
ACTUARIAL SECTION

EMPLOYEES' RETIREMENT & PENSION SYSTEMS

The Employees' Retirement System (established in 1941) and the Employees' Pension System (established in 1980) combined account for more than half of all State Retirement and Pension System members. Active membership in the combined employees' systems at the end of fiscal year 2002 exceeded 90,000 participants. Membership includes all regular employees of the State of Maryland. In addition, 130 local governmental units have voluntarily joined the system to provide survivor, disability and retirement benefits for their employees. The governor, members of the General Assembly, and state correctional officers are also included as members of the combined employees' systems.



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November 18, 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 as of June 30, 2002. The results of the valuation are contained in the following report.

Funding Objective

The funding objective of the System is to establish contribution rates which, over time, will remain level as a percent of payroll. In order to achieve this, a contribution rate has been determined which will provide for current cost (i.e., normal cost expressed as a level percent of payroll) plus a level percent of payroll amortization of the pre-2001 unfunded liability to the year 2020, and of each subsequent layer of unfunded liability over a 25 year period from the last year it first arises. Maryland law now contains provisions (i.e. a corridor approach) to prevent large fluctuations in the contribution rate, while adequately funding the liabilities.

Assumptions

The actuarial assumptions and methods used in performing this valuation meet the parameters set for disclosure presented in the financial section of the System's Comprehensive Annual Financial Report (CAFR) by Governmental Accounting Standards Board Statement No. 25, *Financial Reporting for Defined Benefit Pension Plans and Note Disclosures for Defined Contribution Plans*.

Reliance on Others

In preparing our report we relied, without audit, on employee census data and financial information provided by the State Retirement Agency. 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.

Supporting Schedules

Certain information presented in the System's June 30, 2002 CAFR was derived from our June 30, 2002 actuarial valuation report. In this regard, we were responsible for producing all supporting schedules to be found in the Actuarial Section.

Additionally we were responsible for producing all data presented in the Schedule of Funding Progress, Schedule of Employer Contributions and Notes to the Required Supplementary Information shown in the Financial Section of the 2002 CAFR.

Certification

I, Robert Dezube, am a consulting actuary for Milliman USA. I am also a member of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein. On the basis of the foregoing, I certify that, to the best of my knowledge this report is complete and accurate and has been prepared in accordance with Maryland's Annotated Code and 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

A handwritten signature in black ink that reads 'Robert S. Dezube'.

Robert S. Dezube, F.S.A.
Principal

BOARD SUMMARY

VALUATION COMMENTS

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 Governmental 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 System's 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 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 disclose the actuarially calculated rate which will be used for purposes of disclosing the Annual Required Contribution rate under Governmental 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 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

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

CONTRIBUTIONS

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 Fiscal Year 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 Fiscal Year 2003 or Fiscal Year 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		Rate as Percent of Covered Payroll - Budget (Corridor Method)	
June 30, 2001 State Rate	8.70%	June 30, 2001 State Rate	8.01%
Increase due to Plan Changes	0.00%	Increase in Systems not within the Corridor	0.02%
Increase due to Investment Loss	0.92%	Increase due to Shift in Payroll	0.03%
Decrease due to Liability Gain	(0.18%)	June 30, 2002 State Rate	8.06%
June 30, 2002 State Rate	9.44%		

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. 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

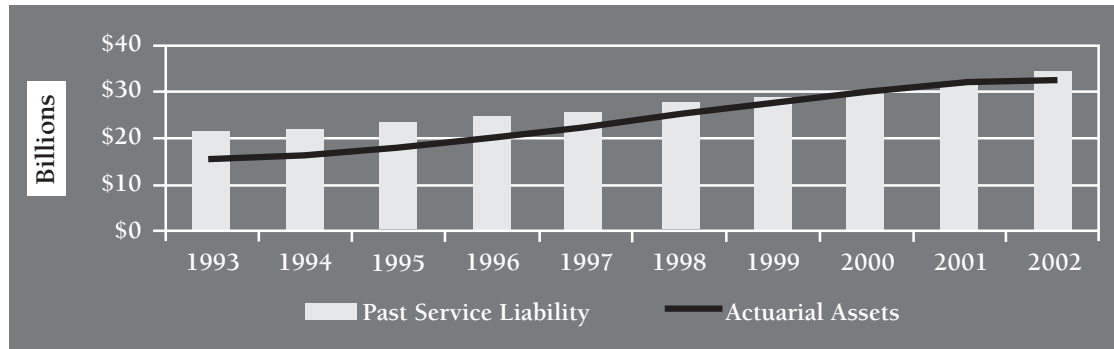


Chart B:
CASH FLOWS

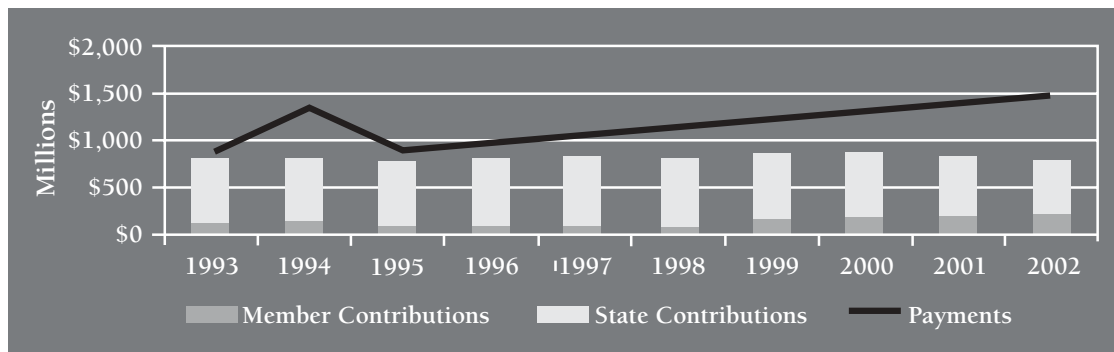


Chart C:
STATE
CONTRIBUTION RATE

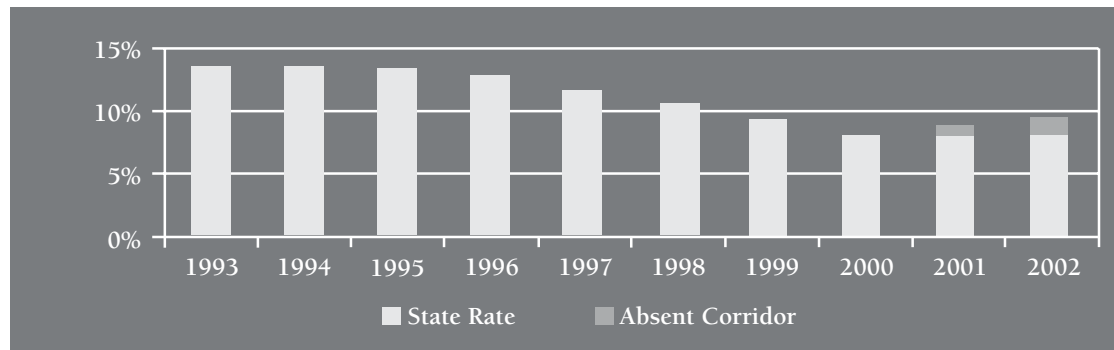


Chart A places into perspective the aforementioned investment and liability performance losses of this past year. The ratio of assets to liabilities (i.e., funding ratio), has continuously grown, not just over the period in the chart but since early 1980's. Despite the investment losses of the past two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

ACTUARIAL METHODS AND ASSUMPTIONS

FUNDING METHOD

The System uses the entry age normal cost method with projection to determine the actuarial accrued liability on which future employer contribution rates will be based. Under this funding method, a total contribution rate is determined which consists of two elements, the normal cost rate and the unfunded actuarial liability rate.

The unfunded actuarial accrued liability (UAAL) is being amortized, as a level percentage of payroll, in two distinct pieces. The UAAL which existed as of the June 30, 2000 actuarial valuation is being amortized over the remaining 18-year period to June 30, 2020. Each new layer of UAAL arising subsequent to June 30, 2000 is being amortized over a 25 year period.

ASSET VALUATION METHOD

Assets are valued for funding purposes using a five-year moving average. Under this method, the year end actuarial asset value equals 1/5 of the current fiscal year end fair value, as reported in the financial statements, plus 4/5 of the "expected market value". For purposes of this calculation, the "expected market value" is the preceding fiscal year's actuarial asset value, adjusted for the current fiscal year's cash flows with interest accumulated at the actuarial assumed rate of return on investments. This asset valuation method was effective beginning in fiscal year 2001.

ACTUARIAL ASSUMPTIONS

The assumptions used for the actuarial valuation were recommended by the System's independent actuary, based upon periodic analyses of the System's experience, and adopted by the Board of Trustees. Differences between assumed and actuarial experience (i.e., actuarial gains and losses) are part of the unfunded actuarial liability. The following significant assumptions were used in the actuarial valuation as of June 30, 2002:

- a rate of return on investments of 8 percent compounded annually (adopted June 30, 1998);
- projected salary increases of 5 percent compounded annually, attributable to inflation (adopted June 30, 1988);
- additional projected salary increases ranging from 0.94 percent to 6.82 percent per year attributable to seniority and merit (adopted June 30, 1988);
- post-retirement benefit increases ranging from 3 percent to 6 percent per year depending on the system (adopted June 30, 1982);
- rates of mortality, termination of service, disablement and retirement based on actual experience during the period from 1981 through 1996 (adopted June 30, 1998); and
- an increase in the aggregate active member payroll of 5 percent annually (adopted June 30, 1988).

**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))	27,747,088,286	26,322,956,731
3. Assets at market value	<u>26,586,894,393</u>	<u>29,481,509,782</u>
4. Unfunded value of accrued benefits (2-3)	<u>\$ 1,160,193,893</u>	<u>\$ (3,158,553,061)</u>
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>

SUMMARY OF UNFUNDED ACTUARIAL

Valuation Date June 30,	Actuarial Liabilities For			Total Liabilities	Actuarial Value of Assets
	Active Member Contributions	Retirees, Term Vested and Inactives	Active Members Employer Fin. Portion		
1993	\$1,522,095,569	\$ 9,214,710,929	\$10,438,449,084	\$21,175,255,582	\$15,684,924,051
1994	1,466,974,205	9,994,023,038	10,414,465,996	21,875,463,239	16,272,576,616
1995	1,503,414,664	10,622,091,333	10,967,030,922	23,092,536,919	17,666,581,953
1996	1,538,891,321	11,552,405,340	11,149,586,097	24,240,882,758	19,455,279,738
1997	1,502,991,713	12,714,514,210	11,165,702,737	25,383,208,660	21,920,695,723
1998	1,505,629,954	12,866,065,299	13,045,239,668	27,416,934,921	24,850,355,227
1999	1,580,530,209	13,583,779,499	13,311,070,338	28,475,380,046	27,646,578,997
2000	1,662,397,147	14,636,664,952	13,980,804,631	30,279,866,730	30,649,380,445
2001	1,752,989,299	15,939,733,140	14,777,219,354	32,469,941,793	31,914,778,425
2002	1,858,783,727	16,783,959,580	15,488,540,705	34,131,284,012	32,323,263,153

SUMMARY OF RETIREES AND BENEFICIARIES ADDED TO AND REMOVED FROM ROLLS

Fiscal Year Ended	Added to Rolls		Removed from Rolls		Rolls-End of Year		% Increase in Annual Allowances	Average Annual Allowance
	Number	Annual Allowance	Number	Annual Allowances	Number	Annual Allowances		
1993	5,207	\$58,378,258	1,732	\$8,440,324	59,318	\$711,531,666	10.22%	\$11,995
1994	4,505	44,993,432	1,933	9,358,981	61,890	772,412,629	8.56	12,480
1995	4,839	43,915,820	2,143	10,702,372	64,594	827,273,808	7.10	12,807
1996	4,784	47,649,016	2,316	11,930,488	67,062	901,855,498	9.02	13,448
1997	7,157	119,374,380	2,731	33,641,211	71,488	987,588,667	9.51	13,815
1998	5,217	90,497,436	2,366	30,768,198	74,339	1,047,317,905	6.05	14,088
1999	5,514	93,034,053	2,375	30,628,858	77,478	1,109,723,100	5.96	14,323
2000	5,758	115,003,079	2,463	31,450,868	80,773	1,211,400,269	7.41	14,998
2001	6,071	145,073,765	2,659	34,172,397	84,185	1,322,301,637	9.15	15,708
2002	5,925	107,545,768	2,743	36,803,883	87,367	1,393,043,522	5.35	15,945

ACTUARIAL SECTION

LIABILITIES / SOLVENCY TEST

Ratio of Assets to Actuarial Liabilities			Funded Ratio (Assets/Liab. Coverage)	Unfunded Actuarial Liability (UAL)	Annualized Payroll (Active Members)	UAL as % of Payroll
Active Member Contributions	Retirees Term Vested and Inactives	Active Members Employer Fin. Portion				
100%	100%	47.40%	74.07%	\$5,490,331,531	\$5,064,529,252	108%
100	100	46.20	74.39	5,602,886,623	5,246,249,283	107
100	100	50.52	76.50	5,425,954,966	5,532,149,777	98
100	100	57.08	80.26	4,785,603,020	5,640,833,581	85
100	100	68.99	86.36	3,462,512,937	5,657,384,942	61
100	100	80.33	90.64	2,566,579,694	5,900,456,000	43
100	100	93.77	97.09	828,801,049	6,312,417,000	13
100	100	102.64	101.22	(369,513,715)	6,725,870,000	(5)
100	100	96.24	98.29	555,163,368	7,255,036,000	8
100	100	88.33	94.70	1,808,020,859	7,937,530,373	23

STATEMENT OF CHANGES IN TOTAL ACTUARIAL
PRESENT VALUE OF ALL ACCRUED BENEFITS
(Expressed in Millions)

	Accumulated Benefit Obligation (FASB 35)
Actuarial present value of accrued benefits at June 30, 2001	\$26,323
Increase (decrease) during year attributable to:	
Passage of Time	2,048
Benefits Paid – FY 2002	(1,454)
Benefits Accrued, Other Gains/Losses	829
Plan Amendment & Changes in Actuarial Assumptions	1
Net Increase	1,424
Actuarial present value of accrued benefits at June 30, 2002	\$27,747

**REPORT OF THE ACTUARY ON THE VALUATION OF THE
STATE RETIREMENT AND PENSION SYSTEM OF MARYLAND
AS OF JUNE 30, 2002**

Summary of Principal Results

	June 30, 2002	June 30, 2001	% Change
1. Participant Data			
Number of:			
Active Members	190,123	184,600	3.0%
Retired Members and Beneficiaries	87,367	84,185	3.8
Vested Deferred Members	30,733	29,365	4.7
Inactive Status Members	13,622	13,834	(1.5)
Total Participants	<u>321,845</u>	<u>311,984</u>	3.2
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
2. Assets and 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 (Surplus)	<u>\$ 1,808,020,859</u>	<u>\$ 555,163,368</u>	225.7
FASB Accrued Liability	\$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 (Surplus)	<u>\$ 1,160,193,893</u>	<u>\$ (3,158,553,061)</u>	136.7

*Does not include members of State Police and LEOPS who have elected the DROP.

REPORT OF THE ACTUARY ON THE TWENTY-THIRD ANNUAL VALUATION OF THE
TEACHERS' COMBINED SYSTEM OF THE STATE OF MARYLAND
AS OF JUNE 30, 2002

Summary of Principal Results

	June 30, 2002	June 30, 2001	% Change
1. Participant Data			
Number of:			
Active Members	96,356	93,297	3.3%
Retired Members and Beneficiaries	41,920	40,126	4.5
Vested Deferred Members	11,416	11,084	3.0
Inactive Status Members	<u>6,624</u>	<u>6,253</u>	5.9
Total Participants	<u>156,316</u>	<u>150,760</u>	3.7
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
2. Assets and 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 (Surplus)	<u>\$ 1,693,046,519</u>	<u>\$ 944,194,323</u>	79.3
FASB Accrued Liability	\$17,434,637,904	\$16,578,147,167	5.2
Market Value of Assets	<u>16,052,071,028</u>	<u>17,757,484,649</u>	(9.6)
Unfunded FASB Accrued Liability (Surplus)	<u>\$ 1,382,566,876</u>	<u>\$(1,179,337,482)</u>	217.2

REPORT OF THE ACTUARY ON THE TWENTY-THIRD ANNUAL VALUATION OF THE
EMPLOYEES' COMBINED SYSTEM OF THE STATE OF MARYLAND
AS OF JUNE 30, 2002

Summary of Principal Results

	June 30, 2002	June 30, 2001	% Change
1. Participant Data			
Number of:			
Active Members	90,306	87,986	2.6%
Retired Members and Beneficiaries	43,109	41,914	2.9
Vested Deferred Members	19,274	18,238	5.7
Inactive Status Members	6,902	7,508	(8.1)
Total Participants	<u>159,591</u>	<u>155,646</u>	2.5
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
2. Assets and 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 (Surplus)	<u>\$ 223,483,805</u>	<u>\$ (232,050,777)</u>	196.3
FASB Accrued Liability	\$ 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 (Surplus)	<u>\$ (232,945,258)</u>	<u>\$(1,735,728,897)</u>	86.6

REPORT OF THE ACTUARY ON THE FIFTY-THIRD ANNUAL VALUATION OF THE
STATE POLICE RETIREMENT SYSTEM OF THE STATE OF MARYLAND
AS OF JUNE 30, 2002

Summary of Principal Results

	June 30, 2002	June 30, 2001	% Change
1. Participant Data			
Number of:			
Active Members	1,589	1,578	0.7%
Retired Members and Beneficiaries	1,598	1,518	5.3
Vested Deferred Members	20	17	17.6
Inactive Status Members	7	7	0.0
Total Participants	<u>3,214</u>	<u>3,120</u>	3.0
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
2. Assets and Liabilities			
Total Actuarial Liability	\$1,030,575,150	\$ 993,846,504	3.7
Assets for Valuation Purposes	1,300,401,695	1,305,556,360	(0.4)
Unfunded Actuarial Liability (Surplus)	<u>\$ (269,826,545)</u>	<u>\$(311,709,856)</u>	13.4
FASB Accrued Liability	\$ 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 (Surplus)	<u>\$ (149,404,002)</u>	<u>\$(340,857,153)</u>	56.2

* Does not include members who elected DROP.

**REPORT OF THE ACTUARY ON THE TWENTY-THIRD ANNUAL VALUATION OF THE
PENSION PLAN OF JUDGES AND THEIR SURVIVING SPOUSES
AS OF JUNE 30, 2002**

Summary of Principal Results

	June 30, 2002	June 30, 2001	% Change
1. Participant Data			
Number of:			
Active Members	281	281	0.0%
Retired Members and Beneficiaries	311	297	4.7
Vested Deferred Members	10	13	(23.1)
Inactive Status Members	<u>0</u>	<u>0</u>	0.0
Total Participants	<u>602</u>	<u>591</u>	1.9
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
2. Assets and 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 (Surplus)	<u>\$ 32,974,110</u>	<u>\$ 25,891,008</u>	27.4
FASB Accrued Liability	\$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 (Surplus)	<u>\$ 46,453,961</u>	<u>\$ 15,571,212</u>	198.3

**REPORT OF THE ACTUARY ON THE TWELFTH ANNUAL VALUATION OF THE
LAW ENFORCEMENT OFFICERS' PENSION SYSTEM OF THE STATE OF MARYLAND
AS OF JUNE 30, 2002**

Summary of Principal Results

	June 30, 2002	June 30, 2001	% Change
1. Participant Data			
Number of:			
Active Members	1,410	1,318	7.0%
Retired Members and Beneficiaries	403	309	30.4
Vested Deferred Members	8	9	(11.1)
Inactive Status Members	58	40	45.0
Total Participants	<u>1,879</u>	<u>1,676</u>	12.1
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
2. Assets and 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 (Surplus)	<u>\$120,957,712</u>	<u>\$124,025,331</u>	(3.1)
FASB Accrued Liability	\$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 (Surplus)	<u>\$110,383,123</u>	<u>\$ 81,613,902</u>	35.3

* Does not include members who elected DROP.

REPORT OF THE ACTUARY ON THE TWELFTH ANNUAL VALUATION OF THE
 LOCAL FIRE AND POLICE SYSTEM OF THE STATE OF MARYLAND
 AS OF JUNE 30, 2002

Summary of Principal Results

	June 30, 2002	June 30, 2001	% Change
1. Participant Data			
Number of:			
Active Members	181	140	29.3%
Retired Members and Beneficiaries	26	21	23.8
Vested Deferred Members	5	4	25.0
Inactive Status Members	<u>31</u>	<u>26</u>	19.2
Total Participants	<u>243</u>	<u>191</u>	27.2
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
2. Assets and Liabilities			
Total Actuarial Liability	\$18,323,552	\$13,827,807	32.5
Assets for Valuation Purposes	<u>10,938,294</u>	<u>9,814,468</u>	11.5
Unfunded Actuarial Liability (Surplus)	<u>\$ 7,385,258</u>	<u>\$ 4,013,339</u>	84.0
FASB Accrued Liability	\$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 (Surplus)	<u>\$ 3,139,192</u>	<u>\$ 185,359</u>	1,593.6

SCHEDULE OF ACTIVE MEMBERSHIP VALUATION DATA BY PLAN

Teachers' Retirement

Valuation Date As of June 30,	Number	Annual Payroll	Annual Average Pay	% Increase Avg. Pay
1993	22,598	\$1,029,724,826	\$45,567	2.11 %
1994	19,135	887,582,851	46,385	1.80
1995	18,011	877,613,890	48,727	5.05
1996	16,850	843,710,972	50,072	2.76
1997	15,619	799,096,847	51,162	2.18
1998	14,346	760,092,729	52,983	3.56
1999	13,043	719,046,552	55,129	4.05
2000	11,634	671,990,806	57,761	4.77
2001	10,396	638,864,807	61,453	6.39
2002	9,270	604,172,528	65,175	6.06

Teachers' Pension

Valuation Date As of June 30,	Number	Annual Payroll	Annual Average Pay	% Increase Avg. Pay
1993	53,235	\$1,685,895,609	\$31,669	1.84 %
1994	58,898	1,934,173,528	32,839	3.69
1995	61,749	2,108,777,126	34,151	4.00
1996	63,818	2,221,492,064	34,810	1.93
1997	66,978	2,352,121,326	35,118	0.88
1998	71,435	2,559,167,548	35,825	2.01
1999	75,578	2,831,567,375	37,465	4.58
2000	79,297	3,057,854,648	38,562	2.93
2001	82,901	3,355,335,942	40,474	4.96
2002	87,086	3,718,881,395	42,704	5.51

Employees' Retirement

Valuation Date As of June 30,	Number	Annual Payroll	Annual Average Pay	% Increase Avg. Pay
1993	16,775	\$517,025,369	\$30,821	0.62 %
1994	15,852	491,015,282	30,975	0.50
1995	15,306	491,241,364	32,095	3.62
1996	14,850	490,784,260	33,049	2.97
1997	13,469	445,726,994	33,093	0.13
1998	13,149	439,012,253	33,388	0.89
1999	12,657	436,772,178	34,508	3.35
2000	12,213	444,062,220	36,360	5.37
2001	11,962	457,899,607	38,280	5.28
2002	11,722	470,462,717	40,135	4.85

SCHEDULE OF ACTIVE MEMBERSHIP VALUATION DATA BY PLAN
(continued)

Employees' Pension

Valuation Date As of June 30,	Number	Annual Payroll	Annual Average Pay	% Increase Avg. Pay
1993	67,447	\$ 1,737,891,857	\$ 25,767	0.71 %
1994	69,653	1,837,305,530	26,378	2.37
1995	71,328	1,955,054,635	27,409	3.91
1996	70,215	1,984,030,014	28,257	3.09
1997	68,195	1,953,776,617	28,650	1.39
1998	68,893	2,009,173,639	29,164	1.79
1999	70,426	2,176,887,154	30,910	5.99
2000	73,212	2,385,187,733	32,579	5.40
2001	76,024	2,626,959,051	34,554	6.06
2002	78,584	2,886,208,074	36,728	6.29

Judges' Retirement

Valuation Date As of June 30,	Number	Annual Payroll	Annual Average Pay	% Increase Avg. Pay
1993	264	\$ 22,605,184	\$ 85,626	0.22 %
1994	266	22,831,506	85,833	0.24
1995	260	23,063,700	88,707	3.35
1996	264	23,917,131	90,595	2.13
1997	268	25,007,240	93,311	3.00
1998	273	25,552,537	93,599	0.31
1999	283	29,576,854	104,512	11.66
2000	283	30,146,837	106,526	1.93
2001	281	30,554,439	108,735	2.07
2002	281	31,824,096	113,253	4.16

State Police Retirement

Valuation Date As of June 30,	Number	Annual Payroll	Annual Average Pay	% Increase Avg. Pay
1993	1,583	\$ 58,001,744	\$ 36,640	0.30 %
1994	1,584	59,097,769	37,309	1.83
1995	1,577	60,677,175	38,476	3.13
1996	1,544	60,823,269	39,393	2.38
1997	1,588	62,936,492	39,633	0.61
1998	1,635	70,663,067	43,219	9.05
1999	1,647	75,601,750	45,903	6.21
2000	1,636	79,388,246	48,526	5.71
2001	1,578	79,382,508	50,306	3.67
2002	1,589	83,141,520	52,323	4.01

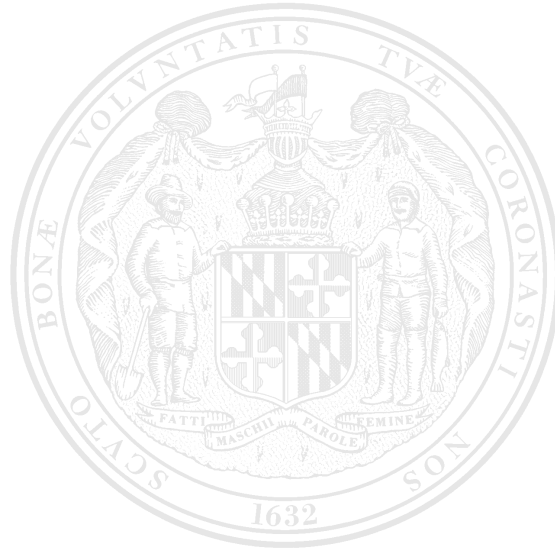
SCHEDULE OF ACTIVE MEMBERSHIP VALUATION DATA BY PLAN
(continued)

Law Enforcement Officers' Pension

Valuation Date As of June 30,	Number	Annual Payroll	Annual Average Pay	% Increase Avg. Pay
1993	277	\$ 9,775,208	\$ 35,290	(2.70%)
1994	277	10,176,944	36,740	4.11
1995	301	11,368,811	37,770	2.80
1996	294	11,645,942	39,612	4.88
1997	317	12,904,416	40,708	2.77
1998	755	30,511,663	40,413	(0.72)
1999	862	36,435,243	42,268	4.59
2000	1,130	50,301,859	44,515	5.32
2001	1,318	60,438,291	45,856	3.01
2002	1,410	65,915,519	46,748	1.95

Local Fire and Police

Valuation Date As of June 30,	Number	Annual Payroll	Annual Average Pay	% Increase Avg. Pay
1993	117	\$ 3,609,455	\$ 30,850	2.82 %
1994	131	4,065,873	31,037	0.61
1995	134	4,353,076	32,486	4.67
1996	133	4,429,929	33,308	2.53
1997	168	5,815,010	34,613	3.92
1998	177	6,287,842	35,525	2.63
1999	178	6,529,920	36,685	3.27
2000	184	6,937,750	37,705	2.78
2001	140	5,600,965	40,007	6.11
2002	181	7,188,351	39,715	(0.73)



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