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Actuarial Section

Photo by: Jim Sturm

Actuarial Section

Actuary's Certification Letter



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September 29, 2004

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 has annual actuarial valuations performed. The valuations (i) measure present financial position, and (ii) establish contribution rates that provide for the current cost and level percent of payroll amortization of unfunded actuarial accrued liabilities over a reasonable period. The latest completed actuarial valuations were based upon data and assumptions as of June 30, 2004. These valuations indicate that the contribution rates for the fiscal year ending June 30, 2006, adopted by the board of trustees for the benefits scheduled to be in effect on July 1, 2004, meet the basic financial objective. These contribution rates are 12.59% of payroll for 55,914 general state employees, 21.79% of payroll for 57 administrative law judges, and 55.76% of payroll for 391 judges other than administrative law 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 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. The demographic assumptions were adopted by the board of trustees in January 2004 based upon recommendations made in an experience study covering the period from 1999-2003.

The economic assumptions were adopted by the board of trustees in September 2001 and reaffirmed in January 2004. Assets are valued according to a method that fully recognizes expected investment return and averages unanticipated market return over a five-year period. The assumptions and methods utilized in this valuation, in our opinion, meet the parameters established by Governmental Accounting Standards Board Statement No. 25.

The current benefit structure is outlined in the Actuarial Section. The changes made since the previous valuation are highlighted on page 128. 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 System continues in sound financial condition in accordance with actuarial principles of level percent of payroll financing.

Respectfully submitted,

Norman L. Jones, F.S.A.

Bred Cart

Senior Consultant & Actuary

Brad L. Armstrong, A.S.A. Senior Consultant & Actuary

June 30, 2004



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 100. 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 salary 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 inflation.

The annual COLA is assumed to be 4% per year on a compounded basis when a minimum COLA of 4% is in effect and 2.8% per year on a compounded basis when no minimum COLA is in effect.

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). The number of active members in the ALJLAP and Judicial Plan is assumed to continue at the present number. Active and retired member data is reported as of May 31, 2004. It is assumed for valuation purposes that there is no turnover among members and no new entrants during the month of June.

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 1-year age setback for men and a 7-year age setback for women. Related values are shown on page 101. 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 101-103. The first two years of eligibility, if prior to age 70, were halved due to the expected emerging effect of the BackDROP. 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, death-in-service, and disability are shown for sample ages on page 100. 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 actual experience (actuarial gains and losses) become part of actuarial accrued liabilities. Unfunded actuarial accrued liabilities are amortized to produce payments (principal and

interest), which are a level percent of payroll contributions.

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

The asset valuation method fully recognizes expected investment return and averages unanticipated market return over a five-year period.

The data about persons now covered and about present assets was 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, were based on MSEP 2000 benefits. The liabilities for active members hired before July 1, 2000, were based on MSEP 2000 benefits for male general employees with an age at hire of 35 years or less, for female general employees, for contract employees, for elected officials, and for general assembly members. All others were based on MSEP 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 (MAAA).

Missouri State Employees' Retirement System

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

June 30, 2004

MSEP
Percent of Active Members
Separating Within the Next Year

Pay Increase Assumptions for an Individual Employee

Pay Increase Assumptions

for an Individual Employee

| Sample Ages | Years of Service | With Men | drawal Women | Men | eath* Women | Disa Men | Women | Merit and Seniority** | Base (Economy) | Increase Next Year |
|----------------|---------------------|-------------|-----------------|------|----------------|-------------|-------|--------------------------|-------------------|-----------------------|
| | 0 | 23.8% | 24.7% | | | | | | | |
| | 1 | 16.5 | 17.2 | | | | | | | |
| | 2 | 13.4 | 13.5 | | | | | | | |
| | 3 | 11.9 | 10.7 | | | | | | | |
| | 4 | 12.0 | 10.7 | | | | | | | |
| 20 | +5 | 12.0 | 11.0 | .04% | .03% | .16% | .18% | 2.7% | 4.0% | 6.7% |
| 25 | | 12.0 | 11.0 | .05 | .04 | .16 | .18 | 2.6 | 4.0 | 6.6 |
| 30 | | 8.8 | 9.9 | .06 | .04 | .16 | .18 | 2.2 | 4.0 | 6.2 |
| 35 | | 6.2 | 6.8 | .08 | .06 | .21 | .19 | 1.9 | 4.0 | 5.9 |
| 40 | | 4.6 | 4.9 | .12 | .08 | .26 | .32 | 1.4 | 4.0 | 5.4 |
| 45 | | 3.5 | 4.3 | .19 | .11 | .34 | .37 | 1.2 | 4.0 | 5.2 |
| 50 | | 2.8 | 3.6 | .35 | .17 | .49 | .57 | 0.7 | 4.0 | 4.7 |
| 55 | | 2.4 | 2.9 | .59 | .31 | 1.07 | .89 | 0.7 | 4.0 | 4.7 |
| 60 | | 2.4 | 2.9 | .90 | .54 | 1.50 | 1.50 | 0.0 | 4.0 | 4.0 |
| 65 | | 2.4 | 2.9 | 1.44 | .83 | 1.60 | 0.70 | 0.0 | 4.0 | 4.0 |

^{* 2%} of the deaths in active service are assumed to be duty-related.

Percent of Active Members

Separating Within the Next Year

ALJLAP

| Sample | | drawal | | eath | | bility | Merit and | Base | Increase Next Year |
|--------|------|--------|------|-------|------|--------|-----------|-----------|-----------------------|
| Ages | Men | Women | Men | Women | Men | Women | Seniority | (Economy) | Next Year |
| 25 | 6.2% | 4.5% | .05% | .04% | .02% | .02% | 1.6% | 4.0% | 5.6% |
| 30 | 5.5 | 3.7 | .06 | .04 | .03 | .03 | 1.2 | 4.0 | 5.2 |
| 35 | 3.8 | 2.6 | .08 | .06 | .03 | .07 | 0.9 | 4.0 | 4.9 |
| 40 | 2.7 | 2.1 | .12 | .08 | .04 | .11 | 0.4 | 4.0 | 4.4 |
| 45 | 2.1 | 1.9 | .19 | .11 | .09 | .17 | 0.3 | 4.0 | 4.3 |
| 50 | 2.1 | 1.7 | .35 | .17 | .12 | .35 | 0.2 | 4.0 | 4.2 |
| 55 | 2.1 | 1.2 | .59 | .31 | .23 | .49 | 0.2 | 4.0 | 4.2 |
| 60 | 1.7 | 0.6 | .90 | .54 | .33 | .53 | 0.0 | 4.0 | 4.0 |
| 65 | 1.2 | 0.4 | 1.44 | .83 | .00 | .00 | 0.0 | 4.0 | 4.0 |

^{**} Does not apply to members of the general assembly.

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

June 30, 2004

Judicial Plan

Percent of Active Members Separating Within the Next Year Pay Increase Assumptions for an Individual Employee

| Sample Withdr | | ıdrawal | D | eath | Disa | bility | Merit and | Base | Increase |
|---------------|------|---------|------|-------|------|--------|-----------|-----------|-----------|
| Ages | Men | Women | Men | Women | Men | Women | Seniority | (Economy) | Next Year |
| 25 | 6.2% | 4.5% | .05% | .04% | .02% | .02% | 1.6% | 4.0% | 5.6% |
| 30 | 5.5 | 3.7 | .06 | .04 | .03 | .03 | 1.2 | 4.0 | 5.2 |
| 35 | 3.8 | 2.6 | .08 | .06 | .03 | .07 | 0.9 | 4.0 | 4.9 |
| 40 | 2.7 | 2.1 | .12 | .08 | .04 | .11 | 0.4 | 4.0 | 4.4 |
| 45 | 2.1 | 1.9 | .19 | .11 | .09 | .17 | 0.3 | 4.0 | 4.3 |
| 50 | 2.1 | 1.7 | .35 | .17 | .12 | .35 | 0.2 | 4.0 | 4.2 |
| 55 | 2.1 | 1.2 | .59 | .31 | .23 | .49 | 0.2 | 4.0 | 4.2 |
| 60 | 1.7 | 0.6 | .90 | .54 | .33 | .53 | 0.0 | 4.0 | 4.0 |
| 65 | 1.2 | 0.4 | 1.44 | .83 | .00 | .00 | 0.0 | 4.0 | 4.0 |

Summary of Actuarial Assumptions

Single Life Retirement Values

June 30, 2004

All Plans

Present Value of \$1/Month the First Year Increasing 4%/2.8% Yearly

Future Life Expectancy (Years)

| Sample Attained | Servi | ce | Disa | bility | Ser | vice | Disa | sability Women |
|--------------------|-----------|-----------|-----------|-----------|-------|-------|-------|-------------------|
| Ages | Men | Women | Men | Women | Men | Women | Men | |
| 40 | \$ 202.23 | \$ 212.07 | \$ 135.46 | \$ 156.68 | 38.46 | 44.22 | 19.70 | 26.02 |
| 45 | 191.81 | 204.06 | 126.32 | 150.16 | 33.73 | 39.41 | 17.50 | 23.70 |
| 50 | 179.47 | 194.06 | 116.10 | 142.75 | 29.17 | 34.67 | 15.35 | 21.39 |
| 55 | 165.25 | 182.08 | 106.06 | 135.11 | 24.82 | 30.06 | 13.43 | 19.18 |
| 60 | 148.90 | 168.25 | 97.62 | 126.74 | 20.70 | 25.67 | 11.87 | 17.01 |
| 65 | 130.43 | 152.36 | 90.66 | 117.09 | 16.82 | 21.50 | 10.56 | 14.82 |
| 70 | 110.79 | 134.27 | 82.12 | 105.05 | 13.32 | 17.57 | 9.13 | 12.50 |
| 75 | 91.75 | 114.73 | 70.79 | 89.33 | 10.36 | 13.99 | 7.49 | 10.00 |
| 80 | 73.37 | 95.50 | 56.17 | 71.93 | 7.83 | 10.91 | 5.66 | 7.62 |
| 85 | 57.86 | 76.89 | 42.26 | 56.17 | 5.89 | 8.29 | 4.08 | 5.66 |

Missouri State Employees' Retirement System

Percent of Eligible Active Members Retiring Next Year

June 30, 2004

MSEP

| Retirement | 3 | Year of Eligibility | |
|------------|----------|---------------------|----------|
| Ages | 1st Year | 2nd Year | 3rd Year |
| | | | |
| 48 | 20.0% | 10.0% | 8.0% |
| 49 | 20.0 | 10.0 | 8.0 |
| 50 | 20.0 | 10.0 | 8.0 |
| 51 | 20.0 | 10.0 | 8.0 |
| 52 | 20.0 | 10.0 | 8.0 |
| 53 | 20.0 | 10.0 | 8.0 |
| 54 | 20.0 | 10.0 | 8.0 |
| 55 | 25.0 | 10.0 | 15.0 |
| 56 | 20.0 | 10.0 | 15.0 |
| 57 | 20.0 | 10.0 | 15.0 |
| 58 | 20.0 | 10.0 | 15.0 |
| 59 | 20.0 | 10.0 | 15.0 |
| 60 | 25.0 | 10.0 | 15.0 |
| 61 | 20.0 | 10.0 | 15.0 |
| 62 | 30.0 | 15.0 | 35.0 |
| 63 | 20.0 | 12.0 | 20.0 |
| 64 | 20.0 | 12.0 | 20.0 |
| 65 | 30.0 | 15.0 | 40.0 |
| 66 | 20.0 | 12.0 | 25.0 |
| 67 | 20.0 | 12.0 | 25.0 |
| 68 | 20.0 | 12.0 | 25.0 |
| 69 | 20.0 | 12.0 | 25.0 |
| 70 | 20.0 | 12.0 | 25.0 |
| 71 | 20.0 | 12.0 | 25.0 |
| 72 | 20.0 | 12.0 | 25.0 |
| 73 | 20.0 | 12.0 | 25.0 |
| 74 | 20.0 | 12.0 | 25.0 |
| 75 & over | 20.0 | 12.0 | 100.00 |

Early retirement rates were assumed to be 5.0% from age 57-61.

Percent of Eligible Active Members Retiring Next Year

June 30, 2004

ALJLAP

| Retirement | Percent | |
|------------|---------|-------|
| Ages | Men | Women |
| 55 | 5.0% | 8.0% |
| 56 | 5.0 | 8.0 |
| 57 | 5.0 | 8.0 |
| 58 | 5.0 | 8.0 |
| 59 | 5.0 | 8.0 |
| 60 | 15.0 | 25.0 |
| 61 | 10.0 | 15.0 |
| 62 | 15.0 | 25.0 |
| 63 | 10.0 | 15.0 |
| 64 | 10.0 | 25.0 |
| 65 | 25.0 | 55.0 |
| 66 | 20.0 | 35.0 |
| 67 | 20.0 | 25.0 |
| 68 | 20.0 | 25.0 |
| 69 | 30.0 | 60.0 |
| 70 | 30.0 | 60.0 |
| 71 | 30.0 | 60.0 |
| 72 | 30.0 | 60.0 |
| 73 | 30.0 | 60.0 |
| 74 | 30.0 | 60.0 |
| 75 & over | 100.0 | 100.0 |

Judicial Plan

| Retirement | Percent | |
|------------|---------|-------|
| Ages | Men | Women |
| 55 | 5.0% | 8.0% |
| 56 | 5.0 | 8.0 |
| 57 | 5.0 | 8.0 |
| 58 | 5.0 | 8.0 |
| 59 | 5.0 | 8.0 |
| 60 | 15.0 | 15.0 |
| 61 | 10.0 | 10.0 |
| 62 | 15.0 | 15.0 |
| 63 | 10.0 | 10.0 |
| 64 | 10.0 | 10.0 |
| 65 | 25.0 | 40.0 |
| 66 | 20.0 | 25.0 |
| 67 | 20.0 | 25.0 |
| 68 | 20.0 | 25.0 |
| 69 | 30.0 | 50.0 |
| 70 | 100.0 | 100.0 |

Miscellaneous and Technical Assumptions

June 30, 2004



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 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.

Loads

No loads were used.

Incidence of Contributions

Contributions are assumed to be received continuously throughout the year based upon the computed percent of payroll shown in the 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.

Summary of Member Data Included in Valuations

Pension Trust Funds

June 30, 2004

Active Members

| | | | Group Averages | | | |
|--|--------|-----------------|----------------|--------|---------|--|
| | | | | Age | Service | |
| Valuation Group | Number | Payroll | Salary | (Yrs.) | (Yrs.) | |
| Missouri State Employees' Plan | | | | | | |
| Regular state employees | 51,551 | \$1,533,940,962 | 29,756 | 43.6 | 9.7 | |
| Elected officials | 6 | 590,966 | 98,494 | 47.1 | 7.1 | |
| Legislative clerks | 79 | 2,037,423 | 25,790 | 54.9 | 13.8 | |
| Legislators | 196 | 6,157,275 | 31,415 | 49.7 | 3.8 | |
| Uniformed water patrol | 84 | 3,303,050 | 39,322 | 38.7 | 13.2 | |
| Conservation Department | 1,487 | 54,629,009 | 36,738 | 42.5 | 12.7 | |
| School-term salaried employees | 2,511 | 136,795,769 | 54,479 | 51.6 | 15.5 | |
| Total MSEP group | 55,914 | 1,737,454,454 | 31,074 | 44.0 | 10.0 | |
| Administrative Law Judges and Legal Advisors' Plan | 57 | 4,655,340 | 81,673 | 48.8 | 10.2 | |
| Judicial Plan | 391 | 39,878,499 | 101,991 | 53.6 | 11.4 | |

Retired Members

| | | | Group Averages | | |
|--|--------|------------------------|----------------|--------|--|
| | | | | Age | |
| Type of Benefit Payment | Number | Annual Benefits | Benefit | (Yrs.) | |
| Missouri State Employees' Plan | | | | | |
| Retirement | 21,824 | \$301,780,727 | 13,828 | 69.3 | |
| Disability | 25 | 98,544 | 3,942 | 57.7 | |
| Survivor of active member | 1,206 | 8,880,058 | 7,363 | 58.9 | |
| Survivor of retired member | 1,702 | 13,867,729 | 8,148 | 73.3 | |
| Total MSEP group | 24,757 | 324,627,058 | 13,113 | 69.0 | |
| Administrative Law Judges and Legal Advisors' Plan | 25 | 910,409 | 36,416 | 73.2 | |
| Judicial Plan | 397 | 18,005,774 | 45,355 | 75.7 | |

Others

| | Terminated | Leave of | Long-Term |
|--|------------|----------|------------|
| Group | Vested | Absence | Disability |
| Missouri State Employees' Plan | 13,796 | 511 | 1,055 |
| Administrative Law Judges and Legal Advisors' Plan | 29 | 0 | 0 |
| Judicial Plan | 73 | 0 | 0 |

Active Members by Attained Age and Years of Service

June 30, 2004

MSEP

| | | | | Totals | | | | | |
|--------------|--------|--------|-------|--------|-------|-------|---------|--------|-------------------|
| Attained Age | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30 Plus | No. | Valuation Payroll |
| 15-19 | 73 | | | | | | | 73 | \$ 1,188,096 |
| 20-24 | 1,836 | 18 | | | | | | 1,854 | 38,551,293 |
| 25-29 | 3,996 | 837 | 12 | | | | | 4,845 | 122,552,267 |
| 30-34 | 3,096 | 2,563 | 445 | 19 | | | | 6,123 | 172,216,499 |
| 35-39 | 2,407 | 2,161 | 1,495 | 511 | 25 | | | 6,599 | 197,214,229 |
| 40-44 | 2,446 | 2,035 | 1,359 | 1,468 | 645 | 78 | | 8,031 | 249,856,953 |
| 45-49 | 2,275 | 1,974 | 1,350 | 1,426 | 1,072 | 878 | 52 | 9,027 | 291,970,400 |
| 50-54 | 1,916 | 1,693 | 1,354 | 1,424 | 1,010 | 1,209 | 353 | 8,959 | 304,685,907 |
| 55-59 | 1,419 | 1,314 | 1,136 | 1,113 | 723 | 512 | 302 | 6,519 | 221,664,790 |
| 60 | 168 | 144 | 133 | 166 | 68 | 43 | 45 | 767 | 26,173,010 |
| 61 | 154 | 182 | 133 | 139 | 66 | 49 | 46 | 769 | 26,684,555 |
| 62 | 142 | 138 | 101 | 115 | 47 | 29 | 41 | 613 | 21,922,337 |
| 63 | 73 | 111 | 65 | 71 | 28 | 26 | 40 | 414 | 14,546,606 |
| 64 | 68 | 68 | 60 | 55 | 25 | 16 | 21 | 313 | 11,175,093 |
| 65 | 44 | 58 | 39 | 36 | 14 | 12 | 40 | 243 | 9,245,920 |
| 66 | 38 | 35 | 39 | 26 | 15 | 17 | 27 | 197 | 7,772,932 |
| 67 | 16 | 36 | 23 | 17 | 11 | 9 | 22 | 134 | 5,138,982 |
| 68 | 19 | 23 | 16 | 21 | 9 | 4 | 12 | 104 | 3,785,737 |
| 69 | 13 | 15 | 17 | 19 | 9 | 5 | 11 | 89 | 3,189,742 |
| 70 & Over | 51 | 41 | 41 | 47 | 21 | 17 | 23 | 241 | 7,919,106 |
| Totals | 20,250 | 13,446 | 7,818 | 6,673 | 3,788 | 2,904 | 1,035 | 55,914 | \$1,737,454,454 |

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

Group Averages:

Age 44.0 years Service 10.0 years Annual Pay \$31,074 Active Members by Attained Age and Years of Service

June 30, 2004

ALJLAP

| | | | | | Totals | | | | |
|--------------|-----|-----|-------|-------|--------|-------|---------|-----|-------------------|
| Attained Age | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30 Plus | No. | Valuation Payroll |
| 30-34 | 1 | | | | | | | 1 | \$ 76,800 |
| 35-39 | 8 | 2 | | | | | | 10 | 835,629 |
| 40-44 | 2 | 1 | 7 | 1 | | | | 11 | 842,934 |
| 45-49 | 4 | 4 | 4 | | | | | 12 | 972,273 |
| 50-54 | 1 | 1 | 1 | 5 | | | | 8 | 708,599 |
| 55-59 | 1 | 1 | 2 | 1 | 1 | | | 6 | 511,829 |
| 60 | 1 | | | | 1 | | | 2 | 153,600 |
| 61 | | 1 | | | | 1 | | 2 | 157,268 |
| 62 | | | 1 | | | | | 1 | 86,400 |
| 65 | 1 | | | | | | | 1 | 70,008 |
| 67 | | | | | | 1 | | 1 | 76,800 |
| 69 | 1 | | | | | | | 1 | 86,400 |
| 70 & Over | | | | | | | 1 | 1 | 76,800 |
| Totals | 20 | 10 | 15 | 7 | 2 | 2 | 1 | 57 | \$4,655,340 |

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

Group Averages:

 Age
 48.8 years

 Service
 10.2 years

 Annual Pay
 \$81,673

Active Members by Attained Age and Years of Service

June 30, 2004

Judicial Plan

| | | Years of Service to Valuation Date | | | | | | | Totals | |
|--------------|-----|------------------------------------|-------|-------|-------|-------|---------|-----|-------------------|--|
| Attained Age | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30 Plus | No. | Valuation Payroll | |
| 30-34 | 1 | | | | | | | 1 | \$96,000 | |
| 35-39 | 12 | 4 | | | | | | 16 | 1,536,000 | |
| 40-44 | 16 | 13 | 2 | 1 | | | | 32 | 3,130,772 | |
| 45-49 | 19 | 23 | 6 | 3 | 1 | | | 52 | 5,283,644 | |
| 50-54 | 28 | 23 | 23 | 10 | 6 | 8 | | 98 | 10,071,494 | |
| 55-59 | 17 | 30 | 23 | 18 | 10 | 16 | 1 | 115 | 11,777,596 | |
| 60 | 1 | 3 | 5 | 5 | | | | 14 | 1,404,000 | |
| 61 | 1 | 2 | 1 | | 1 | 1 | | 6 | 612,000 | |
| 62 | 1 | 4 | 2 | 4 | 2 | | | 13 | 1,333,998 | |
| 63 | 1 | 3 | 3 | 2 | 4 | 1 | | 14 | 1,458,999 | |
| 64 | | 3 | 1 | | 1 | 2 | 2 | 9 | 942,999 | |
| 65 | 1 | | 1 | | 1 | 1 | 2 | 6 | 625,999 | |
| 66 | | 1 | 2 | 2 | | | | 5 | 534,999 | |
| 67 | 1 | | | 1 | 1 | | 1 | 4 | 427,000 | |
| 68 | | | 1 | | | 1 | 1 | 3 | 318,999 | |
| 69 | | | 1 | | | 1 | | 2 | 216,000 | |
| 70 & Over | | | | | | 1 | | 1 | 108,000 | |
| Totals | 99 | 109 | 71 | 46 | 27 | 32 | 7 | 391 | \$39,878,499 | |

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

Group Averages:

Age 53.6 years Service 11.4 years Annual Pay \$101,991

Schedules of Active Member Valuation Data

Six Years Ended June 30, 2004

MSEP Schedule of Active Member Valuation Data

| Valuation Date | Number | Annual Payroll | Annual Average Pay | Percentage of Increase in Average Pay |
|----------------|--------|----------------|-----------------------|--|
| June 30, 1999 | 56,158 | 1,564,551,532 | 27,860 | 4.10 |
| June 30, 2000 | 57,774 | 1,683,697,080 | 29,143 | 4.61 |
| June 30, 2001 | 58,431 | 1,758,190,268 | 30,090 | 3.25 |
| June 30, 2002 | 58,616 | 1,773,283,484 | 30,253 | 0.54 |
| June 30, 2003 | 57,558 | 1,739,895,364 | 30,229 | (0.08) |
| June 30, 2004 | 55,914 | 1,737,454,454 | 31,074 | 2.80 |

ALJLAP

Schedule of Active Member Valuation Data

| Valuation Date | Number | Annual Payroll | Annual Average Pay | Percentage of Increase in Average Pay |
|----------------|--------|----------------|-----------------------|--|
| June 30, 1999 | 47 | 3,488,698 | 74,228 | 11.09 |
| June 30, 2000 | 52 | 4,072,888 | 78,325 | 5.52 |
| June 30, 2001 | 57 | 4,661,020 | 81,772 | 4.40 |
| June 30, 2002 | 58 | 4,779,504 | 82,405 | 0.77 |
| June 30, 2003 | 57 | 4,657,896 | 81,717 | (0.83) |
| June 30, 2004 | 57 | 4,655,340 | 81,673 | (0.05) |

Judicial Plan

Schedule of Active Member Valuation Data

| Valuation Date | Number | Annual Payroll | Annual Average Pay | Percentage of Increase in Average Pay |
|----------------|--------|----------------|-----------------------|--|
| June 30, 1999 | 366 | 34,162,013 | 93,339 | 5.00 |
| June 30, 2000 | 375 | 37,107,487 | 98,953 | 6.01 |
| June 30, 2001 | 381 | 38,687,793 | 101,543 | 2.62 |
| June 30, 2002 | 392 | 40,068,744 | 102,216 | 0.66 |
| June 30, 2003 | 392 | 40,052,952 | 102,176 | (0.04) |
| June 30, 2004 | 391 | 39,878,499 | 101,991 | (0.18) |

Six Years Ended June 30, 2004

MSEP Added to Rolls

| Fiscal Year Ended | Classification | Benefit Type | Number | Annual Allowances |
|----------------------|-----------------------------|--|-------------------------|--|
| June 30, 1999 | General Employee | Retirement Survivor Of Active Survivor of Retired Disability | 1,282 95 152 0 | \$ 18,566,542 773,822 1,081,059 4,558 |
| | Lincoln University - Vested | Occupational Disability Retirement Survivor Of Active | 0 1 0 | 0 1,051 (262) |
| | Legislators | Retirement Survivor Of Active | 10 2 | 257,072 26,662 |
| | Elected Officials | Survivor of Retired Retirement Survivor Of Active Survivor of Retired | 5 1 0 0 | 39,656 49,578 0 861 |
| June 30, 2000 | General Employee | Retirement Survivor Of Active Survivor of Retired Disability | 1,337 86 416 1 | 20,272,214 1,020,432 2,481,786 8,081 |
| | Lincoln University -Vested | Occupational Disability Retirement Survivor Of Active | 0 1 0 | 0 5,860 0 |
| | Legislators | Retirement Survivor Of Active Survivor of Retired | 8 0 3 | 204,076 2,157 36,026 |
| | Elected Officials | Retirement Survivor Of Active Survivor of Retired | 0 0 0 | 6,821 0 895 |
| June 30, 2001 | General Employee | Retirement Survivor Of Active Survivor of Retired Disability Occupational Disability | 2,580 84 197 0 | 55,234,780 814,517 1,832,029 3,518 |
| | Lincoln University - Vested | Retirement Survivor Of Active | 1 0 | 1,841 0 |
| | Legislators | Retirement Survivor Of Active Survivor of Retired | 14 0 7 | 436,356 2,468 89,399 |
| | Elected Officials | Retirement Survivor Of Active Survivor of Retired | 6 1 0 | 230,136 56,938 931 |

| Removed | From Rolls | Rolls at | End of Year | | | |
|---------|----------------------|----------|----------------------|---|--------------------------------|---|
| Number | Annual Allowances | Number | Annual Allowances | Percentage Increase in Annual Allowances | Average Annual Allowance | Percentage Increase in Average Annual Allowance |
| 637 | \$ 4,686,352 | 15,177 | \$ 145,836,606 | 10.52% | \$ 9,609 | 5.83% |
| 21 | 47,199 | 934 | 5,006,254 | 16.98 | 5,360 | 7.72 |
| 37 | 193,063 | 815 | 5,428,136 | 19.56 | 6,660 | 2.68 |
| 4 | 21,045 | 59 | 225,412 | (6.82) | 3,821 | (0.49) |
| 0 | 0 | 1 | 17,448 | 0.00 | 17,448 | 0.00 |
| 1 | 4,327 | 6 | 31,143 | (9.52) | 5,191 | (9.52) |
| 0 | 0 | ĺ | 2,624 | (9.08) | 2,624 | (9.08) |
| 7 | 105,277 | 161 | 2,838,771 | 5.65 | 17,632 | 3.68 |
| Ó | 0 | 8 | 67,879 | 64.69 | 8,485 | 23.51 |
| 6 | 60,921 | 27 | 197,388 | (9.73) | 7,311 | (6.38) |
| 0 | 0 | 3 | 136,446 | 57.07 | 45,482 | 4.72 |
| ő | Ö | 0 | 0 | 0.00 | 0 | 0.00 |
| 0 | ő | 1 | 22,373 | 4.00 | 22,373 | 4.00 |
| 649 | 5,324,814 | 15,865 | 160,784,006 | 10.25 | 10,135 | 5.47 |
| 37 | 110,049 | 983 | 5,916,637 | 18.18 | 6,019 | 12.29 |
| 47 | 294,927 | 1,184 | 7,614,995 | 40.29 | 6,432 | (3.42) |
| 8 | 43,141 | 52 | 190,352 | (15.55) | 3,661 | (4.19) |
| 0 | 0 | 1 | 17,448 | 0.00 | 17,448 | 0.00 |
| 0 | 0 | 7 | 37,003 | 18.82 | 5,286 | 1.83 |
| 0 | 0 | 1 | 2,624 | 0.00 | 2,624 | 0.00 |
| 3 | 95,126 | 166 | 2,947,721 | 3.84 | 17,757 | 0.71 |
| 0 | 0 | 8 | 70,036 | 3.18 | 8,755 | 3.18 |
| 0 | 0 | 30 | 233,414 | 18.25 | 7,780 | 6.41 |
| 0 | 0 | 3 | 143,267 | 5.00 | 47,756 | 5.00 |
| 0 | 0 | 0 | 0 | 0.00 | 0 | 0.00 |
| 0 | 0 | 1 | 23,268 | 4.00 | 23,268 | 4.00 |
| 670 | 5,935,443 | 17,775 | 210,083,343 | 30.66 | 11,819 | 16.62 |
| 27 | 173,754 | 1,040 | 6,557,400 | 10.83 | 6,305 | 4.75 |
| 67 | 328,785 | 1,314 | 9,118,239 | 19.74 | 6,939 | 7.88 |
| 14 | 55,684 | 38 | 138,186 | (27.41) | 3,636 | (0.68) |
| 0 | 0 | 1 | 17,448 | 0.00 | 17,448 | 0.00 |
| 0 | 0 | 8 | 38,844 | 4.98 | 4,856 | (8.13) |
| 0 | 0 | 1 | 2,624 | 0.00 | 2,624 | 0.00 |
| 9 | 156,423 | 171 | 3,227,654 | 9.50 | 18,875 | 6.30 |
| 0 | 0 | 8 | 72,504 | 3.52 | 9,063 | 3.52 |
| 1 | 11,056 | 36 | 311,757 | 33.56 | 8,660 | 11.31 |
| 0 | 0 | 9 | 373,403 | 160.63 | 41,489 | (13.12) |
| | | 1 | 56,938 | 0.00 | 56,938 | 0.00 |
| | | 1 | 24,199 | 4.00 | 24,199 | 4.00 |
| | | | | | | |

MSEP continued on pages 112-113.

Six Years Ended June 30, 2004

MSEP Added to Rolls

| Fiscal Year Ended | Classification | Benefit Type | Number | Annual Allowances |
|----------------------|-----------------------------|-------------------------|--------|----------------------|
| June 30, 2002 | General Employee | Retirement | 1,840 | \$ 32,360,047 |
| | 1 . | Survivor Of Active | 84 | 842,611 |
| | | Survivor of Retired | 209 | 1,805,486 |
| | | Disability | 0 | 3,474 |
| | | Occupational Disability | 0 | 0 |
| | Lincoln University - Vested | Retirement | 2 | 6,061 |
| | • | Survivor Of Active | 0 | 0 |
| | Legislators | Retirement | 8 | 238,058 |
| | 8 | Survivor Of Active | 1 | 6,950 |
| | | Survivor of Retired | 4 | 59,947 |
| | Elected Officials | Retirement | 0 | 304 |
| | | Survivor Of Active | 0 | 2,277 |
| | | Survivor of Retired | 0 | 968 |
| June 30, 2003 | General Employee | Retirement | 1,819 | 33,654,082 |
| • | 1 , | Survivor Of Active | 76 | 808,507 |
| | | Survivor of Retired | 206 | 1,944,744 |
| | | Disability | 0 | 2,109 |
| | | Occupational Disability | 0 | 0 |
| | Lincoln University - Vested | Retirement | 0 | 0 |
| | • | Survivor Of Active | 0 | 0 |
| | Legislators | Retirement | 45 | 880,632 |
| | 8 | Survivor Of Active | 1 | 27,031 |
| | | Survivor of Retired | 4 | 65,987 |
| | Elected Officials | Retirement | 0 | (13,546) |
| | | Survivor Of Active | 0 | 2,369 |
| | | Survivor of Retired | 0 | 1,007 |
| June 30, 2004 | General Employee | Retirement | 2,454 | 42,366,392 |
| , | | Survivor Of Active | 91 | 926,617 |
| | | Survivor of Retired | 171 | 1,965,930 |
| | | Disability | 1 | 6,657 |
| | | Occupational Disability | 0 | 0 |
| | Lincoln University - Vested | Retirement | 0 | 0 |
| | | Survivor Of Active | 0 | 0 |
| | Legislators | Retirement | 10 | 182,124 |
| | 8 | Survivor Of Active | 1 | 16,311 |
| | | Survivor of Retired | 3 | 73,196 |
| | Elected Officials | Retirement | 0 | 0 |
| | | Survivor Of Active | Ő | 2,464 |
| | | Survivor of Retired | 0 | 1,045 |
| | | Sarrifor of Idelied | · · | 1,01) |

| Removed | From Rolls | Rolls at | End of Year | | | |
|---------|----------------------|----------|----------------------|---|--------------------------------|---|
| Number | Annual Allowances | Number | Annual Allowances | Percentage Increase in Annual Allowances | Average Annual Allowance | Percentage Increase in Average Annual Allowance |
| 685 | ¢ (2/0 0/2 | 10.020 | ¢ 227 102 77 | 12 /20/ | ¢ 12.477 | 5.570/ |
| | \$ 6,249,943 | 18,930 | \$ 236,193,447 | 12.43% | \$ 12,477 | 5.57% |
| 30 | 137,619 | 1,094 | 7,262,392 | 10.75 | 6,638 | 5.28 |
| 67 | 378,545 | 1,456 | 10,545,180 | 15.65 | 7,243 | 4.38 |
| 7 | 32,754 | 31 | 108,906 | (21.19) | 3,513 | (3.38) |
| 0 | 0 | 1 | 17,448 | 0.00 | 17,448 | 0.00 |
| 0 | 0 | 10 | 44,905 | 15.60 | 4,491 | (7.52) |
| 0 | 0 | 1 | 2,624 | 0.00 | 2,624 | 0.00 |
| 4 | 80,340 | 175 | 3,385,372 | 4.89 | 19,345 | 2.49 |
| 0 | 0 | 9 | 79,454 | 9.59 | 8,828 | (2.59) |
| 1 | 4,195 | 39 | 367,509 | 17.88 | 9,423 | 8.81 |
| 0 | | | | 0.08 | | |
| | 0 | 9 | 373,707 | | 41,523 | 0.08 |
| 0 | 0 | 1 | 59,215 | 4.00 | 59,215 | 4.00 |
| 0 | 0 | 1 | 25,167 | 4.00 | 25,167 | 4.00 |
| 734 | 6,798,563 | 20,015 | 263,048,966 | 11.37 | 13,143 | 5.34 |
| 28 | 97,740 | 1,142 | 7,973,159 | 9.79 | 6,982 | 5.18 |
| 71 | 368,959 | 1,591 | 12,120,965 | 14.94 | 7,618 | 5.18 |
| 3 | 15,849 | 28 | 95,166 | (12.62) | 3,399 | (3.25) |
| 0 | 0 | 1 | 17,448 | 0.00 | 17,448 | 0.00 |
| 1 | 1,051 | 9 | 43,854 | (2.34) | 4,873 | 8.51 |
| 0 | | 1 | 2,624 | 0.00 | | 0.00 |
| | 71.002 | | | | 2,624 | |
| 4 | 71,803 | 216 | 4,194,201 | 23.89 | 19,418 | 0.38 |
| 0 | 0 | 10 | 106,485 | 34.02 | 10,649 | 20.63 |
| 3 | 20,943 | 40 | 412,553 | 12.26 | 10,314 | 9.46 |
| 0 | 0 | 9 | 360,161 | (3.62) | 40,018 | (3.62) |
| 0 | 0 | 1 | 61,584 | 4.00 | 61,584 | 4.00 |
| 0 | 0 | 1 | 26,174 | 4.00 | 26,174 | 4.00 |
| 733 | 7,302,918 | 21,736 | 298,112,440 | 13.33 | 13,715 | 4.35 |
| 38 | 197,250 | 1,195 | 8,702,526 | 9.15 | 7,282 | 4.30 |
| 96 | 623,128 | 1,666 | 13,463,767 | 11.08 | 8,081 | 6.08 |
| 5 | 21,761 | 24 | 80,062 | (15.87) | 3,336 | |
| 0 | | | | | | (1.85) |
| | 0 | 1 | 17,448 | 0.00 | 17,448 | 0.00 |
| 0 | 0 | 9 | 43,854 | 0.00 | 4,873 | 0.00 |
| 0 | 0 | 1 | 2,624 | 0.00 | 2,624 | 0.00 |
| 5 | 116,367 | 221 | 4,259,958 | 1.57 | 19,276 | (0.73) |
| 0 | 0 | 11 | 122,796 | 15.32 | 11,163 | 4.83 |
| 1 | 20,633 | 42 | 465,116 | 12.74 | 11,074 | 7.37 |
| 0 | 0 | 9 | 360,161 | 0.00 | 40,018 | 0.00 |
| 0 | 0 | 1 | 64,048 | 4.00 | 64,048 | 4.00 |
| 0 | 0 | 1 | 27,219 | 3.99 | 27,219 | 3.99 |
| | | | | | * * | |

Six Years Ended June 30, 2004

ALJLAP

| | | Added | to Rolls | Remove | d From Rolls | |
|----------------------|---|--------|----------------------|--------|----------------------|--|
| Fiscal Year Ended | Benefit Type | Number | Annual Allowances | Number | Annual Allowances | |
| June 30, 1999 | Retirement | 0 | \$ 24,637 | 0 | \$ 0 | |
| | Survivor Of Active Survivor of Retired | 0 | 671 3,883 | 0 | 0 | |
| June 30, 2000 | Retirement | 0 | 23,908 | 1 | 42,874 | |
| | Survivor Of Active | 0 | 698 | 1 | 18,148 | |
| | Survivor of Retired | 1 | 25,475 | 0 | 0 | |
| June 30, 2001 | Retirement | 1 | 57,621 | 1 | 39,647 | |
| • | Survivor Of Active | 0 | 0 | 0 | 0 | |
| | Survivor of Retired | 1 | 25,674 | 0 | 0 | |
| June 30, 2002 | Retirement | 1 | 67,877 | 1 | 46,580 | |
| | Survivor Of Active | 0 | 0 | 0 | 0 | |
| | Survivor of Retired | 0 | 5,582 | 0 | 0 | |
| June 30, 2003 | Retirement | 3 | 166,161 | 0 | 0 | |
| | Survivor Of Active | 0 | 0 | 0 | 0 | |
| | Survivor of Retired | 0 | 5,601 | 0 | 0 | |
| June 30, 2004 | Retirement | 1 | 62,331 | 3 | 152,311 | |
| = | Survivor Of Active | 0 | 0 | 0 | 0 | |
| | Survivor of Retired | 2 | 58,362 | 2 | 48,306 | |
| | | | | | | |

|--|

| Number | Annual Allowances | Percentage Increase in Annual Allowances | Average Annual Allowance | Percentage Increase in Average Annual Allowance |
|--------|----------------------|---|--------------------------------|---|
| 17 | \$ 640,569 | 4.00% | \$ 37,681 | 4.00% |
| 1 6 | 17,450 100,960 | 4.00 4.00 | 17,450 16,827 | $\frac{4.00}{4.00}$ |
| 16 | 621,603 | (2.96) | 38,850 | 3.10 |
| 0 7 | 0 126,435 | (100.00) 25.23 | 0 18,062 | (100.00) 7.34 |
| 16 | 639,577 | 2.89 | 39,974 | 2.89 |
| 0 8 | 0 152,109 | 0.00 20.31 | 0 19,014 | 0.00 5.27 |
| 16 | 660,874 | 3.33 | 41,305 | 3.33 |
| 0 8 | 0 157,691 | 0.00 3.67 | 0 19,711 | 0.00 3.67 |
| 19 | 827,035 | 25.14 | 43,528 | 5.38 |
| 0 8 | 0 163,292 | 0.00 3.55 | 0 20,412 | 0.00 3.56 |
| 17 | 737,055 | (10.88) | 43,356 | (0.40) |
| 0 8 | 0 173,348 | 0.00 6.16 | 0 21,669 | 0.00 6.16 |

Six Years Ended June 30, 2004

Judicial Plan

| | | Adde | ed to Rolls | Remove | d From Rolls | |
|----------------------|---|--------------------|---|-------------------|--|--|
| Fiscal Year Ended | Benefit Type | Number | Annual Allowances | Number | Annual Allowances | |
| June 30, 1999 | Retirement Survivor Of Active Survivor of Retired Disability | 22 1 6 1 | \$ 1,293,321 53,269 185,690 47,771 | 11 3 6 3 | \$ 514,874 31,176 142,056 130,852 | |
| June 30, 2000 | Retirement Survivor Of Active Survivor of Retired Disability | 18 2 10 1 | 1,343,591 76,496 295,547 46,500 | 11 1 7 0 | 535,292 6,813 93,502 0 | |
| June 30, 2001 | Retirement Survivor Of Active Survivor of Retired Disability | 25 2 1 0 | 2,241,337 83,627 76,395 1,500 | 8 2 4 0 | 354,861 34,642 42,983 0 | |
| June 30, 2002 | Retirement Survivor Of Active Survivor of Retired Disability | 11 1 5 0 | 984,612 57,051 195,971 0 | 9 1 5 1 | 455,021 28,541 84,932 48,000 | |
| June 30, 2003 | Retirement Survivor Of Active Survivor of Retired Disability | 23 0 6 0 | 1,445,716 34,820 214,029 0 | 10 0 7 0 | 560,588 0 101,944 0 | |
| June 30, 2004 | Retirement Survivor Of Active Survivor of Retired Disability | 12 0 7 0 | 1,076,421 36,471 269,344 0 | 11 2 4 0 | 652,803 56,802 86,633 0 | |

| Rolls at End of Year | | | | D |
|----------------------|----------------------|---|--------------------------------|---|
| Number | Annual Allowances | Percentage Increase in Annual Allowances | Average Annual Allowance | Percentage Increase in Average Annual Allowance |
| | | - a (a) | A /4 | |
| 231 | \$ 10,558,354 | 7.96% | \$ 45,707 | 2.82% |
| 43 | 756,728 | 3.01 | 17,598 | 7.80 |
| 80 | 1,226,268 | 3.69 | 15,328 | 3.69 |
| 0 | 0 | (100.00) | 0 | (100.00) |
| 238 | 11,366,653 | 7.66 | 47,759 | 4.49 |
| 44 | 826,411 | 9.21 | 18,782 | 6.73 |
| 83 | 1,428,313 | 16.48 | 17,209 | 12.27 |
| 1 | 46,500 | 100.00 | 46,500 | 100.00 |
| 255 | 13,253,129 | 16.60 | 51,973 | 8.82 |
| 44 | 875,396 | 5.93 | 19,895 | 5.93 |
| 80 | 1,461,725 | 2.34 | 18,272 | 6.18 |
| 1 | 48,000 | 3.23 | 48,000 | 3.23 |
| 257 | 13,782,720 | 4.00 | 53,629 | 3.19 |
| 44 | 903,906 | 3.26 | 20,543 | 3.26 |
| 80 | 1,572,764 | 7.60 | 19,660 | 7.60 |
| 0 | 0 | (100.00) | 0 | (100.00) |
| 270 | 14,667,848 | 6.42 | 54,325 | 1.30 |
| 44 | 938,726 | 3.85 | 21,335 | 3.86 |
| 79 | 1,684,849 | 7.13 | 21,327 | 8.48 |
| Ó | 0 | 0.00 | 0 | 0.00 |
| 271 | 15,091,466 | 2.89 | 55,688 | 2.51 |
| 42 | 918,395 | (2.17) | 21,867 | 2.49 |
| 82 | 1,867,560 | 10.84 | 22,775 | 6.79 |
| 0 | 0 | 0.00 | 0 | 0.00 |
| U | U | 0.00 | U | 0.00 |

Short-Term Solvency Test

Pension Trust Funds

Ten Years Ended June 30, 2004

MSEP

| | | Actuarial Accrued Li | abilities for | | | | |
|--------|-------------------------|--|--|-----------------------|---------------|--------|-------|
| Fiscal | Member Contributions | Current Retirees and Beneficiaries | Active and Inactive Members, Employer Financed Portion | Actuarial Value of | Percentage of | | |
| Year | (1) | (2) | (3) | Assets | (1) | (2) | (3) |
| 1995 | 448,559 | \$ 1,010,431,608 | \$ 2,139,916,413 | \$ 2,649,077,134 | 100.0% | 100.0% | 76.6% |
| 1996 | 448,559 | 1,156,347,608 | 2,283,330,316 | 2,927,896,643 | 100.0 | 100.0 | 77.6 |
| 1997 | 448,501 | 1,552,966,747 | 2,930,632,553 | 3,580,974,502 | 100.0 | 100.0 | 69.2 |
| 1998 | 447,716 | 1,688,502,950 | 3,229,936,517 | 4,210,635,094 | 100.0 | 100.0 | 78.1 |
| 1999 | 0 | 1,970,504,367 | 3,535,464,262 | 4,908,820,033 | 100.0 | 100.0 | 83.1 |
| 2000 | 0 | 2,142,487,495 | 3,778,196,697 | 5,511,714,616 | 100.0 | 100.0 | 89.2 |
| 2001 | 0 | 2,496,277,500 | 3,568,889,216 | 5,881,232,850 | 100.0 | 100.0 | 94.8 |
| 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 |

ALJLAP

Actuarial Accrued Liabilities for

| Fiscal | Member Contributions | Current Retirees and Beneficiaries | Active and Inactive Members, Employer Financed Portion | Actuarial Value of | Percentage of | | |
|--------|-------------------------|--|--|-----------------------|---------------|--------|-------|
| Year | (1) | (2) | (3) | Assets | (1) | (2) | (3) |
| 1995 | \$0 | \$ 6,088,732 | \$ 3,641,223 | \$ 6,655,207 | 100.0% | 100.0% | 15.6% |
| 1996 | 0 | 6,196,526 | 4,079,837 | 7,258,814 | 100.0 | 100.0 | 26.0 |
| 1997 | 0 | 6,569,957 | 4,857,224 | 8,864,395 | 100.0 | 100.0 | 47.2 |
| 1998 | 0 | 7,415,852 | 5,471,056 | 10,285,233 | 100.0 | 100.0 | 52.4 |
| 1999 | 0 | 7,883,988 | 6,890,537 | 11,763,737 | 100.0 | 100.0 | 56.3 |
| 2000 | 0 | 7,526,118 | 8,995,625 | 13,191,825 | 100.0 | 100.0 | 63.0 |
| 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 |

Judicial Plan

Actuarial Accrued Liabilities for

| Fiscal | Member Contributions | Current Retirees and Beneficiaries | Active and Inactive Members, Employer Financed Portion | Actua Value | | Percentage of Covered by A | | |
|--------|-------------------------|--|--|----------------|-------|-------------------------------|------|------|
| Year | (1) | (2) | (3) | Asse | ets | (1) | (2) | (3) |
| 1995 | \$0 | \$ 81,586,593 | \$ 72,060,389 | \$ | 0 | 100.0% | 0.0% | 0.0% |
| 1996 | 0 | 86,145,180 | 75,588,930 | | 0 | 100.0 | 0.0 | 0.0 |
| 1997 | 0 | 99,662,179 | 97,810,394 | | 0 | 100.0 | 0.0 | 0.0 |
| 1998 | 0 | 108,392,273 | 99,187,524 | | 0 | 100.0 | 0.0 | 0.0 |
| 1999 | 0 | 120,543,611 | 107,258,730 | 6,06 | 7,305 | 100.0 | 5.0 | 0.0 |
| 2000 | 0 | 131,199,867 | 110,597,474 | 13,86 | 1,769 | 100.0 | 10.6 | 0.0 |
| 2001 | 0 | 143,163,718 | 104,815,186 | 22,61 | 3,050 | 100.0 | 15.8 | 0.0 |
| 2002 | 0 | 149,135,989 | 106,979,463 | 29,65 | 1,113 | 100.0 | 19.9 | 0.0 |
| 2003 | 0 | 157,923,805 | 109,126,052 | 34,56 | 6,516 | 100.0 | 21.9 | 0.0 |
| 2004 | 0 | 162,539,486 | 117,857,978 | 39,12 | 0,142 | 100.0 | 24.1 | 0.0 |

Missouri State Employees' Retirement System

Derivation of Experience Gain (Loss)

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.

MSEP

| | | \$ Millions | Valuation Date | Actuarial Gain (Loss) as a Percentage of |
|-------|--|-------------|-------------------|--|
| (1) | UAAL* at beginning of year | \$605.0 | June 30 | Beginning Accrued Liabilities |
| (2) | Normal cost from last valuation | 149.1 | | |
| (3) | Actual employer contributions | 164.7 | 1995 | 0.6% |
| (4) | Interest accrual: (1)x.085+[(2)-(3)]x(.085/2) | 50.8 | 1996 | 0.4 |
| (5) | Expected UAAL before changes: (1)+(2)-(3)+(4) | 640.2 | 1997 | 5.5 |
| (6) | Change from any changes in benefits, assumptions, or methods | 72.5 | 1998 | 5.5 |
| (7) | Expected UAAL after changes: (5)+(6) | 712.7 | 1999 | 4.7 |
| (8) | Actual UAAL at end of year | 1,111.8 | 2000 | 2.7 |
| (9) | Gain (loss) (7)-(8) | (399.1) | 2001 | (4.4) |
| (10) | Gain (loss) as a percent of actuarial accrued liabilities at start of year | (6.0)% | 2002 | (3.8) |
| | | | 2003 | (6.4) |
| * Uni | funded actuarial accrued liability. | | 2004 | (6.0) |

ALJLAP

| | | \$ Millions | Valuation Date | Actuarial Gain (Loss) as a Percentage of |
|------|--|-------------|-------------------|--|
| (1) | Unfunded actuarial accrued liability (UAAL) at beginning of year | \$4.32 | June 30 | Beginning Accrued Liabilities |
| (2) | Normal cost | 0.77 | | |
| (3) | Employer contributions | 0.95 | 2000 | 0.3% |
| (4) | Interest | | 2001 | (1.3) |
| | a. on (1) | 0.37 | 2002 | (5.9) |
| | b. on (2) | 0.03 | 2003 | (8.5) |
| | c. on (3) | 0.04 | 2004 | 1.6 |
| | d. total [a+b-c] | 0.36 | | |
| (5) | Expected UAAL end of year before changes | 4.50 | | |
| (6) | Change in UAAL end of year | | | |
| | a. amendments | 0.00 | | |
| | b. assumptions | (0.04) | | |
| | c. methods | 0.00 | | |
| | d. total | (0.04) | | |
| (7) | Expected UAAL after changes: (5)+(6d.) | 4.46 | | |
| (8) | Actual UAAL at end of year | 4.15 | | |
| (9) | Gain (loss) (7)-(8) | 0.31 | | |
| (10) | Gain (loss) as a percent of actuarial accrued liabilities at start of year | 1.6% | | |

Derivation of Experience Gain (Loss)

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.

Judicial Plan

| | | \$ Millions | Valuation Date | Actuarial Gain (Loss) as a Percentage of |
|------|--|-------------|-------------------|--|
| (1) | Unfunded actuarial accrued liability (UAAL) at beginning of year | \$232.48 | June 30 | Beginning Accrued Liabilities |
| (2) | Employer normal cost middle of year | 7.79 | | |
| (3) | Employer contributions | 20.63 | 2000 | (1.7)% |
| (4) | Interest | | 2001 | (3.2) |
| | a. on (1) | 19.76 | 2002 | (0.2) |
| | b. on (2) | 0.33 | 2003 | (1.6) |
| | c. on (3) | 0.87 | 2004 | (1.0) |
| | d. total [a+b-c] | 19.22 | | |
| (5) | Expected UAAL end of year before changes | 238.86 | | |
| (6) | Change in UAAL end of year | | | |
| | a. amendments | 0.00 | | |
| | b. assumptions | (0.36) | | |
| | c. methods | 0.00 | | |
| | d. total | (0.36) | | |
| (7) | Expected UAAL after changes: (5)+(6d.) | 238.50 | | |
| (8) | Actual UAAL at end of year | 241.28 | | |
| (9) | Gain (loss) (7)-(8) | (2.78) | | |
| (10) | Gain (loss) as a percent of actuarial accrued liabilities at start of year | (1.0)% | | |

Actuarial Section Summary Plan Provisions*

June 30, 2004

MSEP and MSEP 2000 (Comparison of Plans for General State Employees)

| Plan Provision | MSEP | MSEP 2000 |
|---|--|--|
| Membership eligibility | Members who work in a position normally requiring at least 1,000 hours of work a year. | Members hired for the first time on or after July 1, 2000, in a position normally requiring at least 1,000 hours of work a year. |
| | | Members who left state employment prior to becoming vested and return to work on or after July 1, 2000, in a position normally requiring at least 1,000 hours of work a year. |
| Normal retirement eligibility | Age 65 and active with 4 years of service, Age 65 with 5 years of service, Age 60 with 15 years of service, or "Rule of 80" - minimum age 48. | Age 62 with 5 years of service or "Rule of 80" - minimum age 48. |
| Early retirement eligibility | Age 55 with 10 years of service. | Age 57 with 5 years of service. |
| Benefit Life benefit | 1.6% x final average pay (FAP) x service. | 1.7% x FAP x service. |
| Temporary benefit | Not available. | 0.8% x FAP x service (until age 62 - only if retiring under "Rule of 80"). |
| Vesting | 5 years of service. | 5 years of service. |
| In-service cost-of-living adjustment (COLA) | COLA given for service beyond age 65. COLA provisions are determined by employment date. | Not available. |
| COLA | If hired before August 28, 1997, annual COLA is equal to 80% of the change in the consumer price index (CPI) 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 maximum rate of 5%. | Annual COLA is equal to 80% of the change in the CPI with a maximum rate of 5%. |
| | If hired on or after August 28, 1997, annual COLA is equal to 80% of the change in the CPI with a maximum rate of 5%. | |
| Survivor benefit (Death before retirement) Non duty-related death | Survivor benefit to eligible spouse calculated using the Joint & 100% Survivor Option or 80% of the member's Life Income Annuity paid to eligible children. | Survivor benefit to eligible spouse calculated using the Joint & 100% Survivor Option or 80% of the member's Life Income Annuity paid to eligible children. |
| Duty-related death | Survivor benefit to eligible spouse or children no less than 50% of current pay (no service requirement). | Survivor benefit to eligible spouse or children no less than 50% of current pay (no service requirement). |
| Optional forms of payment (Death after retirement) | Survivor benefit to eligible spouse based on payment option elected at retirement. Payment options include: - Life Income Annuity - Unreduced Joint & 50% Survivor - Joint & 100% Survivor - 60 or 120 Guaranteed Payments - BackDROP | 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 - BackDROP |

This summary describes the plan provisions of the Revised Statutes of Missouri (RSMo), as amended, that governed 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. The MSEP 2000 became effective July 1, 2000.

Missouri State Employees' Retirement System 121

Summary Plan Provisions June 30, 2004

MSEP and MSEP 2000 (Comparison of Plans for Uniformed Members of the Water Patrol)

| Plan Provision | MSEP | MSEP 2000 |
|---|---|---|
| Membership eligibility | Members who work in a position normally requiring at least 1,000 hours of work a year. | Members hired for the first time on or after July 1, 2000, in a position normally requiring at least 1,000 hours of work a year. |
| | | Members who left state employment prior to becoming vested and return to work on or after July 1, 2000, in a position normally requiring at least 1,000 hours of work a year. |
| Normal retirement eligibility | Age 55 and active with 4 years of service, Age 55 with 5 years of service, or "Rule of 80" - minimum age 48. | Age 62 with 5 years of service or "Rule of 80" - minimum age 48. |
| Early retirement eligibility | Not available. | Age 57 with 5 years of service. |
| Benefit Life benefit | 1.6% x FAP x service increased by 33.3%. | 1.7% x FAP x service. |
| Temporary benefit | Not available. | 0.8% x FAP x service (until age 62 - only if retiring under "Rule of 80"). |
| Vesting | 5 years of service. | 5 years of service. |
| In-service COLA | COLA given for service beyond age 65. COLA provisions are determined by employment date. | Not available. |
| COLA | If hired before August 28, 1997, annual COLA is equal to 80% of the change in the CPI 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 maximum rate of 5%. | Annual COLA is equal to 80% of the change in the CPI with a maximum rate of 5%. |
| | If hired on or after August 28, 1997, annual COLA is equal to 80% of the change in the CPI with a maximum rate of 5%. | |
| Survivor benefit (Death before retirement) Non duty-related death | Survivor benefit to eligible spouse calculated using the Joint & 100% Survivor Option or 80% of the member's Life Income Annuity paid to eligible children. | Survivor benefit to eligible spouse calculated using the Joint & 100% Survivor Option or 80% of the member's Life Income Annuity paid to eligible children. |
| Duty-related death | Survivor benefit to eligible spouse or children no less than 50% of current pay (no service requirement). | Survivor benefit to eligible spouse or children no less than 50% of current pay (no service requirement). |
| Optional forms of payment (Death after retirement) | Survivor benefit to eligible spouse based on payment option elected at retirement. Payment options include: - Life Income Annuity - Unreduced Joint & 50% Survivor - Joint & 100% Survivor - 60 or 120 Guaranteed Payments - BackDROP | 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 - BackDROP |

June 30, 2004

MSEP and MSEP 2000 (Comparison of Plans for Legislators)

| Plan Provision | MSEP | MSEP 2000 |
|---|---|---|
| Membership eligibility | Elected to the general assembly. | Elected to the general assembly on or after July 1, 2000. |
| Normal retirement eligibility | Age 55 with 3 full-biennial assemblies. | Age 55 with 3 full-biennial assemblies or "Rule of 80" - minimum age 50. |
| Early retirement eligibility | Not available. | Not available. |
| Benefit Life benefit | \$150 per month per biennial assembly. | (Monthly base pay ÷ 24) x service capped at 100% of pay. |
| Temporary benefit | Not available. | Not available. |
| Vesting | 3 full-biennial assemblies. | 3 full-biennial assemblies. |
| In-service COLA | COLA given for service beyond age 65. COLA provisions are determined by employment date. | Not available. |
| COLA | If hired before August 28, 1997, annual COLA is equal to 80% of the change in the CPI 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 maximum rate of 5%. | Benefit adjusted each year based on the percentage increase in the current pay for an active member of the general assembly. |
| | If hired on or after August 28, 1997, annual COLA is equal to 80% of the change in the CPI with a maximum rate of 5%. | |
| Survivor benefit (Death before retirement) Non duty-related death | Survivor benefit to eligible spouse calculated using the Joint & 100% Survivor Option or 80% of the member's Life Income Annuity paid to eligible children. | Survivor benefit to eligible spouse calculated using the Joint & 100% Survivor Option or 80% of the member's Life Income Annuity paid to eligible children. |
| Duty-related death | Survivor benefit to eligible spouse or children no less than 50% of current pay (no service requirement). | Survivor benefit to eligible spouse or children no less than 50% of current pay (no service requirement). |
| Optional forms of payment (Death after retirement) | Survivor benefit to eligible spouse based on payment option elected at retirement. Payment options include: - Life Income Annuity - Unreduced Joint & 50% Survivor - Joint & 100% Survivor - 60 or 120 Guaranteed Payments | 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 |

June 30, 2004

MSEP and MSEP 2000 (Comparison of Plans for Elected Officials)

| Plan Provision | MSEP | MSEP 2000 |
|---|---|---|
| Membership eligibility | Elected to state office. | Elected to state office on or after July 1, 2000. |
| Normal retirement eligibility | Age 65 with 4 years of service, Age 60 with 15 years of service, or "Rule of 80" - minimum age 48. | Age 55 with 4 years of service or "Rule of 80" - minimum age 50. |
| Early retirement eligibility | Age 55 with 10 years of service. | Not available. |
| Benefit Life benefit | 12 or more years of service 50% of current pay for highest position held. Less than 12 years of service 1.6% x FAP x service. | (Monthly base pay ÷ 24) x service capped at 12 years or 50% of pay. |
| Temporary benefit | Not available. | Not available. |
| Vesting | 4 years of service. | 4 years of service. |
| In-service COLA | COLA provisions determined by amount of service relative to 12 years and date of employment. | Not available. |
| COLA | 12 or more years of service COLA is equal to the percentage increase in the current pay of an active elected state official in the highest position held. Less than 12 years of service If hired before August 28, 1997, annual COLA is equal to 80% of the change in the CPI 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 maximum rate of 5%. If hired on or after August 28, 1997, annual COLA is equal to 80% of the change in the CPI with a maximum rate of 5%. | Benefit adjusted each year based on the percentage increase in the current pay for an active elected state official in the highest position held. |
| Survivor benefit (Death before retirement) Non duty-related death | Survivor benefit to eligible spouse calculated using the Joint & 100% Survivor Option or 80% of the member's Life Income Annuity paid to eligible children. | Survivor benefit to eligible spouse calculated using the Joint & 100% Survivor Option or 80% of the member's Life Income Annuity paid to eligible children. |
| Duty-related death | Survivor benefit to eligible spouse or children no less than 50% of current pay (no service requirement). | Survivor benefit to eligible spouse or children no less than 50% of current pay (no service requirement). |
| Optional forms of payment (Death after retirement) | Survivor benefit to eligible spouse based on payment option elected at retirement. Payment options include: - Life Income Annuity - Unreduced Joint & 50% Survivor - Joint & 100% Survivor - 60 or 120 Guaranteed Payments | Survivor benefit to eligible spouse based on payment option elected at retirement. Payment options include: - Life Income Annuity - Unreduced Joint & 50% Survivor - Joint & 100% Survivor - 120 or 180 Guaranteed Payments |

June 30, 2004

ALJLAP

| Plan Provision | Requirement |
|--|--|
| Membership eligibility | 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. |
| Normal retirement eligibility | Age 62 with 12 years of service, Age 60 with 15 years of service, or Age 55 with 20 years of service. |
| Reduced retirement eligibility | Age 65 with less than 12 years of service with reduced benefit, based upon years of service relative to 12 years. |
| Benefit formula | 12 or more years of service 50% of the average highest 12 consecutive months of salary. |
| Vesting | Immediate. |
| In-service COLA | Not available. |
| COLA | If hired before August 28, 1997, annual COLA is equal to 80% of the change in the CPI 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 maximum rate of 5%. If hired on or after August 28, 1997, annual COLA is equal to 80% of the change in the CPI with a maximum rate of 5%. |
| Survivor benefit | Survivor benefit to eligible spouse equal to 50% of the benefit the member would have received based on |
| (Death before retirement) | service to age 70. |
| Survivor benefit (Death after retirement) | Survivor benefit to eligible spouse equal to 50% of the member's annuity at the time of death. |

Actuarial Section Summary Plan Provisions June 30, 2004

Judicial Plan

| Plan Provision | Requirement |
|---|---|
| Membership eligibility | Must be a judge or commissioner of the supreme court or of the court of appeals, or a judge of any circuit court, probate court, magistrate court, court of common pleas, or court of criminal corrections, or a justice of the peace, or a commissioner or deputy commissioner of the circuit court appointed after February 29, 1972. |
| Normal retirement eligibility | Age 62 with 12 years of service, Age 60 with 15 years of service, or Age 55 with 20 years of service. |
| Early retirement eligibility | Age 62 with less than 12 years of service or age 60 with less than 15 years of service with a reduced benefit based on years of service relative to 12 or 15 years. |
| Benefit formula | 12 or more years of service 50% of the FAP. Less than 12 or 15 years of service If between age 60 and 62 (years of service ÷ 15) x 50% of compensation on the highest court served. If age 62 (years of service ÷ 12) x 50% of compensation on the highest court served. |
| Vesting | Immediate. |
| In-service COLA | 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. |
| COLA | If hired before August 28, 1997, annual COLA is equal to 80% of the change in the CPI 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 maximum rate of 5%. |
| | If hired on or after August 28, 1997, annual COLA is equal to 80% of the change in the CPI with a maximum rate of 5%. |
| Survivor benefit (Death before retirement) | Survivor benefit to eligible spouse equal to 50% of the benefit the member would have received based on service to age 70. |
| Survivor benefit (Death after retirement) | Survivor benefit to eligible spouse equal to 50% of the member's annuity at the time of death. |

Contributions

The plans previously described are noncontributory with the entire cost paid by the state of Missouri. The contribution rate paid by the state for the general state employees, uniformed members of the water patrol, legislators, and elected state officials retirement plan for FY04 was 9.35% of the membership payroll. The contribution rate paid by the state for the ALJLAP for FY04 was 20.12% of the membership payroll. The contribution rate paid by the state for the Judicial Plan for FY04 was 51.68% of the membership payroll.

Summary Plan Provisions June 30, 2004

Life Insurance Plans

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

Active Members* Requirement

| Basic Life Insurance An amount equal to one-times annual salary (with a minimum of \$15,000) while actively employed. | Actively employed in an eligible state position resulting in membership in MOSERS. |
|---|--|
| <u>Duty-Related Death Benefit</u> 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. | Actively employed in an eligible state position resulting in membership in MOSERS. |
| Optional Life Insurance Additional life insurance may be purchased in a flat amount in multiples of \$10,000 not to exceed the maximum (the lesser of sixtimes 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 coverage the member has purchased. Coverage for children is available in a flat amount of \$10,000 per child. | Actively employed in an eligible state position resulting in membership in MOSERS. |

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

Retired Members Requirement

| Basic Life Insurance at Retirement \$5,000 basic life insurance during retirement. | Must retire directly from active employment. |
|---|--|
| Optional Life Insurance at Retirement (MSEP) An employee may retain up to the lesser of \$60,000 or the amount of optional life insurance coverage held at time of retirement at the group rate and may convert any remaining basic and optional life insurance at individual rates. | Must retire directly from active employment. |
| Optional Life Insurance at Retirement (MSEP 2000) 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 and/or children ends at member's retirement and may be converted at individual rates. | Must retire directly from active employment. |

Long-Term Disability (LTD) Plan

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

| General State Employees, Legislators, | Long-Term Disability - Eligible participants re |
|---------------------------------------|---|
| 1 / 2 | 2015 10111 2 101121111, English purtherpunts re |

Provision

and Elected State Officials Members of MOSERS in a position normally requiring 1,000 hours of work a year are covered under the LTD plan, unless they work for a state agency which has its own LTD plan.

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 the member's death.

Partial Disability - A member may be considered partially disabled during the benefit waiting period and the 24 months following that period if the member is working in an occupation, but as a result of physical disease, injury, pregnancy, or mental disorder, is unable to earn more than 80% of pre-disability earnings. After the first 24 months, a member may be considered partially disabled if working in an occupation but unable to earn more than 60% of the member's predisability earnings. In both instances, work earnings are used to reduce the LTD benefit.

Water Patrol

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.

<u>Judges</u>

Plan

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.

Changes in Plan Provisions

Prior Service Credit for Juvenile Court Employees

Senate Bill 1195 was signed into law on July 2, 2004, by Governor Holden and will allow certain juvenile court personnel whose positions are financed in whole or in part by a public or private grant to receive prior service credit for grant paid service rendered prior to July 1, 1999.

Actuarial Section

Actuarial Present Values

As of June 30, 2004

MSEP

| Actuarial Present Value June 30, 2004 for: | Actuarial Present Value | Portion Covered by Future Normal Cost Contributions | Actuarial Accrued Liabilities |
|--|-------------------------------|--|---|
| Active members Service retirement benefits based on services rendered before and likely to be rendered after valuation date | \$3,815,506,864 | \$ 798,909,845 | \$3,016,597,019 |
| Disability benefits likely to be paid to present active members who become totally and permanently disabled Survivor benefits likely to be paid to widows and children of present active | 127,231,916 | 53,630,963 | 73,600,953 |
| members who die before retiring Separation benefits likely to be paid to | 142,570,386 | 42,274,875 | 100,295,511 |
| present active members Active Member Totals | \$4,497,054,513 | \$1,097,124,044 | 209,436,986 3,399,930,469 |
| Members on leave of absence and LTD Service retirement benefits based on service rendered before the valuation date Terminated-vested members Service retirement benefits based on service rendered before the valuation date | | | 98,951,934 325,376,003 |
| Retired lives BackDROP installment payments incurred, but not yet Total actuarial accrued liability Actuarial value of assets Unfunded actuarial accrued liability | paid | | 3,405,053,804 698,718 7,230,010,928 6,118,214,495 \$1,111,796,433 |

Actuarial Present Values

As of June 30, 2004

ALJLAP

| Actuarial Present Value June 30, 2004 for: | Actuarial Present Value | Portion Covered by Future Normal Cost Contributions | Actuarial Accrued Liabilities |
|---|-------------------------------|--|--|
| Actualian Present value June 30, 2004 for: | value | Cost Contributions | Liabilities |
| Active members Service retirement benefits based on services rendered before and likely to be rendered after valuation date | \$12,461,575 | \$4,728,668 | \$ 7,732,907 |
| Disability benefits likely to be paid to present active members who become totally and permanently disabled | 230,220 | 147,760 | 82,460 |
| Survivor benefits likely to be paid to widows and children of present active members who die before retiring | 503,220 | 308,791 | 194,429 |
| Separation benefits likely to be paid to present active members | 1,300,320 | 876,011 | 424,309 |
| Active member totals | \$14,495,335 | \$6,061,230 | 8,434,105 |
| Terminated-vested members Service retirement benefits based on service rendered before the valuation date | | | 2,762,022 |
| Retired lives Total actuarial accrued liability Actuarial value of assets Unfunded actuarial accrued liability | | | 9,188,086 20,384,213 16,238,804 \$4,145,409 |

Actuarial Section

Actuarial Present Values

As of June 30, 2004

Judicial Plan

| Actuarial Present Value June 30, 2004 for: | Actuarial Present Value | Portion Covered by Future Normal Cost Contributions | Actuarial Accrued Liabilities |
|--|-------------------------------|--|---|
| Active members Service retirement benefits based on | | | |
| services rendered before and likely to be rendered after valuation date | \$150,203,050 | \$50,160,843 | \$100,042,207 |
| Disability benefits likely to be paid to present active members who become totally and permanently disabled | 1,797,717 | 1,395,313 | 402,404 |
| Survivor benefits likely to be paid to widows and children of present active members who die before retiring | 5,580,698 | 3,156,896 | 2,423,802 |
| Active member totals | \$157,581,465 | \$54,713,052 | 102,868,413 |
| Terminated-vested members Service retirement benefits based on service rendered before the valuation date | | | 14,989,565 |
| Retired lives Total actuarial accrued liability Actuarial value of assets Unfunded actuarial accrued liability | | | 162,539,486 280,397,464 39,120,142 \$241,277,322 |

