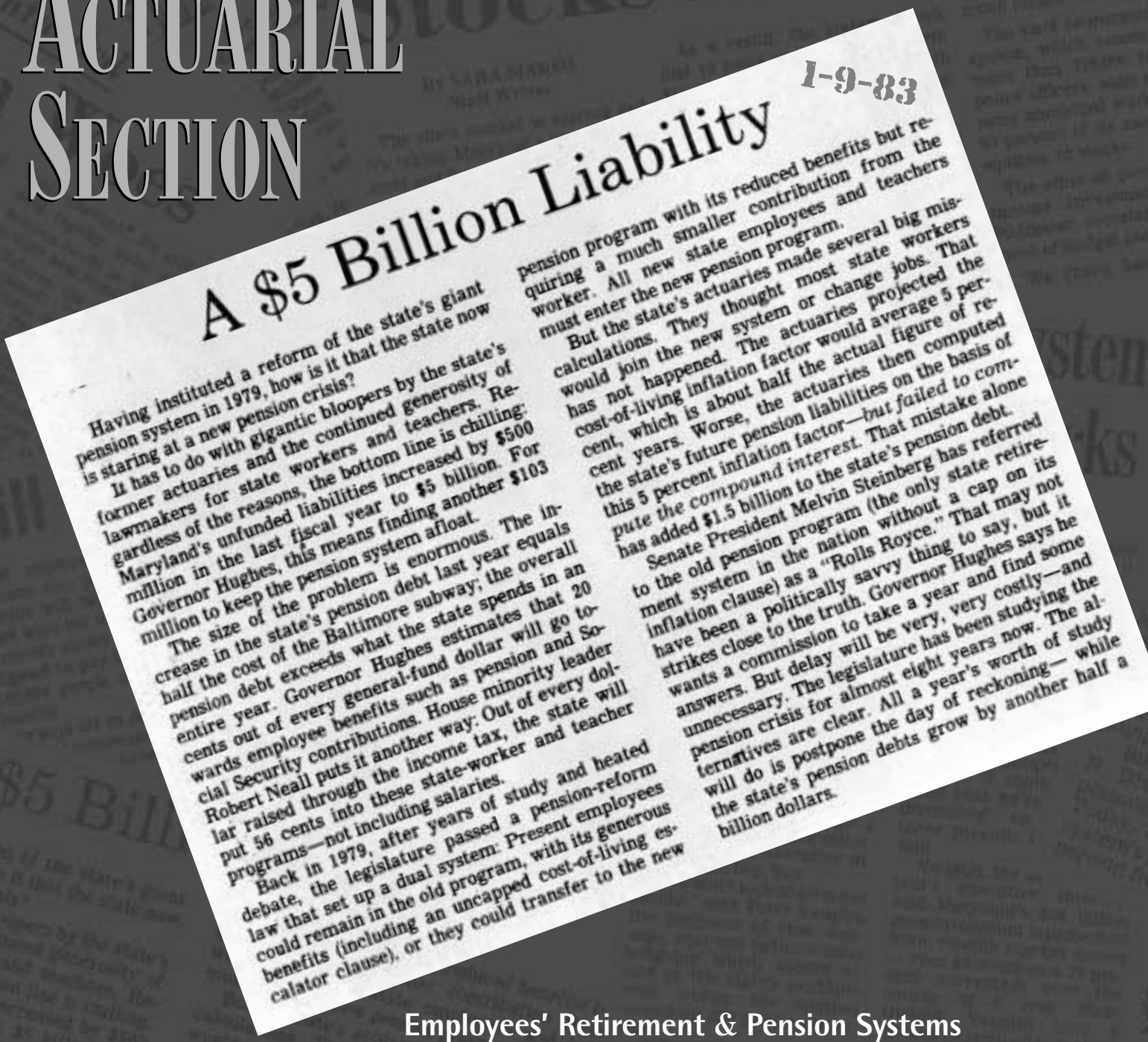
Actuarial Section



1-9-83

A $5 Billion Liability

Having instituted a reform of the state's giant pension system in 1979, how is it that the state now is staring at a new pension crisis?

It has to do with gigantic bloopers by the state's former actuaries and the continued generosity of lawmakers for state workers and teachers. Regardless of the reasons, the bottom line is chilling: Maryland's unfunded liabilities increased by $500 million in the last fiscal year to $5 billion. For Governor Hughes, this means finding another $103 million to keep the pension system afloat.

The size of the problem is enormous. The increase in the state's pension debt last year equals half the cost of the Baltimore subway; the overall pension debt exceeds what the state spends in an entire year. Governor Hughes estimates that 20 cents out of every general-fund dollar will go towards employee benefits such as pension and Social Security contributions. House minority leader Robert Neall puts it another way: Out of every dollar raised through the income tax, the state will put 56 cents into these state-worker and teacher programs—not including salaries.

Back in 1979, after years of study and heated debate, the legislature passed a pension-reform law that set up a dual system: Present employees could remain in the old program, with its generous benefits (including an uncapped cost-of-living escalator clause), or they could transfer to the new pension program with its reduced benefits but requiring a much smaller contribution from the worker. All new state employees and teachers must enter the new pension program.

But the state's actuaries made several big miscalculations. They thought most state workers would join the new system or change jobs. That has not happened. The actuaries projected the cost-of-living inflation factor would average 5 percent, which is about half the actual figure of recent years. Worse, the actuaries then computed the state's future pension liabilities on the basis of this 5 percent inflation factor—*but failed to compute the compound interest*. That mistake alone has added $1.5 billion to the state's pension debt.

Senate President Melvin Steinberg has referred to the old pension program (the only state retirement system in the nation without a cap on its inflation clause) as a "Rolls Royce." That may not have been a politically savvy thing to say, but it strikes close to the truth. Governor Hughes says he wants a commission to take a year and find some answers. But delay will be very, very costly—and unnecessary. The legislature has been studying the pension crisis for almost eight years now. The alternatives are clear. All a year's worth of study will do is postpone the day of reckoning— while the state's pension debts grow by another half a billion dollars.

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 2000 exceeded 85,000 participants. Membership includes all regular employees of the State of Maryland. Over 120 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 15, 2000

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

Dear Members of the Board:

At your request, we have performed our annual actuarial valuation of the State Retirement & Pension System of Maryland as of June 30, 2000. The results of the valuation are contained in this 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 unfunded liability to the year 2020. This funding objective has been met 20 years early as the plan has achieved a fully funded status.

Assumptions

The 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 Government 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 have 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, 2000 CAFR was derived from our June 30, 2000 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 2000 CAFR.

Certification

On the basis of the foregoing, we certify that, to the best of our 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.

Respectfully submitted,
MILLIMAN & ROBERTSON, INC.

Eugene M. Kalwarski, F.S.A.
Principal

BOARD SUMMARY

Valuation Comments

This report presents the results of the June 30, 2000 actuarial valuation of the State Retirement and Pension System of Maryland (SRPS). The primary purposes for performing the valuation are as follows:

- to determine the contributions to be paid by the State in Fiscal Year 2002
- to disclose asset and liability measures as of June 30, 2000
- to analyze and report on trends in System contributions, assets, and liabilities over the past several years.

The experience of the SRPS during the fiscal year ending June 30, 2000 was better than expected, both with respect to investments and liabilities. As a result, the State's cost, expressed as a percentage of payroll, decreased by 133 basis points (1.33%) compared to the prior fiscal year's cost. At the start of the millennium, the System's financial position is at an all time high. Unfunded liabilities have been extinguished, the System's funding ratio is at 101% and the State's contribution rate is lower than it has been for over 20 years. This rate excludes the $8.6 million to be paid by the University of Maryland to fund early retirement window benefits.

Looking at each of the components, System assets increased by $1,232 million more than expected and the liability growth was $169 million less than expected. Offsetting the actuarial gain on liabilities were plan improvements which increased the total liability by $71 million. The net effect of assets gains, liability gains, and plan changes is a net actuarial gain of $1,330 million.

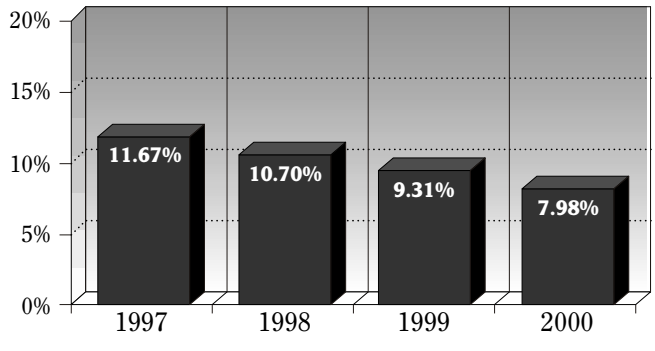
Looking forward, the key to maintaining the System's financial condition will be investment performance.

The balance of this section presents summarized information regarding System trends, details on the 1999/2000 experience, and summary tables presenting results for each of the separate Systems.

System Trends

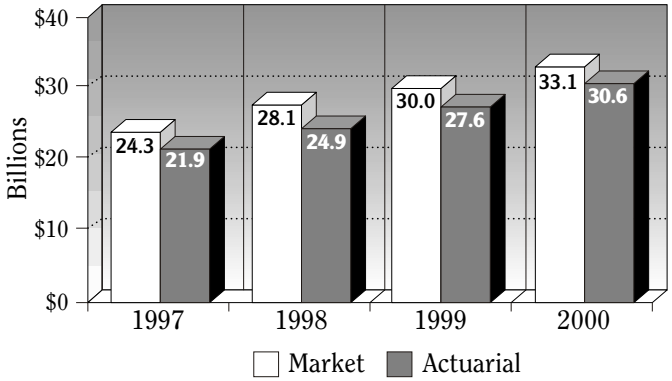
The major findings of the 2000 valuation are summarized and compared in the following charts:

Contribution Rates

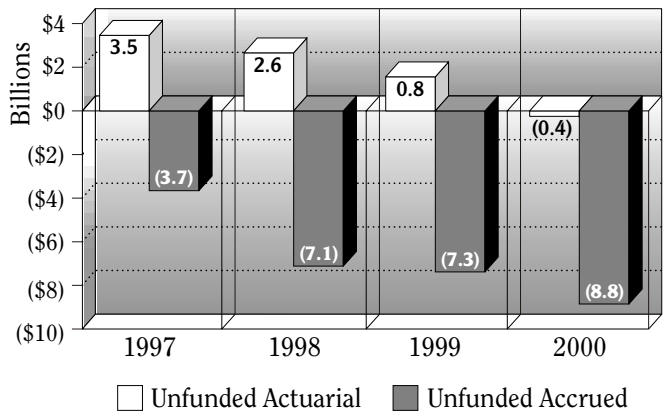


The System's contribution rates have been declining over the past several years, primarily due to outstanding investment performance.

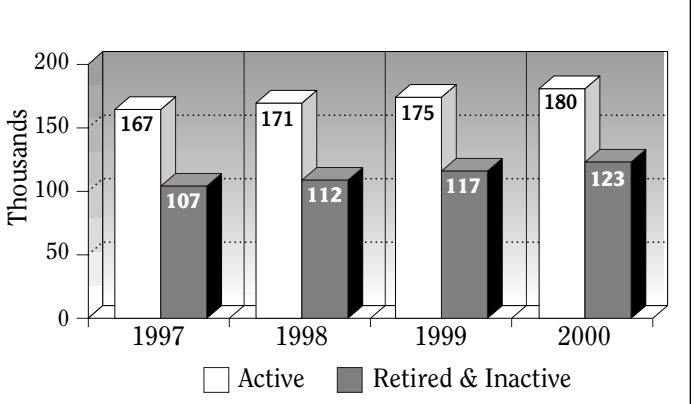
Assets



System asset growth on both a market value basis and an actuarial (smoothed) basis has been quite strong, with nearly a 50% increase over this short period.



Unfunded "actuarial liabilities" (projected) are significantly lower than expected for 2000. Again, investment performance is the primary reason. Unfunded "accrued liabilities," which measure the funded status of the System based on participants' current service credits and salaries (i.e., no projections), have been negative since 1996.



Active membership has grown about 2.5% per year for the period shown. Inactive membership (retirees and vested terminations) has grown 4.5% per year over the four-year period. As this trend increases, System cashflows (contributions less payouts) will increasingly become negative, leading to important investment considerations.

Experience 1999–2000

Below we examine the specific factors which contributed to the change in the System's assets, liabilities, and contribution rates between June 30, 1999 and June 30, 2000.

Assets

Between June 30, 1999 and June 30, 2000, assets of the System (measured on an actuarial smoothed basis) increased by $3,003 million. This change is analyzed below:

(In Millions)		Actuarial Value
June 30, 1999 actuarial value of assets		$27,646
Changes in Assets		
• Employer and Member Contributions	$ 865	
• Benefits and Expenses	(1,289)	
• Expected Investment Return	2,195	
• Investment Gain/(Loss)	1,232	
Total Changes	$3,003	
June 30, 2000 actuarial value of assets		$30,649

The expected investment return shown above is based on an 8.0% assumption. The actual return was 11.92%. The actuarial value of assets is based on a smoothing method to dampen fluctuations caused by market forces. Each year the actuarial value of assets will recognize only one-third of the return greater or less than the 8.0% assumption. The $1,232 million investment gain reflects the amount being recognized by this year's actuarial value.

Liabilities

Two different measurements of liabilities are calculated at each valuation.

- **Actuarial Liabilities** are used for determining contribution levels and include projections of future service and payroll. These liabilities are also suitable for disclosure under Government Accounting Standards Board Statements Number 25 & 27.
- **Liability for Accrued Benefits** is used for informational purposes and is based on service and payroll as of June 30, 2000.

Between June 30, 1999 and June 30, 2000 these liabilities changed as follows:

(In Millions)	June 30, 2000	June 30, 1999	Change
Actuarial Liability	$30,280	$28,475	$1,805
Liability for Accrued Benefits	$24,283	$22,690	$1,593

The growth in actuarial liabilities, $1,805 million, includes an increase of $71 million due to benefit improvements but still was $169 million less than expected (liability gains). This gain was attributable to a number of factors, including cost of living adjustments and payroll growth less than assumed during the prior year.

Unfunded Liabilities

The net changes in System unfunded liabilities between June 30, 1999 and June 30, 2000 are summarized below:

(In Millions)	June 30, 2000	June 30, 1999	Change
Actuarial Liability	$30,280	$28,475	$ 1,805
Less the Actuarial Value of Assets	30,649	27,646	3,003
Unfunded Actuarial Liability	$ (369)	$829	$ (1,198)

Between June 30, 1999 and June 30, 2000, unfunded actuarial liabilities were expected to increase to $1,032 million, or an increase of $203 million. The difference between the actual decrease of $1,198 million and the expected increase represents a $1,401 million net actuarial gain. The components of this gain are summarized as follows:

Liability gain/(loss)	$ 169
Investment gain/(loss)	1,232
Net Actuarial gain/(loss)	$ 1,401

Now that the System has achieved "full funding," the future fluctuations in investment returns (above and below the assumed) will most likely result in corresponding future patterns of unfunded liability and surplus disclosures.

Contributions

The State's contribution rate decreased by 1.33% of pay, to 7.98% as of June 30, 2000 from 9.31% on June 30, 1999. This change can be analyzed as follows:

June 30, 1999 State rate	9.31%
Increases	
• Plan Changes	0.13
Decreases	
• Investment gain	(1.29)
• Liability gain	(0.17)
June 30, 2000 State rate	7.98%

Membership

The total membership (both active and inactive) of the System increased to 302,873 as of June 30, 2000 from 291,817 as of June 30, 1999, an increase of 3.8%. The total annual payroll of active members increased by 6.4% to $6.80 billion as of June 30, 2000 from $6.39 billion as of June 30, 1999.

Actuarial Procedures and Assumptions

Asset Valuation Method

The market value representing the value for which assets could be sold on a particular day, is not necessarily an appropriate value for the purpose of setting the contribution rates for the System. This is because funding will take place over a long period into the future during which time market values can be expected to fluctuate widely. If market values were used to develop contribution rates, the resulting contributions would also vary widely.

In order to produce a stable pattern of contribution rates, market values are adjusted so that some of the volatility is removed. This adjusted value of assets is called actuarial value. For purposes of this valuation, actuarial value is determined by using a simplified three-year moving average. Under this method (adopted July 1, 1992), the actuarial value of the assets is one-third of the market value plus two-thirds of the expected value, where the expected value is last year's actuarial value and subsequent cash flows into and out of the fund accumulated with interest at the actuarial assumed rate of return on investments.

For the Employees' Retirement and Pension System, total assets must be allocated between State and the Participating Governmental Unit pool. Beginning July 1, 1984, this allocation is based upon actual aggregate cash flows and shared investment results.

Funding Method

The System uses the aggregate entry age normal method with projection to determine costs. Under this funding method (adopted July 1, 1984), a total contribution rate is determined which consists of two elements, the normal cost rate and the unfunded actuarial liability rate (UAL).

For the Teachers' Pension, Employees' Pension, State Police, Judges', Law Enforcement Officers' Pension, and Local Fire and 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 their 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.

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 actuarial losses or decreased by actuarial gains, these amounts will be included as part of the unfunded actuarial liability and funded over the remaining amortization period.

Retirement Benefits

Effective July 1, 1980, in accordance with the law governing the System, all benefits of the System are funded in advance. Employer contribution rates for retirement benefits are determined using the entry age normal cost method. This method produces an employer contribution rate consisting of (1) an amount for normal cost (the estimated amount necessary to finance benefits earned by employees during the current service year), and (2) the amount for amortization of the unfunded actuarial accrued liability. The unfunded actuarial accrued liability is being amortized over 40 years (as provided by law) and the liquidation period for the unfunded actuarial accrued liabilities is 20 years from June 30, 2000.

Actuarial Assumptions

The assumptions used for the actuarial valuation were recommended by the System's independent actuary, based upon periodic analysis of the System's experience, and adopted by the Board of Trustees. Differences between assumed and actual 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, 1999:

- 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
- the aggregate active member payroll is assumed to increase by 5 percent annually (adopted June 30, 1988).

Accounting Statement Information
The Total Systems of the State of Maryland

	2000	1999
A. FASB #35 basis		
1. Present value of benefits accrued to date:		
a. Members currently receiving payments	**$ 14,077,502,697**	$ 13,801,277,851
b. Former vested members	**559,162,255**	502,501,648
c. Active members	**9,646,684,674**	9,106,006,020
2. Total present value of accrued benefits (1 (a) + 1 (b) + 1 (c))	**24,283,349,626**	22,689,785,519
3. Assets at market value	**33,110,690,456**	29,985,548,981
4. Unfunded value of accrued benefits (2-3)	**$ (8,827,340,830)**	$ (7,295,763,462)
5. Ratio of assets to value of benefits (3/2)	**136.35%**	132.15%
B. GASB #25 basis		
1. Actuarial accrued liabilities for retirees and beneficiaries currently receiving benefits and terminated employees not yet receiving benefits	**$ 14,636,664,952**	$ 13,583,779,499
2. Actuarial accrued liabilities for current employees	**15,643,201,778**	14,891,600,547
3. Total actuarial accrued liabililty (1+2)	**30,,279,866,730**	28,475,380,046
4. Net actuarial assets available for benefits	**30,649,380,445**	27,646,578,997
5. Unfunded actuarial accrued liability (3-4)	**$ (369,513,715)**	$ 828,801,049

Summary of Unfunded Actuarial

Valuation Date June 30,	Actuarial Liabilities For: Active Member Contributions	Retirees, Term Vested and Inactives	Active Members Employer Fin. Portion	Total Liabilities	Actuarial Value of Assets
1991	$ 1,449,116,538	$ 7,856,742,579	$ 10,462,025,943	$ 19,767,885,060	$ 13,400,925,815
1992	1,521,360,035	8,367,721,533	10,113,691,911	20,002,773,479	14,381,367,328
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

Summary of Retirees and Beneficiaries Added to and Removed from Rolls

Fiscal Year Ended	Added to Rolls: Number	Added to Rolls: Annual Allowance	Removed from Rolls: Number	Removed from Rolls: Annual Allowances	Rolls-End of Year: Number	Rolls-End of Year: Annual Allowances	% Increase in Annual Allowances	Average Annual Allowance
1992	3,956	$49,394,903	1,727	$18,523,007	55,843	$645,581,071	9.36%	$11,561
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

Liabilities / Solvency Test

Ratio of Assets to Actuarial Liabilities						
Active Member Contributions	Retirees Term Vested and Inactives	Active Members Employer Fin. Portion	Funded Ratio (Assets/Liab. Coverage)	Unfunded Actuarial Liability (UAL)	Annualized Payroll (Active Members)	UAL as % of Payroll
100 %	100 %	39.14 %	67.79 %	$ 6,366,959,245	$ 5,093,707,708	125 %
100	100	44.42	71.90	5,621,406,151	5,023,780,800	112
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	6,148,300,166	42
100	100	93.77	97.09	828,801,049	6,388,973,031	13
100	100	102.64	101.22	(369,513,715)	6,796,240,322	(5)

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, 1999	$ 22,690
Increase (decrease) during year attributable to:	
Passage of Time	1,765
Benefits Paid – FY 2000	(1,289)
Benefits Accrued, Other Gains/Losses	940
Plan Amendment & Changes in Actuarial Assumptions	177
Net Increase	1,593
Actuarial present value of accrued benefits at June 30, 2000	$ 24,283

Report of the Actuary on the Valuation of the State Retirement and Pension System of Maryland
as of June 30, 2000

Summary of Principal Results

	June 30, 2000	June 30, 1999	% Change
1. Participant Data			
Number of:			
Active Members	**179,586**	174,674	2.81 %
Retired Members and Beneficiaries	**80,773**	77,478	4.25
Vested Deferred Members	**28,307**	25,649	10.36
Inactive Status Members*	**14,207**	14,016	1.36
Total Participants	**302,873**	291,817	3.79
Annual Salaries of Active Members	**$ 6,796,240,322**	$ 6,388,973,031	6.37
Annual Retirement Allowances for Retired Members and Beneficiaries	**$ 1,211,400,269**	$ 1,127,848,058	7.41
2. Assets and Liabilities			
Total Actuarial Liability	**$ 30,279,866,730**	$ 28,475,380,046	6.34
Assets for Valuation Purposes	**30,649,380,445**	27,646,578,997	10.86
Unfunded Actuarial Liability	**(369,513,715)**	828,801,049	(144.58)
FASB Accrued Liability	**24,283,349,626**	22,689,785,519	7.02
Market Value of Assets	**33,110,690,456**	29,985,548,981	10.42
Unfunded FASB Accrued Liability (Surplus)	**(8,827,340,830)**	(7,295,763,462)	(20.99)

** Inactive status refers to vested members who are not on active payroll status, have not withdrawn their accumulated contributions from the System, and have past membership service credit which may be counted towards future benefits.*

Report of the Actuary on the Twenty-first Annual Valuation of the Teachers' Combined System of the State of Maryland
as of June 30, 2000

Summary of Principal Results

	June 30, 2000	June 30, 1999	% Change
1. Participant Data			
Number of:			
Active Members	**90,928**	88,621	2.60 %
Retired Members and Beneficiaries	**38,145**	36,057	5.79
Vested Deferred Members	**10,614**	9,815	8.14
Inactive Status Members*	**6,103**	5,395	13.12
Total Participants	**145,790**	139,888	4.22
Annual Salaries of Active Members	**$ 3,753,095,749**	$ 3,576,866,970	4.93
Annual Retirement Allowances for Retired Members and Beneficiaries	**$ 744,128,619**	$ 684,851,048	8.66
2. Assets and Liabilities			
Total Actuarial Liability	**$18,994,293,580**	$18,036,250,862	5.31
Assets for Valuation Purposes	**18,419,538,878**	16,634,932,328	10.73
Unfunded Actuarial Liability	**574,754,702**	1,401,318,534	(53.98)
FASB Accrued Liability	**15,318,391,567**	14,447,633,894	6.09
Market Value of Assets	**19,850,431,279**	18,001,316,057	10.27
Unfunded FASB Accrued Liability (Surplus)	**(4,532,039,712)**	(3,553,682,163)	(27.53)

** Inactive status refers to vested members who are not on active payroll status, have not withdrawn their accumulated contributions from the System, and have past membership service credit which may be counted towards future benefits.*

Report of the Actuary on the Twenty-first Annual Valuation of the Employees' Combined System of the State of Maryland
as of June 30, 2000

Summary of Principal Results

	June 30, 2000	June 30, 1999	% Change
1. Participant Data			
Number of:			
Active Members	**85,425**	83,083	2.82 %
Retired Members and Beneficiaries	**40,730**	39,667	2.68
Vested Deferred Members	**17,655**	15,791	11.80
Inactive Status Members*	**8,051**	8,574	(6.10)
Total Participants	**151,861**	147,115	3.23
Annual Salaries of Active Members	**$ 2,870,990,482**	$ 2,659,022,315	7.97
Annual Retirement Allowances for Retired Members and Beneficiaries	**$ 406,284,042**	$ 385,854,720	5.29
2. Assets and Liabilities			
Total Actuarial Liability	**$ 9,907,682,550**	$ 9,203,217,564	7.65
Assets for Valuation Purposes	**10,593,916,557**	9,557,555,740	10.84
Unfunded Actuarial Liability	**(686,234,007)**	(354,338,176)	(93.67)
FASB Accrued Liability	**7,761,666,177**	7,207,257,842	7.69
Market Value of Assets	**11,474,915,353**	10,393,769,468	10.40
Unfunded FASB Accrued Liability (Surplus)	**(3,713,249,176)**	(3,186,511,626)	(16.53)

** Inactive status refers to vested members who are not on active payroll status, have not withdrawn their accumulated contributions from the System, and have past membership service credit which may be counted towards future benefits.*

Report of the Actuary on the Twenty-first Annual Valuation of the Pension Plan of Judges and Their Surviving Spouses
as of June 30, 2000

Summary of Principal Results

	June 30, 2000	June 30, 1999	% Change
1. Participant Data			
Number of:			
Active Members	**283**	283	0.00 %
Retired Members and Beneficiaries	**285**	284	0.35
Vested Deferred Members	**13**	13	0.00
Inactive Status Members*	**0**	0	0.00
Total Participants	**581**	580	0.17
Annual Salaries of Active Members	**$ 30,891,317**	$ 30,307,258	1.93
Annual Retirement Allowances for Retired Members and Beneficiaries	**$ 14,922,496**	$ 14,566,980	2.44
2. Assets and Liabilities			
Total Actuarial Liability	**$ 236,446,486**	$ 231,393,797	2.18
Assets for Valuation Purposes	**216,374,434**	192,909,464	12.16
Unfunded Actuarial Liability	**20,072,052**	38,484,333	(47.84)
FASB Accrued Liability	**213,064,248**	205,677,840	3.59
Market Value of Assets	**230,283,168**	205,198,789	12.22
Unfunded FASB Accrued Liability (Surplus)	**(17,218,920)**	479,051	(3,694.38)

**Inactive status refers to vested members who are not on active payroll status, have not withdrawn their accumulated contributions from the System, and have past membership service credit which may be counted towards future benefits.*

Report of the Actuary on the Fifty-first Annual Valuation of the State Police Retirement System of the State of Maryland
as of June 30, 2000

Summary of Principal Results

	June 30, 2000	June 30, 1999	% Change
1. Participant Data			
Number of:			
Active Members	**1,636**	1,647	(0.67) %
Retired Members and Beneficiaries	**1,388**	1,286	7.93
Vested Deferred Members	**19**	24	(20.83)
Inactive Status Members*	**3**	5	(40.00)
Total Participants	**3,046**	2,962	2.84
Annual Salaries of Active Members	**$ 82,609,627**	$ 78,780,262	4.86
Annual Retirement Allowances for Retired Members and Beneficiaries	**$ 41,224,900**	$ 38,614,063	6.76
2. Assets and Liabilities			
Total Actuarial Liability	**$911,272,684**	$ 850,040,813	7.20
Assets for Valuation Purposes	**1,269,417,772**	1,150,559,191	10.33
Unfunded Actuarial Liability	**(358,145,088)**	(300,518,378)	(19.18)
FASB Accrued Liability	**801,565,680**	717,047,938	11.79
Market Value of Assets	**1,398,194,639**	1,270,445,851	10.06
Unfunded FASB Accrued Liability (Surplus)	**(596,628,959)**	(553,397,913)	(7.81)

** Inactive status refers to vested members who are not on active payroll status, have not withdrawn their accumulated contributions from the System, and have past membership service credit which may be counted towards future benefits.*

Report of the Actuary on the Tenth Annual Valuation of the Law Enforcement Officers' Pension System of the State of Maryland
as of June 30, 2000

Summary of Principal Results

	June 30, 2000	June 30, 1999	% Change
1. Participant Data			
Number of:			
Active Members	**1,130**	862	31.09 %
Retired Members and Beneficiaries	**206**	170	21.18
Vested Deferred Members	**4**	4	0.00
Inactive Status Members*	**32**	26	23.08
Total Participants	**1,372**	1,062	29.19
Annual Salaries of Active Members	**$ 51,544,069**	$ 37,305,049	38.17
Annual Retirement Allowances for Retired Members and Beneficiaries	**$ 4,464,110**	$ 3,689,345	21.00
2. Assets and Liabilities			
Total Actuarial Liability	**$ 214,822,353**	$ 140,677,115	52.71
Assets for Valuation Purposes	**140,033,780**	102,039,476	37.23
Unfunded Actuarial Liability	**74,788,573**	38,637,639	93.56
FASB Accrued Liability	**178,735,677**	103,470,614	72.74
Market Value of Assets	**146,474,430**	106,057,077	38.11
Unfunded FASB Accrued Liability (Surplus)	**32,261,247**	(2,586,463)	1,347.31

** Inactive status refers to vested members who are not on active payroll status, have not withdrawn their accumulated contributions from the System, and have past membership service credit which may be counted towards future benefits.*

Report of the Actuary on the Tenth Annual Valuation of the Local Fire and Police System

as of June 30, 2000

Summary of Principal Results

	June 30, 2000	June 30, 1999	% Change
1. Participant Data			
Number of:			
Active Members	**184**	178	3.37 %
Retired Members and Beneficiaries	**19**	14	35.71
Vested Deferred Members	**2**	2	0.00
Inactive Status Members*	**18**	16	12.50
Total Participants	**223**	210	6.19
Annual Salaries of Active Members	**$ 7,109,078**	$ 6,691,177	6.25
Annual Retirement Allowances for Retired Members and Beneficiaries	**$ 376,102**	$ 271,902	38.32
2. Assets and Liabilities			
Total Actuarial Liability	**$15,349,077**	$13,799,895	11.23
Assets for Valuation Purposes	**10,099,024**	8,582,798	17.67
Unfunded Actuarial Liability	**5,250,053**	5,217,097	0.63
FASB Accrued Liability	**9,926,277**	8,697,391	14.13
Market Value of Assets	**10,391,587**	8,761,739	18.60
Unfunded FASB Accrued Liability (Surplus)	**(465,310)**	(64,348)	(623.11)

** Inactive status refers to vested members who are not on active payroll status, have not withdrawn their accumulated contributions from the System, and have past membership service credit which may be counted towards future benefits.*

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
1991	27,047	$ 1,189,695,447	$ 43,986	7.41 %
1992	24,850	1,108,905,933	44,624	1.45
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	717,946,647	55,045	3.89
2000	11,634	670,271,756	57,613	4.67

Teachers' Pension

Valuation Date As of June 30,	Number	Annual Payroll	Annual Average Pay	% Increase Avg. Pay
1991	48,074	$ 1,476,064,141	$ 30,704	7.46 %
1992	49,999	1,554,790,625	31,096	1.28
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	2,858,920,323	37,827	5.59
2000	79,297	3,082,823,993	38,878	2.78

Employees' Retirement

Valuation Date As of June 30,	Number	Annual Payroll	Annual Average Pay	% Increase Avg. Pay
1991	19,358	$ 588,323,821	$ 30,392	6.63 %
1992	17,855	546,938,058	30,632	0.79
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	442,912,527	34,993	4.81
2000	12,213	449,491,594	36,804	5.18

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
1991	68,583	$ 1,740,987,708	$ 25,385	7.53 %
1992	67,118	1,717,196,225	25,585	0.79
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	2,009,168,386	29,164	1.79
1999	70,426	2,216,109,788	31,467	7.90
2000	73,212	2,421,498,888	33,075	5.11

Judges' Retirement

Valuation Date As of June 30,	Number	Annual Payroll	Annual Average Pay	% Increase Avg. Pay
1991	270	$ 22,906,954	$ 84,841	4.48 %
1992	260	22,213,378	85,436	0.70
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	30,307,258	107,093	14.42
2000	283	30,891,317	109,157	1.93

State Police Retirement

Valuation Date As of June 30,	Number	Annual Payroll	Annual Average Pay	% Increase Avg. Pay
1991	1,806	$ 65,912,578	$ 36,496	12.70 %
1992	1,676	61,225,453	36,531	0.10
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	78,780,262	47,833	10.68
2000	1,636	82,609,627	50,495	5.56

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
1991	230	$ 8,375,557	$ 36,415	—
1992	249	9,030,814	36,268	(0.40%)
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	37,305,049	43,277	7.09
2000	1,130	51,544,069	45,614	5.40

Local Fire and Police

Valuation Date As of June 30,	Number	Annual Payroll	Annual Average Pay	% Increase Avg. Pay
1991	46	$ 1,441,502	$ 31,337	—
1992	116	3,480,314	30,003	(4.26%)
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	6,691,177	37,591	5.82
2000	184	7,109,078	38,636	2.78

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