

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

**as of June 30, 2005**

**Produced by [Cheiron](#)**

**January 2006**



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January 18, 2006

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

Dear Members of the Board:

At your request, we have conducted our annual actuarial valuation of the Maine State Retirement System as of June 30, 2005. The results of the valuation are contained in this report. The purpose of the valuation is discussed in the Foreword.

This report contains information on Plan assets, as well as analyses which combine asset and liability performance and projections. The report also discloses employer contribution levels, and required disclosures under the Government Accounting Standards Board Statement #25.

Your attention is called to the Foreword in which we refer to the general approach employed in the preparation of this report. We also comment on the sources and reliability of both the data and the actuarial assumptions on which our findings are based. Those comments are the basis for our certification that this report is complete and accurate to the best of our knowledge and belief. The results of this report and the projections contained herein rely on future plan experience conforming to the underlying assumptions. To the extent that actual plan experience deviates from the underlying assumptions, the results would vary accordingly.

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 applicable Guides to Professional Conduct, Amplifying Opinions, and Supporting Recommendations and Interpretations of the Actuarial Standards Board.

Sincerely,  
Cheiron



Gene Kalwarski, FSA, EA  
Consulting Actuary



Fiona E. Liston, FSA, EA  
Consulting Actuary



## FOREWORD

Cheiron has performed the actuarial valuation of the Maine State Retirement System State Employee and Teacher Plan as of June 30, 2005. 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** in the financial progress of the Plan;
- 3) **Indicate the adequacy of the contribution rates** being paid by the State for Fiscal Year 2006 and on into the future based on achieving
  - investment returns as assumed, and
  - returns other than assumed; and
- 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 findings and disclosing 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 would be in effect if this were a budgeting year.

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

The appendices to this report contain a summary of the Plan's membership at the valuation date, a summary of the major provisions of the Plan, and the actuarial methods and assumptions used in the valuations.

This is the first year that Cheiron has produced a valuation for this Plan.

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.

Finally, in preparing this report, we have conformed to generally accepted actuarial principles and practices which are consistent with the applicable Guides to Professional Conduct, amplifying opinions, and supporting recommendations and interpretations of the Actuarial Standards Board.

**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 report is not used to change the contributions but merely to track the Plan's progress towards its goals.

In general, the numbers listed under the headings "June 30, 2004" throughout this report are those produced by the prior actuary and disclosed in their June 30, 2004 report. The contribution rates reported by plan and as the composite rate are an exception to this general statement having been generated by Cheiron. The prior actuary's report was based on the then-current laws which anticipated a reversion in FY 2006 from a 23 year amortization period to a period of 14 years. Since that report was published, the State Legislature has acted to make permanent the temporary extension granted in FY 2004. We have restated the contribution rates that would have been developed in the 2004 report had the extended period been in effect.

Keeping the restatement in mind, the State composite rate produced by the June 30, 2004 valuation would have been 17.28% of payroll. The State composite rate produced in this valuation is 17.46% of payroll.

The remainder of this section summarizes the Plan's trends, provides projections, and summarizes the principal results of this year's valuation.

**Trends**

As of June 30, 2005, the Plan had an Unfunded Actuarial Liability (UAL) of \$3.035 billion. This is an increase from the UAL measured as of June 30, 2004 to be \$2.989 billion. This UAL was projected to increase to \$3.054 billion and so the experience of the Plan reflected a gain of \$19 million over what was anticipated.

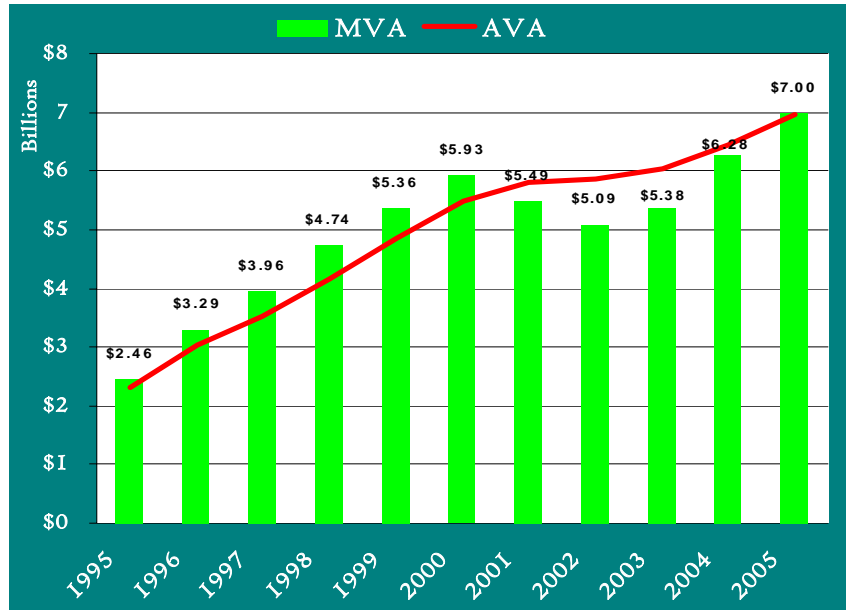
To further understand how the \$19 million arose, we looked at experience on both the asset and liability sides. The Plan's assets earned 11.75% on a market value basis in FY 2005. For purposes of performing the annual valuation, we use a smoothing technique to produce an actuarial value of assets. This actuarial value of assets returned 8.25% in FY 2005, giving rise to a gain of \$16 million in the State and Teacher portion of the Plan. The liabilities grew by \$3 million less than anticipated for a total gain to the Plan of \$19 million.

It is important to take a step back from the latest 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 factors in the valuations over the last ten years. After the historical review, we present a few projection graphs, showing the probable condition of the Plan over the next 15 years under various market return scenarios.

MAINE STATE RETIREMENT SYSTEM STATE EMPLOYEE AND TEACHER PLAN  
ACTUARIAL VALUATION AS OF JUNE 30, 2005

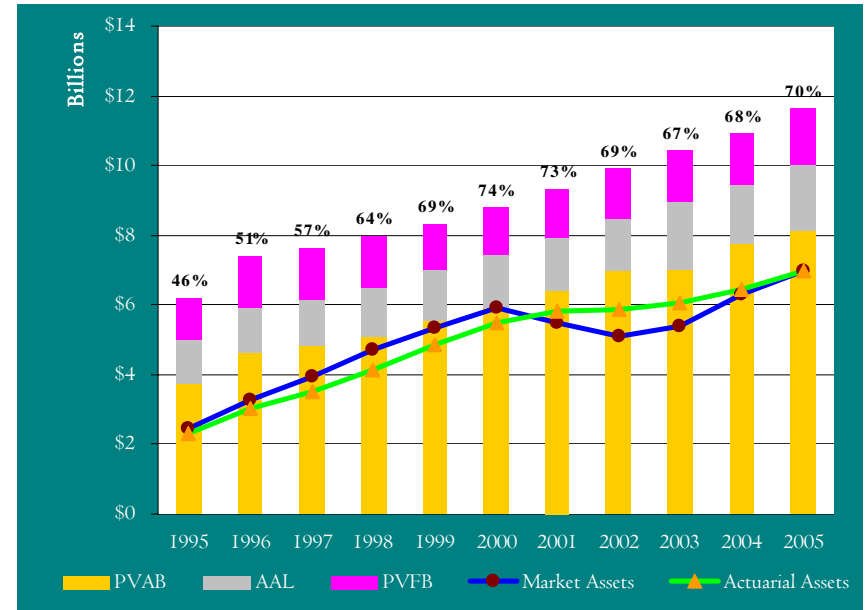
SECTION I  
EXECUTIVE SUMMARY

Growth in Assets



The above graph illustrates how the actuarial smoothing method has insulated the Plan from market volatility. The upward trend in market value of assets (MVA) 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 (AVA) continued to increase over these years. The market value has once again grown to approximately equal the actuarial value.

Assets and Liabilities



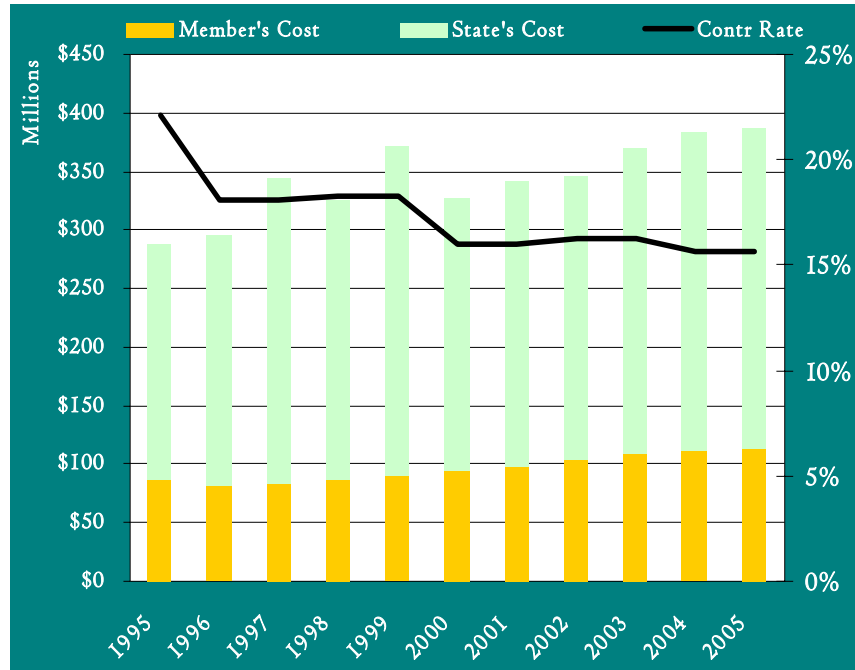
In this comparison graph, the three colored bars represent the three different measures of liability mentioned in this report. For funding purposes, the target amount (the AAL) is represented by the top of the grey bar. We compare the actuarial value of assets to this measure of liability in developing the funded percent. 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. If the Plan had assets equal to the PVFB no contributions would, in theory, be needed for the current members. The yellow bars represent the Present Value of Accrued Benefits (PVAB) which is the value of all benefits accrued through the valuation date.

MAINE STATE RETIREMENT SYSTEM STATE EMPLOYEE AND TEACHER PLAN  
ACTUARIAL VALUATION AS OF JUNE 30, 2005

SECTION I  
EXECUTIVE SUMMARY

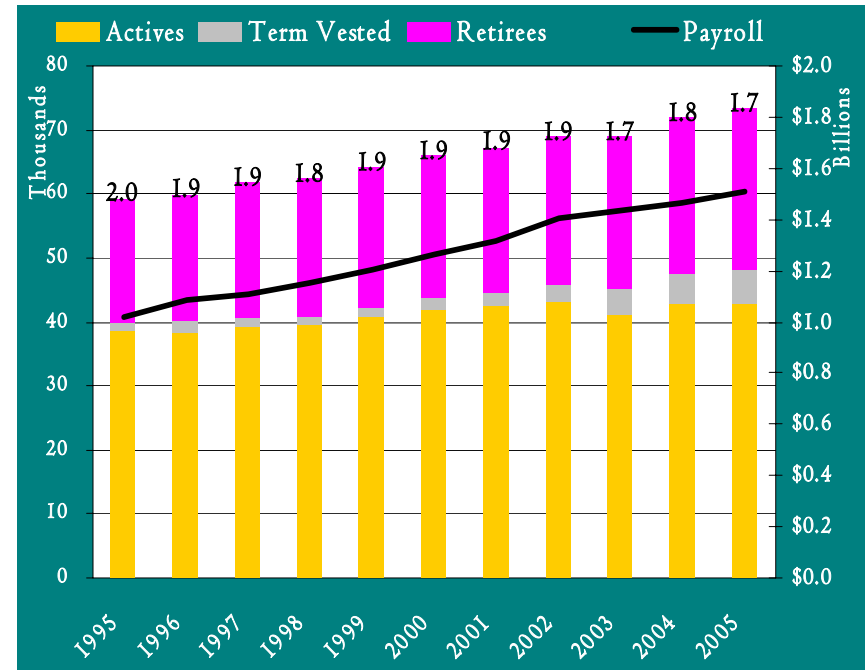
Contributions



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 black line shows the State contribution rate as a percent of payroll and should reference the right-hand axis.

The member contribution rate is set by the statutes, depending on which plan the member participates in. The State contribution rate is set by the actuarial process, on a biennial basis.

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 above graph 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.

MAINE STATE RETIREMENT SYSTEM STATE EMPLOYEE AND TEACHER PLAN  
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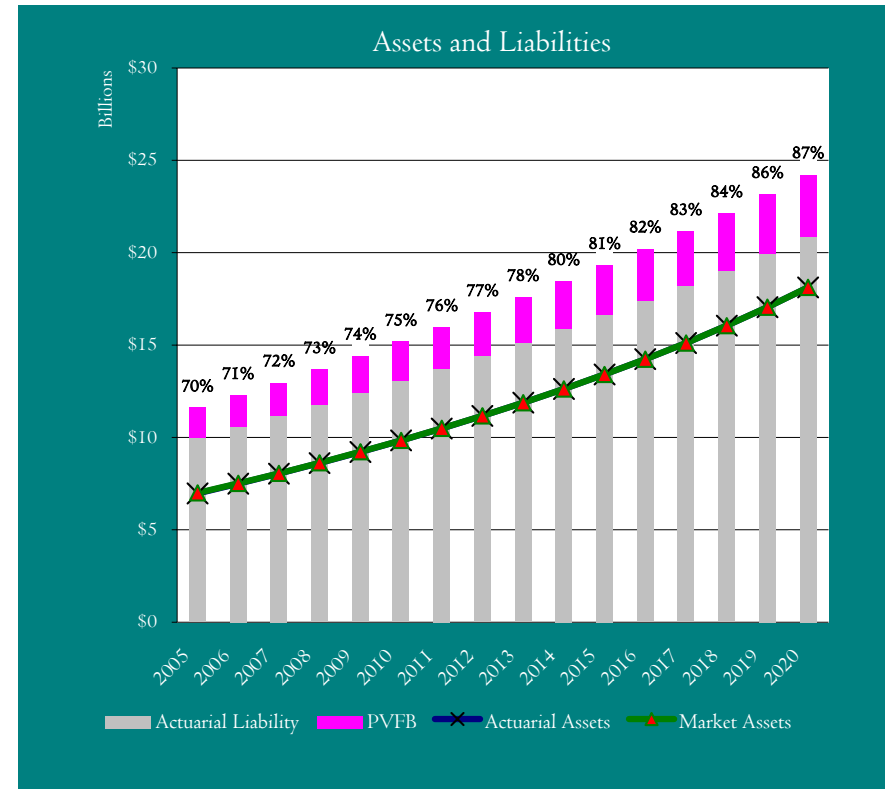
SECTION I  
 EXECUTIVE SUMMARY

Projections

Base Line Projections

The charts on this page show the expected progress of the Plan’s funding status over the next 15 years measured in terms of the State’s contribution rate and the funding ratio. The chart entitled “Plan Funding” shows that the State’s composite contribution rate is projected to remain stable if all actuarial assumptions are met, including the 8% investment assumption.

The Assets and Liabilities chart shows that if all actuarial assumptions are exactly met, the Plan’s funded ratio is projected to improve from the current level of 70% up to approximately 87% in the year 2020. The Plan’s UAL existing on July 1, 1997 is mandated by the Maine Constitution to be paid off by 2028.





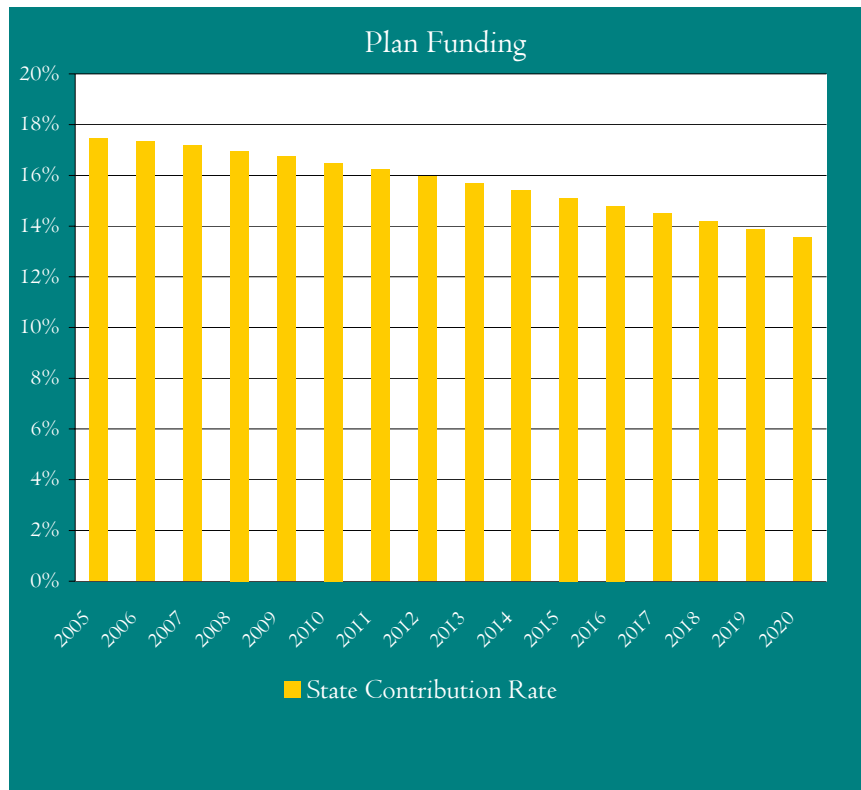
**MAINE STATE RETIREMENT SYSTEM STATE EMPLOYEE AND TEACHER PLAN  
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**SECTION I  
EXECUTIVE SUMMARY**

Projections with Asset Returns of 9.0%

The future funding of this Plan will be 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 9% annual returns each year, the contribution rate would decline to less than 14% of payroll.

Assuming this 9% return on investments over the next 15 years, this next chart shows that the Plan's funded ratio would improve dramatically to 95% as compared to the 87% projection based on assuming the 8% returns. The Plan could achieve 100% funded status well in advance of the 2028 target date.



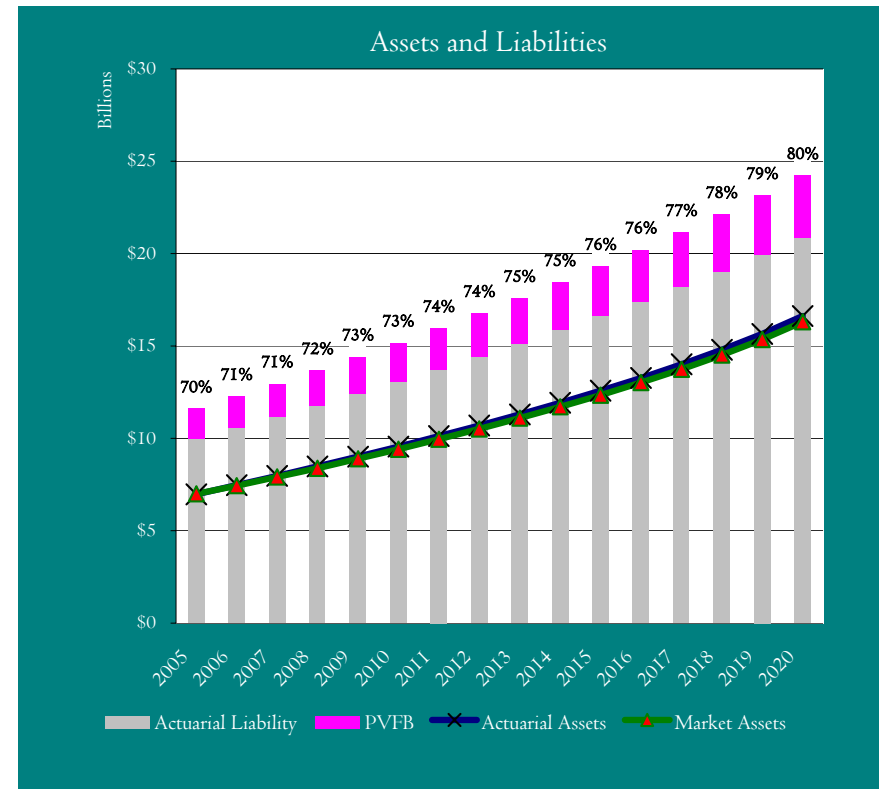
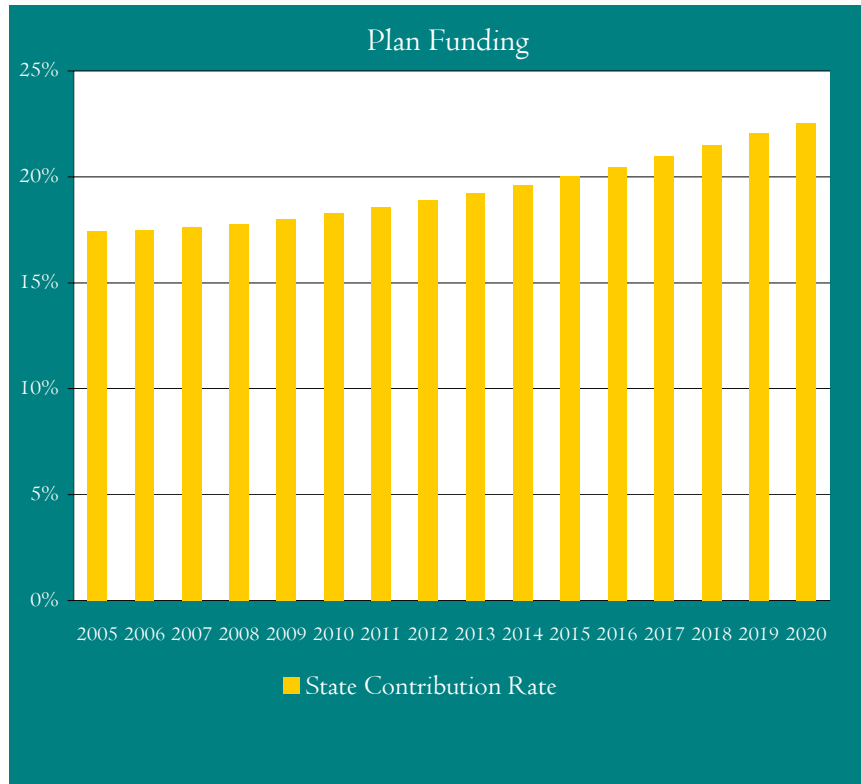
**MAINE STATE RETIREMENT SYSTEM STATE EMPLOYEE AND TEACHER PLAN  
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**SECTION I  
EXECUTIVE SUMMARY**

Projections with Asset Returns of 7.0%

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 7.0% annual return scenario. The State's contribution rate is projected to rise to over 22% of payroll by the year 2020.

The Plan's funded ratio would continue to increase from its current 70% but would grow to only 80% over the next 15 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.



MAINE STATE RETIREMENT SYSTEM STATE EMPLOYEE AND TEACHER PLAN  
ACTUARIAL VALUATION AS OF JUNE 30, 2005

**SECTION I  
EXECUTIVE SUMMARY**

<b>Summary of Principal Plan Results Total State Employee and Teacher Plan</b>			
<b>Valuation as of:</b>	<b>June 30, 2004</b>	<b>June 30, 2005</b>	<b>% Change</b>
<b><u>Participant Counts</u></b>			
Actives	42,816	42,910	0.2%
Retired Members	16,667	17,248	3.5%
Beneficiaries of Retirees	4,844	4,883	0.8%
Survivors of Deceased Members	883	896	1.5%
Disabled Members	1,994	2,096	5.1%
Deferred "Vested" Members	<u>4,693</u>	<u>5,283</u>	12.6%
Total	71,897	73,316	2.0%
Annual Salaries of Active Members	\$ 1,464,608,355	\$ 1,508,645,818	3.0%
Annual Payments to Benefit Recipients	\$ 374,579,605	\$ 406,220,642	8.4%
<b><u>Assets and Liabilities</u></b>			
Total Actuarial Liability	\$ 9,442,389,399	\$ 9,999,250,038	5.9%
Assets/Actuarial (Smoothed)	<u>6,452,570,244</u>	<u>6,964,597,457</u>	7.9%
Unfunded Actuarial Liability	\$ 2,989,819,155	\$ 3,034,652,581	1.5%
Funding Ratio	68.34%	69.65%	
Present Value of Accrued Benefits	\$ 7,763,787,479	\$ 8,115,380,658	4.5%
Assets/Market Value	<u>6,280,951,942</u>	<u>6,997,802,832</u>	11.4%
Unfunded PVAB	\$ 1,482,835,537	\$ 1,117,577,826	(24.6%)
Accrued Benefit Funding Ratio	80.90%	86.23%	
<b><u>Contributions as a Percentage of Payroll</u></b>			
	<b>Fiscal Year 2006</b>	<b>Fiscal Year 2007</b>	
Normal Cost Contribution	6.17%	6.15%	
Unfunded Actuarial Liability Contribution	<u>11.11%</u>	<u>11.31%</u>	
Total Contribution	17.28%	17.46%	

MAINE STATE RETIREMENT SYSTEM STATE EMPLOYEE AND TEACHER PLAN  
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**SECTION I  
EXECUTIVE SUMMARY**

<b>Summary of Principal Plan Results</b>			
<b>Teachers</b>			
<b>Valuation as of:</b>	<b>June 30, 2004</b>	<b>June 30, 2005</b>	<b>% Change</b>
<b><u>Participant Counts</u></b>			
Actives	28,205	28,275	0.2%
Retired Members	9,327	9,705	4.1%
Beneficiaries of Retirees	2,026	2,067	2.0%
Survivors of Deceased Members	322	342	6.2%
Disabled Members	781	834	6.8%
Deferred "Vested" Members	3,157	3,615	14.5%
<b>Total</b>	<u>43,818</u>	<u>44,838</u>	2.3%
Annual Salaries of Active Members	\$ 939,762,058	\$ 981,952,490	4.5%
Annual Payments to Benefit Recipients	\$ 209,908,431	\$ 229,286,440	9.2%
<b><u>Assets and Liabilities</u></b>			
Total Actuarial Liability	\$ 6,072,362,895	\$ 6,456,907,318	6.3%
Assets/Actuarial (Smoothed)	<u>4,044,459,568</u>	<u>4,407,109,370</u>	9.0%
Unfunded Actuarial Liability	\$ 2,027,903,327	\$ 2,049,797,948	1.1%
Funding Ratio	66.60%	68.25%	
Present Value of Accrued Benefits	\$ 4,876,744,316	\$ 5,079,040,305	4.1%
Assets/Market Value	<u>3,936,889,521</u>	<u>4,428,121,312</u>	12.5%
Unfunded PVAB	\$ 939,854,795	\$ 650,918,993	(30.7%)
Accrued Benefit Funding Ratio	80.73%	87.18%	
<b><u>Contributions as a Percentage of Payroll</u></b>			
	<b>Fiscal Year 2006</b>	<b>Fiscal Year 2007</b>	
Normal Cost Contribution	6.04%	6.04%	
Unfunded Actuarial Liability Contribution	<u>11.75%</u>	<u>11.74%</u>	
<b>Total State Contribution</b>	<u>17.79%</u>	<u>17.78%</u>	

MAINE STATE RETIREMENT SYSTEM STATE EMPLOYEE AND TEACHER PLAN  
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**SECTION I  
EXECUTIVE SUMMARY**

<b>Summary of Principal Plan Results State Employees (Regular and Special Plans)</b>			
<b>Valuation as of:</b>	<b>June 30, 2004</b>	<b>June 30, 2005</b>	<b>% Change</b>
<b><u>Participant Counts</u></b>			
Actives	14,611	14,635	0.2%
Retired Members	7,340	7,543	2.8%
Beneficiaries of Retirees	2,818	2,816	(0.1%)
Survivors of Deceased Members	561	554	(1.2%)
Disabled Members	1,213	1,262	4.0%
Deferred "Vested" Members	<u>1,536</u>	<u>1,668</u>	8.6%
Total	28,079	28,478	1.4%
Annual Salaries of Active Members	\$ 524,846,297	\$ 526,693,328	0.4%
Annual Payments to Benefit Recipients	\$ 164,671,174	\$ 176,934,202	7.4%
<b><u>Assets and Liabilities</u></b>			
Total Actuarial Liability	\$ 3,370,026,504	\$ 3,542,342,720	5.1%
Assets/Actuarial (Smoothed)	<u>2,408,110,676</u>	<u>2,557,488,087</u>	6.2%
Unfunded Actuarial Liability	\$ 961,915,828	\$ 984,854,633	2.4%
Funding Ratio	71.46%	72.20%	
Present Value of Accrued Benefits	\$ 2,887,043,163	\$ 3,036,340,353	5.2%
Assets/Market Value	<u>2,344,062,421</u>	<u>2,569,681,520</u>	9.6%
Unfunded PVAB	\$ 542,980,742	\$ 466,658,833	(14.1%)
Accrued Benefit Funding Ratio	81.19%	84.63%	
<b><u>Contributions as a Percentage of Payroll</u></b>			
	<b>Fiscal Year 2006</b>	<b>Fiscal Year 2007</b>	
Normal Cost Contribution	6.40%	6.36%	
Unfunded Actuarial Liability Contribution	<u>9.96%</u>	<u>10.52%</u>	
Total State Contribution	16.36%	16.88%	

MAINE STATE RETIREMENT SYSTEM STATE EMPLOYEE AND TEACHER PLAN  
ACTUARIAL VALUATION AS OF JUNE 30, 2005

**SECTION I  
EXECUTIVE SUMMARY**

<b>Summary of Principal Plan Results State Employees (Regular Plan)</b>			
<b>Valuation as of:</b>	<b>June 30, 2004</b>	<b>June 30, 2005</b>	<b>% Change</b>
<b><u>Participant Counts</u></b>			
Actives	12,715	12,751	0.3%
Retired Members	6,616	6,775	2.4%
Beneficiaries of Retirees	2,531	2,515	(0.6%)
Survivors of Deceased Members	558	545	(2.3%)
Disabled Members	1,161	1,202	3.5%
Deferred "Vested" Members	<u>1,536</u>	<u>1,668</u>	8.6%
Total	25,117	25,456	1.4%
Annual Salaries of Active Members	\$ 444,899,467	\$ 445,800,804	0.2%
Annual Payments to Benefit Recipients	\$ 142,770,879	\$ 152,633,342	6.9%
<b><u>Assets and Liabilities</u></b>			
Total Actuarial Liability	\$ 2,856,852,953	\$ 3,000,256,950	5.0%
Assets/Actuarial (Smoothed)	<u>2,084,433,001</u>	<u>2,209,248,126</u>	6.0%
Unfunded Actuarial Liability	\$ 772,419,952	\$ 791,008,824	2.4%
Funding Ratio	72.96%	73.64%	
Present Value of Accrued Benefits	\$ 2,424,750,063	\$ 2,545,640,468	5.0%
Assets/Market Value	<u>2,028,993,566</u>	<u>2,219,781,243</u>	9.4%
Unfunded PVAB	\$ 395,756,497	\$ 325,859,225	(17.7%)
Accrued Benefit Funding Ratio	83.68%	87.20%	
<b><u>Contributions as a Percentage of Payroll</u></b>			
	<b>Fiscal Year 2006</b>	<b>Fiscal Year 2007</b>	
Normal Cost Contribution	6.04%	6.04%	
Unfunded Actuarial Liability Contribution	<u>9.46%</u>	<u>9.98%</u>	
Total State Contribution	15.50%	16.02%	

MAINE STATE RETIREMENT SYSTEM STATE EMPLOYEE AND TEACHER PLAN  
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**SECTION I  
EXECUTIVE SUMMARY**

<b>Summary of Principal Plan Results State Employees (Special Plans - Composite)</b>			
<b>Valuation as of:</b>	<b>June 30, 2004</b>	<b>June 30, 2005</b>	<b>% Change</b>
<b><u>Participant Counts</u></b>			
Actives	1,896	1,884	(0.6%)
Retired Members	724	768	6.1%
Beneficiaries of Retirees	287	301	4.9%
Survivors of Deceased Members	3	9	300.0%
Disabled Members	52	60	15.4%
Deferred "Vested" Members	<u>0</u>	<u>0</u>	0.0%
Total	2,962	3,022	2.0%
Annual Salaries of Active Members	\$ 79,946,830	\$ 80,892,524	1.2%
Annual Payments to Benefit Recipients	\$ 21,900,295	\$ 24,300,860	11.0%
<b><u>Assets and Liabilities</u></b>			
Total Actuarial Liability	\$ 513,173,551	\$ 542,085,770	5.6%
Assets/Actuarial (Smoothed)	<u>323,677,675</u>	<u>348,239,961</u>	7.6%
Unfunded Actuarial Liability	\$ 189,495,876	\$ 193,845,809	2.3%
Funding Ratio	63.07%	64.24%	
Present Value of Accrued Benefits	\$ 462,293,100	\$ 490,699,885	6.1%
Assets/Market Value	<u>315,068,855</u>	<u>349,900,277</u>	11.1%
Unfunded PVAB	\$ 147,224,245	\$ 140,799,608	(4.4%)
Accrued Benefit Funding Ratio	68.15%	71.31%	
<b><u>Contributions as a Percentage of Payroll</u></b>			
	<b>Fiscal Year 2006</b>	<b>Fiscal Year 2007</b>	
Normal Cost Contribution	8.25%	8.15%	
Unfunded Actuarial Liability Contribution	<u>12.91%</u>	<u>13.48%</u>	
Total State Contribution	21.16%	21.63%	

## 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, 2004 and June 30, 2005;
- 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 33⅓% 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.



MAINE STATE RETIREMENT SYSTEM STATE EMPLOYEE AND TEACHER PLAN  
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**SECTION II  
ASSETS**

Changes in Market Value of Total Defined Benefit Plan Assets		
<b>Value of Assets – June 30, 2004</b>		<b>\$ 8,053,508,551</b>
<b><u>Additions</u></b>		
Contributions:		
Employer Contributions	\$ 282,292,459	
Employee Contributions	138,622,166	
Total Contributions		\$ 420,914,625
Investment Income:		
Net Appreciation (Depreciation) in Fair Value of Investments	\$ 955,447,142	
Interest on Bank Balances	695,397	
Total Investment Income		\$ 956,142,539
Investment Activity Expenses:		
Management Fees	\$ (13,407,966)	
Investment Related Expense	(369,937)	
Banking Fees	(61,388)	
Total Investment Activity Expenses		\$ (13,839,291)
Net Income from Investing Activities		\$ 942,303,248
Total Additions		\$ 1,363,217,873
<b><u>Deductions</u></b>		
Retirement Benefits	\$ (419,704,172)	
Disability Benefits	(44,895,734)	
Survivor Benefits	(5,613,268)	
Refunds and Other Expenses	(15,980,561)	
Total Deductions		\$ (486,193,735)
<b><u>Total</u></b>		
Net Increase (Decrease)		\$ 877,024,138
<b>Value of Assets – June 30, 2005</b>		<b>\$ 8,930,532,689</b>

MAINE STATE RETIREMENT SYSTEM STATE EMPLOYEE AND TEACHER PLAN  
ACTUARIAL VALUATION AS OF JUNE 30, 2005

**SECTION II  
ASSETS**

<b>Development of Actuarial Value of Assets as of June 30, 2005</b>		
1. Actuarial Value of Assets at June 30, 2004	\$	8,273,559,503
2. Amount in (1) with Interest to June 30, 2005		8,935,444,263
3. Employer and Member Contributions for the Plan Year Ended June 30, 2005		420,914,625
4. Interest on Contributions Assuming Received Uniformly Throughout the Year to June 30, 2005		16,493,783
5. Disbursements from Trust Except Investment Expenses, July 1, 2004 through June 30, 2005		(486,193,735)
6. Interest on Disbursements Assuming Payments Made Uniformly throughout the Year to June 30, 2005		(19,690,846)
7. Expected Value of Asset at June 30, 2005 = (2) + (3) + (4) + (5) + (6)	\$	8,866,968,090
8. Actuarial Market Value of Assets at June 30, 2005	\$	8,930,532,689
9. Excess of (8) Over (7)		63,564,599
10. Actuarial Value of Assets at June 30, 2005 = (7) + 33⅓% of (9)	\$	8,888,156,289

\* All interest adjustments are made using the 8% per annum actuarial assumed interest rate.

**MAINE STATE RETIREMENT SYSTEM STATE EMPLOYEE AND TEACHER PLAN  
ACTUARIAL VALUATION AS OF JUNE 30, 2005**

**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 33⅓% 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, 2005 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 0.9953 (\$8,888,156,289 ÷ \$8,930,532,689). The allocation of actuarial value of assets to each of the System’s plans is shown in the following chart.

<b>Allocation of Actuarial Value of Assets as of June 30, 2005</b>		
	<b>Market Value</b>	<b>Actuarial Value</b>
Teachers	\$ 4,428,121,312	\$ 4,407,109,370
State (Regular & Special)	2,569,681,520	2,557,488,087
Judges	42,041,709	41,842,216
Legislators	7,441,788	7,406,475
Participating Local Districts (Consolidated & Non-Consolidated)	<u>1,883,246,361</u>	<u>1,874,310,141</u>
<b>Total Fund</b>	<b>\$ 8,930,532,689</b>	<b>\$ 8,888,156,289</b>

**Investment Performance**

The Market Value of Assets returned 11.75% during FY 2005. This is significantly higher than the Plan’s assumed return of 8%. This year’s return was the second year of above-average returns as the return in FY 2004 was 16.6%.

On an actuarial value of assets basis, the return for FY 2005 was 8.25%. This return is less than the return on a market value basis because of the ongoing recognition in the actuarial value of losses in prior years not then fully recognized because of smoothing. As of June 30, 2005, these accumulated losses were fully recognized and now there is a cumulative gain of \$42 million. If future earnings are exactly 8%, the Actuarial Value of Assets will show gains due to the recognition of these cumulative gains.

MAINE STATE RETIREMENT SYSTEM STATE EMPLOYEE AND TEACHER PLAN  
ACTUARIAL VALUATION AS OF JUNE 30, 2005

**SECTION II  
ASSETS**

<b>Projection of State and Teacher Plan Benefit Payments and Contributions</b>				
<b>FY Ending June 30</b>	<b>Expected Benefit Payments</b>	<b>Expected State Contributions</b>	<b>Expected Member Contributions</b>	<b>Total Expected Contribution</b>
2006	\$ 432,426,000	\$ 263,410,000	\$ 116,166,000	\$ 379,576,000
2007	467,877,000	277,897,000	122,555,000	400,452,000
2008	506,269,000	293,181,000	129,295,000	422,476,000
2009	547,125,000	309,306,000	136,407,000	445,713,000
2010	591,655,000	326,318,000	143,909,000	470,227,000
2011	639,176,000	344,266,000	151,824,000	496,090,000
2012	689,460,000	363,200,000	160,174,000	523,374,000
2013	740,876,000	383,176,000	168,984,000	552,160,000
2014	793,611,000	404,251,000	178,278,000	582,529,000
2015	846,534,000	426,485,000	188,083,000	614,568,000

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 17.46% of payroll. We have assumed that payroll will increase by 5½% per year in the projection period and that the rate will remain constant. Due to the budgeting process, we know that this rate will change as a result of next year's valuation and every two years thereafter. However, for purposes of illustrating the cashflow gap we feel that using a fixed 17.46% for this projection is reasonable.

The projection of member contributions is similarly based on a 5½% 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, 2004 and June 30, 2005;
- 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.

MAINE STATE RETIREMENT SYSTEM STATE EMPLOYEE AND TEACHER PLAN  
ACTUARIAL VALUATION AS OF JUNE 30, 2005

**SECTION III  
LIABILITIES**

Disclosure of Liabilities		
	June 30, 2004	June 30, 2005
<b>Total Future Obligations (TFO)</b>		
Active Participant Benefits	\$ 6,537,464,996	\$ 6,791,583,412
Retiree Benefits	4,167,609,287	4,538,294,376
Terminated Vested and Inactive Members	<u>220,354,169</u>	<u>294,700,051</u>
<b>Total Future Obligations</b>	<b>\$ 10,925,428,452</b>	<b>\$ 11,624,577,839</b>
Market Value of Assets (MVA)	6,280,951,942	6,997,802,832
Future Employee Contributions	826,793,567	906,023,925
Future State Contributions at the Current Rate (17.28% FY 2004; 17.46% FY 2005)	3,646,064,642	3,753,956,457
Projected (Surplus)/Shortfall	<u>171,618,301</u>	<u>(33,205,375)</u>
<b>Total Resources</b>	<b>\$ 10,925,428,452</b>	<b>\$ 11,624,577,839</b>
<b>Actuarial Liability</b>		
Total Future Obligations (TFO)	\$ 10,925,428,452	11,624,577,839
Present Value of Future Normal Costs (PVFNC)		
Employer Portion	656,245,486	719,303,876
Employee Portion	<u>826,793,567</u>	<u>906,023,925</u>
<b>Actuarial Liability (AL = TFO – PVFNC)</b>	<b>\$ 9,442,389,399</b>	<b>\$ 9,999,250,038</b>
Actuarial Value of Assets (AVA)	6,452,570,244	6,964,597,457
<b>Net (Surplus)/Unfunded (AL – AVA)</b>	<b>\$ 2,989,819,155</b>	<b>\$ 3,034,652,581</b>
<b>Accrued Liability</b>		
Total Future Obligations (TFO)	\$ 10,925,428,452	\$ 11,624,577,839
Present Value of Future Benefit Accruals (PVFBA)	<u>3,161,640,973</u>	<u>3,509,197,181</u>
<b>Accrued Liability (PVAB = TFO – PVFBA)</b>	<b>\$ 7,763,787,479</b>	<b>\$ 8,115,380,688</b>
Market Value of Assets (MVA)	6,280,951,942	6,997,802,832
<b>Net (Surplus)/Unfunded (PVAB – MVA)</b>	<b>\$ 1,482,835,537</b>	<b>\$ 1,117,577,826</b>

**MAINE STATE RETIREMENT SYSTEM STATE EMPLOYEE AND TEACHER PLAN  
ACTUARIAL VALUATION AS OF JUNE 30, 2005**

**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.

	<b>Total Future Obligation</b>	<b>Actuarial Liability</b>	<b>Accrued Liability</b>
Liabilities 6/30/2004	\$ 10,925,428,452	\$ 9,442,389,399	\$ 7,763,787,479
Liabilities 6/30/2005	11,624,577,839	9,999,250,038	8,115,380,658
Liability Increase (Decrease)	699,149,382	556,860,639	351,593,179
Change Due to:			
Plan Amendment and Ad Hoc COLAs	\$ --	\$ --	\$ --
Assumption Change	--	--	--
Actuarial (Gain)/Loss	N/C	(3,388,524)	N/C
Benefits Accumulated and Other Sources	699,149,387	560,249,163	351,593,179

MAINE STATE RETIREMENT SYSTEM STATE EMPLOYEE AND TEACHER PLAN  
ACTUARIAL VALUATION AS OF JUNE 30, 2005

**SECTION III  
LIABILITIES**

<b>Allocation of Actuarial Liability as of June 30, 2005</b>				
	<b>Total Plan</b>	<b>Teachers</b>	<b>State Regular</b>	<b>Special Plans</b>
1. Actuarial Liabilities for:				
a. Active Members	\$ 5,166,255,611	\$ 3,596,306,656	\$ 1,321,951,585	\$ 247,997,370
b. Retired, Disabled and Beneficiary Members	4,538,294,376	2,661,478,462	1,582,727,514	294,088,400
c. Vested Deferred and Inactive Status Members	<u>294,700,051</u>	<u>199,122,200</u>	<u>95,577,851</u>	<u>0</u>
2. Total Actuarial Liability (1(a) + 1(b) + 1(c))	\$ 9,999,250,038	\$ 6,456,907,318	\$ 3,000,256,950	\$ 542,085,770
3. Actuarial Value of Assets	<u>6,964,597,457</u>	<u>4,407,109,370</u>	<u>2,209,248,126</u>	<u>348,239,961</u>
4. Unfunded Actuarial Liability (2 – 3)	\$ 3,034,652,581	\$ 2,049,797,948	\$ 791,008,824	\$ 193,845,809



**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 23 years from June 30, 2005.

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

<b>Composite State Rate</b>		
	<b>June 30, 2004</b>	<b>June 30, 2005</b>
Normal Cost Rate	6.17%	6.15%
UAL Rate	<u>11.11%</u>	<u>11.31%</u>
Total State Rate	17.28%	17.46%

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.

MAINE STATE RETIREMENT SYSTEM STATE EMPLOYEE AND TEACHER PLAN  
 ACTUARIAL VALUATION AS OF JUNE 30, 2005

SECTION IV  
 CONTRIBUTIONS

Table IV-1 State Employer Contribution Rates								
Valuation Date June 30, 2005	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	6.15%	6.04%	6.04%	17.84%	9.04%	7.34%	9.15%	6.89%
Unfunded Actuarial Liability Contribution as a Percent of Payroll	<u>11.31</u>	<u>11.74</u>	<u>9.98</u>	<u>29.51</u>	<u>14.95</u>	<u>12.14</u>	<u>15.13</u>	<u>11.40</u>
Total Contributions as a Percent of Payroll	17.46%	17.78%	16.02%	47.35%	23.99%	19.48%	24.28%	18.29%

**MAINE STATE RETIREMENT SYSTEM STATE EMPLOYEE AND TEACHER PLAN  
ACTUARIAL VALUATION AS OF JUNE 30, 2005**

**SECTION IV  
CONTRIBUTIONS**

**Table IV-2  
Derivation of Unfunded Actuarial Liability Rates**

<b>Valuation Date June 30, 2005</b>	<b>Teachers</b>	<b>State Regular</b>	<b>State Police Marine Resources Inland Fish &amp; Wildlife (Closed)</b>	<b>Prison Employees (Closed)</b>	<b>Forest Rangers (Closed)</b>	<b>25 &amp; Out Plan</b>	<b>1998 Special Plan</b>
1. Present Value of Future Benefits	\$ 7,541,831,454	\$ 3,467,640,148	\$ 256,426,625	\$ 50,960,234	\$ 24,774,234	\$ 79,737,153	\$ 203,207,782
2. Normal Cost Rate	6.04%	6.04%	17.84%	9.04%	7.34%	9.15%	6.89%
3. Present Value of Future Payroll	7,924,938,900	3,414,048,200	0	1,769,300	1,868,600	161,208,800	281,296,800
4. Present Value of Future Normal Cost (2) x (3)	478,666,310	206,208,511	0	159,945	137,155	14,750,605	19,381,350
5. Present Value of Future Contributions	606,257,826	261,174,687	0	153,044	161,634	13,944,561	24,332,173
6. Actuarial Liability (1) – (4) – (5)	6,456,907,318	3,000,256,950	256,426,625	50,647,245	24,475,654	51,041,987	159,494,259
7. Actuarial Value of Assets	4,407,109,370	2,209,248,126	231,870,858	47,508,411	22,326,280	(5,478,462)	52,012,876
8. Unfunded Actuarial Liability (6) – (7)	2,049,797,948	791,008,824	24,555,767	3,138,834	2,149,734	56,520,449	107,481,383
9. Estimated Payroll	981,952,490	445,800,804	4,679,657	1,180,471	995,569	21,000,995	53,035,832
10. Amortization Factor	17.7822	17.7822	17.7822	17.7822	17.7822	17.7822	17.7822
11. Unfunded Actuarial Liability Rate (8) / (9) / (10)	11.74%	9.98%	29.51%	14.95%	12.14%	15.13%	11.40%

**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 8% 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, 2004 and June 30, 2005 are exhibited in Table V-1. Table V-2 reconciles the FASB-35 liabilities determined as of the prior valuation, June 30, 2004 to the liabilities as of June 30, 2005.

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.

MAINE STATE RETIREMENT SYSTEM STATE EMPLOYEE AND TEACHER PLAN  
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**SECTION V**  
**ACCOUNTING STATEMENT INFORMATION**

<b>Table V-1</b>		
<b>Accounting Statement Information</b>		
	<b>June 30, 2004</b>	<b>June 30, 2005</b>
<b>A. FASB No. 35 Basis</b>		
1. Present Value of Benefits Accrued and Vested to Date		
a. Members Currently Receiving Payments	\$ 4,167,609,287	\$ 4,538,294,376
b. Vested Terminated and Inactive Members	220,354,169	294,700,051
c. Active Members	<u>3,375,824,023</u>	<u>3,282,386,231</u>
d. Total PVAB	\$ 7,763,787,479	\$ 8,115,380,658
2. Assets at Market Value	<u>6,280,951,942</u>	<u>6,997,802,832</u>
3. Unfunded Present Value of Accrued Benefits, But Not Less Than Zero	\$ 1,482,835,537	\$ 1,117,577,826
4. Ratio of Assets to Value of Benefits (2) / (1)(d)	80.90%	86.23%
<b>B. GASB No. 25 Basis</b>		
1. Actuarial Liabilities		
a. Members Currently Receiving Payments	\$ 4,167,609,287	\$ 4,538,294,376
b. Vested Deferred and Inactive Status Members	220,354,169	294,700,051
c. Active Members	<u>5,054,425,943</u>	<u>5,166,255,611</u>
d. Total	\$ 9,442,389,399	\$ 9,999,250,038
2. Actuarial Value of Assets	<u>6,452,570,244</u>	<u>6,964,597,457</u>
3. Unfunded Actuarial Liability	\$ 2,989,819,155	\$ 3,034,652,581
4. Ratio of Actuarial Value of Assets to Actuarial Liability (2) / (1)(d)	68.34%	69.65%

MAINE STATE RETIREMENT SYSTEM STATE EMPLOYEE AND TEACHER PLAN  
 ACTUARIAL VALUATION AS OF JUNE 30, 2005

SECTION V  
 ACCOUNTING STATEMENT INFORMATION

<b>Table V-2</b>	
<b>Statement of Changes in Total Actuarial Present Value of All Accrued Benefits</b>	
	<b>Accumulated Benefit Obligation (FASB 35)</b>
Actuarial Present Value of Accrued Benefits as of June 30, 2004	\$ 7,763,787,479
Increase (Decrease) During Years Attributable to:	
Passage of Time	604,849,427
Benefits Paid – FY 2005	(406,339,266)
Assumption Change	--
Plan Amendment	--
Benefits Accrued, Other Gains/Losses	<u>153,083,018</u>
Net Increase (Decrease)	351,593,179
Actuarial Present Value of Accrued Benefits as of June 30, 2005	\$ 8,115,380,658

SECTION V  
 ACCOUNTING STATEMENT INFORMATION

**Table V-3**  
**NOTE TO REQUIRED SUPPLEMENTARY INFORMATION**

The information presented in the required supplementary schedules was determined as part of the actuarial valuation at the date indicated. Additional information as of the latest actuarial valuation follows.

Valuation date	June 30, 2005
Actuarial cost method	Entry age
Amortization method	Level percent closed
Remaining amortization period	23 years
Asset valuation method	3-Year smoothed market
Actuarial assumptions:	
Investment rate of return*	8.0%
Projected salary increases*	5.5%
*Includes inflation at	5.0%
Cost-of-living adjustments	4.0%

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 1997.

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 Year  
ending June 30, 2005*

<b>Type of Activity</b>	
Investment Income	\$ 16,350,568
Combined Liability Experience	<u>3,388,524</u>
Gain (or Loss) During Year from Financial Experience	\$ 19,739,092
Non-Recurring Items	<u>0</u>
Composite Gain (or Loss) During Year	\$ <b>19,739,092</b>



MAINE STATE RETIREMENT SYSTEM STATE EMPLOYEE AND TEACHER PLAN  
 ACTUARIAL VALUATION AS OF JUNE 30, 2005

SECTION V  
 ACCOUNTING STATEMENT INFORMATION

**Table V-5**  
**SOLVENCY TEST**  
**Aggregate Accrued Liabilities For**

Valuation Date June 30,	(1) Active Member Contributions	(2) Retirees Vested Terms, Beneficiaries	(3) Active Members (Employer Financed Portion)	Reported Assets	Portion of Accrued Liabilities Covered by Reported Assets		
					(1)	(2)	(3)
2005	\$ 1,569,409,748	\$ 4,832,994,427	\$ 3,596,845,863	\$ 6,964,597,457	100%	100%	16%
2004	1,464,936,256	4,387,963,456	3,589,489,687	6,452,570,243	100%	100%	17%

MAINE STATE RETIREMENT SYSTEM STATE EMPLOYEE AND TEACHER PLAN  
ACTUARIAL VALUATION AS OF JUNE 30, 2005

APPENDIX A  
MEMBERSHIP INFORMATION

<b>Maine State Retirement System Active Member Data as of June 30, 2005</b>	
<b><u>Teachers</u></b>	
Count	28,275
Average Current Age	45.6
Average Service	14.0
Average Valuation Pay	\$ 34,729
<b><u>State Employee Regular Plan</u></b>	
Count	12,751
Average Current Age	46.3
Average Service	12.8
Average Valuation Pay	\$ 34,962
<b><u>Forest Rangers Special Plan (Closed Plan)</u></b>	
Count	21
Average Current Age	50.0
Average Service	26.2
Average Valuation Pay	\$ 47,408
<b><u>Inland Fisheries &amp; Wildlife Officers Special Plan (Closed Plan)</u></b>	
Count	28*
Average Current Age	51.1
Average Service	27.8
Average Valuation Pay	\$ 52,305
<b><u>Prison Employees Special Plan (Closed Plan)</u></b>	
Count	25
Average Current Age	52.0
Average Service	25.6
Average Valuation Pay	\$ 47,219

\* Includes nine members who were run in the closed plan based on their membership dates. These will be valued under the 25 & Out Plan in subsequent reports.

MAINE STATE RETIREMENT SYSTEM STATE EMPLOYEE AND TEACHER PLAN  
 ACTUARIAL VALUATION AS OF JUNE 30, 2005

APPENDIX A  
 MEMBERSHIP INFORMATION

<b>Maine State Retirement System Active Member Data as of June 30, 2005</b>	
<b><u>State Police Special Plan (Closed Plan)</u></b>	
Count	41
Average Current Age	50.6
Average Service	24.8
Average Valuation Pay	\$ 69,261
<b><u>Marine Resource Officers Special Plan (Closed Plan)</u></b>	
Count	7*
Average Current Age	50.3
Average Service	26.6
Average Valuation Pay	\$ 53,633
<b><u>State Employee Special 25 &amp; Out Plan</u></b>	
Count	389
Average Current Age	37.5
Average Service	10.9
Average Valuation Pay	\$ 53,987
<b><u>State Employee 1998 Special Plan</u></b>	
Count	1,373
Average Current Age	42.9
Average Service	10.0
Average Valuation Pay	\$ 38,628
<b><u>State Employee Totals (Excludes Teachers)</u></b>	
Count	14,635
Average Current Age	45.8
Average Service	12.6
Average Valuation Pay	\$ 35,989

\* Includes two members who were run in the closed plan based on their membership dates. There will be valued under the 25 & Out Plan in subsequent reports.

MAINE STATE RETIREMENT SYSTEM STATE EMPLOYEE AND TEACHER PLAN  
ACTUARIAL VALUATION AS OF JUNE 30, 2005

APPENDIX A  
MEMBERSHIP INFORMATION

<b>Maine State Retirement System Non-Active Member Data as of June 30, 2005 Teachers</b>			
	<b>Count</b>	<b>Total Annual Benefit</b>	<b>Average Annual Benefit</b>
Retired	9,705	\$ 193,251,022	\$ 19,913
Retired – Concurrent Beneficiaries	1,295	\$ 51,995,041	\$ 4,629
Disabilities / 1122	3	\$ 68,899	\$ 22,966
Disabilities / 3 and 3A	831	\$ 17,936,278	\$ 21,584
Beneficiaries	772	\$ 10,204,668	\$ 13,218
Pre-Retirement Death Benefits	342	\$ 1,830,532	\$ 5,352
Terminated Vested	3,615	\$ 22,536,993	\$ 6,234

<b>Maine State Retirement System Non-Active Member Data as of June 30, 2005 State Regular</b>			
	<b>Count</b>	<b>Total Annual Benefit</b>	<b>Average Annual Benefit</b>
Retired	6,775	\$ 110,585,283	\$ 16,323
Retired – Concurrent Beneficiaries	1,112	\$ 4,678,942	\$ 4,208
Disabilities / 1122	7	\$ 111,198	\$ 15,885
Disabilities / 3 and 3A	1,195	\$ 19,575,039	\$ 16,381
Beneficiaries	1,403	\$ 14,793,058	\$ 10,544
Pre-Retirement Death Benefits	545	\$ 2,889,822	\$ 5,302
Terminated Vested	1,668	\$ 12,594,173	\$ 7,550

MAINE STATE RETIREMENT SYSTEM STATE EMPLOYEE AND TEACHER PLAN  
 ACTUARIAL VALUATION AS OF JUNE 30, 2005

APPENDIX A  
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Maine State Retirement System Non-Active Member Data as of June 30, 2005 Special Plans			
	Count	Total Annual Benefit	Average Annual Benefit
Retired	768	\$ 20,489,988	\$ 26,680
Retired – Concurrent Beneficiaries	163	\$ 762,965	\$ 4,681
Disabilities / 1122	3	\$ 48,107	\$ 16,036
Disabilities / 3 and 3A	57	\$ 1,203,650	\$ 21,117
Beneficiaries	138	\$ 1,742,646	\$ 12,628
Pre-Retirement Death Benefits	9	\$ 84,959	\$ 9,440
Terminated Vested	0	\$ 0	\$ 0

**MAINE STATE RETIREMENT SYSTEM STATE EMPLOYEE AND TEACHER PLAN  
ACTUARIAL VALUATION AS OF JUNE 30, 2005**

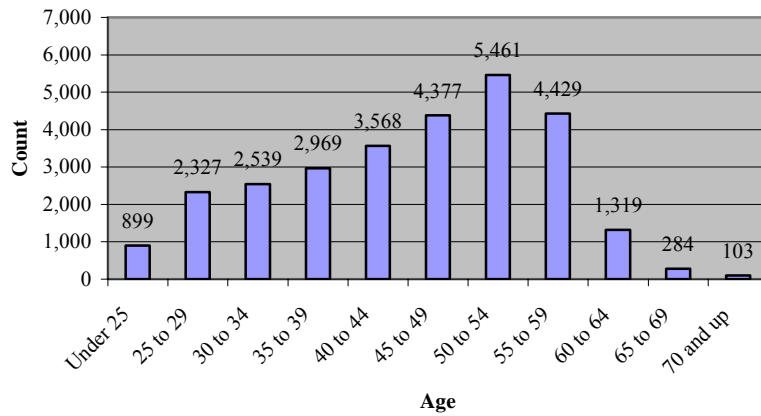
**APPENDIX A  
MEMBERSHIP INFORMATION**

Maine State Retirement System  
Distribution of Active Members  
As of June 30, 2005

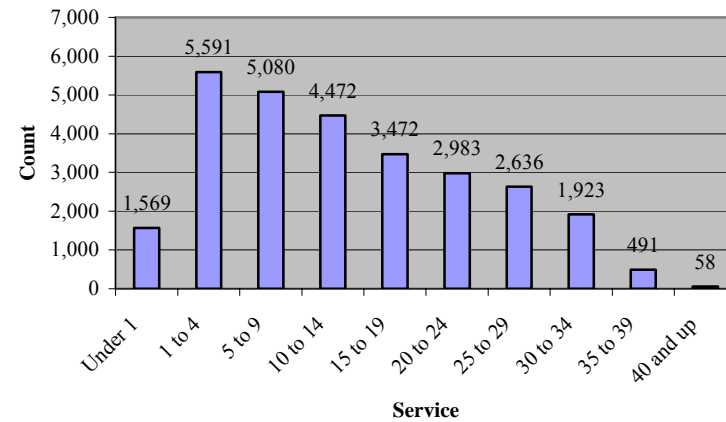
Teachers

	Years of Service										Totals
	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	
Under 25	271	580	48	0	0	0	0	0	0	0	899
25 to 29	304	1,110	866	47	0	0	0	0	0	0	2,327
30 to 34	200	710	920	708	1	0	0	0	0	0	2,539
35 to 39	222	703	624	1,055	352	13	0	0	0	0	2,969
40 to 44	208	762	661	551	801	573	12	0	0	0	3,568
45 to 49	137	689	777	710	601	870	586	6	1	0	4,377
50 to 54	107	505	635	756	790	680	1,258	718	12	0	5,461
55 to 59	81	325	351	479	684	596	564	1,037	307	5	4,429
60 to 64	28	129	132	126	206	210	174	135	156	23	1,319
65 to 69	9	46	43	29	32	33	32	23	13	24	284
70 and up	2	32	23	11	5	8	10	4	2	6	103
<b>Total</b>	<b>1,569</b>	<b>5,591</b>	<b>5,080</b>	<b>4,472</b>	<b>3,472</b>	<b>2,983</b>	<b>2,636</b>	<b>1,923</b>	<b>491</b>	<b>58</b>	<b>28,275</b>

**Age Distribution**



**Service Distribution**



**MAINE STATE RETIREMENT SYSTEM STATE EMPLOYEE AND TEACHER PLAN  
ACTUARIAL VALUATION AS OF JUNE 30, 2005**

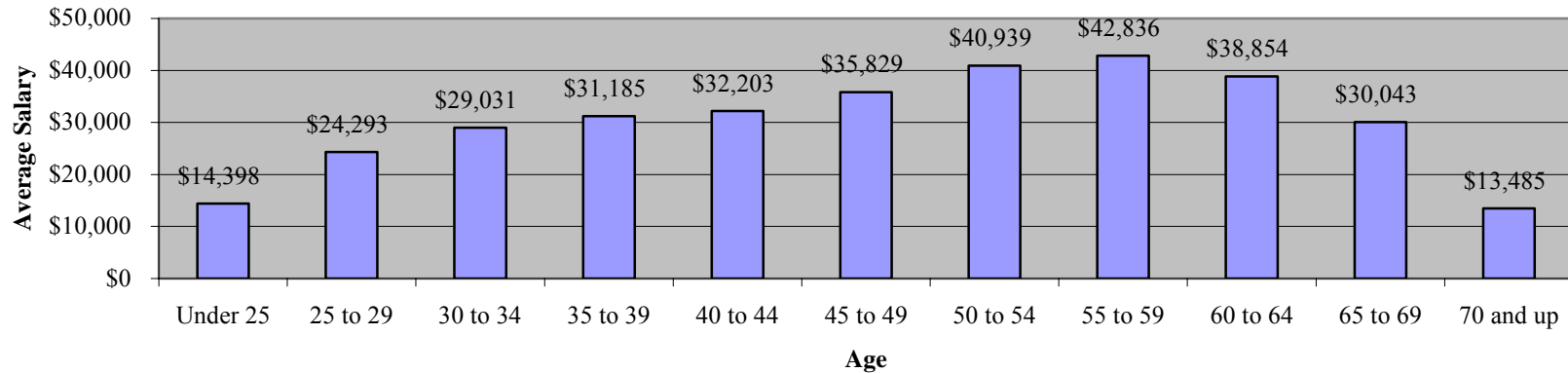
**APPENDIX A  
MEMBERSHIP INFORMATION**

Maine State Retirement System  
Distribution of Active Members  
As of June 30, 2005

Teachers

	Average Salary Years of Service										Average	
	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		
Under 25	\$ 10,072	\$ 16,095	\$ 18,317	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 14,398
25 to 29	15,552	23,693	27,872	29,073	-	-	-	-	-	-	-	24,293
30 to 34	17,051	24,989	30,907	34,023	35,694	-	-	-	-	-	-	29,031
35 to 39	15,268	22,463	31,256	37,418	39,447	41,605	-	-	-	-	-	31,185
40 to 44	12,621	20,109	27,064	36,155	42,252	43,225	44,181	-	-	-	-	32,203
45 to 49	14,585	22,495	27,256	33,471	42,062	46,289	48,650	49,749	23,940	-	-	35,829
50 to 54	15,897	24,789	29,085	34,364	42,419	45,817	49,960	51,260	48,156	-	-	40,939
55 to 59	17,435	26,132	29,273	34,648	40,875	45,053	48,904	51,543	54,858	52,388	-	42,836
60 to 64	13,653	18,968	27,775	29,639	38,808	42,615	47,424	48,732	51,341	53,685	-	38,854
65 to 69	4,788	9,261	20,001	37,034	31,757	34,021	35,193	47,955	39,693	51,880	-	30,043
70 and up	3,667	8,234	6,525	8,153	18,161	22,600	12,382	28,237	43,003	47,333	-	13,485
Average	\$ 14,293	\$ 22,203	\$ 28,630	\$ 34,904	\$ 41,364	\$ 44,868	\$ 48,927	\$ 51,143	\$ 53,064	\$ 52,169	\$ -	\$ 34,729

**Average Salary Distribution**



**MAINE STATE RETIREMENT SYSTEM STATE EMPLOYEE AND TEACHER PLAN  
ACTUARIAL VALUATION AS OF JUNE 30, 2005**

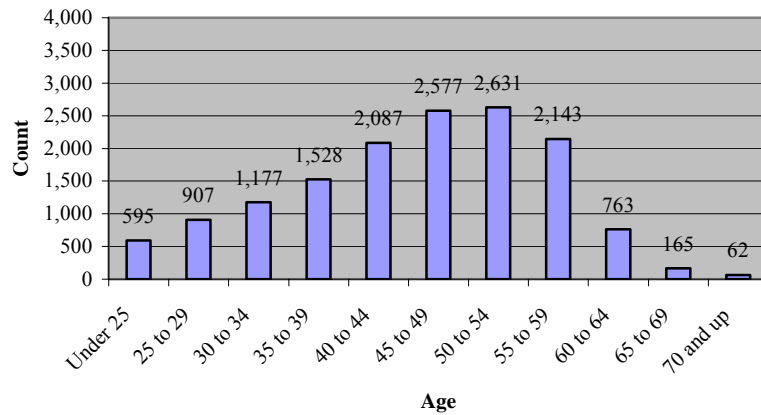
**APPENDIX A  
MEMBERSHIP INFORMATION**

Maine State Retirement System  
Distribution of Active Members  
As of June 30, 2005

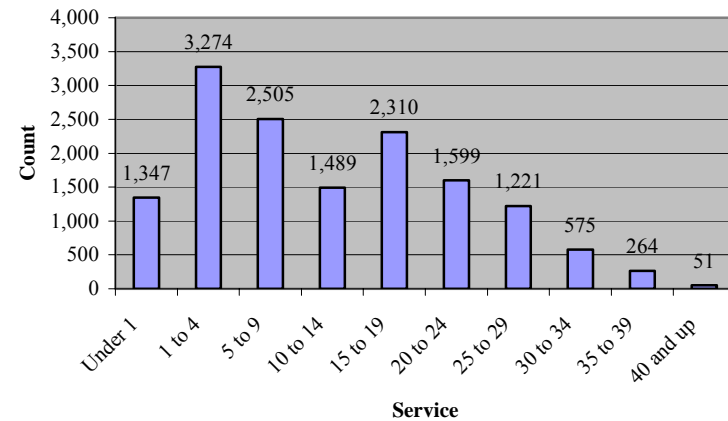
State

	Years of Service										Totals	
	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		
Under 25	298	284	13	0	0	0	0	0	0	0	0	595
25 to 29	205	486	213	3	0	0	0	0	0	0	0	907
30 to 34	182	456	394	123	22	0	0	0	0	0	0	1,177
35 to 39	156	403	397	249	301	22	0	0	0	0	0	1,528
40 to 44	159	428	381	256	537	281	45	0	0	0	0	2,087
45 to 49	142	442	386	280	497	412	381	35	1	1	1	2,577
50 to 54	102	366	352	246	450	402	442	235	36	0	0	2,631
55 to 59	82	272	246	221	313	318	256	255	171	9	9	2,143
60 to 64	17	108	94	88	157	130	65	37	37	30	30	763
65 to 69	4	21	24	17	24	25	22	8	13	7	7	165
70 and up	0	8	5	6	9	9	10	5	6	4	4	62
<b>Total</b>	<b>1,347</b>	<b>3,274</b>	<b>2,505</b>	<b>1,489</b>	<b>2,310</b>	<b>1,599</b>	<b>1,221</b>	<b>575</b>	<b>264</b>	<b>51</b>	<b>51</b>	<b>14,635</b>

**Age Distribution**



**Service Distribution**





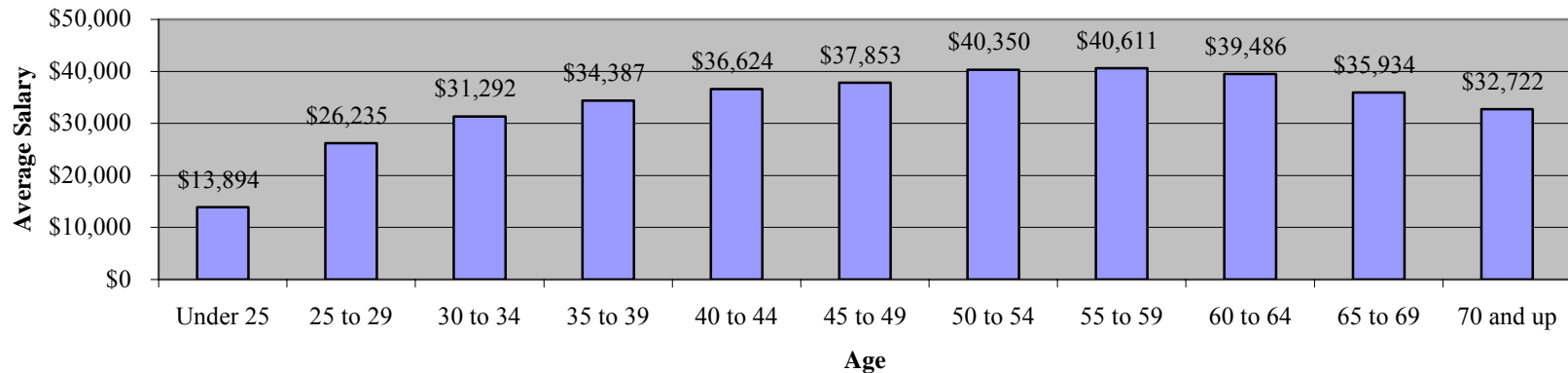
**MAINE STATE RETIREMENT SYSTEM STATE EMPLOYEE AND TEACHER PLAN  
ACTUARIAL VALUATION AS OF JUNE 30, 2005**

**APPENDIX A  
MEMBERSHIP INFORMATION**

Maine State Retirement System  
Distribution of Active Members  
As of June 30, 2005

	State										Average
	Average Salary 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	
Under 25	\$ 7,008	\$ 20,462	\$ 28,232	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 13,894
25 to 29	11,960	29,168	33,545	7,518	-	-	-	-	-	-	26,235
30 to 34	13,646	30,384	37,559	40,023	35,056	-	-	-	-	-	31,292
35 to 39	12,409	31,903	36,485	40,755	40,675	39,780	-	-	-	-	34,387
40 to 44	14,420	31,666	35,800	41,408	42,834	41,271	38,883	-	-	-	36,624
45 to 49	13,303	31,452	36,706	39,001	42,642	43,130	42,776	37,860	40,268	41,704	37,853
50 to 54	15,218	32,307	37,220	42,124	42,634	45,161	46,366	42,398	42,311	-	40,350
55 to 59	15,409	33,339	35,954	40,083	40,254	43,424	46,203	47,906	47,675	43,310	40,611
60 to 64	13,888	30,292	35,890	37,594	41,342	41,868	45,460	50,085	49,754	45,184	39,486
65 to 69	5,954	27,697	32,097	36,668	35,030	39,289	40,832	41,263	38,949	53,187	35,934
70 and up	-	17,695	21,353	19,559	19,849	33,547	38,966	50,095	45,233	67,741	32,722
Average	\$ 12,039	\$ 30,251	\$ 36,248	\$ 40,217	\$ 41,777	\$ 43,110	\$ 44,727	\$ 45,110	\$ 46,722	\$ 47,653	\$ 35,989

**Average Salary Distribution**



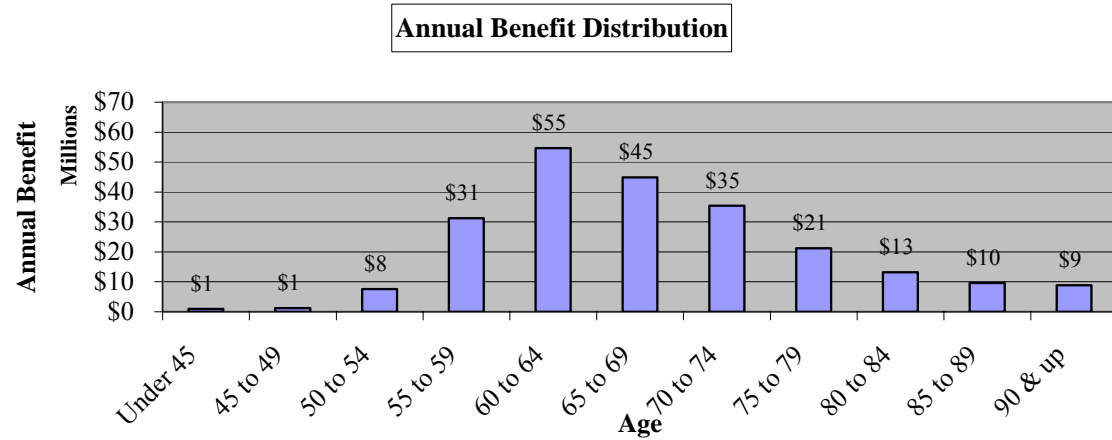
**MAINE STATE RETIREMENT SYSTEM STATE EMPLOYEE AND TEACHER PLAN  
ACTUARIAL VALUATION AS OF JUNE 30, 2005**

**APPENDIX A  
MEMBERSHIP INFORMATION**

**Maine State Retirement System  
Distribution of Retirees, Disabled  
Members, Beneficiaries, and Survivors  
As of June 30, 2005**

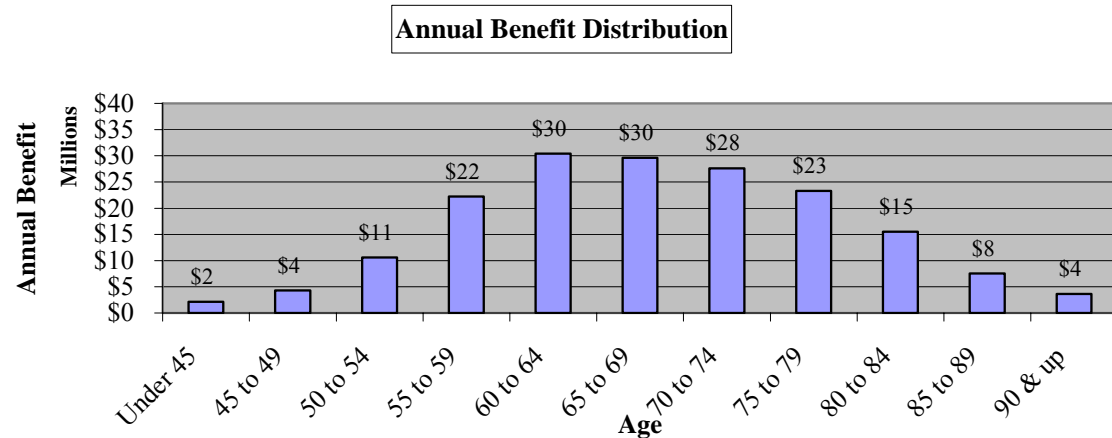
**Teachers**

Age	Count	Annual Benefit
Under 45	165	\$ 1,010,561
45 to 49	83	1,291,733
50 to 54	413	7,638,044
55 to 59	1,500	31,268,664
60 to 64	2,619	54,661,571
65 to 69	2,358	44,925,228
70 to 74	2,054	35,449,648
75 to 79	1,430	21,256,101
80 to 84	985	13,254,525
85 to 89	720	9,666,418
90 & up	621	8,863,950
<b>Total</b>	<b>12,948</b>	<b>\$ 229,286,440</b>



**State**

Age	Count	Annual Benefit
Under 45	273	\$ 2,156,137
45 to 49	297	4,293,078
50 to 54	632	10,599,882
55 to 59	1,192	22,254,056
60 to 64	1,739	30,426,636
65 to 69	1,908	29,608,491
70 to 74	1,948	27,579,225
75 to 79	1,752	23,309,417
80 to 84	1,322	15,491,989
85 to 89	737	7,556,017
90 & up	375	3,659,274
<b>Total</b>	<b>12,175</b>	<b>\$ 176,934,199</b>



**APPENDIX B  
ACTUARIAL ASSUMPTIONS AND METHODS**

**A. Actuarial Assumptions**

**1. Rate of Investment Return:**

*State Employees:* 8.0%

*Teachers:* 8.0%

**2. Cost-of-Living Increases in Benefits:**

*State Employees:* 4.0%

*Teachers:* 4.0%

**3. Rates of Salary Increase  
(% at Selected Ages):**

Age	State Employees and Teachers
20	9.5%
25	8.3
30	7.2
35	6.7
40	6.2
45	5.7
50	5.5
55	5.5
60	5.5
65	5.5

The above rates include a 5½% across-the-board increase at each age.

Calculations have been adjusted to account for the 5% per year/10% over three-years cap on final pay.

**4. Rates of Termination (% at Selected Ages):**

Age	State Employees Service		
	0-1	1-2	2+
20	25.0%	17.5%	18.8%
25	25.0	17.5	12.5
30	25.0	17.5	10.0
35	25.0	17.5	7.5
40	25.0	17.5	5.0
45	25.0	17.5	5.0
50	25.0	17.5	5.0
55	25.0	17.5	5.0

Age	Teachers Service		
	0-1	1-2	2+
20	33.0%	24.0%	18.8%
25	27.5	24.0	12.5
30	27.5	24.0	10.4
35	27.5	24.0	8.3
40	27.5	24.0	6.1
45	27.5	24.0	4.0
50	27.5	24.0	4.0
55	27.5	24.0	4.0

\* 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 Post-7/1/1998 Retired Healthy Lives at Selected Ages (number of deaths per 10,000 members)\*:**

Age	State Employees	
	Male	Female
20	5	3
25	7	3
30	9	4
35	9	5
40	12	8
45	17	10
50	28	15
55	48	25
60	86	48
65	156	93
70	255	148

Age	Teachers	
	Male	Female
20	5	3
25	6	3
30	7	3
35	8	4
40	10	6
45	14	9
50	24	13
55	40	21
60	73	41
65	133	79
70	217	125

**6. Rates of Mortality for Pre-7/1/1998 Retired Healthy Lives at Selected Ages (number of deaths per 10,000 members):**

Age	State Employees	
	Male	Female
20	5	3
25	6	3
30	8	5
35	11	7
40	16	9
45	29	14
50	53	22
55	85	33
60	131	55
65	213	96
70	361	165

Age	Teachers	
	Male	Female
20	5	2
25	6	3
30	7	4
35	10	6
40	14	8
45	23	12
50	42	18
55	71	27
60	109	44
65	174	77
70	292	129

\* 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.

**APPENDIX B**  
**ACTUARIAL ASSUMPTIONS AND METHODS**

**7. Rates of Mortality for Future Disabled Lives and Post-7/1/1998 Retired Disabled Lives at Selected Ages (number of deaths per 10,000 members):**

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

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

**8. Rates of Mortality for Pre-7/1/1998 Retired Disabled Lives at Selected Ages (number of deaths per 10,000 members):**

State Employees		
Age	Male	Female
25	391	528
30	315	467
35	321	326
40	332	215
45	349	191
50	376	207
55	420	240
60	488	288
65	595	366
70	763	487

Teachers		
Age	Male	Female
25	391	528
30	315	467
35	321	326
40	332	215
45	349	191
50	376	207
55	420	240
60	488	288
65	595	366
70	763	487

**APPENDIX B**  
**ACTUARIAL ASSUMPTIONS AND METHODS**

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

Age	State Employees*	Teachers
45	35	25
50	57	25
55	150	113
59	180	183
60	350	350
61	350	350
62	350	350
63	350	350
64	350	350
65	350	350
70	1,000	1,000

\* Members of Special Groups are assumed to retire when first eligible for unreduced benefits.

**10. 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.

**11. 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.

**12. 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**

**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 5.5% per year. The UAL measured as of June 30, 2005 is amortized over a 23 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.

**Contribution Requirements for Special State Employee Groups**

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.



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**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.

Benefit: 1/50 of average final compensation multiplied by years of membership service and up to 25 years of prior service, reduced by approximately 2¼% for each year retirement age is less than age 60.

Form of Payment: Life annuity.

**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.

**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.

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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.

Form of Payment: Life annuity.

***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.

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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:**

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

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Benefit: 66⅔% 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 66⅔% 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 cost-of-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.

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**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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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 with pop-up\*.

Option 7: 50% joint and survivor annuity 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.