

# POSITIVE GOALS

MOSERS provides a monthly lifetime benefit beginning at retirement. To achieve this financial objective, we must accumulate assets during a member's working years which, when combined with income on investments, will be sufficient to pay benefits throughout retirement. In order for you to maintain your desired standard of living during retirement, you will also need personal savings and investments to supplement your benefit from MOSERS. Commitment to your financial future is a positive goal worth sharing.

*Visualize this thing that you want, see it, feel it, believe in it.  
Make your mental blue print, and begin to build.*

*- Robert Collier*

Actuary's Certification Letter .....	105
Summary of Funded Status .....	107
Summary of Actuarial Assumptions.....	108
Summary of Member Data Included in Valuations.....	113
Active Members by Attained Age and Years of Service .....	114
Schedules of Active Member Valuation Data - Last Six Years .....	115
MSEP Retirees and Beneficiaries Added and Removed .....	116
Judicial Plan Retirees and Beneficiaries Added and Removed.....	120
Short-Term Solvency Test.....	122
Derivation of Experience Gain (Loss).....	123
<i>Summary of Plan Provisions</i>	
Comparison of Plans for General State Employees .....	124
Comparison of Plans for Legislators .....	126
Comparison of Plans for Elected Officials .....	128
Judicial Plan .....	130
Comparison of Plans for Uniformed Members of the Water Patrol.....	132
Administrative Law Judges and Legal Advisors' Plan.....	133
Life Insurance Plans .....	134
Long-Term Disability (LTD) Plans.....	135
Changes in Plan Provisions.....	136
Actuarial Present Values.....	138

## **ACTUARIAL SECTION**



# Actuary's Certification Letter



Gabriel Roeder Smith & Company  
Consultants & Actuaries

One Towne Square  
Suite 800  
Southfield, MI 48076-3723

248.799.9000 phone  
248.799.9020 fax  
www.gabrielroeder.com

September 17, 2011

The Board of Trustees  
Missouri State Employees' Retirement System  
907 Wildwood Drive  
Jefferson City, Missouri 65109

Dear Board Members:

The basic financial objective of the Missouri State Employees' Retirement System (MOSERS) is to establish and receive contributions which:

- (1) when expressed in terms of percents of active member payroll will remain approximately level from generation to generation of Missouri citizens, and which
- (2) when combined with present assets and future investment return will be sufficient to meet the present and future financial obligations of MOSERS.

In order to measure progress toward this fundamental objective, MOSERS and the Judges Retirement Plan (Judges) annual actuarial valuations are performed. The purposes of the valuations are to (i) measure present financial position, (ii) establish contribution rates that provide for the normal cost and level percent of payroll amortization of unfunded actuarial accrued liabilities over a reasonable period, and (iii) to determine the actuarial information for Governmental Accounting Standards Board (GASB) Statement No. 25. The latest completed actuarial valuations were based upon data and assumptions as of June 30, 2011, presented to the board in separate reports. These valuations indicate that the contribution rates for the fiscal year ending June 30, 2013, adopted by the board of trustees for the benefits scheduled to be in effect on and after July 1, 2011, meet the basic financial objective. These contribution rates are 14.45% of payroll for 51,660 general state employees, and 56.92% of payroll for 399 judges.

The actuarial valuations are based upon financial and participant data which is prepared by retirement system staff, assumptions regarding future rates of investment return, salary increases, and inflation, and assumptions regarding rates of retirement, turnover, death, and disability among MOSERS' members and their beneficiaries. The data is reviewed by us for internal and year-to-year consistency as well as general reasonableness prior to its use in the actuarial valuations. It is also summarized and tabulated for the purpose of analyzing trends.

We are not responsible for the accuracy or completeness of the data. The demographic assumptions for members hired before January 1, 2011, were adopted by the board of trustees in March 2008, based upon recommendations made in an experience study covering the period from 2003 to 2007. The demographic assumptions for members hired on or after January 1, 2011, were based upon fiscal notes filed in July 2010. The economic assumptions were adopted by the board of trustees in September 2001, and amended and reaffirmed in March 2008, and subsequently reviewed in July 2010. The assumptions and methods used in this valuation, in our opinion, meet the parameters established by Governmental Accounting Standards Board Statement No. 25.

The benefit structure is outlined in this section of the annual report. We provided the information used in the supporting schedules in the actuarial section and the *Schedules of Funding Progress* in the *Financial Section*, as well as the employer contribution rates shown in the *Schedule of Employer Contributions* in the *Financial Section*.

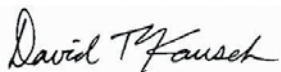
Based upon the valuation results, it is our opinion that the Missouri State Employees' Retirement Plans and the Judges Retirement Plan continue to operate in accordance with actuarial principles of level percent of payroll financing. To the best of our knowledge the information contained in this report is accurate and fairly presents the actuarial position of the plans as of the valuation date. All calculations have been made in conformity with generally accepted actuarial principles and practices, with the Actuarial Standards of Practice issued by the Actuarial Standards Board and with applicable statutes.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law.

This report should not be relied on for any purpose other than the purposes described. Determinations of the financial results associated with the benefits described in this report in a manner other than the intended purpose may produce significantly different results.

The undersigned actuaries are independent of the Plan sponsor and members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

Respectfully submitted,



David T. Kausch, F.S.A., E.A., M.A.A.A  
Senior Consultant & Actuary



Brad Lee Armstrong, A.S.A., E.A., M.A.A.A  
Senior Consultant & Actuary

## Summary of Funded Status MSEP and Judicial Plan

The tables below show a summary of the results found in the actuarial valuations for 2010 and 2011.

### Funded Status of Retirement Plans

June 30, 2010	MSEP	Judicial Plan	Total
Total participants	105,419	909	106,328
Actuarial accrued liabilities	\$9,853,155	\$382,013	\$10,235,168
Actuarial value of assets	\$7,923,377	\$88,977	\$8,012,354
Unfunded actuarial accrued liabilities	\$1,929,778	\$293,036	\$2,222,814
Percent funded	80.4%	23.3%	78.3%
June 30, 2011	MSEP	Judicial Plan	Total
Total participants	106,000	930	106,930
Actuarial accrued liabilities	\$10,123,544	\$393,485	\$10,517,029
Actuarial value of assets	\$8,022,481	\$98,399	\$8,120,880
Unfunded actuarial accrued liabilities	\$2,101,063	\$295,086	\$2,396,149
Percent funded	79.2%	25.0%	77.2%

### Change in Status of Retirement Plans

FY10 to FY11	MSEP	Judicial Plan	Total
Increase in total participants	581	21	602
Increase in actuarial accrued liabilities	\$270,389	\$11,472	\$281,861
Increase in actuarial value of assets	\$99,104	\$9,422	\$108,526
Increase in unfunded actuarial accrued liabilities	\$171,285	\$2,050	\$173,335
Increase (Decrease) in percent funded	(1.2)%	1.7%	(1.1)%

In September each year, the MOSERS board of trustees votes to certify the contribution rate for the following fiscal year beginning July 1. As established by statute, the board follows a financing pattern which computes and requires contribution amounts which, expressed as a percent of active member payroll, will remain approximately level from year-to-year and from one generation of citizens to the next generation.

Beginning July 1, 2011, the rate will be 13.97% for MSEP and 57.30% for the Judicial plan. While this is a slight increase from the prior year, it is not expected to result in a corresponding increase in real dollars due to the fact that the state's payroll declined last year. The state of Missouri has consistently funded 100% of MOSERS' annually required contribution (ARC).

### Contribution Rates (Percent of Covered Payroll)

	MSEP	Judicial Plan
FY10	12.75	58.48
FY11	13.81	60.03

## Summary of Actuarial Assumptions

### 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 in the table below and on page 109. Part of the assumption for each age is for merit and/or seniority increase, and the other 4% 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% annually, which is the portion of the individual pay increase assumptions

attributable to wage inflation. For the 2011 valuation only, payroll is assumed to grow 0% the first year, then 4% annually thereafter to reflect the statewide temporary pay freeze.

The number of active members in the MSEP is assumed to remain constant although certain new hires on or after July 1, 2002, will participate in the College and University Retirement Plan (CURP). For judges, the number of active members is assumed to continue at the present number. 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. New entrants after December 31, 2010, assumed demographic patterns are based on the demographics of active members hired within the last five years.

The annual cost-of-living adjustment (COLA) is assumed to be 4%, 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.

### Noneconomic 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 two year age setback for men and a six year age setback for women. Disabled mortality tables are the healthy mortality tables set forward ten years. Related values are shown on page 110.

### Summary of Actuarial Assumptions

#### MSEP - Separations From Active Employment Before Service Retirement and Individual Pay Increase Assumptions - June 30, 2011

Sample Ages	Years of Service	Percent of Active Members Separating Within the Next Year				Pay Increase Assumptions for an Individual Employee				
		Withdrawal		Death*		Disability		Merit and Seniority**	Base (Economy)	Increase Next Year
Men	Women	Men	Women	Men	Women					
	0	23.8%	26.9%							
	1	18.9	20.5							
	2	15.3	15.4							
	3	12.8	12.5							
	4	11.8	10.9							
20	+5	11.8	10.9	.04%	.03%	.16%	.30%	3.5%	4.0%	7.5%
25		11.8	10.9	.05	.04	.16	.30	2.9	4.0	6.9
30		10.0	10.0	.06	.04	.16	.30	2.2	4.0	6.2
35		7.5	7.6	.08	.05	.21	.30	1.6	4.0	5.6
40		5.6	5.6	.11	.07	.26	.32	1.2	4.0	5.2
45		4.2	4.4	.17	.09	.34	.38	0.9	4.0	4.9
50		3.4	3.9	.31	.14	.49	.57	0.7	4.0	4.7
55		3.0	3.3	.54	.24	1.07	.89	0.5	4.0	4.5
60		2.6	3.0	.83	.44	1.50	1.50	0.4	4.0	4.4
65		2.5	3.0	1.31	.71	1.60	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

This assumption is used to measure the probabilities of each benefit payment being made after retirement.

The probabilities of age and service retirement are shown on pages 110-111. For the MSEP, 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 below. The entry age normal actuarial cost method of valuation was used in determining liabilities and normal cost. The normal cost was based on the weighted average of the MSEP 2000 active member normal cost and the MSEP 2011 active member normal cost for the projected payroll composition of the active member population expected to be present during the fiscal year ended June 30, 2013. 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.

The amortization of the unfunded actuarial accrued liability is based on a 30-year amortization period, level percent of payroll amortization. The amortization is based on the projected unfunded actuarial accrued liability at the beginning of the fiscal year. This method was first used in the June 30, 2010 valuation.

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

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% for the June 30, 2011 valuation. 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 and before January 1, 2011 (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, the General Assembly, and uniformed water patrol were based on MSEP benefits. All others were based on MSEP 2011 benefits. The BackDROP was only explicitly valued for those assumed to receive MSEP 2000 benefits for members hired prior to January 1, 2011.

The data about persons now covered and about present assets were furnished by the system’s administrative staff. Although examined for general reasonableness, the data was not audited by the actuary.

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

### *Summary of Actuarial Assumptions*

#### **Judicial Plan - Separations From Active Employment Before Service Retirement and Individual Pay Increase Assumptions - June 30, 2011**

Sample Ages	Percent of Active Members Separating Within the Next Year						Pay Increase Assumptions for an Individual Employee		
	Withdrawal		Death		Disability		Merit and Seniority	Base (Economy)	Increase Next Year
	Men	Women	Men	Women	Men	Women			
25	4.5%	4.5%	.05%	.04%	.01%	.01%	1.6%	4.0%	5.6%
30	4.0	3.7	.06	.04	.02	.01	1.2	4.0	5.2
35	2.8	2.6	.08	.05	.03	.02	0.9	4.0	4.9
40	2.0	2.1	.11	.07	.04	.03	0.4	4.0	4.4
45	1.5	1.9	.17	.09	.05	.04	0.3	4.0	4.3
50	1.5	1.7	.31	.14	.08	.07	0.2	4.0	4.2
55	1.5	1.2	.54	.24	.13	.12	0.2	4.0	4.2
60	1.2	0.6	.83	.44	.20	.19	0.0	4.0	4.0
65	0.9	0.4	1.31	.71	.20	.19	0.0	4.0	4.0

*Summary of Actuarial Assumptions*

**All Plans - Single Life Retirement Values - June 30, 2011**

Sample Attained Ages	Present Value of \$1/Month the First Year (with 50% Joint & Survivor) Increasing 4.0%/2.56% Yearly				Present Value of \$1/Month the First Year Increasing 2.56% Yearly				Future Life Expectancy (Years)			
	Service		Disability		Service		Disability		Service		Disability	
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
40	\$212.00	\$213.63	\$199.71	\$201.13	\$181.06	\$186.39	\$162.92	\$171.00	39.41	43.25	30.06	33.73
45	204.46	206.44	189.78	190.96	172.85	179.57	151.37	160.74	34.67	38.46	25.67	29.17
50	195.12	197.32	177.89	178.76	162.92	171.00	137.98	148.85	30.06	33.73	21.50	24.82
55	183.85	186.16	163.79	164.21	151.37	160.74	122.55	135.04	25.67	29.17	17.57	20.70
60	170.40	178.76	147.78	147.15	137.98	148.85	105.68	119.26	21.50	24.82	13.99	16.82
65	154.52	157.00	130.73	128.15	122.55	135.04	88.88	102.25	17.57	20.70	10.91	13.32
70	136.51	138.80	112.73	108.63	105.68	119.26	72.36	85.58	13.99	16.82	8.29	10.36
75	117.44	119.04	94.96	89.08	88.88	102.25	57.73	69.20	10.91	13.32	6.23	7.83
80	97.96	99.30	78.49	71.52	72.36	85.58	45.83	55.16	8.29	10.36	4.70	5.89
85	79.72	80.24	63.33	56.81	57.73	69.20	35.81	43.70	6.23	7.83	3.51	4.44

*Summary of Actuarial Assumptions*

**MSEP (Normal Retirement Pattern) - Percent of Eligible Active Members Retiring Next Year - June 30, 2011**

Retirement Age	For Members Hired Prior to January 1, 2011						For Members Hired On or After January 1, 2011	
	MSEP (closed plan)			MSEP 2000			MSEP 2011	
	Year of Eligibility			Year of Eligibility			Retirement Age	Year of Eligibility
1 <sup>st</sup> Year	2 <sup>nd</sup> Year	3 <sup>rd</sup> Year	1 <sup>st</sup> Year	2 <sup>nd</sup> Year	3 <sup>rd</sup> Year			
48	20%			27%				
49	20	10%		27	14%			
50	20	10	8%	27	14	18%		
51	20	10	8	27	14	18		
52	20	10	8	27	14	18		
53	20	10	8	27	14	18		
54	20	10	8	27	14	18		
55	25	10	12	27	14	25	55	45%
56	20	10	12	27	14	25	56	45
57	20	10	12	22	14	20	57	35
58	20	10	30	22	14	20	58	35
59	20	10	30	22	14	20	59	30
60	25	10	30	25	14	25	60	35
61	20	10	30	20	14	20	61	25
62	30	15	50	20	22	35	62	40
63	20	12	40	15	20	30	63	30
64	20	12	40	20	20	20	64	20
65	30	15	50	25	20	30	65	30
66	20	12	40	20	20	25	66	25
67	20	12	40	20	20	20	67	20
68	20	12	40	20	20	20	68	20
69	20	12	40	20	20	20	69	20
70	20	12	40	20	20	20	70	20
71	20	12	40	20	20	20	71	20
72	20	12	40	20	20	20	72	20
73	20	12	40	20	20	20	73	20
74	20	12	40	20	20	20	74	20
75	100	100	100	50	50	50	75	50
76	100	100	100	50	50	50	76	50
77	100	100	100	75	75	75	77	75
78	100	100	100	100	100	100	78	100



*Summary of Actuarial Assumptions***MSEP (Early Retirement Pattern) - Percent of Eligible Active Members Retiring Next Year - June 30, 2011**

For Members Hired Prior to January 1, 2011		For Members Hired On or After January 1, 2011	
Retirement Age	MSEP & MSEP 2000 Year of Eligibility	Retirement Age	MSEP 2011 Year of Eligibility
57	3%		
58	4		
59	4		
60	5		
61	7		
62	10	62	10%
63	10	63	10
64	10	64	10
65	50	65	50
66	50	66	50
67	50		
68	50		
69	50		
70	50		
71	50		
72	50		
73	50		
74	50		
75	50		
76	100		

*Summary of Actuarial Assumptions***Judicial Plan - Percent of Eligible Active Members Retiring Next Year - June 30, 2011**

For Members Hired Prior to January 1, 2011			For Members Hired On or After January 1, 2011		
Retirement Age	Percent Men	Percent Women	Retirement Age	Percent Men	Percent Women
55	10%	8%			
56	10	8			
57	10	8			
58	10	8			
59	10	8			
60	10	15			
61	5	10			
62	10	15	62	30%	35%
63	5	10	63	20	20
64	5	10	64	15	20
65	20	40	65	30	50
66	25	25	66	25	25
67	20	25	67	20	25
68	20	25	68	20	25
69	30	50	69	30	50
70	100	100	70	100	100

## Summary of Actuarial Assumptions

### Miscellaneous and Technical Assumptions - June 30, 2011

#### Pay Increase Timing

- Middle of fiscal year for MSEP
- Beginning of fiscal year for judges.

#### Decrement Timing

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

#### Eligibility Testing

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

#### Benefit Service

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

#### Decrement Relativity

Decrement rates are used directly from the experience study, without adjustments 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 the MSEP 2000 with 50% continuing to an eligible surviving spouse for the MSEP. No adjustment has been made for post-retirement option election changes. For judges, the

assumed normal form of benefit is the straight-life form with 50% continuing to an eligible surviving spouse for member hired prior to January 1, 2011.

#### Other Liability Adjustments

##### *MSEP 2000 Benefits for Active Employees*

- 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*

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

There are no other liability adjustments for judges.

#### 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, the 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.

#### Forfeitures

For those hired on or after January 1, 2011, 50% of state employees terminating at first vesting eligibility are assumed to take a refund and forfeit their deferred pension. This percentage decreases to 0% at first retirement eligibility.

For judges, vested members are assumed not to take a refund of member contributions and forfeit their benefit upon separation from service.

Active and retired member data was reported as of May 31, 2011. It was brought forward to June 30, 2011, 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, 2011. 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.

## Summary of Member Data Included in Valuations

### Pension Trust Funds - June 30, 2011

Active Members			Group Averages		
Valuation Group	Number	Annual Payroll	Salary	Age (Yrs.)	Service (Yrs.)
<b>MSEP</b>					
Regular state employees	48,243	\$1,690,733,459	\$ 35,046	45.6	11.1
Elected officials	5	552,232	110,446	49.4	6.9
Legislative clerks	31	988,835	31,898	58.6	20.2
Legislators	195	7,011,439	35,956	50.2	3.6
Uniformed water patrol	89	5,443,716	61,165	41.3	16.6
Conservation department	1,370	56,384,847	41,157	44.1	13.7
School-term salaried employees	1,694	111,214,294	65,652	55.4	19.6
Administrative law judges	33	3,240,994	98,212	55.7	17.2
Total MSEP group	<u>51,660</u>	<u>\$1,875,569,816</u>	36,306	45.9	11.4
<b>Judicial Plan</b>	399	\$ 45,888,020	\$115,008	55.8	11.8

Retired Members			Group Averages	
Type of Benefit Payment	Number	Annual Benefits	Benefit	Age (Yrs.)
<b>MSEP</b>				
Retirement	31,305	\$484,797,154	\$15,486	69.1
Disability	8	29,232	3,654	59.8
Survivor of active member	1,425	13,652,622	9,581	61.3
Survivor of retired member	2,577	27,088,377	10,512	74.9
Total MSEP group	<u>35,315</u>	<u>\$525,567,385</u>	\$14,882	69.2
<b>Judicial Plan</b>	486	\$ 26,479,053	\$54,484	75.1

Others			
Group	Terminated-Vested	Leave of Absence	Long-Term Disability
Missouri State Employees' Plan	17,712	262	1,051
Judicial Plan	45	0	0

## Active Members by Attained Age and Years of Service

June 30, 2011

### MSEP

Attained Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30+	No.	Valuation Payroll
15-19	27							27	\$ 518,148
20-24	1,183	16						1,199	29,081,523
25-29	3,401	677	12					4,090	121,163,365
30-34	2,537	1,982	591	7				5,117	165,823,117
35-39	1,758	1,540	1,703	400	11			5,412	187,071,918
40-44	1,571	1,362	1,758	1,346	408	33		6,478	233,393,599
45-49	1,582	1,401	1,545	1,204	1,163	607	55	7,557	283,392,619
50-54	1,412	1,281	1,561	1,162	1,201	1,019	589	8,225	315,733,601
55-59	1,099	1,169	1,480	1,076	1,139	678	561	7,202	283,058,599
60	181	214	239	184	181	107	91	1,197	46,513,860
61	158	197	222	176	172	95	86	1,106	42,957,410
62	146	178	205	183	138	75	65	990	39,257,340
63	109	145	163	102	100	44	46	709	27,847,488
64	89	139	148	112	77	38	53	656	27,752,149
65	73	96	132	73	67	47	51	539	22,840,870
66	28	55	65	57	30	20	24	279	12,261,873
67	19	39	52	39	29	21	25	224	9,346,150
68	16	29	50	28	17	15	23	178	7,505,950
69	18	28	28	13	12	3	20	122	5,124,748
70 & Over	44	48	92	49	47	20	53	353	14,925,489
Totals	15,451	10,596	10,046	6,211	4,792	2,822	1,742	51,660	\$1,875,569,816

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

**Group Averages:** Age - 45.9 years • Service - 11.4 years • Annual Pay - \$36,306

### Judicial Plan

Attained Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30+	No.	Valuation Payroll
30-34	1							1	\$ 109,368
35-39	8							8	874,934
40-44	15	11	3					29	3,246,048
45-49	21	10	9	2				42	4,837,844
50-54	26	9	27	11	3			76	8,719,368
55-59	22	11	19	24	14	7		97	11,133,383
60	3	2	11	6	1		1	24	2,762,522
61	5	4	3		1		1	14	1,605,554
62		3	5	6	4	3	2	23	2,648,837
63	3	4	5	3	3	2	1	21	2,420,222
64	4		6	7	1	1		19	2,223,164
65	4	1	4	3	1		1	14	1,638,908
66		2	1	2	3	2	3	13	1,583,772
67	1		3	2	3	1		10	1,115,898
68			3				1	4	470,818
69	1				1	1		3	376,896
70						1		1	120,484
Totals	114	57	99	66	35	18	10	399	\$45,888,020

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

**Group Averages:** Age - 55.8 years • Service - 11.8 years • Annual Pay - \$115,008

## Schedules of Active Member Valuation Data

Last Six Years Ended June 30, 2011

### MSEP

Valuation Date	Schedule of Active Member Valuation Data			
	Number	Annual Payroll	Annual Average Pay	% Increase in Average Pay
June 30, 2006	54,493	\$1,777,277,138	\$32,615	1.00%
June 30, 2007	54,363	1,846,643,330	33,969	4.15
June 30, 2008	54,542	1,916,527,398	35,139	3.44
June 30, 2009	55,057	2,002,402,087	36,370	3.50
June 30, 2010	53,478	1,945,095,321	36,372	0.01
June 30, 2011	51,660	1,875,569,816	36,306	(0.18)

### Judicial Plan

Valuation Date	Schedule of Active Member Valuation Data			
	Number	Annual Payroll	Annual Average Pay	% Increase in Average Pay
June 30, 2006	394	\$40,270,535	\$102,209	0.12%
June 30, 2007	400	40,846,581	102,116	(0.09)
June 30, 2008	401	44,542,530	111,079	8.78
June 30, 2009	397	45,505,512	114,623	3.19
June 30, 2010	402	46,112,730	114,708	0.07
June 30, 2011	399	45,888,020	115,008	0.26

## MSEP - Retirees and Beneficiaries Added and Removed

### Last Six Years Ended June 30, 2011

Fiscal Year Ended	Classification	Benefit Type	Added to Rolls	
			Number	Annual Allowances
June 30, 2006	General employees	Retirement	1,853	\$30,323,860
		Survivor of active	76	997,296
		Survivor of retired	214	2,460,805
		Disability	0	1,356
	Lincoln university - vested	Occupational disability	0	0
		Retirement	1	3,535
	Legislators	Survivor of active	0	0
		Retirement	6	141,548
	Elected officials	Survivor of active	0	4,398
		Survivor of retired	5	53,788
		Retirement	1	24,113
	ALJ's	Survivor of active	0	2,664
		Survivor of retired	0	1,132
		Retirement	6	219,793
Survivor of active		0	0	
June 30, 2007	General employees	Survivor of retired	1	30,686
		Retirement	2,211	37,839,159
		Survivor of active	89	897,874
		Survivor of retired	213	2,630,107
	Lincoln university - vested	Disability	0	1,104
		Occupational disability	0	0
	Legislators	Retirement	0	0
		Survivor of active	0	0
	Elected officials	Retirement	19	303,741
		Survivor of active	1	8,157
		Survivor of retired	5	95,976
	ALJs	Retirement	0	0
		Survivor of active	0	2,771
		Survivor of retired	0	1,178
Retirement		0	35,846	
June 30, 2008	General employees	Survivor of active	0	0
		Survivor of retired	0	6,071
		Disability	0	0
		Occupational disability	0	0
	Lincoln university - vested	Retirement	2,159	36,365,696
		Survivor of active	91	971,449
	Legislators	Survivor of retired	234	2,715,274
		Retirement	0	900
		Survivor of active	0	0
	Elected officials	Retirement	2	5,478
		Survivor of active	0	0
	ALJs	Retirement	9	147,136
		Survivor of active	0	4,489
		Survivor of retired	5	114,053
ALJ's	Retirement	0	0	
	Survivor of active	0	2,882	
	Survivor of retired	0	1,225	
	Retirement	2	102,631	
ALJ's	Survivor of active	0	0	
	Survivor of retired	1	30,876	
	Retirement	0	0	

Removed from Rolls		Rolls at End of Year				
Number	Annual Allowances	Number	Annual Allowances	Increase (Decrease) in Annual Allowances	Average Annual Allowances	Percentage in Average Annual Allowances
749	\$7,656,047	23,822	\$341,697,518	7.11%	\$14,344	2.14%
48	201,958	1,254	10,161,535	8.49	8,103	6.06
80	658,501	1,914	16,669,421	12.12	8,709	4.27
5	13,560	16	57,144	(17.60)	3,572	8.18
0	0	0	0	0.00	0	0.00
0	0	11	50,475	7.53	4,589	(2.24)
0	0	1	2,624	0.00	2,624	0.00
6	124,079	238	4,609,580	0.38	19,368	0.38
0	0	13	142,555	3.18	10,966	3.19
2	39,490	47	522,953	2.81	11,127	(3.75)
0	0	12	477,190	5.32	39,766	(3.45)
0	0	1	69,274	4.00	69,274	4.00
0	0	1	29,440	4.00	29,440	4.00
2	105,777	25	1,054,900	12.12	42,196	(5.82)
0	0	0	0	0.00	0	0.00
0	0	9	209,021	17.21	23,225	4.19
740	8,391,528	25,293	371,145,149	8.62	14,674	2.30
39	281,916	1,304	10,777,493	6.06	8,265	2.00
106	810,074	2,021	18,489,454	10.92	9,149	5.05
4	18,658	12	39,590	(30.72)	3,299	(7.64)
0	0	0	0	0.00	0	0.00
0	0	11	50,475	0.00	4,589	0.00
0	0	1	2,624	0.00	2,624	0.00
7	178,306	250	4,735,015	2.72	18,940	(2.21)
0	0	14	150,712	5.72	10,765	(1.83)
0	0	52	618,929	18.35	11,902	6.97
0	0	12	477,190	0.00	39,766	0.00
0	0	1	72,045	4.00	72,045	4.00
0	0	1	30,618	4.00	30,618	4.00
0	0	25	1,090,746	3.40	43,630	3.40
0	0	0	0	0.00	0	0.00
0	0	9	215,092	2.90	23,899	2.90
853	9,745,552	26,599	397,765,293	7.17	14,954	1.91
59	259,787	1,336	11,489,155	6.60	8,600	4.05
137	916,500	2,118	20,288,228	9.73	9,579	4.70
1	4,074	11	36,416	(8.02)	3,311	0.36
0	0	0	0	0.00	0	0.00
0	0	13	55,953	10.85	4,304	(6.21)
0	0	1	2,624	0.00	2,624	0.00
10	300,216	249	4,581,935	(3.23)	18,401	(2.85)
0	0	14	155,201	2.98	11,086	2.98
3	24,638	54	708,344	14.45	13,117	10.21
0	0	12	514,994	7.92	42,916	7.92
0	0	1	74,927	4.00	74,927	4.00
0	0	1	31,843	4.00	31,843	4.00
2	94,035	25	1,099,342	0.79	43,974	0.79
0	0	0	0	0.00	0	0.00
0	0	10	245,968	14.35	24,597	2.92

Source of Data: MOSERS benefit payment database as of June 30, 2011.

Other Actuarial Section information reported based on MOSERS data as of May 31, 2011.

MSEP continued on pages 118-119

## MSEP - Retirees and Beneficiaries Added and Removed

### Six Years Ended June 30, 2011

Continued from pages 116-117

Fiscal Year Ended	Classification	Benefit Type	Added to Rolls	
			Number	Annual Allowances
June 30, 2009	General employees	Retirement	2,195	\$37,338,992
		Survivor of active	82	996,258
		Survivor of retired	251	3,077,466
	Lincoln university - vested	Disability	0	876
		Occupational disability	0	0
		Retirement	0	0
	Legislators	Survivor of active	0	0
		Retirement	21	746,414
		Survivor of active	0	5,137
	Elected officials	Survivor of retired	4	84,108
		Retirement	2	105,141
		Survivor of active	0	2,997
	ALJs	Survivor of retired	0	1,274
Retirement		3	168,517	
Survivor of active		0	0	
June 30, 2010	General employees	Survivor of retired	2	57,238
		Retirement	2,298	34,755,192
		Survivor of active	83	1,054,292
	Lincoln university - vested	Survivor of retired	246	3,080,424
		Disability	0	830
		Occupational disability	0	0
	Legislators	Retirement	1	5,671
		Survivor of active	0	0
		Retirement	12	201,562
	Elected officials	Survivor of active	0	3,975
		Survivor of retired	5	78,765
		Retirement	0	0
	ALJs	Survivor of active	0	3,117
Survivor of retired		1	34,780	
Retirement		3	113,877	
June 30, 2011	General employees	Survivor of active	0	7,332
		Survivor of retired	0	0
		Retirement	2,850	41,203,358
	Lincoln university - vested	Survivor of active	65	914,689
		Survivor of retired	298	3,059,195
		Disability	0	79
	Legislators	Occupational disability	0	0
		Retirement	1	1,780
		Survivor of active	0	0
	Elected officials	Retirement	41	601,171
		Survivor of active	0	2,903
		Survivor of retired	5	73,841
	ALJs	Retirement	0	0
Survivor of active		0	3,242	
Survivor of retired		0	1,053	
	Retirement	4	212,519	
	Survivor of active	0	0	
	Survivor of retired	0	2,599	



Removed from Rolls		Rolls at End of Year				
Number	Annual Allowances	Number	Annual Allowances	Increase (Decrease) in Annual Allowances	Average Annual Allowances	Percentage in Average Annual Allowances
852	\$9,903,887	27,942	\$425,200,398	6.90	\$15,217	1.76
54	390,167	1,364	12,095,246	5.28	8,867	3.10
110	827,564	2,259	22,538,130	11.09	9,977	4.15
1	4,237	10	33,055	(9.23)	3,306	(0.15)
0	0	0	0	0.00	0	0.00
0	0	13	55,953	0.00	4,304	0.00
0	0	1	2,624	0.00	2,624	0.00
8	120,396	262	5,207,953	13.66	19,878	8.03
1	14,128	13	146,210	(5.79)	11,247	1.45
2	20,473	56	771,979	8.98	13,785	5.09
0	0	14	620,135	20.42	44,295	3.21
0	0	1	77,924	4.00	77,924	4.00
0	0	1	33,117	4.00	33,117	4.00
2	90,337	26	1,177,522	7.11	45,289	2.99
0	0	0	0	0.00	0	0.00
1	27,354	11	275,852	12.15	25,077	1.95
833	9,979,318	29,407	449,976,272	5.83	15,302	0.56
49	276,401	1,398	12,873,137	6.43	9,208	3.85
117	1,078,265	2,388	24,540,289	8.88	10,277	3.00
1	2,985	9	30,900	(6.52)	3,433	3.85
0	0	0	0	0.00	0	0.00
0	0	14	61,624	10.13	4,402	0.00
0	0	1	2,624	0.00	2,624	0.00
12	239,880	262	5,169,635	(0.74)	19,731	(0.74)
1	16,709	12	133,476	(8.71)	11,123	(1.10)
0	0	61	850,744	10.20	13,947	1.17
1	66,911	13	553,224	(10.79)	42,556	(3.93)
0	0	1	81,041	4.00	81,041	4.00
0	0	2	67,897	105.02	33,948	2.51
1	46,794	28	1,244,605	5.70	44,450	(1.85)
0	0	0	0	0.00	0	0.00
0	0	11	283,184	2.66	25,744	2.66
892	10,670,476	31,365	480,509,154	6.79	15,320	0.12
46	261,503	1,417	13,526,323	5.07	9,546	3.67
176	1,670,990	2,510	25,928,494	5.66	10,330	0.52
1	1,732	8	29,247	(5.35)	3,656	6.50
0	0	0	0	0.00	0	0.00
0	0	15	63,404	2.89	4,227	(3.98)
0	0	1	2,624	0.00	2,624	0.00
10	185,635	293	5,585,171	8.04	19,062	(3.39)
1	19,612	11	116,767	(12.52)	10,615	(4.57)
2	16,628	64	907,957	6.73	14,187	1.72
0	0	13	553,224	0.00	42,556	0.00
0	0	1	84,283	4.00	84,283	4.00
0	0	2	68,950	1.55	34,475	1.55
0	0	32	1,457,124	17.08	45,535	2.44
0	0	0	0	0.00	0	0.00
1	27,724	10	258,059	(8.87)	25,806	0.24

Source of Data: MOSERS benefit payment database as of June 30, 2011.

Other *Actuarial Section* information reported based on MOSERS data as of May 31, 2011.

## Judicial Plan - Retirees and Beneficiaries Added and Removed

### Six Years Ended June 30, 2011

Fiscal Year Ended	Benefit Type	Added to Rolls		Removed from Rolls	
		Number	Allowances	Number	Allowances
June 30, 2006	Retirement	11	\$952,792	11	\$583,695
	Survivor of active	2	89,661	2	33,794
	Survivor of retired	6	219,711	4	79,701
	Disability	1	54,000	0	0
June 30, 2007	Retirement	47	2,802,873	15	967,969
	Survivor of active	1	64,452	2	40,742
	Survivor of retired	13	526,008	4	91,948
	Disability	0	0	1	54,000
June 30, 2008	Retirement	21	1,554,013	17	946,602
	Survivor of active	0	31,650	4	53,658
	Survivor of retired	11	387,194	8	181,387
	Disability	0	0	0	0
June 30, 2009	Retirement	30	1,922,615	15	957,943
	Survivor of active	1	59,484	0	0
	Survivor of retired	9	418,266	2	61,344
	Disability	0	0	0	0
June 30, 2010	Retirement	12	1,137,305	13	750,021
	Survivor of active	0	32,700	2	32,399
	Survivor of retired	11	436,312	5	130,920
	Disability	0	0	0	0
June 30, 2011	Retirement	36	2,501,248	9	563,214
	Survivor of active	0	14,893	1	35,792
	Survivor of retired	4	167,535	9	206,465
	Disability	0	0	0	0

## Rolls at End of Year

Number	Annual Allowances	Percentage Increase (Decrease) in Annual Allowances	Average Annual Allowances	Percentage Increase (Decrease) in Average Annual Allowances
275	\$16,217,558	2.33%	\$58,973	2.33%
41	995,239	5.95	24,274	5.94
84	2,143,040	6.99	25,512	4.44
1	54,000	100.00	54,000	100.00
307	18,052,462	11.31	58,803	(0.29)
40	1,018,949	2.38	25,474	4.94
93	2,577,100	20.25	27,711	8.62
0	0	(100.00)	0	(100.00)
311	18,659,873	3.36	60,000	2.04
36	996,941	(2.16)	27,693	8.71
96	2,782,907	7.99	28,989	4.61
0	0	0.00	0	0.00
326	19,624,545	5.17	60,198	0.33
37	1,056,425	5.97	28,552	3.10
103	3,139,829	12.83	30,484	5.16
0	0	0.00	0	0.00
325	20,011,829	1.97	61,575	2.29
35	1,056,726	0.03	30,192	5.74
109	3,445,221	9.73	31,608	3.69
0	0	0.00	0	0.00
352	21,949,863	9.68	62,358	1.27
34	1,035,827	(1.98)	30,466	0.91
104	3,406,291	(1.13)	32,753	3.62
0	0	0.00	0	0.00

Source of Data: MOSERS benefit payment database as of June 30, 2011.

Other *Actuarial Section* information reported based on MOSERS data as of May 31, 2011.

## Short-Term Solvency Test

### Pension Trust Funds - Ten Years Ended June 30, 2011

#### MSEP

Fiscal Year	Actuarial Accrued Liabilities for			Actuarial Value of Assets Available for Benefits	Percentage of Actuarial Liabilities Covered by Actuarial Value of Assets Available for:		
	Member Contributions (1)	Current Retirees and Beneficiaries (2)	Active and Inactive Members, Employer Financed Portion (3)		(1)	(2)	(3)
2002	\$ 0	\$2,716,457,033	\$3,577,815,242	\$6,033,133,598	100.0%	100.0%	92.7%
2003	0	3,016,029,050	3,646,262,356	6,057,329,072	100.0	100.0	83.4
2004	0	3,405,053,804	3,824,957,124	6,118,214,495	100.0	100.0	70.9
2005	0	3,629,506,014	3,948,522,003	6,435,344,102	100.0	100.0	71.1
2006	0	3,876,349,145	4,136,856,269	6,836,567,188	100.0	100.0	71.6
2007	0	4,208,621,537	4,291,807,104	7,377,289,283	100.0	100.0	73.8
2008	0	4,408,682,437	4,719,665,033	7,838,495,768	100.0	100.0	72.7
2009	0	4,737,859,976	4,756,946,739	7,876,079,342	100.0	100.0	66.0
2010	0	5,012,677,769	4,840,477,676	7,923,377,393	100.0	100.0	60.1
2011	67,126	5,357,794,617	4,765,682,300	8,022,481,408	100.0	100.0	55.9

#### ALJLAP\*

Fiscal Year	Actuarial Accrued Liabilities for			Actuarial Value of Assets Available for Benefits	Percentage of Actuarial Liabilities Covered by Actuarial Value of Assets Available for:		
	Member Contributions (1)	Current Retirees and Beneficiaries (2)	Active and Inactive Members, Employer Financed Portion (3)		(1)	(2)	(3)
2001	\$0	\$7,534,368	\$ 9,275,594	\$14,410,199	100.0%	100.0%	74.1%
2002	0	8,268,650	9,906,692	15,172,619	100.0	100.0	69.7
2003	0	9,709,096	10,237,391	15,626,461	100.0	100.0	57.8
2004	0	9,188,086	11,196,127	16,238,804	100.0	100.0	63.0

\*Assets and liabilities transferred to the MSEP during FY05

#### Judicial Plan

Fiscal Year	Actuarial Accrued Liabilities for			Actuarial Value of Assets Available for Benefits	Percentage of Actuarial Liabilities Covered by Actuarial Value of Assets Available for:		
	Member Contributions (1)	Current Retirees and Beneficiaries (2)	Active and Inactive Members, Employer Financed Portion (3)		(1)	(2)	(3)
2002	\$0	\$149,135,989	\$106,979,463	\$29,651,113	100.0%	19.9%	0.0%
2003	0	157,923,805	109,126,052	34,566,516	100.0	21.9	0.0
2004	0	162,539,486	117,857,978	39,120,142	100.0	24.1	0.0
2005	0	168,703,822	123,600,064	44,223,509	100.0	26.2	0.0
2006	0	171,677,032	137,325,720	51,652,867	100.0	30.1	0.0
2007	0	199,489,503	127,176,870	61,903,516	100.0	31.0	0.0
2008	0	216,369,879	138,426,574	73,194,379	100.0	33.8	0.0
2009	0	231,505,591	137,601,250	81,337,881	100.0	35.1	0.0
2010	0	236,113,077	145,899,696	88,976,738	100.0	37.7	0.0
2011	284	251,532,354	141,951,951	98,398,628	100.0	39.1	0.0

## Derivation of Experience Gain (Loss)

### MSEP

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, along with a year-by-year comparative schedule.

	<u>Millions</u>
(1) Unfunded actuarial accrued liability (UAAL) at beginning of year	\$1,929.8
(2) Normal cost from last valuation	148.5
(3) Actual employer contributions	266.4
(4) Interest accrual: $(1) \times .085 + [(2) - (3)] \times (.085 \div 2)$	159.0
(5) Expected UAAL before changes: $(1) + (2) - (3) + (4)$	1,970.9
(6) Change from any changes in benefits, assumptions, or methods	(107.4)
(7) Expected UAAL after changes: $(5) + (6)$	1,863.5
(8) Actual UAAL at end of year	2,101.1
(9) Gain (loss) $(7) - (8)$	(237.6)
(10) Gain (loss) as a percent of actuarial accrued liabilities at start of year (\$9,853)	(2.4)%

**Actuarial Gain (Loss)  
As a % of Beginning  
Accrued Liabilities**  
(Valuation Date as of June 30)

2002	(3.8)%
2003	(6.4)
2004	(6.0)
2005	(3.4)
2006	(0.1)
2007	1.0
2008	0.1
2009	(5.2)
2010	(4.0)
2011	(2.4)

### Judicial Plan

The actuarial gains or losses realized in the operation of the retirement system provide an experience test. Gains and losses often cancel each other over a period of years, but sizable year-to-year fluctuations are common. Detail on the derivation of the actuarial gain (loss) is shown below, along with a year-by-year comparative schedule.

	<u>Millions</u>
(1) Unfunded actuarial accrued liability (UAAL) at beginning of year	\$293.0
(2) Employer normal cost middle of year	9.0
(3) Employer contributions	27.7
(4) Interest	
a. on (1)	24.9
b. on (2)	0.4
c. on (3)	1.2
d. total $[a + b - c]$	24.1
(5) Expected UAAL end of year before changes	298.4
(6) Change in UAAL end of year	
a. amendments	0.0
b. assumptions and technical corrections	(4.8)
c. methods	0.0
d. total	(4.8)
(7) Expected UAAL after changes: $(5) + (6d.)$	293.6
(8) Actual UAAL at end of year	295.1
(9) Gain (loss) $(7) - (8)$	(1.5)
(10) Gain (loss) as a percent of actuarial accrued liabilities at start of year (\$382)	(0.4)%

**Actuarial Gain (Loss)  
As a % of Beginning  
Accrued Liabilities**  
(Valuation Date as of June 30)

2002	(0.2)%
2003	(1.6)
2004	(1.0)
2005	(0.1)
2006	(1.1)
2007	(0.6)
2008	(3.0)
2009	(1.8)
2010	(1.1)
2011	(0.4)

*Summary of Plan Provisions***Comparison of Plans for General State Employees - June 30, 2011**

MSEP, MSEP 2000 and MSEP 2011\*

Plan Provision	MSEP
Membership eligibility	<ul style="list-style-type: none"> <li>Members who work in a position normally requiring at least 1,040 hours of work a year.</li> </ul>
Normal retirement eligibility	<ul style="list-style-type: none"> <li>Age 65 and active with 4 years of service,</li> <li>Age 65 with 5 years of service,</li> <li>Age 60 with 15 years of service, or</li> <li>“Rule of 80” - minimum age 48.</li> </ul>
Early retirement eligibility	<ul style="list-style-type: none"> <li>Age 55 with 10 years of service.</li> </ul>
Benefit formula	
Life benefit	<ul style="list-style-type: none"> <li>1.6% x final average pay (FAP) x service.</li> </ul>
Temporary benefit until age 62	<ul style="list-style-type: none"> <li>Not available.</li> </ul>
Vesting	<ul style="list-style-type: none"> <li>5 years of service.</li> </ul>
In-service cost-of-living adjustment (COLA)	<ul style="list-style-type: none"> <li>COLA given for service beyond age 65. COLA provisions are determined by employment date.</li> </ul>
COLA	<ul style="list-style-type: none"> <li>If hired before August 28, 1997, annual COLA is equal to 80% of the percentage increase in the average Consumer Price Index (CPI) from one year to the next with a minimum of 4% and a maximum of 5% until reaching 65% cap. Thereafter, the rate is based on 80% of the change in the CPI with a maximum of 5%.</li> <li>If hired on or after August 28, 1997, annual COLA is equal to 80% of the percentage increase in the average CPI with a maximum of 5%.</li> </ul>
Survivor benefit (death before retirement)	
<i>Non duty-related death</i>	<ul style="list-style-type: none"> <li>Survivor benefit to eligible spouse calculated using the Joint &amp; 100% Survivor Option or 80% of the member’s Life Income Annuity paid to eligible children.</li> </ul>
<i>Duty-related death</i>	<ul style="list-style-type: none"> <li>Survivor benefit to eligible spouse or children no less than 50% of current pay (no service requirement).</li> </ul>
Benefit payment options (death after retirement)	<ul style="list-style-type: none"> <li>Survivor benefit to eligible spouse based on payment option elected at retirement. Payment options include: <ul style="list-style-type: none"> <li>- Life Income Annuity</li> <li>- Unreduced Joint &amp; 50% Survivor</li> <li>- Joint &amp; 100% Survivor</li> <li>- 60 or 120 Guaranteed Payments</li> </ul> </li> </ul>
BackDROP	<ul style="list-style-type: none"> <li>Allows an employee to receive a lump sum payment at retirement in exchange for a reduced monthly benefit for life. Member must work at least two years beyond normal retirement to be eligible.</li> </ul>
Member contributions	<ul style="list-style-type: none"> <li>None.</li> </ul>

\* This summary describes the plan provisions of the RSMo, as amended, that govern the programs, which MOSERS administered during the period covered by this report. It does not overrule any applicable statute or administrative rule and, in the event of a conflict, the applicable statute or rule would apply.

MSEP 2000	MSEP 2011
<ul style="list-style-type: none"> <li>Members hired for the first time on or after July 1, 2000, in a position normally requiring at least 1,040 hours of work a year.</li> <li>Members who left state employment prior to becoming vested and returned to work on or after July 1, 2000, in a position normally requiring at least 1,040 hours of work a year.</li> </ul>	<ul style="list-style-type: none"> <li>Members hired for the first time on or after January 1, 2011, in a position normally requiring at least 1,040 hours of work a year.</li> </ul>
<ul style="list-style-type: none"> <li>Age 62 with 5 years of service, or</li> <li>“Rule of 80” - minimum age 48.</li> </ul>	<ul style="list-style-type: none"> <li>Age 67 with 10 years of service, or</li> <li>“Rule of 90” - minimum age 55.</li> </ul>
<ul style="list-style-type: none"> <li>Age 57 with 5 years of service.</li> </ul>	<ul style="list-style-type: none"> <li>Age 62 with 10 years of service.</li> </ul>
<ul style="list-style-type: none"> <li>1.7% x FAP x service.</li> <li>0.8% x FAP x service (must retire under the “Rule of 80”).</li> </ul>	<ul style="list-style-type: none"> <li>1.7% x FAP x service.</li> <li>0.8% x FAP x service (must retire under “Rule of 90”).</li> </ul>
<ul style="list-style-type: none"> <li>5 years of service.</li> </ul>	<ul style="list-style-type: none"> <li>10 years of service.</li> </ul>
<ul style="list-style-type: none"> <li>Not available.</li> </ul>	<ul style="list-style-type: none"> <li>Not available.</li> </ul>
<ul style="list-style-type: none"> <li>Annual COLA is equal to 80% of the percentage increase in the average CPI with a maximum of 5%.</li> </ul>	<ul style="list-style-type: none"> <li>Annual COLA is equal to 80% of the percentage increase in the average CPI with a maximum of 5%.</li> </ul>
<ul style="list-style-type: none"> <li>Survivor benefit to eligible spouse calculated using the Joint &amp; 100% Survivor Option or 80% of the members’ Life Income Annuity paid to eligible children.</li> <li>Survivor benefit to eligible spouse or children no less than 50% of current pay (no service requirement).</li> </ul>	<ul style="list-style-type: none"> <li>Survivor benefit to eligible spouse calculated using the Joint &amp; 100% Survivor Option or 80% of the members’ Life Income Annuity paid to eligible children.</li> <li>Survivor benefit to eligible spouse or children no less than 50% of current pay (no service requirement).</li> </ul>
<ul style="list-style-type: none"> <li>Survivor benefit to eligible spouse based on payment option elected at retirement. Payment options include: <ul style="list-style-type: none"> <li>- Life Income Annuity</li> <li>- Joint &amp; 50% Survivor</li> <li>- Joint &amp; 100% Survivor</li> <li>- 120 or 180 Guaranteed Payments</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Survivor benefit to eligible spouse based on payment option elected at retirement. Payment options include: <ul style="list-style-type: none"> <li>- Life Income Annuity</li> <li>- Joint &amp; 50% Survivor</li> <li>- Joint &amp; 100% Survivor</li> <li>- 120 or 180 Guaranteed Payments</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>Allows an employee to receive a lump sum payment at retirement in exchange for a reduced monthly benefit for life. Member must work at least two years beyond normal retirement to be eligible.</li> </ul>	<ul style="list-style-type: none"> <li>Not available.</li> </ul>
<ul style="list-style-type: none"> <li>None.</li> </ul>	<ul style="list-style-type: none"> <li>4% of pay.</li> </ul>

*Summary of Plan Provisions***Comparison of Plans for Legislators - June 30, 2011**

MSEP, MSEP 2000 and MSEP 2011

Plan Provision	MSEP
Membership eligibility	<ul style="list-style-type: none"> <li>Elected to the General Assembly.</li> </ul>
Normal retirement eligibility	<ul style="list-style-type: none"> <li>Age 55 with 3 full-biennial assemblies, or.</li> <li>“Rule of 80” - minimum age 48.</li> </ul>
Early retirement eligibility	<ul style="list-style-type: none"> <li>Not available.</li> </ul>
Benefit formula Life benefit	<ul style="list-style-type: none"> <li>\$150 per month per biennial assembly.</li> </ul>
Vesting	<ul style="list-style-type: none"> <li>3 full-biennial assemblies.</li> </ul>
In-service cost-of-living adjustment (COLA)	<ul style="list-style-type: none"> <li>COLA given for service beyond age 65. COLA provisions are determined by employment date.</li> </ul>
COLA	<ul style="list-style-type: none"> <li>If hired before August 28, 1997, annual COLA is equal to 80% of the percentage increase in the average CPI from one year to the next with a minimum of 4% and a maximum of 5% until reaching 65% cap. Thereafter, the rate is based on 80% of the change in the CPI with a maximum of 5%.</li> <li>If hired on or after August 28, 1997, annual COLA is equal to 80% of the percentage increase in the average CPI with a maximum of 5%.</li> </ul>
Survivor benefit (death before retirement) <i>Non duty-related death</i>  <i>Duty-related death</i>	<ul style="list-style-type: none"> <li>Survivor benefit to eligible spouse calculated using the Joint &amp; 100% Survivor Option or 80% of the member’s Life Income Annuity paid to eligible children.</li> <li>Survivor benefit to eligible spouse or children no less than 50% of current pay (no service requirement).</li> </ul>
Benefit payment options (death after retirement)	<ul style="list-style-type: none"> <li>Survivor benefit to eligible spouse based on payment option elected at retirement. Payment options include: <ul style="list-style-type: none"> <li>- Life Income Annuity</li> <li>- Unreduced Joint &amp; 50% Survivor</li> <li>- Joint &amp; 100% Survivor</li> <li>- 60 or 120 Guaranteed Payments</li> </ul> </li> </ul>
Member contributions	<ul style="list-style-type: none"> <li>None.</li> </ul>



MSEP 2000

MSEP 2011

<ul style="list-style-type: none"> <li>• Elected to the General Assembly on or after July 1, 2000.</li> <li>• Age 55 with 3 full-biennial assemblies, or</li> <li>• “Rule of 80” - minimum age 50.</li> <li>• Not available.</li> </ul>	<ul style="list-style-type: none"> <li>• Elected to the General Assembly on or after January 1, 2011.</li> <li>• Age 62 with 3 full-biennial assemblies, or</li> <li>• “Rule of 90” - minimum age 55.</li> <li>• Not available.</li> </ul>
<ul style="list-style-type: none"> <li>• (Monthly base pay ÷ 24) x service capped at 100% of pay.</li> <li>• 3 full-biennial assemblies.</li> <li>• Not available.</li> </ul>	<ul style="list-style-type: none"> <li>• (Monthly base pay ÷ 24) x service capped at 100% of pay.</li> <li>• 3 full-biennial assemblies.</li> <li>• Not available.</li> </ul>
<ul style="list-style-type: none"> <li>• Benefit adjusted each year based on the percentage increase in the current pay for an active member of the General Assembly.</li> </ul>	<ul style="list-style-type: none"> <li>• Benefit adjusted each year based on the percentage increase in the current pay for an active member of the General Assembly.</li> </ul>
<ul style="list-style-type: none"> <li>• Survivor benefit to eligible spouse calculated using the Joint &amp; 100% Survivor Option or 80% of the members’ Life Income Annuity paid to eligible children.</li> <li>• Survivor benefit to eligible spouse or children no less than 50% of current pay (no service requirement).</li> <li>• Survivor benefit to eligible spouse based on payment option elected at retirement. Payment options include: <ul style="list-style-type: none"> <li>- Life Income Annuity</li> <li>- Joint &amp; 50% Survivor</li> <li>- Joint &amp; 100% Survivor</li> <li>- 120 or 180 Guaranteed Payments</li> </ul> </li> <li>• None.</li> </ul>	<ul style="list-style-type: none"> <li>• Survivor benefit to eligible spouse calculated using the Joint &amp; 100% Survivor Option or 80% of the members’ Life Income Annuity paid to eligible children.</li> <li>• Survivor benefit to eligible spouse or children no less than 50% of current pay (no service requirement).</li> <li>• Survivor benefit to eligible spouse based on payment option elected at retirement. Payment options include: <ul style="list-style-type: none"> <li>- Life Income Annuity</li> <li>- Joint &amp; 50% Survivor</li> <li>- Joint &amp; 100% Survivor</li> <li>- 120 or 180 Guaranteed Payments</li> </ul> </li> <li>• 4% of pay.</li> </ul>

*Summary of Plan Provisions***Comparison of Plans for Elected Officials - June 30, 2011**

MSEP, MSEP 2000 and MSEP 2011

Plan Provision	MSEP
Membership eligibility	<ul style="list-style-type: none"> <li>Elected to state office.</li> </ul>
Normal retirement eligibility	<ul style="list-style-type: none"> <li>Age 60 with 15 years of service, or</li> <li>“Rule of 80” - minimum age 50.</li> </ul>
Early retirement eligibility	<ul style="list-style-type: none"> <li>Age 55 with 10 years of service.</li> </ul>
Benefit formula Life benefit	<ul style="list-style-type: none"> <li>12 or more years of service <ul style="list-style-type: none"> <li>50% of current pay for highest position held.</li> </ul> </li> <li>Less than 12 years of service <ul style="list-style-type: none"> <li>1.6% x FAP x service.</li> </ul> </li> </ul>
Vesting	<ul style="list-style-type: none"> <li>4 years (1 term) of service.</li> </ul>
In-service cost-of-living adjustment (COLA)	<ul style="list-style-type: none"> <li>COLA provisions determined by amount of service relative to 12 years and date of employment.</li> </ul>
COLA	<ul style="list-style-type: none"> <li>12 or more years of service <ul style="list-style-type: none"> <li>COLA is equal to the percentage increase in the current pay of an active elected state official in the highest position held.</li> </ul> </li> <li>Less than 12 years of service <ul style="list-style-type: none"> <li>If hired before August 28, 1997, annual COLA is equal to 80% of the percentage increase in the average CPI from one year to the next with a minimum of 4% and a maximum of 5% until reaching 65% cap. Thereafter, the rate is based on 80% of the change in the CPI with a maximum of 5%.</li> <li>If hired on or after August 28, 1997, annual COLA is equal to 80% of the percentage increase in the average CPI with a maximum of 5%.</li> </ul> </li> </ul>
Survivor benefit (death before retirement) <i>Non duty-related death</i>  <i>Duty-related death</i>	<ul style="list-style-type: none"> <li>Survivor benefit to eligible spouse calculated using the Joint &amp; 100% Survivor Option or 80% of the member’s Life Income Annuity paid to eligible children.</li> <li>Survivor benefit to eligible spouse or children no less than 50% of current pay (no service requirement).</li> </ul>
Benefit payment options (death after retirement)	<ul style="list-style-type: none"> <li>Survivor benefit to eligible spouse based on payment option elected at retirement. Payment options include: <ul style="list-style-type: none"> <li>Life Income Annuity</li> <li>Unreduced Joint &amp; 50% Survivor</li> <li>Joint &amp; 100% Survivor</li> <li>60 or 120 Guaranteed Payments</li> </ul> </li> </ul>
Member contributions	<ul style="list-style-type: none"> <li>None.</li> </ul>

MSEP 2000	MSEP 2011
<ul style="list-style-type: none"> <li>• Elected to state office on or after July 1, 2000.</li> </ul>	<ul style="list-style-type: none"> <li>• Elected to state office on or after January 1, 2011.</li> </ul>
<ul style="list-style-type: none"> <li>• Age 55 with 4 years of service, or</li> <li>• “Rule of 80” - minimum age 50.</li> </ul>	<ul style="list-style-type: none"> <li>• Age 62 with 4 years of service, or</li> <li>• “Rule of 90” - minimum age 55.</li> </ul>
<ul style="list-style-type: none"> <li>• Not available.</li> </ul>	<ul style="list-style-type: none"> <li>• Not available.</li> </ul>
<ul style="list-style-type: none"> <li>• (Monthly base pay ÷ 24) x service               <ul style="list-style-type: none"> <li>- Capped at 12 years or 50% of pay.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• (Monthly base pay ÷ 24) x service               <ul style="list-style-type: none"> <li>- Capped at 12 years or 50% of pay.</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• 4 years (1 term) of service.</li> </ul>	<ul style="list-style-type: none"> <li>• 4 years (1 term) of service.</li> </ul>
<ul style="list-style-type: none"> <li>• Not available.</li> </ul>	<ul style="list-style-type: none"> <li>• Not available.</li> </ul>
<ul style="list-style-type: none"> <li>• Benefit adjusted each year based on the percentage increase in the current pay for an active elected state official in the highest position held.</li> </ul>	<ul style="list-style-type: none"> <li>• Benefit adjusted each year based on the percentage increase in the current pay for an active elected state official in the highest position held.</li> </ul>
<ul style="list-style-type: none"> <li>• Survivor benefit to eligible spouse calculated using the Joint &amp; 100% Survivor Option or 80% of the members’ Life Income Annuity paid to eligible children.</li> <li>• Survivor benefit to eligible spouse or children no less than 50% of current pay (no service requirement).</li> </ul>	<ul style="list-style-type: none"> <li>• Survivor benefit to eligible spouse calculated using the Joint &amp; 100% Survivor Option or 80% of the members’ Life Income Annuity paid to eligible children.</li> <li>• Survivor benefit to eligible spouse or children no less than 50% of current pay (no service requirement).</li> </ul>
<ul style="list-style-type: none"> <li>• Survivor benefit to eligible spouse based on payment option elected at retirement. Payment options include:               <ul style="list-style-type: none"> <li>- Life Income Annuity</li> <li>- Joint &amp; 50% Survivor</li> <li>- Joint &amp; 100% Survivor</li> <li>- 120 or 180 Guaranteed Payments</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Survivor benefit to eligible spouse based on payment option elected at retirement. Payment options include:               <ul style="list-style-type: none"> <li>- Life Income Annuity</li> <li>- Joint &amp; 50% Survivor</li> <li>- Joint &amp; 100% Survivor</li> <li>- 120 or 180 Guaranteed Payments</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• None.</li> </ul>	<ul style="list-style-type: none"> <li>• 4% of pay.</li> </ul>

*Summary of Plan Provisions***Judicial Plan - June 30, 2011****Judicial Plan and Judicial Plan 2011**

<b>Plan Provision</b>	<b>Judicial Plan</b>
<b>Membership eligibility</b>	<ul style="list-style-type: none"> <li>• Must be a judge or commissioner of the supreme court or the court of appeals, a judge of the circuit court, probate court, magistrate court, court of common pleas, court of criminal corrections, a justice of the peace, or a commissioner or deputy commissioner of the circuit court appointed after February 29, 1972; a commissioner of the juvenile division of the circuit court appointed pursuant to Section 211.023, RSMo; a commissioner of the drug court pursuant to Section 478.466, RSMo; or a commissioner of the family court.</li> </ul>
<b>Normal retirement eligibility</b>	<ul style="list-style-type: none"> <li>• Age 62 with 12 years of service,</li> <li>• Age 60 with 15 years of service, or</li> <li>• Age 55 with 20 years of service.</li> </ul>
<b>Reduced retirement eligibility</b>	<ul style="list-style-type: none"> <li>• Age 60 with less than 15 years of service, or</li> <li>• Age 62 with less than 12 years of service with a reduced benefit based on years of service relative to 12 or 15 years.</li> </ul>
<b>Benefit formula</b>	<ul style="list-style-type: none"> <li>• Normal retirement eligibility <ul style="list-style-type: none"> <li>- 50% of the FAP</li> </ul> </li> <li>• Reduced retirement eligibility <ul style="list-style-type: none"> <li>- If between age 60 and 62 (years of service ÷ 15) x 50% of compensation on the highest court served.</li> <li>- If age 62 (years of service ÷ 12) x 50% of compensation on the highest court served.</li> </ul> </li> </ul>
<b>Vesting</b>	<ul style="list-style-type: none"> <li>• Immediate.</li> </ul>
<b>In-service cost-of-living adjustment (COLA)</b>	<ul style="list-style-type: none"> <li>• Judges who are at least age 60 and work beyond the date first eligible for unreduced benefits will receive COLAs for each year worked beyond normal retirement eligibility. COLA provisions are determined by date of employment.</li> </ul>
<b>COLA</b>	<ul style="list-style-type: none"> <li>• If hired before August 28, 1997, annual COLA is equal to 80% of the percentage increase in the average CPI from one year to the next with a minimum of 4% and a maximum of 5% until reaching 65% cap. Thereafter, the rate is based on 80% of the change in the CPI with a maximum of 5%.</li> <li>• If hired on or after August 28, 1997, annual COLA is equal to 80% of the percentage increase in the average CPI with a maximum of 5%.</li> </ul>
<b>Survivor benefit</b> (death <b>before</b> retirement) <i>Non duty-related death</i>  <i>Duty-related death</i>	<ul style="list-style-type: none"> <li>• Survivor benefit to eligible spouse equal to 50% of the benefit the member would have received based on service to age 70.</li> <li>• Survivor benefit to eligible spouse equal to 50% of the member's annuity at the time of death.</li> </ul>
<b>Benefit Payment Options</b> (death <b>before</b> retirement)	<ul style="list-style-type: none"> <li>• Life Income Annuity (if unmarried)</li> <li>• Automatic <i>Unreduced</i> Joint and 50% Survivor Option</li> </ul>
<b>Member contributions</b>	<ul style="list-style-type: none"> <li>• None.</li> </ul>

**Judicial Plan 2011**

- Must be a judge or commissioner of the supreme court or the court of appeals, a judge of the circuit court, probate court, magistrate court, court of common pleas, court of criminal corrections, a justice of the peace, or a commissioner or deputy commissioner of the circuit court; a commissioner of the juvenile division of the circuit court appointed pursuant to Section 211.023, RSMo; a commissioner of the drug court pursuant to Section 478.466, RSMo; or a commissioner of the family court appointed or elected a judge for the first time on or after January 1, 2011.
- Age 67 with 12 years of service, or
- Age 62 with 20 years of service.
- Age 67 with less than 12 years of service, or
- Age 62 with less than 20 years of service with a reduced benefit based on years of service relative to 12 or 20 years.
- Normal retirement eligibility
  - 50% of the FAP
- Reduced retirement eligibility
  - If between age 62 and 67  
(years of service ÷ 12) x 50% of compensation on the highest court served.
  - If age 67  
(years of service ÷ 20) x 50% of compensation on the highest court served.
- Immediate.
- Not available.
- Annual COLA is equal to 80% of the percentage increase in the average CPI with a maximum of 5%.
- Survivor benefit to eligible spouse equal to 50% of the benefit the member would have received based on service to age 70.
- Survivor benefit to eligible spouse equal to 50% of the member's annuity at the time of death.
- Survivor benefit to eligible spouse based on payment option elected at retirement. Payment options include:
  - Life Income Annuity
  - Joint & 50% Survivor
  - Joint & 100% Survivor
  - 120 or 180 Guaranteed Payments
- 4% of pay.

*Summary of Plan Provisions*

## Comparison of Plans for Uniformed Members of the Water Patrol - June 30, 2011

### MSEP, MSEP 2000\*

Plan Provision	MSEP	MSEP 2000
<b>Membership eligibility</b>	<ul style="list-style-type: none"> <li>Members who work in a position normally requiring at least 1,040 hours of work a year.</li> </ul>	<ul style="list-style-type: none"> <li>Members hired for the first time on or after July 1, 2000, in a position normally requiring at least 1,040 hours of work a year.</li> <li>Members who left state employment prior to becoming vested and returned to work on or after July 1, 2000, in a position normally requiring at least 1,040 hours of work a year.</li> </ul>
<b>Normal retirement eligibility</b>	<ul style="list-style-type: none"> <li>Age 55 and active with 4 years of service,</li> <li>Age 55 with 5 years of service, or</li> <li>"Rule of 80" - minimum age 48.</li> </ul>	<ul style="list-style-type: none"> <li>Age 62 with 5 years of service, or</li> <li>"Rule of 80" - minimum age 48.</li> </ul>
<b>Early retirement eligibility</b>	<ul style="list-style-type: none"> <li>Not available.</li> </ul>	<ul style="list-style-type: none"> <li>Age 57 with 10 years of service.</li> </ul>
<b>Benefit</b>		
Life benefit	<ul style="list-style-type: none"> <li>1.6% x FAP x service increased by 33.3%.</li> </ul>	<ul style="list-style-type: none"> <li>1.7% x FAP x service.</li> </ul>
Temporary benefit until age 62	<ul style="list-style-type: none"> <li>Not available.</li> </ul>	<ul style="list-style-type: none"> <li>0.8% x FAP x service (must retire under "Rule of 80").</li> </ul>
<b>Vesting</b>	<ul style="list-style-type: none"> <li>5 years of service.</li> </ul>	<ul style="list-style-type: none"> <li>5 years of service.</li> </ul>
<b>In-service COLA</b>	<ul style="list-style-type: none"> <li>COLA given for service beyond age 65. COLA provisions are determined by employment date.</li> </ul>	<ul style="list-style-type: none"> <li>Not available.</li> </ul>
<b>COLA</b>	<ul style="list-style-type: none"> <li>If hired before August 28, 1997, annual COLA is equal to 80% of the percentage increase in the average CPI from one year to the next with a minimum of 4% and a maximum of 5% until reaching 65% cap. Thereafter, the rate is based on 80% of the change in the CPI with a maximum of 5%.</li> <li>If hired on or after August 28, 1997, annual COLA is equal to 80% of the percentage increase in the average CPI with a maximum of 5%.</li> </ul>	<ul style="list-style-type: none"> <li>Annual COLA is equal to 80% of the percentage increase in the average CPI with a maximum of 5%.</li> </ul>
<b>Survivor benefit</b>		
Death before retirement		
<i>Non duty-related death</i>	<ul style="list-style-type: none"> <li>Survivor benefit to eligible spouse calculated using the Joint &amp; 100% Survivor Option or 80% of the member's Life Income Annuity paid to eligible children.</li> </ul>	<ul style="list-style-type: none"> <li>Survivor benefit to eligible spouse calculated using the Joint &amp; 100% Survivor Option or 80% of the member's Life Income Annuity paid to eligible children.</li> </ul>
<i>Duty-related death</i>	<ul style="list-style-type: none"> <li>Survivor benefit to eligible spouse or children no less than 50% of current pay (no service requirement).</li> </ul>	<ul style="list-style-type: none"> <li>Survivor benefit to eligible spouse or children no less than 50% of current pay (no service requirement).</li> </ul>
<b>Optional forms of payment</b>		
Death after retirement	<ul style="list-style-type: none"> <li>Survivor benefit to eligible spouse based on payment option elected at retirement. Payment options include: <ul style="list-style-type: none"> <li>- Life Income Annuity</li> <li>- Unreduced Joint &amp; 50% Survivor</li> <li>- Joint &amp; 100% Survivor</li> <li>- 60 or 120 Guaranteed Payments</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Survivor benefit to eligible spouse based on payment option elected at retirement. Payment options include: <ul style="list-style-type: none"> <li>- Life Income Annuity</li> <li>- Joint &amp; 50% Survivor</li> <li>- Joint &amp; 100% Survivor</li> <li>- 120 or 180 Guaranteed Payments</li> </ul> </li> </ul>

\* On June 30, 2010, the Governor signed HB 1868, which, among other things, establishes the Division of Water Patrol within the State Highway Patrol. This legislation gave those transferring employees a 90-day window to choose to remain a member of MOSERS or transfer their service to the Missouri Department of Transportation and Highway Patrol Employees' Retirement System (MPERS).

*Summary of Plan Provisions***Administrative Law Judges and Legal Advisors Plan\* - June 30, 2011**

Plan Provision	Requirement
Membership eligibility	<ul style="list-style-type: none"> <li>Administrative law judge or legal advisor in the Division of Workers' Compensation, a member or legal counsel of the Labor and Industrial Relations Commission, chairperson of the State Board of Mediation, or an administrative hearing commissioner hired prior to April 26, 2005.</li> </ul>
Normal retirement eligibility	<ul style="list-style-type: none"> <li>Age 62 with 12 years of service,</li> <li>Age 60 with 15 years of service, or</li> <li>Age 55 with 20 years of service.</li> </ul>
Reduced retirement eligibility	<ul style="list-style-type: none"> <li>Age 65 with less than 12 years of service with reduced benefit, based upon years of service relative to 12 years.</li> </ul>
Benefit	<ul style="list-style-type: none"> <li>Normal retirement eligibility               <ul style="list-style-type: none"> <li>- 50% of the average highest 12 consecutive months of salary.</li> </ul> </li> <li>Reduced retirement eligibility               <ul style="list-style-type: none"> <li>- <math>(\text{years of service} \div 12) \times 50\%</math> of the average highest 12 months of salary.</li> </ul> </li> </ul>
Vesting	<ul style="list-style-type: none"> <li>Immediate.</li> </ul>
In-service COLA	<ul style="list-style-type: none"> <li>Not available.</li> </ul>
COLA	<ul style="list-style-type: none"> <li>If hired before August 28, 1997, annual COLA is equal to 80% of the percentage increase in the average CPI from one year to the next with a minimum of 4% and a maximum of 5% until reaching 65% cap. Thereafter, the rate is based on 80% of the change in the CPI with a maximum of 5%.</li> <li>If hired on or after August 28, 1997, annual COLA is equal to 80% of the percentage increase in the average CPI with a maximum of 5%.</li> </ul>
Survivor benefit	
Death before retirement	<ul style="list-style-type: none"> <li>Survivor benefit to eligible spouse equal to 50% of the benefit the member would have received based on service relative to 12 years.</li> </ul>
Death after retirement	<ul style="list-style-type: none"> <li>Survivor benefit to eligible spouse equal to 50% of the member's annuity at the time of death.</li> </ul>

\* All new administrative law judges and legal advisors hired on or after April 26, 2005, who were not previously covered by a retirement system under Chapter 287, RSMo, participate in the MSEP, which is covered under Chapter 104, RSMo.

*Summary of Plan Provisions***Life Insurance Plans - June 30, 2011**

MOSERS administers basic and optional term life insurance plans for eligible state employees and retirees.

**Active Members\***

<b>Plan Provision</b>	<b>Requirement</b>
<ul style="list-style-type: none"> <li>• <b>Basic life insurance</b> - An amount equal to one times annual salary (with a minimum of \$15,000) while actively employed.</li> </ul>	<ul style="list-style-type: none"> <li>• Actively employed in an eligible state position resulting in membership in MOSERS.</li> </ul>
<ul style="list-style-type: none"> <li>• <b>Duty-related death benefit</b> - Duty-related death benefit equivalent to two times the annual salary the member was earning at the time of death in addition to the basic life insurance amount of one times annual salary.</li> </ul>	<ul style="list-style-type: none"> <li>• Actively employed in an eligible state position resulting in membership in MOSERS.</li> </ul>
<ul style="list-style-type: none"> <li>• <b>Optional life insurance</b> - Additional life insurance may be purchased in a flat amount in multiples of \$10,000 not to exceed the maximum (lesser of six times annual salary or \$800,000). Spouse coverage may be purchased in multiples of \$10,000 up to a maximum of \$100,000; however, the amount of spouse coverage cannot exceed the amount of optional life insurance coverage the member has purchased. Coverage for children is available in a flat amount of \$10,000 per child.</li> </ul>	<ul style="list-style-type: none"> <li>• Actively employed in an eligible state position resulting in membership in MOSERS.</li> </ul>

\* Terminating employees may convert coverage up to the amount they had as an active employee at individual rates.

**Retired Members**

<b>Plan Provision</b>	<b>Requirement</b>
<ul style="list-style-type: none"> <li>• <b>Basic life insurance at retirement</b> - \$5,000 basic life insurance during retirement.</li> </ul>	<ul style="list-style-type: none"> <li>• Must retire directly from active employment.</li> </ul>
<ul style="list-style-type: none"> <li>• <b>Optional life insurance at retirement (MSEP)</b> - An employee may retain up to the lesser of \$60,000 or the amount of optional life insurance coverage held at the time of retirement at the group rate and may convert any remaining basic and optional life insurance at individual rates.</li> </ul>	<ul style="list-style-type: none"> <li>• Must retire directly from active employment.</li> </ul>
<ul style="list-style-type: none"> <li>• <b>Optional life insurance at retirement (MSEP 2000)</b> - Under "Rule of 80", an employee may retain the current amount of coverage prior to retirement until age 62 at which time coverage is reduced to \$60,000, and may convert any remaining basic and optional life insurance at individual rates. Coverage for spouse ends at member's retirement and may be converted at individual rates.</li> </ul>	<ul style="list-style-type: none"> <li>• Must retire directly from active employment.</li> </ul>
<ul style="list-style-type: none"> <li>• <b>Optional life insurance at retirement (MSEP 2011)</b> - Under "Rule of 90", an employee may retain the current amount of coverage prior to retirement until age 62 at which time coverage is reduced to \$60,000, and may convert any remaining basic and optional life insurance at individual rates. Coverage for spouse ends at member's retirement and may be converted at individual rates.</li> </ul>	<ul style="list-style-type: none"> <li>• Must retire directly from active employment.</li> </ul>



*Summary of Plan Provisions***Long-Term Disability (LTD) Plans - June 30, 2011**

MOSERS administers the LTD Plan for eligible state employees who become disabled during active employment.

**Active Members**

Classification	Requirement
<ul style="list-style-type: none"> <li>• <b>General state employees, legislators, and elected state officials</b> - Members of MOSERS in a position normally requiring 1,040 hours of work a year are covered under the LTD plan, unless they work for a state agency which has its own LTD plan.</li> </ul>	<ul style="list-style-type: none"> <li>• Eligible participants receive 60% of their compensation minus primary social security, workers' compensation, and employer provided income. Benefits commence after 90 days of disability or after sick leave expires, whichever occurs last. LTD benefits cease upon the earliest of (i) when disability ends, (ii) when the member is first eligible for normal retirement benefits or is receiving early retirement benefits, (iii) when the member returns to work, or (iv) upon a member's death.</li> </ul>
<ul style="list-style-type: none"> <li>• <b>Water patrol</b></li> </ul>	<ul style="list-style-type: none"> <li>• Uniformed members who are eligible for statutory occupational disability receive benefits equal to 50% of compensation with no offset for social security at the time of disability. For nonoccupational disabilities, eligible participants receive the same benefit as general employees.</li> </ul>
<ul style="list-style-type: none"> <li>• <b>Judges</b></li> </ul>	<ul style="list-style-type: none"> <li>• In addition to the disability benefits provided to general employees, judges also receive benefits under the state constitution. Participants receive 50% of salary until the current term expires.</li> </ul>

## Changes in Plan Provisions

### Prospective Plan Changes

On July 8, 2011, Governor Nixon signed into law HB 282, retirement legislation that contained provisions affecting the Missouri State Employees' Retirement Plan, the Missouri Department of Transportation and Highway Patrol Employees' Retirement System (MPERS), and the Missouri Deferred Compensation as well as employees of the Missouri Development Finance Board (MDFB).

This legislation contained provisions that automatically enroll new hires on or after July 1, 2012, in the Deferred Compensation Plan that is administered by MOSERS as well as language providing for MOSERS and MPERS to transfer funds between the two systems in connection with service credit transfers occurring on or after September 1, 2011.

The legislation also included provisions making any full-time employee of MDFB employed on or after September 1, 2011, a state employee and member of MOSERS. Provisions further allow MDFB employees to purchase credited service toward retirement based on their employment with MDFB prior to September 1, 2011. Lastly, the legislation contains provisions that would require all public employee defined benefit retirement plans covered under Chapter 105, RSMo, to submit quarterly investment reports to the Joint Committee on Public Employee Retirement (JCPER) in the form and manner requested by the committee. A more detailed description of this legislation follows.

### MDFB Employees Become Members of MOSERS

Section 100.273 makes any full-time employee of MDFB who is employed on or after September 1, 2011, a state employee and member of MOSERS. However, these employees will not be covered under the Missouri Consolidated Health Care Plan (MCHCP), unless the MDFB governing board requests coverage and MCHCP's board approves the request. These employees may purchase credited service toward retirement based on their pre-September 1, 2011, employment with MDFB, and will not be required to be vested before they purchase their prior service. The cost of the full amount of their prior creditable service allowed would be an amount determined to equal the actuarial accrued liability at the time of the purchase to the extent the system's actuarial accrued liability was funded as of the most recent actuarial valuation. If an employee pays less than the full amount so determined, the employee's prior creditable service will be prorated accordingly. Employees can purchase prior creditable service any time on or after September 1, 2011, but must do so before applying for retirement. Additional provisions exist that will allow MDFB employees who purchase their prior creditable service and subsequently terminate prior to being vested in the system to receive a refund equal to the purchase amount.

### MOSERS/MPERS Transfer of Funds

This provision requires MOSERS and MPERS to transfer funds between the two systems in connection with service credit transfers occurring on or after September 1, 2011. Upon a reciprocal transfer of creditable or credited service, the sending system from which the service is transferred will be required to pay the receiving system to which the service is transferred an amount equal to the present value of the accrued benefit determined using the same assumptions used in that system's last regular valuation assuming active member status based on the unit credit actuarial cost method. However, in no event will the payment amount be less than the sum of the member's accumulated contributions and interest plus any purchased service payments from the member held on deposit by the sending system. In the event the member has received a refund of accumulated contributions from the sending system and forfeited service credit with that system, the member will need to reestablish that service with the sending system by again becoming an active member of either system and satisfying the requirements otherwise stipulated for reestablishing service credit with the sending system.

In addition, the service transfer will not be deemed completed until the sending system makes payment to the receiving system, which payment will be made within 90 days of the date that a completed transfer request is submitted by the member.

When the transfer payment includes an amount identified as corresponding to a member's accumulated contributions, the accumulated contributions portion will be identified and the accumulated contribution balance as of the preceding July 1 will be identified and the receiving system will be responsible for crediting interest according to the terms of the receiving plan. Lastly, the systems will be required to coordinate their plan administration for reciprocal transfers to give full effect to the transfer and acceptance of corresponding division of benefit orders as well as allowing a survivor to obtain a reciprocal transfer.

### **Quarterly Investment Reporting to the JCPER**

**Section 105.661** – This provision will require all public employee defined benefit retirement plans covered under Chapter 105, RSMo, to submit quarterly investment reports to the JCPER in the form and manner requested by the committee. Under this provision, if a plan fails to submit this report, the JCPER may subpoena witnesses, take testimony under oath, and compel the production of records regarding this information, pursuant to its authority under Section 21.561.

### **State of Missouri Deferred Compensation Plan – Automatic Enrollment**

**Sections 105.915, 105.927** – These provisions will result in new employees hired on or after July 1, 2012, being automatically enrolled in the State of Missouri Deferred Compensation Plan.

The Deferred Compensation Plan is a voluntary state-sponsored program administered by MOSERS that offers state employees the opportunity to save for retirement with before-tax earnings. Under these provisions, a newly hired employee will automatically be enrolled in the deferred compensation plan at 1% of their annual pay unless the employee elects not to participate within the first thirty days of employment. If the employee elects not to participate in the plan during that period, any amounts contributed and earnings thereon will be refunded by the plan to the employee. (State college or university employees are excluded from the automatic enrollment feature but may elect to participate in the plan.)

A default target date fund will automatically be selected for each new employee based on his/her age at date of hire. Employees can choose to “opt out,” if they so desire. In this context, “opting out” could involve electing not to participate, electing to participate but at a lesser amount, electing another fund, electing to defer more than 1% of their annual pay, or combinations of these possibilities.

Additional provisions allow a spouse to automatically be designated as a primary beneficiary unless the spouse consents in writing to allow the participant to designate a non-spouse beneficiary. The legislation also permits the plan administrator (the MOSERS Board of Trustees) to amend plan documents for consistency with federal law.

Lastly, provisions exist which clarify that employees who are compensated under a local payroll system (such as MOSERS and MCHCP) are eligible to participate in the state match under the deferred compensation incentive plan.

## Actuarial Present Values

As of June 30, 2011

<b>MSEP</b>			
<b>Actuarial Present Value June 30, 2011 for</b>	<b>Actuarial Present Value</b>	<b>Portion Covered by Future Normal Cost Contributions</b>	<b>Actuarial Accrued Liabilities</b>
<b>Active members</b>			
Service retirement benefits based on services rendered before and likely to be rendered after valuation date	\$4,455,805,742	\$675,513,589	\$3,780,292,153
Disability benefits likely to be paid to present active members who become totally and permanently disabled	132,526,064	60,852,661	71,673,403
Survivor benefits likely to be paid to widows and children of present active members who die before retiring	107,793,741	27,659,645	80,134,096
Separation benefits likely to be paid to present active members	456,046,640	214,907,622	241,139,018
Refunds likely to be paid to present active members	3,040,933	2,973,807	67,126
Active member totals	<u>\$5,155,213,120</u>	<u>\$981,907,324</u>	4,173,305,796
<b>Members on leave of absence &amp; LTD</b>			
Service retirement benefits based on service rendered before the valuation date			115,863,820
<b>Terminated-vested members</b>			
Service retirement benefits based on service rendered before the valuation date			476,579,810
<b>Retired lives</b>			
BackDROP installment payments incurred, but not yet paid			5,357,322,470
			472,147
<b>Total actuarial accrued liability</b>			<u>10,123,544,043</u>
<b>Actuarial value of assets</b>			<u>8,022,481,408</u>
<b>Unfunded actuarial accrued liability</b>			<u>\$2,101,062,635</u>

<b>Judicial Plan</b>			
<b>Actuarial Present Value June 30, 2011 for</b>	<b>Actuarial Present Value</b>	<b>Portion Covered by Future Normal Cost Contributions</b>	<b>Actuarial Accrued Liabilities</b>
<b>Active members</b>			
Service retirement benefits based on services rendered before and likely to be rendered after valuation date	\$178,166,409	\$52,109,670	\$126,056,739
Disability benefits likely to be paid to present active members who become totally and permanently disabled	800,116	799,270	846
Survivor benefits likely to be paid to widows and children of present active members who die before retiring	5,487,554	3,191,593	2,295,961
Refunds likely to be paid to present active members	26,228	25,944	284
Active member totals	<u>\$184,480,307</u>	<u>\$56,126,477</u>	128,353,830
<b>Retired lives</b>			
			251,532,354
<b>Terminated-vested members</b>			
			13,450,473
<b>Members on LTD</b>			
			147,932
<b>Total actuarial accrued liability</b>			<u>393,484,589</u>
<b>Actuarial value of assets</b>			<u>98,398,628</u>
<b>Unfunded actuarial accrued liability</b>			<u>\$295,085,961</u>