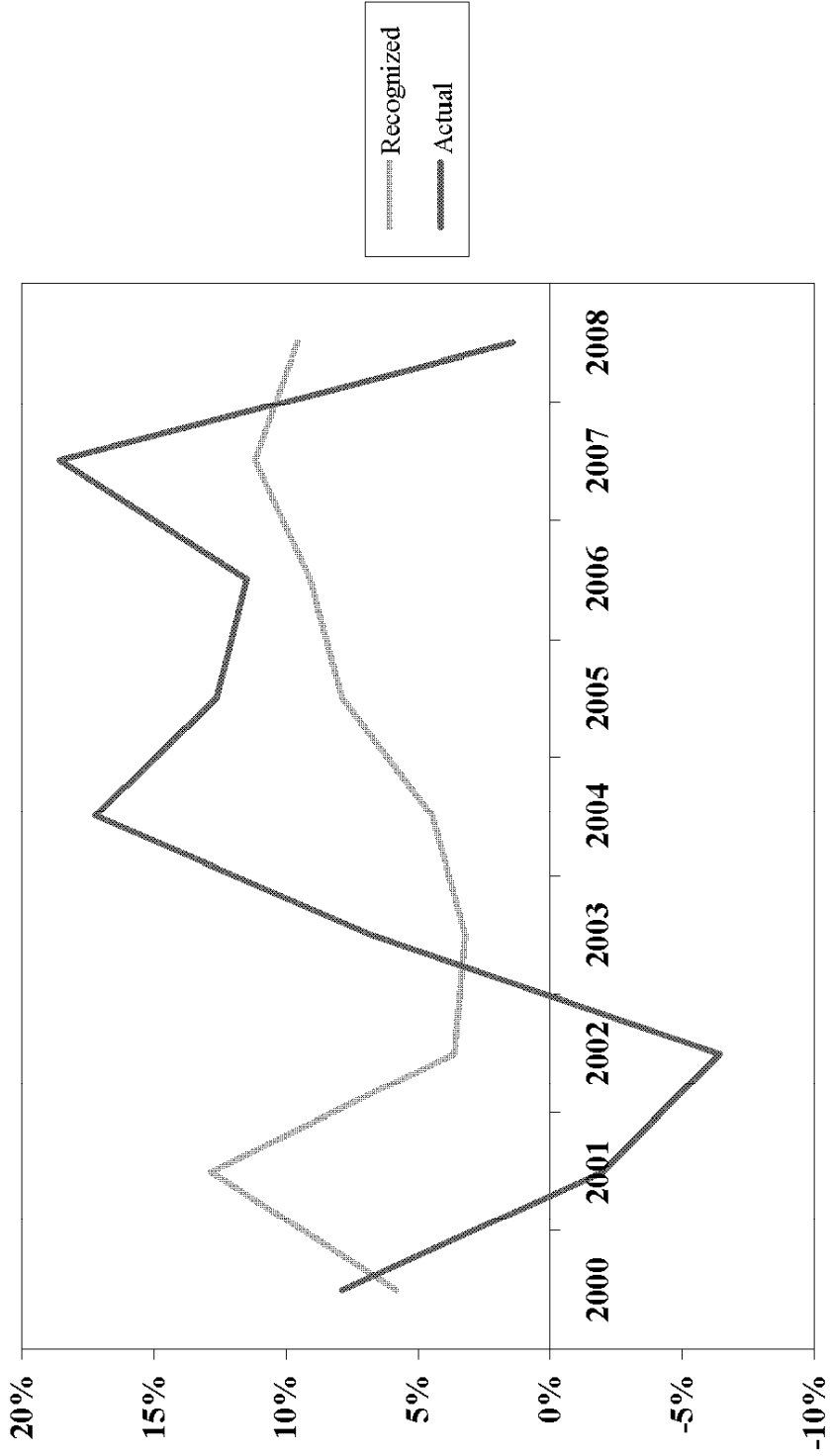


June 30

Contribution Rates vs. Benefit Payout



Recognized vs. Actual Return



June 30

The period of asset smoothing was changed from 3 to 5 years effective June 30, 2001.

Actuarial Present Values June 30, 2008

Actuarial Present Value, June 30, for	(1) Actuarial Present Value	(2) Portion Covered By Future Normal Cost Contributions	(3) Actuarial Accrued Liabilities (1) - (2)
Active Members			
Service retirement benefits based on service rendered before and likely to be rendered after valuation date	\$4,491,415,808	\$735,340,448	\$3,756,075,360
Disability benefits likely to be paid to present active members who become totally and permanently disabled	142,748,726	65,439,120	77,309,606
Survivor benefits likely to be paid to widows and children of present active members who die before retiring	110,605,527	29,557,661	81,047,866
Separation benefits likely to be paid to present active members	<u>486,000,062</u>	<u>234,333,756</u>	<u>251,666,306</u>
Active Member Totals	\$5,230,770,123	\$1,064,670,985	\$4,166,099,138
Members on Leave of Absence & LTD			
Service retirement benefits based on service rendered before the valuation date			117,108,672
Terminated Vested Members			
Service retirement benefits based on service rendered before the valuation date			436,101,009
Retired Lives			
			4,408,682,437
BackDROP Installment Payments Incurred, but not yet paid			
			<u>356,214</u>
TOTAL ACTUARIAL ACCRUED LIABILITY			\$9,128,347,470
ACTUARIAL VALUE OF ASSETS			<u>7,838,495,768</u>
UNFUNDED ACTUARIAL ACCRUED LIABILITY			<u><u>\$1,289,851,702</u></u>

Actuarial Valuation as of June 30, 2008

Comments

Computed Contribution Rate. The contribution rate for the fiscal year beginning July 1, 2009 was computed to be 12.75% of payroll, based upon an amortization period for the unfunded actuarial accrued liabilities (UAAL) of 30 years. This represents an increase of 0.22% in the rate computed for the fiscal year beginning July 1, 2008, of which 0.25% was attributable to changes in assumptions, based on the 2003-2007 experience study, and technical corrections.

Experience and Development of Actuarial Value of Assets. Experience was slightly favorable in the aggregate this year. Areas of larger differences were favorable investment performance, offset substantially by unfavorable salary experience (pay increases were on average higher than expected) and unfavorable retirement experience (more retirements than expected). The funded status as of June 30, 2008 is 85.9% (actuarial value of assets as a percentage of actuarial accrued liability), down from 86.8% as of June 30, 2007. The overall favorable experience and timely receipt of contributions increased the funded status to 87.5% prior to the changes in assumptions.

Additional information concerning 2008 experience is presented in the gain/loss section of this report beginning on page 17.

***Conclusion.* Based on the results of the June 30, 2008 regular annual actuarial valuation, it is our opinion that the Missouri State Employees' Retirement System continues to be in sound financial condition in accordance with actuarial principles of level percent-of-payroll financing.**

Comparative Schedule

Valuation Date	Active Members				Retired Lives				UAAAL		
	Payroll		Average Salary		Number		Annual Benefits			Accrued Liability	Valuation Assets
	Number	\$ Millions	\$	% Incr.	Retired	Active/Retired	\$ Million	% of Payroll			
1991 (2)	46,725	\$ 1,028	\$21,995	3.6	11,995	3.9	\$ 64.0	6.2	\$2,053	\$1,793	\$260
1992 (1)(2)	46,616	1,030	22,101	0.5	12,552	3.7	71.0	6.9	2,291	1,991	300
1993	47,954	1,063	22,172	0.3	13,115	3.7	79.4	7.5	2,447	2,237	210
1994 (2)	49,436	1,125	22,754	2.6	13,651	3.6	96.2	8.6	2,919	2,425	494
1995	50,524	1,199	23,730	4.3	14,384	3.5	104.9	8.8	3,151	2,649	502
1996 (1)	51,425	1,268	24,650	3.9	15,004	3.4	116.2	9.2	3,440	2,928	512
1997 (1)(2)(3)	52,737	1,360	25,782	4.6	15,609	3.4	130.4	9.6	4,484	3,581	903
1998	54,544	1,460	26,762	3.8	16,251	3.4	142.4	9.8	4,919	4,211	708
1999 (2)	56,158	1,565	27,860	4.1	17,117	3.3	161.3	10.3	5,506	4,909	597
2000 (1)	57,774	1,684	29,143	4.6	18,196	3.2	177.0	10.5	5,921	5,217	704
2001 (1)	58,431	1,758	30,090	3.3	20,237	2.9	227.4	12.9	6,065	5,881	184
2002 (3)	58,616	1,773	30,253	0.5	21,502	2.7	256.6	14.5	6,294	6,033	261
2003 (2) (3)	57,558	1,740	30,229	(0.1)	22,872	2.5	287.1	16.5	6,662	6,057	605
2004 (1)	55,914	1,737	31,074	2.8	24,757	2.3	324.6	18.7	7,230	6,118	1,112
2005 (3)(4)	55,944	1,807	32,293	3.9	25,780	2.2	348.1	19.3	7,578	6,435	1,143
2006	54,493	1,777	32,615	1.0	27,052	2.0	373.6	21.0	8,013	6,837	1,176
2007	54,363	1,847	33,969	4.2	28,692	1.9	406.4	22.0	8,726	7,377	1,349
2007	54,363	1,847	33,969	4.2	28,692	1.9	406.4	22.0	8,500	7,377	1,123
2008	54,542	1,917	35,139	3.4	30,132	1.8	434.6	22.7	8,959	7,838	1,121
2008 (1)	54,542	1,917	35,139	3.4	30,132	1.8	434.6	22.7	9,128	7,838	1,290

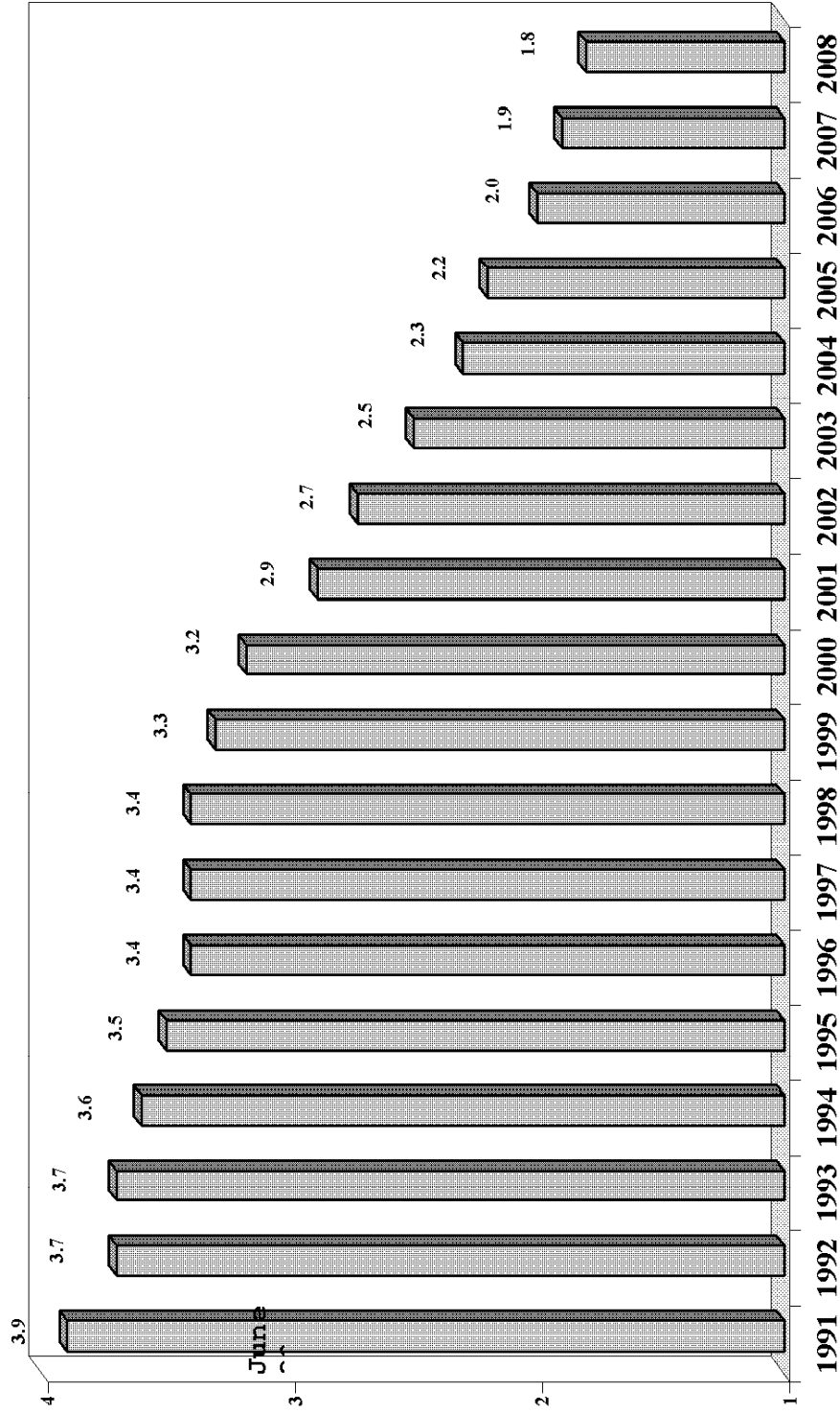
(1) After changes in assumptions.

(2) After changes in benefit provisions.

(3) After changes in methods.

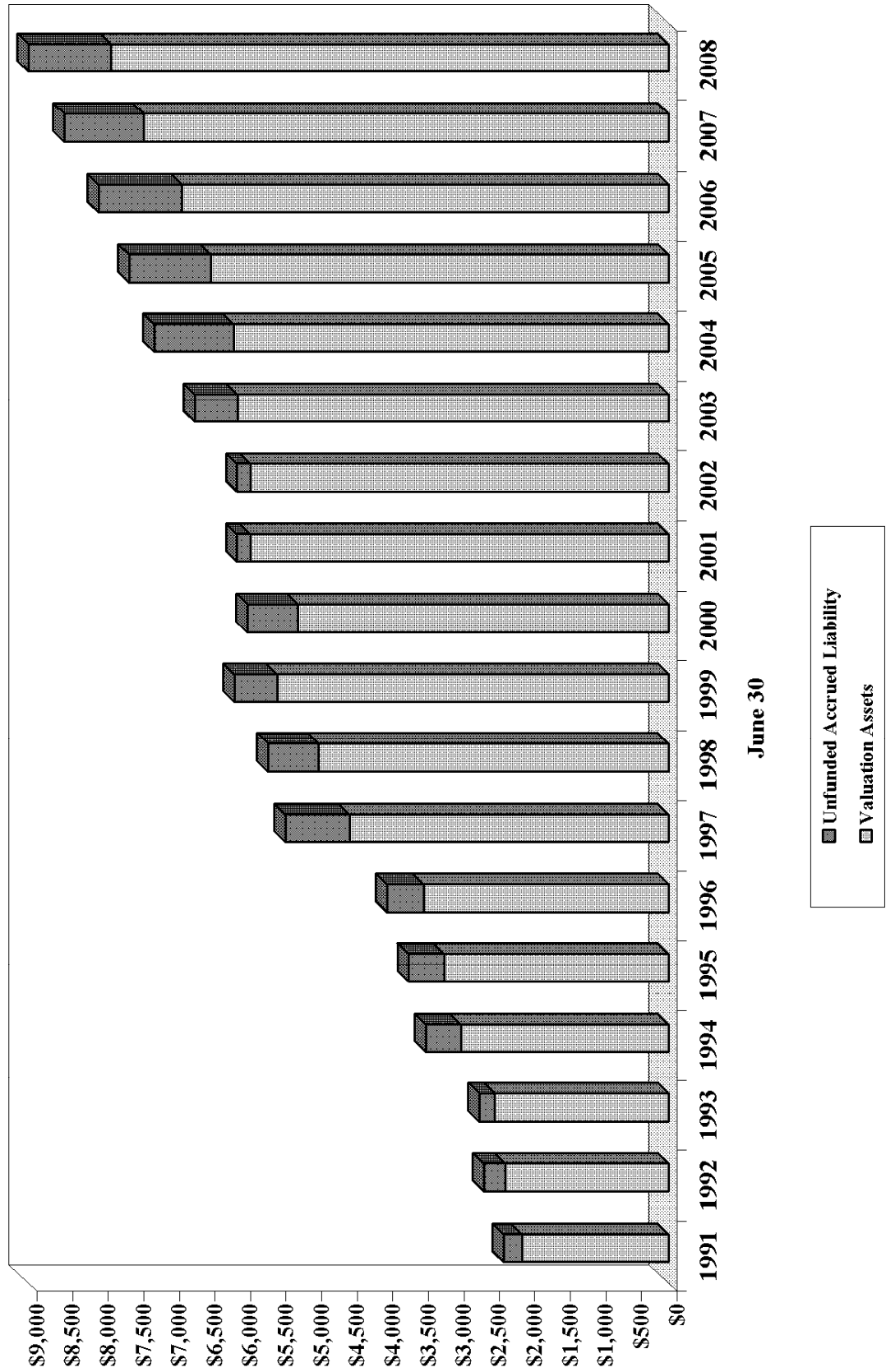
(4) Reflects the addition of the assets, liabilities, and members of the Administrative Law Judges Retirement System.

Number of Active Members Per Benefit Recipient

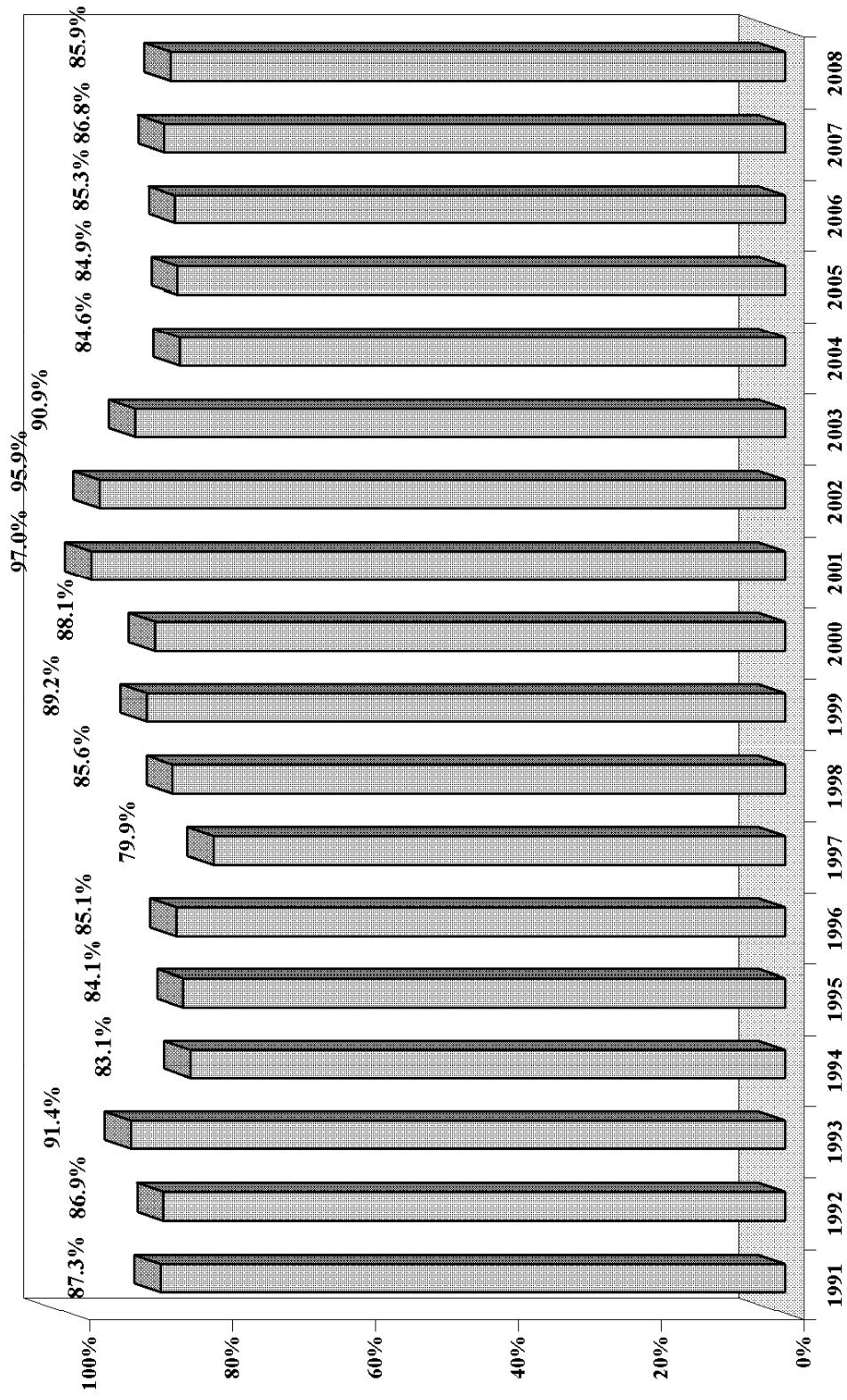


June 30

Actuarial Value of Assets and Actuarial Accrued Liabilities (\$ in millions)



Actuarial Value of Assets as Percents of Accrued Liabilities (Funded Ratio)



June 30

GAIN/LOSS ANALYSIS

Gain/Loss Analysis of Experience During Last Year

COMMENTS

Purpose of Gain/Loss Analysis. Regular actuarial valuations provide valuable information about the composite change in unfunded actuarial accrued liabilities – whether or not the liabilities are increasing or decreasing, and by how much. However, valuations do not show the portion of the change attributable to each risk area within the retirement system financial mechanism: the rate of investment income on plan assets; the rates of withdrawal of active members who leave covered employment; the rates of mortality; the rates of disability; the rates of salary increases; and the assumed ages at actual retirement. In an actuarial valuation, assumptions are 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 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. 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 sizeable and persistent. One year's gain/loss analysis may or may not be indicative of *long-term trends, which are the basis of financial assumptions.*

2007 and 2008 Data. For the 2007 and 2008 valuations, active and retired member data were reported as of May 31. It was brought forward to June 30 by adding one month of service for all active members, adding the June COLA for certain retirees, and otherwise making no other adjustments. It was assumed for valuation purposes that there was no turnover among members and no new entrants during the month of June. Financial information was reported as of June 30. It is believed that this procedure resulted in a slight overstatement of total liabilities as of June 30, 2007 and June 30, 2008.

The expected and actual numbers of retirements, deaths, and terminations found on pages 25 through 30 reflect experience over the 12 month period from May 31, 2007 through May 31, 2008.

Results from 2008 Plan Year. There was a net experience loss this year, with the largest single identifiable source being pay increases that were on average higher than expected. The table below summarizes historical MOSERS economic experience:

Period	Inflation As Measured By		Interest Credited to MOSERS Funds	Real Rate of Return	
	CPI	Increase in Average Salary		Relative to CPI	Relative to Salaries
July 1, 2007 - June 30, 2008	5.0 %	5.3 %	1.4 *%	(3.6) %	(3.9) %
July 1, 2006 - June 30, 2007	2.7 %	5.7 %	18.6 *%	15.9 %	12.9
July 1, 2005 - June 30, 2006	4.3	2.1	11.5 *	7.2	9.4
July 1, 2004 - June 30, 2005	2.5	5.2	12.6 *	10.1	7.4
July 1, 2003 - June 30, 2004	3.3	4.2	17.2 *	13.9	13.0
July 1, 2002 - June 30, 2003	2.1	0.6	0.0 *	(2.1)	(0.6)
July 1, 2001 - June 30, 2002	1.1	(2.1)	(6.4) *	(7.5)	(4.3)
July 1, 2000 - June 30, 2001	3.2	5.1	(2.0) *	(5.2)	(7.1)
July 1, 1999 - June 30, 2000	3.7	5.6	7.9 *	4.2	2.3

* MOSERS' approximate rate of return based on market value.

The dollar amount of unfunded actuarial accrued liabilities (UAAL) is large in absolute dollars. However, the size should be viewed in the light of MOSERS' overall financial program. ***The ratio of unfunded actuarial accrued liabilities divided by active member payroll is significant.*** UAAL represent plan debt, while active member payroll is indicative of the state's capacity to amortize the UAAL – ***the ratio thus provides an index of relative condition.*** The smaller the ratio, the stronger the financial condition.

	<u>UAAL/Active Member Payroll</u>
June 30, 1995	.42
June 30, 1996 after assumption changes	.40
June 30, 1997 after changes in benefits, assumptions, methods	.66
June 30, 1998	.49
June 30, 1999 after MSEP 2000	.38
June 30, 2000 after changes in assumptions	.42
June 30, 2001 after changes in assumptions	.10
June 30, 2002 after changes in methods	.15
June 30, 2003 after changes in benefits, methods	.35
June 30, 2004 after changes in assumptions	.64
June 30, 2005 after changes in assumptions	.63
June 30, 2006	.66
June 30, 2007	.61
June 30, 2008	.67

Derivation of Experience Gain (Loss)

Year Ended June 30, 2008

Actual experience will never coincide exactly with assumed experience (except by coincidence). Gains and losses may offset each other over a period of years, but sizeable year-to-year variations from assumed experience are common. Detail on the derivation of the experience gain (loss) is shown below.

	\$ Millions
(1) UAAL* at start of year	\$1,123.1
(2) Normal cost from last valuation	164.0
(3) Actual employer contributions	252.9
(4) Interest accrual: $(1) \times .085 + [(2) - (3)] \times (.085 / 2)$	91.7
(5) Expected UAAL before changes: $(1) + (2) - (3) + (4)$	1,125.9
(6) Change from any changes in benefits, assumptions, or methods	168.9
(7) Expected UAAL after changes: $(5) + (6)$	1,294.8
(8) Actual UAAL at end of year	1,289.9
(9) Gain(loss): $(7) - (8)$	4.9
(10) Gain (loss) as percent of actuarial accrued liabilities at start of year (\$8,013)	0.1 %

* *Unfunded actuarial accrued liabilities.*

Valuation Date June 30	Actuarial Gain (Loss) as a % of Beginning Accrued Liabilities
1999	4.7 %
2000	2.7
2001	(4.4)
2002	(3.8)
2003	(6.4)
2004	(6.0)
2005	(3.4)
2006	(0.1)
2007	1.0
2008	0.1

Gains & (Losses) in Actuarial Accrued Liabilities During Plan 2007 - 2008

	-- Gain (Loss) for Year --	
	\$ in Millions	% of Accr. Liabilities*
<u>Decrement Experience:</u>		
<i>Service Retirements</i> . If members retire at older ages than assumed, there is a gain. If at younger ages, a loss.	\$ (22.9)	(0.3) %
<i>Disability Retirements</i> . The occurrence of a gain or loss depends upon the age at disability and the incidence of disability.	(2.0)	0.0
<i>Death-in-Service</i> . If there are fewer survivor claims than assumed at younger ages, there is a gain. If there are fewer survivor claims than assumed at older ages, there can be a loss.	(3.4)	0.0
<i>Other Separations</i> . If more actuarial liabilities are released by other separations than assumed, there is a gain. If smaller releases, a loss.	6.6	0.1
<i>Retired Lives</i> . If more deaths than assumed, there is a gain. If fewer deaths, a loss.	(1.6)	0.0
<u>Economic Experience:</u>		
<i>Salary Increases</i> . If there are smaller salary increases than assumed, there is a gain. If greater increases, a loss. If long service members have greater salary increases than assumed, there can be a loss even if average salary increases are less than assumed.	(10.5)	(0.1)
<i>Investment Income</i> . If there is greater investment income than assumed, there is a gain. If less income, a loss.	78.3	0.9
<i>COLAs</i> .	10.3	0.1
<u>Other:</u>		
Service credit reinstatements, service transfers, service purchases, net of contributions.	(6.8)	(0.1)
Larger than expected average compensation for new retirees.	1.3	0.0
Change in group size, data adjustments, retroactive benefit payments, option elections, and miscellaneous unidentified changes in the UAAL.	(44.3)	(0.5)
Experience Gain or (Loss) During Year	\$ 5.0	0.1 %

* Beginning of year accrued liabilities totaled \$7,230 million.

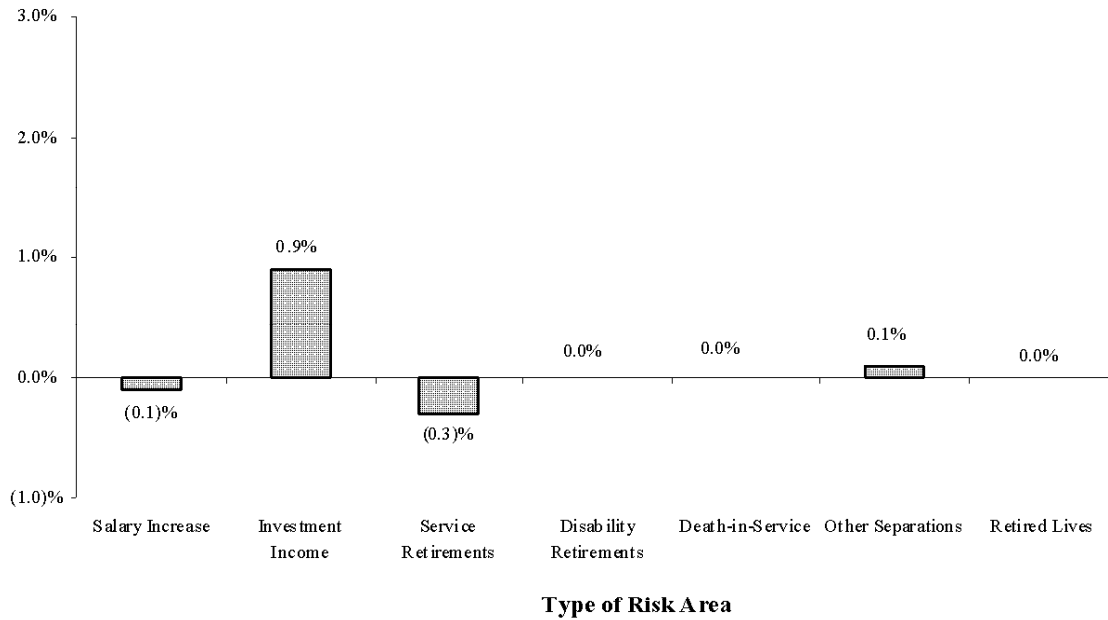
MOSERS

Gain (Loss) Analysis 2007-2008 Experience

Amount in \$ Millions



% of Actuarial Accrued Liabilities



Experience Gains & Losses By Risk Area Comparative Statement

-----\$ in Millions-----

Year Ending June 30	Gain (Loss) By Risk Area							COLAs & Retired Lives	Other	Total Exper. Gain (Loss)	Exper. Gain (Loss) as % of AAL	Accrued Liability Beginning of Year
	Salary Increases	Investments	Age & Service Retirement	Disability	Death- In- Service	Withdrawal	#					
1992 *	\$ 79.8	\$ 19.9	\$ (1.8)	\$0.6	\$ 1.6	\$ (5.5)	#	\$ (8.0)	\$ 86.6	4.0	\$ 2,165	
1993	66.8	54.0	(0.9)	0.8	2.4	(3.9)	#	(27.0)	92.2	4.0	2,292	
1994	42.5	(18.1)	(1.0)	0.7	2.3	(7.0)	#	52.0	71.4	2.9	2,447	
1995	16.7	12.0	(3.2)	0.5	2.5	(4.0)	#	(7.5)	17.0	0.6	2,919	
1996	24.2	63.7	(2.1)	0.6	2.9	(10.2)	\$ 7.4	(74.3) ^	12.2	0.4	3,151	
1997 *	(26.3)	260.3	(3.1)	0.5	2.6	(7.1)	14.5	(50.6)	190.8	5.5	3,440	
1998	(56.9)	325.9	9.6	0.2	(0.3)	(1.7)	16.3	(48.3)	244.8	5.5	4,484	
1999	(21.9)	299.8	(1.3)	(0.3)	(0.9)	1.7	10.5	(58.1)	229.5	4.7	4,919	
2000 *	(6.4)	162.0	1.7	(0.5)	(0.7)	8.9	18.5	(34.7)	148.8	2.7	5,506	
2001 *	(23.2)	(67.9)	(59.8)	(1.0)	(0.2)	(28.2)	(13.1)	(66.1)	(259.5)	(4.4)	5,921	
2002	115.0	(284.6)	(14.4)	(0.5)	(1.3)	(21.4)	37.1	(62.6)	(232.8)	(3.8)	6,065	
2003	7.7	(314.1)	(27.2)	(0.6)	(2.6)	(14.6)	9.6	(63.1)	(404.9)	(6.5)	6,294	
2004 *	(40.0)	(240.1)	(51.5)	(1.4)	(1.3)	(6.7)	(4.3)	(53.8)	(399.1)	(6.0)	6,662	
2005	(3.4)	(196.6)	3.1	(2.0)	(1.7)	(0.9)	(11.7)	(35.5)	(248.7)	(3.4)	7,230	
2006	(29.5)	38.0	(1.7)	(2.3)	(2.4)	15.5	(21.1)	(3.6)	(7.1)	(0.1)	7,578	
2007	(11.5)	179.4	(17.3)	(2.1)	(2.4)	3.8	(29.7)	(43.0)	77.2	1.0	8,013	
2008	(10.5)	78.3	(22.9)	(2.0)	(3.4)	6.6	8.7	(49.8)	5.0	0.1	8,500	

* Revision in assumptions.

Not identified as separate risk area. Included in "Other" category.

^ Includes (\$23.0) for legal settlement.

**Development of Gain (Loss)
From Investment Income
During Plan Year 2007 - 2008**

	Market Value	Actuarial Value
	----- \$ in millions -----	
1. Assets at June 30, 2007	\$8,057.0	\$ 7,377.3
2. Contributions and Transfers in	252.9	252.9
3. Investment Income	111.2	695.4
4. Benefit Payments	480.1	480.1
5. Administrative Expenses	7.0	7.0
6. Assets at June 30, 2008 = (1) + (2) + (3) - (4) - (5)	7,934.0	7,838.5
7. Actual Investment Increment/Mean Assets*	1.40 %	9.58 %
8. Expected Investment Increment		8.50 %
9. Investment Gain (Loss):		
a. As a % of mean assets: (7) - (8)		1.08 %
b. \$ in millions		<u>\$ 78.3</u>

* Based on the approximation formula: $I / [.5 x (A+B-I)]$, where

I = Investment increment
A = Beginning of year asset value
B = End of year asset value

Salary Increases
To Members Active Both at Beginning & End of Year
During Plan Year 2007 - 2008

Age Groups	Number	Salary Increases	
		Actual*	Expected
Below 25	919	7.9%	6.7%
25- 29	3,563	7.3%	6.4%
30- 34	4,396	6.2%	6.1%
35- 39	5,612	5.7%	5.7%
40- 44	6,260	5.3%	5.3%
45- 49	7,855	5.2%	5.0%
50- 54	8,055	4.9%	4.7%
55- 59	6,767	4.5%	4.7%
60-64	3,558	4.4%	4.0%
65 & Over	1,121	4.1%	4.0%
Total	48,106		
Average		5.3%	5.1%

* Excludes new entrants and terminations.

Assumed Payroll Growth	Actual Payroll Growth		
	2008	2007	2006
4.0%	3.8%	3.9%	(1.6)%

**Active Members Who Retired With
SERVICE OR REDUCED SERVICE RETIREMENT BENEFITS
During Plan Year 2007 - 2008**

Ages	Men		Women		Total	
	Actual	Expected	Actual	Expected	Actual	Expected
Under 50	3	1.2	17	6.6	20	7.8
50	4	3.0	18	14.3	22	17.2
51	8	5.3	25	19.6	33	24.9
52	15	10.3	37	20.2	52	30.5
53	11	12.4	36	20.2	47	32.5
54	13	11.7	30	20.5	43	32.2
55	26	19.0	47	27.0	73	46.0
56	38	23.2	51	29.5	89	52.7
57	33	40.7	57	55.3	90	96.0
58	36	39.5	59	52.4	95	91.9
59	42	35.4	54	50.1	96	85.5
60	60	37.1	56	44.0	116	81.1
61	43	38.7	47	40.2	90	78.9
62	67	95.3	73	106.8	140	202.1
63	34	38.4	57	38.9	91	77.4
64	31	39.3	31	44.3	62	83.6
65	42	54.2	42	58.0	84	112.1
66	39	24.7	43	25.9	82	50.6
67	21	16.9	19	17.4	40	34.4
68	12	10.8	12	14.3	24	25.1
69	7	8.3	9	6.2	16	14.5
70 & Over	36	68.7	40	55.9	76	124.6
Totals	621	634.0	860	767.8	1,481	1,401.6

	Men	Women	Total
Average age at retirement	61.7 years	61.0 years	60.8 years
Average service at retirement	21.7 years	22.9 years	22.2 years

**Active Members Who Retired With DISABILITY BENEFITS
During Plan Year 2007 - 2008**

Ages	Men		Women		Total	
	Actual	Expected	Actual	Expected	Actual	Expected
Under 25	-	0.0	-	0.0	-	0.0
25- 29	-	0.5	1	1.1	1	1.6
30- 34	4	1.8	3	3.2	7	5.0
35- 39	2	3.7	8	6.9	10	10.6
40- 44	9	5.7	12	11.1	21	16.9
45- 49	15	9.8	17	19.4	32	29.2
50- 54	16	16.8	23	25.6	39	42.4
55- 59	15	22.4	19	29.6	34	52.0
60 & Over	5	7.7	7	11.5	12	19.2
Totals	66	68.4	90	108.4	156	176.8

	Men	Women	Total
Average age at disability	50.1 years	49.8 years	49.9 years
Average service at disability	11.1 years	9.6 years	10.3 years

**Active Members Who Died
During Plan Year 2007 - 2008**

Ages	Men		Women		Total	
	Actual	Expected	Actual	Expected	Actual	Expected
Under 30	2	0.2	-	0.2	2	0.4
30- 34	2	0.7	1.0	0.9	3	1.5
35- 39	2	1.5	1	1.7	3	3.2
40- 44	3	2.6	3	2.8	6	5.4
45- 49	4	6.0	1	5.3	5	11.3
50- 54	13	12.1	3	9.4	16	21.5
55- 59	4	17.9	3	14.3	7	32.2
60- 64	3	16.9	2	11.7	5	28.6
65 & Over	4	11.2	-	6.4	4	17.6
Totals	37	69.1	14	52.8	51	121.8

	Men	Women	Total
Average age at death	51.4 years	50.3 years	51.1 years
Average service at death	11.6 years	7.4 years	10.5 years

Of the 51 active members who died in service during 2007-2008, 42 members had a benefit payable to a survivor.

Active Members Who Left Active Status with a DEFERRED BENEFIT
(Retirement with Monthly Payments Beginning At Later Age)
During Plan Year 2007 - 2008

Ages	Men		Women		Total	
	Actual	Expected	Actual	Expected	Actual	Expected
Under 30	46	43.3	74	78.2	120	121.6
30- 34	96	86.4	187	168.0	283	254.4
35- 39	124	96.5	216	170.0	340	266.5
40- 44	105	87.1	173	158.6	278	245.7
45- 49	98	86.4	172	178.8	270	265.2
50- 54	96	70.3	138	134.3	234	204.6
55- 59	49	51.2	104	87.1	153	138.2
60 & Over	13	14.8	23	24.5	36	39.3
Totals	627	536.0	1,087	999.5	1,714	1,535.5

	Men	Women	Total
Average age at termination	42.9 years	42.8 years	42.8 years
Average service at termination	9.7 years	9.9 years	9.8 years

**Active Members Who Left Active Status with NO BENEFIT PAYABLE
(Other than Deaths)
During Plan Year 2007 - 2008**

Ages	Men		Women		Total	
	Actual	Expected	Actual	Expected	Actual	Expected
Under 20						
20- 24	136	78.8	240	145.2	376	224.0
25- 29	289	189.0	524	332.4	813	521.4
30- 34	180	127.4	276	198.1	456	325.5
35- 39	143	96.7	216	166.0	359	262.7
40- 44	72	83.9	157	144.8	229	228.7
45- 49	93	85.6	156	147.6	249	233.2
50- 54	72	81.5	96	116.1	168	197.6
55- 59	54	70.4	69	85.5	123	155.9
60- 64	29	35.9	27	37.6	56	73.5
65- 69	8	9.1	10	7.9	18	17.0
70 & Over	3	3.9	5	2.7	8	6.6
Totals	1,079	862.2	1,776	1,383.9	2,855	2,246.1

	Men	Women	Total
Average age at termination	36.4 years	35.3 years	35.7 years
Average service at termination	2.2 years	1.9 years	2.0 years

Service at Termination	Men		Women		Total	
	Actual	Expected	Actual	Expected	Actual	Expected
0	379	272.9	714	457.2	1,093	730.1
1	250	215.7	431	357.6	681	573.3
2	181	160.9	319	256.0	500	416.9
3	154	130.7	178	172.1	332	302.8
4	115	82.0	134	141.0	249	223.0
5 & Over	0	0.0	0	0.0	0	0.0
Totals	1,079	862.2	1,776	1,383.9	2,855	2,246.1

**Comparison of Actual to Expected Deaths
Among Retired Lives
(Service Retirement Only)
As of June 30, 2008**

Age	Male Deaths			Female Deaths			Total Deaths		
	Actual	Expected	Exposure	Actual	Expected	Exposure	Actual	Expected	Exposure
50-54	4	1	280	4	2	658	8	3	938
55-59	14	13	1,534	15	13	2,306	29	26	3,840
60-64	26	29	2,177	39	26	3,189	65	55	5,366
65-69	33	45	2,015	42	38	2,978	75	83	4,993
70-74	55	58	1,566	60	51	2,311	115	109	3,877
75-79	54	63	1,098	66	64	1,726	120	127	2,824
80-84	65	63	678	87	72	1,263	152	135	1,941
85-89	40	36	268	74	64	690	114	100	958
90-94	20	15	82	56	32	237	76	47	319
95-99	6	6	17	30	9	50	36	15	67
100 & Up					1	2		1	2
Totals	317	329	9,715	473	372	15,410	790	701	25,125
Average Ages	76.3	75.7	67.7	79.0	77.9	68.3	77.9	76.9	68.1

DATA USED IN VALUATIONS

**Missouri State Employees' Retirement System
 Summary of Benefit Provisions Evaluated
 June 30, 2008 Actuarial Valuation**

MSEP (Missouri State Employees' Plan)	MSEP 2000 (Missouri State Employees' Plan 2000)
<p>PARTICIPATION</p> <p>Participants include:</p> <p>All MOSERS members, vested former members, retirees and survivors who first became members prior to July 1, 2000 and who do not elect to transfer to the MSEP 2000 plan. Election is made at the time benefits commence.</p>	<p>Participants include:</p> <ol style="list-style-type: none"> (1) All new employees who first become members on or after July 1, 2000, except full-time teaching and senior administrative personnel of the regional colleges and universities hired on or after July 1, 2002 who will be participants in the Colleges and Universities Retirement Plan. (2) MSEP active members and vested former members who elect to transfer to the MSEP 2000 plan prior to retirement. (3) MSEP retirees who elect to transfer to the MSEP 2000 plan during the election window from July 1, 2000 through July 1, 2001, and their survivors.

NORMAL RETIREMENT ELIGIBILITY (unreduced benefits)

Members of the General Assembly:

Age 55 with completion of at least 3 full biennial assemblies.

Members of the General Assembly:

- (1) Age 55 with completion of at least 2 full biennial assemblies.
- (2) Age 50 with completion of at least 2 full biennial assemblies and with age plus credited service equal to 80 or more.

Statewide Elected Officials:

The earliest of attaining:

- (1) Age 65 with at least 4 years of credited service.
- (2) Age 60 with at least 15 years of credited service.
- (3) Age 50 with age plus credited service equal to 80 or more.

- (1) Age 55 with at least 4 years of credited service as a statewide elected official.
- (2) Age 50 with age plus credited service equal to 80 or more.

General Employees:

The earliest of attaining:

- (1) Age 65 and active with at least 4 years of credited service.
- (2) Age 65 with at least five years of credited service.
- (3) Age 60 with at least 15 years of credited service.
- (4) Age 48 with age plus credited service equal to 80 or more.

- (1) Age 62 with at least 5 years of credited service.
- (2) Age 48 with age plus credited service equal to 80 or more.

Uniform Water Patrol Employees:

The earliest of attaining:

- (1) Age 55 and active with at least 4 years of credited service.
- (2) Age 55 with at least 5 years of credited service.
- (3) Age 48 with age plus credited service equal to 80 or more.

AVERAGE COMPENSATION USED FOR BENEFIT DETERMINATION

The average annual compensation of a member for the three consecutive years of service during which pay was highest (overtime pay is included for purposes of determining Average Compensation). Lump sum payments are excluded, but unused sick leave may be converted to additional credited service (usable only for benefit computation, not eligibility).

The average annual pay of a member for the three consecutive years of service during which pay was highest (overtime pay is included for purposes of determining Average Pay). A lump sum payment is included unless it is for unused vacation or sick leave. However, unused sick leave may be converted to additional credited service (usable only for benefit computation, not eligibility).

BENEFIT AMOUNT

Members of the General Assembly:

\$150 per month per biennial assembly served.

Statewide Elected Officials:

- (1) Less than 12 years of credited service:
1.6% of Average Compensation times years of credited service.
- (2) 12 or more years of credited service:
50% of pay of the highest elected position held prior to retirement.

General Employees:

1.6% of Average Compensation times years of credited service.

2.1% of Average Compensation times years of credited service for any period of non-social security covered employment transferred from the Public School Retirement System.

Members of the General Assembly:

1/24 of pay times first 24 years of credited service as a member of the General Assembly.

Statewide Elected Officials:

1/24 of pay (of the highest elected position held prior to retirement) times the first 12 years of credited service as a statewide elected official.

General Employees:

Life Benefit: 1.7% of Average Pay times years of credited service.

Temporary Benefit: If member retires between ages 50 and 62 with age plus credited service equal to 80 or more, a temporary benefit is payable until the attainment of the minimum age at which reduced social security benefits are payable, in the amount of 0.8% of Average Pay times years of credited service.

Non- Social Security Covered Service: 2.5% of Average Pay times years of credited service for any period of non-social security covered employment transferred from the Public School Retirement System.

Uniformed Water Patrol Employees:

2.13% of Average Compensation times years of credited service.

EARLY RETIREMENT FOR GENERAL EMPLOYEES:

Eligibility:

Age 55 with at least 10 years of credited service.

Amount:

- (1) Less than 15 years of service: Normal retirement amount actuarially reduced for years younger than age 65.
- (2) 15 years but less than 20 years of service, and less than the number of years of service necessary for age and service to total 80: Normal retirement amount actuarially reduced for years younger than age 60.
- (3) 20 or more years of service, but less than the number of years of service necessary for age and service to total 80: Normal retirement amount reduced for years younger than the 80 and out eligibility date.

VESTED DEFERRED BENEFITS

Benefits for employees who terminate prior to eligibility for an immediate benefit are considered to be vested in accordance with the following schedule (benefits commence at the age the individual would have been eligible for early or normal retirement, considering years of credited service). Unused sick leave is not converted.

Years of Service	General Assembly	Statewide Elected Officials	General Employees
4		100%	100%
5			
6 (3 assemblies)	100%		

Eligibility:

Age 57 with at least 5 years of credited service.

Amount:

Normal retirement amount reduced by ½% for each month that retirement precedes eligibility for normal retirement.

Benefits for employees who terminate prior to eligibility for an immediate benefit are considered to be vested in accordance with the following schedule (benefits commence at age 57). Unused sick leave is converted to additional credited service.

Years of Service	General Assembly	Statewide Elected Officials	General Employees
4 (2 assemblies)	100%	100%	100%
5			
6 (3 Assemblies)	100%		
HB1455 prospectively			

DEATH PRIOR TO RETIREMENT

(1) The surviving spouse benefit is computed as if the member had been normal retirement age on the date of death and elected the joint and 100% survivor optional form of payment, provided the member had at least 5 years of credited service and was married for at least two consecutive years immediately prior to the date of death. If no eligible spouse survives, 80% of the member's life income annuity is paid to eligible children until age 21. If the death is duty related, the service requirement is waived, and the minimum spouse benefit is 50% of current pay.

(2) For members of the General Assembly, the surviving spouse receives 50% of the benefit the member would have received if the member had been normal retirement age on the date of death, provided the member had served in at least 3 biennial assemblies, and was married for at least two consecutive years immediately prior to the date of death. If the death is duty related, the service requirement is waived, and the minimum spouse benefit is 50% of current pay.

The surviving spouse benefit is computed as if the member had been normal retirement age on the date of death and elected the joint and 100% survivor option form of payment, provided the member had at least 5 years of credited service (2 full assemblies for a member of the General Assembly, 4 years of credited service for a statewide elected official). If no eligible spouse survives, 80% of the member's life income annuity is paid to eligible children until age 21. If the death is duty related, the service requirement is waived, and the minimum spouse benefit is 50% of current pay.

DEATH AFTER RETIREMENT

50% of the benefit the retired member was receiving on the date of death (the normal form of payment), or the benefit payable under the joint and survivor or period certain form of payment, if the member elected an optional form of payment at time of retirement and provided the member was married for at least two consecutive years prior to the date of retirement. Effective July 1, 2000, a member who is not married at retirement but marries thereafter may designate a spouse as beneficiary upon completion of one year of marriage. Additionally, a member may designate a new spouse as beneficiary upon completion of one year of marriage in the event of the death of the spouse the member was married to at the date of retirement (this provision does not apply to period certain annuities).

The benefit payable under the joint and survivor or period certain form of payment, if the member elected an optional form of payment at time of retirement. A member who is not married at retirement but marries thereafter may designate a spouse as beneficiary upon completion of one year of marriage. Additionally, a member may designate a new spouse as beneficiary upon completion of one year of marriage in the event of the death of the spouse the member was married to at the date of retirement (this provision does not apply to period certain annuities).

DISABILITY (RECIPIENTS OF LTD BENEFITS)

Normal retirement benefits become payable at the time the member is eligible for normal retirement, and are computed based on: i) the service that would have accrued to the member if active employment had continued; and ii) the member's rate of pay at the time of disability (If the member retires on or after August 28, 1999, the member's rate of pay is based on the rate of pay at the time of disability indexed to the time of benefit commencement). An exception is Uniformed Water Patrol employees who are eligible for an immediate occupational disability benefit equal to 50% of pay at time of disability.

Normal retirement benefits become payable at the time the member is eligible for normal retirement, and are computed based on: i) the service that would have accrued to the member if active employment had continued; and ii) the member's rate of pay at the time of disability indexed to the time of benefit commencement. The annual percentage increase in the pay used to compute benefits is the lesser of: i) 80% of the CPI increase and ii) 5%.

POST-RETIREMENT BENEFIT ADJUSTMENTS

Benefits are increased to retired members (including survivors) annually in accordance with the following formulas:

Increase in CPI	Formula 1 Benefit Increase	Formula 2 Benefit Increase
5.00% or less	4%	80% of CPI increase
5.01% - 6.24%	80% of CPI increase	80% of CPI increase
6.25% or more	5%	5%

Members first hired prior to August 28, 1997 receive COLAs based on Formula 1 until an aggregate increase of 65% is reached. At that point subsequent COLAs based on Formula 2 are granted.

Members first hired on or after August 28, 1997 receive COLAs based solely on Formula 2.

Statewide Elected Officials with 12 or more years of service have their benefit adjusted annually based on the increase in the pay for an active statewide elected official in the member's highest elected position.

Members who are fully vested and work beyond age 65 will have their monthly benefit increased upon retirement. The percentage increase in benefit is equal to all COLAs for the years between age 65 and date of retirement, not to exceed 65% and counts toward the Formula 1 65% maximum.

Benefits are increased to retired members (including survivors) annually in accordance with the following:

Members of the General Assembly: Benefit is adjusted annually based on the increase in the pay for an active member of the General Assembly.

Statewide Elected Officials: Benefit is adjusted annually based on the increase in the pay for an active statewide elected official in the retired member's highest elected position.

General Employees: Annual benefit percentage increase equal to the lesser of: i) 80% of the CPI increase, and ii) 5%.

POP-UP PROVISION

Benefits to members who choose a survivor form of payment and whose spouse predeceases the member in death, will "pop-up" or revert to the amount the member would have received had he/she not elected a survivor option.

Same.

PORTABILITY

Purchase/Transfer Provisions (in addition to military). Effective August 28, 1999, a member may purchase up to four years of non-federal full-time Missouri public service, provided the member is not vested in another retirement system for that same service.

Purchase/Transfer Provisions (in addition to military). A member may purchase up to four years of non-federal full-time Missouri public service, provided the member is not vested in another retirement system for that same service. Local vested service credit granted after 10 years of state service if the other retirement plan agrees to transfer assets equal to the accrued liability to MOSERS.

MEMBER CONTRIBUTIONS. None.

Same.

BACKDROP. See following page.

Same.

BACKDROP

To be eligible to participate in the BackDROP, a member must have been eligible to retire under normal age and/or service conditions for at least two years. A retroactive starting date is established for BackDROP purposes which is the later of: 1) the member's normal retirement date or 2) five years prior to the annuity starting date under the retirement plan selected by the member.

A member may elect the back DROP period for the accumulation of the BackDROP account in 12 month increments prior to their actual retirement date or back to the earliest possible date. This results in a BackDROP period of two to five years depending upon the individual situation.

A theoretical BackDROP account is accumulated that includes 90% of the value of the benefit payments that would have been paid during the BackDROP period had the member retired at the retroactive starting date with their respective option election. These payments include applicable post-retirement benefit increases.

The member is paid the resulting lump sum value of the BackDROP account as of the annuity starting date or as three equal annual installments beginning at the annuity starting date.

The annuity benefit payable from the actual retirement date is computed with years of service and average pay as of the retroactive starting date for the BackDROP. Post-retirement benefit increases that occurred during the BackDROP period are applied in the calculation of the monthly annuity.

Same.

**Retirants & Beneficiaries as of June 30, 2008
Tabulated by Plan Year of Retirement**

Calendar Year Ended 12/31	No.	Total Annual Benefits	Average Monthly Benefit
2008 *	1,035	\$ 15,463,765	\$1,245
2007	2,388	32,429,280	\$1,132
2006	2,252	31,993,320	1,184
2005	2,053	28,865,268	1,172
2004	1,527	20,747,952	1,132
2003	2,786	45,649,032	1,365
2002	2,070	31,988,880	1,288
2001	1,750	28,560,144	1,360
2000	2,301	38,116,740	1,380
1999	1,278	19,109,520	1,246
1998	1,235	19,159,068	1,293
1997	1,066	16,202,160	1,267
1996	950	13,679,544	1,200
1995	1,036	15,634,632	1,258
1994	735	9,678,816	1,097
1993	787	11,139,960	1,180
1992	669	8,983,548	1,119
1991	659	9,670,812	1,223
1990	496	6,743,304	1,133
1989	487	6,059,184	1,037
1988	482	6,173,664	1,067
1987	359	3,799,044	882
1986	329	2,893,020	733
1985	261	2,434,500	777
1984	205	1,881,396	765
1983	200	1,855,968	773
1982	170	1,491,348	731
1981	136	1,189,464	729
1980	88	728,472	690
1979	61	395,568	540
1978	69	520,896	629
1977	70	485,568	578
1976	53	336,264	529
1975	37	289,176	651
1974	23	115,392	418
1973	20	131,280	547
1972	3	12,876	358
1971	3	12,720	353
1969	1	6,000	500
1966	1	5,844	487
1964 & PRIOR	1	8,304	692
Totals	30,132	\$434,641,693	\$1,202

* Five months ended May 31, 2008.

Benefits Payable June 30, 2008

Tabulated by Option and Type of Benefit

MSEP Benefits

Type of Benefit	No.	Annual Funded Benefits
Service Retirement		
Life Annuity	4,830	\$ 52,824,646
50% Joint and Survivor	5,113	75,684,127
75% Joint and Survivor	3	48,068
100% Joint and Survivor	2,410	41,758,075
5 Year Certain and Life	123	1,200,723
10 Year Certain and Life	118	976,630
Survivor Beneficiary	<u>1,892</u>	<u>18,494,710</u>
Total	14,489	190,986,979
Disability Retirement	11	36,408
Death-in-Service	1,331	11,680,836
Total	15,831	\$ 202,704,223

MSEP 2000 Benefits

Type of Benefit	No.	Annual Funded Benefits
Service Retirement		
Life Annuity	9,148	\$ 137,260,520
50% Joint and Survivor	2,174	47,362,831
100% Joint and Survivor	2,016	37,325,991
5 Year Certain and Life	45	637,238
10 Year Certain and Life	362	4,337,079
15 Year Certain and Life	248	2,264,492
Survivor Beneficiary	<u>281</u>	<u>2,674,224</u>
Total	14,274	231,862,375
Disability Retirement	0	0
Death-in-Service	27	75,095
Total	14,301	\$ 231,937,470

Total Benefits Payable June 30, 2008

Tabulated by Attained Ages of Benefit Recipients

Attained Ages	Service Retirement		Disability Retirement		Survivors and Beneficiaries		Totals	
	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits
Under 20					73	\$ 304,499	73	\$ 304,499
20-24					29	150,532	29	150,532
25-29					4	28,752	4	28,752
30-34					24	166,445	24	166,445
35-39					40	210,284	40	210,284
40-44					67	420,004	67	420,004
45-49	13	\$ 384,336			106	795,922	119	1,180,258
50-54	715	19,714,837	1	1,956	193	1,625,005	909	21,341,798
55-59	3,642	77,873,441	6	22,320	321	2,988,613	3,969	80,884,374
60-64	5,837	90,112,188	4	12,132	350	3,697,590	6,191	93,821,910
65-69	5,517	69,901,298			421	4,837,183	5,938	74,738,481
70-74	4,075	56,040,227			521	5,441,709	4,596	61,481,936
75-79	3,023	43,626,852			544	5,146,892	3,567	48,773,744
80-84	2,164	27,170,572			488	4,135,090	2,652	31,305,662
85-89	1,113	12,295,075			249	2,263,521	1,362	14,558,596
90-94	395	3,847,868			82	592,525	477	4,440,393
95	33	280,494			5	74,676	38	355,170
96	28	182,676			4	14,423	32	197,099
97	13	107,179			2	11,736	15	118,915
98	5	40,272			2	6,444	7	46,716
99	12	70,621					12	70,621
100	3	17,940			1	2,484	4	20,424
101	1	8,544					1	8,544
104	1	6,000					1	6,000
106					2	3,936	2	3,936
107					1	948	1	948
108					2	5,652	2	5,652
Totals	26,590	\$ 401,680,420	11	\$ 36,408	3,531	\$ 32,924,865	30,132	\$ 434,641,693

Average age at Retirement: 60.3 years.

Average age now: 69.0 years.

Summary of Member Data Included in Valuation

June 30, 2008

Active Members

Valuation Group	Number	Payroll	Group Averages		
			Salary	Age(yrs.)	Service(yrs.)
Regular State Employees	50,645	\$ 1,710,675,180	\$ 33,778	44.7	10.3
Elected Officials	6	638,346	106,391	48.4	7.3
Legislative Clerks	49	1,537,942	31,387	58.3	18.7
Legislators	195	6,124,197	31,406	50.8	5.6
Uniformed Water Patrol	95	5,395,032	56,790	39.3	14.3
Conservation Department	1,532	62,826,394	41,009	44.2	13.8
Contract Employees	1,980	125,538,549	63,403	54.3	18.5
Administrative Law Judges	40	3,791,758	94,794	53.2	14.6
Total in Funding Program	54,542	\$ 1,916,527,398	\$ 35,139	45.1	10.7
Other Judges	401	44,542,530	111,079	55.0	11.6

Retired Lives

Type of Benefit Payment	No.	Annual Benefit	Group Averages	
			Benefit	Age(yrs.)
Retirement	26,590	\$ 401,680,420	\$ 15,106	69.1
Disability	11	36,408	3,310	57.9
Survivor of Active Member	1,358	11,755,931	8,657	59.6
Survivor of Retired Member	2,173	21,168,934	9,742	74.1
Total in Funding Program	30,132	\$ 434,641,693	\$ 14,425	69.0
Other Judges	440	22,514,693	51,170	75.2

This valuation also includes 17,069 terminated vested members, 328 members on leave and 992 members on long-term disability.

Active Members in Funding Program as of June 30, 2008

By Age and Years of Service#*

Near Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 plus	No.	Valuation Payroll
15-19	60							60	\$ 1,152,730
20-24	1,670	22						1,692	40,774,198
25-29	3,921	798	12					4,731	135,346,918
30-34	2,616	2,078	531	6				5,231	165,191,508
35-39	2,092	1,976	1,755	369	26			6,218	207,891,342
40-44	1,788	1,679	1,501	1,211	538	34		6,751	237,057,693
45-49	1,835	1,794	1,508	1,195	1,274	679	67	8,352	303,311,720
50-54	1,586	1,620	1,455	1,214	1,256	955	525	8,611	324,193,759
55-59	1,215	1,463	1,271	1,200	1,062	605	579	7,395	284,327,971
60	203	258	171	202	148	82	74	1,138	42,574,523
61	177	245	217	185	140	54	70	1,088	41,586,317
62	136	189	175	139	120	61	69	889	35,095,096
63	78	129	115	93	70	37	30	552	22,465,512
64	54	111	82	71	59	29	33	439	17,583,678
65	42	92	87	62	52	23	41	399	16,632,168
66	36	76	43	38	24	14	32	263	11,141,693
67	16	35	52	30	17	8	21	179	6,751,179
68	12	32	29	18	13	7	16	127	5,370,595
69	14	21	19	18	9	3	18	102	4,546,812
70 & Over	53	59	64	47	39	17	46	325	13,531,986
Totals	17,604	12,677	9,087	6,098	4,847	2,608	1,621	54,542	\$ 1,916,527,398

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Age: 45.1 years.

Service: 10.7 years.

Annual Pay: \$35,139

Includes 40 ALJ members.

* A breakdown by gender is included on pages 66 and 67.

Development of Actuarial Value of Assets

Valuation Date:	2007	2008	2009	2010	2011	2012
A. Actuarial Value Beginning of Year	\$6,836,567,188	\$7,377,289,283				
B. Market Value End of Year	8,056,993,537	7,934,030,312				
C. Market Value Beginning of Year	6,988,714,635	8,056,993,537				
D. Cash Flow						
D1. Contributions	243,122,610	252,893,358				
D2. Benefit Payments	(447,292,751)	(480,105,334)				
D3. Administrative Expenses	(6,689,710)	(6,950,878)				
D4. Net	(210,859,851)	(234,162,854)				
E. Investment Income						
E1. Market Total: B - C - D4	1,279,138,753	1,111,99,629				
E2. Assumed Rate	8.5%	8.5%				
E3. Amount for Immediate Recognition: E2*(A+D4*.5)	572,146,667	617,117,668				
E4. Amount for Phased-In Recognition: E1 - E3	706,992,086	(505,918,039)				
F. Phased-In Recognition of Investment Income						
F1. Current Year: 0.2 * E4	141,398,417	(101,183,608)				
F2. First Prior Year	38,036,862	141,398,417	\$ (101,183,608)			
F3. Second Prior Year		38,036,862	141,398,417	\$ (101,183,608)		
F4. Third Prior Year			38,036,861	141,398,418	\$ (101,183,607)	
F5. Fourth Prior Year			78,251,670	40,214,810	(101,183,607)	
F6. Total Recognized Investment Gain: Sum(F1:F5)	179,435,279	78,251,671	78,251,670	40,214,810	(101,183,607)	
G. Adjustment	-					
H. Actuarial Value End of Year: A + D4 + E3 + F6 + G						
Minimum 80% of B, Maximum 120% of B	\$7,377,289,283	\$7,838,495,768				
I. Difference Between Market & Actuarial Values: B-H	679,704,254	95,534,544				
J. Recognized Rate of Return	11.17%	9.58%				
K. Market Value Rate of Return	18.58%	1.40%				
L. Actuarial Value as a % of Market Value: H / B	9.2%	99%				

The actuarial value of assets recognizes assumed investment income (line E3) fully each year. Differences between actual and assumed investment income (line E4) are phased-in over a closed 5-year period. During periods when investment performance exceeds the assumed rate, the actuarial value of assets will tend to be less than market value. During periods when investment performance is less than assumed, the actuarial value will tend to be greater than market value. If assumed rates are exactly realized for four consecutive years, the actuarial value will become equal to market value.

Asset Summary

June 30, 2008

	Market Value	Actuarial Value
1. Assets at June 30, 2007	\$8,056,993,537	\$7,377,289,283
2. Contributions and Transfers in	252,893,358	252,893,358
3. Investment Increment*	111,199,629	695,369,339
4. Benefit Payments and Transfers out	480,105,334	480,105,334
5. Administrative and Misc. Expenses	6,950,878	6,950,878
6. Assets at June 30, 2008 (1) + (2) + (3) - (4) - (5)	\$7,934,030,312	\$7,838,495,768
7. Investment Increment/Mean Assets**	1.40%	9.58%

* *Net of investment expenses.*

** *Based on the approximation formula: $I / [.5 \times (A+B-I)]$, where*

I = Investment Increment

A = Beginning of year asset value

B = End of year asset value

CASH FLOW PROJECTION

The Nature of Actuarial Projections

Regular actuarial valuations measure the Retirement System's present financial position and contributions adequacy by calculating and financing the liabilities created by the present benefit program. This process involves discounting to present values the future benefit payments on behalf of present active and retired members and their survivors. However, valuations do not produce information regarding future changes in the makeup of the covered group or the amounts of benefits to be paid or investment income to be received--actuarial projections do.

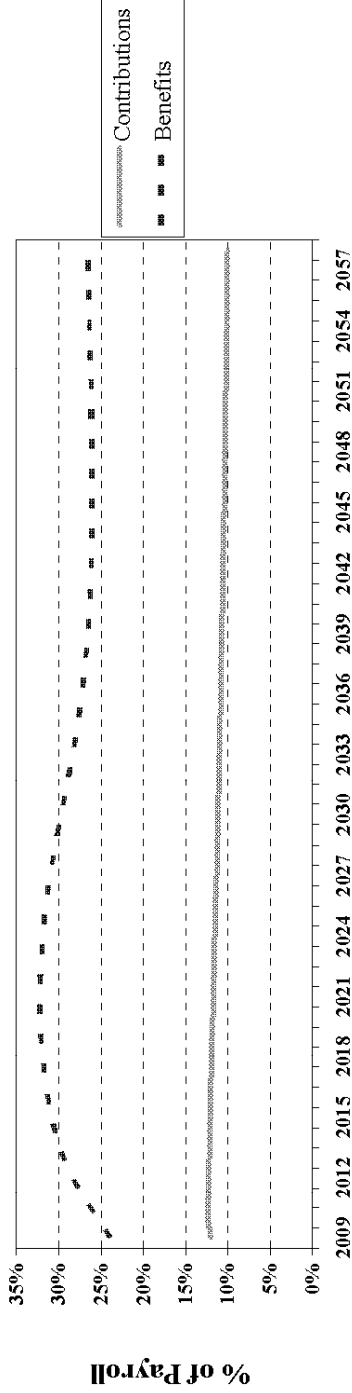
Whereas valuations provide a snapshot of the retirement system as of a given date, projections provide a moving picture. Projected active and retired groups are developed from year to year by the application of assumptions regarding pre-retirement withdrawal from service, retirements, deaths, disabilities, and the addition of new members. Projected information regarding the retired life group leads to assumed future benefit payout. Combining future benefit payments with assumed contributions and expected investment earnings produces the net cash flow of the System each year, and thus end of year asset levels.

Projections are used for many purposes. Among them are (i) developing cash flow patterns for investment policy and asset mix consideration, (ii) exploring the effect of alternative assumptions about future experience, (iii) analyzing the impact on system funding progress of changes in the workforce, and (iv) examining the potential effect of changes in benefits on system financial activity.

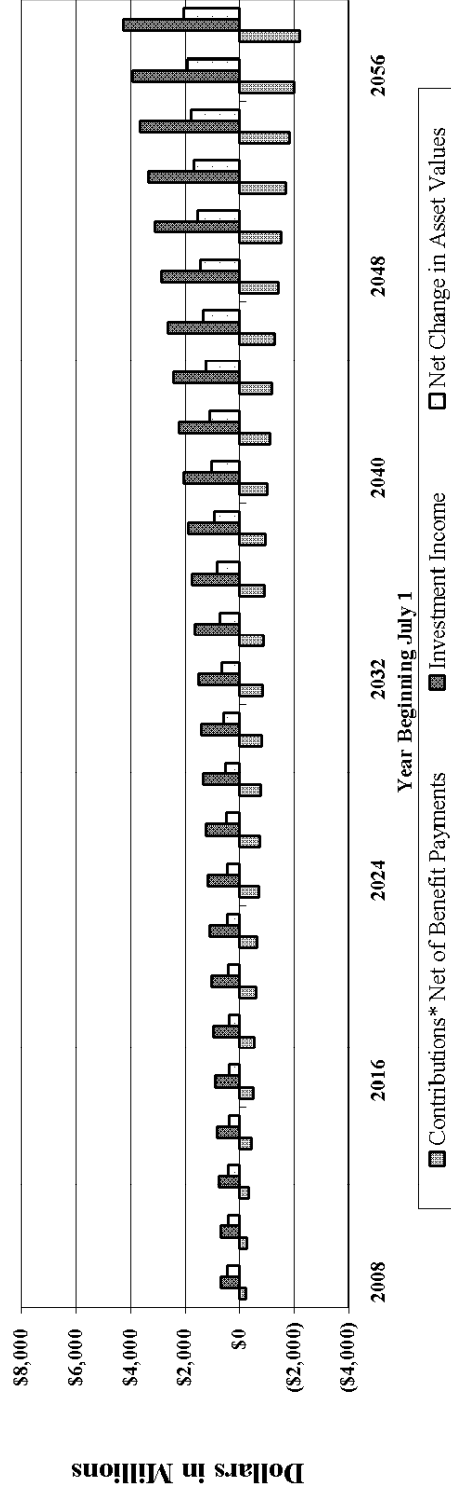
Projection results are useful in demonstrating changing relationships among key elements affecting system financial activity. For example: how benefits payable and system assets will grow in future decades. Projections are not predictions of specific future events and do not provide numeric precision in absolute terms. For instance, cash flow projected to occur 10 years in the future will not be exact (except by coincidence), but understanding the changed relationships between future benefit payout and future investment income can be very useful.

50-Year Cash Flow Projection Based on Valuation Assumptions

Projected Contributions* and Benefits Expressed as Percents of Active Member Payroll



Net Change in Asset Values



* Does not include contributions for administrative expenses.

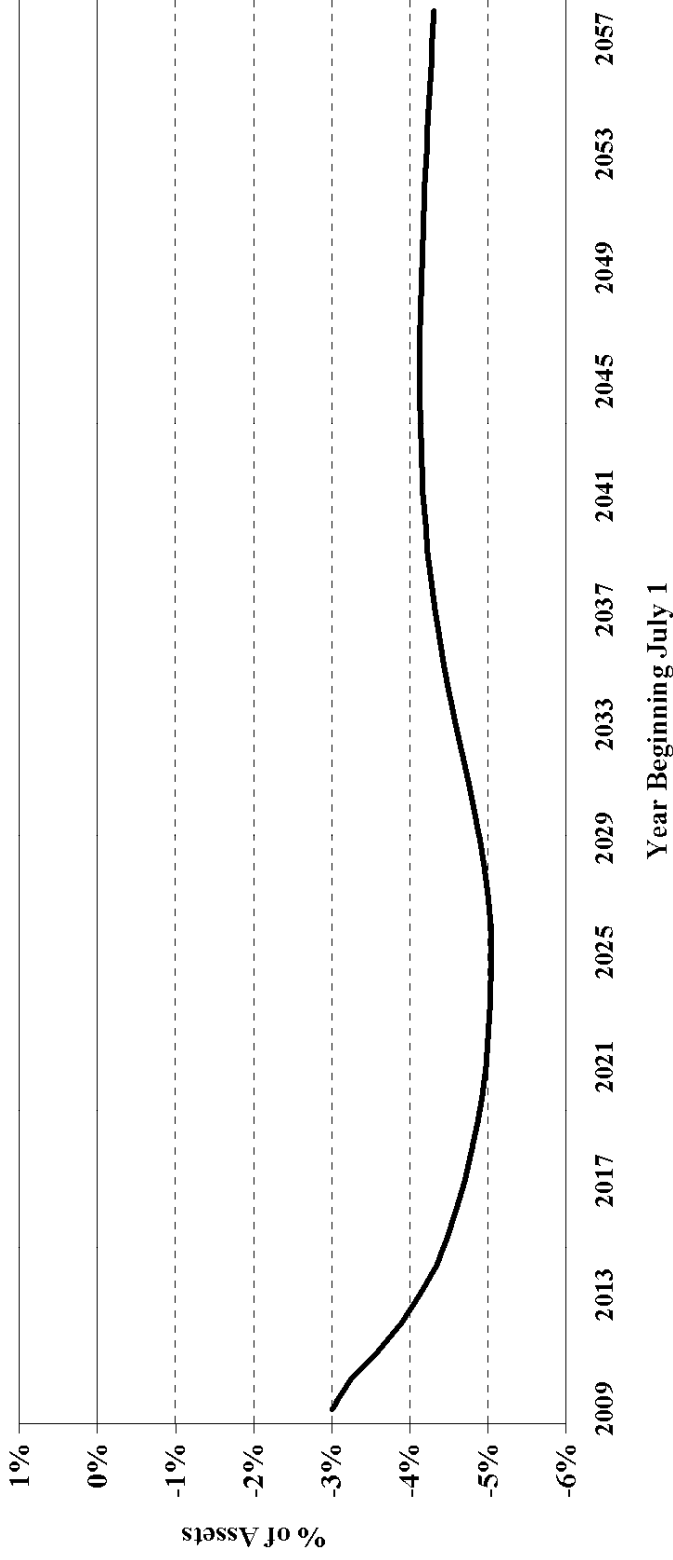
Fifty-Year Cash Flow Projection (in Thousands)

Year Ended June 30	Assets BOY	Contributions*			Benefits	Investment Income	Assets EOY	
		Normal	UAAL	Total			Inflated	2009 \$
2009	\$7,838,496	\$166,444	\$72,583	\$239,027	\$474,775	\$656,253	\$8,259,001	\$8,259,001
2010	8,259,001	172,313	83,377	255,690	523,051	690,652	8,682,292	8,348,358
2011	8,682,292	178,409	83,882	262,291	574,787	724,714	9,094,510	8,408,385
2012	9,094,510	184,753	85,595	270,348	624,938	757,962	9,497,882	8,443,583
2013	9,497,882	191,383	87,353	278,736	671,934	790,610	9,895,294	8,458,539
2014	9,895,294	198,327	89,152	287,479	717,172	822,838	10,288,439	8,456,347
2015	10,288,439	205,606	90,988	296,594	756,854	854,957	10,683,136	8,443,037
2016	10,683,136	213,278	92,876	306,154	796,977	887,206	11,079,519	8,419,524
2017	11,079,519	221,352	94,794	316,146	837,071	919,620	11,478,214	8,387,018
2018	11,478,214	229,846	96,745	326,591	876,749	952,265	11,880,321	8,346,956
2019	11,880,321	238,785	98,734	337,519	916,280	985,230	12,286,790	8,300,515
2020	12,286,790	248,169	100,749	348,918	954,562	1,018,638	12,699,784	8,249,537
2021	12,699,784	258,015	102,800	360,815	992,814	1,052,621	13,120,406	8,194,967
2022	13,120,406	268,341	104,888	373,229	1,030,480	1,087,302	13,550,457	8,138,053
2023	13,550,457	279,153	107,007	386,160	1,068,272	1,122,800	13,991,145	8,079,538
2024	13,991,145	290,463	109,163	399,626	1,105,762	1,159,237	14,444,246	8,020,377
2025	14,444,246	302,298	111,361	413,659	1,143,070	1,196,761	14,911,596	7,961,423
2026	14,911,596	314,668	113,596	428,264	1,179,265	1,235,568	15,396,163	7,903,978
2027	15,396,163	327,584	115,869	443,453	1,213,997	1,275,926	15,901,545	7,849,450
2028	15,901,545	341,072	118,187	459,259	1,247,775	1,318,120	16,431,149	7,798,920
2029	16,431,149	355,149	120,547	475,696	1,280,506	1,362,442	16,988,781	7,753,458
2030	16,988,781	369,818	122,946	492,764	1,312,996	1,409,186	17,577,735	7,713,701
2031	17,577,735	385,087	125,385	510,472	1,345,239	1,458,630	18,201,598	7,680,262
2032	18,201,598	400,964	127,869	528,833	1,378,737	1,511,015	18,862,709	7,653,098
2033	18,862,709	417,463	130,399	547,862	1,413,712	1,566,532	19,563,391	7,632,099
2034	19,563,391	434,593	132,976	567,569	1,450,733	1,625,353	20,305,580	7,616,964
2035	20,305,580	452,371	135,603	587,974	1,490,381	1,687,622	21,090,795	7,607,223
2036	21,090,795	470,818	138,283	609,101	1,532,922	1,753,455	21,920,429	7,602,368
2037	21,920,429	489,954	141,016	630,970	1,579,005	1,822,945	22,795,339	7,601,732
2038	22,795,339	509,799	143,803	653,602	1,628,376	1,896,175	23,716,740	7,604,806
2039	23,716,740	530,379	146,648	677,027	1,681,306	1,973,241	24,685,702	7,611,063
2040	24,685,702	551,726	149,552	701,278	1,738,447	2,054,205	25,702,738	7,619,840
2041	25,702,738	573,877	152,518	726,395	1,799,591	2,139,121	26,768,663	7,630,620
2042	26,768,663	596,872	155,547	752,419	1,865,339	2,228,036	27,883,779	7,642,781
2043	27,883,779	620,751	158,639	779,390	1,935,360	2,320,992	29,048,801	7,655,872
2044	29,048,801	645,558	161,796	807,354	2,009,398	2,418,062	30,264,819	7,669,573
2045	30,264,819	671,336	165,018	836,354	2,087,738	2,519,326	31,532,761	7,683,548
2046	31,532,761	698,132	168,307	866,439	2,170,229	2,624,873	32,853,844	7,697,552
2047	32,853,844	725,990	171,663	897,653	2,257,050	2,734,802	34,229,249	7,711,351
2048	34,229,249	754,958	175,087	930,045	2,348,474	2,849,203	35,660,023	7,724,696
2049	35,660,023	785,084	178,581	963,665	2,444,601	2,968,162	37,147,249	7,737,365
2050	37,147,249	816,418	182,145	998,563	2,545,587	3,091,768	38,691,993	7,749,152
2051	38,691,993	849,010	185,781	1,034,791	2,651,533	3,220,108	40,295,359	7,759,876
2052	40,295,359	882,913	189,489	1,072,402	2,762,498	3,353,277	41,958,540	7,769,387
2053	41,958,540	918,182	193,272	1,111,454	2,878,657	3,491,369	43,682,706	7,777,546
2054	43,682,706	954,871	197,129	1,152,000	3,000,130	3,634,486	45,469,062	7,784,231
2055	45,469,062	993,040	201,064	1,194,104	3,126,961	3,782,724	47,318,929	7,789,351
2056	47,318,929	1,032,746	205,077	1,237,823	3,259,238	3,936,199	49,233,713	7,792,838
2057	49,233,713	1,074,051	209,170	1,283,221	3,397,108	4,095,025	51,214,851	7,794,632
2058	51,214,851	1,117,019	213,344	1,330,363	3,540,732	4,259,321	53,263,803	7,794,685

* Does not include contributions for administrative expenses.

50-Year Cash Flow Projection

Projected Net External Cash Flow Expressed as a Percent of Assets



Net External Cash Flow equals: i) Contributions to the plan, less ii) Benefits paid by the plan. A negative Net External Cash Flow means that benefits are being partly funded by investment income --- a natural consequence of advance funding.

Fifty-Year Cash Flow Projection Analysis of Projected Net Cash Flow

Year Ended June 30	External Cash Flow		Net External Cash Flow		Year Ended June 30	External Cash Flow		Net External Cash Flow	
	Inflow*	Outflow	\$	% of Assets		Inflow*	Outflow	\$	% of Assets
2009	\$ 239,027	\$ 474,775	\$ (235,748)	(3.01)%	2034	\$ 567,569	\$ 1,450,733	\$ (883,164)	(4.51)%
2010	255,690	523,051	(267,361)	(3.24)%	2035	587,974	1,490,381	(902,407)	(4.44)%
2011	262,291	574,787	(312,496)	(3.60)%	2036	609,101	1,532,922	(923,821)	(4.38)%
2012	270,348	624,938	(354,590)	(3.90)%	2037	630,970	1,579,005	(948,035)	(4.32)%
2013	278,736	671,934	(393,198)	(4.14)%	2038	653,602	1,628,376	(974,774)	(4.28)%
2014	287,479	717,172	(429,693)	(4.34)%	2039	677,027	1,681,306	(1,004,279)	(4.23)%
2015	296,594	756,854	(460,260)	(4.47)%	2040	701,278	1,738,447	(1,037,169)	(4.20)%
2016	306,154	796,977	(490,823)	(4.59)%	2041	726,395	1,799,591	(1,073,196)	(4.18)%
2017	316,146	837,071	(520,925)	(4.70)%	2042	752,419	1,865,339	(1,112,920)	(4.16)%
2018	326,591	876,749	(550,158)	(4.79)%	2043	779,390	1,935,360	(1,155,970)	(4.15)%
2019	337,519	916,280	(578,761)	(4.87)%	2044	807,354	2,009,398	(1,202,044)	(4.14)%
2020	348,918	954,562	(605,644)	(4.93)%	2045	836,354	2,087,738	(1,251,384)	(4.13)%
2021	360,815	992,814	(631,999)	(4.98)%	2046	866,439	2,170,229	(1,303,790)	(4.13)%
2022	373,229	1,030,480	(657,251)	(5.01)%	2047	897,653	2,257,050	(1,359,397)	(4.14)%
2023	386,160	1,068,272	(682,112)	(5.03)%	2048	930,045	2,348,474	(1,418,429)	(4.14)%
2024	399,626	1,105,762	(706,136)	(5.05)%	2049	963,665	2,444,601	(1,480,936)	(4.15)%
2025	413,659	1,143,070	(729,411)	(5.05)%	2050	998,563	2,545,587	(1,547,024)	(4.16)%
2026	428,264	1,179,265	(751,001)	(5.04)%	2051	1,034,791	2,651,533	(1,616,742)	(4.18)%
2027	443,453	1,213,997	(770,544)	(5.00)%	2052	1,072,402	2,762,498	(1,690,096)	(4.19)%
2028	459,259	1,247,775	(788,516)	(4.96)%	2053	1,111,454	2,878,657	(1,767,203)	(4.21)%
2029	475,696	1,280,506	(804,810)	(4.90)%	2054	1,152,000	3,000,130	(1,848,130)	(4.23)%
2030	492,764	1,312,996	(820,232)	(4.83)%	2055	1,194,104	3,126,961	(1,932,857)	(4.25)%
2031	510,472	1,345,239	(834,767)	(4.75)%	2056	1,237,823	3,259,238	(2,021,415)	(4.27)%
2032	528,833	1,378,737	(849,904)	(4.67)%	2057	1,283,221	3,397,108	(2,113,887)	(4.29)%
2033	547,862	1,413,712	(865,850)	(4.59)%	2058	1,330,363	3,540,732	(2,210,369)	(4.32)%

* Does not include contributions for administrative expenses.

The portion of investment income needed to pay benefits (the negative external cash flow) increases gradually and begins to level off at the end of the amortization of the unfunded accrued liabilities. After this period, it then approaches the assumed rate of 4.33% (1.085/1.040, minus 1). The remainder of the expected investment income is needed to preserve the purchasing power of the trust fund.

APPENDIX

Appendix
Summary of Assumptions Used
for the June 30, 2008 Actuarial Valuation

-----*Economic Assumptions*-----

The investment return rate used in the valuations was 8.5% per year, compounded annually (net after investment expenses). This assumption is used to account for the fact that equal amounts of money payable at different points in time in the future do not have the same value presently.

Pay increase assumptions for individual active members are shown for sample ages on page 54. Part of the assumption for each age is for merit and/or seniority increase, and the other 4.0% recognizes wage inflation. This assumption is used to project a member's current salary to the salaries upon which benefits will be based.

The active member payroll is assumed to increase 4.0% annually, which is the portion of the individual pay increase assumptions attributable to wage inflation.

The annual cost-of-living adjustment (COLA) is assumed to be 4.00%, on a compounded basis, when a minimum COLA of 4% is in effect. When no minimum COLA is in effect, price inflation is assumed to be 3.2% and the annual COLA is assumed to be 2.56% (80% of 3.2%), on a compounded basis.

-----*Non-Economic Assumptions*-----

The mortality table, for post-retirement mortality, used in evaluating allowances to be paid was the 1971 Group Annuity Mortality Table, projected to the year 2000, with a one year setback for men and a seven year age setback for women. Related values are shown on page 55. This assumption is used to measure the probabilities of each benefit payment being made after retirement.

Appendix

Summary of Assumptions Used for the June 30, 2008 Actuarial Valuation

The probabilities of age and service retirement are shown on page 56. It was assumed that each member will be granted one half year of service credit for unused leave upon retirement and military service purchases.

The probabilities of withdrawal from service, disability and death-in-service are shown for sample ages on page 54. For disability retirement, impaired longevity was recognized by use of special mortality tables.

The entry age normal actuarial cost method of valuation was used in determining liabilities and normal cost. The normal cost was based on the benefit provisions affecting new employees (MSEP 2000). Differences in the past between assumed experience and actuarial experience ("actuarial gains and losses") become part of actuarial accrued liabilities. Unfunded actuarial accrued liabilities are amortized to produce payments, (principal & interest) which are level percents of payroll contributions.

Employer contribution dollars were assumed to be *paid in equal installments* throughout the employer's fiscal year.

Actuarial value of assets. Valuation assets recognize assumed investment return fully each year. Differences between actual and assumed investment return are phased in over a closed five-year period. Valuation assets are not permitted to deviate from the market value by more than 20%.

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.

It is assumed that among active members 80% are married at retirement, 70% of those dying in active service are married, and men are three years older than their spouses.

The liabilities for active members hired on or after July 1, 2000 (April 26, 2005 for Administrative Law Judges) were based on MSEP 2000 benefits. The liabilities for active members hired before July 1, 2000 for Elected Officials, General Assembly, and Uniformed Water Patrol were based on MSEP benefits. All others were based on MSEP 2000 benefits. The backDROP was only explicitly valued for those assumed to receive MSEP 2000 benefits.

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

Separations From Active Employment Before Service Retirement & Individual Pay Increase Assumptions

June 30, 2008

Sample Ages	Years of Service	Withdrawal		Percent of Active Members Separating within the Next Year -----				Pay Increase Assumptions -- For An Individual Employee --				
		Men	Women	Men	Women	Men	Women	Disability	Merit & Seniority**	Base (Economy)	Increase Next Year	
		23.8 %	26.9 %									
	0	18.9	20.5									
	1	15.3	15.4									
	2	12.8	12.5									
	3	11.8	10.9									
	4	11.8	10.9									
	5+	11.8	10.9	0.04 %	0.03 %	0.16 %	0.30 %	0.30 %	3.5 %	4.0 %	7.5 %	
20		11.8	10.9	0.05	0.04	0.16	0.30	0.30	2.9	4.0	6.9	
25		10.0	10.0	0.06	0.04	0.16	0.30	0.30	2.2	4.0	6.2	
30		7.5	7.6	0.08	0.05	0.21	0.30	0.30	1.6	4.0	5.6	
35		5.6	5.6	0.11	0.07	0.26	0.32	0.32	1.2	4.0	5.2	
40		4.2	4.4	0.17	0.09	0.34	0.38	0.38	0.9	4.0	4.9	
45		3.4	3.9	0.31	0.14	0.49	0.57	0.57	0.7	4.0	4.7	
50		3.0	3.3	0.54	0.24	1.07	0.89	0.89	0.5	4.0	4.5	
55		2.6	3.0	0.83	0.44	1.50	1.50	1.50	0.4	4.0	4.4	
60		2.5	3.0	1.31	0.71	1.60	1.70	1.70	0.3	4.0	4.3	

* 2% of the deaths in active service are assumed to be duty related

** Does not apply to members of the General Assembly.

Post-Retirement Mortality Rates

Age	Service		Disability	
	Men	Women	Men	Women
45	0.0019	0.0012	0.0059	0.0039
50	0.0035	0.0021	0.0090	0.0065
55	0.0059	0.0039	0.0144	0.0099
60	0.0090	0.0065	0.0245	0.0159
65	0.0144	0.0099	0.0411	0.0274
70	0.0245	0.0159	0.0646	0.0446
75	0.0411	0.0274	0.1029	0.0714
80	0.0646	0.0446	0.1495	0.1117
85	0.1029	0.0714	0.2069	0.1601

Single Life Retirement Values June 30, 2008

Sample Attained Ages	Present Value of \$1/Month the First Year Increasing 4.0% / 2.56% Yearly				Future Life Expectancy (Years)			
	Service		Disability		Service		Disability	
	Men	Women	Men	Women	Men	Women	Men	Women
40	\$203.02	\$209.33	\$181.62	\$191.13	39.41	43.25	30.06	33.73
45	193.32	201.25	168.02	179.05	34.67	38.46	25.67	29.17
50	181.62	191.13	152.30	165.06	30.06	33.73	21.50	24.82
55	168.02	179.05	134.31	148.86	25.67	29.17	17.57	20.70
60	152.30	165.06	114.80	130.48	21.50	24.82	13.99	16.82
65	134.31	148.86	95.56	110.86	17.57	20.70	10.91	13.32
70	114.80	130.48	76.93	91.81	13.99	16.82	8.29	10.36
75	95.56	110.86	60.70	73.41	10.91	13.32	6.23	7.83
80	76.93	91.81	47.70	57.87	8.29	10.36	4.70	5.89
85	60.70	73.41	36.91	45.39	6.23	7.83	3.51	4.44

Percent of Eligible Active Members Retiring Next Year

Grandfathered Groups			
Age	Year of Eligibility		
	1st Year	2nd Year	3rd Year
48	20%		
49	20%	10%	
50	20%	10%	8%
51	20%	10%	8%
52	20%	10%	8%
53	20%	10%	8%
54	20%	10%	8%
55	25%	10%	12%
56	20%	10%	12%
57	20%	10%	12%
58	20%	10%	30%
59	20%	10%	30%
60	25%	10%	30%
61	20%	10%	30%
62	30%	15%	50%
63	20%	12%	40%
64	20%	12%	40%
65	30%	15%	50%
66	20%	12%	40%
67	20%	12%	40%
68	20%	12%	40%
69	20%	12%	40%
70	20%	12%	40%
71	20%	12%	40%
72	20%	12%	40%
73	20%	12%	40%
74	20%	12%	40%
75	100%	100%	100%
76	100%	100%	100%
77	100%	100%	100%
78	100%	100%	100%

MSEP 2000			
Age	Year of Eligibility		
	1st Year	2nd Year	3rd Year
48	27%		
49	27%	14%	
50	27%	14%	18%
51	27%	14%	18%
52	27%	14%	18%
53	27%	14%	18%
54	27%	14%	18%
55	27%	14%	25%
56	27%	14%	25%
57	22%	14%	20%
58	22%	14%	20%
59	22%	14%	20%
60	25%	14%	25%
61	20%	14%	20%
62	20%	22%	35%
63	15%	20%	30%
64	20%	20%	20%
65	25%	20%	30%
66	20%	20%	25%
67	20%	20%	20%
68	20%	20%	20%
69	20%	20%	20%
70	20%	20%	20%
71	20%	20%	20%
72	20%	20%	20%
73	20%	20%	20%
74	20%	20%	20%
75	50%	50%	50%
76	50%	50%	50%
77	75%	75%	75%
78	100%	100%	100%

Early retirement rates were assumed to be 5.0% from ages 55-65.

**Summary of Assumptions Used
June 30, 2008
Miscellaneous and Technical Assumptions**

Pay Increase Timing:	Middle of (Fiscal) year.
Decrement Timing:	Decrements of all types are assumed to occur mid-year.
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 the benefit payable.
Decrement Relativity:	Decrement rates are used directly from the experience study, without adjustment for multiple decrement table effects.
Decrement Operation:	Disability and mortality decrements do not operate during the first five years of service. Disability and withdrawal do not operate during normal retirement eligibility.
Normal Form of Benefit:	The assumed normal form of benefit is the straight life form for MSEP 2000 with 50% continuing to an eligible surviving spouse for MSEP. No adjustment has been made for post-retirement option election changes.
Other Liability Adjustments:	<p><i>MSEP 2000 Benefits for Active Employees</i></p> <ul style="list-style-type: none"> - Normal retirement form of payment adjustment: 0.994 - Early retirement form of payment adjustment: 0.993

Pre-Retirement Survivor Benefits for Spouse of Terminated Vested Member

<u>Age</u>	<u>Male/Female</u>
<30	3.20/2.32
30-39	1.89/1.52
40-49	1.32/1.18
>50	1.07/1.04

The number of active members is assumed to remain constant although certain new hires on or after July 1, 2002 will participate in the Colleges and Universities Retirement Plan. Active and retired member data is reported as of May 31. It is assumed for valuation purposes that there is no turnover among members and no new entrants during the month of June.

Summary of Assumptions Used
June 30, 2008
Miscellaneous and Technical Assumptions
(Concluded)

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.

MSEP 2000 Election: All regular state employees are assumed to elect MSEP 2000 at retirement. Elected Officials, General Assembly, and Uniformed Water Patrol Members hired before July 1, 2000 and Administrative Law Judges hired before April 26, 2005 are assumed to elect MSEP at retirement.

Service Adjustment: It is assumed that each member will be granted one half year of service credit, 2 months for unused leave upon retirement and 4 months for military service purchases.

Active and retired member data was reported as of May 31, 2008. It was brought forward to June 30, 2008 by adding one month of service for all active members and the June COLA for certain retired members. It is expected that this procedure resulted in a slight overstatement of total liabilities as of June 30, 2008. Financial information continues to be reported as of June 30. This procedure was instituted to provide sufficient time for the Board of Trustees to certify the appropriate contribution rate prior to the October 1 statutory deadline.

Supplemental Disclosure Information June 30, 2008

Actuarial Accrued Liability

The actuarial accrued liability is a measure intended to (i) help users assess the plan's funding status on a going-concern basis, and (ii) assess progress being made in accumulating sufficient assets to pay benefits when due. The actuarial value of assets is based on a method that fully recognizes expected investment return and averages unanticipated market return over a five-year period. Allocation of the actuarial present value of projected benefits between past and future service was based on service using the entry age actuarial cost method. Assumptions, including projected pay increases, were the same as used to determine the System's annual required contribution between entry age and assumed exit age. Entry age was established by subtracting credited service from current age on the valuation date.

The entry age actuarial accrued liability was determined as part of an actuarial valuation of the System as of June 30, 2008. Significant actuarial assumptions used in determining the entry age actuarial accrued liability include (a) a rate of return on the investment of present and future assets of 8.5% per year compounded annually, (b) projected salary increases of 4.0% per year compounded annually, attributable to inflation, (c) additional projected salary increases ranging from 0.4% to 3.5% per year, depending on age, attributable to seniority/merit, and (d) the assumption that benefits will increase after retirement (i) at 4.00% per year for approximately the first 12 years, 3.1% for the 13th year and 2.56% per year thereafter, or (ii) at 2.56% per year, depending upon date of hire and benefit election.

At June 30, 2008, the unfunded actuarial accrued liability of the System was determined as follows:

Actuarial Accrued Liability of System:	<u>\$ in Thousands</u>
Active members (36,938 vested, 17,604 non-vested)	\$ 4,166,099
Retirees and beneficiaries currently receiving benefits (30,132 vested)	4,408,682
Terminated members not yet receiving benefits (17,069 vested)	553,210
Future BackDROP Payments	<u>356</u>
Total Actuarial Accrued Liability	9,128,347
Actuarial Value of Assets	7,838,496
Unfunded Actuarial Accrued Liability	<u>\$ 1,289,852</u>

During the year ended June 30, 2008, the System experienced a net change of \$1,115,142,056 in the actuarial accrued liability. Of this change \$168,932,698 was due to changes in assumptions. There were no changes in benefit provisions.

Supplemental Disclosure Information

June 30, 2008

(continued)

Contributions Required and Contributions Made

The System's funding policy provides for periodic employer contributions at actuarially determined rates that, expressed as percentages of annual covered payroll, are designed to accumulate sufficient assets to pay benefits when due. In developing the annual required contribution shown below, the normal cost and actuarial accrued liability are determined using the entry age actuarial cost method. The unfunded actuarial accrued liability is being amortized on an open basis as a level percent of payroll over a period of 30 years. The corresponding amortization factor is 16.65656.

During the year ended June 30, 2008 contributions totaling \$249,770,156 were made by the employer.

Schedule of Employer Contributions

Fiscal Year 7-1/6-30	Valuation Date 6/30	Annual Required Contribution		
		Percent	Dollar Amount	Percentage Contributed
1991-92	1990	9.65 %	\$ 100,672,145	100 %
1992-93	1991	9.68	102,988,219	100
1993-94	1992	9.49	106,681,308	100
1994-95	1993	9.04	108,902,372	100
1995-96	1994	10.69	137,007,112	100
1996-97	1995	10.66	146,383,371	100
1997-98	1996	10.40	152,090,687	100
1998-99	1997	12.58	197,909,834	100
1999-00	1998	11.91	202,330,547	100
2000-01	1999	11.59	215,750,128	100
2001-02	2000	11.59	209,515,026	100
2002-03	2001	8.81	156,576,150	100
2003-04	2002	9.35	164,691,836	100
2004-05	2003	10.64	195,648,983	100
2005-06	2004	12.59	227,233,195	100
2006-07	2005	12.78	239,488,751	100
2007-08	2006	12.84	249,770,156	100
2008-09	2007	12.53		
2009-10	2008	12.75		

**Supplemental Disclosure Information
June 30, 2008**

(concluded)

Schedule of Funding Progress

Plan Year Ended	(1) Actuarial Value of Assets	(2) Actuarial Accrued Liability (AAL) Entry Age	(3) Percent Funded (1) / (2)	(4) Unfunded AAL (2) - (1)	(5) Annual Covered Payroll	(6) Unfunded AAL as a Percentage of Covered Payroll (4) / (5)
6/30/1998	\$4,210,635,094	\$4,918,887,183	85.6 %	\$ 708,252,089	\$1,459,712,203	48.5 %
6/30/1999 #	4,908,820,033	5,505,968,629	89.2	597,148,596	1,564,551,532	38.2
6/30/2000 *	5,216,897,196	5,920,684,192	88.1	703,786,996	1,683,697,080	41.8
6/30/2001 *@	5,881,232,850	6,065,166,716	97.0	183,933,866	1,758,190,269	10.5
6/30/2002 &	6,033,133,598	6,294,272,275	95.9	261,138,677	1,773,283,484	14.7
6/30/2003 # &	6,057,329,072	6,662,291,406	90.9	604,962,334	1,739,895,364	34.8
6/30/2004 *	6,118,214,495	7,230,010,928	84.6	1,111,796,433	1,737,454,454	64.0
6/30/2005 &@	6,435,344,102	7,578,028,017	84.9	1,142,683,915	1,806,600,560	63.3
6/30/2006	6,836,567,188	8,013,205,414	85.3	1,176,638,226	1,777,277,138	66.2
6/30/2007	7,377,289,283	8,500,428,641	86.8	1,123,139,358	1,846,643,330	60.8
6/30/2008	7,838,495,768	8,959,414,773	87.5	1,120,919,005	1,916,527,398	58.5
6/30/2008 *	7,838,495,768	9,128,347,470	85.9	1,289,851,702	1,916,527,398	67.3

After changes in benefit provisions.

* After a change in assumptions.

@ After a change in asset method.

& After changes in methods other than the asset method.

Analysis of the dollar amounts of the actuarial value of assets, actuarial accrued liability, or unfunded actuarial accrued liability in isolation can be misleading. Expressing the actuarial value of assets as a percentage of the actuarial accrued liability provides one indication of the plan's funded status on a going-concern basis. Analysis of this percentage over time indicates whether the plan is becoming financially stronger or weaker. Generally, the greater this percentage, the stronger the plan. The unfunded actuarial accrued liability and annual covered payroll are both affected by inflation. Usually expressing the unfunded actuarial accrued liability as a percentage of annual covered payroll approximately adjusts for the effects of inflation and aids analysis of the progress being made in accumulating sufficient assets to pay benefits when due. Generally, the smaller this percentage, the stronger the plan.

June 30, 2008 Actuarial Valuation

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.

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 series of payments is called an actuarial equivalent of another series of payments if the two series have the same actuarial present value.

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.

Actuarial value of assets. Also referred to as funding value of assets, smoothed market value of assets, or valuation assets.

Valuation assets recognize assumed investment return fully each year. Differences between actual and assumed investment return are phased in over a closed 5-year period. This treatment helps remove the timing of investment activities from the valuation process. During periods when investment performance exceeds the assumed rate, valuation assets will tend to be less than market value. During periods when investment performance is less than the assumed rate, valuation assets will tend to be greater than market value. If assumed rates are exactly realized for 4 consecutive years, valuation assets will become equal to market value.

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

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

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

(continued on following page)

June 30, 2008 Actuarial Valuation

Glossary

(concluded)

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 actuarial value of assets. Sometimes referred to as "unfunded accrued liability."

The existence of unfunded actuarial accrued liabilities is not in itself bad, any more than a mortgage on a house is bad. Unfunded actuarial accrued liabilities do not represent a debt that is payable today. What is important is the ability to amortize the unfunded actuarial accrued liabilities and the trend in their amount (after due allowance for devaluation of the dollar).

Valuation Payroll. Active member payroll that is intended to reflect the annual salary considered as covered compensation for Retirement System benefits.

**Financing Unfunded Actuarial Accrued Liabilities
Which Were Calculated Using a Wage Inflation Assumption of 4.00% and
an Investment Return Assumption of 8.50% Compounded Annually**

*Level % of Payroll Amortization:
Open Amortization over 30 years*

Year	Active Member Payroll	Unfunded Actuarial Accrued Liability	UAAL Adjusted for Wage Inflation	Annual Contributions		UAAL as % of Payroll
				Dollars	% of Payroll	
-----\$ in millions-----						
1	\$1,917	\$1,290	\$1,290	\$77	4.04 %	67.30 %
2	1,993	1,319	1,268	79	3.97	66.17
3	2,073	1,348	1,247	81	3.91	65.05
4	2,156	1,379	1,226	83	3.84	63.95
5	2,242	1,410	1,205	85	3.77	62.87
6	2,332	1,441	1,185	87	3.71	61.81
7	2,425	1,474	1,165	88	3.65	60.77
8	2,522	1,507	1,145	90	3.59	59.74
9	2,623	1,541	1,126	92	3.53	58.73
10	2,728	1,575	1,107	95	3.47	57.74
11	2,837	1,610	1,088	97	3.41	56.77
12	2,950	1,647	1,070	99	3.35	55.81
13	3,068	1,684	1,052	101	3.29	54.87
14	3,191	1,721	1,034	103	3.24	53.94
15	3,319	1,760	1,016	106	3.18	53.03
16	3,452	1,799	999	108	3.13	52.14
17	3,590	1,840	982	110	3.08	51.26
18	3,733	1,881	966	113	3.03	50.39
19	3,883	1,923	949	115	2.97	49.54
20	4,038	1,967	933	118	2.92	48.70

**Financing Unfunded Actuarial Accrued Liabilities
Which Were Calculated Using a Wage Inflation Assumption of 4.00% and
an Investment Return Assumption of 8.50% Compounded Annually**

*Level % of Payroll Amortization:
Open Amortization over 30 years
(concluded)*

Year	Active Member Payroll	Unfunded Actuarial Accrued Liability	UAAL Adjusted for Wage Inflation	Annual Contributions		UAAL as % of Payroll
				Dollars	% of Payroll	
-----\$ in millions-----						
21	\$4,199	\$2,011	\$918	\$121	2.87 %	47.88 %
22	4,367	2,056	902	123	2.83	47.07
23	4,542	2,102	887	126	2.78	46.28
24	4,724	2,149	872	129	2.73	45.50
25	4,913	2,197	857	132	2.69	44.73
26	5,109	2,247	843	135	2.64	43.98
27	5,314	2,297	829	138	2.60	43.23
28	5,526	2,349	815	141	2.55	42.50
29	5,747	2,401	801	144	2.51	41.79
30	5,977	2,455	787	147	2.47	41.08

Active Members in Funding Program as of June 30, 2008

By Age and Years of Service

Male

Near Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 plus	No.	Valuation Payroll
Under 20	12							12	\$ 194,580
20-24	610	10						620	15,757,626
25-29	1,461	273	1					1,735	51,824,755
30-34	1,000	767	162	1				1,930	64,610,550
35-39	753	803	643	92	3			2,294	83,070,846
40-44	637	638	579	472	150	6		2,482	96,136,530
45-49	661	688	568	514	492	170	5	3,098	125,130,703
50-54	599	604	576	471	555	352	136	3,293	138,259,358
55-59	517	574	491	481	471	260	269	3,063	132,196,155
60	103	91	67	77	65	47	36	486	20,461,363
61	91	100	93	74	59	28	36	481	20,639,018
62	64	83	77	63	53	34	43	417	19,291,252
63	31	61	47	45	38	18	17	257	12,385,850
64	22	56	25	38	28	17	25	211	9,993,864
65	14	36	45	24	19	9	28	175	8,650,220
66	17	45	24	14	13	5	25	143	7,014,794
67	10	10	26	12	7	3	14	82	3,705,003
68	5	14	14	4	7	4	11	59	2,909,723
69	6	8	11	10	4	1	11	51	2,768,805
70 & Over	32	39	33	26	18	7	26	181	8,615,367
Totals	6,645	4,900	3,482	2,418	1,982	961	682	21,070	\$ 823,616,362

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Age: 45.8 years.

Service: 10.9 years.

Annual Pay: \$39,090

Active Members in Funding Program as of June 30, 2008

By Age and Years of Service

Female

Near Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 plus	No.	Valuation Payroll
Under 20	48							48	\$ 958,150
20-24	1,060	12						1,072	25,016,572
25-29	2,460	525	11					2,996	83,522,163
30-34	1,616	1,311	369	5				3,301	100,580,958
35-39	1,339	1,173	1,112	277	23			3,924	124,820,496
40-44	1,151	1,041	922	739	388	28		4,269	140,921,163
45-49	1,174	1,106	940	681	782	509	62	5,254	178,181,017
50-54	987	1,016	879	743	701	603	389	5,318	185,934,401
55-59	698	889	780	719	591	345	310	4,332	152,131,816
60	100	167	104	125	83	35	38	652	22,113,160
61	86	145	124	111	81	26	34	607	20,947,299
62	72	106	98	76	67	27	26	472	15,803,844
63	47	68	68	48	32	19	13	295	10,079,662
64	32	55	57	33	31	12	8	228	7,589,814
65	28	56	42	38	33	14	13	224	7,981,948
66	19	31	19	24	11	9	7	120	4,126,899
67	6	25	26	18	10	5	7	97	3,046,176
68	7	18	15	14	6	3	5	68	2,460,872
69	8	13	8	8	5	2	7	51	1,778,007
70 & Over	21	20	31	21	21	10	20	144	4,916,619
Totals	10,959	7,777	5,605	3,680	2,865	1,647	939	33,472	\$ 1,092,911,036

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Age: 44.6 years.

Service: 10.6 years.

Annual Pay: \$32,652

Basic Series

Year-by-Year Total Returns (1926-2007)

**For a type of investment,
Red means a REAL Return less than 3%
[(Total Return - Inflation) < 3%]**

**For Inflation,
RED means a purchasing power loss**

Year	Large Company Stocks	Small Company Stocks	Long-Term Corporate Bonds	Long-Term Government Bonds	Intermed.-Term Government Bonds	U.S. Treasury Bills	Inflation *
1926	11.62	0.28	7.37	7.77	5.38	3.27	-1.49
1927	37.49	22.10	7.44	8.93	4.52	3.12	-2.08
1928	43.61	39.69	2.84	0.10	0.92	3.56	-0.97
1929	-8.42	-51.36	3.27	1.17	6.01	4.75	0.20
1930	-24.90	-38.15	7.98	4.66	6.72	2.41	-6.03
1931	-43.34	-49.75	-1.85	-5.31	-2.32	1.07	-9.52
1932	-8.19	-5.39	10.32	16.84	8.81	0.96	-10.30
1933	53.99	142.87	10.38	-0.07	1.83	0.30	0.51
1934	-1.44	24.22	13.84	10.03	9.00	0.16	2.03
1935	47.67	40.19	9.61	4.98	7.01	0.17	2.99
1936	33.92	64.80	6.74	7.52	3.06	0.18	1.21
1937	-35.03	-58.01	2.75	0.23	1.56	0.31	3.10
1938	31.12	32.80	6.13	5.53	6.23	-0.02	-2.78
1939	-0.41	0.35	3.97	5.94	4.52	0.02	-0.48
1940	-9.78	-5.16	3.39	6.09	2.96	0.00	0.96
1941	-11.59	-9.00	2.73	0.93	0.50	0.06	9.72
1942	20.34	44.51	2.60	3.22	1.94	0.27	9.29
1943	25.90	88.37	2.83	2.08	2.81	0.35	3.16
1944	19.75	53.72	4.73	2.81	1.80	0.33	2.11
1945	36.44	73.61	4.08	10.73	2.22	0.33	2.25
1946	-8.07	-11.63	1.72	-0.10	1.00	0.35	18.16
1947	5.71	0.92	-2.34	-2.62	0.91	0.50	9.01
1948	5.50	-2.11	4.14	3.40	1.85	0.81	2.71
1949	18.79	19.75	3.31	6.45	2.32	1.10	-1.80
1950	31.71	38.75	2.12	0.06	0.70	1.20	5.79
1951	24.02	7.80	-2.69	-3.93	0.36	1.49	5.87
1952	18.37	3.03	3.52	1.16	1.63	1.66	0.88
1953	-0.99	-6.49	3.41	3.64	3.23	1.82	0.62
1954	52.62	60.58	5.39	7.19	2.68	0.86	-0.50
1955	31.56	20.44	0.48	-1.29	-0.65	1.57	0.37
1956	6.56	4.28	-6.81	-5.59	-0.42	2.46	2.86
1957	-10.78	-14.57	8.71	7.46	7.84	3.14	3.02
1958	43.36	64.89	-2.22	-6.09	-1.29	1.54	1.76
1959	11.96	16.40	-0.97	-2.26	-0.39	2.95	1.50
1960	0.47	-3.29	9.07	13.76	11.76	2.66	1.48
1961	26.89	32.09	4.82	0.97	1.85	2.13	0.67
1962	-8.73	-11.90	7.95	6.89	5.56	2.73	1.22
1963	22.80	23.57	2.19	1.21	1.64	3.12	1.65
1964	16.48	23.52	4.77	3.51	4.04	3.54	1.19
1965	12.45	41.75	-0.46	0.71	1.02	3.93	1.92
1966	-10.06	-7.01	0.20	3.65	4.69	4.76	3.35
1967	23.98	83.57	-4.95	-9.18	1.01	4.21	3.04
1968	11.06	35.97	2.57	-0.26	4.54	5.21	4.72
1969	-8.50	-25.05	-8.09	-5.07	-0.74	6.58	6.11
1970	4.01	-17.43	18.37	12.11	16.86	6.52	5.49
1971	14.31	16.50	11.01	13.23	8.72	4.39	3.36
1972	18.98	4.43	7.26	5.69	5.16	3.84	3.41
1973	-14.66	-30.90	1.14	-1.11	4.61	6.93	8.80
1974	-26.47	-19.95	-3.06	4.35	5.69	8.00	12.20
1975	37.20	52.82	14.64	9.20	7.83	5.80	7.01
1976	23.84	57.38	18.65	16.75	12.87	5.08	4.81
1977	-7.18	25.38	1.71	-0.69	1.41	5.12	6.77
1978	6.56	23.46	-0.07	-1.18	3.49	7.18	9.03
1979	18.44	43.46	-4.18	-1.23	4.09	10.38	13.31
1980	32.42	39.88	-2.62	-3.95	3.91	11.24	12.40
1981	-4.91	13.88	-0.96	1.86	9.45	14.71	8.94
1982	21.41	28.01	43.79	40.36	29.10	10.54	3.87
1983	22.51	39.67	4.70	0.65	7.41	8.80	3.80
1984	6.27	-6.67	16.39	15.48	14.02	9.85	3.95
1985	32.16	24.66	30.09	30.97	20.33	7.72	3.77
1986	18.47	6.85	19.85	24.53	15.14	6.16	1.13
1987	5.23	-9.30	-0.27	-2.71	2.90	5.47	4.41
1988	16.81	22.87	10.70	9.67	6.10	6.35	4.42
1989	31.49	10.18	16.23	18.11	13.29	8.37	4.65
1990	-3.17	-21.56	6.78	6.18	9.73	7.81	6.11
1991	30.55	44.63	19.89	19.30	15.46	5.60	3.06
1992	7.67	23.35	9.39	8.05	7.19	3.51	2.90
1993	9.99	20.98	13.19	18.24	11.24	2.90	2.75
1994	1.31	3.11	-5.76	-7.77	-5.14	3.90	2.67
1995	37.43	34.46	27.20	31.67	16.80	5.60	2.54
1996	23.07	17.62	1.40	-0.93	2.10	5.21	3.32
1997	33.36	22.78	12.95	15.85	8.38	5.26	1.70
1998	28.58	-7.31	10.76	13.06	10.21	4.86	1.61
1999	21.04	29.79	-7.45	-8.96	-1.77	4.68	2.68
2000	-9.11	-3.59	12.87	21.48	12.59	5.89	3.39
2001	-11.88	22.77	10.65	3.70	7.62	3.83	1.55
2002	-22.10	-13.28	16.33	17.84	12.93	1.65	2.38
2003	28.70	60.70	5.27	1.45	2.40	1.02	1.88
2004	10.87	18.39	8.72	8.51	2.25	1.20	3.26
2005	4.91	5.69	5.87	7.81	1.36	2.98	3.42
2006	15.80	16.17	3.24	1.19	3.14	4.80	2.54
2007	5.49	-5.22	2.60	9.88	10.05	4.66	4.08

GABRIEL ROEDER SMITH & COMPANY from SBBI Yearbook

* Calculated using December to December CPI-U (1982-84=100, when available), not seasonally adjusted.

September 12, 2008

Mr. Gary W. Findlay
Executive Director
Missouri State Employees'
Retirement System
P.O. Box 209
Jefferson City, Missouri 65102

Re: MOSERS – Valuation Report

Dear Gary:

Enclosed are 20 copies of the June 30, 2008 actuarial valuation report of the Missouri State Employees' Retirement System.

Sincerely,

A handwritten signature in black ink, appearing to read "Brad Lee Armstrong". The signature is fluid and cursive, with a long horizontal stroke at the end.

Brad Lee Armstrong

BLA:bd
Enclosures

cc: Anita Brand
Williams-Keepers, LLC (+1 report copy)

Anita Brand
Williams Keepers LLC
3220 West Edgewood, Suite E
Jefferson City MO 65109
(+1 report copy)