Maine State Retirement System State Employee and Teacher Plan

Actuarial Valuation as of June 30, 2003

A MILLIMAN GLOBAL FIRM

Milliman USA
Consultants and Actuaries

December 2003

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Milliman USA
Consultants and Actuaries

8000 Towers Crescent Drive, Suite 1000
Vienna, VA 22182-2700
Tel +1 703 917.0143
Fax +1 703 827.9266
www.milliman.com

December 16, 2003

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

Dear Members of the Board:

At your request, we have conducted our annual actuarial valuation of the State Employee and Teacher Plan of the Maine State Retirement System. The results of the valuation are contained in the following report.

In performing this valuation, Milliman used assumptions and methods that meet the parameters set by Government Accounting Standards Board (GASB) Statement No. 25, *Financial Reporting for Defined Benefit Pension Plans and Note Disclosures for Defined Contributions Plans.* The actuarial assumptions have been recommended by the actuary and adopted by the Board of Trustees based on Milliman's most recent review of the System's experience completed during Fiscal Year 1998. We believe the assumptions used, in the aggregate, reflect our best estimate of anticipated future experience of the plan. The results of this report are dependent upon future experience conforming to these assumptions. It is certain that actual experience will not conform exactly to these assumptions. Actual amounts will differ from projected amounts to the extent actual experience differs from expected experience. The Board of Trustees has the final decision regarding the appropriateness of the assumptions.

In preparing our report we relied, without audit, on information (some oral and some written) supplied by the Retirement System. This information includes, but is not limited to, plan provisions, employee census data and financial information. We did not audit this data. However, we compared the census data and financial information with the previous year's information and reviewed the results for reasonableness. We found the data to be reasonably consistent and comparable with data used in the prior valuation. If the underlying data or information is inaccurate or incomplete, the results of our analysis may likewise be inaccurate or incomplete.

We understand this report is considered a public document and, as such, may be subject to disclosure to third parties. However, we do not intend to benefit, and assume no liability to, any third party who receives the report in this fashion. Any distribution of this report must be in its entirety including this cover letter, unless prior written consent from Milliman USA is obtained.

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 American Academy of Actuaries.

Sincerely,

Milliman USA

I, Theresa Leatherbury, am a consulting actuary for Milliman USA. I am also a member of the American Academy of Actuaries and meet their Qualification Standards to render the actuarial opinion contained herein.

Theresa Leatherbury

Theresa Leatherbury, F.S.A.
Principal

I, Althea Schwartz, am a consulting actuary for Milliman USA. I am also a member of the American Academy of Actuaries and meet their Qualification Standards to render the actuarial opinion contained herein.

Althea Schwartz

Althea Schwartz, F.S.A.
Principal

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SECTION I

BOARD SUMMARY

This report presents the results of the June 30, 2003 actuarial valuation of the State Employee and Teacher Plan of the Maine State Retirement System (MSRS). The primary purposes of performing the annual actuarial valuation are to:

1) **Determine the contributions** that would have been paid by the State effective July 1, 2004 (fiscal year 2005) absent the State's biennial budgeting practice and the incorporation in it of retirement contributions;
2) **Measure and disclose**, as of the valuation date, the financial condition of the Plan;
3) **Indicate trends** in the financial progress of the Plan;
4) **Provide specific information** and documentation required by the Government Accounting Standards Board (GASB).

In this section of the report, we present a summary of the above information in the form of:

- The actuary's comments;
- The prior year's experience of the Plan's assets, liabilities, contributions, and membership;
- A series of graphs highlighting key trends experienced by the Plan; and
- A tabular summary, intended for quick reference purposes, of all principal results from this year's valuation, compared to the prior year.

Actuary's Comments

As of the June 30, 2003 actuarial valuation, the Plan's unfunded actuarial liability was **$2,921 million**. This is an increase from last year's unfunded actuarial liability of $2,593 million. The main cause of the increase in unfunded actuarial liability is the lower than expected return on assets. During the year ended June 30, 2003, the Plan's assets earned **5.3%** on a market value basis. Due to the Plan's asset-smoothing technique, the return on the actuarial asset value was **2.4%.** This return is below the assumed rate of return of 8.0% and resulted in an actuarial loss on investments of **$325 million**. The actuarial loss on investments is slightly offset by a **$15 million** actuarial gain on plan liabilities.

The actuarially determined contribution rate decreased from 19.32% for FY 2004 to **17.26%** for FY 2005. The main reason for the decrease is an extension in the amortization period for paying off the unfunded actuarial liability. The unfunded liability is amortized over **24 years** from June 30, 2003. State law extended the amortization period as of June 30, 2002 from 17 years to 25 years (24 years for the June 30, 2003 unfunded actuarial liability). The contribution rate developed in the June 30, 2002 actuarial valuation is based on a 17-year amortization. Without the change in State law, the amortization period for this year's valuation would have been 16 years and the contribution rate would have been 21.43%.

The Plan's funded ratio (actuarial assets divided by actuarial liability) decreased to **67.4%** as of June 30, 2003 from 69.4% as of June 30, 2002. The main reason for the decrease is the lower than assumed return on assets. While the results are not favorable this year, we emphasize that the financing of any retirement plan is a long-term proposition. Annual fluctuations are to be expected and should not by themselves be cause for concern. We continue to maintain that the overall financial condition of the Plan is healthy, and that there are procedures, assumptions and methods in place, which in our opinion adequately and appropriately finance the emerging long-term liabilities of the Plan.

The balance of this section summarizes Plan trends, and provides the principal details on this year's experience.

Prior Year Experience

Assets

The actuarial value of assets is calculated on the total invested assets of the System. This consists of assets attributable to the State Employee and Teacher Plan, the Judicial Plan, the Legislative Plan and the Consolidated and non-consolidated participating local district plans.

The Plan has two measures of plan assets: (i) the market value and (ii) the actuarial value. The market value is a snapshot of the asset value as of June 30, 2003.

The actuarial value is a smoothed asset value that recognizes 33% of the difference between the expected actuarial value and the market value of assets. The expected actuarial value equals the prior year's actuarial value adjusted with contributions, payments and investment earnings of 8.0%. This method tempers the volatile fluctuations in market value.

The actuarial value of assets for the System as of June 30, 2003 exceeds the market value by $851 million. This represents an accumulation of stored investment losses as a result of several years of investment performance below the assumed 8.0% return. Even if the market value earns 8.0% in the upcoming fiscal year, the return on the actuarial value will lag the return on the market value due to these stored losses. In fact, it will take a market return in excess of 8.0% for several years (or one year that far exceeds 8.0%) before the stored losses in the actuarial value will be eliminated.

For the plan year ending June 30, 2003, the Fund earned 5.30% on a market value basis and 2.41% on an actuarial value basis. These returns are lower than the assumption of 8.0% and resulted in an actuarial loss to the fund of $178 million on a market value basis and $425 million on an actuarial value basis. The specific changes between the prior year amounts and this year's are presented below.

All Plans of System		
Item (In Millions)	**Market Value**	**Actuarial Value**
June 30, 2002 value	$ 6,596	$ 7,613
Employer Contributions	286	286
Member Contributions	129	129
Benefit Payments	(423)	(423)
Expected Investment Earnings (8%)	526	607
Expected Value June 30, 2003	$ 7,114	$ 8,212
Actuarial Gain (Loss) on Investments	(178)	(425)
June 30, 2003 value	$ 6,936	$ 7,787

Market value, actuarial value and asset loss (or gain) are allocated to the separate plans. For the State Employee and Teacher Plan, the market value of assets at June 30, 2003 was $5,382 million and the corresponding actuarial value was $6,042 million. The Plan's share of the $425 million loss on the actuarial assets was $325 million.

The specific changes for the State Employee and Teacher Plan are presented below.

State Employee and Teacher Plan		
Item (In Millions)	**Market Value**	**Actuarial Value**
June 30, 2002 value	$ 5,092	$ 5,877
Employer Contributions	262	262
Member Contributions	108	108
Benefit Payments	(352)	(352)
Expected Investment Earnings (8%)	408	472
Expected Value June 30, 2003	$ 5,518	$ 6,367
Actuarial Gain (Loss) on Investments	(136)	(325)
June 30, 2003 value	$ 5,382	$ 6,042

Liabilities

Three different measures of liabilities are calculated for the Plan: a total present value of future obligations, an actuarial liability, and an accrued benefit liability. The actuarial liability is used to determine the Plan's contribution rate and the Government Accounting Standards Board (GASB) disclosures. Plan experience is measured by changes in the actuarial liability. During the plan year ending in 2003, the actuarial liability experienced a gain of **$15 million** for funding purposes, which is 0.2% of the total actuarial liability. We will continue to monitor gains and losses to assure that no significant new patterns emerge unexpectedly.

Liabilities (In Millions)	Total Value	Actuarial	Accrued Benefit
June 30, 2002	$9,923	$8,470	$6,992
June 30, 2003	$10,438	$8,963	$7,293

Unfunded Liabilities And Funding Ratios

The difference between assets and liabilities is the unfunded liability. This is measured in two ways: (i) unfunded actuarial liability, which compares the actuarial liability to the actuarial asset value, and (ii) unfunded accrued benefit liability, which compares the accrued benefit liability to the market value of assets. Here we show the June 30, 2002 and June 30, 2003 unfunded liability/(surplus) amounts, as well as the corresponding funding ratios for each (assets divided by liabilities).

(In Millions)	Actuarial	Accrued Benefit
6/30/2002 Net (Surplus) Unfunded	$ 2,593	$1,899
Funding Ratio	69.4%	72.8%
6/30/2003 Net (Surplus) Unfunded	$ 2,921	$1,911
Funding Ratio	67.4%	73.8%

Contributions

In Section IV, we show the various contribution rates by plans within the State Employee and Teacher Plan. Below we present the State contribution rate for all of these plans combined, and compare it to the rate developed in the June 30, 2002 actuarial valuation.

In summary, the overall State contribution rate decreased by **2.06%** of payroll. This is mostly due to the lengthening of the amortization period. An actuarial loss on investments and an actuarial gain on liabilities also affected the overall contribution rate. Because of the State's biennial budgeting practice and the way in which retirement contributions are incorporated into it, contribution rates resulting from this interim-year valuation will not affect the State's budget. The June 30, 2004 valuation will set rates for the next biennium (fiscal year 2006 and fiscal year 2007).

Rate as Percent of Covered Payroll	
June 30, 2002 State Contribution Rate	19.32%
Increase / (Decrease) due to:	
Investments	1.70%
Liabilities	(0.11%)
Payroll Growth	0.52%
Change in Amortization Period	(4.17%)
June 30, 2003 State Contribution Rate	17.26%

The increase / (decrease) due to payroll growth reflects the difference between the actual aggregate payroll increase and the assumed 5.5% increase implicit in the amortization method. We assume the amortization payment will increase 5.5% per year. Since the aggregate payroll increase was less than 5.5%, the amortization payment increases when expressed as a % of payroll.

Membership

There are three types of plan participants: (i) current active members; (ii) terminated members who retain a right to a deferred "vested" benefit; and (iii) benefit recipients, who may be retired former members, disabled members or beneficiaries of deceased active, retired or disabled members. In Appendix A, we present extensive details on membership statistics. Below, we compare totals in each group between June 30, 2002 and 2003.

As shown below, there was an overall increase in participation during the year of **2.7%.**

	6/30/2003	6/30/2002	Change
Active Members	42,862	43,246	-0.9%
Terminated "Vested" Members	4,179	2,448	70.7%
Benefit Recipients	23,768	23,228	2.3%
TOTAL	70,809	68,922	2.7%

Trends

One of the best ways to measure or evaluate the financial condition of a retirement plan is to examine the historical trends that are evolving. Below, we present three charts which present 10 years worth of trend information on the assets and liabilities of the State Employee and Teacher Plan, annual cash flows in and out of the Fund, and the State's overall contribution rate. Our comments on each follow.

Chart A: ASSETS / LIABILITIES – State & Teacher Only

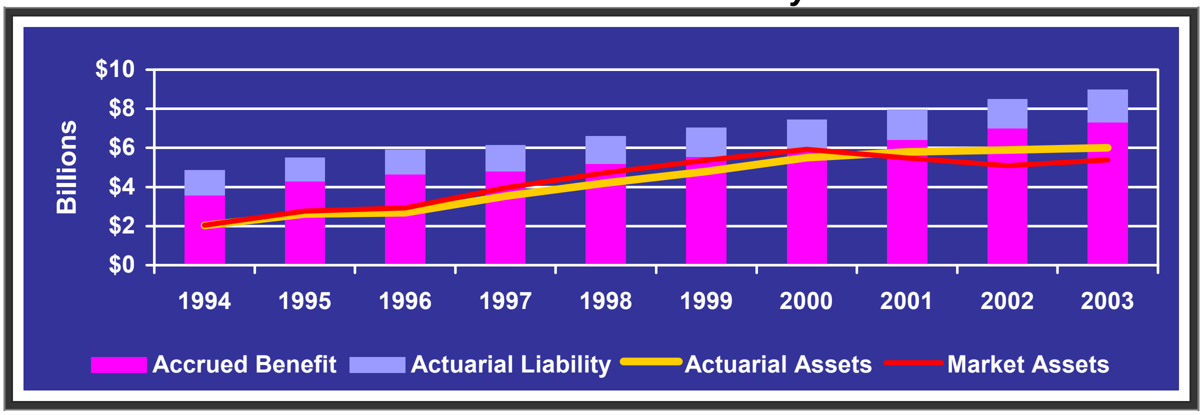


Chart B: CASH FLOWS – Total System

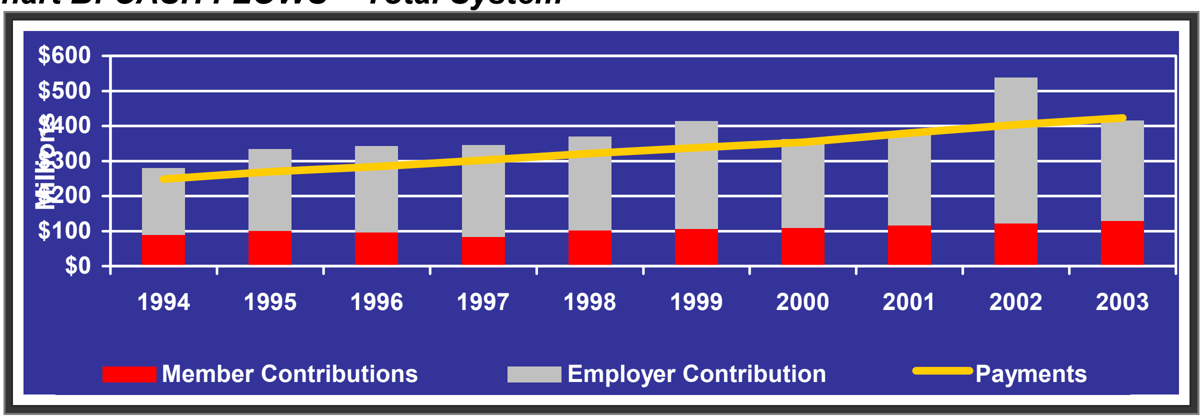
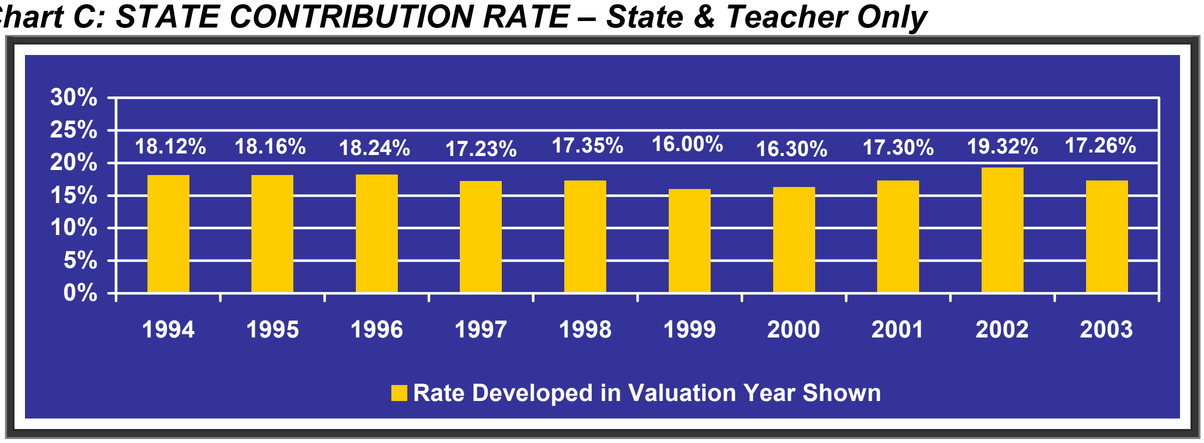


Chart C: STATE CONTRIBUTION RATE – State & Teacher Only



Comments

Chart A depicts the investment performance losses of the past few years. These losses have caused the funded ratio (the ratio of assets to liabilities) to decrease in the past few years. The liabilities have grown but the assets have remained relatively level.

Chart B presents an emerging trend being faced by many retirement systems due to the aging of the baby boomer generation. Payments to retirees are on the increase, while cash into plans from employer and employee contributions is stable or declining. This is not unanticipated, and essentially is the reason for funding and investment strategies that seek to build plan assets in earlier years when contributions being paid in exceed benefit payments out.

Chart C, looks at changes in the State's overall contribution rate for the State Employee and Teacher Plan. It shows the State's commitment to keeping the contributions level. In years when investment performance helped reduce the unfunded actuarial liability, the State responded by shortening the amortization period to keep the contribution rate level. Now, when the lower than expected investment return created increases in the unfunded actuarial liability, the State is lengthening the amortization period while still remaining within the guidelines of fully funding the Plan by the year 2027

TOTAL STATE EMPLOYEE AND TEACHER PLAN SUMMARY OF PRINCIPAL RESULTS			
Valuation As Of -->	6/30/2003	6/30/2002	% change
PARTICIPANT COUNTS			
Actives	42,862	43,246	-0.9%
Retired Members	16,267	15,916	2.2%
Beneficiaries of Retirees	4,756	4,674	1.8%
Survivors of Deceased Members	843	843	0.0%
Disabled Members	1,902	1,795	6.0%
Deferred "Vested" Members	4,179	2,448	70.7%
TOTAL	70,809	68,922	2.7%
Annual Salaries of Active Members	$ 1,434,596,605	$ 1,405,943,887	2.0%
Annual Payments to Benefit Recipients	$ 350,388,824	$ 330,969,987	5.9%
ASSETS & LIABILITIES			
Total Actuarial Liability	$ 8,963,272,498	$ 8,469,835,410	5.8%
Assets /Actuarial (Smoothed)	6,041,952,157	5,877,158,371	2.8%
Unfunded Actuarial Liability	$ 2,921,320,341	$ 2,592,677,039	12.7%
Funding Ratio	67.41%	69.39%	N/A
Present Value of Accrued Benefits	$ 7,292,512,668	$ 6,991,657,417	4.3%
Assets/Market Value	5,381,673,439	5,092,119,785	5.7%
Unfunded PVAB	$ 1,910,839,229	$ 1,899,537,632	0.6%
Accrued Benefit Funding Ratio	73.80%	72.83%	N/A
CONTRIBUTIONS AS % OF PAYROLL			
	Fiscal Year 2005	Fiscal Year 2004	
Normal Cost Contribution	6.17%	6.17%	
Unfunded Actuarial Liability Contribution	11.09	13.15	
Total State Contribution	17.26%	19.32%	

TEACHERS SUMMARY OF PRINCIPAL RESULTS			
Valuation As Of -->	6/30/2003	6/30/2002	% change
PARTICIPANT COUNTS			
Actives	28,329	28,344	-0.1%
Retired Members	9,044	8,864	2.0%
Beneficiaries of Retirees	1,963	1,892	3.8%
Survivors of Deceased Members	301	279	7.9%
Disabled Members	751	699	7.4%
Deferred "Vested" Members	2,692	1,446	86.2%
TOTAL	43,080	41,524	3.7%
Annual Salaries of Active Members	$ 913,142,237	$ 889,647,463	2.6%
Annual Payments to Benefit Recipients	$ 195,641,297	$ 184,710,816	5.9%
ASSETS & LIABILITIES			
Total Actuarial Liability	$ 5,737,908,352	$ 5,442,042,898	5.4%
Assets/Actuarial (Smoothed)	3,754,519,672	3,600,534,614	4.3%
Unfunded Actuarial Liability	$ 1,983,388,680	$ 1,841,508,284	7.7%
Funding Ratio	65.43%	66.16%	N/A
Present Value of Accrued Benefits	$ 4,557,125,703	$ 4,279,369,714	6.5%
Assets/Market Value	3,344,216,947	3,119,594,945	7.2%
Unfunded PVAB	$ 1,212,908,756	$ 1,159,774,769	4.6%
Accrued Benefit Funding Ratio	73.38%	72.90%	N/A
CONTRIBUTIONS AS % OF PAYROLL			
	Fiscal Year 2005	Fiscal Year 2004	
Normal Cost Contribution	6.04%	6.04%	
Unfunded Actuarial Liability Contribution	11.83	14.76	
Total State Contribution	17.87%	20.80%	

TOTAL STATE EMPLOYEES (Regular and Special Plans)			
SUMMARY OF PRINCIPAL RESULTS			
Valuation As Of -->	6/30/2003	6/30/2002	% change
PARTICIPANT COUNTS			
Actives	14,533	14,902	-2.5%
Retired Members	7,223	7,052	2.4%
Beneficiaries of Retirees	2,793	2,782	0.4%
Survivors of Deceased Members	542	564	-3.9%
Disabled Members	1,151	1,096	5.0%
Deferred "Vested" Members	1,487	1,002	48.4%
TOTAL	27,729	27,398	1.2%
Annual Salaries of Active Members	$ 521,454,368	$ 516,296,424	1.0%
Annual Payments to Benefit Recipients	$ 154,747,527	$ 146,259,171	5.8%
ASSETS & LIABILITIES			
Total Actuarial Liability	$ 3,225,364,146	$ 3,027,792,512	6.5%
Assets/Actuarial (Smoothed)	2,287,432,485	2,276,623,757	0.5%
Unfunded Actuarial Liability	$ 937,931,661	$ 751,168,755	24.9%
Funding Ratio	70.92%	75.19%	N/A
Present Value of Accrued Benefits	$ 2,735,386,965	$ 2,712,287,703	0.9%
Assets/Market Value	2,037,456,492	1,972,524,840	3.3%
Unfunded PVAB	$ 697,930,473	$ 739,762,863	-5.7%
Accrued Benefit Funding Ratio	74.49%	72.73%	N/A
CONTRIBUTIONS AS % OF PAYROLL			
	Fiscal Year 2005	Fiscal Year 2004	
Normal Cost Contribution	6.40%	6.39%	
Unfunded Actuarial Liability Contribution	9.80	10.38	
Total State Contribution	16.20%	16.77%	

STATE EMPLOYEE REGULAR PLAN SUMMARY OF PRINCIPAL RESULTS			
Valuation As Of -->	6/30/2003	6/30/2002	% change
PARTICIPANT COUNTS			
Actives	12,611	12,921	-2.4%
Retired Members	6,522	6,396	2.0%
Beneficiaries of Retirees	2,515	2,516	0.0%
Survivors of Deceased Members	539	561	-3.9%
Disabled Members	1,118	1,072	4.3%
Deferred "Vested" Members	1,487	1,002	48.4%
TOTAL	24,792	24,468	1.3%
Annual Salaries of Active Members	$ 440,628,719	$ 436,276,144	1.0%
Annual Payments to Benefit Recipients	$ 134,469,725	$ 127,701,103	5.3%
ASSETS & LIABILITIES			
Total Actuarial Liability	$ 2,729,464,467	$ 2,565,431,125	6.4%
Assets/Actuarial (Smoothed)	1,981,118,251	1,965,408,425	0.8%
Unfunded Actuarial Liability	$ 748,346,216	$ 600,022,700	24.7%
Funding Ratio	72.58%	76.61%	N/A
Present Value of Accrued Benefits	$ 2,297,868,032	$ 2,148,384,393	7.0%
Assets/Market Value	1,764,616,999	1,702,879,946	3.6%
Unfunded PVAB	$ 533,251,033	$ 445,504,447	19.7%
Accrued Benefit Funding Ratio	76.79%	79.26%	N/A
CONTRIBUTIONS AS % OF PAYROLL			
	Fiscal Year 2005	Fiscal Year 2004	
Normal Cost Contribution	6.04%	6.04%	
Unfunded Actuarial Liability Contribution	9.25	9.81	
Total State Contribution	15.29%	15.85%	

STATE EMPLOYEE SPECIAL PLANS (COMPOSITE) SUMMARY OF PRINCIPAL RESULTS			
Valuation As Of -->	6/30/2003	6/30/2002	% change
PARTICIPANT COUNTS			
Actives	1,9221	1,981	-3.0%
Retired Members	701	656	6.9%
Beneficiaries of Retirees	278	266	4.5%
Survivors of Deceased Members	3	3	0.0%
Disabled Members	33	24	37.5%
Deferred "Vested" Members	0	0	0.0%
TOTAL	2,937	2,930	0.2%
Annual Salaries of Active Members	$ 80,825,649	$ 80,020,280	1.0%
Annual Payments to Benefit Recipients	$ 20,277,802	$ 18,558,068	9.3%
ASSETS & LIABILITIES			
Total Actuarial Liability	$ 495,899,679	$ 462,361,387	7.3%
Assets/Actuarial (Smoothed)	306,314,234	311,215,332	-1.6%
Unfunded Actuarial Liability	$ 189,585,445	$ 151,146,055	25.4%
Funding Ratio	61.77%	67.31%	N/A
Present Value of Accrued Benefits	$ 437,518,933	$ 563,903,310	-22.4%
Assets/Market Value	272,839,493	269,644,894	1.2%
Unfunded PVAB	$ 164,679,440	$ 294,258,416	-44.0%
Accrued Benefit Funding Ratio	62.36%	47.82%	N/A
CONTRIBUTIONS AS % OF PAYROLL			
	Fiscal Year 2005	Fiscal Year 2004	
Normal Cost Contribution	8.34%	8.29%	
Unfunded Actuarial Liability Contribution	12.78	13.47	
Total State Contribution	21.12%	21.76%	

SECTION II

ASSETS

The purpose of an actuarial valuation is to assess the funded status of a pension plan at a certain date and to establish the plan's funding requirements. On the asset side of a plan's funded status, the relevant measure is net assets available for benefits. "Assets" includes the System's investment portfolio committed for investment management to outside professionals, buildings and land owned by the System outside of the investment portfolio, and cash managed by the System outside of the investment portfolio.

The investment portfolio is by far the largest of these assets in dollar value, so much so, that its value is often used, in contexts other than the actuarial valuation, as a proxy for total assets. The investment policy of the System's Board of Trustees governs the investment portfolio and the Trustees' asset allocation policy applies the portfolio. However, for purposes of evaluating fairly the relationship of plan assets to plan liabilities, the value of all assets is included.

The value of plan assets for actuarial valuation purposes must be established and disclosed on a market value basis. Thereafter, for purposes of establishing rational plan funding requirements for the System, the market value is smoothed. Market value represents a "snap-shot" or "cash-out" value which provides a basis for measuring investment performance from one year to the next. Market value, however, can fluctuate widely, particularly in the short term. As a result, market value is usually not suitable for long range planning.

In an ongoing pension plan, the long range is the important perspective. Actuarial value, or "carrying value" is market value that has been smoothed and is the actuary's best estimate of long-term asset value. This provides a more useful evaluation of the fund's ongoing ability to meet its obligations. The actuarial smoothing methodology employed in the valuation of the System's plans is explained later in this section.

In this section we present the following information on assets:

- **Disclosure** of the market value of plan assets measured at June 30, 2003 and June 30, 2002;

- Statement of the **changes** during the year in the market value of assets;

- Development of the **actuarial value of assets**;

- **Allocation** of the actuarial value of assets among the System's plans; and

- A statement of the **return on plan assets** for the year, on both a market value basis and an actuarial value basis.

Disclosure of Plan Market Value Of Assets

STATEMENT OF ASSETS AT MARKET VALUE (In Millions)		
	June 30,	
	2003	2002
Net Value of Investment Portfolio	$	$ 6,566
Buildings, land		3
Cash external to portfolio		27
Net Assets Available for Benefits	$ 6,936	$ 6,596

Changes in Asset Value (market value based) in Valuation Year:

The components of asset change are:

- Contributions received from members and employers;
- Benefits paid out;
- Investment Income/(Loss) (realized and unrealized).

The specific changes during 2003 are presented below:

CHANGES IN MARKET VALUES	
Plan Assets/Market Value – June 30, 2002	$ 6,595,671,933
Member Contributions Received	128,911,129
Employer Contributions Received	285,646,013
Benefits Paid Out	(423,217,912)
Investment Income/(Loss)	349,190,235
Plan Assets/Market Value – June 30, 2003	$6,936,201,398

Development of the Actuarial Value of Assets:

The Actuarial Value of Assets represents a "smoothed" value developed by the actuary to reduce the volatility in the investment markets, particularly over short time periods. Because the System's plans are regarded as virtually perpetual in nature, it is appropriate to manage their funding with strategies so that term events are seen within the longer perspective. For the System, the actuarial value of assets at a given valuation date equals the Expected Actuarial Value plus 33% of the difference between the Expected Actuarial Value and the Market Value of Assets at that date. The Expected Actuarial Value is the previous year's actuarial asset value adjusted with contributions, payments and investment earnings of 8.0%. The following table illustrates the calculation of the Actuarial Value of Assets for the June 30, 2003 valuation.

DEVELOPMENT OF ACTUARIAL VALUE OF ASSETS AS OF JUNE 30, 2003		
1.	Actuarial Value of Assets at June 30, 2002	$ 7,612,509,160
2.	Amount in (1) with interest to June 30, 2003 at 8.00% per year	8,221,509,893
3.	Employer & member contributions for the Plan Year ended June 30, 2003	414,557,143
4.	Interest on contributions assuming payments made uniformly throughout the year to June 30, 2003 at 8.00% per year	16,582,286
5.	Disbursements from the Trust during the period June 30, 2002 through June 30, 2003	423,217,912
6.	Interest on disbursements to June 30, 2003 at 8.00% per year	16,928,716
7.	Expected Actuarial Value of Assets at June 30, 2003 = (2) + (3) + (4) - (5) - (6)	8,212,502,694
8.	Actual Market Value of Assets at June 30, 2003	6,936,201,398
9.	Difference Between (8) and (7)	(1,276,301,296)
10.	Actuarial Value of Assets at June 30, 2003 = (7) + 33% of (9)	$7,787,205,499

Allocation of Actuarial Value of Assets:

In the investment portfolio, assets for all of the System's 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 a smoothing factor which is then applied to the market value of assets attributable to each of the plans. The smoothing factor derived in this valuation is 1.12269 ($7,787,205,499 ÷ $6,936,201,398). 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, 2003

	Market Value	Actuarial Value
Teachers	$ 3,344,216,947	$ 3,754,519,672
State (Regular and Special)	2,037,456,492	2,287,432,485
Judges	33,189,773	37,261,834
Legislators	5,717,377	6,418,843
Participating Local Districts (Consolidated and Non-Consolidated)	1,515,620,809	1,701,572,665
Total Fund	$ 6,936,201,398	$ 7,787,205,499

Investment Performance:

The Market Value of Assets (MVA) returned 5.30% during 2003. This is lower than the plan's assumed return of 8% but not unexpected. This year's return was an improvement over return during 2002 which was (7.6)%.

On an actuarial value of assets basis, the return at June 30, 2003 was 2.41%. This return is less than the return on a market value basis because the actuarial value is recouping the accumulated stored losses inherent in the actuarial value. As of June 30, 2003, these accumulated losses amounted to $851 million. This is a decrease in the accumulated losses of $1,017 million as of June 30, 2002.

The return on the actuarial value will continue to lag the 8.0% investment return assumption until all the stored losses are recognized. In other words, the return on market value would have to exceed 8.0% by a large margin or for several years to eliminate the past losses.

SECTION III

LIABILITIES

In this section we present detailed information on liabilities of the State Employee and Teacher Plan including:

- **Disclosure** of Plan liabilities as measured at June 30, 2003 and June 30, 2002;
- Statement of **changes** in these liabilities during the year; and
- A **projection** of future liabilities.

Disclosure:

This report discloses three types of liabilities. Each liability has a specific purpose depending on the nature of the liability and the people ultimately using the information.

- **Total Future Obligations:** Used for analyzing the financial outlook of the Fund, this represents the amount of money needed today to fully pay off all future benefits and expenses of the Fund, assuming participants continue to accrue benefits.

- **Actuarial Liabilities:** Used for funding calculations and GASB disclosures, this liability is calculated by taking the Total Obligations above and subtracting the present value of future Member Contributions and future Employer Normal Costs under an acceptable actuarial funding method. The method employed for the State Employee and Teacher Plan 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 fund, 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 table below discloses each of these liabilities for the current, and prior, State Employee and Teacher Plan valuation. With respect to each disclosure, a subtraction of the appropriate value of Plan assets yields, for each respective type, a **net surplus** or an **unfunded liability.**

LIABILITIES/NET (SURPLUS) UNFUNDED	6/30/2003	6/30/2002
Total Obligations		
Active Participant Benefits	$ 6,376,031,676	$ 6,208,946,580
Retiree and Inactive Benefits	4,062,300,865	3,714,368,070
Total Obligations	**$ 10,438,332,541**	**$ 9,923,314,650**
Market Value of Assets	5,381,673,439	5,092,119,785
Future Member Contributions	822,225,055	810,325,166
Future State Contributions	4,234,434,047	4,020,869,699
Total Resources	**$ 10,438,332,541**	**$ 9,923,314,650**
Actuarial Liability		
Total Liabilities	$ 10,438,332,541	$ 9,923,314,650
Present Value of Future Normal		
Costs Under Entry Age Method	652,834,988	643,154,074
Present Value Of Future Member		
Contributions	822,225,055	810,325,166
Actuarial Liability	**$ 8,963,272,498**	**$ 8,469,835,410**
Actuarial Value of Assets	6,041,952,157	5,877,158,371
Net (Surplus) Unfunded	**$ 2,921,320,341**	**$ 2,592,677,039**
Accrued Liability		
Total Liabilities	$ 10,438,332,541	$ 9,923,314,650
Less Present Value of Future Benefit Accruals	(3,145,819,873)	(2,931,657,233)
Accrued Liability	**$ 7,292,512,668**	**$ 6,991,657,417**
Market Value of Assets	5,381,673,439	5,092,119,785
Net (Surplus) Unfunded	**$ 1,910,839,229**	**$ 1,899,537,632**

Changes in Liabilities:

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

- Benefits accrued since the last valuation
- 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
- New hires since the last valuation
- Plan amendments increasing benefits
- A change in actuarial or investment assumptions
- A change in the actuarial funding method

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

- Employer contributions different than expected;
- Investment earnings different than expected; and
- 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 the key changes in liabilities since the last valuation.

	$ in Millions		
	TOTAL OBLIGATION	ACTUARIAL LIABILITY	ACCRUED LIABILITY
Liabilities 6/30/2002	$ 9,923	$ 8,470	$ 6,992
Liabilities 6/30/2003	$ 10,438	$ 8,963	$ 7,293
Liability Increase (Decrease)	$ 515	$ 493	$ 301
Change due to:			
Plan Amendment	$ 0	$ 0	$ 0
Assumption Change	$ 0	$ 0	$ 0
Actuarial (Gain)/Loss	N/A	$ (15)	N/A
Benefits Accumulated and Other Sources	$ 515	$ 508	$ 301

ACTUARIAL LIABILITY
AS OF JUNE 30, 2003

	Total Plan	Teachers	State Regular	Special Plans
1. Actuarial Liabilities for:				
a. Active Members	$ 4,900,971,633	$ 3,383,388,945	$ 1,273,064,834	$ 244,517,854
b. Retired, Disabled and Beneficiary Members	3,878,586,652	2,239,526,660	1,387,678,167	251,381,825
c. Vested Deferred and Inactive Status Members	183,714,213	114,992,747	68,721,466	0
2. Total Actuarial Liability (1(a) + 1(b) + 1(c))	$ 8,963,272,498	$ 5,737,908,352	$ 2,729,464,467	$ 495,899,679
3. Actuarial Value of Assets	6,041,952,157	3,754,519,672	1,981,118,251	306,314,234
4. Unfunded Actuarial Liability (2 – 3)	$ 2,921,320,341	$ 1,983,388,680	$ 748,346,216	$ 189,585,445

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 properly fund the plan. Typically, the actuarial process will utilize a funding approach that will result in a pattern of contributions that is both stable and predictable.

For this Plan, the funding approach employed is the **Entry Age Normal Actuarial Cost Method**. Under this method there are two components to the total contribution, a **normal cost** and, given the Plan's unfunded actuarial liability, an **amortization payment**. A normal cost is determined as a percent of compensation for a typical new entrant. Each year's normal cost represents the cost to fund that portion of the total future obligations which has been allocated to the current year, based upon the actuarial cost method in use.

The amortization payment, on the other hand, is not calculated for individual participants but calculated for the Plan as a whole, and represents an annual installment to fund the **unfunded actuarial liability (UAL)** for the Plan. The UAL is the excess of the actuarial liability over the actuarial value of assets. The actuarial liability represents the amount of funds that would have been accumulated by the valuation date, had all prior normal costs been made, and all actuarial assumptions been realized.

In Appendix B we describe more fully this technical topic.

The table below presents and compares the actuarially determined contributions for the Plan for this valuation and the prior one, and includes a calculation of the average annual normal cost rate per participant for each year.

ACTUARIALLY DETERMINED CONTRIBUTION	7/1/2003	7/1/2002
Entry Age Normal Cost	6.17%	6.17%
Amortization Payment	11.09%	13.15%
Actuarially Determined Contribution	17.26%	19.32%

On the following pages we display the contribution rates developed for each of the member/plan groups within the Plan.

TABLE IV-1
STATE EMPLOYER CONTRIBUTION RATES
FISCAL YEAR 2005 – ENTRY AGE NORMAL

	Total State	Teachers	State Regular	State Police Marine Resources Inland Fish & Wildlife (Closed Plans)	Prison Employees	Liquor Inspectors	Forest Rangers	25 & Out Plan	1998 Special Plan
New Entrant Normal Cost Contributions as Percent of Payroll	6.17%	6.04%	6.04%	17.84%	9.04%	8.24%	7.34%	9.15%	6.89%
Unfunded Actuarial Liability Contribution as Percent of Payroll	11.09	11.83	9.25	27.32	13.84	12.62	11.24	14.01	10.55
Total Contributions as Percent of Payroll	17.26%	17.87%	15.29%	45.16%	22.88%	20.86%	18.58%	23.16%	17.44%

TABLE IV-2
DERIVATION OF UNFUNDED ACTUARIAL LIABILITY RATES

	Valuation Date June 30	Teachers	State Regular	State Police, Marine Resource & Inland Fish	Prison Employees	Liquor Inspectors	Forest Rangers	25 & Out Plan	1998 Special Plan
1.	Present Value of Future Benefits	6,708,227,205	3,161,760,335	245,677,359	46,907,271	4,636,824	23,754,647	62,265,608	185,103,292
2.	Normal Cost Rate	6.04%	6.04%	17.84%	9.04%	8.24%	7.34%	9.15%	6.89%
3.	Present Value of Future Payroll	7,087,792,938	3,157,749,222	1,274,519	2,509,270	309,635	2,802,557	140,350,987	297,194,377
4.	Present Value of Future Normal Cost (2) x (3)	428,102,693	190,728,053	227,374	226,838	25,514	205,708	12,842,115	20,476,693
5.	Present Value of Future Member Contributions	542,216,160	241,567,815	110,246	217,052	23,687	242,421	12,140,360	25,707,314
6.	Actuarial Liability: (1) – (4) – (5)	5,737,908,352	2,729,464,467	245,339,739	46,463,381	4,587,623	23,306,518	37,283,133	138,919,285
7.	Actuarial Value of Assets	3,754,519,672	1,981,118,251	213,400,155	42,757,993	4,196,091	20,644,887	(12,593,691)	37,908,798
8.	Unfunded Actuarial Liability: (6) – (7)	1,983,388,680	748,346,216	31,939,584	3,705,388	391,532	2,661,631	49,876,824	101,010,487
9.	Estimated Payroll	913,142,237	440,628,719	6,368,547	1,458,046	169,023	1,289,905	19,390,261	52,149,867
10.	Amortization Factor	18.3590	18.3590	18.3590	18.3590	18.3590	18.3590	18.3590	18.3590
11.	Unfunded Actuarial Liability Rate: (8)/(9)/(10)	11.83%	9.25%	27.32%	13.84%	12.62%	11.24%	14.01%	10.55%

SECTION V

ACCOUNTING STATEMENT INFORMATION

Two types of liabilities are disclosed for accounting purposes:

- **Statement No. 35 of the Financial Accounting Standards Board (FASB)** requires the Plans to disclose certain information regarding its funded status.
- **Statement No. 25 of the Governmental 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 liability as of the valuation date. The liability is determined as if contributions stopped and the 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 FASB-35 liability is compared to the market value of assets to determine the funding ratio.

The GASB 25 actuarial accrued liability is the same as the actuarial liability amount calculated for funding purposes. The GASB-25 liability is compared to the actuarial value of assets to determine the funding ratio.

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, and otherwise act 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 to the market value of the assets as of the valuation date must be provided. GASB Statement No. 25 requires the actuarial accrued liability to be compared with the actuarial value of assets for funding purposes. The relevant amounts as of June 30, 2003 are exhibited in Table V-1, Table V-2, and Table V-3. As directed by FASB-35, the liabilities shown in Section A of Table V-1 and Table V-2 do not include any projection for future service and salary. Finally, Table V-4 reconciles the FASB-35 liabilities determined as of the prior valuation, June 30, 2002, to the liabilities as of June 30, 2003.

TABLE V-1
ACCOUNTING STATEMENT INFORMATION
STATE EMPLOYEE AND TEACHER PLAN TOTAL

	2003	2002
A. FASB No. 35 Basis		
1. Present Value of Benefits Accrued to Date:		
a. Members Currently Receiving Payments	$ 3,878,586,652	$ 3,594,668,294
b. Former Vested Members	183,714,213	119,699,776
c. Active Members	3,230,211,803	3,277,289,347
2. Total Present Value of Accrued Benefits (1(a) + 1(b) + 1(c))	$ 7,292,512,668	$ 6,991,657,417
3. Assets at Market Value	5,381,673,439	5,092,119,785
4. Unfunded Value of Benefits (2) – (3)	$ 1,910,839,229	$ 1,899,537,632
5. Ratio of Assets to Value of Benefits (3)/(2)	73.80%	72.83%
B. GASB No. 25 Basis		
1. Actuarial accrued liabilities for retirees and beneficiaries currently receiving benefits and terminated employees not yet receiving benefits	$ 4,062,300,865	$ 3,714,368,070
2. Actuarial accrued liabilities for current employees	4,900,971,633	4,755,467,340
3. Total actuarial accrued liability (1)+(2)	$ 8,963,272,498	$ 8,469,835,410
4. Net actuarial assets available for benefits	6,041,952,157	5,877,158,371
5. Unfunded actuarial accrued liability (3)–(4)	$ 2,921,320,341	$ 2,592,677,039

TABLE V-2
ACCOUNTING STATEMENT INFORMATION – FASB NO. 35
AS OF JUNE 30, 2003

	Total System	Teachers	State Regular	State Special
1. Present Value of Benefits Accrued to Date:				
a. Members Currently Receiving Payments	$ 3,878,586,652	$ 2,239,526,660	$ 1,387,678,167	$ 251,381,825
b. Former Vested Members	183,714,213	114,992,747	68,721,466	0
c. Active Members	3,230,211,803	2,202,606,296	841,468,399	186,137,108
2. Total Present Value of Accrued Benefits (1(a) + 1(b) + 1(c))	$ 7,292,512,668	$ 4,557,125,703	$ 2,297,868,032	$ 437,518,933
3. Assets at Market Value	5,381,673,439	3,344,216,947	1,764,616,999	272,839,493
4. Unfunded Value of Accrued Benefits (2)–(3)	$ 1,910,839,229	$ 1,212,908,756	$ 533,251,033	$ 164,679,493
5. Ratio of Assets to Value of Accrued Benefits (3)/(2)	73.80%	73.38%	76.79%	62.36%

TABLE V-3
ACCOUNTING STATEMENT INFORMATION – GASB NO. 25
AS OF JUNE 30, 2003

	Total System	Teachers	State Regular	State Special
1. Actuarial Accrued Liability:				
a. Members Currently Receiving Payments	$ 3,878,586,652	$ 2,239,526,660	$ 1,387,678,167	$ 251,381,825
b. Former Vested Members	183,714,213	114,992,747	68,721,466	0
c. Active Members	4,900,971,633	3,383,388,945	1,273,064,834	244,517,854
2. Total Actuarial Accrued Liability (1(a) + 1(b) + 1(c))	$ 8,963,272,498	$ 5,737,908,352	$ 2,729,464,467	$ 495,899,679
3. Actuarial Value of Assets	6,041,952,157	3,754,519,672	1,981,118,251	306,314,234
4. Unfunded Actuarial Accrued Liability (2 – 3)	$ 2,921,320,341	$ 1,983,388,680	$ 748,346,216	$ 189,585,445
5. Funded Ratio (3/2)	67.41%	65.43%	72.58%	61.77%
6. Annual Payroll	$ 1,434,596,605	$ 913,142,237	$ 440,628,719	$ 80,825,649
7. UAAL as % of Payroll (4/6)	203.63%	217.20%	169.84%	234.56%

TABLE V-4
Statement of Changes in Total Actuarial Present Value of All Accrued Benefits for FASB 35 (in Millions)

Actuarial Present Value of Accrued Benefits at June 30, 2002	$ 6,992
Increase (Decrease) During years attributable to:	
Passage of Time (Interest Accrual)	545
Benefits Paid – FY 2003	(352)
Benefits Accrued, Other Gains/Losses	108
Plan Amendment	0
Net Increase (Decrease)	301
Actuarial Present Value of Accrued Benefits at June 30, 2003	$ 7,293

APPENDIX A

MEMBERSHIP INFORMATION

MAINE STATE RETIREMENT SYSTEM ACTIVE MEMBER DATA AS OF JUNE 30, 2003	
TEACHERS	
Count	28,329
Average Current Age	45.2
Average Service	13.7
Average Valuation Pay	$ 32,233
STATE REGULAR	
Count	12,611
Average Current Age	45.9
Average Service	13.0
Average Valuation Pay	$ 34,940
FOREST RANGERS (CLOSED PLAN)	
Count	28.0
Average Current Age	49.0
Average Service	25.5
Average Valuation Pay	$ 46,068
INLAND FISHERIES & WILDLIFE OFFICERS (CLOSED PLAN)	
Count	23
Average Current Age	52.3
Average Service	28.2
Average Valuation Pay	$ 49,575
LIQUOR INSPECTORS (CLOSED PLAN)	
Count	4.0
Average Current Age	53.0
Average Service	25.7
Average Valuation Pay	$ 42,256

MAINE STATE RETIREMENT SYSTEM ACTIVE MEMBER DATA AS OF JUNE 30, 2003	
PRISON EMPLOYEES (CLOSED PLAN)	
Count	33
Average Current Age	50.8
Average Service	23.6
Average Valuation Pay	$ 44,183
STATE POLICE (CLOSED PLAN)	
Count	75
Average Current Age	47.9
Average Service	22.8
Average Valuation Pay	$ 64,800
MARINE RESOURCES OFFICERS (CLOSED PLAN)	
Count	7
Average Current Age	49.7
Average Service	24.6
Average Valuation Pay	$ 52,615
25 & OUT PLAN	
Count	391
Average Current Age	36.2
Average Service	9.8
Average Valuation Pay	$ 49,591
1998 SPECIAL PLAN	
Count	1,361
Average Current Age	42.5
Average Service	9.8
Average Valuation Pay	$ 38,317

MAINE STATE RETIREMENT SYSTEM ACTIVE MEMBER DATA AS OF JUNE 30, 2003	
STATE TOTALS (EXCLUDES TEACHERS)	
Count	14,533
Average Current Age	45.4
Average Service	12.8
Average Valuation Pay	$35,881

MAINE STATE RETIREMENT SYSTEM
NON-ACTIVE MEMBER DATA AS OF JUNE 30, 2003
TEACHERS

	Count	Total Annual Benefit	Average Annual Benefit
Retired			
(Option 0-4)	9,044	$ 164,467,713	$ 18,185
(Option 4 Concurrent Beneficiary)	1,212	$ 5,193,749	$ 4,285
Disabilities/1122	6	$ 120,303	$ 20,051
Disabilities/3 and 3-A	745	$ 15,304,516	$ 20,543
Beneficiaries	751	$ 9,071,974	$ 12,080
Pre-Retirement Death Benefits	301	$ 1,483,042	$ 4,927
Terminated Vested	2,692	$ 16,087,094	$ 5,976

MAINE STATE RETIREMENT SYSTEM
NON-ACTIVE MEMBER DATA AS OF JUNE 30, 2003
STATE REGULAR

	Count	Total Annual Benefit	Average Annual Benefit
Retired			
(Option 0-4)	6,522	$ 96,785,437	$ 14,840
(Option 4 Concurrent Beneficiary)	1,122	$ 4,367,078	$ 3,892
Disabilities/1122	11	$ 172,078	$ 15,643
Disabilities/3 and 3-A	1,107	$ 17,016,326	$ 15,372
Beneficiaries	1,393	$ 13,612,320	$ 9,772
Pre-Retirement Death Benefits	539	$ 2,516,486	$ 4,669
Terminated Vested	1,487	$ 10,933,933	$ 7,353

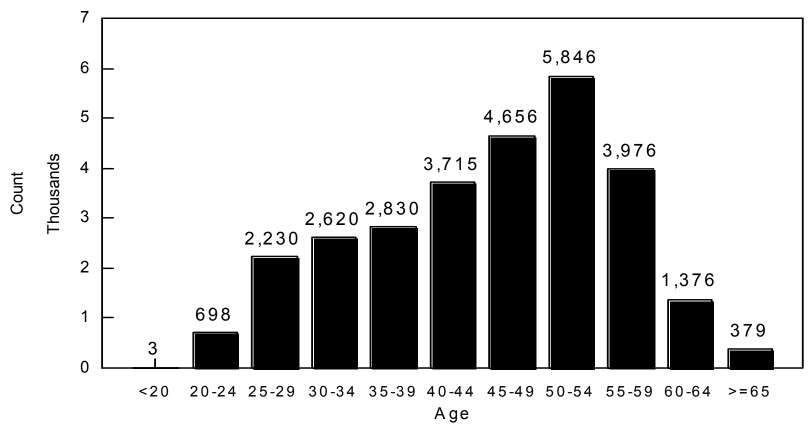
MAINE STATE RETIREMENT SYSTEM NON-ACTIVE MEMBER DATA AS OF JUNE 30, 2003 SPECIAL PLANS			
	Count	**Total Annual Benefit**	**Average Annual Benefit**
Retired			
(Option 0-4)	701	$ 17,445,289	$ 24,886
(Option 4 Concurrent Beneficiary)	150	$ 657,973	$ 4,386
Disabilities/1122	3	$ 45,612	$ 15,204
Disabilities/3 and 3-A	30	$ 563,516	$ 18,784
Beneficiaries	128	$ 1,558,970	$ 12,179
Pre-Retirement Death Benefits	3	$ 6,442	$ 2,147
Terminated Vested	0	$ 0	$ 0

MAINE STATE RETIREMENT SYSTEM
DISTRIBUTION OF ACTIVE MEMBERS
as of June 30, 2003

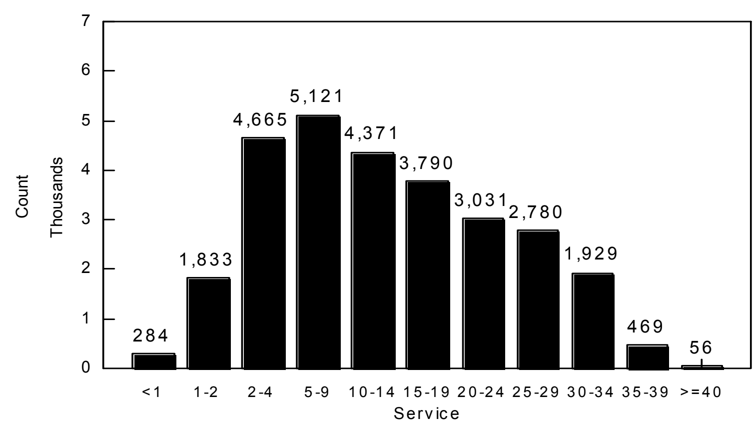
Teachers

	Years of Service											
Age	Under 1	1 TO 2	2 TO 4	5 TO 9	10 TO 14	15 TO 19	20 TO 24	25 TO 29	30 TO 34	35 TO 39	40 & UP	**Total**
Under 20	2	1										3
20 TO 24	57	288	321	32								698
25 TO 29	53	331	982	831	33							2,230
30 TO 34	28	247	581	1,022	740	2						2,620
35 TO 39	33	221	619	603	897	452	5					2,830
40 TO 44	32	238	691	717	567	906	560	4				3,715
45 TO 49	30	206	562	788	744	644	970	704	8			4,656
50 TO 54	28	156	471	612	810	886	694	1,341	839	9		5,846
55 TO 59	15	86	263	337	416	640	531	498	915	275		3,976
60 TO 64	6	38	111	116	126	213	224	195	143	172	32	1,376
65 & UP		21	64	63	38	47	47	38	24	13	24	379
Total	284	1,833	4,665	5,121	4,371	3,790	3,031	2,780	1,929	469	56	28,329

Age Distribution



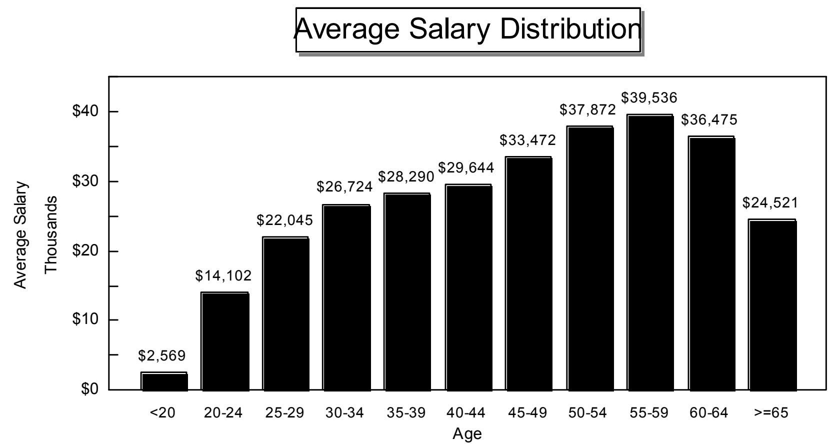
Service Distribution



MAINE STATE RETIREMENT SYSTEM
DISTRIBUTION OF ACTIVE MEMBERS
as of June 30, 2003

Teachers

Age	Under 1	1 TO 2	2 TO 4	5 TO 9	10 TO 14	15 TO 19	20 TO 24	25 TO 29	30 TO 34	35 TO 39	40 & UP	Total
	Average Salary Years of Service											
Under 20	2,599	2,509										$2,569
20 TO 24	4,687	12,931	16,403	18,335								$14,102
25 TO 29	7,219	16,688	22,537	24,365	26,515							$22,045
30 TO 34	8,774	17,833	22,667	28,400	31,253	22,964						$26,724
35 TO 39	6,058	15,253	20,709	27,329	34,060	36,338	42,891					$28,290
40 TO 44	4,173	13,271	19,681	24,551	33,073	38,033	39,738	42,114				$29,644
45 TO 49	5,491	16,156	19,684	24,746	31,573	38,700	42,450	45,245	43,591			$33,472
50 TO 54	12,385	18,557	22,275	27,526	32,276	38,006	42,272	45,941	47,273	44,308		$37,872
55 TO 59	11,026	17,817	22,814	27,631	32,744	37,634	41,779	45,947	48,511	47,368		$39,536
60 TO 64	3,971	10,038	15,152	25,428	29,737	35,167	40,928	42,254	46,411	48,460	48,006	$36,475
65 & UP		5,852	11,066	13,793	26,956	30,030	27,779	31,613	38,614	46,479	46,663	$24,521
Total	$6,813	$15,518	$20,778	$26,053	$32,334	$37,602	$41,451	$45,306	$47,673	$47,685	$47,430	$32,233

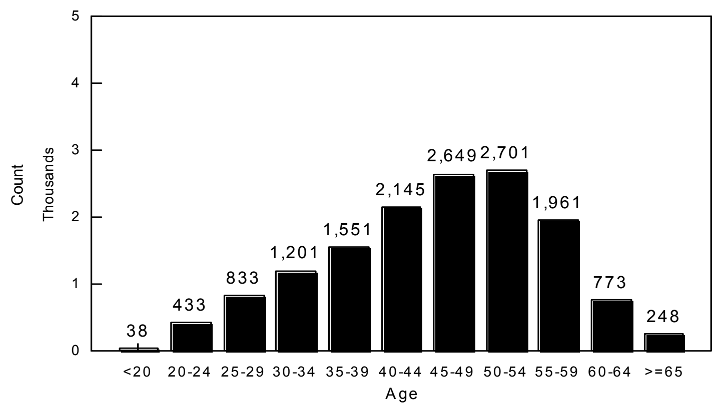


MAINE STATE RETIREMENT SYSTEM
DISTRIBUTION OF ACTIVE MEMBERS
as of June 30, 2003

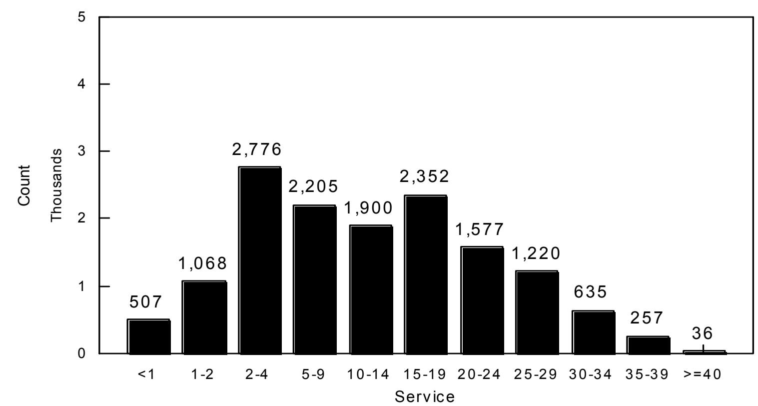
State

	Years of Service											
Age	Under 1	1 TO 2	2 TO 4	5 TO 9	10 TO 14	15 TO 19	20 TO 24	25 TO 29	30 TO 34	35 TO 39	40 & UP	Total
Under 20	24	13	1									38
20 TO 24	129	143	152	9								433
25 TO 29	76	165	417	170	5							833
30 TO 34	59	137	430	382	169	24						1,201
35 TO 39	49	121	390	348	315	316	12					1,551
40 TO 44	60	129	395	318	356	540	294	53				2,145
45 TO 49	46	134	379	359	346	524	448	371	42			2,649
50 TO 54	36	113	329	289	312	473	381	457	280	31		2,701
55 TO 59	18	76	196	194	256	287	294	243	232	162	3	1,961
60 TO 64	8	29	69	100	110	145	115	63	66	50	18	773
65 & UP	2	8	18	36	31	43	33	33	15	14	15	248
Total	507	1,068	2,776	2,205	1,900	2,352	1,577	1,220	635	257	36	14,533

Age Distribution



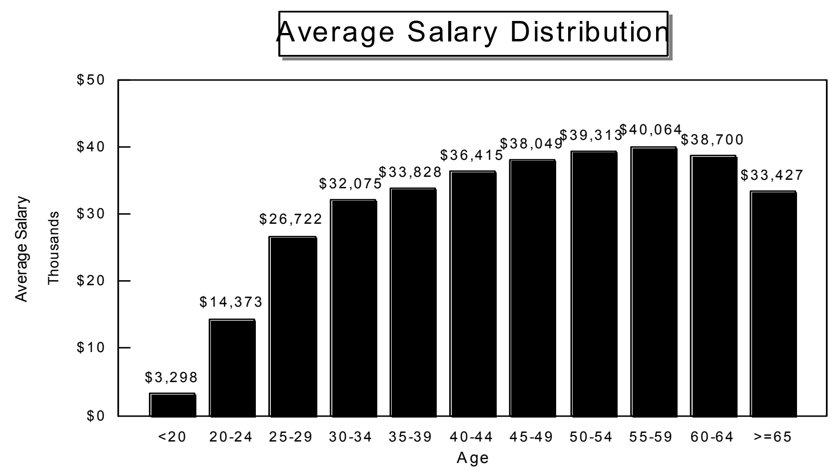
Service Distribution



MAINE STATE RETIREMENT SYSTEM
DISTRIBUTION OF ACTIVE MEMBERS
as of June 30, 2003

State

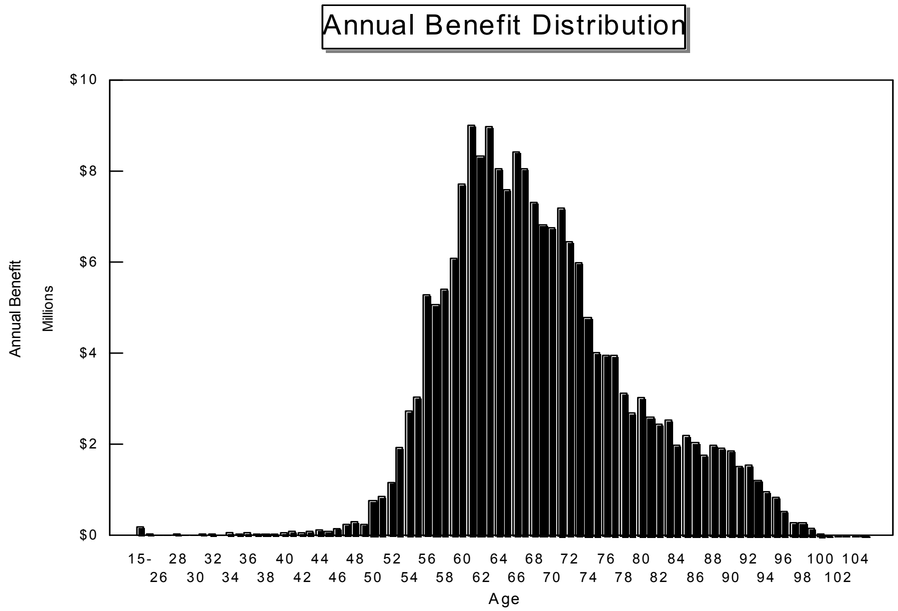
	Average Salary Years of Service											
Age	Under 1	1 TO 2	2 TO 4	5 TO 9	10 TO 14	15 TO 19	20 TO 24	25 TO 29	30 TO 34	35 TO 39	40 & UP	Total
Under 20	779	7,852	4,525									$3,298
20 TO 24	3,462	17,016	20,663	22,558								$14,373
25 TO 29	6,397	23,979	29,006	32,798	29,164							$26,722
30 TO 34	8,908	25,762	29,925	38,541	35,427	37,057						$32,075
35 TO 39	6,439	25,526	29,994	36,153	39,725	37,614	32,032					$33,828
40 TO 44	8,959	26,895	30,381	36,606	39,088	41,709	40,165	41,783				$36,415
45 TO 49	7,748	25,981	31,380	36,669	38,813	40,997	44,793	40,931	41,257			$38,049
50 TO 54	8,893	24,176	32,024	36,626	38,577	41,176	44,452	44,403	42,850	41,093		$39,313
55 TO 59	9,422	24,495	31,579	37,089	37,624	39,370	42,404	44,626	48,768	46,124	40,191	$40,064
60 TO 64	6,643	22,889	31,348	34,670	37,342	38,292	40,543	45,358	49,263	46,738	44,440	$38,700
65 & UP	39,644	13,193	17,660	26,007	36,445	30,118	33,929	36,492	44,669	38,862	59,209	$33,427
Total	$6,526	$23,805	$29,865	$36,313	$38,366	$40,138	$42,768	$43,113	$45,617	$45,241	$50,240	$35,881



MAINE STATE RETIREMENT SYSTEM
DISTRIBUTION OF RETIREES, DISABLED MEMBERS, BENEFICIARIES AND SURVIVORS
as of June 30, 2003

Teachers

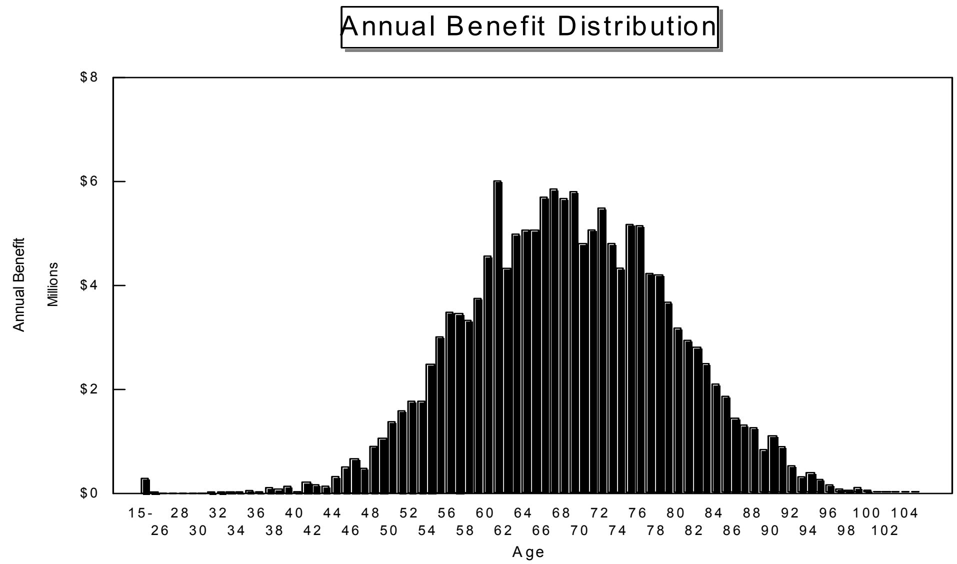
Age	Count	Annual Benefit	Age	Count	Annual Benefit
Under 25	54	$191,312	65	414	$7,600,981
25	2	12,923	66	477	8,409,808
26	2	3,150	67	450	8,056,907
27	1	8,028	68	417	7,324,810
28	2	12,116	69	434	6,833,339
29	0	0	70	402	6,760,107
30	1	3,536	71	429	7,200,694
31	3	14,126	72	406	6,449,846
32	4	19,291	73	389	5,977,488
33	0	0	74	340	4,797,236
34	9	43,003	75	288	4,006,822
35	1	16,453	76	273	3,963,066
36	7	63,860	77	291	3,964,240
37	4	36,149	78	243	3,131,085
38	5	24,112	79	211	2,688,941
39	5	21,934	80	240	3,053,212
40	4	58,671	81	203	2,596,573
41	7	96,004	82	204	2,454,191
42	7	64,145	83	205	2,550,773
43	9	95,426	84	166	2,007,166
44	10	115,354	85	169	2,222,512
45	8	84,348	86	153	2,051,236
46	13	158,065	87	149	1,788,275
47	14	226,254	88	148	1,986,368
48	18	294,279	89	136	1,925,298
49	21	252,432	90	149	1,883,313
50	42	756,277	91	113	1,540,127
51	50	863,925	92	108	1,568,400
52	76	1,158,394	93	87	1,224,479
53	118	1,944,896	94	81	988,302
54	156	2,738,142	95	62	854,387
55	175	3,036,904	96	35	555,777
56	277	5,283,895	97	26	293,235
57	267	5,051,925	98	26	306,234
58	264	5,393,060	99	16	194,059
59	318	6,095,498	100	4	49,490
60	385	7,700,182	101	3	11,488
61	433	9,012,048	102	0	0
62	442	8,332,610	103	0	0
63	457	8,981,845	104	1	7,375
64	437	8,061,420	over 104	3	37,657
			Total	12,059	$195,641,297



MAINE STATE RETIREMENT SYSTEM
DISTRIBUTION OF RETIREES, DISABLED MEMBERS,
BENEFICIARIES AND SURVIVORS
as of June 30, 2002

State

Age	Count	Annual Benefit	Age	Count	Annual Benefit
Under 25	76	$286,310	65	353	$5,047,860
25	4	21,746	66	385	5,690,743
26	2	11,878	67	396	5,841,816
27	3	6,627	68	395	5,668,046
28	2	5,702	69	425	5,781,642
29	2	4,994	70	365	4,800,965
30	1	1,474	71	395	5,049,538
31	5	28,377	72	390	5,469,605
32	7	42,733	73	368	4,798,479
33	3	24,816	74	350	4,319,654
34	8	21,115	75	406	5,161,667
35	9	53,560	76	393	5,132,478
36	6	46,288	77	352	4,203,513
37	15	118,392	78	352	4,189,587
38	13	98,176	79	330	3,650,140
39	13	130,064	80	280	3,150,879
40	11	39,900	81	278	2,918,597
41	25	208,215	82	263	2,788,162
42	17	155,913	83	237	2,472,042
43	12	138,381	84	208	2,073,996
44	27	321,354	85	189	1,847,689
45	42	494,214	86	151	1,432,876
46	57	658,977	87	140	1,294,081
47	41	472,053	88	137	1,227,227
48	62	907,157	89	90	832,088
49	72	1,048,426	90	96	1,075,096
50	85	1,362,180	91	94	876,961
51	103	1,571,875	92	68	518,778
52	123	1,775,205	93	37	294,334
53	113	1,762,658	94	39	363,794
54	158	2,463,796	95	24	245,446
55	170	3,013,356	96	14	133,473
56	214	3,485,072	97	12	50,844
57	209	3,447,784	98	7	32,994
58	177	3,310,748	99	9	71,375
59	238	3,741,576	100	2	38,842
60	266	4,539,015	101	1	3,510
61	339	6,001,931	102	4	16,208
62	267	4,327,071	103	1	3,428
63	335	4,961,447	104	0	0
64	340	5,063,006	over 104	1	5,518
			Total	11,709	$154,747,527



APPENDIX B
ACTUARIAL ASSUMPTIONS AND METHODS

Actuarial Assumptions

	State Employees	Teachers
1. Rate of Investment Return	8.0%	8.0%
2. Cost-of-Living Increases in Benefits	4.0%	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.

	Age	State Employees Service 0-1	State Employees Service 1-2	State Employees Service 2+	Teachers Service 0-1	Teachers Service 1-2	Teachers Service 2+
4. Rates of	20	25.0	17.5	18.8	33.0	24.0	18.8
Termination	25	25.0	17.5	12.5	27.5	24.0	12.5
(% at	30	25.0	17.5	10.0	27.5	24.0	10.4
Selected	35	25.0	17.5	7.5	27.5	24.0	8.3
Ages) *	40	25.0	17.5	5.0	27.5	24.0	6.1
	45	25.0	17.5	5.0	27.5	24.0	4.0
	50	25.0	17.5	5.0	27.5	24.0	4.0
	55	20.0	17.5	5.0	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*

	Age	Male	Female	Male	Female
5. Rates of Mortality	20	5	3	5	3
for Active Healthy	25	7	3	6	3
Lives and post-	30	9	4	7	3
7/1/1998 Retired	35	9	5	8	4
Healthy Lives at	40	12	8	10	6
selected Ages	45	17	10	14	9
(number of deaths	50	28	15	24	13
per 10,000	55	48	25	40	21
members)*	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.*

	Age	State Employees Male	State Employees Female	Teachers Male	Teachers Female
6. Rates of Mortality for pre-7/1/1998 Retired Healthy Lives at Selected Ages (number of deaths per 10,000 members)	20	5	3	5	2
	25	6	3	6	3
	30	8	5	7	4
	35	11	7	10	6
	40	16	9	14	8
	45	29	14	23	12
	50	53	22	42	18
	55	85	33	71	27
	60	131	55	109	44
	65	213	96	174	77
	70	361	165	292	129

	Age	Male	Female	Male	Female
7. Rates of Mortality for Future Disabled Lives and post-7/1/98 Retired Disabled Lives at Selected Ages (number of deaths per 10,000 members)	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

8. Rates of Mortality for pre-7/1/98 Retired Disabled Lives at Selected Ages (number of deaths per 10,000 members)

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

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	1000	1000

* *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	5.0
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 10 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.

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 System's normal cost, contributions are required to fund the System'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 System'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 over an 24 year period from July 1, 2003. The payments are determined so that they will be a level percentage of pay, assuming payroll increases 5.5% per year.

2. Asset Valuation Method

For purposes of this June 30, 2003 actuarial valuation, assets are valued at an "actuarial value" as described in Part II.

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 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 employed after 8/31/84 which include state prison employees, airplane pilots, forest rangers, inland fisheries and wildlife officers, marine resources officers, liquor inspectors and defense, veterans and emergency management firefighters employed at Bangor International Airport – 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.

3. Average Final Compensation

For purposes of determining benefits payable under the System, 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 10 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.

4. Creditable Service

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

5. Service Retirement Benefits

A. Regular Plan (State Employees and Teachers)

Eligibility for members with at least 10 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 10 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 5 years of creditable service and at least normal retirement age.

Benefit – 1/50 of average final compensation multiplied by years of membership service up to 25 years of prior service, reduced by approximately 2-1/4% for each year retirement age is less than age 60.

Form of payment – life annuity.

Eligibility for members with less than 10 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 10 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 5 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.

Form of payment - life annuity.

B. Special Plans (state employees)

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 – ½ 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.

Forest rangers employed before 9/1/84:

Eligibility – age 50 with 25 years of creditable service as a forest ranger.

Benefit – ½ 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.

Airplane pilots employed before 9/1/84:

Eligibility – age 55 and 25 years of creditable service as an airplane pilot.

Benefit – greater of (1) ½ 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.

Liquor inspectors employed before 9/1/84:

Eligibility – age 55 and 25 years of creditable service as a liquor inspector.

Benefit – ½ 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.

State prison employees employed before 9/1/84:

Eligibility – age 50 and 20 years of creditable service as a prison employee.

Benefit – ½ of average final compensation plus 2% for each year of service earned after qualification for retirement.

Form of payment – life annuity.

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.

Eligibility – 10 years of creditable service under the 1998 Special Plan in one or a combination of the covered capacities after June 30, 1998 (1998 entrants) or after December 31, 1999 (2000 entrants), 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 July 1, 1998 (1998 entrants) or prior to January 1, 2000 (2000 entrants), 1/50 of average final compensation multiplied by years of service reduced for retirement before age 60 or 62, except state police and certain prison employee benefits are reduced for retirement before age 55.

-AND-

for service starting on July 1, 1998 (1998 entrants) or on January 1, 2000 (2000 entrants), 1/50 of average final compensation multiplied by years of service reduced for retirement before age 55.

Form of payment – life annuity.

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, prior to normal retirement age; employed prior to October 16, 1992 and did not elect No Age Disability Benefits.

Benefit – 66-2/3% 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 10 years following normal retirement age or 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 66 2/3% of average final compensation or 10 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.

9. Pre-Retirement Accidental Death Benefits

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

Benefit – if the member leaves no dependent children, 2/3 of the member's average final compensation to the surviving spouse until death.

- 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 10 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.

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.