Maine State Retirement System State Employee and Teacher Plan Actuarial Valuation Report

as of June 30, 2006

Produced by Cheiron

November 2006



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November 30, 2006

Board of Trustees Maine State Retirement System #46 State House Station Augusta, Maine 04333-0046

Dear Members of the Board:

We are pleased to submit the June 30, 2006 Actuarial Valuation Report of the Maine State Retirement System. This report contains information on System assets, liabilities, and contributions, as well as the required accounting statement disclosures under the Government Accounting Standards Board Statement #25.

In preparing our report, we relied without audit, on information (some oral and some written) supplied by the System's staff. This information includes, but is not limited to, plan provisions, employee data, and financial information. The actuarial assumptions reflect our understanding of the likely future experience of the Plan and the assumptions as a whole represent our best estimate for the future experience of the Plan. The accuracy of the results presented in this report are dependent upon future experience conforming to these assumptions. To the extent that future experience deviates from the actuarial assumptions, the true cost of the Plan could vary from our results.

We hereby certify that, to the best of our knowledge, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board, and that as Members of the American Academy of Actuaries, we meet the Qualification Standards to render the opinions contained herein.

Sincerely, Cheiron

Gene Kalwarski, FSA, EA Consulting Actuary

King & Liston

Fiona E. Liston, FSA, EA Consulting Actuary

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FOREWORD

Cheiron has performed the actuarial valuation of the Maine State Retirement System State Employee and Teacher Plan as of June 30, 2006. The purpose of this report is to:

- 1) **Measure and disclose**, as of the valuation date, the financial condition of the Plan;
- 2) **Indicate trends**, both historical and prospective, in the financial condition of the Plan;
- 3) **Determine the contribution rates** to be paid by the State for Fiscal Years 2008 and 2009.
- 4) **Provide specific information** and documentation required by the Government Accounting Standards Board (GASB).

An actuarial valuation establishes and analyzes Plan assets and liabilities on a consistent basis, and traces the progress of both from one year to the next. It includes measurement of the Plan's investment performance as well as an analysis of actuarial liability gains and losses.

> Section I presents a summary containing our key findings and discloses important trends experienced by the Plan in recent years.

> **Section II** contains details on various asset measures, together with pertinent performance measurements.

Section III shows similar information on Plan liabilities, measured for actuarial, accounting, and government reporting purposes.

Section IV develops the State contribution rates that form the basis for the biennial budget for FY 08 and FY 09.

Section V includes the required disclosures under GASB Statement No. 25.

Finally, at the end of this report we present appendices that contain a summary of the:

- Plan's membership at the valuation date (Appendix A)
- the actuarial methods and assumptions used in the valuation (Appendix B)
- major benefit provisions of the Plan (Appendix C),



SECTION I EXECUTIVE SUMMARY

General Comments

The State of Maine's annual contributions to this Plan are determined on a biennial basis (in every even-numbered year). As such, this valuation produces employer contribution rates for each plan which are used in the State's budgeting process to develop applicable rates for the FY 08 and FY 09 State budgets.

The State composite rate produced by the June 30, 2005 valuation was 17.46% of payroll. The State composite rate produced in this valuation is 17.59% of payroll.

State law requires that a portion of any General Fund surplus must be allocated to the Maine State Retirement System (MSRS) on an annual basis. The surplus allocation taken into account in this valuation report was \$17 million. Had that surplus not been allocated to the MSRS the composite State rate would have been 17.66% of payroll.

This valuation reflects a change in some key actuarial assumptions. These changes were the result of an experience study which covered the period July 1, 1997 through June 30, 2005. Changes were proposed by the actuary and adopted by the Board of Trustees and are detailed in Appendix C of the Experience Study report. The key changes were a decrease in the investment return assumption from 8.0% to 7.75% per annum, a decrease in the post-retirement cost-of-living assumption from 4.0% to 3.75% per annum and a decrease in the across-the-board component of salary increase from 5.5% to 4.75% per annum. Additional adjustments were made to healthy and disabled mortality, and withdrawal assumptions.

The net impact of all recommended changes was to produce an aggregate State contribution rate that is approximately the same as

under the prior assumptions. However, there was a slight increase in the System's unfunded liability and a slight decline in the normal costs. When combined these changes offset one another to produce the cost-neutral result on plan contributions.

Plan Experience July 1, 2005 through June 30, 2006 (FY 2006)

As of June 30, 2006, the Plan had an Unfunded Actuarial Liability (UAL) of \$3.043 billion. This is an increase from the UAL measured as of June 30, 2005 to be \$3.035 billion. This UAL was projected to increase to \$3.091 billion and so the experience of the Plan reflected a net gain of \$48 million over what was anticipated.

Two sources contributed to that net \$48 million net gain; investment performance measured on an actuarial smoothing basis produced an actuarial loss of \$2 million, and the overall liability experience for FY 2006 produced a gain of \$50 million.

In addition to the change resulting from Plan experience during the year there was a transfer of unallocated surplus from the General Fund in the amount of \$17 million, and a change in actuarial assumptions resulted in a UAL increase of \$12 million.

Historical Trends

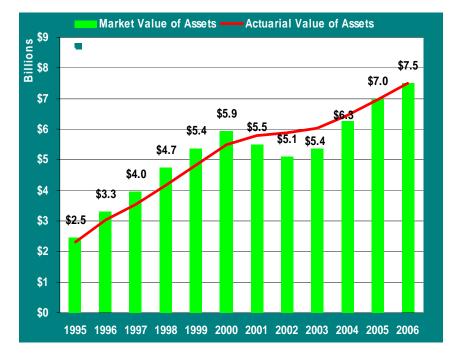
It is important to take a step back from the current year valuation results and view them in context of the Plan's recent history. On the next page, we present a series of charts which display key historical trends in the Plan's financial condition. Following the historical review, we present projections of the probable condition of the Plan into the future under various market return scenarios.



SECTION I EXECUTIVE SUMMARY

Growth in Assets

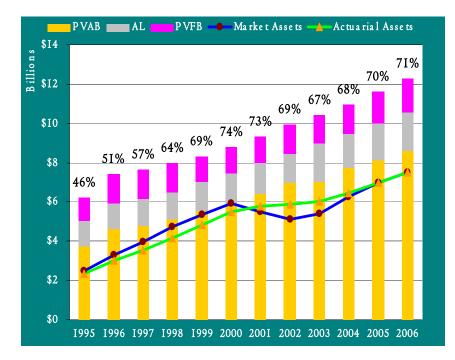
The first graph below illustrates how well the actuarial smoothing method has insulated the Plan from market volatility. The upward trend in market value of assets since 1995 was reversed in 2001 and 2002 as the equity bull market turned into a bear market. Due to the asset smoothing method in place, the actuarial value of assets continued to increase over these years. The market value has once again grown to approximately equal the actuarial value.



Assets and Liabilities

In this next graph, the three colored bars represent the three different measures of liability mentioned in this report. Used for funding purposes, the actuarial liability (AL) is represented by the top of the grey bar. We compare the actuarial value of assets to this measure of liability in developing the funding ratios. These are the percentages shown in the graph labels.

The chart illustrates that the Plan had its highest funded percentage (74%) at June 30, 2000, before the market slide. The amount represented by the top of the pink bars, the Present Value of Future Benefits (PVFB), is the amount needed to provide all benefits for the current participants and their beneficiaries. The yellow bars represent the Present Value of Accrued Benefits (PVAB) which is the value of all benefits accrued through the valuation date.



SECTION I EXECUTIVE SUMMARY

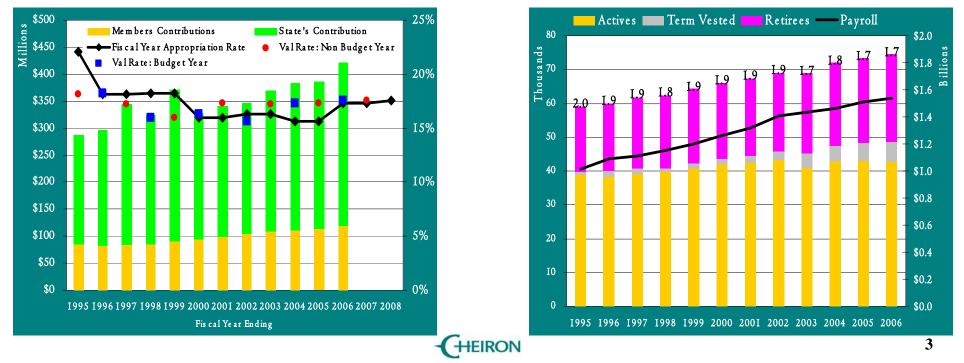
Contributions

This graph shows the history of contributions to the Plan both as dollar amounts and as a percentage of payroll. The stacked bars in this graph show the contributions made by both the State and the members in dollar terms. These bars should be read in relation to the axis on the left-hand side. The solid black line shows the State's Fiscal Year Appropriation contribution rate as a percent of payroll and should reference the right-hand axis. In addition red and blue dots show the computed contribution rates coming out of each year's valuation.

The member contribution rate is set by the statutes, depending on the plan in which the member participates. The State contribution rate is set by the actuarial process, on a biennial basis. The contribution made during FY 2006 was based on the June 30, 2004 valuation and is the first to fully reflect the impact of the 2001 - 2002 market.

Participant Trends

As with many funds in this country, there has been a steady growth in the number of retired members as the Plan has matured. The bars in the graph below show the number of active members, terminated vesteds and retirees over the last eleven years. The labels above each bar show the "support ratio" defined as the number of active members per retiree. We anticipate this support ratio will continue to decline as the baby boom generation enters retirement. The valuation process takes this trend into account and the projections on the next two pages show that assets will be sufficient to meet this growing demand.



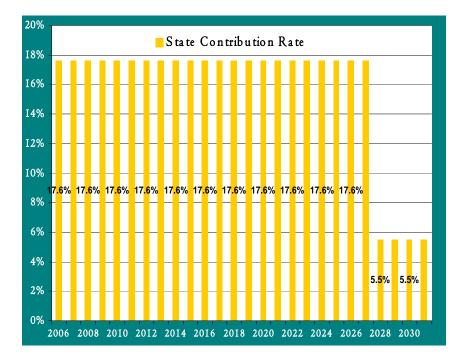
SECTION I EXECUTIVE SUMMARY

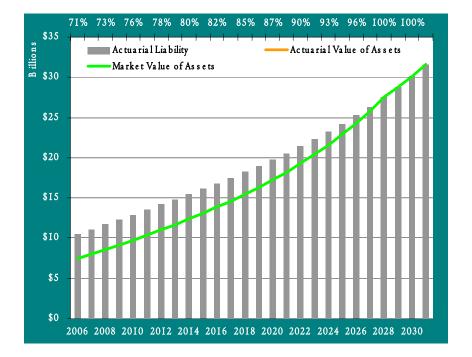
Projections

Base Line Projections

The charts on this page show the expected progress of the Plan's funding status over the next 25 years measured in terms of the State's contribution rate and the funding ratio. The first chart below shows that the State's composite contribution rate is projected to remain stable at 17.6% until 2027, if all actuarial assumptions are met, including the 7.75% investment assumption. In 2028, the UAL is expected to be paid off, and the State's contribution rate drops to the Normal Cost, or 5.5%.

The next chart compares Assets and Liabilities and shows that if all actuarial assumptions are exactly met, the Plan's funded ratio is projected to improve from the current level of 71% to 100% funding in 2028, the year that the Maine Constitution mandates that the Plan's UAL is to be paid off.



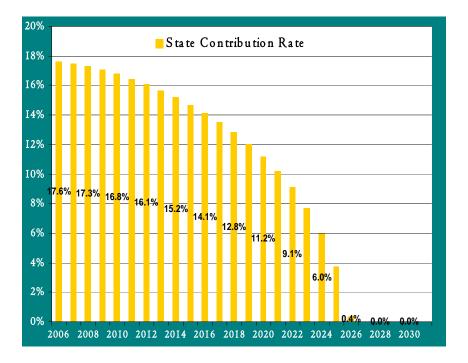


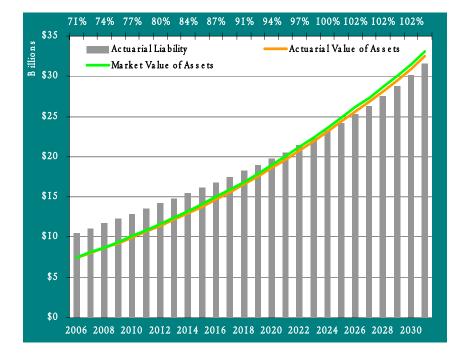
SECTION I EXECUTIVE SUMMARY

Projections with Asset Returns of 8.75%

The future funding of this Plan will be largely driven by the investment earnings. Relatively minor changes in the market returns can have significant effects on the Plan's status. The chart below shows that if the Plan were to earn 8.75% annual returns each year, the contribution rate would decline to 0% by 2028.

Assuming the same 8.75% return on investments, this next chart shows that the Plan would reach full funding in 17 years, or 2023 well in advance of the 2028 target date.

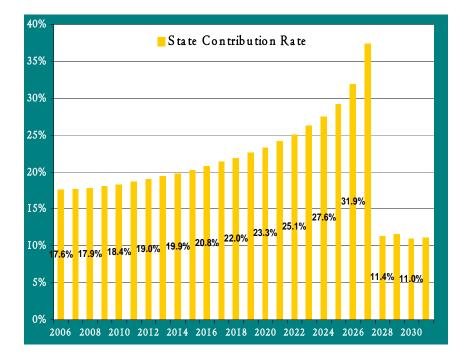




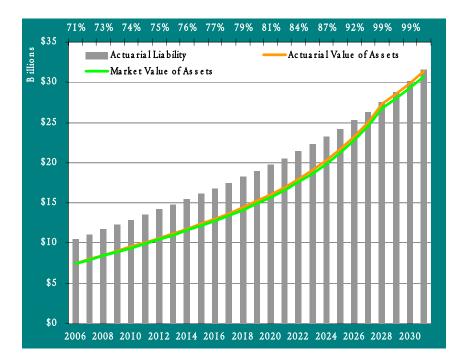
SECTION I EXECUTIVE SUMMARY

Projections with Asset Returns of 6.75%

Just as returns in excess of the earnings assumption will lead to declining State contributions and an improved funded status, the opposite will occur if investment earnings are below the assumption. The graphs on this page show the projections under a 6.75% annual return scenario. The State's contribution rate would rise to over 35% of payroll by the year 2027, in order to meet the requirement of full funding in 2028.



The Plan's funded ratio would continue to increase from its current 71% but would grow to 99% over the next 24 years. In this scenario, the Plan would likely still have an Unfunded Actuarial Liability at the end of the current amortization period. The Constitutional Amendment would be satisfied, in that the UAL existing on July 1, 1997 would be paid off by 2028, but new losses would create additional UAL that would remain.



SECTION I EXECUTIVE SUMMARY

| Summary of Principal Plan Results | | | | | | |
|---|------------------|------------------|----------|--|--|--|
| Total State Employee and Teacher Plan | | | | | | |
| Valuation as of: | June 30, 2005 | June 30, 2006 | % Change | | | |
| Participant Counts | | | | | | |
| Actives | 42,910 | 42,643 | (0.6)% | | | |
| Retired Members | 17,248 | 17,720 | 2.7% | | | |
| Beneficiaries of Retirees* | 4,883 | 5,460 | 11.8% | | | |
| Survivors of Deceased Members | 896 | 878 | (2.0)% | | | |
| Disabled Members* | 2,096 | 1,673 | (20.2)% | | | |
| Deferred "Vested" Members | 5,283 | 6,006 | 13.7% | | | |
| Total | 73,316 | 74,380 | 1.5% | | | |
| Annual Salaries of Active Members | \$ 1,508,645,818 | \$ 1,538,201,110 | 2.0% | | | |
| Annual Payments to Benefit Recipients | \$ 406,220,642 | \$ 422,302,716 | 4.0% | | | |
| Assets and Liabilities | | | | | | |
| Total Actuarial Liability | \$ 9,999,250,038 | \$10,547,299,194 | 5.5% | | | |
| Assets/Actuarial (Smoothed) | 6,964,597,457 | 7,504,219,546 | 7.7% | | | |
| Unfunded Actuarial Liability | \$ 3,034,652,581 | \$ 3,043,079,648 | 0.3% | | | |
| Funding Ratio | 69.65% | 71.15% | | | | |
| Present Value of Accrued Benefits | \$ 8,115,380,658 | \$ 8,585,575,164 | 5.8% | | | |
| Assets/Market Value | 6,997,802,832 | 7,503,201,781 | 7.2% | | | |
| Unfunded PVAB | \$ 1,117,577,826 | \$ 1,082,373,383 | (3.2)% | | | |
| Accrued Benefit Funding Ratio | 86.23% | 87.39% | | | | |
| Contributions as a Percentage of Payroll | Fiscal Year 2007 | Fiscal Year 2008 | | | | |
| Normal Cost Contribution | 6.15% | 5.52% | | | | |
| Unfunded Actuarial Liability Contribution | <u>11.31%</u> | <u>12.07%</u> | | | | |
| Total Contribution | 17.46% | 17.59% | | | | |

*In the 2005 and earlier valuations, beneficiaries of deceased disabled members were reported under the disabled member category. Starting with this 2006 valuation, they will be reported with other beneficiaries of retired members.

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SECTION I EXECUTIVE SUMMARY

| Summary of Principal Plan Results Teachers | | | | | |
|---|------------------|------------------|----------|--|--|
| Valuation as of: | June 30, 2005 | June 30, 2006 | % Change | | |
| Participant Counts | | | | | |
| Actives | 28,275 | 28,105 | (0.6)% | | |
| Retired Members | 9,705 | 10,013 | 3.2% | | |
| Beneficiaries of Retirees* | 2,067 | 2,291 | 10.8% | | |
| Survivors of Deceased Members | 342 | 350 | 2.3% | | |
| Disabled Members* | 834 | 680 | (18.5)% | | |
| Deferred "Vested" Members | 3,615 | 4,289 | 18.6% | | |
| Total | 44,838 | 45,728 | 2.0% | | |
| Annual Salaries of Active Members | \$ 981,952,490 | \$ 990,883,932 | 0.9% | | |
| Annual Payments to Benefit Recipients | \$ 229,286,440 | \$ 240,110,548 | 4.7% | | |
| Assets and Liabilities | | | | | |
| Total Actuarial Liability | \$ 6,456,907,318 | \$ 6,742,748,075 | 4.4% | | |
| Assets/Actuarial (Smoothed) | 4,407,109,370 | 4,782,782,014 | 8.5% | | |
| Unfunded Actuarial Liability | \$ 2,049,797,948 | \$ 1,959,966,061 | (4.4)% | | |
| Funding Ratio | 68.25% | 70.90% | | | |
| Present Value of Accrued Benefits | \$ 5,079,040,305 | \$ 5,361,416,430 | 5.6% | | |
| Assets/Market Value | 4,428,121,312 | 4,782,133,346 | 8.0% | | |
| Unfunded PVAB | \$ 650,918,993 | \$ 579,283,084 | (11.0)% | | |
| Accrued Benefit Funding Ratio | 87.18% | 89.20% | | | |
| Contributions as a Percentage of Payroll | Fiscal Year 2007 | Fiscal Year 2008 | | | |
| Normal Cost Contribution | 6.04% | 5.25% | | | |
| Unfunded Actuarial Liability Contribution | 11.74% | <u>12.07%</u> | | | |
| Total State Contribution | 17.78% | 17.32% | | | |

*In the 2005 and earlier valuations, beneficiaries of deceased disabled members were reported under the disabled member category. Starting with this 2006 valuation, they will be reported with other beneficiaries of retired members.

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SECTION I EXECUTIVE SUMMARY

| Summary of Principal Plan Results | | | | | | | | |
|---|------------------|------------------|---------|--|--|--|--|--|
| State Employees (Regular and Special Plans)Valuation as of:June 30, 2005June 30, 2006% Change | | | | | | | | |
| Participant Counts | | | | | | | | |
| Actives | 14,635 | 14,538 | (0.7%) | | | | | |
| Retired Members | 7,543 | 7,707 | 2.2% | | | | | |
| Beneficiaries of Retirees* | 2,816 | 3,169 | 12.5% | | | | | |
| Survivors of Deceased Members | 554 | 528 | (4.7%) | | | | | |
| Disabled Members* | 1,262 | 993 | (21.3%) | | | | | |
| Deferred "Vested" Members | 1,668 | 1,717 | 2.9% | | | | | |
| Total | 28,478 | 28,652 | 0.6% | | | | | |
| Annual Salaries of Active Members | \$ 526,693,328 | \$ 547,317,178 | 3.9% | | | | | |
| Annual Payments to Benefit Recipients | \$ 176,934,202 | \$ 182,192,168 | 3.0% | | | | | |
| Assets and Liabilities | | | | | | | | |
| Total Actuarial Liability | \$ 3,542,342,720 | \$ 3,804,551,119 | 7.4% | | | | | |
| Assets/Actuarial (Smoothed) | 2,557,488,087 | 2,721,437,532 | 6.4% | | | | | |
| Unfunded Actuarial Liability | \$ 984,854,633 | \$ 1,083,113,587 | 10.0% | | | | | |
| Funding Ratio | 72.20% | 71.3% | | | | | | |
| Present Value of Accrued Benefits | \$ 3,036,340,353 | \$ 3,224,158,734 | 6.2% | | | | | |
| Assets/Market Value | 2,569,681,520 | 2,721,068,435 | 5.9% | | | | | |
| Unfunded PVAB | \$ 466,658,833 | \$ 503,090,299 | 7.8% | | | | | |
| Accrued Benefit Funding Ratio | 84.63% | 84.40% | | | | | | |
| Contributions as a Percentage of Payroll | Fiscal Year 2007 | Fiscal Year 2008 | | | | | | |
| Normal Cost Contribution | 6.36% | 6.02% | | | | | | |
| Unfunded Actuarial Liability Contribution | 10.52% | <u>12.08%</u> | | | | | | |
| Total State Contribution | 16.88% | 18.10% | | | | | | |

*In the 2005 and earlier valuations, beneficiaries of deceased disabled members were reported under the disabled member category. Starting with this 2006 valuation, they will be reported with other beneficiaries of retired members.

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SECTION I EXECUTIVE SUMMARY

| Summary of Principal Plan Results State Employees (Regular Plan) | | | | | |
|---|------------------|------------------|----------|--|--|
| Valuation as of: | June 30, 2005 | June 30, 2006 | % Change | | |
| Participant Counts | | | | | |
| Actives | 12,751 | 12,665 | (0.7%) | | |
| Retired Members | 6,775 | 6,929 | 2.3% | | |
| Beneficiaries of Retirees* | 2,515 | 2,845 | 13.1% | | |
| Survivors of Deceased Members | 545 | 518 | (5.0%) | | |
| Disabled Members* | 1,202 | 926 | (23.0%) | | |
| Deferred "Vested" Members | 1,668 | 1,717 | 2.9% | | |
| Total | 25,456 | 25,600 | 0.6% | | |
| Annual Salaries of Active Members | \$ 445,800,804 | \$ 462,776,707 | 3.8% | | |
| Annual Payments to Benefit Recipients | \$ 152,633,342 | \$ 157,005,543 | 2.9% | | |
| Assets and Liabilities | | | | | |
| Total Actuarial Liability | \$ 3,000,256,950 | \$ 3,212,266,457 | 7.1% | | |
| Assets/Actuarial (Smoothed) | 2,209,248,126 | 2,336,855,726 | 5.8% | | |
| Unfunded Actuarial Liability | \$ 791,008,824 | \$ 875,410,731 | 10.7% | | |
| Funding Ratio | 73.64% | 72.75% | | | |
| Present Value of Accrued Benefits | \$ 2,545,640,468 | \$ 2,701,531,273 | 6.1% | | |
| Assets/Market Value | 2,219,781,243 | 2,336,538,789 | 5.3% | | |
| Unfunded PVAB | \$ 325,859,225 | \$ 364,992,484 | 12.0% | | |
| Accrued Benefit Funding Ratio | 87.20% | 86.49% | | | |
| Contributions as a Percentage of Payroll | Fiscal Year 2007 | Fiscal Year 2008 | | | |
| Normal Cost Contribution | 6.04% | 5.75% | | | |
| Unfunded Actuarial Liability Contribution | 9.98% | _11.54% | | | |
| Total State Contribution | 16.02% | 17.29% | | | |

*In the 2005 and earlier valuations, beneficiaries of deceased disabled members were reported under the disabled member category. Starting with this 2006 valuation, they will be reported with other beneficiaries of retired members.

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SECTION I EXECUTIVE SUMMARY

| Summary of Principal Plan Results State Employees (Special Plans - Composite) | | | | | |
|--|------------------|------------------|----------|--|--|
| Valuation as of: | June 30, 2005 | June 30, 2006 | % Change | | |
| Participant Counts | | | | | |
| Actives | 1,884 | 1,873 | (0.6%) | | |
| Retired Members | 768 | 778 | 1.3% | | |
| Beneficiaries of Retirees* | 301 | 324 | 7.6% | | |
| Survivors of Deceased Members | 9 | 10 | 11.1% | | |
| Disabled Members* | 60 | 67 | 11.7% | | |
| Deferred "Vested" Members | 0 | 0 | 0.0% | | |
| Total | 3,022 | 3,052 | 1.0% | | |
| Annual Salaries of Active Members | \$ 80,892,524 | \$ 84,540,471 | 4.5% | | |
| Annual Payments to Benefit Recipients | \$ 24,300,860 | \$ 25,186,625 | 3.6% | | |
| Assets and Liabilities | | | | | |
| Total Actuarial Liability | \$ 542,085,770 | \$ 592,284,662 | 9.3% | | |
| Assets/Actuarial (Smoothed) | 348,239,961 | 384,581,806 | 10.4% | | |
| Unfunded Actuarial Liability | \$ 193,845,809 | \$ 207,702,856 | 7.1% | | |
| Funding Ratio | 64.24% | 64.93% | | | |
| Present Value of Accrued Benefits | \$ 490,699,885 | \$ 522,627,461 | 6.5% | | |
| Assets/Market Value | 349,900,277 | 384,529,646 | 9.9% | | |
| Unfunded PVAB | \$ 140,799,608 | \$ 138,097,815 | (1.9%) | | |
| Accrued Benefit Funding Ratio | 71.31% | 73.58% | | | |
| Contributions as a Percentage of Payroll | Fiscal Year 2007 | Fiscal Year 2008 | | | |
| Normal Cost Contribution | 8.15% | 7.47% | | | |
| Unfunded Actuarial Liability Contribution | <u>13.48%</u> | 14.99% | | | |
| Total State Contribution | 21.63% | 22.46% | | | |

*In the 2005 and earlier valuations, beneficiaries of deceased disabled members were reported under the disabled member category. Starting with this 2006 valuation, they will be reported with other beneficiaries of retired members.

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SECTION II ASSETS

Pension plan assets play a key role in the financial operation of the Plan and in the decisions the Trustees make with respect to future deployment of those assets. The level of assets, the allocation of assets among asset classes, and the methodology used to measure assets will likely impact benefit levels, State Contributions, and the ultimate security of participants' benefits.

The assets of the Plan include amounts contributed for all Plans for which the System is the Plan Sponsor, namely, the State Employee and Teacher Plan, the Judicial Retirement System, the Legislative Retirement System, the Consolidated Plan for Participating Local Districts (PLDs) along with several plans of PLDs who withdrew from the System, as the assets of all these plans are co-mingled for investment purposes. In performing the annual valuation, the actuarial value of assets that is developed reflects all Defined Benefit Plan assets and subsequently it is allocated across all defined benefit plans.

In this section, we present detailed information on Plan assets including:

- **Disclosure** of Plan assets at June 30, 2005 and June 30, 2006;
- Statement of the **changes** in market values during the year;
- Development of the Actuarial Value of Assets;
- Allocation of Actuarial Value to subplans;
- Assessment of investment performance; and
- Projection of the Plan's expected **cashflows** for the next ten years.

Disclosure

The market value of assets represents a "snap-shot" or "cash-out" value which provides the principal basis for measuring financial performance from one year to the next. Market values, however, can fluctuate widely with corresponding swings in the marketplace. Because these fluctuations would result in volatility in the resulting contributions if the market value were used, unadjusted, in the valuation process, an actuarial value is developed.

The actuarial value is based on the market value that has been smoothed. This actuarial value becomes the actuary's best estimate of long-term asset values and is used for evaluating the Plan's ongoing ability to meet its obligations.

Current actuarial methods employed in this Plan set the actuarial value equal to the expected value plus $33\frac{1}{3}\%$ of the difference between the expected value of assets and the actual market value. The expected value is derived by adjusting the prior year's actuarial value of assets by contributions, benefit payments and expected interest at the 8% assumption. We continue to use the 8% assumption for the period July 1, 2005 – June 30, 2006 because the change to 7.75% takes place on June 30, 2006.

SECTION II ASSETS

| Changes in 1 | Market Value of Total D | efined Benefit Plan Assets | |
|---|---|----------------------------|---------------------|
| Value of Assets – June 30, 2005 | | | \$ 8,930,532,689 |
| <u>Additions</u> Contributions: Employer Contributions Employee Contributions Transfer Total Contributions | \$ 312,016,508 144,397,946 250,000 | | \$ 456,664,454 |
| Investment Income: Net Appreciation (Depreciation) in Fair Value of Investments Interest on Bank Balances Total Investment Income | \$ 682,965,857 1,126,822 | \$ 684,092,679 | |
| Investment Activity Expenses: Management Fees Investment Related Expense Banking Fees Total Investment Activity Expenses | \$ (19,909,150) (224,295) (66,078) | \$ (20,199,523) | |
| Net Income from Investing Activities | | | \$ 663,893,156 |
| Total Additions | | | \$ 1,120,557,610 |
| Deductions Retirement Benefits Disability Benefits Survivor Benefits Refunds and Other Expenses Total Deductions | \$ (448,342,677) (48,853,164) (5,680,814) (18,907,578) | | \$ (521,784,233) |
| <u>Total</u> Net Increase (Decrease) | | | \$ 598,773,377 |
| Value of Assets – June 30, 2006 | | | \$ 9,529,306,066 |

SECTION II ASSETS

| | Development of Actuarial Value of Assets as of June 30, 2006 | | | | | |
|-----|---|----|---------------|--|--|--|
| 1. | Actuarial Value of Assets at June 30, 2005 | \$ | 8,888,156,289 | | | |
| 2. | Amount in (1) with Interest to June 30, 2006 | | 9,599,208,792 | | | |
| 3. | Employer and Member Contributions for the Plan Year Ended June 30, 2006 | | 456,664,454 | | | |
| 4. | Interest on Contributions Assuming Received Uniformly Throughout the Year to June 30, 2006 | | 17,915,168 | | | |
| 5. | Disbursements from Trust Except Investment Expenses, July 1, 2004 through June 30, 2006 | | (521,784,233) | | | |
| 6. | Interest on Disbursements Assuming Payments Made Uniformly throughout the Year to June 30, 2006 | | (20,759,233) | | | |
| 7. | Expected Value of Asset at June 30, 2006 = $(2) + (3) + (4) + (5) + (6)$ | \$ | 9,531,244,960 | | | |
| 8. | Actual Market Value of Assets at June 30, 2006 | \$ | 9,529,306,066 | | | |
| 9. | Excess of (8) Over (7) | | (1,938,894) | | | |
| 10. | Actuarial Value of Assets at June 30, 2006 = $(7) + 33\frac{1}{3}\%$ of (9) | \$ | 9,530,598,662 | | | |

All interest adjustments are made using the 8% per annum actuarial assumed interest rate, which was in effect for the period July 1, 2005 – June 30, 2006.

SECTION II ASSETS

Actuarial Value of Assets

The Actuarial Value of Assets represents a "smoothed" value developed by the actuary to reduce, or eliminate, volatile contribution rates which could develop from short-term fluctuations in the Market Value of Assets. For this Plan, the Actuarial Value has been calculated by adding $33\frac{1}{3}\%$ of the difference between Market Value and Expected Value to the Expected Value. The previous table illustrates the calculation of Actuarial Value of Assets for the June 30, 2006 valuation.

Allocation of Actuarial Value of Assets

The assets for all of the defined benefit plans are commingled for investment purposes. Other assets are in effect commingled in that their value is allocated among all of the plans. The actuarial smoothing methodology is applied on the market value of total assets. This produces an asset ratio which is then applied to the market value of assets attributable to each of the plans. The asset value derived in this valuation is 1.00014 (\$9,530,598,662 \div \$9,529,306,066). The allocation of actuarial value of assets to each of the System's plans is shown in the following chart.

| Allocation of Actuarial Value of Assets as of June 30, 2006 | | | | | |
|--|------------------|------------------|--|--|--|
| | Market Value | Actuarial Value | | | |
| Teachers | \$ 4,782,133,346 | \$ 4,782,782,014 | | | |
| State (Regular & Special) | 2,721,068,435 | 2,721,437,532 | | | |
| Judges | 44,344,633 | 44,350,649 | | | |
| Legislators | 7,943,390 | 7,944,468 | | | |
| Participating Local Districts | | | | | |
| (Consolidated & Non-Consolidated) | 1,973,816,262 | 1,974,083,468 | | | |
| Total Fund | \$ 9,529,306,066 | \$ 9,530,598,662 | | | |

Investment Performance

The Market Value of Assets returned 7.46% during FY 2006. This is lower then the Plan's assumed return of 8%. This year's return was the first year of returns below the assumption within the last 3 years, as the returns in FY 2005 and FY 2004 were 11.75% and 16.6% respectively.

On an actuarial value of assets basis, the return for FY 2006 was 7.99%. This return is greater than the return on a market value basis, but below the 8.0% assumption and therefore gives rise to a slight loss this year.



SECTION II ASSETS

| Projection of State and Teacher Plan Benefit Payments and Contributions | | | | | |
|---|------------------------------|---------------------------------|----------------------------------|--------------------------------|--|
| FY Ending June 30 | Expected Benefit Payments | Expected State Contributions | Expected Member Contributions | Total Expected Contribution | |
| 2007 | \$ 447,889,000 | \$ 270,570,000 | \$ 118,441,000 | \$ 389,011,000 | |
| 2008 | 484,845,000 | 283,422,000 | 124,067,000 | 407,489,000 | |
| 2009 | 524,257,000 | 296,885,000 | 129,960,000 | 426,845,000 | |
| 2010 | 566,487,000 | 310,987,000 | 136,133,000 | 447,120,000 | |
| 2011 | 610,487,000 | 325,759,000 | 142,599,000 | 468,358,000 | |
| 2012 | 657,927,000 | 341,233,000 | 149,372,000 | 490,605,000 | |
| 2013 | 708,267,000 | 357,442,000 | 156,467,000 | 513,909,000 | |
| 2014 | 759,660,000 | 374,420,000 | 163,899,000 | 538,319,000 | |
| 2015 | 811,405,000 | 392,205,000 | 171,684,000 | 563,889,000 | |
| 2016 | 862,315,000 | 410,835,000 | 179,839,000 | 590,674,000 | |

We provide this projection of cashflows in and out of the Plan for informational purposes. The Board may share these projections with its investment advisor for consideration of the growing gap between cash coming in from State and member contributions and cash being paid out to provide benefits. The chart shows this gap is expected to widen as more of the baby boom generation joins the retiree payroll.

The expected benefit payments were developed on the basis of those currently included in this valuation and on the assumption that the actuarial assumptions disclosed in Appendix B will be exactly met. Actual benefit payments will vary if members retire sooner or later than assumed and if salary increases and projected future post-retirement COLAs differ from those assumed. The projections exclude any assumption about new hires, whose experience will eventually lead to increased benefit payments. However, we do not feel this exclusion will materially impact the projections for the time period shown.

Expected contributions are based on the current covered payroll and the composite State contribution rate developed in this valuation of 17.59% of payroll. We have assumed that payroll will increase by 4.75% per year in the projection period and that the rate will remain constant.



SECTION II ASSETS

The projection of member contributions is similarly based on a 4.75% per year increase in covered payroll multiplied by the average aggregate member contribution rate of 7.70%.



SECTION III LIABILITIES

In this section, we present detailed information on Plan liabilities including:

- **Disclosure** of Plan liabilities at June 30, 2005 and June 30, 2006;
- Statement of **changes** in these liabilities during the year; and
- An **allocation** of liabilities to the Teachers, State Regular and State Special Plans.

Disclosure

Several types of liabilities are calculated and presented in this report. Each type is distinguished by the purpose for which the figures are ultimately used.

- **Total Future Obligation:** Used for analyzing the overall financial outlook of the Plan, this represents the amount of money needed today to fully pay off all future benefits of the Plan, assuming participants continue to accrue benefits under the current Plan provisions.
- Actuarial Liability: Used for funding calculations and GASB disclosures, this liability is calculated taking the Total Future Obligations above and subtracting the present value of future Member Contributions and future Employer Normal Costs under an acceptable actuarial funding method. This method is referred to as the Entry Age Normal funding method.
- Accrued Liabilities: Used for communicating the current level of liabilities, this liability represents the total amount of money needed today to fully pay off the current accrued obligations of the Plan, assuming no future accruals of benefits. These liabilities are also required for accounting purposes (FAS 35) and used to assess whether the Plan can meet its current benefit commitments.

The following table discloses each of these liabilities for the current and prior years' valuations. With respect to the Actuarial Liability and the Accrued Liability, a subtraction of the appropriate value of Plan assets yields, for each respective type, a **net surplus** or an **unfunded liability**.

The Total Future Obligation is compared to the current market value of assets, the expected future value of member contributions and the expected future value of State contributions assuming the valuation rate remains constant. The difference between the Total Future Obligation (TFO) and these anticipated resources indicates either a shortfall or an expected surplus that may develop over time. This surplus or a shortfall indicates the size of the State and Teacher Plan's allocation of the stored gains or losses that remain outside of the valuation process. These gains or losses may enter the rate-making processes depending on the future investment performance.



SECTION III LIABILITIES

| Disclosure of Liabilities | | | | | |
|--|-------------------|--------------------------|--|--|--|
| | June 30, 2005 | June 30, 2006 | | | |
| Total Future Obligations (TFO) | | | | | |
| Active Participant Benefits | \$ 6,791,583,412 | \$ 6,912,206,378 | | | |
| Retiree Benefits | 4,538,294,376 | 5,042,695,627 | | | |
| Terminated Vested and Inactive Members | 294,700,051 | 325,090,052 | | | |
| Total Future Obligations | \$ 11,624,577,839 | \$ 12,279,992,057 | | | |
| Market Value of Assets (MVA) | 6,997,802,832 | 7,503,201,781 | | | |
| Future Employee Contributions | 906,023,925 | 1,010,640,232 | | | |
| Future State Contributions at the Current Rate | | | | | |
| (17.46% FY 2005; 17.59% FY 2006) | 3,753,956,457 | 3,767,929,644 | | | |
| Projected (Surplus)/Shortfall | (33,205,375) | (1,779,599) | | | |
| Total Resources | \$ 11,624,577,839 | \$ 12,279,992,057 | | | |
| Actuarial Liability | | | | | |
| Total Future Obligations (TFO) | \$ 11,624,577,839 | \$ 12,279,992,057 | | | |
| Present Value of Future Normal Costs (PVFNC) | | | | | |
| Employer Portion | 719,303,876 | 722,052,631 | | | |
| Employee Portion | 906,023,925 | 1,010,640,232 | | | |
| Actuarial Liability (AL = TFO – PVFNC) | \$ 9,999,250,038 | \$ 10,547,299,194 | | | |
| Actuarial Value of Assets (AVA) | 6,964,597,457 | 7,504,219,546 | | | |
| Net (Surplus)/Unfunded (AL – AVA) | \$ 3,034,652,581 | \$ 3,043,079,648 | | | |
| Accrued Liability | | | | | |
| Total Future Obligations (TFO) | \$ 11,624,577,839 | \$ 12,279,992,057 | | | |
| Present Value of Future Benefit Accruals (PVFBA) | 3,509,197,181 | 3,694,416,893 | | | |
| Accrued Liability (PVAB = TFO – PVFBA) | \$ 8,115,380,688 | \$ 8,585,575,164 | | | |
| Market Value of Assets (MVA) | 6,997,802,832 | 7,503,201,781 | | | |
| Net (Surplus)/Unfunded (PVAB – MVA) | \$ 1,117,577,826 | \$ 1,082,373,383 | | | |

SECTION III LIABILITIES

Changes in Liabilities

Each of the liabilities disclosed in the prior table is expected to change at each subsequent valuation. The components of these changes, depending upon which liability is analyzed, can include:

- New hires since the last valuation
- Benefits accrued since the last valuation
- Plan amendments increasing benefits
- Passage of time which adds interest to the prior liability
- Benefits paid to retirees since the last valuation
- Participants retiring, terminating, or dying at rates different than expected
- A change in actuarial or investment assumptions
- A change in the actuarial funding method

Unfunded liabilities will change because of all of the above, and also due to changes in Plan assets resulting from:

- State contributions being different than expected
- Investment earnings being different than expected
- A change in the method used to measure Plan assets

In each valuation, we report on those elements of change which are of particular significance, potentially affecting the long-term financial outlook of the Plan. Below we present key changes in liabilities since the last valuation.

| | Total Future Obligation | | Actua | rial Liability | Acc | rued Liability |
|--|-------------------------|-----------|-------|----------------|-----|----------------|
| Liabilities 6/30/2005 | \$ 11,62 | 4,577,839 | \$ 9 | 9,999,250,038 | \$ | 8,115,380,658 |
| Liabilities 6/30/2006 | 12,27 | 9,992,057 | 1(|),547,299,194 | | 8,585,575,164 |
| Liability Increase (Decrease) | 65 | 5,414,218 | | 548,049,156 | | 470,194,506 |
| Change Due to: | | | | | | |
| Plan Amendment and Ad Hoc COLAs | \$ | | \$ | | \$ | |
| Assumption Change | 5 | 8,011,185 | | 11,707,766 | | 23,549,571 |
| Actuarial (Gain)/Loss | | N/C | | (48,354,919) | | N/C |
| Benefits Accumulated and Other Sources | 59 | 7,403,033 | | 584,696,309 | | 446,644,935 |

N/C = Not calculated

SECTION III LIABILITIES

| Allocation of A | ctuarial Liability as | of June 30, 2006 | | |
|--|-----------------------|------------------|------------------|----------------|
| | Total Plan | Teachers | State Regular | Special Plans |
| 1. Actuarial Liabilities for: | | | | |
| a. Active Members | \$ 5,179,513,515 | \$ 3,564,514,604 | \$ 1,355,745,167 | \$ 259,253,744 |
| b. Retired, Disabled and Beneficiary Members | 5,042,695,627 | 2,948,257,553 | 1,761,407,156 | 333,030,918 |
| c. Vested Deferred and Inactive Status Members | 325,090,052 | 229,975,918 | 95,144,134 | 0 |
| 2. Total Actuarial Liability | | | | |
| (1(a) + 1(b) + 1(c)) | \$10,547,299,194 | \$ 6,742,748,075 | \$ 3,212,266,457 | \$ 592,284,662 |
| 3. Actuarial Value of Assets | 7,504,219,546 | 4,782,782,014 | 2,336,855,726 | 384,581,806 |
| 4. Unfunded Actuarial Liability | | | | |
| (2-3) | \$ 3,043,079,648 | \$ 1,959,966,061 | \$ 875,410,731 | \$ 207,702,856 |

SECTION IV CONTRIBUTIONS

In the process of evaluating the financial condition of any pension plan, the actuary analyzes the assets and liabilities to determine what level (if any) of contributions is needed to achieve and maintain an appropriate funded status of a plan. Typically, the actuarial process will use a funding method that will result in a pattern of contributions that are both stable and predictable.

For this Plan, the funding methodology employed is the **Entry Age Actuarial Cost Method**. Under this method, there are two components to the total contribution: the **normal cost rate**, and the **unfunded actuarial liability rate** (UAL rate). The normal cost rate is determined by the following steps. First, an individual normal cost rate is determined by taking the value, as of entry age into the Plan, of a representative new entrant's projected future benefits. This value is then divided by the value, also at entry age, of the member's expected future salary. Second, this individual normal cost rate is divided by the present value of future pay at current age to obtain an average total normal cost rate for the Plan. Finally, the total normal cost rate is reduced by the member contribution rate to produce the employer normal cost rate. The UAL rate is that percentage of member payroll which, when applied to each year's payroll, is sufficient to amortize the unfunded actuarial liability (UAL) over 22 years from June 30, 2006.

The table below presents and compares the composite State contribution rate for the Plan for this valuation and the prior one.

| | Composite State Rate | |
|------------------|----------------------|---------------|
| | June 30, 2005 | June 30, 2006 |
| Normal Cost Rate | 6.15% | 5.52% |
| UAL Rate | <u>11.31%</u> | <u>12.07%</u> |
| Total State Rate | 17.46% | 17.59% |

The charts on the pages that follow show the rate for each plan within the State and Teacher Plan and the development of the UAL amortization rate for each plan.

SECTION IV CONTRIBUTIONS

| | Table IV-1 State Employer Contribution Rates | | | | | | | |
|--|---|---------|------------------|--|---------------------------------|-------------------------------|------------------|-------------------------|
| Valuation Date June 30, 2006 | Total State | Teacher | State Regular | State Police Marine Resources Inland Fish & Wildlife (Closed) | Prison Employees (Closed) | Forest Rangers (Closed) | 25 & Out Plan | 1998 Special Plan |
| New Entrant Normal Cost Contributions as a Percent of Payroll | 5.52% | 5.25% | 5.75% | 17.84% | 9.04% | 7.34% | 8.25% | 6.50% |
| Unfunded Actuarial Liability Contribution as a Percent of Payroll | <u>12.07</u> | 12.07 | _11.54 | 35.80 | <u>18.14</u> | <u>14.73</u> | <u>16.55</u> | <u>13.04</u> |
| Total Contributions as a Percent of Payroll | 17.59% | 17.32% | 17.29% | 53.64% | 27.18% | 22.07% | 24.80% | 19.54% |



SECTION IV CONTRIBUTIONS

| | Table IV-2 Derivation of Unfunded Actuarial Liability Rates | | | | | | | |
|-----|--|------------------|------------------|--|---------------------------------|----------------------------|----------------|----------------------|
| | Valuation Date June 30, 2006 | Teachers | State Regular | State Police Marine Resources Inland Fish & Wildlife (Closed) | Prison Employees (Closed) | Forest Rangers (Closed) | 25 & Out Plan | 1998 Special Plan |
| 1. | Present Value of Future Benefits | \$ 7,827,677,278 | \$ 3,763,243,409 | \$267,275,030 | \$ 53,949,618 | \$ 25,903,782 | \$ 104,418,956 | \$ 237,523,984 |
| 2. | Normal Cost Rate | 5.25% | 5.75% | 17.84% | 9.04% | 7.34% | 8.25% | 6.50% |
| 3. | Present Value of Future Payroll | 8,410,303,900 | 4,111,768,300 | 6,495,000 | 2,812,900 | 3,185,400 | 208,447,000 | 388,328,000 |
| 4. | Present Value of Future Normal Cost (2) x (3) | 441,540,955 | 236,426,677 | 1,158,707 | 254,286 | 233,808 | 17,196,878 | 25,241,320 |
| 5. | Present Value of Future Contributions | 643,388,248 | 314,550,275 | 561,818 | 243,316 | 275,537 | 18,030,666 | 33,590,372 |
| 6. | Actuarial Liability $(1) - (4) - (5)$ | 6,742,748,075 | 3,212,266,457 | 265,554,505 | 53,452,016 | 25,394,437 | 69,191,412 | 178,692,292 |
| 7. | Actuarial Value of Assets | 4,782,782,014 | 2,336,855,726 | 245,322,887 | 50,818,739 | 22,988,966 | 7,233,871 | 58,217,343 |
| 8. | Unfunded Actuarial Liability (6) – (7) | 1,959,966,061 | 875,410,731 | 20,231,618 | 2,633,277 | 2,405,471 | 61,957,541 | 120,474,949 |
| 9. | Estimated Payroll | 990,883,932 | 462,776,707 | 3,448,989 | 885,899 | 996,690 | 22,840,009 | 56,368,884 |
| 10. | Amortization Factor | 16.3860 | 16.3860 | 16.3860 | 16.3860 | 16.3860 | 16.3860 | 16.3860 |
| 11. | Unfunded Actuarial Liability Rate (8) / (9) / (10) | 12.07% | 11.54% | 35.80% | 18.14% | 14.73% | 16.55% | 13.04% |



SECTION V ACCOUNTING STATEMENT INFORMATION

Statement No. 35 of the Financial Accounting Standards Board (FASB) requires the Plan to disclose certain information regarding its funded status. Statement No. 25 of the Governmental Accounting Standards Board (GASB) establishes standards for disclosure of pension information by public employee retirement systems (PERS) and governmental employers in notes to financial statements and supplementary information.

The FASB-35 disclosures provide a quasi "snap shot" view of how the Plan's assets compare to its liabilities if contributions stopped and accrued benefit claims had to be satisfied. However, due to potential legal requirements and the possibility that alternative interest rates would have to be used to determine the liabilities, these values may not be a good indication of the amount of money it would take to buy the benefits for all members if the Plan were to terminate.

The GASB-25 actuarial accrued liability is the same as the actuarial liability amount calculated for funding purposes.

Both the present value of accrued benefits (FASB-35) and the actuarial accrued liability (GASB-25) are determined assuming that the Plan is ongoing and participants continue to terminate employment, retire, etc., in accordance with the actuarial assumptions. Liabilities are discounted at the assumed valuation interest rate of 7.75% per annum.

FASB Statement No. 35 specifies that a comparison of the present value of accrued (accumulated) benefits with the market value of the assets as of the valuation date must be provided. GASB Statement No. 25 requires the actuarial accrued liability be compared with the actuarial value of assets

for funding purposes. The relevant amounts as of June 30, 2005 and June 30, 2006 are exhibited in Table V-1. Table V-2 reconciles the FASB-35 liabilities determined as of the prior valuation, June 30, 2005 to the liabilities as of June 30, 2006.

Tables V-3 through V-5 are exhibits required for the System's Comprehensive Annual Financial Report. The GFOA recommends showing 6-10 years of experience in each of these exhibits. This report will continue to add years of experience to the charts and eventually build up to the recommended disclosure. Table V-3 shows the Notes to Required Supplementary Information. Table V-4 is a history of gains and losses in Accrued Liability, and Table V-5 is the Solvency Test which shows the portion of Accrued Liability covered by Assets.



SECTION V ACCOUNTING STATEMENT INFORMATION

| | Table V-1 Accounting Statement Information | | | | | | | |
|----|---|---|---|---|--|--|--|--|
| | June 30, 2005 June 30, 2006 | | | | | | | |
| А. | FA | SB No. 35 Basis | | | | | | |
| | 1. | Present Value of Benefits Accrued and Vested to Datea. Members Currently Receiving Paymentsb. Vested Terminatedc. Active Membersd. Total PVAB | \$ 4,538,294,376 294,700,051 <u>3,282,386,231</u> \$ 8,115,380,658 | \$ 5,042,695,627 325,090,052 <u>3,217,789,485</u> \$ 8,585,575,164 | | | | |
| | 2. | Assets at Market Value | 6,997,802,832 | 7,503,201,781 | | | | |
| | 3. | Unfunded Present Value of Accrued Benefits, But Not Less Than Zero | \$ 1,117,577,826 | \$ 1,082,373,383 | | | | |
| | 4. | Ratio of Assets to Value of Benefits (2) / (1)(d) | 86.23% | 87.39% | | | | |
| B. | GA | ASB No. 25 Basis | | | | | | |
| | 1. | Actuarial Liabilities a. Members Currently Receiving Payments b. Vested Deferred and Inactive Status Members c. Active Members d. Total | \$ 4,538,294,376 294,700,051 <u>5,166,255,611</u> \$ 9,999,250,038 | \$ 5,042,695,627 325,090,052 <u>5,179,513,515</u> \$10,547,299,194 | | | | |
| | 2. | Actuarial Value of Assets | 6,964,597,457 | 7,504,219,546 | | | | |
| | 3. | Unfunded Actuarial Liability | \$ 3,034,652,581 | \$ 3,043,079,648 | | | | |
| | 4. | Ratio of Actuarial Value of Assets to Actuarial Liability (2) / (1)(d) | 69.65% | 71.15% | | | | |

SECTION V ACCOUNTING STATEMENT INFORMATION

| Table V-2 Statement of Changes in Total Actuarial Present Value of All Accrued Benefits | Асси | mulated Benefit |
|---|------|---|
| | | gation (FASB 35) |
| Actuarial Present Value of Accrued Benefits as of June 30, 2005 | \$ | 8,115,380,658 |
| Increase (Decrease) During Years Attributable to: Passage of Time Benefits Paid – FY 2006 Assumption Change Plan Amendment Benefits Accrued, Other Gains/Losses Net Increase (Decrease) | | 631,768,032 (436,560,524) 23,549,571 <u></u> |
| Actuarial Present Value of Accrued Benefits as of June 30, 2006 | \$ | 8,585,575,164 |



SECTION V ACCOUNTING STATEMENT INFORMATION

Table V-3 NOTE TO REQUIRED SUPPLEMENTARY INFORMATION

| The information presented in the required supplementary schedules was dete Additional information as of the latest actuarial valuation follows. | ermined as part of the actuarial valuation at the date indicated. |
|--|---|
| Valuation date | June 30, 2006 |
| Actuarial cost method | Entry age |
| Amortization method | Level percent closed |
| Remaining amortization period | 22 years |
| Asset valuation method | 3-Year smoothed market |
| Actuarial assumptions: Investment rate of return* Projected salary increases* *Includes inflation at Cost-of-living adjustments | 7.75% 4.75% 4.50% 3.75% |

The actuarial assumptions used have been recommended by the actuary and adopted by the Plan's Board of Trustees based on the most recent review of the Plan's experience, completed in 2006.

The rate of employer contributions to the Plan is composed of the normal cost and an amortization of the unfunded actuarial accrued liability. The normal cost is a level percent of payroll cost which, along with the member contributions, will pay for projected benefits at retirement for the average plan participant. The actuarial accrued liability is that portion of the present value of projected benefits that will not be paid by future employer normal costs or member contributions. The difference between this liability and the funds accumulated as of the same date is the unfunded actuarial accrued liability.



SECTION V ACCOUNTING STATEMENT INFORMATION

| Table V-4 ANALYSIS OF FINANCIAL EXPERIENCE Gain and Loss in Accrued Liability During Years Ended June 30 Resulting from Differences Between Assumed Experience and Actual Experience | | | | | | |
|---|---------------|----------------|--|--|--|--|
| Gain (or Loss) for YearGain (or Loss) for Yearended June 30, 2005ended June 30, 2006 | | | | | | |
| Type of Activity | | | | | | |
| Investment Income | \$ 16,350,568 | \$ (2,036,992) | | | | |
| Combined Liability Experience | 3,388,524 | 48,354,919 | | | | |
| Gain (or Loss) During Year from Financial Experience | \$ 19,739,692 | \$ 46,317,927 | | | | |
| Non-Recurring Items* | 0 | 5,292,234 | | | | |
| Composite Gain (or Loss) During Year | \$ 19,739,092 | \$ 51,610,161 | | | | |

* Assumption change: \$ (11,707,766) Surplus transfer: \$ 17,000,000



SECTION V ACCOUNTING STATEMENT INFORMATION

| | | Aggre | Table V-5 SOLVENCY TEST gate Accrued Liabilitie | es For | | | |
|-------------------------------|--|--|---|--|----------------------|---|-------------------|
| Valuation Date June 30, | (1) Active Member Contributions | (2) Retirees Vested Terms, Beneficiaries | (3) Active Members (Employer Financed Portion) | Reported Assets | Lia | rtion of Accru abilities Cove Reported Ass (2) | red |
| 2006 2005 2004 | \$ 1,645,241,719 1,569,409,748 1,464,936,256 | \$ 5,367,785,679 4,832,994,427 4,387,963,456 | \$ 3,534,271,796 3,596,845,863 3,589,489,687 | \$ 7,504,219,546 6,964,597,457 6,452,570,243 | 100% 100% 100% | 100% 100% 100% | 14% 16% 17% |



APPENDIX A MEMBERSHIP INFORMATION

| Maine State Retirement System Active Member Data as of June 30, 2006 | |
|---|-----------|
| Teachers | |
| Count | 28,105 |
| Average Current Age | 45.9 |
| Average Service | 14.2 |
| Average Valuation Pay | \$ 35,257 |
| State Employee Regular Plan | |
| Count | 12,665 |
| Average Current Age | 46.6 |
| Average Service | 12.9 |
| Average Valuation Pay | \$ 36,540 |
| Forest Rangers Special Plan (Closed Plan) | |
| Count | 20 |
| Average Current Age | 50.0 |
| Average Service | 27.1 |
| Average Valuation Pay | \$ 49,835 |
| Inland Fisheries & Wildlife Officers Special Plan (Closed Plan) | |
| Count | 16 |
| Average Current Age | 53.7 |
| Average Service | 29.8 |
| Average Valuation Pay | \$ 52,594 |
| Prison Employees Special Plan (Closed Plan) | |
| Count | 19 |
| Average Current Age | 52.2 |
| Average Service | 26.4 |
| Average Valuation Pay | \$ 46,626 |



APPENDIX A MEMBERSHIP INFORMATION

| Maine State Retirement System Active Member Data as of June 30, 2006 | | | | |
|---|-----------|--|--|--|
| | | | | |
| <u>State Police Special Plan (Closed Plan)</u> Count | 33 | | | |
| Average Current Age | 50.4 | | | |
| Average Service | 25.1 | | | |
| Average Valuation Pay | \$ 73,918 | | | |
| Marine Resource Officers Special Plan (Closed Plan) | | | | |
| Count | 3 | | | |
| Average Current Age | 50.8 | | | |
| Average Service | 29.0 | | | |
| Average Valuation Pay | \$ 56,060 | | | |
| <u>State Employee Special 25 & Out Plan</u> | | | | |
| Count | 397 | | | |
| Average Current Age | 38.5 | | | |
| Average Service | 12.0 | | | |
| Average Valuation Pay | \$ 57,532 | | | |
| State Employee 1998 Special Plan | | | | |
| Count | 1,385 | | | |
| Average Current Age | 43.2 | | | |
| Average Service | 10.2 | | | |
| Average Valuation Pay | \$ 40,700 | | | |
| State Employee Totals (Excludes Teachers) | | | | |
| Count | 14,538 | | | |
| Average Current Age | 46.1 | | | |
| Average Service | 12.7 | | | |
| Average Valuation Pay | \$ 37,647 | | | |

APPENDIX A MEMBERSHIP INFORMATION

| Maine State Retirement System Non-Active Member Data as of June 30, 2006 Teachers | | | | | | | | | | |
|---|--------|-------------------------|---------------------------|--|--|--|--|--|--|--|
| | Count | Total Annual Benefit | Average Annual Benefit | | | | | | | |
| Retired | 10,013 | \$ 201,997,420 | \$ 20,174 | | | | | | | |
| Retired – Concurrent Beneficiaries | 1,302 | \$ 6,204,819 | \$ 4,766 | | | | | | | |
| Disabilities / 1122 | 3 | \$ 70,622 | \$ 23,541 | | | | | | | |
| Disabilities / 3 and 3A | 677 | \$ 16,804,376 | \$ 24,822 | | | | | | | |
| Beneficiaries | 989 | \$ 13,101,104 | \$ 13,274 | | | | | | | |
| Pre-Retirement Death Benefits | 350 | \$ 1,932,207 | \$ 5,521 | | | | | | | |
| Terminated Vested | 4,289 | \$ 25,666,686 | \$ 5,984 | | | | | | | |

| Maine State Retirement System Non-Active Member Data as of June 30, 2006 State Regular | | | | | | | | | | |
|--|-------|-------------------------|---------------------------|--|--|--|--|--|--|--|
| | Count | Total Annual Benefit | Average Annual Benefit | | | | | | | |
| Retired | 6,929 | \$ 113,349,574 | \$ 16,359 | | | | | | | |
| Retired – Concurrent Beneficiaries | 1,134 | \$ 4,914,046 | \$ 4,333 | | | | | | | |
| Disabilities / 1122 | 7 | \$ 113,978 | \$ 16,283 | | | | | | | |
| Disabilities / 3 and 3A | 919 | \$ 17,628,620 | \$ 19,182 | | | | | | | |
| Beneficiaries | 1,711 | \$ 18,188,426 | \$ 10,630 | | | | | | | |
| Pre-Retirement Death Benefits | 518 | \$ 2,810,899 | \$ 5,302 | | | | | | | |
| Terminated Vested | 1,717 | \$ 12,435,760 | \$ 7,243 | | | | | | | |

APPENDIX A MEMBERSHIP INFORMATION

| Maine State Retirement System Non-Active Member Data as of June 30, 2006 Special Plans | | | | | | | | | | |
|--|-------|----|-----------------------|---------------------------|--|--|--|--|--|--|
| | Count | Ar | Total mual Benefit | Average Annual Benefit | | | | | | |
| Retired | 778 | \$ | 20,707,218 | \$ 26,616 | | | | | | |
| Retired – Concurrent Beneficiaries | 165 | \$ | 792,182 | \$ 4,801 | | | | | | |
| Disabilities / 1122 | 3 | \$ | 49,309 | \$ 16,436 | | | | | | |
| Disabilities / 3 and 3A | 64 | \$ | 1,480,458 | \$ 23,132 | | | | | | |
| Beneficiaries | 159 | \$ | 2,065,470 | \$ 12,990 | | | | | | |
| Pre-Retirement Death Benefits | 10 | \$ | 91,988 | \$ 9,199 | | | | | | |
| Terminated Vested | 0 | \$ | 0 | \$0 | | | | | | |

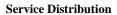


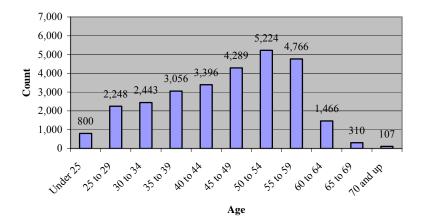
APPENDIX A MEMBERSHIP INFORMATION

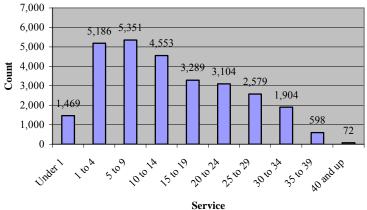
Maine State Retirement System Distribution of Active Members As of June 30, 2006

| | | | | | Teac | hers | | | | | |
|-----------|---------|--------|--------|----------|----------|----------|----------|----------|----------|-----------|--------|
| | | | | | Years of | Service | | | | | |
| | Under 1 | 1 to 4 | 5 to 9 | 10 to 14 | 15 to 19 | 20 to 24 | 25 to 29 | 30 to 34 | 35 to 39 | 40 and up | Totals |
| Under 25 | 257 | 492 | 51 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 800 |
| 25 to 29 | 222 | 1,093 | 902 | 31 | 0 | 0 | 0 | 0 | 0 | 0 | 2,248 |
| 30 to 34 | 183 | 633 | 909 | 716 | 2 | 0 | 0 | 0 | 0 | 0 | 2,443 |
| 35 to 39 | 215 | 680 | 669 | 1,114 | 367 | 11 | 0 | 0 | 0 | 0 | 3,056 |
| 40 to 44 | 190 | 687 | 724 | 530 | 716 | 542 | 7 | 0 | 0 | 0 | 3,396 |
| 45 to 49 | 137 | 608 | 826 | 710 | 551 | 914 | 533 | 9 | 1 | 0 | 4,289 |
| 50 to 54 | 111 | 463 | 616 | 784 | 710 | 672 | 1,202 | 657 | 9 | 0 | 5,224 |
| 55 to 59 | 98 | 333 | 415 | 494 | 687 | 670 | 586 | 1,075 | 401 | 7 | 4,766 |
| 60 to 64 | 34 | 134 | 158 | 132 | 214 | 251 | 209 | 127 | 173 | 34 | 1,466 |
| 65 to 69 | 18 | 37 | 52 | 31 | 36 | 36 | 31 | 31 | 11 | 27 | 310 |
| 70 and up | 4 | 26 | 29 | 11 | 6 | 8 | 11 | 5 | 3 | 4 | 107 |
| Total | 1,469 | 5,186 | 5,351 | 4,553 | 3,289 | 3,104 | 2,579 | 1,904 | 598 | 72 | 28,105 |









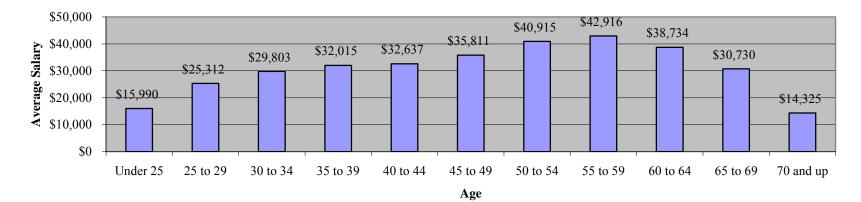


APPENDIX A MEMBERSHIP INFORMATION

Maine State Retirement System Distribution of Active Members As of June 30, 2006

| Teachers | | | | | | | | | | | | | | | | | | | | | | |
|-----------|----|--------|----|--------|----|--------|----|---------|----|----------|-------|---------|----|---------|----|---------|----|---------|----|----------|----|--------|
| | | | | | | | | | | Average | e Sal | lary | | | | | | | | | | |
| | | | | | | | | | | Years of | Ser | vice | | | | | | | | | | |
| | U | nder 1 | | 1 to 4 | | 5 to 9 | 1 | 0 to 14 | 1 | 5 to 19 | 2 | 0 to 24 | 2 | 5 to 29 | 3 | 0 to 34 | 3 | 5 to 39 | 4(|) and up | A | verage |
| Under 25 | \$ | 11,101 | \$ | 18,045 | \$ | 20,802 | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | 15,990 |
| 25 to 29 | | 15,117 | | 24,665 | | 28,503 | | 28,284 | | - | | - | | - | | - | | - | | - | | 25,312 |
| 30 to 34 | | 16,496 | | 25,299 | | 31,506 | | 34,998 | | 39,310 | | - | | - | | - | | - | | - | | 29,803 |
| 35 to 39 | | 15,664 | | 24,454 | | 30,554 | | 37,878 | | 40,429 | | 33,298 | | - | | - | | - | | - | | 32,015 |
| 40 to 44 | | 14,216 | | 20,247 | | 27,991 | | 35,875 | | 43,196 | | 43,685 | | 48,518 | | - | | - | | - | | 32,637 |
| 45 to 49 | | 15,435 | | 21,798 | | 27,362 | | 33,521 | | 42,973 | | 46,158 | | 47,876 | | 46,120 | | 24,520 | | - | | 35,811 |
| 50 to 54 | | 16,524 | | 25,283 | | 28,359 | | 33,656 | | 43,022 | | 46,035 | | 50,322 | | 51,739 | | 42,322 | | - | | 40,915 |
| 55 to 59 | | 16,465 | | 26,055 | | 30,471 | | 35,147 | | 41,543 | | 44,621 | | 48,139 | | 52,191 | | 52,724 | | 49,226 | | 42,916 |
| 60 to 64 | | 10,720 | | 19,640 | | 26,803 | | 31,565 | | 39,856 | | 41,436 | | 45,492 | | 50,182 | | 51,273 | | 50,144 | | 38,734 |
| 65 to 69 | | 9,544 | | 10,895 | | 19,768 | | 27,593 | | 39,447 | | 31,152 | | 42,057 | | 43,867 | | 43,109 | | 51,436 | | 30,730 |
| 70 and up | | 5,325 | | 6,240 | | 9,044 | | 11,984 | | 27,759 | | 26,309 | | 12,939 | | 19,023 | | 47,575 | | 49,475 | | 14,325 |
| Average | \$ | 14,579 | \$ | 22,989 | \$ | 28,846 | \$ | 35,108 | \$ | 42,178 | \$ | 44,715 | \$ | 48,666 | \$ | 51,650 | \$ | 51,898 | \$ | 50,502 | \$ | 35,257 |

Average Salary Distribution

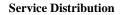


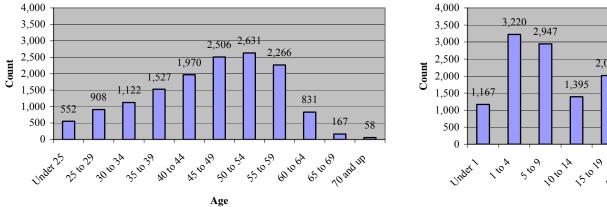
APPENDIX A **MEMBERSHIP INFORMATION**

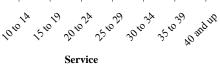
Maine State Retirement System Distribution of Active Members As of June 30, 2006

| | | | | | Sta | te | | | | | |
|-----------|---------|--------|--------|----------|----------|----------|----------|----------|----------|-----------|--------|
| | | | | | Years of | Service | | | | | |
| | Under 1 | 1 to 4 | 5 to 9 | 10 to 14 | 15 to 19 | 20 to 24 | 25 to 29 | 30 to 34 | 35 to 39 | 40 and up | Totals |
| Under 25 | 261 | 272 | 19 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 552 |
| 25 to 29 | 151 | 545 | 208 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 908 |
| 30 to 34 | 137 | 432 | 452 | 93 | 8 | 0 | 0 | 0 | 0 | 0 | 1,122 |
| 35 to 39 | 125 | 396 | 474 | 260 | 248 | 24 | 0 | 0 | 0 | 0 | 1,527 |
| 40 to 44 | 126 | 418 | 441 | 228 | 448 | 290 | 19 | 0 | 0 | 0 | 1,970 |
| 45 to 49 | 142 | 386 | 463 | 236 | 438 | 464 | 349 | 28 | 0 | 0 | 2,506 |
| 50 to 54 | 105 | 360 | 425 | 249 | 393 | 395 | 437 | 233 | 33 | 1 | 2,631 |
| 55 to 59 | 85 | 283 | 293 | 220 | 308 | 372 | 262 | 249 | 180 | 14 | 2,266 |
| 60 to 64 | 29 | 103 | 136 | 84 | 141 | 129 | 79 | 51 | 40 | 39 | 831 |
| 65 to 69 | 3 | 18 | 31 | 18 | 26 | 18 | 24 | 10 | 11 | 8 | 167 |
| 70 and up | 3 | 7 | 5 | 3 | 5 | 7 | 9 | 10 | 4 | 5 | 58 |
| Total | 1,167 | 3,220 | 2,947 | 1,395 | 2,015 | 1,699 | 1,179 | 581 | 268 | 67 | 14,538 |









2,015

1,395

1,699

1,179

581

268

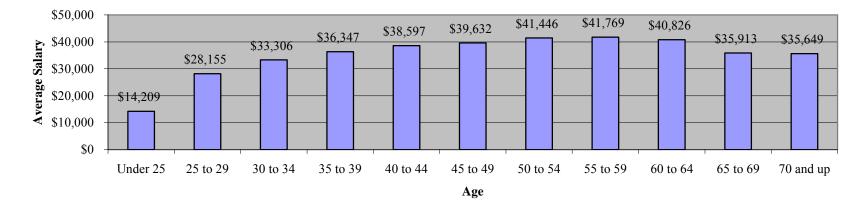
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APPENDIX A MEMBERSHIP INFORMATION

Maine State Retirement System Distribution of Active Members As of June 30, 2006

| State | | | | | | | | | | | | | | | | | | | | | | |
|-----------|----|--------|----|--------|----|--------|----|---------|----|----------|-------|---------|----|---------|----|---------|----|---------|----|----------|----|--------|
| | | | | | | | | | | Average | e Sal | lary | | | | | | | | | | |
| | | | | | | | | | | Years of | Ser | vice | | | | | | | | | | |
| | U | nder 1 | | 1 to 4 | | 5 to 9 | 1 | 0 to 14 | 1 | 5 to 19 | 2 | 0 to 24 | 2 | 5 to 29 | 3 | 0 to 34 | 3 | 5 to 39 | 4(|) and up | Ā | verage |
| Under 25 | \$ | 7,762 | \$ | 19,474 | \$ | 27,381 | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | 14,209 |
| 25 to 29 | | 14,579 | | 30,287 | | 32,237 | | 37,845 | | - | | - | | - | | - | | - | | - | | 28,155 |
| 30 to 34 | | 14,755 | | 32,053 | | 38,188 | | 42,551 | | 35,423 | | - | | - | | - | | - | | - | | 33,306 |
| 35 to 39 | | 13,108 | | 33,396 | | 36,853 | | 45,519 | | 41,689 | | 41,527 | | - | | - | | - | | - | | 36,347 |
| 40 to 44 | | 14,288 | | 33,631 | | 37,657 | | 43,791 | | 44,577 | | 44,372 | | 39,385 | | - | | - | | - | | 38,597 |
| 45 to 49 | | 15,438 | | 34,130 | | 36,459 | | 43,155 | | 44,821 | | 44,465 | | 44,476 | | 39,319 | | - | | - | | 39,632 |
| 50 to 54 | | 15,687 | | 34,095 | | 38,032 | | 41,960 | | 44,944 | | 45,796 | | 48,199 | | 43,556 | | 45,549 | | 42,860 | | 41,446 |
| 55 to 59 | | 13,783 | | 34,459 | | 37,860 | | 42,562 | | 40,656 | | 45,301 | | 47,756 | | 47,864 | | 48,835 | | 48,170 | | 41,769 |
| 60 to 64 | | 11,957 | | 31,922 | | 37,045 | | 37,331 | | 43,780 | | 43,011 | | 48,341 | | 51,386 | | 51,880 | | 48,255 | | 40,826 |
| 65 to 69 | | 9,833 | | 31,149 | | 34,122 | | 32,575 | | 35,134 | | 38,227 | | 38,037 | | 39,526 | | 44,394 | | 45,628 | | 35,913 |
| 70 and up | | 6,569 | | 22,276 | | 17,095 | | 23,596 | | 32,174 | | 27,994 | | 46,844 | | 45,944 | | 53,387 | | 56,860 | | 35,649 |
| Average | \$ | 12,934 | \$ | 31,720 | \$ | 36,946 | \$ | 42,808 | \$ | 43,502 | \$ | 44,656 | \$ | 46,649 | \$ | 45,857 | \$ | 48,770 | \$ | 48,485 | \$ | 37,647 |

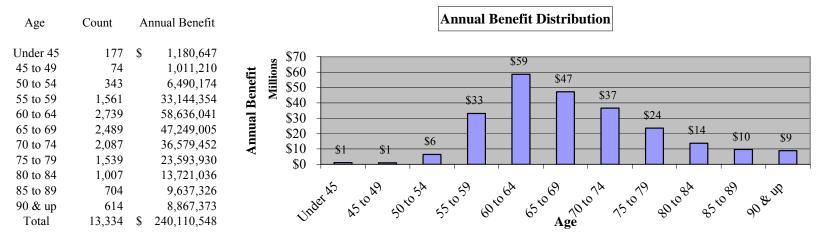
Average Salary Distribution



APPENDIX A MEMBERSHIP INFORMATION

Maine State Retirement System Distribution of Retirees, Disabled Members, Beneficiaries, and Survivors As of June 30, 2006

Teachers



State

| $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | Age | Count | Annual Benefit | Annual Benefit Distribution |
|--|---|--|---|--|
| $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | 45 to 49 50 to 54 55 to 59 60 to 64 65 to 69 70 to 74 75 to 79 80 to 84 85 to 89 90 & up | 282 639 1,268 1,789 1,917 1,953 1,746 1,341 805 391 | 4,060,024 11,074,462 23,342,342 32,204,488 29,245,610 28,111,201 23,518,906 15,884,176 8,827,054 3,772,317 | \$32 \$29 \$28 \$29 \$28 \$24 \$16 \$10 \$5 \$2 \$2 \$29 \$28 \$24 \$16 \$16 \$16 \$16 \$16 \$16 \$2 \$2 \$2 \$29 \$28 |



APPENDIX B ACTUARIAL ASSUMPTIONS AND METHODS

A. Actuarial Assumptions

4. Rates of Termination (% at Selected Service):

1. Rate of Investment Return:

State Employees: 7.75%

Teachers: 7.75%

2. Cost-of-Living Increases in Benefits:

State Employees: 3.75%

Teachers: 3.75%

3. Rates of Salary Increase (% at Selected Years of Service):

| Service | State Employees and Teachers |
|-------------|---------------------------------|
| 0 | 10.00% |
| 5 | 7.50 |
| 10 | 6.07 |
| 15 | 5.28 |
| 20 | 4.90 |
| 25 and over | 4.75 |

The above rates include a 4.75% across-the-board increase at each year of service.

| Service | State Employees | Teachers |
|---------|-----------------|----------|
| 0 | 30.00% | 37.00% |
| 5 | 7.50 | 12.50 |
| 10 | 4.40 | 6.00 |
| 15 | 3.50 | 4.50 |
| 20 | 2.00 | 3.00 |
| 25 | 2.00 | 2.00 |

Members with ten or more years of service and whose age plus service totals 60 or more are assumed to elect deferred vested benefits; other terminations are assumed to elect refunds.



APPENDIX B ACTUARIAL ASSUMPTIONS AND METHODS

5. Rate of Mortality for Active Healthy Lives and Retired Healthy Lives at Selected Ages (number of deaths per 10,000 members)*:

| | State E | mployees | Tea | chers |
|----------|---------|----------|------|--------|
| Age | Male | Female | Male | Female |
| 20 | 5 | 3 | 5 | 3 |
| 20 25 | 7 | 3 | 6 | 3 |
| 30 | 9 | 4 | 7 | 3 |
| 35 | 9 | 5 | 8 | 4 |
| 40 | 12 | 8 | 10 | 6 |
| 45 | 17 | 10 | 14 | 9 |
| 50 55 | 28 | 15 | 24 | 13 |
| 55 | 48 | 25 | 40 | 21 |
| 60 | 86 | 48 | 73 | 41 |
| 65 | 156 | 93 | 133 | 79 |
| 70 | 255 | 148 | 217 | 125 |

* For State Regular and Teachers 5% of deaths assumed to arise out of and in the course of employment; for State Special 20% of deaths are assumed to arise out of and in the course of employment.

6. Rates of Mortality for Future Disabled Lives and Retired Disabled Lives at Selected Ages (number of deaths per 10,000 members):

| | State E | mployees | Te | achers |
|-----|---------|----------|------|--------|
| Age | Male | Female | Male | Female |
| 25 | 92 | 72 | 92 | 72 |
| 30 | 112 | 89 | 112 | 89 |
| 35 | 134 | 109 | 134 | 109 |
| 40 | 160 | 126 | 160 | 126 |
| 45 | 193 | 144 | 193 | 144 |
| 50 | 236 | 165 | 236 | 165 |
| 55 | 295 | 191 | 295 | 191 |
| 60 | 362 | 226 | 362 | 226 |
| 65 | 446 | 272 | 446 | 272 |
| 70 | 576 | 331 | 576 | 331 |

APPENDIX B ACTUARIAL ASSUMPTIONS AND METHODS

7. Rates of Retirement at Selected Ages (number retiring per 1,000 members):

| | State Employees | | Teachers | |
|-----|-----------------|--------|----------|--------|
| Age | Tier 1 | Ťier 2 | Tier 1 | Tier 2 |
| 45 | 28 | 28 | 18 | 18 |
| 50 | 42 | 42 | 39 | 39 |
| 55 | 103 | 103 | 106 | 106 |
| 59 | 200 | 148 | 156 | 100 |
| 60 | 228 | 148 | 225 | 100 |
| 61 | 133 | 133 | 139 | 100 |
| 62 | 268 | 250 | 277 | 250 |
| 63 | 202 | 202 | 224 | 224 |
| 64 | 221 | 221 | 223 | 223 |
| 65 | 478 | 478 | 485 | 485 |
| 70 | 589 | 589 | 570 | 570 |

* Members of Special Groups are assumed to retire at a rate of 50% per year, once they reach eligibility for unreduced benefits at every age.

In the case of State Regular and Teacher employees, Tier 1 refers to those who had accrued at least 10 years of service by July 1, 1993. Tier 2 are those who had not or were hired after that date.

8. Rates of Disability at Selected Ages (members becoming disabled per 10,000 members)**:

| Age | State Employees | Teachers |
|-----|--------------------|----------|
| 25 | 6.8 | 4.6 |
| 30 | 7.6 | 5.0 |
| 35 | 10.2 | 5.5 |
| 40 | 19.0 | 6.8 |
| 45 | 27.9 | 15.5 |
| 50 | 42.7 | 24.3 |
| 55 | 81.0 | 33.0 |
| 60 | 119.3 | 41.8 |

** 10% assumed to receive Workers Compensation benefits offsetting disability benefit; also, rates for State Special groups are higher by 7 per 10,000 at all ages.

9. Family Composition Assumptions:

80% of active members are married and have two children born when the member is 24 and 28; children are dependent until age 18; female spouse is three years younger than male spouse; member has no dependent parents; unmarried members have beneficiaries entitled to benefits worth 80% as much as those of married members' beneficiaries.

10. Vacation/Sick Leave Credits:

For members who had ten years of service on July 1, 1993, credits for unused vacation and sick leave may be used to increase final average compensation and/or creditable service. In order to reflect this, projected benefits are increased by 1.0% for state employees and 1.3% for teachers.

APPENDIX B ACTUARIAL ASSUMPTIONS AND METHODS

11. Changes Since Last Valuation

As a result of an experience study performed in 2006, the actuary recommended changes to several assumptions and these recommendations were adopted by the Board. Please refer to the Experience Study report for details on the recommended changes.



APPENDIX B ACTUARIAL ASSUMPTIONS AND METHODS

B. Actuarial Methods

1. Funding Method:

The Entry Age Normal method is used to determine costs. Under this funding method, a total contribution rate is determined which consists of two elements: the normal cost rate and the unfunded actuarial liability (UAL) rate.

For Teachers and State Employees, including each of the State Special Plans, a normal cost rate is determined for a typical new entrant. This rate is determined by taking the value, as of age at entry into the Plan, of the member's projected future benefits, reducing it by the value of future member contributions, and dividing it by the value, also as of the member's entry age, of the member's expected future salary.

In addition to contributions required to meet the Plan's normal cost, contributions are required to fund the Plan's unfunded actuarial liability. The actuarial liability is defined as the present value of future benefits less the present value of future normal costs and future member contributions. The unfunded actuarial liability is the total of the actuarial liability for all members less the actuarial value of the Plan's assets. The actuarial liability includes projections of future member pay increases and future service credits and should not be confused with the Accrued Benefit Liability. The unfunded actuarial liability is amortized by annual payments. The payments are determined so that they will be a level percentage of pay, assuming payroll increases 4.75% per year. The UAL measured as of June 30, 2006 is amortized over a 22 year period.

2. Asset Valuation Method:

For purposes of determining the State contribution to the Plan, we use an actuarial value of assets. The asset adjustment method dampens the volatility in asset values that could occur because of fluctuations in market conditions. Use of an asset smoothing method is consistent with the long-term nature of the actuarial valuation process.

In determining the actuarial value of assets, we calculate an expected actuarial value based on cash flow for the year and imputed returns at the actuarial assumption. This expected value is compared to the market value and one-third of the difference is added to the preliminary actuarial value to arrive at the final actuarial value.

APPENDIX C SUMMARY OF PLAN PROVISIONS

State Employees and Teachers

1. Membership:

Membership is a condition of employment for state employees and teachers, and optional for elected and appointed officials.

Membership ceases on the earlier of withdrawal of contributions, retirement, or death.

2. Member Contributions:

Except as otherwise described below, members are required to contribute 7.65% of earnable compensation.

<u>Contribution Requirements for Special State Employee</u> <u>Groups</u>

State police, inland fisheries and wildlife officers, and marine resources officers employed before 9/1/84 - 8.65% of earnable compensation for 20 years; 7.65% thereafter.

Forest rangers and state prison employees employed before 9/1/84 - 8.65% of earnable compensation until eligible for retirement; 7.65% thereafter.

1998 Special Plan employees which include state prison employees, airplane pilots, forest rangers, defense, veterans and emergency management firefighters employed at Bangor International Airport, corrections employees, Baxter State Park Authority rangers, fire marshals, investigators and inspectors, oil and hazardous materials emergency response workers and capitol security officers – 8.65% of earnable compensation for 25 years; 7.65% thereafter.

State police employed on or after 9/16/84 and special agent investigators hired before 6/21/82 - 8.65% of earnable compensation for 25 years; 7.65% thereafter.

Inland fisheries and wildlife officers and marine resources officers employed on or after 9/1/84 - 8.65% of earnable compensation for 25 years; 7.65% thereafter.

3. Average Final Compensation:

For purposes of determining benefits payable under the Plan, average final compensation is the average annual rate of earnable compensation for the three years of creditable service (not necessarily consecutive) which produce the highest such average.

For compensation paid on or after July 1, 1993, increases in earnable compensation of greater than 5% per year or 10% over the highest three years are not included in calculating average final compensation unless the employer pays the cost of including such compensation. Earnable compensation does not include sick and vacation pay for those members who had less than ten years of service at July 1, 1993. For members for whom sick and vacation pay is includible in earnable compensation, these payments are included in applying the caps described in the preceding paragraph.



APPENDIX C SUMMARY OF PLAN PROVISIONS

4. Creditable Service:

Creditable service includes service while a member, certain service prior to the establishment of the Plan, purchased military service credit, other purchased service credit, and service while receiving disability benefits under the Plan.

5. Service Retirement Benefits:

- A. Regular Plan (State Employees and Teachers)
 - *i.* Provisions for Members With at Least Ten Years of Creditable Service on July 1, 1993

Normal Retirement Age: 60

Eligibility for Members in Active Service and Inactive Members: 25 years of creditable service.

Eligibility Alternative for Members in Active Service: At least one year of creditable service immediately before retirement and at least normal retirement age.

Eligibility for Members not in Active Service at Retirement, and not in Active Service on or After October 1, 1999: At least ten years of creditable service and at least normal retirement age.

Eligibility for Members not in Active Service at Retirement, but in Active Service on or After October 1, 1999: At least five years of creditable service and at least normal retirement age. Benefit: 1/50 of average final compensation multiplied by years of membership service and up to 25 years of prior service, reduced by approximately $2\frac{1}{4}\%$ for each year retirement age is less than age 60.

Form of Payment: Life annuity.

ii. Provisions for Members With Less Than Ten Years of Creditable Service on July 1, 1993

Normal Retirement Age: 62

Eligibility for Members in Active Service and Inactive Members: 25 years of creditable service.

Eligibility Alternative for Members in Active Service: At least one year of creditable service immediately before retirement age and at least normal retirement age.

Eligibility for Members not in Active Service at Retirement, and not in Active Service on or After October 1, 1999: At least ten years of creditable service and at least normal retirement age.

Eligibility for Members not in Active Service at Retirement, but in Active Service on or After October 1, 1999: At least five years of creditable service and at least normal retirement age.

Benefit: 1/50 of average final compensation multiplied by years of membership service and up to 25 years of prior service, reduced by 6% for each year retirement age is less than age 62.

APPENDIX C SUMMARY OF PLAN PROVISIONS

Form of Payment: Life annuity.

B. Special Plans (State Employees)

i. State Police Employed Before 9/16/84; Inland Fisheries and Wildlife Officers and Marine Resource Officers Employed Before 9/1/84

Eligibility: 20 years of creditable service in named positions.

Benefit: one-half of average final compensation plus 2% for each year of service in excess of 20. If greater, the pro-rated portion of the benefit for service before July 1, 1976 is based on annual pay instead of average final pay.

Form of Payment: 50% joint and survivor annuity, or life annuity.

ii. Forest Rangers Employed Before 9/1/84

Eligibility: Age 50 with 25 years of creditable service as a forest ranger.

Benefit: one-half of average final compensation plus 2% for each year of service earned after qualification for retirement. If greater, the pro-rated portion of the benefit for service before July 1, 1976 is based on annual pay instead of average final pay.

iii. Airplane Pilots Employed Before 9/1/84

Eligibility: Age 55 and 25 years of creditable service as an airplane pilot.

Benefit: Greater of (1) one-half of average final compensation plus 2% for each year of service earned after qualification for retirement, and (2) if retiring after age 60, the benefit under the general formula.

Form of Payment: Life annuity.

iv. Liquor Inspectors Employed Before 9/1/84

Eligibility: Age 55 and 25 years of creditable service as a liquor inspector.

Benefit: one-half of average final compensation plus 2% for each year of service earned after qualification for retirement. If greater, the pro-rated portion of the benefit for service before July 1, 1976 is based on annual pay instead of average final pay.

Form of Payment: Life annuity.

v. State Prison Employees Employed Before 9/1/84

Eligibility: Age 50 and 20 years of creditable service as a prison employee.

Form of Payment: Life annuity.

APPENDIX C SUMMARY OF PLAN PROVISIONS

Benefit: one-half of average final compensation plus 2% for each year of service earned after qualification for retirement.

Form of Payment: Life annuity.

vi. 1998 Special Plan

1998 Entrants: State prison employees, airline pilots, forest rangers and liquor inspectors, employed after 8/31/84; defense, veterans and emergency management firefighters employed on and after 7/1/98.

2000 Entrants: Baxter State Park Authority rangers, correctional employees and state fire marshals employed on or after 1/1/2000.

2002 Entrants: Capitol security officers and oil and hazardous materials emergency response workers.

Eligibility: Ten years of creditable service under the 1998 Special Plan in one or a combination of the covered capacities and the attainment of age 55 - OR - 25 years of creditable service in one or a combination of the covered capacities.

Benefit: For service prior to coverage in the 1998 Special Plan, 1/50 of average final compensation multiplied by years of service reduced for retirement before age 60 or 62, except certain prison employee benefits are reduced for retirement before age 55.

-AND-

for service under the 1998 Special Plan, 1/50 of average final compensation multiplied by years of service reduced for retirement before age 55.

Form of Payment: Life annuity.

vii. 25 & Out Plan

1998 Entrants: State police employed on or after 9/16/84 and special agent investigators hired before 6/21/82.

2002 Entrants: Inland fisheries and wildlife officers and marine resources officers employed on and after 8/31/84.

Eligibility: 25 years of creditable service in named positions.

Benefit: 1/50 of average final compensation multiplied by years of service.

Form of Payment: Life annuity.

Members in Special Plans who fail to qualify for special plan benefits can receive regular plan benefits when and as eligible and qualified.

6. Disability Retirement Benefits Other Than No Age Benefits (See Item 7):

Eligibility: Disabled as defined in the MSRS statutes prior to normal retirement age; employed prior to October 16, 1992 and did not elect No Age Disability Benefits.

APPENDIX C SUMMARY OF PLAN PROVISIONS

Benefit: 66²/₃% of average final compensation, reduced by employment earnings over the specified statutory limit, and to the extent that the benefit, in combination with Worker's Compensation and Social Security, exceeds 80% of average final compensation.

Form of Payment: Payment begins on termination of service and ceases on cessation of disability or after five or two years, depending on disability plan, unless the member is unable to engage in any substantially gainful activity, in which case payments cease on the earlier of ten years following normal retirement age or on the date the service retirement benefit equals or exceeds the disability benefit.

Conversion to Service Retirement: During the period of disability, average final compensation is increased with cost-of-living adjustments and service is credited. On the date when service benefits reach a level of 66²/₃% of average final compensation or ten years after the normal retirement date, if earlier, the disability benefit converts to a service retirement benefit based on service and average final compensation at that point.

7. No Age Disability Retirement Benefits

Eligibility: Disabled as defined in the MSRS statutes; employed on or after October 16, 1992 or employed prior to October 16, 1992 and elected the provisions of No Age Disability.

Benefit: 59% of average final compensation, reduced by employment earnings over the specified statutory limit, and to the extent that the benefit, in combination with Worker's Compensation and Social Security, exceeds 80% of average final compensation.

Form of Payment: Payment begins on termination of service and ceases on cessation of disability or after five or two years, depending on disability plan, unless the member is unable to engage in any substantially gainful activity; in which case payments cease on the date the service retirement benefit equals or exceeds the disability benefit.

Conversion to Service Retirement: During the period of disability, average final compensation is increased with costof-living adjustments and service is credited. On the date when service benefits reach a level of 59% of average final compensation, the disability benefit converts to a service retirement benefit based on service and average final compensation at that point.

8. Pre-Retirement Ordinary Death Benefits:

Eligibility: Death while active, inactive eligible to retire, or disabled.

Benefit: Designated beneficiary, spouse, child(ren), or parents entitled to benefit calculated as if deceased member had retired under Option 2 (see item 12); however, beneficiary may elect survivor benefits payable to a surviving spouse, dependent child(ren), parent, or other designated beneficiaries in monthly amounts varying by status of beneficiary and number of eligible survivors. Otherwise accumulated contributions with interest are payable to designated beneficiary, spouse, child(ren), older parents, or estate.



APPENDIX C SUMMARY OF PLAN PROVISIONS

9. Pre-Retirement Accidental Death Benefits:

Eligibility: Death while active or disabled resulting from an injury received in the line of duty.

- If the member is survived by a spouse who has the care of dependent child(ren) of the member, the surviving spouse shall receive an annual sum equal to the member's average final compensation. When there is no longer any dependent child, the surviving spouse shall receive 2/3 of member's average final compensation until death.
- If the member is survived by a spouse who does not have the care of the member's dependent child(ren), the surviving spouse and dependent child(ren) shall share equally an annual sum equal to the member's average final compensation. When there is no longer any dependent child, the surviving spouse shall receive 2/3 of member's average final compensation until death.
- If the member leaves no spouse, the dependent child(ren) shall be paid an annual sum equal to the member's average final compensation. Benefits will cease when the last dependent child no longer meets the definition of "dependent child".

10. Refund of Contributions:

Eligibility: Termination of service without retirement or death.

Benefit: Member's accumulated contributions with interest.

11. Cost-of-Living Adjustments:

All service and disability retirement and survivor benefits are adjusted each year that there is a percentage change in the Consumer Price Index, based on the Index.

Cost-of-living adjustments are effective September 1 and are applied to all benefits which have been in payment for twelve months. The maximum annual increase or decrease is 4%. Average final compensation used in determining disability benefits for disabled members is similarly adjusted for purposes of determining the recipient's service retirement benefit if and when the recipient moves to service retirement.

Members on service retirement who did not have ten years of service on July 1, 1993 will not receive a cost-of-living adjustment until 12 months after their normal retirement age.

12. Methods of Payment of Service Retirement Benefits:

At retirement, a member who retires with a benefit must choose from the following methods of payment:

Full Benefit: Unadjusted benefit paid for the life of the member only.

Option 1: Cash refund equal to the remaining employee contribution balance, if any, at the date of death (where the employee contribution balance has been reduced each month by the portion of the monthly benefit deemed to be provided by employee contributions).

Option 2: 100% joint and survivor annuity.

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APPENDIX C SUMMARY OF PLAN PROVISIONS

Option 3: 50% joint and survivor annuity.

Option 4: Joint and survivor annuity at any percentage other than those available under Option 2 and Option 3.

Option 5: Designated percentage of the benefit (not less than 51%) payable to the member, with the remaining percentage (the two to equal 100%) payable to a beneficiary (may only be a sole beneficiary) while both are alive. At the death of either, the higher of the two percentages is paid to the survivor for the survivor's life, and the lower-percentage benefit ceases to be paid.

Option 6: 100% joint and survivor annuity (Option 2) with pop-up*.

Option 7: 50% joint and survivor annuity (Option 3) with pop-up.*

Option 8: Option 4 with pop-up*.

* The "pop-up" feature attached to a given Option means that in the case of a beneficiary predeceasing the member, the member's benefit will be revised prospectively to the amount that the benefit would have been had the member selected Full Benefit payment upon retirement.

