

***State Retirement and Pension
System of Maryland
Actuarial Valuation
as of June 30, 2002***

A MILLIMAN GLOBAL FIRM

November 2002



Milliman USA
Consultants and Actuaries

TABLE OF CONTENTS

Section	Page
Letter of Transmittal	(i)
I. Board Summary.....	I-1
II. Assets	II-1
III. Liabilities	III-1
IV. Contributions	IV-1
V. Accounting Statement Information	V-1

APPENDICES

A. Detailed Actuarial Information	A-1
B. Membership Information	B-1
C. Actuarial Assumptions and Methods	C-1
D. Summary of Plan Provisions.....	D-1



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

CORRESPONDENCE ADDRESS
323 W. Camden St., Ste. 400
Baltimore, MD 21201-2435
Tel +1 410 468.0420
Fax +1 410 468.0423
www.milliman.com

November 26, 2002

Board of Trustees
State Retirement and Pension
System of Maryland
120 East Baltimore Street
Baltimore, MD 21202

Dear Members of the Board:

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

The actuarial assumptions used in performing this valuation 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 2000. 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. To the extent that future experience deviates from these assumptions, the true cost of the plan could vary from our results. Since the prior valuation there have been only minor changes to plan benefit features that did not materially impact the overall contribution rate for the System. However, as will be discussed in the report there were changes in the actuarial methods and procedures that significantly impact the State contribution rate.

The assumptions and methods used in performing this valuation 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*.

In preparing our report we relied, without audit, on information (some oral and some written) supplied by the State Retirement Agency. This information includes, but is not limited to, plan provisions, employee data, and financial information. Census data provided to us by the Agency has been reviewed for reasonableness, and for consistency with the data certified by the System's auditors. It should be noted that if any data or other information is inaccurate or incomplete, our calculations may need to be revised.

Board of Trustees
State Retirement and Pension System of Maryland
November 26, 2002
Page 2

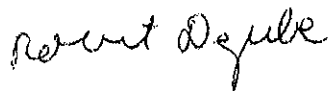
The funding objective of the plan is to establish contribution rates that over time will remain level, as a percentage of payroll, and pay-off the unfunded liability by the year 2020.

I, Robert S. Dezube, 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.

I hereby certify that, to the best of my 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



Robert S. Dezube, F.S.A.
Principal and Consulting Actuary

RSD/MSR/10

SECTION I

BOARD SUMMARY

BOARD SUMMARY

This report presents the results of the June 30, 2002 actuarial valuation of the State Retirement and Pension System of Maryland (SRPS). The primary purposes of performing the annual actuarial valuation are to:

- 1) **determine the contributions** to be paid by the State in Fiscal Year 2004;
- 2) **measure and disclose**, as of the valuation date, the financial condition of the fund;
- 3) **indicate trends** in the financial progress of the fund;
- 4) **provide specific information** and documentation required by the Government Accounting Standards Board (GASB).

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

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

Actuary's Comments

As a result of Systems assets earning a **negative 7.6%**, considerably below the 8% assumption, the System has a total unfunded actuarial liability of **\$1,808 million** as of June 30, 2002. This compares to a **\$555 million** unfunded liability measured at the June 30, 2001 valuation. In relative terms, the overall System funding ratio of assets to liabilities fell from **98.3%** in 2001, to **94.7%** this year. This funded status is substantially better than would have been expected when the State first established the goal to extinguish unfunded liabilities by the year 2020.

Thanks to asset smoothing method changes instituted by the Board in 2000, which discounted much of the prior decade's asset run-up, the impact of this year's investment performance was minimized. The actuarial, or smoothed, rate of return measured from this past year was a positive **3.5%**, or approximately 4.5% less than our assumption. This investment loss increased in the unfunded liability by **\$1,434 million** more than expected. Combined with a liability gain of **\$292 million**, the total System experienced a net actuarial loss of **\$1,142 million**.

In the last legislative session, and with an effective date of Fiscal Year 2003, the Legislature changed the method used to fund the two largest Systems of the SRPS. The Teachers Combined System and the State portion of the Employees Combined System are to be funded using a corridor method. Under this funding approach, the State appropriation is fixed at the June 30, 2000 valuation rate as long as the actuarial funded status of these Systems remains in a corridor of 90% funded to 110% funded. Once the ratio falls outside of this corridor, the appropriated rate will be adjusted towards the underlying actuarially calculated rate. The results of this valuation report

BOARD SUMMARY

disclose the actuarially calculated rate which will be used for purposes of disclosing the Annual Required Contribution rate under Government Accounting Standards Board Statement No. 25. The analysis in this report will focus on the actuarially determined rate but will strive to footnote the appropriated rate where applicable.

Finally, while the results are not on the favorable side this year, we emphasize again, as we have so often in the past, that financing of any retirement system 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 System's financial condition 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 System.

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

Prior Year Experience

ASSETS

Plan assets for this Fund are measured on both a market value and an actuarial or smoothed value basis. The actuarial smoothing method, described in detail in Appendix C, essentially reflects only 20% of a current year's actual market performance. In periods of high returns, this method significantly discounts the amount of asset gains above the assumed return of 8%. Conversely, in periods of returns below assumed, the losses are discounted. The primary advantage of this smoothing technique is contribution stability.

For the plan year ending June 30, 2002, while the Fund earned a negative 7.6% on a market value basis, on a smoothed basis, the return was a positive 3.5%. While on a market basis, the Fund experienced an investment loss of \$4,543 million, the actuarial or smoothed basis produced a loss of \$1,434 million. The specific changes between the prior year amounts and this year's are presented below.

Item (In Millions)	Market Value	Actuarial Value
June 30, 2001 value	\$ 29,482	\$ 31,915
Employer Contributions	581	581
Member Contributions	199	199
Benefit Payments	(1,464)	(1,464)
Expected Investment Earnings (8%)	2,332	2,526
Expected Value June 30, 2002	\$ 31,130	\$ 33,757
INVESTMENT GAIN (LOSS)	(4,543)	(1,434)
June 30, 2002 value	\$ 26,587	\$ 32,323

BOARD SUMMARY

LIABILITIES

Three different measures of liabilities are calculated for this fund: a total value of future obligations (PVB), an actuarial liability (EAN), and an accounting liability (PVAB). Section III of this report describes the development of each. Only the actuarial liability is analyzed in terms of a gain or loss experience, which then is used to determine the System's funding and accounting (GASB) disclosures. During the plan year ending in 2002, the actuarial liabilities experienced an overall gain of **\$292 million**, which is **0.8%** of the total actuarial liability being measured. The primary cause for liability experience being better than anticipated this past year, was a data correction in the way that post-retirement cost-of-living increases have been reported to us.

LIABILITIES (In Millions)	Total Value (PVB)	Actuarial (EAN)	Accounting (PVAB)
June 30, 2001	\$ 39,203	\$ 32,470	\$ 26,323
June 30, 2002	\$ 41,299	\$ 34,131	\$ 27,747

UNFUNDED LIABILITIES AND FUNDING RATIOS

The difference between assets and liabilities is the unfunded liability. This is measured in two ways: unfunded actuarial liabilities, which compare the actuarial liabilities to the actuarial asset value, and unfunded accrued benefits, which compare the present value of benefits accrued as of the valuation date to the market value of assets. These amounts are shown for June 30, 2001 and June 30, 2002, as well as the corresponding funding ratios for each (assets divided by liabilities).

	Actuarial	PVAB
6/30/2001 Net Surplus (Unfunded)	\$ 555	\$ (3,159)
Funding Ratio	98.3%	112.0%
6/30/2002 Net Surplus (Unfunded)	\$ 1,808	\$ 1,160
Funding Ratio	94.7%	95.8%

CONTRIBUTIONS

In Section IV, we show the various contribution rates by system. In this summary, we present overall the State contribution rate, and compare it to the rate developed in the June 30, 2001 actuarial valuation. In summary, due to the net impact of investment losses and liability gains, the overall System contribution requirement, payable in FY 2004, has increased by **0.74%** of payroll. It is important to note that this is not the contribution rate upon which the State will base its budget in either FY 2003 or FY 2004. This analysis compares the underlying cost calculations which will be used to disclose the State's pension expense for GASB reporting purposes. The actual appropriations are calculated on a Corridor Funding Method for the two largest plans. This approach produced payroll-weighted averages of **8.01%** at June 30, 2001, increasing to **8.06%** as of June 30, 2002.

Rate as Percent of Covered Payroll – GASB Disclosure	
June 30, 2001 State Rate	8.70%
Increase due to Plan Changes	0.00%
Increase due to Investment Loss	0.92%
Decrease due to Liability Gain	(0.18%)
June 30, 2002 State Rate	9.44%

Rate as Percent of Covered Payroll – Budget (Corridor Method)	
June 30, 2001 State Rate	8.01%
Increase in Systems not within the Corridor	0.02%
Increase due Shift in Payroll	0.03%
June 30, 2002 State Rate	8.06%

BOARD SUMMARY

MEMBERSHIP

There are four types of plan participants, current active workers, previous terminations who retain a right to a deferred vested benefit, previous terminations who are not vested but have member contributions in the System (inactives), and participants in pay status. In Appendix B, we present extensive details on membership statistics. Below, we compare totals in each group between June 30, 2001 and 2002.

As shown below, there was an overall increase in participation during the year of 3.2%.

	June 30, 2002	June 30, 2001	Change
Active Participants	190,123	184,600	3.0%
Terminated Vested Participants	30,733	29,365	4.7%
Inactive Participants	13,622	13,834	(1.5%)
Participants In Pay Status	87,367	84,185	3.8%
Total Participants	321,845	311,984	3.2%

Trends

One of the best ways to measure or evaluate the financial condition of a pension plan, is to examine the historical trends that are evolving. Below, we present three charts which present trend information from 1993 through the end of 2002, on the System's assets and liabilities, annual cash flows in and out of the fund, and the State contribution rate. Our comments on each follow.

Chart A: ASSET / LIABILITIES

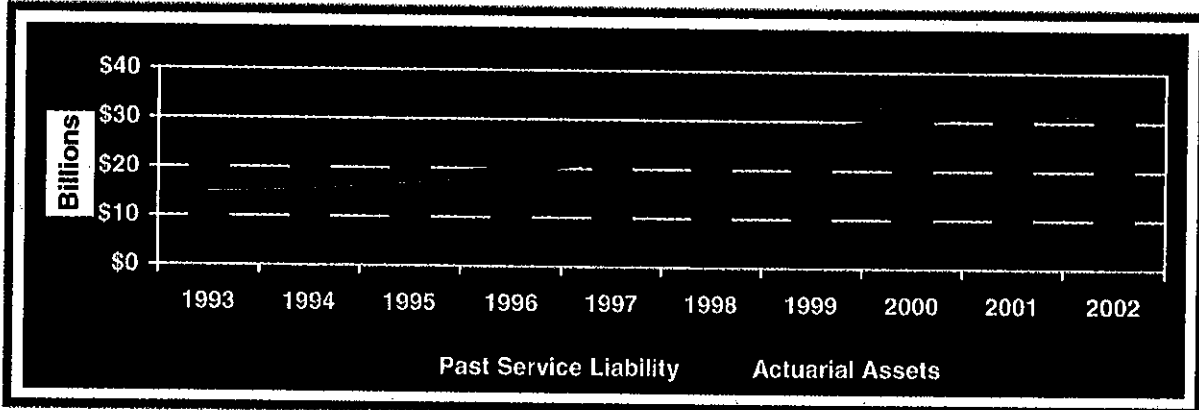


Chart B: CASH FLOWS

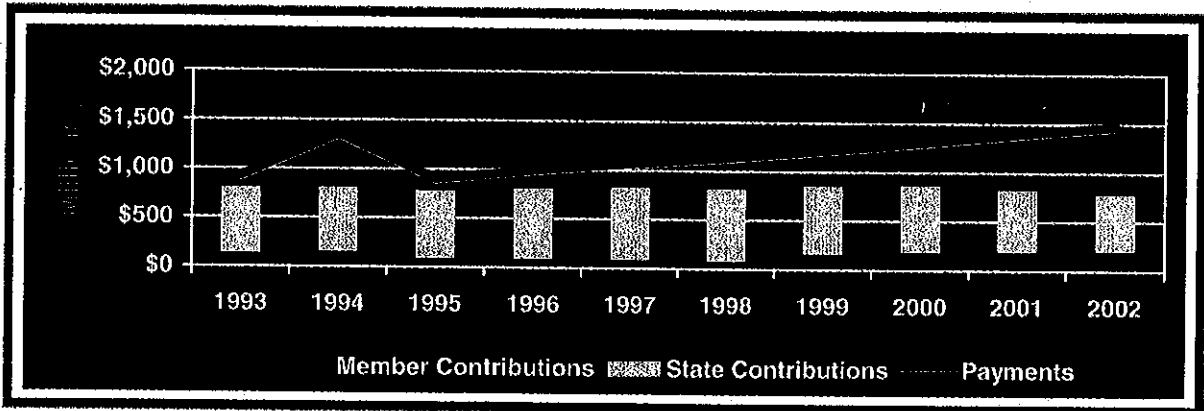
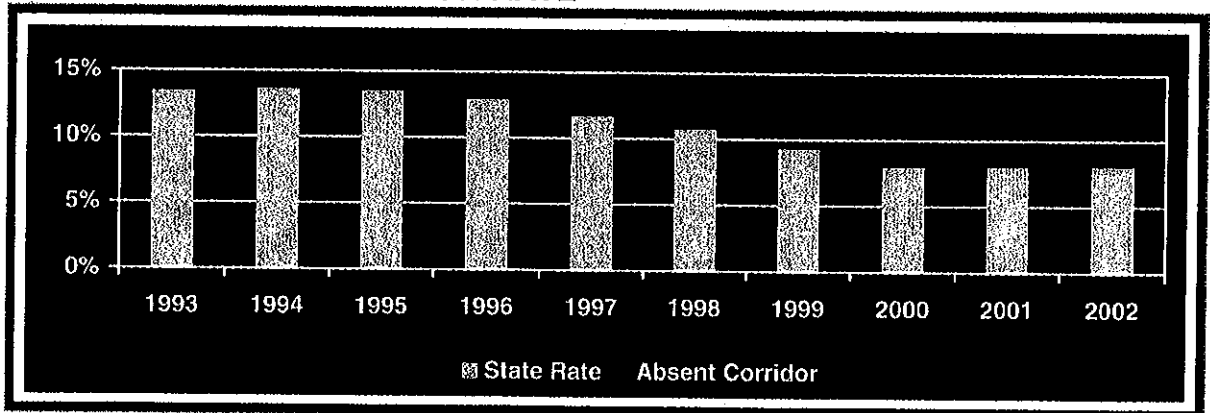


Chart C: STATE CONTRIBUTION RATE



Comments

BOARD SUMMARY

Chart A places into perspective the aforementioned investment and liability performance losses of this past year. The ratio of assets to liabilities (i.e., funding ratio), has continuously grown, not just over the period in the chart but since early 1980's. Despite the investment losses of the past two years, this year's funding ratio is still among the best ever for the State.

Chart B presents an emerging trend that will have investment implications. It is a trend being faced by many state-wide retirement systems, with the aging of our baby boomer generations. Payments to retirees are on the increase, while cash into the fund, from employer and employee contributions, are stable or declining. This is not unanticipated, and essentially explains the past need for total fund buildup.

Finally, Chart C, looks only at the State contribution rate which is used each year to determine the upcoming fiscal year State appropriation. It shows the impact of the past decade's sustained investment gains, a continuous lowering of the rate until 2000. Effective with the 2001 valuation, the State appropriations are performed under a corridor funding method for the two largest plans. The appropriation has remained essentially level since that time.

BOARD SUMMARY

TOTAL SRPS (STATE AND MUNICIPAL) SUMMARY OF PRINCIPAL PLAN RESULTS			
Valuation As Of -->	6/30/2002	6/30/2001	% change
PARTICIPANT COUNTS			
ACTIVES	190,123	184,600	3.0%
TERMINATED VESTEDS	30,733	29,365	4.7%
INACTIVES	13,622	13,834	-1.5%
IN PAY STATUS	<u>87,367</u>	<u>84,185</u>	3.8%
TOTAL	321,845	311,984	3.2%
Annual Salaries of Active Members	\$ 7,937,530,373	\$ 7,418,720,421	7.0%
Adjusted Annual Salaries of Active Members	\$ 7,867,794,200	\$ 7,255,035,610	8.4%
Annual Retirement Allowances for Retired Members and Beneficiaries	\$ 1,393,043,522	\$ 1,322,301,637	5.3%
ASSETS & LIABILITIES			
Total Actuarial Liability	\$ 34,131,284,012	\$ 32,469,941,793	5.1%
Assets for Valuation Purposes	<u>32,323,263,153</u>	<u>31,914,778,425</u>	1.3%
Unfunded Actuarial Liability	\$ 1,808,020,859	\$ 555,163,368	225.9%
Funding Ratio	94.7%	98.3%	N/A
Present Value of Accrued Benefits	\$ 27,747,088,286	\$ 26,322,956,731	5.4%
Market Value of Assets	<u>26,586,894,393</u>	<u>29,481,509,792</u>	9.8%
Unfunded FASB Accrued Liability	\$ 1,160,193,893	\$ (3,158,553,061)	136.7%
Accrued Benefit Funding Ratio	95.8%	112.0%	N/A
CONTRIBUTIONS AS % OF PAYROLL (STATE PORTION ONLY)			
	Fiscal Year 2004	Fiscal Year 2003	
Normal Cost Contribution	7.96%	7.96%	
Unfunded Actuarial Liability Contribution	<u>1.48</u>	<u>0.74</u>	
Total State Contribution	9.44%	8.70%	
Certified Rate Using Corridor Method	8.06%	8.01%	

BOARD SUMMARY

TOTAL SRPS (TEACHERS)			
SUMMARY OF PRINCIPAL PLAN RESULTS			
Valuation As Of -->	6/30/2002	6/30/2001	% change
PARTICIPANT COUNTS			
ACTIVES	96,356	93,297	3.3%
TERMINATED VESTEDS	11,416	11,084	3.0%
INACTIVES	6,624	6,253	5.9%
IN PAY STATUS	<u>41,920</u>	<u>40,126</u>	4.5%
TOTAL	156,316	150,760	3.7%
Annual Salaries of Active Members	\$ 4,426,831,826	\$ 4,092,041,875	8.2%
Adjusted Annual Salaries of Active Members	\$ 4,323,053,923	\$ 3,994,200,749	8.2%
Annual Retirement Allowances for Retired Members and Beneficiaries	\$ 857,620,744	\$ 814,309,146	5.3%
ASSETS & LIABILITIES			
Total Actuarial Liability	\$ 21,117,046,756	\$ 20,126,942,916	4.9%
Assets for Valuation Purposes	<u>19,424,000,237</u>	<u>19,182,748,593</u>	1.3%
Unfunded Actuarial Liability	\$ 1,693,046,519	\$ 944,194,323	79.3%
Funding Ratio	92.0%	93.5%	N/A
Present Value of Accrued Benefits	\$ 17,434,637,904	\$ 16,578,147,167	5.5%
Market Value of Assets	<u>16,052,071,028</u>	<u>17,757,484,649</u>	-9.6%
Unfunded FASB Accrued Liability	\$ 1,382,566,876	\$ (1,179,337,482)	217.2%
Accrued Benefit Funding Ratio	92.1%	107.1%	N/A
CONTRIBUTIONS AS % OF PAYROLL			
	Fiscal Year 2004	Fiscal Year 2003	
Normal Cost Contribution	8.10%	8.10%	
Unfunded Actuarial Liability Contribution	<u>2.38</u>	<u>1.77</u>	
Total State Contribution	10.48%	9.87%	
Certified Rate Using Corridor Method	9.35%	9.35%	

BOARD SUMMARY

TOTAL SRPS (EMPLOYEES COMBINED SYSTEM)			
SUMMARY OF PRINCIPAL PLAN RESULTS			
Valuation As Of -->	6/30/2002	6/30/2001	% change
PARTICIPANT COUNTS			
ACTIVES	90,306	87,986	2.6%
TERMINATED VESTEDS	19,274	18,238	5.7%
INACTIVES	6,902	7,508	-8.1%
IN PAY STATUS	<u>43,109</u>	<u>41,914</u>	2.9%
TOTAL	159,591	155,646	2.5%
Annual Salaries of Active Members	\$ 3,322,041,557	\$ 3,146,870,214	5.6%
Adjusted Annual Salaries of Active Members	\$ 3,356,670,791	\$ 3,084,858,658	8.8%
Annual Retirement Allowances for Retired Members and Beneficiaries	\$ 456,344,866	\$ 436,065,377	4.7%
ASSETS & LIABILITIES			
Total Actuarial Liability	\$ 11,385,748,668	\$ 10,789,907,444	5.5%
Assets for Valuation Purposes	<u>11,162,264,863</u>	<u>11,021,958,221</u>	1.3%
Unfunded Actuarial Liability	\$ 223,483,805	\$ (232,050,777)	196.3%
Funding Ratio	98.0%	102.2%	N/A
Present Value of Accrued Benefits	\$ 8,914,453,515	\$ 8,427,739,300	5.8%
Market Value of Assets	<u>9,147,398,773</u>	<u>10,163,468,197</u>	-10.0%
Unfunded FASB Accrued Liability	\$ (232,945,258)	\$ (1,735,728,897)	86.6%
Accrued Benefit Funding Ratio	102.6%	120.6%	N/A
CONTRIBUTIONS AS % OF PAYROLL (STATE PORTION ONLY)			
	Fiscal Year 2004	Fiscal Year 2003	
Normal Cost Contribution	6.15%	6.15%	
Unfunded Actuarial Liability Contribution	<u>0.47</u>	<u>(0.41)</u>	
Total State Contribution	6.62%	5.74%	
Certified Rate Using Corridor Method	4.73%	4.73%	

BOARD SUMMARY

TOTAL SRPS (POLICE)			
SUMMARY OF PRINCIPAL PLAN RESULTS			
Valuation As Of -->	6/30/2002	6/30/2001	% change
PARTICIPANT COUNTS			
ACTIVES	1,589	1,578	0.7%
TERMINATED VESTEDS	20	17	17.6%
INACTIVES	7	7	0.0%
IN PAY STATUS	<u>1,598</u>	<u>1,518</u>	5.3%
TOTAL	3,214	3,120	3.0%
Annual Salaries of Active Members	\$ 81,137,818	\$ 80,829,245	0.4%
Adjusted Annual Salaries of Active Members	\$ 83,141,520	\$ 79,382,508	4.7%
Annual Retirement Allowances for Retired Members and Beneficiaries	\$ 51,669,491	\$ 48,112,876	7.4%
ASSETS & LIABILITIES			
Total Actuarial Liability	\$ 1,030,575,150	\$ 993,846,504	3.7%
Assets for Valuation Purposes	<u>1,300,401,695</u>	<u>1,305,556,360</u>	-0.4%
Unfunded Actuarial Liability	\$ (269,826,545)	\$ (311,709,856)	13.4%
Funding Ratio	126.2%	131.4%	N/A
Present Value of Accrued Benefits	\$ 880,447,034	\$ 850,355,817	3.5%
Market Value of Assets	<u>1,029,851,036</u>	<u>1,191,212,970</u>	-13.5%
Unfunded FASB Accrued Liability	\$ (149,404,002)	\$ (340,857,153)	56.2%
Accrued Benefit Funding Ratio	117.0%	140.1%	N/A
CONTRIBUTIONS AS % OF PAYROLL			
	Fiscal Year 2004	Fiscal Year 2003	
Normal Cost Contribution	33.50%	33.50%	
Unfunded Actuarial Liability Contribution	<u>(25.92)</u>	<u>(27.72)</u>	
Total State Contribution	7.58%	5.78%	

BOARD SUMMARY

TOTAL SRPS (JUDGES AND SURVIVING SPOUSES) SUMMARY OF PRINCIPAL PLAN RESULTS			
Valuation As Of -->	6/30/2002	6/30/2001	% change
PARTICIPANT COUNTS			
ACTIVES	281	281	0.0%
TERMINATED VESTEDS	10	13	-23.1%
INACTIVES	0	0	0.0%
IN PAY STATUS	<u>311</u>	<u>297</u>	4.7%
TOTAL	602	591	1.9%
Annual Salaries of Active Members	\$ 32,609,995	\$ 31,308,984	4.2%
Adjusted Annual Salaries of Active Members	\$ 31,824,096	\$ 30,554,439	4.2%
Annual Retirement Allowances for Retired Members and Beneficiaries	\$ 17,222,280	\$ 16,348,558	5.3%
ASSETS & LIABILITIES			
Total Actuarial Liability	\$ 267,532,209	\$ 254,913,338	5.0%
Assets for Valuation Purposes	<u>234,558,099</u>	<u>229,022,330</u>	2.4%
Unfunded Actuarial Liability	\$ 32,974,110	\$ 25,891,008	27.4%
Funding Ratio	87.7%	89.8%	N/A
Present Value of Accrued Benefits	\$ 238,645,966	\$ 226,739,559	5.3%
Market Value of Assets	<u>192,192,005</u>	<u>211,168,347</u>	-9.0%
Unfunded FASB Accrued Liability	\$ 46,453,961	\$ 15,571,212	198.3%
Accrued Benefit Funding Ratio	80.5%	93.1%	N/A
CONTRIBUTIONS AS % OF PAYROLL			
	Fiscal Year 2004	Fiscal Year 2003	
Normal Cost Contribution	37.00%	37.00%	
Unfunded Actuarial Liability Contribution	<u>6.74</u>	<u>6.92</u>	
Total State Contribution	43.74%	43.92%	

BOARD SUMMARY

TOTAL SRPS (LAW ENFORCEMENT OFFICERS (LEOPS))			
SUMMARY OF PRINCIPAL PLAN RESULTS			
Valuation As Of -->	6/30/2002	6/30/2001	% change
PARTICIPANT COUNTS			
ACTIVES	1,410	1,318	7.0%
TERMINATED VESTEDS	8	9	11.1%
INACTIVES	58	40	45.0%
IN PAY STATUS	<u>403</u>	<u>309</u>	30.4%
TOTAL	1,879	1,676	12.1%
Annual Salaries of Active Members	\$ 67,543,310	\$ 61,930,821	9.1%
Adjusted Annual Salaries of Active Members	\$ 65,915,519	\$ 60,438,291	9.1%
Annual Retirement Allowances for Retired Members and Beneficiaries	\$ 9,683,261	\$ 7,042,118	37.5%
ASSETS & LIABILITIES			
Total Actuarial Liability	\$ 312,057,677	\$ 290,503,784	7.4%
Assets for Valuation Purposes	<u>191,099,965</u>	<u>165,478,453</u>	15.5%
Unfunded Actuarial Liability	\$ 120,957,712	\$ 124,825,331	-3.1%
Funding Ratio	61.2%	57.0%	N/A
Present Value of Accrued Benefits	\$ 266,438,611	\$ 230,671,777	15.5%
Market Value of Assets	<u>156,055,488</u>	<u>149,057,875</u>	4.7%
Unfunded FASB Accrued Liability	\$ 110,383,123	\$ 81,613,902	35.3%
Accrued Benefit Funding Ratio	58.6%	64.6%	N/A
CONTRIBUTIONS AS % OF PAYROLL (STATE PORTION ONLY)			
	Fiscal Year 2004	Fiscal Year 2003	
Normal Cost Contribution	23.15%	23.15%	
Unfunded Actuarial Liability Contribution	<u>11.98</u>	<u>12.95</u>	
Total State Contribution	35.13%	36.10%	

BOARD SUMMARY

TOTAL SRPS (LOCAL FIRE AND POLICE SYSTEM)				
SUMMARY OF PRINCIPAL PLAN RESULTS				
Valuation As Of -->	6/30/2002	6/30/2001	% change	
PARTICIPANT COUNTS				
ACTIVES	181	140	29.3%	
TERMINATED VESTEDS	5	4	25.0%	
INACTIVES	31	26	19.2%	
IN PAY STATUS	<u>26</u>	<u>21</u>	23.8%	
TOTAL	243	191	27.2%	
Annual Salaries of Active Members	\$ 7,365,867	\$ 5,739,282	28.3%	
Adjusted Annual Salaries of Active Members	\$ 7,188,351	\$ 5,600,965	28.3%	
Annual Retirement Allowances for Retired Members and Beneficiaries	\$ 502,880	\$ 423,562	18.7%	
ASSETS & LIABILITIES				
Total Actuarial Liability	\$ 18,323,552	\$ 13,827,807	40.8%	
Assets for Valuation Purposes	<u>10,938,294</u>	<u>9,814,468</u>	11.5%	
Unfunded Actuarial Liability	7,385,258	\$ 4,013,339	112.7%	
Funding Ratio	59.7%	71.0%	N/A	
Present Value of Accrued Benefits	\$ 12,465,256	\$ 9,303,111	34.0%	
Market Value of Assets	<u>9,326,064</u>	<u>9,117,752</u>	2.3%	
Unfunded FASB Accrued Liability	\$ 3,139,192	\$ 185,359	1,593.6%	
Accrued Benefit Funding Ratio	74.8%	98.0%	N/A	
CONTRIBUTIONS AS % OF PAYROLL (STATE PORTION ONLY)				
	Fiscal Year 2004	Fiscal Year 2003		
Normal Cost Contribution	N/A	11.15%		
Unfunded Actuarial Liability Contribution	<u>N/A</u>	<u>3.63</u>		
Total State Contribution	N/A	14.78%		

SECTION II

ASSETS

Pension plan assets play a key role in the financial operation of the plan and in the decisions the Trustees may 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 upon benefit levels, negotiated contributions, and the ultimate security of participants' benefits.

In this section we present detailed information on plan assets including:

- **Disclosure** of plan assets at June 30, 2002 and June 30, 2001;
- Statement of the **changes** in market values during the year;
- Development of the Actuarial Value of Assets; and
- An assessment of **investment performance**.

Disclosure:

Market values represent "snap-shot" or "cash-out" values which provide the principal basis for measuring financial performance from one year to the next. Market values, however, can fluctuate widely with corresponding swings in the market place. As a result, market values are usually not suitable for long range planning.

Actuarial values, or "carrying values," are market values which have been smoothed and are the actuary's best estimate of long term asset values. They are used for evaluating the Fund's ongoing ability to meet its obligations.

Current methods employed by this Fund set the actuarial values equal to the expected adjusted market value plus 20% of the difference between a smoothed value of assets and the actual market value.

Disclosure of Plan Market Value Of Assets

STATEMENT OF ASSETS AT MARKET VALUE		
	June 30,	
	2002	2001
INVESTMENTS		
Equities	\$ 16,958,356,282	\$ 19,832,595,179
Fixed Income	7,933,891,144	8,117,297,800
Real Estate	<u>1,620,379,089</u>	<u>1,474,433,257</u>
Total Investments	\$ 26,512,626,515	\$ 29,424,326,236
OTHER ASSETS		
Other Assets	\$ 74,267,878	\$ 57,183,555
Net Assets Available for Benefits	<u>\$ 26,586,894,393</u>	<u>\$ 29,481,509,791</u>

Changes in Market Value:

The components of asset change are:

- Contributions
- Benefit payments
- Expenses
- Investment Income (realized and unrealized)

The specific changes during 2002 are presented below:

CHANGES IN MARKET VALUES	
Value of Assets – JUNE 30, 2001	\$ 29,481,509,791
RECEIPTS	
Member Contributions	\$ 199,304,620
Employer Contributions	<u>581,371,006</u>
Total Receipts	\$ 780,675,626
DISBURSEMENTS	
Benefit Payments	\$ 1,464,071,434
Investment Returns	<u>2,211,219,590</u>
Total	\$ 3,675,291,024
TOTAL	
Value of Assets – June 30, 2002	\$ 26,586,894,393

Actuarial Value of Assets:

The Actuarial Value of Assets represents a "smoothed" value developed by the actuary to reduce, or eliminate, erratic results which could develop from short term ups and downs in the Market Value of Assets. For this Fund, the Actuarial Value has been calculated by adding 20% of any deviation from Market Value and Expected Adjusted Market Value to the Expected Adjusted Market Value. The following table illustrates the calculation of the Actuarial Value of Assets for the June 30, 2002 valuation.

DEVELOPMENT OF ACTUARIAL VALUE OF ASSETS AS OF JUNE 30, 2002		
1.	Actuarial Value of Assets at June 30, 2001	\$ 31,914,778,424
2.	Amount in (1) with interest to June 30, 2002	34,467,960,698
3.	Employer & member contributions for the Plan Year ended June 30, 2002	780,675,626
4.	Interest on Employer contributions assuming payments made uniformly throughout the year to June 30, 2002	30,626,283
5.	Disbursements from Trust except investment expenses, June 30, 2000 through June 30, 2002	1,464,071,434
6.	Interest on disbursements to June 30, 2002 at 8.00% per year	57,436,232
7.	Expected adjusted Market Value of Assets at June 30, 2002 = (2) + (3) + (4) - (5) - (6)	33,757,754,941
8.	Actual Market Value of Assets at June 30, 2002	26,586,894,393
9.	Excess of (8) over (7)	(7,170,860,548)
10.	Actuarial Value of Assets at June 30, 2002 = (7) + 20% of (9)	32,323,263,153

Investment Performance:

The Market Value of Assets (MVA) returned (7.59%) during 2002. This is lower than the assumed 8% and is due to the poor asset performance in 2002.

A return of 3.46% on the Actuarial Value of Assets (AVA) is primarily the result of the Asset Valuation method being utilized for the calculation of the Actuarial Value of Assets. Since only 20% of the "gain" from the performance of the Fund is recognized in a given year, in periods of very good performance, the AVA can lag significantly behind the MVA. However, due to the period of poor performance, we see the benefit of using an actuarial smoothing method, in that the AVA investment return remains stable compared to the final assumption and last year's return.

SECTION III

LIABILITIES

In this section we present detailed information on plan liabilities including:

- **Disclosure** of plan liabilities at June 30, 2002 and June 30, 2001;
- Statement of **changes** in these liabilities during the year; and
- A **projection** of future liabilities.

Disclosure:

Several types of liabilities are calculated and presented in this report. Each type is distinguished by the people ultimately using the figures, and the purpose for which they are using them.

- **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. 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 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.

LIABILITIES

The table below discloses each of these liabilities for the current, and prior, valuation. With respect to each disclosure, a subtraction of the appropriate value of Fund assets yields, for each respective type, a **net surplus** or an **unfunded liability**.

LIABILITIES/NET SURPLUS (UNFUNDED)	6/30/2002	6/30/2001
Total Obligations		
Active Participant Benefits	\$ 24,515,459,904	\$ 23,263,024,005
Retiree and Inactive Benefits	16,783,959,580	15,939,733,140
Total Obligations	\$ 41,299,419,484	\$ 39,202,757,145
Market Value of Assets	26,586,894,393	29,481,509,791
Future Member Contributions	1,602,937,253	1,526,172,376
Future State Contributions	13,109,587,838	8,195,074,978
Total Resources	\$ 41,299,419,484	\$ 39,202,757,145
Actuarial Liability		
Total Liabilities	\$ 41,299,419,484	\$ 39,202,757,145
Present Value of Future Normal Costs Under Entry Age Method	5,424,770,065	5,066,757,901
Present Value Of Future Member Contributions	1,602,937,657	1,526,172,376
Present Value of Future UAL Amounts	140,428,154	139,885,076
Actuarial Liability	\$ 34,131,284,012	\$ 32,469,941,792
Actuarial Value of Assets	32,323,263,153	31,914,778,424
Net (Surplus) Unfunded	1,808,020,859	\$ 555,163,368
Accrued Liability		
Total Liabilities	\$ 41,299,419,484	\$ 39,202,757,145
Less Present Value of Future Benefit Accruals	(13,552,331,198)	(12,879,800,414)
Accrued Liability	\$ 27,747,088,286	\$ 26,322,956,731
Market Value of Assets	26,586,894,393	29,481,509,791
Net (Surplus) Unfunded	\$ 1,160,193,893	\$ (3,158,553,060)

Changes in Liabilities:

Each of the liabilities disclosed in the prior table are expected to change at each valuation. The components of that change, 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 the above, and also due to changes in Fund assets resulting from:

- employer contributions different than expected
- investment earnings 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 fund. Below we present the key changes in liabilities since the last valuation.

	TOTAL OBLIGATION	\$ in Millions ACTUARIAL LIABILITY	ACCRUED LIABILITY
Liabilities 6/30/2001	\$ 39,203	\$ 32,470	\$ 26,323
Liabilities 6/30/2002	\$ 41,299	\$ 34,131	\$ 27,747
Liability Increase (Decrease)	\$ 2,096	\$ 1,661	\$ 1,424
Change due to:			
Plan Amendment	\$ 0	\$ 0	\$ 0
Assumption Change	\$ 0	\$ 0	\$ 0
Actuarial (Gain)/Loss	NA	\$ (292)	NA
Benefits Accumulated and Other Sources	\$ 2,096	\$ 1,954	\$ 1,424

LIABILITIES

ACTUARIAL LIABILITY BY EMPLOYER AS OF JUNE 30, 2002

	Total Systems	Teachers Retirement & Pension	Employees Retirement & Pension	State Police	Judges	LEOPS	Local Fire and Police
1. Actuarial Liabilities for:							
a. Active Members	\$ 17,347,324,432	\$ 10,461,601,239	\$ 6,087,551,577	\$ 458,619,498	\$ 121,747,171	\$ 205,038,559	\$ 12,766,388
b. Retired, Disabled and Beneficiary Members	16,188,035,658	10,368,658,244	4,998,349,431	569,053,442	141,812,561	104,716,451	5,445,529
c. Vested Deferred and Inactive Status Members	<u>595,923,922</u>	<u>286,787,273</u>	<u>299,847,660</u>	<u>2,902,210</u>	<u>3,972,477</u>	<u>2,302,667</u>	<u>111,635</u>
2. Total Actuarial Liability (1(a) + 1(b) + 1(c))	\$ 34,131,284,012	\$ 21,117,046,756	\$ 11,385,748,668	\$ 1,030,575,150	\$ 267,532,209	\$ 312,057,677	\$ 18,323,552
3. Actuarial Value of Assets	<u>32,323,263,153</u>	<u>19,424,000,237</u>	<u>11,162,264,863</u>	<u>1,300,401,695</u>	<u>234,558,099</u>	<u>191,099,965</u>	<u>10,938,294</u>
4. Unfunded Actuarial Liability (2 - 3)	\$ <u>1,808,020,859</u>	\$ <u>1,693,046,519</u>	\$ <u>223,483,805</u>	\$ <u>(269,826,545)</u>	\$ <u>32,974,110</u>	\$ <u>120,957,712</u>	\$ <u>7,385,258</u>

SECTION IV

CONTRIBUTIONS

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 maintain the funding status of the Plan. Typically, the actuarial process will utilize a funding scheme that will result in a pattern of contributions that are both stable and predictable.

For this Fund, the funding scheme employed is the **Entry Age Actuarial Cost Method**. Under this method there are two components to the total contribution, a **normal cost**, and an **amortization payment**. A normal cost is determined for each individual participant which, when added up for all participants, represents the Fund's total normal cost. 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 Fund as a whole, and represents an annual installment to fund the **unfunded actuarial liability (UAL)** for the Fund. The UAL represents the amount of additional 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 C we describe more fully this technical topic.

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

ACTUARIALLY DETERMINED CONTRIBUTION	7/1/2002	7/1/2001
Entry Age Normal Cost	7.96%	7.96%
Amortization Payment	<u>1.48%</u>	<u>0.74%</u>
Actuarially Determined Contribution	9.44%	8.70%

On the following pages we display the contribution rates developed for each System.

CONTRIBUTIONS

**TABLE IV-1
STATE CONTRIBUTION RATES
FISCAL YEAR 2004 - ENTRY AGE NORMAL**

	Total State	Teachers Retirement and Pension	State Employees Retirement and Pension	State Police	Judges	LEOPS
New Entrant Normal Contributions as Percent of Payroll	7.96%	8.10%	6.15%	33.50%	37.00%	23.15%
Unfunded Actuarial Liability Contribution as Percent of Payroll	<u>1.48</u>	<u>2.38</u>	<u>0.47</u>	<u>(25.92)</u>	6.74	11.98
Total Contributions as Percent of Payroll	<u>9.44%</u>	<u>10.48%</u>	<u>6.62%</u>	<u>7.58%</u>	<u>43.74%</u>	<u>35.13%</u>

CONTRIBUTIONS

**TABLE IV-2
TOTAL STATE CONTRIBUTION RATES BY SYSTEM
JUNE 30, 1989 – JUNE 30, 2002**

Valuation Date June 30	Total Systems	Teachers Combined	Employees Combined	State Police	Judges	LEOPS	Local Fire and Police
- 2002	9.44%	10.48%	6.62%	7.58%	43.74%	35.13%	N/A%
- 2001	8.70	9.87	5.74	5.78	43.92	36.10	N/A
- 2000	7.98	9.35	4.73	5.83	42.66	32.41	14.85
- 1999	9.31	10.95	5.71	8.44	46.75	23.38	15.00
- 1998	10.70	12.54	7.15	1.26	48.18	22.96	14.99
- 1997	11.67	13.99	7.13	10.91	52.12	25.60	16.42
- 1996	12.90	15.48	8.21	13.08	52.49	26.27	16.29
- 1995	13.50	16.09	8.54	17.65	52.56	35.15	16.19
- 1994	13.61	16.22	8.61	19.13	52.51	35.68	16.31
- 1993	13.43	15.92	8.70	19.36	52.84	34.07	16.17
- 1992	13.40	15.76	8.70	25.74	54.25	32.56	15.85
- 1991	13.89	16.31	9.15	28.72	54.98	33.58	15.43
- 1990	13.83	16.44	8.94	26.79	56.87	N/A	N/A
- 1989	14.00	16.58	9.19	28.64	56.26	N/A	N/A

SECTION V

**ACCOUNTING STATEMENT
INFORMATION**

ACCOUNTING STATEMENT INFORMATION

Statement No. 35 of the Financial Accounting Standards Board requires the System 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 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 on going 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 Statements 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 #25 requires the actuarial accrued liability be compared with the actuarial value of assets for funding purposes. The relevant amounts as of June 30, 2002 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, 2001, to the liabilities as of June 30, 2002.

ACCOUNTING STATEMENT INFORMATION

TABLE V-1
ACCOUNTING STATEMENT INFORMATION
THE TOTAL SYSTEMS OF THE STATE OF MARYLAND

	2002	2001
A. FASB #35 Basis		
1. Present Value of Benefits Accrued to Date:		
a. Members Currently Receiving Payments	\$ 16,188,035,658	\$ 15,373,574,031
b. Former Vested Members	595,923,922	566,159,109
c. Active Members	<u>10,963,128,706</u>	<u>10,383,223,591</u>
2. Total Present Value of Accrued Benefits (1(a) + 1(b) + 1(c))	<u>\$ 27,747,088,286</u>	<u>\$ 26,322,956,731</u>
3. Assets at Market Value	<u>\$ 26,586,894,393</u>	<u>\$ 29,481,509,792</u>
4. Unfunded Value to Value of Benefits (2 - 3)	\$ 1,160,193,893	\$ (3,158,553,061)
5. Ratio of Assets to Value of Benefits (3 / 2)	95.82%	112.00%
B. GASB #25 Basis		
1. Actuarial accrued liabilities for retirees and beneficiaries currently receiving benefits and terminated employees not yet receiving benefits	\$ 16,783,959,580	\$ 15,939,733,140
2. Actuarial accrued liabilities for current Employees	<u>17,347,324,432</u>	<u>16,530,208,653</u>
3. Total actuarial accrued liability (1 + 2)	\$ 34,131,284,012	\$ 32,469,941,793
4. Net actuarial assets available for benefits	<u>\$ 32,323,263,153</u>	<u>\$ 31,914,778,425</u>
5. Unfunded actuarial accrued liability (3 - 4)	<u>\$ 1,808,020,859</u>	<u>\$ 555,163,368</u>

ACCOUNTING STATEMENT INFORMATION

TABLE V-2 ACCOUNTING STATEMENT INFORMATION – FASB 35 AS OF JUNE 30, 2002

	Total Systems	Teachers' Retirement & Pension	Employees' Retirement & Pension	State Police	Judges	LEOPS	Local Fire and Police
1. Present Value of Benefits Accrued to Date:							
a. Members Currently Receiving Payments	\$16,188,035,658	\$10,368,658,244	\$ 4,998,349,431	\$ 569,053,442	\$ 141,812,561	\$ 104,716,451	\$ 5,445,529
b. Former Vested Members	595,923,922	286,787,273	299,847,660	2,902,210	3,972,477	2,302,667	111,635
c. Active Members	<u>10,963,128,706</u>	<u>6,779,192,387</u>	<u>3,616,256,424</u>	<u>308,491,382</u>	<u>92,860,928</u>	<u>159,419,493</u>	<u>6,908,092</u>
2. Total Present Value of Accrued Benefits (1(a) + 1(b) + 1(c))	\$27,747,088,286	\$17,434,637,904	\$ 8,914,453,515	\$ 880,447,034	\$ 238,645,966	\$ 266,438,611	\$ 12,465,256
3. Assets at Market Value	<u>26,586,894,393</u>	<u>16,052,071,028</u>	<u>9,147,398,773</u>	<u>1,029,851,036</u>	<u>192,192,005</u>	<u>156,055,488</u>	<u>9,326,064</u>
4. Unfunded Value of Accrued Benefits (2 - 3)	<u>\$ 1,160,193,893</u>	<u>\$ 1,382,566,876</u>	<u>\$ (232,945,258)</u>	<u>\$ (149,404,002)</u>	<u>\$ 46,453,961</u>	<u>\$ 110,383,123</u>	<u>\$ 3,139,192</u>
5. Ratio of Assets to Value of Accrued Benefits (3/2)	95.82%	92.07%	102.61%	116.97%	80.53%	58.57%	74.82%

ACCOUNTING STATEMENT INFORMATION

TABLE V-3 ACCOUNTING STATEMENT INFORMATION – GASB #25 AS OF JUNE 30, 2002

	Total Systems	Teachers' Retirement & Pension	Employees' Retirement & Pension	State Police	Judges	LEOPS	Local Fire and Police
1. Actuarial Accrued Liability:							
a. Active Member Contributions	\$ 1,858,783,727	\$ 1,119,166,041	\$ 643,932,069	\$ 68,082,985	\$ 18,671,880	\$ 8,795,781	\$ 134,971
b. Retirees, Term Vesteds & inactives	16,783,959,580	10,655,445,517	5,298,197,091	571,955,652	145,785,038	107,019,118	5,557,164
c. Active Members	<u>15,488,540,705</u>	<u>9,342,435,198</u>	<u>5,443,619,508</u>	<u>390,536,513</u>	<u>103,075,291</u>	<u>196,242,778</u>	<u>12,631,417</u>
2. Total Actuarial Accrued Liability (1(a) + 1(b) + 1(c))	\$34,131,284,012	\$21,117,046,756	\$ 11,385,748,668	\$1,030,575,150	\$ 267,532,209	\$ 312,057,677	\$ 18,323,552
3. Actuarial Value of Assets	32,323,263,153	19,424,000,237	11,162,264,863	1,300,401,695	234,558,099	191,099,965	10,938,294
4. Unfunded Actuarial Accrued Liability (2 - 3)	<u>\$ 1,808,020,859</u>	<u>\$ 1,693,046,519</u>	<u>\$ 223,483,805</u>	<u>\$ (269,826,545)</u>	<u>\$ 32,974,110</u>	<u>\$ 120,957,712</u>	<u>\$ 7,385,258</u>
5. Funded Ratio	94.70%	91.98%	98.04%	126.18%	87.67%	61.24%	59.70%
6. Annual Payroll	\$ 7,937,530,373	\$ 4,426,831,826	\$ 3,322,041,557	\$ 81,137,818	\$ 32,609,995	\$ 67,543,310	\$ 7,365,867
7. UAAL as % of Payroll	22.78%	38.25%	6.73%	(332.55%)	101.12%	179.08%	100.26%

ACCOUNTING STATEMENT INFORMATION

TABLE V-4
Statement of Changes in Total Actuarial
Present Value of All Accrued Benefits

(In millions)	Accumulated Benefit Obligation (FASB 35)
Actuarial Present Value of Accrued Benefits at June 30, 2000	\$ 26,323
Increase (Decrease) During years Attributable to:	
Passage of Time	2,048
Benefits Paid – FY 2001	(1,454)
Benefits Accrued, Other (Gains)/Losses	829
Plan Amendment	<u>1</u>
Net Increase (Decrease)	1,424
Actuarial Present Value of Accrued Benefits at June 30, 2001	<u>\$ 27,747</u>

APPENDIX A

DETAILED ACTUARIAL INFORMATION

APPENDIX A – DETAILED ACTUARIAL INFORMATION

STATE RETIREMENT AND PENSION SYSTEM OF MARYLAND (State Portion)		
	Actuarial Valuation Performed	
	June 30, 2002 (for FY 2004)	June 30, 2001 (for FY 2003)
1. Present value of projected benefits attributable to:		
a. Retired and disabled members, and beneficiaries.	\$ 15,329,954,487	\$ 14,556,927,768
b. Terminated vested members	552,614,162	524,433,950
c. Active members	<u>22,931,020,027</u>	<u>21,800,018,712</u>
d. Total present value	<u>\$ 38,813,588,676</u>	<u>\$ 36,881,380,430</u>
2. Present value of future earnings for present active members	\$ 63,535,719,472	\$ 59,396,814,372
3. Employer normal cost rate	7.96%	7.96%
4. Present value of Employer future normal costs	\$ 5,057,443,270	\$ 4,727,986,424
5. Present value of members' future contributions (incl. Extra 2%)	\$ 1,502,946,765	\$ 1,433,361,768
6. Present value of future special UAL contributions.	\$ 76,221,680	\$ 77,212,342
7. Total Actuarial Liability (1)d – (4) – (5) – (6)	\$ 32,176,976,961	\$ 30,642,819,896
8. Actuarial value of assets	<u>30,252,445,156</u>	<u>29,890,857,825</u>
9. Unfunded Actuarial Liability on valuation date (7) – (8)	\$ 1,924,531,805	\$ 751,962,071
10. Less Window Payments	<u>4,510,458</u>	<u>26,396,575</u>
11. UAL for Amortization (9) – (10)	<u>\$ 1,920,021,347</u>	<u>\$ 725,565,496</u>
12. Present value of future payroll for amortization purposes	\$ 129,731,172,100	\$ 101,616,496,081
13. Unfunded Liability Rate	1.48%	0.74%
14. TOTAL EMPLOYER CONTRIBUTION RATE (3) + (13)	9.44%	8.70%

APPENDIX A – DETAILED ACTUARIAL INFORMATION

STATE RETIREMENT AND PENSION SYSTEM OF MARYLAND (TEACHERS COMBINED SYSTEM)		
	Actuarial Valuation Performed	
	June 30, 2002 (for FY 2004)	June 30, 2001 (for FY 2003)
1. Present value of projected benefits attributable to:		
a. Retired and disabled members, and beneficiaries.	\$ 10,368,658,244	\$ 9,835,227,256
b. Terminated vested members	286,787,273	277,020,877
c. Active members	14,729,715,615	13,962,973,194
d. Total present value	<u>\$ 25,385,161,132</u>	<u>\$ 24,075,221,327</u>
2. Present value of future earnings for present active members	\$ 41,240,407,284	\$ 37,957,058,037
3. Employer normal cost rate	8.10%	8.10%
4. Present value of Employer future normal costs	\$ 3,340,472,990	\$ 3,074,521,701
5. Present value of members' future contributions (incl. Extra 2%)	\$ 927,641,386	\$ 873,756,710
6. Present value of future special UAL contributions.	\$ 0	\$ 0
7. Total Actuarial Liability (1)d – (4) – (5) – (6)	\$ 21,117,046,756	\$ 20,126,942,916
8. Actuarial value of assets	<u>19,424,000,237</u>	<u>19,182,748,593</u>
9. Unfunded Actuarial Liability on valuation date (7) – (8)	\$ 1,693,046,519	\$ 944,194,323
10. Less Window Payments	<u>0</u>	<u>0</u>
11. UAL for Amortization (9) – (10)	<u>\$ 1,693,046,519</u>	<u>\$ 944,194,323</u>
12. Present value of future payroll for amortization purposes	\$ 71,136,408,361	\$ 53,344,312,034
13. Unfunded Liability Rate	2.38%	1.77%
14. TOTAL EMPLOYER CONTRIBUTION RATE (3) + (13)	10.48%	9.87%

APPENDIX A – DETAILED ACTUARIAL INFORMATION

STATE RETIREMENT AND PENSION SYSTEM OF MARYLAND (EMPLOYEES' COMBINED SYSTEM)		
	Actuarial Valuation Performed	
	June 30, 2002 (for FY 2004)	June 30, 2001 (for FY 2003)
1. Present value of projected benefits attributable to:		
a. Retired and disabled members, and beneficiaries	\$ 4,147,488,434	\$ 3,987,723,320
b. Terminated vested members	256,667,329	238,718,584
c. Active members	<u>6,833,436,946</u>	<u>6,490,147,223</u>
d. Total present value	<u>\$ 11,237,592,709</u>	<u>\$ 10,716,589,127</u>
2. Present value of future earnings for present active members	\$ 19,839,982,455	\$ 19,257,598,748
3. Employer normal cost rate	6.15%	6.15%
4. Present value of Employer future normal costs	\$ 1,220,158,921	\$ 1,184,342,323
5. Present value of members' future contributions (incl. Extra 2%)	\$ 484,582,015	\$ 473,209,596
6. Present value of future special UAL contributions.	\$ 76,221,680	\$ 77,212,342
7. Total Actuarial Liability (1)d – (4) – (5) – (6)	\$ 9,456,630,093	\$ 8,981,824,866
8. Actuarial value of assets	<u>\$ 9,104,514,451</u>	<u>\$ 9,009,610,773</u>
9. Unfunded Actuarial Liability on valuation date (7) – (8)	\$ 352,115,642	\$ (27,785,907)
10. Less Window Payments	<u>4,510,458</u>	<u>26,396,575</u>
11. UAL for Amortization (9) – (10)	<u>\$ 347,605,184</u>	<u>\$ (54,182,482)</u>
12. Present value of future payroll for amortization purposes	\$ 74,981,221,702	\$ 6,777,050,488
13. Unfunded Liability Rate	0.47%	-0.41%
14. TOTAL EMPLOYER CONTRIBUTION RATE (3) + (13)	6.62%	5.74%

APPENDIX A – DETAILED ACTUARIAL INFORMATION

STATE RETIREMENT AND PENSION SYSTEM OF MARYLAND (STATE POLICE)		
	Actuarial Valuation Performed	
	June 30, 2002 (for FY 2004)	June 30, 2001 (for FY 2003)
1. Present value of projected benefits attributable to:		
a. Retired and disabled members, and beneficiaries.	\$ 569,053,442	\$ 528,967,554
b. Terminated vested members	2,902,210	2,585,592
c. Active members	<u>760,396,950</u>	<u>758,288,905</u>
d. Total present value	<u>\$ 1,332,352,602</u>	<u>\$ 1,289,842,051</u>
2. Present value of future earnings for present active members	\$ 726,873,746	\$ 712,942,075
3. Employer normal cost rate	33.50%	33.50%
4. Present value of Employer future normal costs	\$ 243,502,705	\$ 238,835,595
5. Present value of members' future contributions (incl. Extra 2%)	\$ 58,274,747	\$ 57,159,952
6. Present value of future special UAL contributions.	\$ 0	\$ 0
7. Total Actuarial Liability (1)d – (4) – (5) – (6)	\$ 1,030,575,150	\$ 993,846,504
8. Actuarial value of assets	<u>\$ 1,300,401,695</u>	<u>\$ 1,305,556,360</u>
9. Unfunded Actuarial Liability on valuation date (7) – (8)	\$ (269,826,545)	\$ (311,709,856)
10. Less Window Payments	<u>NA</u>	<u>NA</u>
11. UAL for Amortization (9) – (10)	<u>\$ (269,826,545)</u>	<u>\$ (311,709,856)</u>
12. Present value of future payroll for amortization purposes	\$ 1,040,997,473	\$ 1,124,494,430
13. Unfunded Liability Rate	-25.92%	-27.72%
14. TOTAL EMPLOYER CONTRIBUTION RATE (3) + (13)	7.58%	5.78%

APPENDIX A – DETAILED ACTUARIAL INFORMATION

STATE RETIREMENT AND PENSION SYSTEM OF MARYLAND (JUDGES)		
	Actuarial Valuation Performed	
	June 30, 2002 (for FY 2004)	June 30, 2001 (for FY 2003)
1. Present value of projected benefits attributable to:		
a. Retired and disabled members, and beneficiaries.	\$ 141,812,561	\$ 131,817,558
b. Terminated vested members	3,972,477	4,672,226
c. Active members	<u>261,199,576</u>	<u>250,336,233</u>
d. Total present value	<u>\$ 406,984,614</u>	<u>\$ 386,826,017</u>
2. Present value of future earnings for present active members	\$ 347,758,908	\$ 329,181,827
3. Employer normal cost rate	37.00%	37.00%
4. Present value of Employer future normal costs	\$ 128,670,796	\$ 121,797,276
5. Present value of members' future contributions (incl. Extra 2%)	\$ 10,781,609	\$ 10,115,403
6. Present value of future special UAL contributions.	\$ 0	\$ 0
7. Total Actuarial Liability (1)d – (4) – (5) – (6)	\$ 267,532,209	\$ 254,913,338
8. Actuarial value of assets	<u>\$ 234,558,099</u>	<u>\$ 229,022,330</u>
9. Unfunded Actuarial Liability on valuation date (7) – (8)	\$ 32,974,110	\$ 25,891,008
10. Less Window Payments	<u>NA</u>	<u>NA</u>
11. UAL for Amortization (9) – (10)	<u>\$ 32,974,110</u>	<u>\$ 25,891,008</u>
12. Present value of future payroll for amortization purposes	\$ 489,230,119	\$ 374,147,515
13. Unfunded Liability Rate	6.74%	6.92%
14. TOTAL EMPLOYER CONTRIBUTION RATE (3) + (13)	43.74%	43.92%

APPENDIX A – DETAILED ACTUARIAL INFORMATION

STATE RETIREMENT AND PENSION SYSTEM OF MARYLAND LEOPS (State Portion)		
	Actuarial Valuation Performed	
	June 30, 2002 (for FY 2004)	June 30, 2001 (for FY 2003)
1. Present value of projected benefits attributable to:		
a. Retired and disabled members, and beneficiaries	\$ 102,941,806	\$ 73,192,080
b. Terminated vested members	2,284,873	1,436,671
c. Active members	346,270,940	338,273,157
d. Total present value	<u>\$ 451,497,619</u>	<u>\$ 412,901,908</u>
2. Present value of future earnings for present active members	\$ 538,392,475	\$ 468,637,274
3. Employer normal cost rate	23.15%	23.15%
4. Present value of Employer future normal costs	\$ 124,637,858	\$ 108,489,529
5. Present value of members' future contributions (incl. Extra 2%)	\$ 21,667,008	\$ 19,120,107
6. Present value of future special UAL contributions.	\$ 0	\$ 0
7. Total Actuarial Liability (1)d – (4) – (5) – (6)	\$ 305,192,753	\$ 285,292,272
8. Actuarial value of assets	<u>\$ 188,970,674</u>	<u>\$ 163,919,769</u>
9. Unfunded Actuarial Liability on valuation date (7) – (8)	\$ 116,222,079	\$ 121,372,503
10. Less Window Payments	<u>NA</u>	<u>NA</u>
11. UAL for Amortization (9) – (10)	<u>\$ 116,222,079</u>	<u>\$ 121,372,503</u>
12. Present value of future payroll for amortization purposes	\$ 970,134,215	\$ 937,239,405
13. Unfunded Liability Rate	11.98%	12.95%
14. TOTAL EMPLOYER CONTRIBUTION RATE (3) + (13)	35.13%	36.10%

APPENDIX B

MEMBERSHIP INFORMATION

APPENDIX B – MEMBERSHIP INFORMATION

STATE RETIREMENT AND PENSION SYSTEM SUMMARY OF MEMBERSHIP DATA AS OF JUNE 30, 2002 COMBINED SYSTEMS

		Active Members		Retirees & Beneficiaries			Vested Former Members (includes inactive)	Total Counts
		Count	Salary	Count	Benefits	Avg Age	Count	
Teachers' Retirement	Total	9,270	\$ 619,092,628					
	Vested	9,269	\$ 619,056,441					
	Non-vested	1	\$ 36,187	29,989	\$ 705,052,669	72.1	1,643	40,902
Teachers' Pension	Total	87,086	\$ 3,807,739,198					
	Vested	52,338	\$ 2,660,214,881					
	Non-vested	34,748	\$ 1,147,524,317	11,931	\$ 152,568,075	64.9	16,397	115,414
Employees Retirement	Total	11,722	\$ 474,071,864					
	Vested	8,974	\$ 393,875,867					
	Non-vested	2,748	\$ 80,195,997	24,904	\$ 330,848,059	72.9	1,331	37,957
Employees Pension	Total	78,584	\$ 2,847,969,693					
	Vested	49,121	\$ 1,972,099,868					
	Non-vested	29,463	\$ 875,869,825	18,205	\$ 125,496,807	65.6	24,845	121,634
State Police	Total	1,589	\$ 81,137,818					
	Vested	1,186	\$ 67,365,456					
	Non-vested	403	\$ 13,772,362	1,598	\$ 51,669,491	58.4	27	3,214
Judges	Total	281	\$ 32,609,995					
	Vested	281	\$ 32,609,995					
	Non-vested	0	\$ 0	311	\$ 17,222,280	76.7	10	602
LEOPS	Total	1,410	\$ 67,543,310					
	Vested	966	\$ 51,058,418					
	Non-vested	444	\$ 16,484,892	403	\$ 9,683,261	57.3	66	1,879
Local F & P	Total	181	\$ 7,365,867					
	Vested	123	\$ 5,577,977					
	Non-vested	58	\$ 1,787,890	26	\$ 502,880	50.6	36	243
Total Systems -	Total	190,123	\$ 7,937,530,373					
	Vested	122,258	\$ 5,801,858,903					
	Non-Vested	67,865	\$ 2,135,671,470	87,367	\$1,393,043,522	69.7	44,355	321,845

APPENDIX B – MEMBERSHIP INFORMATION

STATE RETIREMENT AND PENSION SYSTEM SUMMARY OF MEMBERSHIP DATA AS OF JUNE 30, 2002 MUNICIPAL CORPORATIONS

		Active Members		Retirees & Beneficiaries			Vested Former Members (includes inactives)	Total Counts
		Count	Salary	Count	Benefits	Avg Age	Count	
Employees	Total	884	\$ 37,645,662					
Retirement	Vested	884	\$ 37,645,662					
	Non-vested	0	\$ 0	5,042	\$ 51,562,772	74.6	157	6,083
Employees'	Total	22,763	\$ 705,560,302					
Pension	Vested	12,889	\$ 465,443,480					
	Non-vested	9,874	\$ 240,116,822	4,825	\$ 28,581,015	66.0	5,203	32,791
LEOPS	Total	44	\$ 1,615,570					
	Vested	29	\$ 1,196,668					
	Non-vested	15	\$ 418,902	8	\$ 175,184	57.0	2	54
Local F & P	Total	181	\$ 7,365,867					
	Vested	123	\$ 5,577,977					
	Non-vested	58	\$ 1,787,890	26	\$ 502,880	50.6	36	243
Total Systems -	Total	23,872	\$ 752,187,401					
	Vested	13,925	\$ 509,863,787					
	Non-Vested	9,947	\$ 242,323,614	9,901	\$ 80,821,851	70.3	5,398	39,171

APPENDIX B – MEMBERSHIP INFORMATION

STATE RETIREMENT AND PENSION SYSTEM SUMMARY OF MEMBERSHIP DATA AS OF JUNE 30, 2002 STATE ONLY

		Active Members		Retirees & Beneficiaries			Vested Former Members (includes inactive)	Total Counts
		Count	Salary	Count	Benefits	Avg. Age	Count	
Teachers' Retirement	Total	9,270	\$ 619,092,629					
	Vested	9,269	\$ 619,056,441					
	Non-vested	1	\$ 36,187	29,989	\$ 705,052,669	72.1	1,643	40,902
Teachers' Pension	Total	87,086	\$ 3,807,739,198					
	Vested	52,338	\$ 2,660,214,881					
	Non-vested	34,748	\$ 1,147,524,317	11,931	\$ 152,568,075	64.9	16,397	115,414
Employees Retirement	Total	10,838	\$ 436,426,202					
	Vested	8,090	\$ 356,230,205					
	Non-vested	2,748	\$ 80,195,997	19,862	\$ 279,285,287	72.4	1,174	31,874
Employees Pension	Total	55,821	\$ 2,142,409,391					
	Vested	36,232	\$ 1,506,656,388					
	Non-vested	19,589	\$ 635,753,003	13,380	\$ 96,915,792	65.5	19,642	88,843
State Police	Total	1,589	\$ 81,137,818					
	Vested	1,186	\$ 67,365,456					
	Non-vested	403	\$ 13,772,362	1,598	\$ 51,669,491	58.4	27	3,214
Judges	Total	281	\$ 32,609,996					
	Vested	281	\$ 32,609,996					
	Non-vested	0	\$ 0	311	\$ 17,222,280	76.7	10	602
LEOPS	Total	1,366	\$ 65,927,740					
	Vested	937	\$ 49,861,750					
	Non-vested	429	\$ 16,065,990	395	\$ 9,508,077	57.3	64	1,825
Total Systems	Total	166,251	\$ 7,185,342,972					
	Vested	108,333	\$ 5,292,395,116					
	Non-Vested	57,918	\$ 1,893,347,856	77,466	\$ 1,312,221,671	69.6	38,957	282,674

APPENDIX B – MEMBERSHIP INFORMATION

STATE RETIREMENT AND PENSION SYSTEM OF MARYLAND MEMBERSHIP STATISTICS June 30, 2002				
System	Count	Average Age	Average Service	Average Salary
Teachers' Retirement	9,270	55.0	27.992	\$ 66,785
Teachers' Pension	87,086	42.8	10.049	43,724
Employees' Retirement – State	3,590	54.0	27.613	49,182
Employees' Retirement – Municipal	884	55.3	27.374	42,586
Employees' Retirement – Legislators	186	55.8	11.284	30,689
Employees' Retirement – Correctional Officers	7,062	38.5	8.832	35,989
Employees' Retirement – Total	11,722	44.8	16.021	40,443
Employees' Pension – State	55,821	45.4	7.644	38,380
Employees' Pension – Municipal	22,763	45.5	9.243	30,996
Employees' Pension – Total	78,584	45.4	11.004	36,241
State Police	1,589	35.6	11.559	51,062
Judges	281	55.4	9.520	116,050
LEOPS – State	1,366	39.9	11.523	48,263
LEOPS – Municipal	44	35.0	9.746	36,717
LEOPS – Total	1,410	39.7	11.468	47,903
Local P & F	181	36.9	12.209	40,696
TOTAL SYSTEMS	190,123	44.5	11.839	41,749
		Teachers	State and Municipal Employees	
	Count	Earnings	Count	Earnings
Unlimited COLA	6,416	\$ 433,203,379	2,864	\$ 136,592,199
5% COLA Cap	1,898	123,157,115	1,319	63,322,549
Bifurcate	956	62,732,134	291	14,291,779
	<u>9,270</u>	<u>\$ 619,092,628</u>	<u>4,474</u>	<u>\$ 214,206,527</u>

APPENDIX B – MEMBERSHIP INFORMATION

Active Membership - Age Distributions

Total Systems 2002			
Age	Number of People	Total Salary	Average Salary
Under 20	123	\$2,792,680	\$22,705
20 To 24	4,436	\$129,338,680	\$29,157
25 To 29	14,832	\$503,754,813	\$33,964
30 To 34	26,052	\$858,990,131	\$32,972
35 To 39	19,900	\$779,297,131	\$39,161
40 To 44	23,771	\$945,836,211	\$39,790
45 To 49	29,313	\$1,268,884,617	\$43,287
50 To 54	32,683	\$1,588,900,660	\$48,616
55 To 59	23,610	\$1,161,050,040	\$49,176
60 To 64	11,107	\$515,544,976	\$46,416
65 & UP	4,296	\$183,140,439	\$42,630
Totals	190,123	\$7,937,530,378	\$41,749

Teachers' Retirement

Age	All Years	
	Count	Salary
Under 20	0	\$0
20 To 24	0	\$0
25 To 29	0	\$0
30 To 34	0	\$0
35 To 39	0	\$0
40 To 44	38	\$1,712,630
45 To 49	1,345	\$84,319,338
50 To 54	3,379	\$228,709,397
55 To 59	2,688	\$182,825,751
60 To 64	1,306	\$86,843,704
65 & UP	514	\$34,681,809
Totals	9,270	\$619,092,629

Teachers' Pension

Age	All Years	
	Count	Salary
Under 20	41	\$928,536
20 To 24	2,662	\$83,859,943
25 To 29	9,778	\$347,453,230
30 To 34	14,717	\$517,994,986
35 To 39	8,671	\$369,688,366
40 To 44	9,490	\$404,741,218
45 To 49	12,099	\$552,439,526
50 To 54	14,407	\$742,576,732
55 To 59	9,941	\$526,963,822
60 To 64	3,970	\$202,517,280
65 & UP	1,310	\$58,575,569
Totals	87,086	\$3,807,739,198

APPENDIX B – MEMBERSHIP INFORMATION

Employees' Retirement State Regular

Age	All Years	
	Count	Salary
Under 20	0	\$0
20 To 24	0	\$0
25 To 29	0	\$0
30 To 34	0	\$0
35 To 39	0	\$0
40 To 44	155	\$6,139,228
45 To 49	751	\$33,803,146
50 To 54	1,138	\$57,830,611
55 To 59	921	\$47,320,523
60 To 64	453	\$22,541,217
65 & UP	172	\$8,926,142
Totals	3,590	\$176,560,867

Employees' Retirement Municipal

Age	All Years	
	Count	Salary
Under 20	0	\$0
20 To 24	0	\$0
25 To 29	0	\$0
30 To 34	0	\$0
35 To 39	0	\$0
40 To 44	54	\$2,357,668
45 To 49	175	\$8,196,265
50 To 54	179	\$8,902,532
55 To 59	214	\$9,210,570
60 To 64	179	\$6,440,663
65 & UP	83	\$2,537,964
Totals	884	\$37,645,662

Employees' Retirement Legislative

Age	All Years	
	Count	Salary
Under 20	0	\$0
20 To 24	0	\$0
25 To 29	0	\$0
30 To 34	9	\$276,747
35 To 39	8	\$245,997
40 To 44	15	\$461,245
45 To 49	21	\$645,742
50 To 54	26	\$768,741
55 To 59	33	\$1,014,738
60 To 64	28	\$870,749
65 & UP	46	\$1,424,242
Totals	186	\$5,708,201

Employees' Retirement Correctional Officers

Age	All Years	
	Count	Salary
Under 20	2	\$64,881
20 To 24	239	\$6,716,337
25 To 29	768	\$23,788,595
30 To 34	1,652	\$51,969,003
35 To 39	1,352	\$50,437,939
40 To 44	1,263	\$49,462,930
45 To 49	897	\$35,937,264
50 To 54	546	\$21,799,066
55 To 59	257	\$10,473,850
60 To 64	78	\$3,181,346
65 & UP	8	\$325,935
Totals	7,062	\$254,157,136

Employees' Pension State Regular

Age	All Years	
	Count	Salary
Under 20	32	\$825,385
20 To 24	838	\$21,170,488
25 To 29	2,916	\$90,696,761
30 To 34	6,456	\$194,801,381
35 To 39	6,333	\$235,620,137
40 To 44	8,507	\$330,888,173
45 To 49	9,780	\$397,318,179
50 To 54	9,493	\$397,852,430
55 To 59	6,863	\$287,293,958
60 To 64	3,371	\$135,838,145
65 & UP	1,232	\$50,104,355
Totals	55,821	\$2,142,409,392

Employees' Pension Municipal

Age	All Years	
	Count	Salary
Under 20	39	\$775,344
20 To 24	539	\$12,420,644
25 To 29	998	\$26,673,237
30 To 34	2,459	\$61,861,301
35 To 39	2,866	\$88,546,351
40 To 44	3,733	\$120,178,357
45 To 49	3,837	\$130,431,312
50 To 54	3,224	\$109,736,496
55 To 59	2,521	\$82,135,285
60 To 64	1,652	\$50,231,301
65 & UP	895	\$22,570,674
Totals	22,763	\$705,560,302

APPENDIX B – MEMBERSHIP INFORMATION

State Police

Age	All Years	
	Count	Salary
Under 20	8	\$162,103
20 To 24	110	\$3,503,914
25 To 29	213	\$9,225,429
30 To 34	411	\$18,260,267
35 To 39	382	\$21,109,383
40 To 44	243	\$14,601,459
45 To 49	139	\$8,738,018
50 To 54	58	\$3,909,644
55 To 59	22	\$1,423,434
60 To 64	3	\$204,167
65 & UP	0	\$0
Totals	1,589	\$81,137,818

Judges

Age	All Years	
	Count	Salary
Under 20	0	\$0
20 To 24	0	\$0
25 To 29	0	\$0
30 To 34	1	\$122,554
35 To 39	1	\$122,554
40 To 44	15	\$1,744,928
45 To 49	43	\$4,925,581
50 To 54	69	\$7,858,630
55 To 59	69	\$7,997,180
60 To 64	52	\$6,123,793
65 & UP	31	\$3,714,776
Totals	281	\$32,609,996

LEOPS

Age	All Years	
	Count	Salary
Under 20	1	\$36,431
20 To 24	41	\$1,460,301
25 To 29	122	\$4,781,498
30 To 34	313	\$12,560,436
35 To 39	248	\$11,822,422
40 To 44	232	\$12,258,437
45 To 49	212	\$11,395,986
50 To 54	147	\$8,086,412
55 To 59	74	\$4,109,803
60 To 64	15	\$752,611
65 & UP	5	\$278,973
Totals	1,410	\$67,543,310

Local Fire and Police

Age	All Years	
	Count	Salary
Under 20	0	\$0
20 To 24	7	\$207,053
25 To 29	37	\$1,136,063
30 To 34	34	\$1,143,456
35 To 39	39	\$1,703,992
40 To 44	26	\$1,289,938
45 To 49	14	\$734,260
50 To 54	17	\$869,979
55 To 59	7	\$281,126
60 To 64	0	\$0
65 & UP	0	\$0
Totals	181	\$7,365,867

APPENDIX B – MEMBERSHIP INFORMATION

Retiree, Beneficiary and Disability Membership - Age Distributions

Total Systems 2002			
Age	Number of People	Total Benefits	Average Benefit
Under 25	0	\$0	\$0
25 To 29	9	\$199,767	\$22,196
30 To 34	54	\$970,540	\$17,973
35 To 39	246	\$4,225,689	\$17,178
40 To 44	613	\$9,817,896	\$16,016
45 To 49	1,319	\$22,067,690	\$16,731
50 To 54	3,494	\$67,659,715	\$19,365
55 To 59	8,547	\$176,803,485	\$20,686
60 To 64	12,988	\$224,003,421	\$17,247
65 To 69	16,380	\$246,389,066	\$15,042
70 To 74	15,630	\$235,126,837	\$15,043
75 To 79	12,476	\$179,320,439	\$14,373
80 & Up	15,611	\$226,458,977	\$14,506
Totals	87,367	\$1,393,043,522	\$15,945

Teachers' Retirement

Age	Count	All Years Benefit
Under 25	0	\$0
25 To 29	0	\$0
30 To 34	1	\$8,400
35 To 39	0	\$0
40 To 44	2	\$34,322
45 To 49	47	\$857,426
50 To 54	722	\$19,841,780
55 To 59	2,759	\$82,262,870
60 To 64	3,789	\$103,827,553
65 To 69	4,742	\$119,984,393
70 To 74	5,678	\$131,940,856
75 To 79	5,091	\$103,513,928
80 & Up	7,158	\$142,781,141
Totals	29,989	\$705,052,669

Teachers' Pension

Age	Count	All Years Benefit
Under 25	0	\$0
25 To 29	0	\$0
30 To 34	6	\$112,870
35 To 39	23	\$358,001
40 To 44	64	\$893,789
45 To 49	122	\$1,838,209
50 To 54	464	\$8,450,652
55 To 59	1,901	\$32,102,438
60 To 64	3,049	\$41,350,019
65 To 69	3,342	\$37,751,043
70 To 74	2,035	\$21,901,896
75 To 79	730	\$6,372,954
80 & Up	195	\$1,436,204
Totals	11,931	\$152,568,075

APPENDIX B – MEMBERSHIP INFORMATION

Employees' Retirement State Regular

Age	All Years	
	Count	Benefit
Under 25	0	\$0
25 To 29	1	\$18,261
30 To 34	13	\$207,866
35 To 39	55	\$805,509
40 To 44	165	\$2,287,528
45 To 49	381	\$5,218,236
50 To 54	804	\$13,212,735
55 To 59	1373	\$26,080,430
60 To 64	1859	\$33,555,132
65 To 69	2497	\$41,145,228
70 To 74	3202	\$47,008,576
75 To 79	3632	\$47,472,991
80 & Up	5677	\$60,359,915
Totals	19,659	\$277,372,407

Employees' Retirement Municipal

Age	All Years	
	Count	Benefit
Under 25	0	\$0
25 To 29	0	\$0
30 To 34	0	\$0
35 To 39	0	\$0
40 To 44	0	\$0
45 To 49	26	\$444,304
50 To 54	96	\$2,096,430
55 To 59	203	\$4,331,660
60 To 64	431	\$7,213,867
65 To 69	716	\$9,520,806
70 To 74	885	\$9,433,657
75 To 79	1048	\$8,832,757
80 & Up	1637	\$9,689,291
Totals	5,042	\$51,562,772

Employees' Retirement Legislative

Age	All Years	
	Count	Benefit
Under 25	0	\$0
25 To 29	0	\$0
30 To 34	0	\$0
35 To 39	0	\$0
40 To 44	0	\$0
45 To 49	0	\$0
50 To 54	1	\$5,867
55 To 59	5	\$33,864
60 To 64	28	\$304,122
65 To 69	35	\$338,589
70 To 74	45	\$425,605
75 To 79	39	\$343,401
80 & Up	50	\$461,430
Totals	203	\$1,912,878

Employees' Pension State Regular

Age	All Years	
	Count	Benefit
Under 25	0	\$0
25 To 29	0	\$0
30 To 34	12	\$161,740
35 To 39	74	\$945,743
40 To 44	194	\$2,484,833
45 To 49	374	\$4,420,375
50 To 54	772	\$8,968,816
55 To 59	1,434	\$14,439,037
60 To 64	2,645	\$21,353,526
65 To 69	3,485	\$22,818,694
70 To 74	2,601	\$14,090,982
75 To 79	1,320	\$5,617,559
80 & Up	469	\$1,614,489
Totals	13,380	\$96,915,794

Employees' Pension Municipal

Age	All Years	
	Count	Benefit
Under 25	0	\$0
25 To 29	2	\$23,439
30 To 34	7	\$104,251
35 To 39	42	\$657,708
40 To 44	103	\$1,462,445
45 To 49	150	\$1,923,341
50 To 54	248	\$3,235,890
55 To 59	401	\$3,738,424
60 To 64	833	\$5,486,448
65 To 69	1,300	\$6,285,503
70 To 74	1,010	\$3,810,140
75 To 79	497	\$1,386,736
80 & Up	232	\$466,690
Totals	4,825	\$28,581,015

APPENDIX B – MEMBERSHIP INFORMATION

State Police

Age	All Years	
	Count	Benefit
Under 25	0	\$0
25 To 29	4	\$117,453
30 To 34	11	\$275,228
35 To 39	45	\$1,267,986
40 To 44	71	\$2,301,218
45 To 49	175	\$6,146,533
50 To 54	268	\$9,003,190
55 To 59	353	\$11,095,845
60 To 64	264	\$7,779,545
65 To 69	183	\$5,124,367
70 To 74	96	\$2,745,230
75 To 79	56	\$2,028,972
80 & Up	72	\$3,783,924
Totals	1,598	\$51,669,491

*78 DROP participants were included.

LEOPS

Age	All Years	
	Count	Benefit
Under 25	0	\$0
25 To 29	1	\$19,353
30 To 34	3	\$81,710
35 To 39	6	\$161,975
40 To 44	12	\$315,116
45 To 49	40	\$1,122,425
50 To 54	109	\$2,604,473
55 To 59	109	\$2,588,878
60 To 64	60	\$1,464,040
65 To 69	41	\$906,949
70 To 74	18	\$358,033
75 To 79	4	\$60,309
80 & Up	0	\$0
Totals	403	\$9,683,261

*44 DROP participants were included.

Judges

Age	All Years	
	Count	Benefit
Under 25	0	\$0
25 To 29	0	\$0
30 To 34	0	\$0
35 To 39	0	\$0
40 To 44	0	\$0
45 To 49	1	\$37,167
50 To 54	1	\$51,491
55 To 59	2	\$25,863
60 To 64	28	\$1,625,678
65 To 69	39	\$2,513,494
70 To 74	60	\$3,411,862
75 To 79	59	\$3,690,832
80 & Up	121	\$5,865,893
Totals	311	\$17,222,280

Local Fire and Police

Age	All Years	
	Count	Benefit
Under 25	0	\$0
25 To 29	1	\$21,261
30 To 34	1	\$18,475
35 To 39	1	\$28,767
40 To 44	2	\$38,645
45 To 49	3	\$59,674
50 To 54	9	\$188,391
55 To 59	7	\$104,176
60 To 64	2	\$43,491
65 To 69	0	\$0
70 To 74	0	\$0
75 To 79	0	\$0
80 & Up	0	\$0
Totals	26	\$502,880

APPENDIX C

**ACTUARIAL ASSUMPTIONS
AND METHODS**

APPENDIX C – ACTUARIAL ASSUMPTIONS AND METHODS

A. ACTUARIAL ASSUMPTIONS

	1. Valuation Interest Rate	2. Rate of Increase in Cost of Living	3. Rates of Salary Increase (% at selected Ages)								
			25	30	35	40	45	50	55	60	65
Teachers' Retirement	8.0%	5%	11.82	10.86	8.76	7.29	6.58	6.23	6.06	5.98	5.94
Teachers' Pension	8.0%	3%	11.82	10.86	8.76	7.29	6.58	6.23	6.06	5.98	5.94
Employees' Retirement Regular & Correctional	8.0%	5%	10.00	9.17	8.48	7.90	7.42	7.01	6.68	6.40	6.17
Legislative	8.0%	6%**	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Employees' Pension	8.0%	3%***	10.00	9.17	8.48	7.90	7.42	7.01	6.68	6.40	6.17
State Police Retirement	8.0%	5%	8.62	8.00	8.00	8.00	8.00	8.00	8.00	---	---
Judges Pension	8.0%	6%	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00
LEOPS	8.0%	5%***	8.62	8.00	8.00	8.00	8.00	8.00	8.00	---	---
Local Fire & Police Retirement Pension	8.0%	5%	8.62	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00
	8.0%	3%***	8.62	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00

.. A 5% compound rate is applicable for some pre-71 Legislative members.

... A 3% simple rate is applicable for municipal members of these Systems, who do not elect to be covered under the improved plan.

*** A 3% simple rate is applicable for former EPS members.

APPENDIX C – ACTUARIAL ASSUMPTIONS AND METHODS

A. ACTUARIAL ASSUMPTIONS

4. Annual Rates of Withdrawal at Selected Ages (number of withdrawals per 1,000 members)

	25	30	35	40	45	50	55
Teachers' Retirement							
Male	126	86	57	27	20	15	16
Female	106	80	58	42	31	27	26
Teachers' Pension							
Male	126	86	57	27	20	15	16
Female	106	80	58	42	31	27	26
Employees' Retirement							
Regular	151	112	88	70	56	56	46
Correctional	151	112	88	70	56	56	46
Legislative	*	*	*	*	*	*	*
Employees' Pension	151	112	88	70	56	56	46
State Police Retirement	26	18	12	9	7	0	0
Judges' Pension	0	0	0	0	0	0	0
LEOPS	26	18	12	9	7	0	0
Local Fire & Police Retirement	26	18	12	9	7	0	0
Local Fire & Police Pension	26	18	12	9	7	0	0

* 200 withdrawals per 1,000 members are assumed after 8 years of service and each fourth year thereafter

APPENDIX C – ACTUARIAL ASSUMPTIONS AND METHODS

A. ACTUARIAL ASSUMPTIONS

5a. Annual Rates of Mortality at Selected Ages - Active Members and Members Retired on or After July 1, 1998 (number of deaths per 10,000 members)

45 50 55 60 65 70 75 80

Teachers' Retirement & Pension								
Healthy Members								
Male	21	34	55	89	148	257	423	662
Female	15	24	38	59	92	152	261	439
Disabled Members								
Male	297	330	378	446	545	701	938	1275
Female	181	202	238	290	364	474	643	904
Employees' Retirement & Pension Regular								
Healthy Members								
Male	28	46	73	120	206	350	555	855
Female	19	31	50	81	133	230	386	607
Disabled Members								
Male	311	349	400	474	589	765	1012	1374
Female	240	271	317	382	475	622	846	1165
Employees' Retirement Correctional & Legislative								
Healthy Members								
Male	31	49	79	134	231	388	610	912
Female	21	34	54	88	150	258	427	663
Disabled Members								
Male	349	376	420	488	595	763	1022	1417
Female	263	289	329	391	490	645	885	1253
State Police Retirement								
Healthy Members	110	142	193	272	397	591	891	1346
Disabled Members	378	348	377	435	529	675	903	1251
Judges' Pension								
Healthy Members								
Male	33	54	85	133	213	345	546	866
Female	19	31	50	79	124	201	325	516
Disabled Members								
Male	311	349	400	474	589	765	1012	1374
Female	240	271	317	382	475	622	846	1165

APPENDIX C – ACTUARIAL ASSUMPTIONS AND METHODS

5a. Annual Rates of Mortality at Selected Ages - Active Members and Members Retired on or After July 1, 1998 (number of deaths per 10,000 members)
(continued)

	45	50	55	60	65	70	75	80
LEOPS								
Healthy Members	110	142	193	272	397	591	891	1346
Disabled Members	378	348	377	435	529	675	903	1251
Local Fire & Police Systems								
Healthy Members	110	142	193	272	397	591	891	1346
Disabled Members	378	348	377	435	529	675	903	1251

APPENDIX C – ACTUARIAL ASSUMPTIONS AND METHODS

A. ACTUARIAL ASSUMPTIONS

5b. Annual Rates of Mortality at Selected Ages - Members Retired Before July 1, 1998 (number of deaths per 10,000 members)

45 50 55 60 65 70 75 80

Teachers' Retirement & Pension

Inactive Members

Male	23	38	59	97	167	286	468	720
Female	18	27	41	63	100	165	281	475

Inactive Disabled Members

Male	349	376	420	488	595	763	1022	1417
Female	191	207	239	288	365	488	677	971

Employees' Retirement & Pension

Inactive Members

Male	31	49	79	134	231	388	610	912
Female	21	34	54	88	150	258	427	663

Inactive Disabled Members

Male	349	376	420	488	595	763	1022	1417
Female	263	288	329	391	490	645	885	1253

State Police Retirement

Inactive Members	110	142	193	272	397	591	891	1346
Inactive Disabled Members	378	348	377	435	529	675	903	1251

Judges' Pension

Inactive Members

Male	39	61	97	153	242	381	596	929
Female	21	34	54	85	135	213	336	527

Inactive Disabled Members

Male	349	376	420	488	595	763	1022	1417
Female	263	288	329	391	490	645	885	1253

LEOPS

Inactive Members	110	142	193	272	397	591	891	1346
Inactive Disabled	378	348	377	435	529	675	903	1251

Local Fire & Police Systems

Inactive	110	142	193	272	397	591	891	1346
Inactive Disabled	378	348	377	435	529	675	903	1251

APPENDIX C – ACTUARIAL ASSUMPTIONS AND METHODS

A. ACTUARIAL ASSUMPTIONS

6. Annual Rates of Disablement at Selected Ages (number becoming disabled per 10,000 members)

25 30 35 40 45 50 55

Teachers' Retirement & Pension*							
Male	1	1	13	13	20	33	33
Female	2	3	4	8	15	27	38
Employees' Retirement & Pension							
Ordinary Disability							
Regular	6	8	14	25	42	63	81
Correctional	4	6	9	14	20	26	30
Legislative	0	0	0	0	0	0	0
Accidental Disability							
Regular	1	2	3	3	4	5	4
Correctional	1	1	2	3	3	5	5
Legislative	0	0	0	0	0	0	0
State Police Retirement							
Ordinary Disability	12	18	25	37	64	110	160
Accidental Disability	8	10	13	18	25	42	62
Judges' Pension	5	7	11	17	23	30	35
LEOPS							
Ordinary Disability	12	18	25	37	64	110	160
Accidental Disability	8	10	13	18	25	42	62
Local Fire & Police Systems							
Ordinary Disability	12	18	25	37	64	110	160
Accidental Disability	8	10	13	18	25	42	62

* It is assumed that 1% of disability retirements is due to accidents in the performance of duty.

APPENDIX C – ACTUARIAL ASSUMPTIONS AND METHODS

A. ACTUARIAL ASSUMPTIONS

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

45 50 55 60 65 70

Teachers' Retirement

Early

First Year Eligible	150	150	150	150	150	150
Subsequent Years	20	35	56	125	175	500

Normal

First Year Eligible	500	500	500	500	500	500
Subsequent Years	200	200	200	200	200	1000

Teachers' Pension

Early

First Year Eligible	125	125	125	125	125	125
Subsequent Years	0	50	50	60	141	500

Normal

First Year Eligible	250	250	250	250	250	250
Subsequent Years	250	250	250	250	250	1000

Employees' Retirement

Early

First Year Eligible	100	100	100	100	100	100
Subsequent Years	37	49	61	73	75	75

Normal

First Year Eligible	400	400	400	400	400	400
Subsequent Years	250	250	250	250	250	1000

Correctional

Early	--	--	--	--	--	--
Normal	135	142	158	1000	1000	1000

Legislative

Early	--	--	--	--	--	--
Normal	--	--	--	1000	1000	1000

APPENDIX C – ACTUARIAL ASSUMPTIONS AND METHODS

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

	45	50	55	60	65	70
--	----	----	----	----	----	----

Employees' Pension						
Early						
First Year Eligible	150	150	300	150	150	150
Subsequent Years	52	50	48	47	47	47
Normal						
First Year Eligible	400	400	400	400	400	400
Subsequent Years	50	50	100	150	300	1000
State Police Retirement						
Normal (Not Eligible for DROP)						
First Year Eligible	200	200	200	200	--	--
Subsequent Years	200	200	250	1000	--	--
Normal (DROP Eligible)	900	900	900	1000	--	--
Judges' Pension						
Normal	--	--	41	57	104	1000
LEOPS						
Normal (Not Eligible for DROP)						
First Year Eligible	200	200	200	200	--	--
Subsequent Years	200	200	250	1000	--	--
Normal (DROP Eligible)	900	900	900	1000	--	--
Local Fire & Police Retirement						
First Year Eligible	500	500	500	500	--	--
Subsequent Years	200	200	250	1000	--	--

APPENDIX C – ACTUARIAL ASSUMPTIONS AND METHODS

A. ACTUARIAL ASSUMPTIONS

8. Social Security Covered Compensation

Teachers' Retirement	Not applicable
Teachers' Pension	Future covered compensation levels, used to estimate member contributions and retirement allowances, were calculated using a 5% per annum compounded increase in the 2000 Social Security Maximum Wage Base.
Employees' Retirement	Not applicable
Employees' Pension	Future covered compensation levels, used to estimate member contributions and retirement allowances, were calculated using a 5% per annum compounded increase in the 2000 Social Security Maximum Wage Base.
State Police Retirement	Not applicable
Judges' Pension	Not applicable
LEOPS	Future covered compensation levels, used to estimate member contributions and retirement allowances, were calculated using a 5% per annum compounded increase in the 2000 Social Security Maximum Wage Base.
Local F&P Retirement	Not applicable
Local F&P Pension	Future covered compensation levels, used to estimate member contributions and retirement

APPENDIX C – ACTUARIAL ASSUMPTIONS AND METHODS

allowances, were calculated using a 5% per annum compounded increase in the 2000 Social Security Maximum Wage Base.

APPENDIX C – ACTUARIAL ASSUMPTIONS AND METHODS

B. ACTUARIAL PROCEDURES

1. Asset Valuation Method

Teachers' Retirement & Pension	<p>All six Systems use a method based on the principle that the difference between actual and expected investment returns should be subject to partial recognition to smooth out fluctuations in the total return achieved by the fund from year to year. Under this method, the actuarial value of the assets is one-fifth of the market value plus two-thirds of the expected value, where the expected value is last year's actuarial value and subsequent cashflows into and out of the fund accumulated with interest at last year's valuation rate (8.00%). This is equivalent to smoothing the difference between the experienced return and the assumed return. If the fund earns the actuarially assumed rate in any year no investment returns will be deferred.</p>
Employees' Retirement & Pension	
State Police	
Judges	
LEOPS	
Local F&P Retirement & Pension	

For the Employees' Retirement & Pension System and for LEOPS, assets must be allocated between State and Municipal Corporation members. Beginning July 1, 1984, this allocation is based upon actual cash flows and shared investment results.

APPENDIX C – ACTUARIAL ASSUMPTIONS AND METHODS

B. ACTUARIAL PROCEDURES

2. Funding Method

Teachers' Retirement & Pension
Employees' Retirement & Pension
State Police
Judges
LEOPS
Local F&P Retirement & Pension

All six Systems use the aggregate entry age normal method with projection 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 the Teachers' Pension, Employees' Pension, State Police, Judges', LEOPS and Local Fire & Police Systems an Individual Entry Age Normal cost rate is determined for a typical new entrant of each respective system. This rate is determined by taking the value, as of age at entry into the plan, of the member's projected future benefits, and dividing it by the value, also as of the member's entry age, of his expected future salary.

For members of the Teachers' and Employees' Retirement Systems, the new entrant normal cost rate is set at the same rate developed for the Teachers' and Employees' Pension Systems, respectively.

APPENDIX C – ACTUARIAL ASSUMPTIONS AND METHODS

B. ACTUARIAL PROCEDURES

2. Funding Method (Continued)

Teachers' Retirement & Pension

Employees' Retirement & Pension

State Police

Judges

LEOPS

Local F&P Retirement & Pension

In addition to contributions required to meet the System's normal cost, contributions will be required to fund the System's unfunded actuarial liability. Actuarial liability is defined as the present value of future benefits less the present value of future normal costs. The unfunded actuarial liability is the total of the actuarial liability for all members less the actuarial value of the System's assets.

If the System's unfunded actuarial liability is increased by plan changes or actuarial losses or decreased by actuarial gains, these amounts will be included as part of the unfunded actuarial liability and funded over a 25-year amortization period.

APPENDIX C – ACTUARIAL ASSUMPTIONS AND METHODS

B. Actuarial Methods

1. Asset Valuation Method:

The Actuarial Value of Assets is determined on an adjusted market value basis. Under this method, the adjusted market value is a weighted average of the actual market value (weight = 20 percent) and the expected value (weight = 80 percent). The expected value of assets is equal to the prior year's actuarial value increased by the assumed rate of return and adjusted for employer contributions and disbursements during the year preceding the valuation date.

2. Funding Method: Entry Age Normal Cost Method

Under the entry age normal actuarial cost method, the individual, entry age normal cost is determined for each participant by taking the value, as of his entry age into the plan, of the participant's projected future benefits (assuming the current plan benefit provisions had always been in existence), and dividing it by the value, as of the participant's entry age, of one dollar per year over his expected working lifetime. This cost for each participant is then multiplied by the present value, as of the valuation date, of one dollar per year over his future working lifetime. The sum of these values for all active participants is the present value (as of the valuation date) of all normal costs. The excess of the present value of all plan benefits over the present value of future normal costs is the accrued liability; the difference between the accrued liability and the value of the plan assets as of the valuation date is the unfunded accrued liability.

APPENDIX D

SUMMARY OF PLAN PROVISIONS

Table of Contents

	Page
Teachers' Retirement	D-1
Teachers' Pension	D-5
Employees' Retirement	D-9
Employees' Pension	D-14
State Police Retirement	D-19
Pension Plan of Judges and Their Surviving Spouses	D-23
Law Enforcement Officers' Pension System	D-26
Local Fire & Police Retirement	D-34
Local Fire & Police Pension	D-37

APPENDIX D - SUMMARY OF PLAN PROVISIONS

TEACHER'S RETIREMENT SYSTEM OF THE STATE OF MARYLAND Established August 1, 1927

1. Membership

Membership is a condition of employment for teachers. Employees of various libraries and educational facilities were eligible to join. Certain eligible teachers elect to join an optional retirement program. Effective July 1, 1971 teachers and retired teachers of the City of Baltimore are included.

Members on December 31, 1979 continue to be members on January 1, 1980 and after unless they elect to join the Pension System at which time they are eligible for the return of a portion of their accumulated contributions with interest. No new members were accepted after December 31, 1979.

2. Member Contributions (See item 6 for contributions effective July 1, 1984)

Members entering the System on or after July 1, 1973 are required to contribute 5% of earnable compensation; members in the System before that date contribute the lesser of 5% of earnable compensation or the percentage they were contributing prior to July 1, 1973.

3. Service Retirement Allowance (See item 6 for Allowances after July 1, 1984)

Eligibility - 30 years of eligibility service or attainment of age 60.

Allowance - 1/55 of average compensation for the three highest years as an employee for each year of eligibility service. The benefit of any member who discontinues contributions, or an employee who waives the right to contribute for past service credit, or a member who contributed to the plan on the basis of retirement at age 65, is reduced by the actuarial equivalent of unpaid contributions with interest to date of retirement. Eligibility service is given based on a full normal working time in one year (equal to ten months).

4. Early Retirement Allowance

Eligibility - 25 years of eligibility service.

Allowance - service retirement allowance, reduced by 1/2% for each month that date of retirement precedes the earlier of age 60 and the date the member would have completed 30 years of eligibility service had he remained in employment.

APPENDIX D - SUMMARY OF PLAN PROVISIONS

5. Disability Retirement Allowance

Ordinary

Eligibility - 5 years of eligibility service and certification of the medical board designated by the Board of Trustees that member is incapacitated for the performance of duty, and that incapacity is permanent.

Allowance - The benefit is 1/55 of average compensation for the three highest years as an employee for each year of eligibility service, with a minimum of 25% of average compensation, and a maximum of 1/55 of average compensation for each year of eligibility service the member would have had if he continued in employment until age 60.

Accidental

Eligibility - total and permanent disability as certified by the medical board resulting from accident occurring in the performance of duty.

Allowance - The benefit is the annuity provided by accumulated contributions, plus 66 2/3% of average compensation for the three highest years as an employee with a maximum of average compensation.

6. Retirement Allowances after July 1, 1984

A member who is in service on July 1, 1984 (or an inactive member who returns to service on or after July 1, 1984) will have his benefit determined under one of the optional formulas described below, as elected by the member on or before January 1, 1985 (or within 90 days of return to service, for inactive members on July 1, 1984).

Bifurcated benefit - for eligibility service before election date, the amount determined by the Service Retirement Allowance formula described in item 3; for eligibility service on and after election date, the amount determined by the Service Retirement Allowance formula of the Teachers' Pension System. Eligibility for Early Retirement is based on Retirement System criteria. This is the benefit which is payable absent an alternative election by the member. Effective on the election date, the rate of member contributions is determined under the terms of the Teachers' Pension System.

5% contribution/5% CPI option - the amount determined by the Service Retirement Allowance formula described in item 3. The Cost-of-Living Adjustments described in item 9 are limited to 5% annually.

APPENDIX D - SUMMARY OF PLAN PROVISIONS

7% contribution/unlimited COLA option - the amount determined under the Service Retirement Allowance formula described in item 3. Effective July 1, 1984 the rate of member contributions is 7% of earnable compensation. The cost-of-living adjustments described in item 9 are unlimited.

Members subject to this provision who transfer to the Teachers' Pension System are eligible to receive a return of a portion of their accumulated contributions with the average rate of interest earned on Systems' assets over the five years preceding transfer.

7. Death Benefits

Eligibility - one year of eligibility service or death in the performance of duty.

Benefit – one-time payment of member's annual earnable compensation at time of death plus accumulated contributions. In lieu of the one time payment, a surviving spouse who was named sole primary beneficiary may elect to receive the monthly allowance she would have received under Option 2 if member was eligible to retire or was age 55 and with 15 years of eligibility service.

Regardless of length of service, member's accumulated contributions are paid.

8. Vested Retirement Allowance

Eligibility - 5 years of eligibility service.

Allowance - accrued retirement allowance payable at age 60. Member may elect to withdraw his accumulated contributions, or transfer to the Pension System, in lieu of receiving the vested retirement allowance in the Retirement System. If member does not withdraw his contributions, and dies before attaining age 60, his accumulated contributions are returned.

9. Cost-of-Living Adjustments

All retirement allowances are adjusted each year based on the Consumer Price Index. Cost-of-living adjustments are effective July 1 and are applied to all benefits which have been in payment for one year.

APPENDIX D - SUMMARY OF PLAN PROVISIONS

10. Optional Forms of Payment

- Option 1: Cash refund equal to excess of present value of retirement allowance at date of retirement over total amount of payments made to date of death.
- Option 2: 100% joint and survivor annuity.
- Option 3: 50% joint and survivor annuity.
- Option 4: This option guarantees a return of accumulated member contributions.
- Option 5: 100% "pop-up" joint and survivor annuity.
- Option 6: 50% "pop-up" joint and survivor annuity.
- Option 7: Any other benefit which is actuarially equivalent to the retirement allowance and is approved by the Board of Trustees.

11. Reduction for Benefits Payable Under Workmen's Compensation

Disability retirement allowances, excluding annuity reserves, are reduced for workmen's compensation benefits payable after retirement from injury occurring during employment by the State or participating employer, if the workmen's compensation benefits are for the same injury for which retirement was granted and are paid for the same period of time for which the retirement benefits are paid.

APPENDIX D – SUMMARY OF PLAN PROVISIONS

TEACHERS' PENSION SYSTEM OF THE STATE OF MARYLAND Established January 1, 1980

1. Membership

Membership is a condition of employment for all teachers hired on or after January 1, 1980. Certain eligible teachers may elect to join an optional program provided by the State. Included in the definition of teacher is any teacher, helping teacher, principal, supervisor, superintendent, or clerk employed in public day school within the State of Maryland, or controlled by the State; any faculty employee of an educational institution supported or controlled by the State; any librarian or clerical employee of a library established or operated under the Education Article; any professional or clerical employee of a community college established or operated under the Education Article.

2. Member Contributions

Effective July 1, 1998, members are required to make contributions of 2% of earnable compensation.

3. Service Retirement Allowance

Eligibility - 30 years of eligibility service or attainment of one of the following:

- Age 62 and 5 years of eligibility service.
- Age 63 and 4 years of eligibility service.
- Age 64 and 3 years of eligibility service.
- Age 65 and 2 years of eligibility service.

Allowance - The larger of (i) or (ii), plus (iii), as described below:

- (i) 1.2% of average compensation for the three highest consecutive years as an employee for each year of eligibility service on or before June 30, 1998;
- (ii) 0.8% of average compensation for the three highest consecutive years as an employee up to the Social Security integration level plus 1.5% of average compensation over the integration level for each year of eligibility service on or before June 30, 1998;
- (iii) 1.4% of average compensation for the three highest consecutive years as an employee for each year of eligibility service after June 30, 1998.

APPENDIX D – SUMMARY OF PLAN PROVISIONS

The Social Security integration level is the average annual earnings for which Social Security benefits are provided to an employee attaining age 65 in the year of termination of employment, who earned the maximum Social Security covered earnings in each year. Eligibility service is given based on a full normal working time in one year equal to ten months.

The pre-1998 formula (still applicable for those current and former Retirement System members who on or after April 1, 1998 elected to transfer to the Pension System) is 0.8% of average compensation for the three highest consecutive years as an employee up to the Social Security integration level plus 1.5% of average compensation over the integration level for each year of eligibility service.

4. Early Retirement Allowance

Eligibility - attainment of age 55 and 15 years of eligibility service.

Allowance - service retirement allowance computed as of early retirement date, reduced by 1/2% for each month that early retirement date precedes age 62.

5. Disability Retirement Allowance

Ordinary

Eligibility - 5 years of eligibility service and certification of the medical board designated by the Board of Trustees that member is incapacitated for the performance of duty, and that incapacity is permanent.

Allowance - The benefit is the service retirement allowance computed on the basis that service continued until age 62 without any change in rate of earnable compensation.

Accidental

Eligibility - total and permanent disability as certified by the medical board resulting from accident occurring in the performance of duty.

Allowance - The benefit is the annuity provided by accumulated contributions, plus 66 2/3% of average compensation for the three highest consecutive years as an employee with a maximum of average compensation.

Any member who applies for disability retirement within 2 years of transfer from the Retirement System shall receive benefits as provided under the Retirement System, reduced by any contributions refunded.

APPENDIX D – SUMMARY OF PLAN PROVISIONS

6. Death Benefits

Eligibility - one year of eligibility service or death in the performance of duty.

Benefit – one-time payment of member's annual earnable compensation at time of death plus accumulated contributions. In lieu of one-time payment, a surviving spouse named as sole primary beneficiary may elect to receive the monthly allowance she would have received under Option 2, determined as if the member were eligible to retire and retired 30 days before death, if member was age 62, was age 55 and had 15 years of eligibility service, or had at least 25 years of eligibility service.

Regardless of length of service, member's accumulated contributions are paid.

7. Vested Retirement Allowance

Eligibility - 5 years of eligibility service.

Allowance - accrued retirement allowance payable at age 62. A member who has completed 15 years of eligibility service may begin to receive benefit payments at any time after attainment of age 55, reduced by 1/2% for each month that benefit commencement date precedes age 62.

If member does not commence to receive benefit payments, and dies before attaining age 62, his accumulated contributions are returned.

If member does not have 5 years of eligibility service at termination of employment, his accumulated contributions are returned.

8. Cost-of-Living Adjustments

All retirement allowances are adjusted each year based on the Consumer Price Index. Effective July 1, 1998, the annual adjustment is limited to 3%, and is applied to all benefits which have been in payment for one year. However, former members of the Retirement System who elect to transfer to the Pension System on or after April 1, 1998 will receive annual adjustments limited to 3% of the initial benefit amount. Their retirement allowance payable is the sum of the initial retirement allowance and all adjustments. All increases are effective July 1.

APPENDIX D – SUMMARY OF PLAN PROVISIONS

9. Optional Forms of Payment

Option 1: Cash refund equal to excess of present value of retirement allowance at date of retirement over total amount of payments made to date of death.

Option 2: 100% joint and survivor annuity.

Option 3: 50% joint and survivor annuity.

Option 4: This option guarantees a return of accumulated member contributions.

Option 5: 100% "pop-up" joint and survivor annuity.

Option 6: 50% "pop-up" joint and survivor annuity.

Option 7: Any other benefit which is actuarially equivalent to the retirement allowance and is approved by the Board of Trustees.

10. Reduction for Benefits Payable Under Workmen's Compensation

Disability retirement allowances, excluding annuity reserves, are reduced for workmen's compensation benefits payable after retirement from injury occurring during employment by the State or participating employer, if the workmen's compensation benefits are for the same injury for which retirement was granted and are paid for the same period of time for which the retirement benefits are paid.

APPENDIX D – SUMMARY OF PLAN PROVISIONS

EMPLOYEES' RETIREMENT SYSTEM OF THE STATE OF MARYLAND Established October 1, 1941

1. Membership

Membership is a condition of employment for all classified and unclassified regular employees of the State of Maryland excluding those eligible for the Teachers' Retirement System, State Police Pension Fund, and certain judges. Also included are employees of the State Highway Administration and those engaged in county road maintenance under its supervision. Certain municipal corporations have joined the System, and persons employed in various capacities of State government (e.g., General Assembly, elected officials) may join at their option.

Members on December 31, 1979 continue to be members on January 1, 1980 and after unless they elect to join the Pension System, at which time they are eligible for the return of a portion of their accumulated contributions with interest. No new members are accepted after December 31, 1979 except correctional officers, or members of the General Assembly.

2. Member Contributions (See item 6 for contributions effective July 1, 1984)

Members entering the System on or after July 1, 1973 are required to contribute 5% of earnable compensation; members in the System before that date contribute the lesser of 5% of earnable compensation or the percentage they were contributing prior to July 1, 1973.

3. Service Retirement Allowance (See item 6 for Allowances after July 1, 1984)

Eligibility - 30 years of eligibility service or attainment of age 60.

Allowance - 1/55 of average compensation for the three highest years as an employee for each year of eligibility service. The benefit of any member who discontinues contributions, or an employee who waives the right to contribute for past service credit, or a member who contributed to the plan on the basis of retirement at age 65, is reduced by the actuarial equivalent of unpaid contributions with interest to date of retirement.

APPENDIX D – SUMMARY OF PLAN PROVISIONS

4. Early Retirement Allowance

Eligibility - 25 years of eligibility service.

Allowance - service retirement allowance, reduced by 1/2% for each month that date of retirement precedes the earlier of age 60 and the date the member would have completed 30 years of eligibility service had he remained in employment.

5. Disability Retirement Allowance

Ordinary

Eligibility - 5 years of eligibility service and certification of the medical board designated by the Board of Trustees that the member is incapacitated for the performance of duty and that incapacity is permanent.

Allowance - The benefit is 1/55 of average compensation for the three highest years as an employee for each year of eligibility service, with a minimum of 25% of average compensation, and a maximum of 1/55 of average compensation for each year of eligibility service the member would have had if he continued in employment until age 60.

Accidental

Eligibility - total and permanent disability as certified by the medical board resulting from accident occurring in the performance of duty.

Allowance - The benefit is the annuity provided by accumulated contributions, plus 66 2/3% of average compensation for the three highest years as an employee with a maximum of average compensation.

6. Retirement Allowances after July 1, 1984

A member who is in service on July 1, 1984 (or an inactive member who returns to service on or after July 1, 1984) will have his benefit determined under one of the optional formulas described below, as elected by the member.

Bifurcated benefit - for eligibility service before election date, the amount determined by the Service Retirement Allowance formula described in item 3; for eligibility service on and after election date, the amount determined by the Service Retirement Allowance formula of the Employees' Pension System. Eligibility for Early Retirement is based on Retirement System criteria. This is the benefit which is payable absent an alternative election by the member.

APPENDIX D – SUMMARY OF PLAN PROVISIONS

Effective at the election date, the rate of member contributions is determined under the terms of the Employees' Pension System.

5% contribution/5% COLA option - The amount determined by the Service Retirement Allowance formula described in item 3. The Cost-of-Living Adjustments described in item 9 are limited to 5% annually.

7% contribution/unlimited COLA option - the amount determined under the Service Retirement Allowance formula described in item 3. Effective July 1, 1984, the rate of member contributions is 7% of earnable compensation.

Members subject to this provision who transfer to the Employees' Pension System are eligible to receive a return of a portion of their accumulated contributions with the average rate of interest earned on the Systems' assets over the five years preceding transfer.

7. Death Benefits

Eligibility - one year of eligibility service or death in the performance of duty.

Benefit – one time payment of member's annual earnable compensation at time of death plus accumulated contributions. In lieu of the one time payments a surviving spouse who was named sole primary beneficiary may elect to receive the monthly allowance she would have received under Option 2 if member was eligible to retire or was age 55 with 15 years of eligibility service.

Regardless of length of service, member's accumulated contributions are paid.

8. Vested Retirement Allowance

Eligibility - 5 years of eligibility service.

Allowance - accrued retirement allowance payable at age 60. Member may elect to withdraw his accumulated contributions or transfer to the Pension System, in lieu of receiving the vested retirement allowance in the Retirement System. If member does not withdraw his contributions, and dies before attaining age 60, his accumulated contributions are returned.

9. Cost-of-Living Adjustments

All retirement allowances are adjusted each year based on the Consumer Price Index. Cost-of-living adjustments are effective July 1 and are applied to all benefits which have been in payment for one year.

APPENDIX D – SUMMARY OF PLAN PROVISIONS

10. Optional Forms of Payment

- Option 1: Cash refund equal to excess of present value of retirement allowance at date of retirement over total amount of payments made to date of death.
- Option 2: 100% joint and survivor annuity.
- Option 3: 50% joint and survivor annuity.
- Option 4: This option guarantees a return of accumulated member contributions.
- Option 5: 100% "pop-up" joint and survivor annuity.
- Option 6: 50% "pop-up" joint and survivor annuity.
- Option 7: Any other benefit which is actuarially equivalent to the retirement allowance and is approved by the Board of Trustees.

11. Reduction for Benefits Payable Under Workmen's Compensation

Disability retirement allowances, excluding annuity reserves, are reduced for workmen's compensation benefits payable after retirement from injury occurring during employment by the State, if the workmen's compensation benefits are for the same injury for which retirement was granted and are paid for the same period of time for which the retirement benefits are paid.

12. Miscellaneous Provisions

For Members of the General Assembly

The retirement allowance is equal to 3.00% of highest earnable compensation for each year of eligibility service (maximum 22 years 3 months) upon attainment of age 60 and eight years of eligibility service. Reduced benefits are payable upon attainment of age 50 and completion of 8 years of eligibility service. The benefit is reduced by 0.5% for each month between ages 50 and 60 that the early retirement date precedes age 60. A member with eight years of eligibility service who has not attained age 60 may leave his contributions in and receive a retirement allowance at age 60 or a reduced benefit after age 50. If termination occurs before the completion of eight years of eligibility service, the member may make contributions equal to his and the State's required amount until he would have completed eight years of eligibility service, and receive 24% of last

APPENDIX D – SUMMARY OF PLAN PROVISIONS

earnable compensation at age 60 or a reduced benefit after age 50. Members contribute 5% of their earnable compensation during their first 22 years 3 months of service. A member who is certified as disabled after completing at least 8 years of eligibility service may resign his position and immediately receive a retirement allowance equal to 3.00% of highest earnable compensation for each year of eligibility service (maximum 22 years 3 months). The member's surviving spouse receives 1/2 of the member's entitlement if the member i) is retired, ii) is eligible for a deferred benefit, or iii) is active and has eight years of eligibility service. The surviving spouse of a member who had accrued less than eight years of eligibility service and dies in office shall receive a lump sum death benefit of accumulated contribution plus an amount equal to the deceased's annual earnable compensation at the time of death.

All retirement allowances are adjusted each year based on the increase in salaries of current members of the General Assembly.

Pre-1971 members may elect to be covered by the 1966 plan or a combination of the 1966 plan and the current plan.

For Correctional Officers

Correctional officers serving in the first six job classifications, or any security attendants at Clifton T. Perkins Hospital Center participate under this System. An immediate service retirement allowance is payable to a correctional officer if on or before the retirement, the officer has completed 20 years of eligibility service and served either at least 5 years as a security attendant at Clifton T. Perkins Hospital Center, or as a correctional officer in one of the first six job classifications, or a combination thereof immediately preceding retirement. The vested retirement allowance of a correctional officer who was in the first six job classifications for at least 5 years preceding retirement commences at age 55; for the security attendant it commences at age 60.

For Retirees Under the Workforce Reduction Act of 1996

Eligible members who applied to retire between July 1 and August 31, 1996 received one month of additional service credit for each year of eligibility service. In addition to the extra service, up to 18% of the reduction for early retirement was eliminated.

APPENDIX D – SUMMARY OF PLAN PROVISIONS

EMPLOYEES' PENSION SYSTEM OF THE STATE OF MARYLAND Established January 1, 1980

1. Membership

Membership is a condition of employment for all classified and unclassified regular employees of the State of Maryland hired on or after January 1, 1980, excluding those eligible for the Teachers' Retirement System, Teachers' Pension System, State Police Pension Fund, certain judges, correctional officers, members of the General Assembly. Members of the Employees' Retirement System may elect to join any time on or after January 1, 1980. Certain municipal corporations have joined the System, and persons employed in various capacities of State government (e.g., General Assembly, elected officials) may join at their option.

2. Member Contributions

Effective July 1, 1998, members are required to make contributions of 2% of earnable compensation.

Note: Non-Cont. Pens. System members make contributions of 5% when salary exceeds SSTWB.

3. Service Retirement Allowance

Eligibility - 30 years of eligibility service or attainment of one of the following:

- Age 62 and 5 years of eligibility service
- Age 63 and 4 years of eligibility service
- Age 64 and 3 years of eligibility service
- Age 65 and 2 years of eligibility service

Allowance - The larger of (i) or (ii), plus (iii), as described below:

- (i) 1.2% of average compensation for the three highest consecutive years as an employee for each year of eligibility service on or before June 30, 1998;

APPENDIX D – SUMMARY OF PLAN PROVISIONS

- (ii) 0.8% of average compensation for the three highest consecutive years as an employee up to the Social Security integration level plus 1.5% of average compensation over the integration level for each year of eligibility service on or before June 30, 1998;
- (iii) 1.4% of average compensation for the three highest consecutive years as an employee for each year of eligibility service after June 30, 1998.

The Social Security integration level is the average annual earnings for which Social Security benefits are provided to an employee attaining age 65 in the year of termination of employment, who earned the maximum Social Security covered earnings in each year.

The pre-1998 formula (still applicable for those either current and former Retirement System members who on or after April 1, 1998 elected to transfer to the Pension System, and for members employed by certain Municipal Corporations) is 0.8% of average compensation for the three highest consecutive years as an employee up to the Social Security integration level plus 1.5% of average compensation over the integration level for each year of eligibility service.

4. Early Retirement Allowance

Eligibility - attainment of age 55 and 15 years of eligibility service.

Allowance - service retirement allowance computed as of early retirement date, reduced by 1/2% for each month that early retirement date precedes age 62.

5. Disability Retirement Allowance

Ordinary

Eligibility - 5 years of eligibility service and certification of the medical board designated by the Board of Trustees that member is incapacitated for the performance of duty, and that incapacity is permanent.

Allowance - The benefit is the service retirement allowance computed on the basis that service continued until age 62 without any change in rate of earnable compensation.

Accidental

Eligibility - total and permanent disability as certified by the medical board resulting from accident occurring in the performance of duty.

APPENDIX D – SUMMARY OF PLAN PROVISIONS

Allowance - The benefit is the annuity provided by accumulated contributions, plus 66 2/3% of average compensation for the three highest consecutive years as an employee with a maximum of average compensation.

Any member who applies for disability retirement within 2 years of transfer from the Retirement System shall receive benefits as provided under the Retirement System, reduced by any contributions refunded.

6. Death Benefits

Eligibility - one year of eligibility service or death in the performance of duty.

Benefit – one-time payment of member's annual earnable compensation at time of death plus accumulated contributions. In lieu of one-time payment, a surviving spouse named as sole primary beneficiary may elect to receive the monthly allowance she would have received under Option 2, determined as if the member were eligible to retire and retired 30 days before death, if member was age 62, was age 55 and had 15 years of eligibility service, or had at least 25 years of eligibility service.

Regardless of length of service, member's accumulated contributions are paid.

7. Vested Retirement Allowance

Eligibility - 5 years of eligibility service.

Allowance - accrued retirement allowance payable at age 62. A member who has completed 15 years of eligibility service may begin to receive benefit payments at any time after attainment of age 55, reduced by 1/2% for each month that benefit commencement date precedes age 62.

If member does not commence to receive benefit payments, and dies before attaining age 62, his accumulated contributions are returned.

If member does not have 5 years of eligibility service at termination of employment, his accumulated contributions are returned.

8. Cost-of-Living Adjustments

All retirement allowances are adjusted each year based on the Consumer Price Index. Effective July 1, 1998, the annual adjustment is limited to 3%, and is applied to all benefits which have been in payment for one year. However, former members of the Retirement System who elect to transfer to the Pension

APPENDIX D – SUMMARY OF PLAN PROVISIONS

System on or after April 1, 1998, and members employed by a non-electing Municipal Corporation will receive annual adjustments limited to 3% of the initial benefit amount. Their retirement allowance payable is the sum of their initial retirement allowance and all adjustments. All increases are effective July 1.

9. Optional Forms of Payment

Option 1: Cash refund equal to excess of present value of retirement allowance at date of retirement over total amount of payments made to date of death.

Option 2: 100% joint and survivor annuity.

Option 3: 50% joint and survivor annuity.

Option 4: This option guarantees a return of accumulated member contributions.

Option 5: 100% "pop-up" joint and survivor annuity.

Option 6: 50% "pop-up" joint and survivor annuity.

Option 7: Any other benefit which is actuarially equivalent to the retirement allowance and is approved by the Board of Trustees.

10. Reduction for Benefits Payable Under Workmen's Compensation

Disability retirement allowances, excluding annuity reserves, are reduced for workmen's compensation benefits payable after retirement from injury occurring during employment by the State, if the workmen's compensation benefits are for the same injury for which retirement was granted and are paid for the same period of time for which the retirement benefits are paid.

11. Miscellaneous Provision

For Constitutional Officers

Constitutional officers who participate in the System are immediately vested upon taking office and will receive a benefit of not less than ten percent (10%) of their highest salary if they serve at least one full term.

APPENDIX D – SUMMARY OF PLAN PROVISIONS

For Retirees Under the Workforce Reduction Act of 1996

Eligible members who applied to retire between July 1 and August 31, 1996 received one month of additional service credit for each year of eligibility service. In addition to the extra service, up to 18% of the reduction for early retirement was eliminated.

APPENDIX D – SUMMARY OF PLAN PROVISIONS

STATE POLICE RETIREMENT SYSTEM OF THE STATE OF MARYLAND Established July 1, 1949

1. Membership

Membership is a condition of employment (with limited exception) for all officers and employees of the Maryland State Police excluding those eligible for the Teachers' Retirement/Pension System, Employees' Retirement/Pension System, or the Pension Plan of Judges. The Superintendent of the Maryland State Police may elect membership in this System or the Employees' Pension System.

2. Member Contributions

Members are required to contribute 8% of earnable compensation.

3. Service Retirement Allowance

Eligibility - 22 years of eligibility service or attainment of age 50 (age 60 for the physician of the Department). Retirement at age 60 is mandatory for all but the Superintendent.

Allowance - 2.55% of average compensation for the three highest years as an employee for each of the first 28 years of eligibility service.

4. Early Retirement Allowance

Not applicable to this System.

5. Disability Retirement Allowance

Ordinary

Eligibility - 5 years of eligibility service and certification of the medical board designated by the Board of Trustees that member is incapacitated for the performance of duty, and that incapacity is permanent.

Allowance - 2.55% of average compensation for the three highest years as an employee for each of the first 28 years of eligibility service. Minimum payable is 35% of average compensation.

APPENDIX D – SUMMARY OF PLAN PROVISIONS

Special

Eligibility - total and permanent disability as certified by the medical board arising out of or in the course of the actual performance of duty.

Allowance - The benefit is the annuity provided by accumulated contributions plus 66 2/3% of average compensation with a maximum of average compensation.

6. Death Benefits

For Retired Members

Eligibility - retired on service retirement allowance or ordinary disability retirement allowance, or retired on special disability retirement allowance. Also, beneficiaries are not eligible to receive survivor benefits from Social Security.

Benefits - lump sum and survivor benefits according to Title II of the Social Security Act, excluding any cost of living adjustments. For purposes of computing this benefit, the average monthly wage is the lesser of 1/12 of the member's average compensation and the maximum average monthly wage in effect as of date of death under the Social Security Act.

For Members in Service

i) Ordinary Death Benefit

Eligibility - 1 through 2 years of eligibility service and not eligible for special death benefit.

Benefit - member's annual earnable compensation at time of death plus accumulated contributions.

Regardless of length of service, members' accumulated contributions are paid.

ii) Special Death Benefit

Eligibility - two or more years of eligibility service or death in the performance of duty.

Benefit - accumulated contributions plus an allowance of one-half of the member's average compensation to the surviving spouse; if no surviving

APPENDIX D – SUMMARY OF PLAN PROVISIONS

spouse or spouse dies before youngest child reaches age 18, one-half of average compensation continues until the youngest child reaches age 18; if no surviving spouse or children, to his or her dependent mother or father. If none of the above conditions are met, the ordinary death benefit is paid.

7. Vested Retirement Allowance

Eligibility - 5 years of eligibility service.

Allowance - service retirement allowance payable at age 50. Member may elect to withdraw his accumulated contributions in lieu of receiving his vested retirement allowance. If member does not withdraw his contributions and dies before attaining age 50, his accumulated contributions are returned.

8. Cost-of-Living Adjustments

All retirement allowances are adjusted each year based on the Consumer Price Index. Cost-of-living adjustments are effective July 1 and are applied to all benefits which have been in payment for one year.

9. Optional Forms of Payment

Normal form is 50% joint and survivor annuity with spouse. If no spouse at time of retirement, member may select an optional allowance.

Option 1: Cash refund equal to excess of present value of retirement allowance at date of retirement over total amount of payments made to date of death.

Option 2: 100% joint and survivor annuity.

Option 3: 50% joint and survivor annuity.

Option 4: This option guarantees a return of accumulated member contributions.

Option 5: 100% "pop-up" joint and survivor annuity.

Option 6: 50% "pop-up" joint and survivor annuity.

Option 7: Any other benefit which is actuarially equivalent to the retirement allowance and is approved by the Board of Trustees.

APPENDIX D – SUMMARY OF PLAN PROVISIONS

10. Reduction for Benefits Payable Under Workmen's Compensation

Disability retirement allowances, excluding annuity reserves, are reduced for workmen's compensation benefits payable after retirement from injury occurring during employment if the workmen's compensation benefits are for the same injury for which retirement was granted and are paid for the same period of time for which the retirement benefits are paid.

11. Deferred Retirement Option Program (DROP)

Members with 22 years of service may elect to enter the DROP program for a maximum of four years. During this period, they will cease making member contributions and cease accruing additional benefits. Their accrued service retirement allowance, with annual COLA adjustments, will be credited to an account along with interest at the rate of 6% per annum, compounded monthly. At any time up to four years later the member may cease working and have the service retirement allowance paid to him along with the balance of the DROP account.

12. Special Death Benefits – Current Survivors

The monthly allowance payable to a current survivor of a deceased State Police member who was killed in the line of duty between July 1, 1972 and December 31, 2001 is increased from 50% to 66.67% of the deceased member's average final compensation.

APPENDIX D – SUMMARY OF PLAN PROVISIONS

PENSION PLAN OF JUDGES AND THEIR SURVIVING SPOUSES OF THE STATE OF MARYLAND* Established June 30, 1969

1. Membership

Membership is automatic for an employee qualifying as a judge after June 30, 1969, and is optional for judges in office on that date.

2. Member Contributions

Members are required to make contributions of 6% of salary until they have served for 16 years.

3. Service Retirement Allowance (Immediate Service Pension)

Eligibility - attainment of age 60 or retired by order of the Court of Appeals. Retirement is mandatory at age 70.

Pension - if former judge served at least 16 years, 2/3 of current fiscal year salary earned by a judge holding the same level judicial position as that held by the former judge on termination of service. If he did not serve 16 years; the benefit is multiplied by the ratio of years of service to 16.

4. Early Retirement Allowance

Not applicable to this System.

5. Disability Retirement Allowance (Disability Pension)

Eligibility - retirement for disability before attainment of age 60.

Pension - same as immediate service pension, payable immediately. However, if a judge has at least three years of eligibility service, the pension will not be less than 1/3 of his salary.

* *This summary includes provisions of the contributory plan only, as all members currently belong to that plan.*

APPENDIX D – SUMMARY OF PLAN PROVISIONS

6. Death Benefits

Spouse Pension

Eligibility - death of a judge or former judge at any age, leaving a surviving spouse.

Pension - 1/2 of the pension that would have been payable to the judge or former judge at the date of death if he were then eligible to receive a pension, payable immediately to the spouse. If no spouse, pension paid to children under age 18.

Lump Sum

Eligibility - termination of service by death of a judge leaving no spouse, or children under age 18.

Benefit - return of contributions accumulated with interest at a rate of 4% per annum.

7. Vested Retirement Allowance (Deferred Service Pension)

Eligibility - termination of service prior to eligibility for an immediate pension.

Pension - same as immediate service pension based on service at termination, payable at age 60.

In lieu of a deferred retirement pension, a former judge may elect to withdraw his contribution accumulated with interest at 4% per annum, within six months following his termination of service.

8. Cost-of-Living Adjustments

None except as provided through the pension formula.

9. Optional Forms of Payment

Not applicable to this System; normal form is joint and 50% annuity with spouse. However, a judge or former judge, who at the time of retirement, does not have a spouse or eligible minor child may elect one of the following optional forms of payment:

APPENDIX D – SUMMARY OF PLAN PROVISIONS

Option 1: Cash refund equal to excess of present value of retirement allowance at date of retirement over total amount of payments made to date of death.

Option 2: 100% joint and survivor annuity.

Option 3: 50% joint and survivor annuity.

Option 4: This option guarantees a return of accumulated member contributions.

Option 5: 100% "pop-up" joint and survivor annuity.

Option 6: "pop-up" joint and survivor annuity.

Option 7: Any other benefit which is actuarially equivalent to the retirement allowance and is approved by the Board of Trustees.

10. Reduction for Benefits Payable Under Workmen's Compensation

Not applicable to this System.

APPENDIX D – SUMMARY OF PLAN PROVISIONS

LAW ENFORCEMENT OFFICERS PENSION SYSTEM - RETIREMENT SYSTEM OF THE STATE OF MARYLAND Established July 1, 1990

A. Retirement System Provisions

1. Membership

Retirement System provisions are applicable only to those law enforcement officers who are employed by the following employers as authorized in Section 26-201 of the Annotated Code of Maryland: Department of Natural Resources police and law enforcement officers, Maryland Investigative Services Unit, Maryland Transportation Authority Police force, Baltimore City Sheriff's Department deputy sheriffs, University of Maryland Police force, State Fire Marshall or a Deputy Fire Marshall, Morgan State University Police force, Martin State Airport Firefighters, or a participating governmental unit who elects to have their law enforcement officers included in the Plan. Eligible employees, as of the date they elect to participate in this System, are members of the Employees' Retirement System of the State of Maryland. This includes Retirement System members who had elected the 5% contribution/5% COLA option and the 7% contribution/full COLA option.

2. Member Contributions

Members are required to contribute 7% of earnable compensation, except that:

- any member who had previously elected the 5% contribution/5% COLA option shall continue to contribute 5% of earnable compensation.

3. Service Retirement Allowance

Eligibility - 25 years of eligibility service or attainment of age 50.

Allowance – 2.3% of average compensation for the three highest years as an employee for each of the first 30 years of eligibility service, plus 1.0% of average compensation for each additional year.

4. Early Retirement Allowance

Not applicable to this System.

APPENDIX D – SUMMARY OF PLAN PROVISIONS

5. Disability Retirement Allowance

Ordinary

Eligibility - 5 years of eligibility service and certification of the medical board designated by the Board of Trustees that the member is incapacitated for the performance of duty and that the incapacity is permanent.

Allowance – 2.3% of average compensation for the highest years as an employee for each of the first 30 years of eligibility service, plus 1.0% of average compensation for each additional year, with a minimum of 25% of average compensation.

Accidental

Eligibility - total and permanent disability as certified by the medical board arising out of or in the course of the actual performance of duty.

Allowance - the benefit is the annuity provided by accumulated contributions, plus 66 2/3% of average compensation for the three highest years as an employee, with a maximum of average compensation.

6. Death Benefits

Ordinary

Eligibility - one year of eligibility service.

Benefit - member's annual earnable compensation at time of death plus accumulated contributions.

APPENDIX D – SUMMARY OF PLAN PROVISIONS

Special

Eligibility - two or more years of eligibility service or death in the performance of duty.

Allowance - the ordinary death retirement allowance or 50% of the ordinary disability retirement allowance to the surviving spouse, if any; or if there is no surviving spouse, to any children of the deceased under the age of 18 years, divided in a manner as the Board of Trustees determines.

7. Vested Retirement Allowance

Eligibility - 5 years of eligibility service.

Allowance - accrued retirement allowance payable at age 50.

The member may elect to withdraw his accumulated contributions at any time after termination of employment, in lieu of receiving the vested retirement allowance in the Retirement System. However, by doing so, the member forfeits all benefits inuring to him on account of his previous membership.

If the member does not withdraw his contributions, and dies before attaining age 50, his accumulated contributions are returned.

If the member does not have 5 years of eligibility service at termination of employment, his accumulated contributions are returned.

8. Cost-of-Living Adjustments

All retirement allowances are adjusted each year based on the Consumer Price Index. Cost-of-living adjustments are effective July 1 and are applied to all benefits which have been in payment for one year. For members contributing 5% of earnable compensation, the cost-of-living adjustment is limited to 5% annually.

9. Optional Forms of Payment

The normal form is a 50% joint and survivor annuity with spouse, if any; or if there is no surviving spouse or upon the death of the surviving spouse, to any children of the deceased under the age of 18 years, until every child dies or becomes 18 years, divided in a manner as the Board of Trustees determines.

APPENDIX D – SUMMARY OF PLAN PROVISIONS

Other forms of payment may be elected if there is no spouse at time of retirement.

- Option 1: Cash refund equal to excess of present value of retirement allowance at date of retirement over total amount of payments made to date of death.
- Option 2: 100% joint and survivor annuity.
- Option 3: 50% joint and survivor annuity.
- Option 4: This option guarantees a return of accumulated member contributions.
- Option 5: 100% "pop-up" joint and survivor annuity.
- Option 6: 50% "pop-up" joint and survivor annuity.
- Option 7: Any other benefit which is actuarial equivalent to the retirement allowance and is approved by the Board of Trustees.

10. Reduction for Benefits Payable under Workmen's Compensation

Disability retirement allowances, excluding the annuity reserves, are reduced for workmen's compensation benefits payable after retirement from injury occurring during employment with the Department of Natural Resources police and law enforcement officers, Maryland Investigative Services Unit, Maryland Transportation Authority Police force, Baltimore City Sheriff's Department deputy sheriffs, University of Maryland Police force, State Fire Marshall or a Deputy Fire Marshall, Morgan State University Police force, Martin State Airport Firefighters, or a participating governmental unit who elects to have their law enforcement officers included in the Plan, if the workmen's compensation benefits are for the same injury for which retirement was granted and are paid for the same period of time for which the retirement benefits are paid.

11. Deferred Retirement Option Program (DROP)

Members with 25 years of service may elect to enter the DROP program for a maximum of five years. During this period, they will cease making member contributions and cease accruing additional benefits. Their accrued service retirement allowance, with annual COLA adjustments, will be credited to an account along with interest at the rate of 6% per annum, compounded monthly. At any time up to five years later the member may cease working and have the service retirement allowance paid to him along with the balance of the DROP account.

APPENDIX D – SUMMARY OF PLAN PROVISIONS

B. Pension System Provisions

1. Membership

Membership is a condition of employment for all law enforcement officers who are employees of the Department of Natural Resources police and law enforcement officers, Maryland Investigative Services Unit, Maryland Transportation Authority Police force, Baltimore City Sheriff's Department deputy sheriffs, University of Maryland Police force, State Fire Marshall or a Deputy Fire Marshall, Morgan State University Police force, Martin State Airport Firefighters, or a participating governmental unit who elects to have their law enforcement officers included in the Plan, and were hired after July 1, 1990. Pension System provisions are also applicable to those Natural Resources Law Enforcement Officers' Pension System members who, as of the date they elect to participate in this System, are members of the Employees' Pension System of the State of Maryland or members of the Employees' Retirement System who had previously elected the bifurcated benefit option.

2. Member Contributions

Members are required to make contributions of 4% of earnable compensation.

3. Service Retirement Allowance

Eligibility - 25 years of eligibility service or attainment of age 50.

Allowance - 2.0% of average compensation for the three highest consecutive years as an employee for each of the first 30 years of eligibility service.

4. Early Retirement Allowance

Not applicable to this System.

5. Disability Retirement Allowance

Ordinary

Eligibility - 5 years of eligibility service and certification of the medical board designated by the Board of Trustees that the member is incapacitated for the performance of duty and that the incapacity is permanent.

Allowance - The benefit is the service retirement allowance computed on the basis that service continued until age 50 without any change in the rate of earnable compensation.

APPENDIX D – SUMMARY OF PLAN PROVISIONS

Accidental

Eligibility - total and permanent disability as certified by the medical board arising out of or in the course of the actual performance of duty.

Allowance - the benefit is the annuity provided by accumulated contributions, plus 66 2/3% of average compensation for the three highest years as an employee, with a maximum of average compensation.

6. Death Benefits

Ordinary

Eligibility - one year of eligibility service.

Benefit - member's annual earnable compensation at time of death plus accumulated contributions.

Special

Eligibility - two or more years of eligibility service or death in the performance of duty.

Allowance - the ordinary death retirement allowance or 50% of the ordinary disability retirement allowance to the surviving spouse, if any; or if there is no surviving spouse, to any children of the deceased under the age of 18 years, divided in a manner as the Board of Trustees determines.

7. Vested Retirement Allowance

Eligibility - 5 years of eligibility service.

Allowance - accrued retirement allowance payable at age 50.

The member may elect to withdraw his accumulated contributions at any time after termination of employment, in lieu of receiving the vested retirement allowance in the Pension System. However, by doing so, the member forfeits all benefits inuring to him on account of his previous membership.

If the member does not withdraw his contributions, and dies before attaining age 50, his accumulated contributions are returned.

APPENDIX D – SUMMARY OF PLAN PROVISIONS

If the member does not have 5 years of eligibility service at termination of employment, his accumulated contributions are returned upon request.

8. Cost-of-Living Adjustments

All retirement allowances are adjusted each year based on the Consumer Price Index. The annual adjustment is limited to 3% of the current benefit amount, and is applied to all benefits which have been in payment for one year.

9. Optional Forms of Payment

The normal form is a 50% joint and survivor annuity with spouse, if any; or if there is no surviving spouse or upon the death of the surviving spouse, to any children of the deceased under the age of 18 years, until every child dies or becomes 18 years, divided in a manner as the Board of Trustees determines.

Other forms of payment may be elected if there is no spouse at time of retirement.

Option 1: Cash refund equal to excess of present value of retirement allowance at date of retirement over total amount of payments made to date of death.

Option 2: 100% joint and survivor annuity.

Option 3: 50% joint and survivor annuity.

Option 4: This option guarantees a return of accumulated member contributions.

Option 5: 100% "pop-up" joint and survivor annuity.

Option 6: 50% "pop-up" joint and survivor annuity.

Option 7: Any other benefit which is actuarial equivalent to the retirement allowance and is approved by the Board of Trustees.

10. Reduction for Benefits Payable under Workmen's Compensation

Disability retirement allowances, excluding the annuity reserves, are reduced for workmen's compensation benefits payable after retirement from injury occurring during employment if the workmen's compensation benefits are for the same injury for which retirement was granted and are paid for the same period of time for which the retirement benefits are paid.

APPENDIX D – SUMMARY OF PLAN PROVISIONS

Deferred Retirement Option Plan (DROP)

Members with 25 years of service may elect to enter the DROP program for a maximum of five years. During this period, they will cease making member contributions and cease accruing additional benefits. Their accrued service retirement allowance, with annual COLA adjustments, will be credited to an account along with interest at the rate of 6% per annum, compounded monthly. At any time up to five years later the member may cease working and have the service retirement allowance paid to him along with the balance of the DROP account.

APPENDIX D – SUMMARY OF PLAN PROVISIONS

LOCAL FIRE & POLICE - RETIREMENT Established July 1, 1990

1. Membership

Retirement System provisions are applicable only to those Local Fire & Police participants who, as of the Municipal Corporation's date of participation in this plan, are members of the Employees' Retirement System of the State of Maryland, and elect to participate in this plan. This includes Retirement System members who had elected the bifurcated benefit option, the 5% contribution/5% COLA option and the 7% contribution/full COLA option.

2. Member Contributions

Members are required to contribute 7% of earnable compensation. Any member who had previously elected either the bifurcated benefit option or the 5% contribution/5% COLA option does not have to make up the difference between 7% of past compensation and actual contributions to receive full benefits from this plan.

3. Service Retirement Allowance

Eligibility - 25 years of eligibility service or attainment of age 60.

Allowance - 1/50 of average compensation for the three highest years as an employee for each of the first 30 years of eligibility service, plus 1/100 of average compensation for each additional year.

4. Early Retirement Allowance

Not applicable to this System.

5. Disability Retirement Allowance

Ordinary

Eligibility - 5 years of eligibility service and certification of the medical board designated by the Board of Trustees that the member is incapacitated for the performance of duty and that the incapacity is permanent.

APPENDIX D – SUMMARY OF PLAN PROVISIONS

Allowance - the benefit is 1/50 of average compensation for the three highest years as an employee for each year of eligibility service plus 1/100 of average compensation for each additional year, with a minimum of 25% of average compensation.

Accidental

Eligibility - total and permanent disability as certified by the medical board resulting from an accident occurring in the performance of duty.

Allowance - The benefit is the annuity provided by accumulated contributions, plus 66 2/3% of average compensation for the three highest years as an employee, with a maximum of average compensation.

6. Death Benefits

Eligibility - one year of eligibility service or death in the performance of duty.

Benefit - member's annual earnable compensation at time of death plus accumulated contributions. A surviving spouse who was named sole primary beneficiary may elect to receive the monthly allowance she would have received under Option 2 if member was eligible to retire or was at least age 55 and had at least 15 years of eligibility service.

7. Vested Retirement Allowance

Eligibility - 5 years of eligibility service.

Allowance - accrued retirement allowance payable at age 60.

The member may elect to withdraw his accumulated contributions at any time after termination of employment, in lieu of receiving the vested retirement allowance. However, by doing so, the member forfeits all benefits inuring to him on account of his previous membership.

If the member does not withdraw his contributions, and dies before attaining age 60, his accumulated contributions are returned.

If the member does not have 5 years of eligibility service at termination of employment, his accumulated contributions are returned.

APPENDIX D – SUMMARY OF PLAN PROVISIONS

8. Cost-of-Living Adjustments

All retirement allowances are adjusted each year based on the Consumer Price Index. Cost-of-living adjustments are effective July 1 and are applied to all benefits which have been in payment for one year.

9. Optional Forms of Payment

- Option 1: Cash refund equal to excess of present value of retirement allowance at date of retirement over total amount of payments made to date of death.
- Option 2: 100% joint and survivor annuity.
- Option 3: 50% joint and survivor annuity.
- Option 4: This option guarantees a return of accumulated member contributions.
- Option 5: 100% "pop-up" joint and survivor annuity.
- Option 6: 50% "pop-up" joint and survivor annuity.
- Option 7: Any other benefit which is actuarially equivalent to the retirement allowance and is approved by the Board of Trustees.

10. Reduction for Benefits Payable under Workmen's Compensation

Disability retirement allowances, excluding the annuity reserves, are reduced for workmen's compensation benefits payable after retirement from injury occurring during employment by the State or participating employer, if the workmen's compensation benefits are for the same injury for which retirement was granted and are paid for the same period of time for which the retirement benefits are paid.

APPENDIX D – SUMMARY OF PLAN PROVISIONS

LOCAL FIRE & POLICE - PENSION Established July 1, 1990

1. Membership

Membership and the associated Pension System Provisions are applicable, as a condition of employment, for all Local Fire & Police employed after the Municipal Corporation begins to participate in this System. Pension System Provisions are also applicable to those Local Fire & Police participants who, as of the Municipal Corporation's date of participation in this plan are members of the Employees' Pension System of the State of Maryland, and elect to participant in this plan.

2. Member Contributions

Members are required to make contributions of 5% of earnable compensation in excess of the Social Security taxable wage base.

3. Service Retirement Allowance

Eligibility - 25 years of eligibility service or attainment of age 62.

Allowance - 1.0% of average compensation for the three highest consecutive years as an employee up to the Social Security integration level plus 1.5% of average compensation over the integration level for each year of eligibility service. The Social Security integration level is the average annual earnings for which Social Security benefits are provided to an employee attaining age 65 in the year of a termination of employment, who earned the maximum Social Security covered earnings in each year.

If the member is employed by a Municipality that does not contribute to Social Security, then the service retirement allowance is 1.5% of average compensation for each year of eligibility service.

4. Early Retirement Allowance

Not applicable to this System.

5. Disability Retirement Allowance

Ordinary

Eligibility - 5 years of eligibility service and certification of the medical board designated by the Board of Trustees that the member is incapacitated for the performance of duty, and that the incapacity is permanent.

APPENDIX D – SUMMARY OF PLAN PROVISIONS

Allowance - the benefit is the service retirement allowance computed on the basis that service continued until age 62 without any change in the rate of earnable compensation.

Accidental

Eligibility - total and permanent disability as certified by the medical board resulting from an accident occurring in the performance of duty.

Allowance - the benefit is the annuity provided by accumulated contributions, plus 66 2/3% of average compensation for the three highest consecutive years as an employee, with a maximum of average compensation.

6. Death Benefits

Eligibility - one year of eligibility service or death in the performance of duty.

Benefit - member's annual earnable compensation at time of death plus accumulated contributions. A surviving spouse who was named sole primary beneficiary may elect to receive the monthly allowance she would have received under Option 2, determined as if the member were eligible to retire and retired 30 days before death if member was age at least 62, was at least age 55 and had at least 15 years of eligibility service, or had at least 25 years of eligibility service.

7. Vested Retirement Allowance

Eligibility - 5 years of eligibility service.

Allowance - accrued retirement allowance payable at age 62.

The member may elect to withdraw his accumulated contributions at any time after termination of employment, in lieu of receiving the vested retirement allowance in the Pension System. However, by doing so, the member forfeits all benefits inuring to him on account of his previous membership.

If the member does not withdraw his contributions, and dies before attaining age 62, his accumulated contributions are returned.

If the member does not have 5 years of eligibility service at termination of employment, his accumulated contributions are returned.

APPENDIX D – SUMMARY OF PLAN PROVISIONS

8. Cost-of-Living Adjustments

All retirement allowances are adjusted each year based on the Consumer Price Index. The annual adjustment is limited to 3% of the initial benefit amount, and is applied to all benefits which have been in payment for one year. The retirement allowance payable is the sum of the initial retirement allowance and all adjustments. Increases are effective July 1.

9. Optional Forms of Payment

Option 1: Cash refund equal to excess of present value of retirement allowance at date of retirement over total amount of payments made to date of death.

Option 2: 100% joint and survivor annuity.

Option 3: 50% joint and survivor annuity.

Option 4: This option guarantees a return of accumulated member contributions.

Option 5: 100% "pop-up" joint and survivor annuity.

Option 6: 50% "pop-up" joint and survivor annuity.

Option 7: Any other benefit which is actuarially equivalent to the retirement allowance and is approved by the Board of Trustees.

10. Reduction for Benefits Payable Under Workmen's Compensation

Disability retirement allowances, excluding annuity reserves, are reduced for workmen's compensation benefits payable after retirement from injury occurring during employment by the State or participating employer, if the workmen's compensation benefits are for the same injury for which retirement was granted and are paid for the same period of time for which the retirement benefits are paid.