

**MARYLAND STATE RETIREMENT AND PENSION SYSTEM**  
**ACTUARIAL VALUATION REPORT**  
**AS OF JUNE 30, 2009**

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October 15, 2009

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

Dear Members of the Board:

Presented in this report are the results of an actuarial valuation of the Maryland State Retirement and Pension System as of June 30, 2009, for determining contribution payments for FY 2011. The major findings of the valuation are contained in this report.

In preparing this 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, statutory provisions, employee and retiree census, and financial information. In our examination of this data, we have found it to be reasonably consistent and comparable with data used for other purposes. Since the valuation results are dependent on the integrity of the data supplied, the results can be expected to differ if the underlying data is incomplete or missing. It should be noted that if any data or other information is inaccurate or incomplete, our calculations may need to be revised.

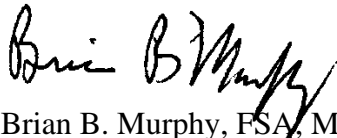
All costs and liabilities shown in this report have been determined on the basis of actuarial assumptions and methods set forth in Appendix C. These assumptions and methods were adopted by the Board of Trustees as a result of a comprehensive experience study covering the period July 1, 2002 to June 30, 2006 and an assumption change for capped COLAs adopted at the September 15, 2009 Board meeting. Nevertheless, the emerging costs will vary from those presented in this report to the extent that actual experience differs from that projected by the actuarial assumptions.

Actuarial computations presented in this report are for purposes of determining the funding amounts for the System in accordance with Statutes and Board policy. Actuarial computations under GASB Statement No. 25 are for purposes of fulfilling financial accounting requirements. The computations prepared for this purpose may differ as disclosed in Section V of our report. The calculations in the report have been made on a basis consistent with our understanding of the System's funding requirements and goals, and of GASB Statement No. 25. Determinations for purposes other than meeting these requirements may be significantly different from the results shown in this report. Accordingly, additional determinations may be needed for other purposes.


GRS's work product was prepared exclusively for the Maryland State Retirement and Pension System for a specific and limited purpose. It is a complex, technical analysis that assumes a high level of knowledge concerning the Maryland State Retirement and Pension System's operations, and uses Agency data, which GRS has not audited. It is not for the use or benefit of any third party for any purpose. Any third party recipient of GRS's work product who desires professional guidance should not rely upon GRS's work product, but should engage qualified professionals for advice appropriate to its own specific needs. Any distribution of this report must be provided in its entirety including this cover letter, unless prior written consent is obtained from GRS.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, 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 Actuarial Standards of Practice, the Code of Professional Conduct and Qualification Standards for Public Statements of Actuarial Opinion of the American Academy of Actuaries. The undersigned are Members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.


Sincerely,



Brian B. Murphy, FSA, MAAA



Brad L. Armstrong, ASA, MAAA



Norman L. Jones, FSA, MAAA

BLA:mrb

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**SECTION I**  
BOARD SUMMARY

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This report presents the results of the June 30, 2009 actuarial valuation of the Maryland State Retirement and Pension System (MD SRPS). The primary purposes of performing the annual actuarial valuation are to:

- 1) **Determine the contributions** to be paid by employers in Fiscal Year 2011;
- 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 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**

The System's market value of assets lost **20.28%** for the year ended June 30, 2009, which is significantly less than the 7.75% assumed rate of investment return. The actuarial, or smoothed, rate of return (loss) measured from this past year was **11.57%**, also less than the assumed rate of investment return.

For the System to earn at least 7.75% on an actuarial value basis, the market value of assets will have to earn returns in the future that are higher than the actuarial investment return assumption by enough to offset the unrecognized market losses that have been deferred under the "5-year averaging" method used to determine the actuarial value of assets. If future investment results are only sufficient to earn 7.75% on a market basis, then the deferred market investment losses will gradually be reflected in the actuarial value of assets which will put upward pressure on contribution rates.

The System's unfunded actuarial liability was **\$18,445** million as of June 30, 2009. This compares to a **\$10,740** million unfunded liability measured as of the June 30, 2008 valuation. In relative terms, the overall System funding ratio of actuarial value of assets to liabilities fell from 78.60% in 2008, to **65.02%** this year. If market value of assets were the basis for the measurements, the plan would be 54.18% funded. The market value of assets exceeds the retiree liabilities by slightly more than 3%. This is referred to as a short contribution test. It is looking at the current retiree liabilities as the benefits that will be paid the soonest since these benefits are already in pay status. Active liabilities and deferred vested liabilities do not have associated immediate cash flow requirements. Generally speaking, this is not a cause for concern unless net cash flow requirements exceed 5% and are trending higher. This is not presently the case, but this short condition test merits annual review.

The unfunded actuarial liability actually increased by **\$7.7 billion** for the year ended June 30, 2009. The actuarial investment loss increased the unfunded actuarial liability by **\$7.6 billion**. Added to this was a liability loss of **\$1.3 billion**, which indicates that actual experience during the year ending June 30, 2009 was less favorable than the non-investment actuarial assumptions. Thus the total System experienced a net actuarial loss of **\$8.9 billion**.

In the 2001 legislative session, the Legislature changed the method used to fund the two largest Systems of the MD SRPS: the Teachers Combined System and the State portion of the Employees Combined System to 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 this corridor, the appropriated rate will be adjusted one-fifth of the way toward the underlying actuarially calculated rate. Plan amendments and assumption and method changes are not subject to the corridor method. This year the Teachers' Combined System (TCS) and the State portion of the Employees Combined System (ECS) remained out of the corridor necessitating an increase in the TCS and ECS contribution rates.

Under the present circumstances, the corridor method results in contributions that are less than those determined actuarially. We recommend a return to actuarial funding at the earliest possible time.

The results of this valuation report disclose the actuarially determined rates which will be used for purposes of disclosing the Annual Required Contribution rate under Government Accounting Standards Board Statement No. 25 unless the equivalent amortization period for amortizing unfunded actuarial liability is greater than 30 years. The analysis in this report will focus on the actuarially determined rate but will strive to footnote the appropriated or budgeted rate where applicable.

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

## Prior Year Experience

### ASSETS (STATE AND MUNICIPAL)

Plan assets for this System 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 the difference between (a) the asset value if the assets had earned the assumed rate of 7.75%, and (b) the actual market value. In periods of high returns, this method defers the amount of asset gains above the assumed return of 7.75%. Conversely, in periods of returns below the assumed, recognition of the losses is deferred. The primary advantage of this smoothing technique is contribution stability. The System does not immediately feel the full impact of lower (or higher) costs when asset values fluctuate dramatically. In the Teacher and Employee Systems, the impact is further reduced by the corridor method.

For the plan year ending June 30, 2009, the System's market value of assets lost **20.28%** on a market value basis and **11.57%** on a smoothed basis. While on a market basis, the Fund experienced a market value investment loss of **\$10,167** million, the actuarial or smoothed basis grew by less than 7.75% which produced a loss of **\$7,567** 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, 2008 Value	\$ 36,614	\$ 39,504
June 30, 2008 Municipal Withdrawals / New Entrants	-	-
Employer Contributions	1,110	1,110
Member Contributions	532	532
Benefit Payments	(2,329)	(2,329)
Expected Investment Earnings (7.75%)	2,811	3,035
Expected Value June 30, 2009	\$ 38,738	\$ 41,852
INVESTMENT GAIN (LOSS)	(10,167)	(7,567)
June 30, 2009 Value	\$ 28,570	\$ 34,285
Rounding may affect arithmetic		

### LIABILITIES (STATE AND MUNICIPAL)

Three different measures of liabilities are calculated for this fund: a total value of future obligations (PVB), an actuarial liability (EAN), and an accrued benefit 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 2009, the actuarial liabilities experienced an overall loss of **\$1.3 billion** which is **2.6%** of the total actuarial liability being measured. The primary causes for liability experience being less favorable than anticipated this past year were higher than assumed COLAs and rates of normal retirement, and lower than assumed rates of withdrawal and mortality.

<b>Liabilities (In Millions)</b>	<b>Total Value (PVB)</b>	<b>Actuarial (EAN)</b>	<b>Accounting (PVAB)</b>
June 30, 2008	\$60,796	\$50,244	\$43,495
June 30, 2009	\$63,916	\$52,729	\$46,985

#### **UNFUNDED LIABILITIES AND FUNDING RATIOS (STATE AND MUNICIPAL)**

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, 2008 and June 30, 2009, as well as the corresponding funding ratios for each (assets divided by liabilities).

<b>Item (In Millions)</b>	<b>Actuarial</b>	<b>PVAB</b>
6/30/2008 Net Surplus (Unfunded)	\$ (10,740)	\$ (6,882)
Funding Ratio	78.6%	84.2%
6/30/2009 Net Surplus (Unfunded)	\$ (18,445)	\$ (18,415)
Funding Ratio	65.0%	60.8%

## CONTRIBUTIONS (STATE PORTION ONLY)

In Section IV, we show the various contribution rates by system. In this summary, we present the overall State contribution rate, and compare it to the rate developed in the June 30, 2008 actuarial valuation. In summary, due to the net impact of investment and liability losses, the overall State contribution requirement, computed for FY 2011 on the actuarially determined basis, has increased from 14.42% to 19.74% 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 2010 or FY 2011. Nor is this analysis the underlying cost calculations which will be used to disclose the State's pension expense for GASB reporting purposes. The actual appropriations are calculated using the Corridor Funding Method for the two largest plans. This approach produced payroll-weighted averages of 12.62% at June 30, 2008, increasing to **14.33%** as of June 30, 2009.

<b>Rate as Percent of Payroll – Actuarially Determined</b>	
June 30, 2008 State Annual Required Contribution Rate	14.42%
Increase due to Assumption Changes	0.10%
Increase due to Investment Loss	4.50%
Increase due to Liability Loss	0.67%
Increase due to Other	0.05%
June 30, 2009 State Annual Required Contribution Rate	19.74%

<b>Rate as Percent of Payroll – Budget (Corridor Method)</b>	
June 30, 2008 State Appropriation Rate	12.62%
Increase in Systems not within the Corridor	0.36%
Increase due to TCS remaining out of Corridor	0.77%
Increase due to ECS remaining out of Corridor	0.58%
June 30, 2009 State Appropriation Rate	14.33%

## MEMBERSHIP (STATE AND MUNICIPAL)

There are primarily three types of plan participants: current active participants, previous terminations who retain a right to a deferred vested benefit, and retirees and beneficiaries. In Appendix B, we present extensive details on membership statistics. Below, we compare totals in each group between June 30, 2008 and 2009.

As shown below, there was an overall increase in participation during the year of **1.1%**

	<b>June 30, 2009</b>	<b>June 30, 2008</b>	<b>Change</b>
Active Participants	199,705	199,255	0.2%
Deferred Vested Members	51,866	51,795	0.1%
Retirees and Beneficiaries	116,007	112,422	3.2%
<b>Total Participants</b>	<b>367,578</b>	<b>363,472</b>	<b>1.1%</b>

## Trends (State and Municipal)

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 2009, 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: Assets/Liabilities

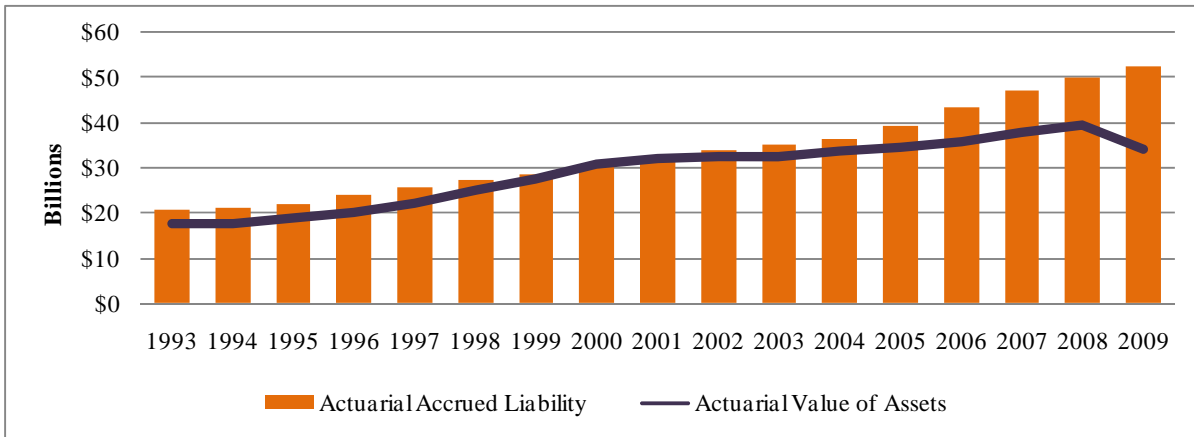


Chart B: Cash Flows

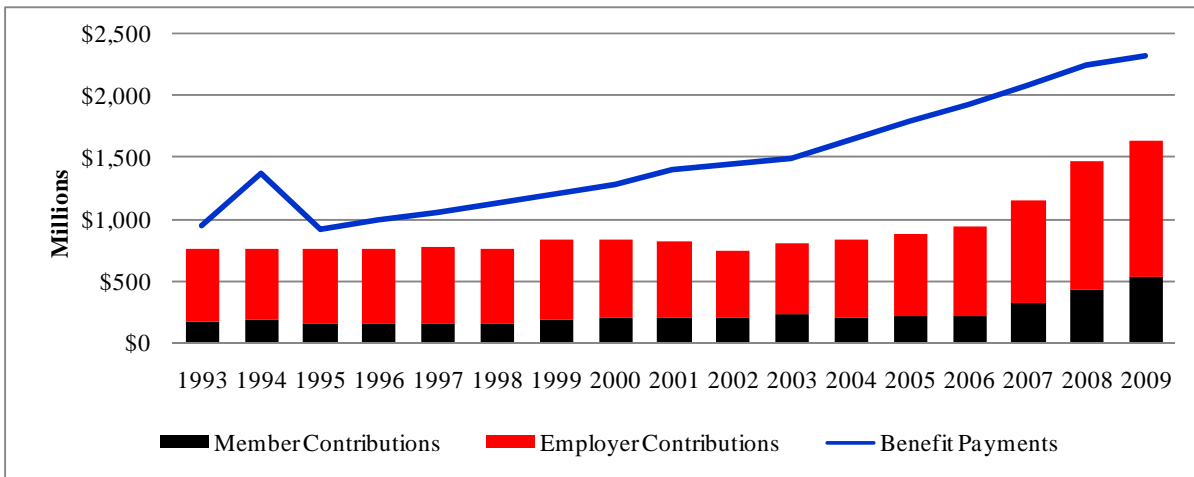
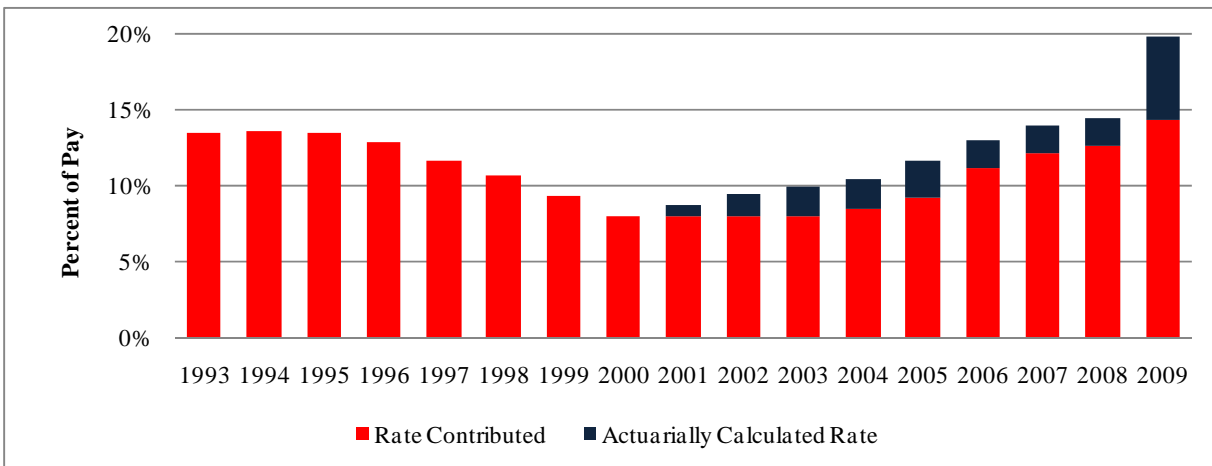


Chart C: State Contribution Rate



## Comments

Chart A places into perspective the aforementioned investment and liability performance losses of this past year. The ratio of actuarial assets to liabilities (i.e., funding ratio) has grown since the early 1980's. The current decade's aggregate unfavorable investment experience has eroded the funded ratio from its peak. The actuarial value of assets still contains unrecognized market losses from 2008 and 2009 which will not be fully reflected until 2013 under the current 5 years smoothed asset valuation method.

Chart B presents trend information that can have investment implications. Many state-wide retirement systems, with the aging and retirements of the baby boom generation are seeing payments to retirees on the increase. As long as cash into the fund, from employer and employee contributions, is increasing in a similar manner, the financial objectives of the System will continue to be met. The ECS contribution rate started increasing in FY 2006 and the TCS contribution rate started to increase in FY 2007 under the corridor method.

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 1990's decade's sustained investment gains, a continuous lowering of the rate until 2000. Effective with the 2001 valuation, the State appropriations were performed under a corridor funding method for the two largest plans. The appropriation remained essentially level for a few years before increasing with the 2004 valuation. In the absence of favorable investment and/or demographic experience, the contribution rates can be expected to increase to the level indicated if the corridor method had not been adopted. Without the corridor method, the State contribution in FY 2011 would be 5.48% of payroll higher than the amount to be budgeted under the corridor method. The actual contribution rate for FY 2011 is therefore 30% less than the actuarially determined rate.

Chart C indicates further that since inception, the corridor method had consistently acted to reduce the State's contribution. Since SRPS assets are now barely sufficient to cover retiree liabilities, we recommend that action be taken to raise contributions to actuarial levels as soon as possible.

<b>TOTAL MD SRPS (STATE AND MUNICIPAL)</b>			
<b>SUMMARY OF PRINCIPAL PLAN RESULTS</b>			
Valuation As Of -->	6/30/2009	6/30/2008	% Change
<b>PARTICIPANT COUNTS</b>			
Actives	199,705	199,255	0.2%
Retired Members and Beneficiaries	116,007	112,422	3.2%
Vested Former Members	51,866	51,795	0.1%
<b>TOTAL</b>	367,578	363,472	1.1%
Annual Salaries of Active Members	\$10,714,167,517	\$10,542,806,018	1.6%
Annual Retirement Allowances for Retired Members and Beneficiaries	\$ 2,337,981,534	\$ 2,176,157,705	7.4%
<b>ASSETS &amp; LIABILITIES</b>			
Total Actuarial Liability	\$52,729,171,330	\$50,244,047,207	4.9%
Assets for Valuation Purposes	34,284,568,617	39,504,284,202	-13.2%
Unfunded Actuarial Liability	\$18,444,602,713	\$10,739,763,005	71.7%
Funding Ratio	65.0%	78.6%	
Present Value of Accrued Benefits	\$46,985,158,270	\$43,495,415,094	8.0%
Market Value of Assets	28,570,473,847	36,613,710,023	-22.0%
Unfunded FASB Accrued Liability	\$18,414,684,423	\$ 6,881,705,071	167.6%
Accrued Benefit Funding Ratio	60.8%	84.2%	
<b>CONTRIBUTIONS AS % OF PAYROLL (STATE PORTION ONLY)</b>			
	<b>Fiscal Year 2011</b>	<b>Fiscal Year 2010</b>	
Statutory Method:			
Normal Cost Contribution	7.33%	6.91%	
Unfunded Actuarial Liability Contribution	12.41%	7.51%	
Total State Contribution	19.74%	14.42%	
Corridor Method: Certified Rate Using Corridor Method for TCS and ECS	14.33%	12.62%	
Please refer to Section V for the Annual Required Contribution (ARC). If the ARC is not contributed it can affect the State's Net Pension Obligation (NPO).			

**TEACHERS COMBINED SYSTEM**  
**SUMMARY OF PRINCIPAL PLAN RESULTS**

Valuation As Of -->	6/30/2009	6/30/2008	% Change
<b>PARTICIPANT COUNTS</b>			
Actives	106,107	105,961	0.1%
Retired Members and Beneficiaries	55,756	54,035	3.2%
Vested Former Members	22,995	22,818	0.8%
<b>TOTAL</b>	184,858	182,814	1.1%
Annual Salaries of Active Members	\$6,194,734,040	\$6,117,590,424	1.3%
Annual Retirement Allowances for Retired Members and Beneficiaries	\$ 1,394,374,299	\$ 1,302,456,748	7.1%
<b>ASSETS &amp; LIABILITIES</b>			
Total Actuarial Liability	\$31,172,917,174	\$29,868,704,554	4.4%
Assets for Valuation Purposes	20,605,618,296	23,784,403,753	-13.4%
Unfunded Actuarial Liability	\$10,567,298,878	\$ 6,084,300,801	73.7%
Funding Ratio	66.1%	79.6%	
Present Value of Accrued Benefits	\$27,570,740,648	\$25,454,365,719	8.3%
Market Value of Assets	17,171,348,580	22,058,961,997	-22.2%
Unfunded FASB Accrued Liability	\$10,399,392,068	\$ 3,395,403,722	206.3%
Accrued Benefit Funding Ratio	62.3%	86.7%	
<b>CONTRIBUTIONS AS % OF PAYROLL (STATE PORTION ONLY)</b>			
	<b>Fiscal Year 2011</b>	<b>Fiscal Year 2010</b>	
Statutory Method:			
Normal Cost Contribution	7.22%	6.85%	
Unfunded Actuarial Liability Contribution	11.88%	7.20%	
Total State Contribution	19.10%	14.05%	
Corridor Method: Certified Rate Using Corridor Method [ 13.15% + 20% of ( 19.10% - 13.15% ) ]	14.34%	13.15%	
Please refer to Section V for the Annual Required Contribution (ARC). If the ARC is not contributed it can affect the State's Net Pension Obligation (NPO).			

<b>EMPLOYEES COMBINED SYSTEM (STATE &amp; LOCAL)</b>			
<b>SUMMARY OF PRINCIPAL PLAN RESULTS</b>			
<b>Valuation As Of --&gt;</b>	<b>6/30/2009</b>	<b>6/30/2008</b>	<b>% Change</b>
<b>PARTICIPANT COUNTS</b>			
Actives	89,380	89,202	0.2%
Retired Members and Beneficiaries	56,610	54,920	3.1%
Vested Former Members	28,608	28,725	-0.4%
<b>TOTAL</b>	<u>174,598</u>	<u>172,847</u>	1.0%
Annual Salaries of Active Members	\$4,249,462,513	\$4,165,012,635	2.0%
Annual Retirement Allowances for Retired Members and Beneficiaries	\$ 793,268,952	\$ 734,343,434	8.0%
<b>ASSETS &amp; LIABILITIES</b>			
Total Actuarial Liability	\$18,517,486,423	\$17,609,769,165	5.2%
Assets for Valuation Purposes	<u>11,839,115,494</u>	<u>13,599,717,089</u>	-12.9%
Unfunded Actuarial Liability	\$ 6,678,370,929	\$ 4,010,052,076	66.5%
Funding Ratio	63.9%	77.2%	
Present Value of Accrued Benefits	\$16,448,959,736	\$15,371,268,908	7.0%
Market Value of Assets	<u>9,865,929,578</u>	<u>12,617,280,261</u>	-21.8%
Unfunded FASB Accrued Liability	\$ 6,583,030,158	\$ 2,753,988,647	139.0%
Accrued Benefit Funding Ratio	60.0%	82.1%	
<b>CONTRIBUTIONS AS % OF PAYROLL (STATE PORTION ONLY)</b>			
	<b>Fiscal Year 2011</b>	<b>Fiscal Year 2010</b>	
Statutory Method:			
Normal Cost Contribution	6.46%	6.02%	
Unfunded Actuarial Liability Contribution	<u>12.27%</u>	<u>7.59%</u>	
Total State Contribution	18.73%	13.61%	
Corridor Method: Certified Rate Using Corridor Method [ 9.93% + 20% of ( 18.73% - 9.93% )]	11.69%	9.93%	
Please refer to Section V for the Annual Required Contribution (ARC). If the ARC is not contributed it can affect the State's Net Pension Obligation (NPO).			



**STATE POLICE**  
**SUMMARY OF PRINCIPAL PLAN RESULTS**

Valuation As Of -->	6/30/2009	6/30/2008	% Change
<b>PARTICIPANT COUNTS</b>			
Actives	1,408	1,426	-1.3%
Retired Members and Beneficiaries	2,226	2,149	3.6%
Vested Former Members	68	61	11.5%
<b>TOTAL</b>	3,702	3,636	1.8%
Annual Salaries of Active Members	\$85,585,708	\$86,464,247	-1.0%
Annual Retirement Allowances for Retired Members and Beneficiaries	\$94,121,168	\$87,639,631	7.4%
<b>ASSETS &amp; LIABILITIES</b>			
Total Actuarial Liability	\$1,710,356,297	\$1,601,575,853	6.8%
Assets for Valuation Purposes	1,119,765,683	1,343,208,496	-16.6%
Unfunded Actuarial Liability	\$ 590,590,614	\$ 258,367,357	128.6%
Funding Ratio	65.5%	83.9%	
Present Value of Accrued Benefits	\$1,699,734,417	\$1,571,642,305	8.2%
Market Value of Assets	933,138,069	1,222,164,139	-23.6%
Unfunded FASB Accrued Liability	\$ 766,596,348	\$ 349,478,166	119.4%
Accrued Benefit Funding Ratio	54.9%	77.8%	
<b>CONTRIBUTIONS AS % OF PAYROLL (STATE PORTION ONLY)</b>			
	<b>Fiscal Year 2011</b>	<b>Fiscal Year 2010</b>	
Statutory Method:			
Normal Cost Contribution	25.51%	24.02%	
Unfunded Actuarial Liability Contribution	31.52%	6.77%	
Total State Contribution	57.03%	30.79%	
Please refer to Section V for the Annual Required Contribution (ARC). If the ARC is not contributed it can affect the State's Net Pension Obligation (NPO).			

<b>JUDGES</b>			
<b>SUMMARY OF PRINCIPAL PLAN RESULTS</b>			
Valuation As Of -->	6/30/2009	6/30/2008	% Change
<b>PARTICIPANT COUNTS</b>			
Actives	297	286	3.8%
Retired Members and Beneficiaries	348	342	1.8%
Vested Former Members	6	8	-25.0%
<b>TOTAL</b>	<u>651</u>	<u>636</u>	2.4%
Annual Salaries of Active Members	\$40,266,330	\$37,943,327	6.1%
Annual Retirement Allowances for Retired Members and Beneficiaries	\$23,548,132	\$23,135,728	1.8%
<b>ASSETS &amp; LIABILITIES</b>			
Total Actuarial Liability	\$421,038,964	\$406,781,743	3.5%
Assets for Valuation Purposes	<u>270,869,530</u>	<u>306,716,176</u>	-11.7%
Unfunded Actuarial Liability	\$150,169,434	\$ 100,065,567	50.1%
Funding Ratio	64.3%	75.4%	
Present Value of Accrued Benefits	\$414,773,496	\$392,392,720	5.7%
Market Value of Assets	<u>225,724,608</u>	<u>283,759,913</u>	-20.5%
Unfunded FASB Accrued Liability	\$189,048,888	\$108,632,807	74.0%
Accrued Benefit Funding Ratio	54.4%	72.3%	
<b>CONTRIBUTIONS AS % OF PAYROLL (STATE PORTION ONLY)</b>			
	<b>Fiscal Year 2011</b>	<b>Fiscal Year 2010</b>	
Statutory Method:			
Normal Cost Contribution	31.30%	28.54%	
Unfunded Actuarial Liability Contribution	<u>27.77%</u>	<u>20.35%</u>	
Total State Contribution	59.07%	48.89%	
Please refer to Section V for the Annual Required Contribution (ARC). If the ARC is not contributed it can affect the State's Net Pension Obligation (NPO).			

**LAW ENFORCEMENT OFFICERS (STATE & MUNICIPAL)**  
**SUMMARY OF PRINCIPAL PLAN RESULTS**

Valuation As Of -->	6/30/2009	6/30/2008	% Change
<b>PARTICIPANT COUNTS</b>			
Actives	2,445	2,327	5.1%
Retired Members and Beneficiaries	1,067	958	11.4%
Vested Former Members	189	174	8.6%
<b>TOTAL</b>	3,701	3,459	7.0%
Annual Salaries of Active Members	\$140,071,292	\$133,445,391	5.0%
Annual Retirement Allowances for Retired Members and Beneficiaries	\$ 32,668,983	\$ 28,250,389	15.6%
<b>ASSETS &amp; LIABILITIES</b>			
Total Actuarial Liability	\$895,099,496	\$748,005,298	19.7%
Assets for Valuation Purposes	441,826,566	465,386,285	-5.1%
Unfunded Actuarial Liability	\$453,272,930	\$282,619,013	60.4%
Funding Ratio	49.4%	62.2%	
Present Value of Accrued Benefits	\$841,774,730	\$697,424,997	20.7%
Market Value of Assets	368,188,805	426,877,468	-13.7%
Unfunded FASB Accrued Liability	\$473,585,925	\$270,547,529	75.0%
Accrued Benefit Funding Ratio	43.7%	61.2%	
<b>CONTRIBUTIONS AS % OF PAYROLL (STATE PORTION ONLY)</b>			
	<b>Fiscal Year 2011</b>	<b>Fiscal Year 2010</b>	
Statutory Method:			
Normal Cost Contribution	18.06%	17.10%	
Unfunded Actuarial Liability Contribution	29.61%	21.53%	
Total State Contribution	47.67%	38.63%	
Please refer to Section V for the Annual Required Contribution (ARC). If the ARC is not contributed it can affect the State's Net Pension Obligation (NPO).			

**CORRECTIONAL OFFICERS (MUNICIPAL)  
SUMMARY OF PRINCIPAL PLAN RESULTS**

Valuation As Of -->	6/30/2009	6/30/2008	% Change
<b>PARTICIPANT COUNTS</b>			
Actives	68		
Retired Members and Beneficiaries	0		
Vested Former Members	0	<b>Intentionally Left Blank</b>	
<b>TOTAL</b>	68		
Annual Salaries of Active Members	\$ 4,047,633		
Annual Retirement Allowances for Retired Members and Beneficiaries	\$ 0		
<b>ASSETS &amp; LIABILITIES</b>			
Total Actuarial Liability	\$12,272,976		
Assets for Valuation Purposes	7,373,048	<b>Intentionally Left Blank</b>	
Unfunded Actuarial Liability	\$ 4,899,928		
Funding Ratio	60.1%		
Present Value of Accrued Benefits	\$ 9,175,244		
Market Value of Assets	6,144,207	<b>Intentionally Left Blank</b>	
Unfunded FASB Accrued Liability	\$ 3,031,037		
Accrued Benefit Funding Ratio	67.0%		
<b>CONTRIBUTIONS AS % OF PAYROLL (STATE PORTION ONLY)</b>			
	<b>Fiscal Year 2011</b>	<b>Fiscal Year 2010</b>	
Statutory Method: Normal Cost Contribution	N/A		
Unfunded Actuarial Liability Contribution	N/A	<b>Intentionally Left Blank</b>	
Total State Contribution	N/A		
The contribution requirements for this group are presented in the separate Municipal report.			

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**SECTION II**  
**ASSETS**

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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 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, 2009 and June 30, 2008;
- 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 "snapshot" or "cash-out" values which provide the principal basis for measuring financial performance from one year to the next. Market values, however, can fluctuate. As a result, actuaries have traditionally smoothed market fluctuations when developing long range contribution rates.

Current methods employed by this Fund set the actuarial value equal to the expected adjusted market value plus one-fifth of the difference between the actual market value and the expected adjusted market value. In addition, there is a 20% collar limitation which restricts the actuarial value of assets from differing outside the range of 80% to 120% of the market value of assets.

## Disclosure of Plan Market Value of Assets (State and Municipal)

STATEMENT OF ASSETS AT MARKET VALUE		
	June 30,	
	2009	2008
<b>INVESTMENTS</b>		
Domestic Stocks	\$ 8,593,233,170	\$ 14,424,483,250
International Stocks	7,912,626,389	8,555,256,332
Total Equities	<u>16,505,859,559</u>	<u>22,979,739,582</u>
U.S. Government Obligations	1,828,767,922	1,080,015,637
Domestic Corporate Obligations	3,656,102,798	6,893,321,777
International Obligations	66,548,124	327,628,380
Total Fixed Income	<u>5,551,418,844</u>	<u>8,300,965,794</u>
Mortgages/Mortgage Related Securities	2,178,258,246	2,218,784,621
Real Estate	338,479,250	505,885,132
Alternative Investments	1,655,022,505	2,164,142,191
Total Investments	<u>\$ 26,229,038,404</u>	<u>\$ 36,169,517,320</u>
<b>OTHER ASSETS</b>		
Cash and Cash Equivalents	\$ 3,360,915,357	\$ 1,737,585,683
Receivables	589,687,841	873,365,100
Total Other Assets	<u>\$ 3,950,603,198</u>	<u>\$ 2,610,950,783</u>
<b>LIABILITIES</b>		
Accounts Payable and Other	\$ 1,609,167,755	\$ 2,166,758,080
Net Assets Available for Benefits	<u>\$ 28,570,473,847</u>	<u>\$ 36,613,710,023</u>

## Changes in Market Value

The components of asset change are:

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

The specific changes during the year ending June 30, 2009 are represented below:

CHANGES IN MARKET VALUES (STATE AND MUNICIPAL)	
Value of Assets – June 30, 2008	\$ 36,613,710,023
Value of Assets Adjusted for Municipal Withdrawals / New Entrants – June 30, 2008	\$ 36,613,710,045
RECEIPTS	
Employer Contributions	\$1,109,563,392
Member Contributions	532,100,795
Investment Returns	<u>(7,355,906,199)</u>
Total Receipts	\$(5,714,242,012)
DISBURSEMENTS	
Benefit Payments	<u>\$ 2,328,994,186</u>
Total Disbursements	<u>\$ 2,328,994,186</u>
TOTAL	
Value of Assets – June 30, 2009	\$28,570,473,847



**CHANGES IN MARKET VALUES (STATE AND MUNICIPAL)**

	<b>Teachers</b>	<b>Employees (State)</b>	<b>State Police</b>	<b>Judges</b>	<b>LEOPS (State)</b>				<b>Total State</b>
<b><u>State Sponsored Plans</u></b>									
Market Value of Assets as of 6/30/2008	\$ 22,058,962,010	\$ 9,927,798,995	\$ 1,222,164,139	\$ 283,759,913	\$ 351,604,165				\$ 33,844,289,222
Employer Contributions	673,255,620	263,250,865	17,213,699	17,519,985	32,234,101				1,003,474,270
Member Contributions	313,873,298	161,192,631	6,820,017	1,791,900	3,994,594				487,672,440
Investment Returns	(4,485,830,414)	(1,968,533,311)	(221,129,173)	(53,848,237)	(67,174,298)				(6,796,515,433)
Disbursements from the Trust	(1,390,590,250)	(693,448,812)	(91,917,073)	(23,497,606)	(26,348,124)				(2,225,801,865)
Net Transfers	1,678,316	1,723,940	(13,540)	(1,347)	1,278,876				4,666,245
Market Value of Assets as of 6/30/2009	\$ 17,171,348,580	\$ 7,691,984,308	\$ 933,138,069	\$ 225,724,608	\$ 295,589,314				\$ 26,317,784,879
<b><u>Municipal Plans</u></b>									
		<b>Employees (Municipal)</b>			<b>LEOPS (Municipal)</b>	<b>Local Fire &amp; Police (Municipal)</b>	<b>CORS (Municipal)</b>		<b>Total Municipal</b>
Market Value of Assets as of 6/30/2008		\$ 2,682,852,362			\$ 75,273,304	\$ 4,666,245	\$ 6,628,912		\$ 2,769,420,823
Employer Contributions		91,430,779			13,906,011	-	752,332		106,089,122
Member Contributions		42,284,128			1,941,696	-	202,531		44,428,355
Investment Returns		(542,615,522)			(15,348,194)	-	(1,427,050)		(559,390,766)
Disbursements from the Trust		(100,006,477)			(3,173,326)	-	(12,518)		(103,192,321)
Net Transfers		-			-	(4,666,245)	-		(4,666,245)
Market Value of Assets as of 6/30/2009		\$ 2,173,945,270			\$ 72,599,491	\$ -	\$ 6,144,207		\$ 2,252,688,968
	<b>Teachers</b>	<b>Employees (State &amp; Municipal)</b>	<b>State Police</b>	<b>Judges</b>	<b>LEOPS (State &amp; Municipal)</b>	<b>Local Fire &amp; Police (Municipal)</b>	<b>CORS (Municipal)</b>		<b>Total State &amp; Municipal</b>
<b><u>State Sponsored Plans</u></b>									
Market Value of Assets as of 6/30/2008	\$ 22,058,962,010	\$ 12,610,651,357	\$ 1,222,164,139	\$ 283,759,913	\$ 426,877,469	\$ 4,666,245	\$ 6,628,912		\$ 36,613,710,045
Employer Contributions	673,255,620	354,681,644	17,213,699	17,519,985	46,140,112	-	752,332		1,109,563,392
Member Contributions	313,873,298	203,476,759	6,820,017	1,791,900	5,936,290	-	202,531		532,100,795
Investment Returns	(4,485,830,414)	(2,511,148,833)	(221,129,173)	(53,848,237)	(82,522,492)	-	(1,427,050)		(7,355,906,199)
Disbursements from the Trust	(1,390,590,250)	(793,455,289)	(91,917,073)	(23,497,606)	(29,521,450)	-	(12,518)		(2,328,994,186)
Net Transfers	1,678,316	1,723,940	(13,540)	(1,347)	1,278,876	(4,666,245)	-		-
Market Value of Assets as of 6/30/2009	\$ 17,171,348,580	\$ 9,865,929,578	\$ 933,138,069	\$ 225,724,608	\$ 368,188,805	\$ -	\$ 6,144,207		\$ 28,570,473,847

## **Actuarial Value of Assets (State and Municipal)**

The Actuarial Value of Assets represents a "smoothed" value developed by the actuary. The intent is 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 table on the following page illustrates the calculation of the Actuarial Value of Assets for the June 30, 2009 valuation.

**DEVELOPMENT OF THE ACTUARIAL VALUE OF ASSETS**  
**Total MD SRPS**

	2009	2010	2011	2012	2013
Beginning of Year:					
(1) Market Value of Assets	\$36,613,710,045				
(2) Actuarial Value of Assets	39,504,284,202				
End of Year:					
(3) Market Value of Assets	28,570,473,847				
(4) Net Cash Flow with Adjustment	(687,329,999)				
(5) Total Investment Income					
=(3)-(1)-(4)	(\$7,355,906,199)				
(6) Projected Rate of Return	7.75%				
(7) Projected Investment Income					
=(1)×(6)+[(1+(6))^5-1]×(4)	\$2,811,425,448				
(8) Beginning of Year Asset Adjustment	(364,786)				
(9) Investment Income in Excess of Projected Income	(\$10,167,331,647)				
(10) Excess Investment Income Recognized					
This Year (5 year recognition)					
(10a) From This Year	(2,033,466,329)				
(10b) From One Year Ago	(1,014,630,908)	\$ (862,239,779)			
(10c) From Two Years Ago	389,378,539	(1,014,630,908)	\$ (862,239,779)		
(10d) From Three Years Ago	0	389,378,539	(1,014,630,908)	\$ (862,239,779)	
(10e) From Four Years Ago	0	0	389,378,531	(1,014,630,906)	\$ (862,239,781)
(10f) Total Recognized Investment Gain	(2,658,718,698)	(1,487,492,148)	(1,487,492,156)	(1,876,870,685)	(862,239,781)
(11) Change in Actuarial Value of Assets					
=(4)+(7)+(8)+(10f)	(534,988,035)				
End of Year:					
<b>(3) Market Value of Assets as of 6/30</b>	<b>28,570,473,847</b>				
(12) Preliminary Actuarial Value of Assets = (2)+(11)	38,969,296,167				
(12a) Upper Collar Limit 120% x (3)	34,284,568,617				
(12b) Lower Collar Limit 80% x (3)	22,856,379,077				
(13) Adjustment to Remain within 20% Corridor	(4,684,727,550)				
<b>(14) Final Actuarial Value of Assets as of 6/30</b>	<b>34,284,568,617</b>				
(15) Difference Between Market & Actuarial Values	(5,714,094,770)				
(16) Actuarial Value Rate of Return	(11.57)%				
(17) Market Value Rate of Return	(20.28)%				
(18) Ratio of Actuarial Value to Market Value	120%				
2009 reflects an adjustment to the excess investment income recognized from previous years due to the dissolution of the Local Fire and Police System.					

<b>DEVELOPMENT OF THE ACTUARIAL VALUE OF ASSETS</b>					
<b>State Sponsored Plans</b>					
	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>
Beginning of Year:					
(1) Market Value of Assets	\$33,844,289,222				
(2) Actuarial Value of Assets	36,523,539,262				
End of Year:					
(3) Market Value of Assets	26,317,784,879				
(4) Net Cash Flow with Adjustment	(729,988,910)				
(5) Total Investment Income					
= (3)-(1)-(4)	(6,796,515,433)				
(6) Projected Rate of Return	7.75%				
(7) Projected Investment Income					
= (1) x (6) + ([1 + (6)] <sup>5</sup> - 1) x (4)	2,595,173,145				
(8) Beginning of Year Asset Adjustment	(350,791)				
(9) Investment Income in Excess of Projected Income	(9,391,688,578)				
(10) Excess Investment Income Recognized					
This Year (5 year recognition)					
(10a) From This Year	(1,878,337,715)				
(10b) From One Year Ago	(939,393,002)	\$ (791,123,285)			
(10c) From Two Years Ago	359,557,587	(939,393,002)	\$ (791,123,285)		
(10d) From Three Years Ago	0	359,557,587	(939,393,002)	\$ (791,123,285)	
(10e) From Four Years Ago	0	0	359,557,585	(939,393,002)	\$ (791,123,288)
(10f) Total Recognized Investment Gain	(2,458,173,130)	(1,370,958,700)	(1,370,958,702)	(1,730,516,287)	(791,123,288)
(11) Change in Actuarial Value of Assets					
= (4)+(7)+(8)+(10f)	(593,339,686)				
End of Year:					
<b>(3) Market Value of Assets as of 6/30</b>	<b>26,317,784,879</b>				
(12) Preliminary Actuarial Value of Assets = (2)+(11)	35,930,199,576				
(12a) Upper Collar Limit 120% x (3)	31,581,341,856				
(12b) Lower Collar Limit 80% x (3)	21,054,227,902				
(13) Adjustment to Remain within 20% Corridor	(4,348,857,720)				
<b>(14) Final Actuarial Value of Assets as of 6/30</b>	<b>31,581,341,856</b>				
(15) Difference Between Market & Actuarial Values	(5,263,556,977)				
(16) Actuarial Value Rate of Return	(11.65)%				
(17) Market Value Rate of Return	(20.30)%				
(18) Ratio of Actuarial Value to Market Value	120%				

<b>DEVELOPMENT OF THE ACTUARIAL VALUE OF ASSETS</b>					
<b>Teachers</b>					
	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>
Beginning of Year:					
(1) Market Value of Assets	\$22,058,962,010				
(2) Actuarial Value of Assets	23,784,403,753				
End of Year:					
(3) Market Value of Assets	17,171,348,580				
(4) Net of Contributions and Disbursements	(401,783,016)				
(5) Total Investment Income					
=(3)-(1)-(4)	(4,485,830,414)				
(6) Projected Rate of Return	7.75%				
(7) Projected Investment Income					
=(1)x(6)+([1+(6)] <sup>.5-1</sup> )x(4)	1,694,290,963				
(8) Beginning of Year Asset Adjustment	13				
(9) Investment Income in Excess of Projected Income	(6,180,121,377)				
(10) Excess Investment Income Recognized					
This Year (5 year recognition)					
(10a) From This Year	(1,236,024,275)				
(10b) From One Year Ago	(611,967,809)	\$ (519,996,485)			
(10c) From Two Years Ago	240,809,827	(611,967,809)	\$ (519,996,485)		
(10d) From Three Years Ago	0	240,809,827	(611,967,809)	\$ (519,996,485)	
(10e) From Four Years Ago	0	0	240,809,826	(611,967,809)	\$ (519,996,487)
(10f) Total Recognized Investment Gain	(1,607,182,257)	(891,154,467)	(891,154,468)	(1,131,964,294)	(519,996,487)
(11) Change in Actuarial Value of Assets					
=(4)+(7)+(8)+(10f)	(314,674,297)				
End of Year:					
<b>(3) Market Value of Assets</b>	<b>17,171,348,580</b>				
(12) Preliminary Actuarial Value of Assets = (2)+(11)	23,469,729,456				
(12a) Upper Collar Limit 120% x (3)	20,605,618,296				
(12b) Lower Collar Limit 80% x (3)	13,737,078,864				
(13) Adjustment to Remain within 20% Corridor	(2,864,111,160)				
<b>(14) Final Actuarial Value of Assets as of 6/30</b>	<b>20,605,618,296</b>				
(15) Difference Between Market & Actuarial Values	(3,434,269,716)				
(16) Actuarial Value Rate of Return	(11.78)%				
(17) Market Value Rate of Return	(20.52)%				
(18) Ratio of Actuarial Value to Market Value	120%				

<b>DEVELOPMENT OF THE ACTUARIAL VALUE OF ASSETS</b>					
<b>Employees (State)</b>					
	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>
Beginning of Year:					
(1) Market Value of Assets	\$9,927,798,995				
(2) Actuarial Value of Assets	10,699,418,334				
End of Year:					
(3) Market Value of Assets	7,691,984,308				
(4) Net of Contributions and Disbursements	(267,281,376)				
(5) Total Investment Income					
=(3)-(1)-(4)	(1,968,533,311)				
(6) Projected Rate of Return	7.75%				
(7) Projected Investment Income					
=(1)×(6)+([1+(6)] <sup>5</sup> -1)×(4)	759,240,520				
(8) Beginning of Year Asset Adjustment	4,717,783				
(9) Investment Income in Excess of Projected Income	(2,727,773,831)				
(10) Excess Investment Income Recognized					
This Year (5 year recognition)					
(10a) From This Year	(545,554,766)				
(10b) From One Year Ago	(275,866,936)	\$ (232,220,784)			
(10c) From Two Years Ago	109,043,540	(275,866,936)	\$ (232,220,784)		
(10d) From Three Years Ago	0	109,043,540	(275,866,936)	\$ (232,220,784)	
(10e) From Four Years Ago	0	0	109,043,540	(275,866,934)	\$ (232,220,784)
(10f) Total Recognized Investment Gain	(712,378,162)	(399,044,180)	(399,044,180)	(508,087,718)	(232,220,784)
(11) Change in Actuarial Value of Assets					
=(4)+(7)+(8)+(10f)	(215,701,235)				
End of Year:					
<b>(3) Market Value of Assets</b>	<b>7,691,984,308</b>				
(12) Preliminary Actuarial Value of Assets = (2)+(11)	10,483,717,099				
(12a) Upper Collar Limit 120% x (3)	9,230,381,170				
(12b) Lower Collar Limit 80% x (3)	6,153,587,446				
(13) Adjustment to Remain within 20% Corridor	(1,253,335,929)				
<b>(14) Final Actuarial Value of Assets as of 6/30</b>	<b>9,230,381,170</b>				
(15) Difference Between Market & Actuarial Values	(1,538,396,862)				
(16) Actuarial Value Rate of Return	(11.42)%				
(17) Market Value Rate of Return	(20.10)%				
(18) Ratio of Actuarial Value to Market Value	120%				

**DEVELOPMENT OF THE ACTUARIAL VALUE OF ASSETS**

**State Police**

	2009	2010	2011	2012	2013
Beginning of Year:					
(1) Market Value of Assets	\$1,222,164,139				
(2) Actuarial Value of Assets	1,343,208,496				
End of Year:					
(3) Market Value of Assets	933,138,069				
(4) Net of Contributions and Disbursements	(67,896,897)				
(5) Total Investment Income					
=(3)-(1)-(4)	(221,129,173)				
(6) Projected Rate of Return	7.75%				
(7) Projected Investment Income					
=(1)x(6)+([1+(6)] <sup>5</sup> -1)x(4)	92,135,807				
(8) Beginning of Year Asset Adjustment	0				
(9) Investment Income in Excess of Projected Income	(313,264,980)				
(10) Excess Investment Income Recognized					
This Year (5 year recognition)					
(10a) From This Year	(62,652,996)				
(10b) From One Year Ago	(34,050,347)	\$ (23,645,315)			
(10c) From Two Years Ago	5,052,343	(34,050,347)	\$ (23,645,315)		
(10d) From Three Years Ago	0	5,052,343	(34,050,347)	\$ (23,645,315)	
(10e) From Four Years Ago	0	0	5,052,345	(34,050,347)	(\$23,645,316)
(10f) Total Recognized Investment Gain	(91,651,000)	(52,643,319)	(52,643,317)	(57,695,662)	(23,645,316)
(11) Change in Actuarial Value of Assets					
=(4)+(7)+(8)+(10f)	(67,412,090)				
End of Year:					
<b>(3) Market Value of Assets</b>	<b>933,138,069</b>				
(12) Preliminary Actuarial Value of Assets = (2)+(11)	1,275,796,406				
(12a) Upper Collar Limit 120% x (3)	1,119,765,683				
(12b) Lower Collar Limit 80% x (3)	746,510,455				
(13) Adjustment to Remain within 20% Corridor	(156,030,723)				
<b>(14) Final Actuarial Value of Assets as of 6/30</b>	<b>1,119,765,683</b>				
(15) Difference Between Market & Actuarial Values	(186,627,614)				
(16) Actuarial Value Rate of Return	(11.88)%				
(17) Market Value Rate of Return	(18.61)%				
(18) Ratio of Actuarial Value to Market Value	120%				

<b>DEVELOPMENT OF THE ACTUARIAL VALUE OF ASSETS</b>					
<b>Judges</b>					
	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>
Beginning of Year:					
(1) Market Value of Assets	\$283,759,913				
(2) Actuarial Value of Assets	306,716,176				
End of Year:					
(3) Market Value of Assets	225,724,608				
(4) Net of Contributions and Disbursements	(4,187,068)				
(5) Total Investment Income					
=(3)-(1)-(4)	(53,848,237)				
(6) Projected Rate of Return	7.75%				
(7) Projected Investment Income					
=(1)x(6)+([1+(6)] <sup>.5</sup> -1)x(4)	21,832,172				
(8) Beginning of Year Asset Adjustment	0				
(9) Investment Income in Excess of Projected Income	(75,680,409)				
(10) Excess Investment Income Recognized					
This Year (5 year recognition)					
(10a) From This Year	(15,136,082)				
(10b) From One Year Ago	(7,593,012)	\$ (6,827,436)			
(10c) From Two Years Ago	2,471,929	(7,593,012)	\$ (6,827,436)		
(10d) From Three Years Ago	0	2,471,929	(7,593,012)	\$ (6,827,436)	
(10e) From Four Years Ago	0	0	2,471,928	(7,593,013)	(\$6,827,434)
(10f) Total Recognized Investment Gain	(20,257,165)	(11,948,519)	(11,948,520)	(14,420,449)	(6,827,434)
(11) Change in Actuarial Value of Assets					
=(4)+(7)+(8)+(10f)	(2,612,061)				
End of Year:					
<b>(3) Market Value of Assets</b>	<b>225,724,608</b>				
(12) Preliminary Actuarial Value of Assets = (2)+(11)	304,104,115				
(12a) Upper Collar Limit 120% x (3)	270,869,530				
(12b) Lower Collar Limit 80% x (3)	180,579,686				
(13) Adjustment to Remain within 20% Corridor	(33,234,585)				
<b>(14) Final Actuarial Value of Assets as of 6/30</b>	<b>270,869,530</b>				
(15) Difference Between Market & Actuarial Values	(45,144,922)				
(16) Actuarial Value Rate of Return	(10.39)%				
(17) Market Value Rate of Return	(19.12)%				
(18) Ratio of Actuarial Value to Market Value	120%				



**DEVELOPMENT OF THE ACTUARIAL VALUE OF ASSETS**  
**LEOPS (State)**

	2009	2010	2011	2012	2013
Beginning of Year:					
(1) Market Value of Assets	\$351,604,165				
(2) Actuarial Value of Assets	389,792,503				
End of Year:					
(3) Market Value of Assets	295,589,314				
(4) Net of Contributions and Disbursements	11,159,447				
(5) Total Investment Income					
=(3)-(1)-(4)	(67,174,298)				
(6) Projected Rate of Return	7.75%				
(7) Projected Investment Income					
=(1)x(6)+([1+(6)] <sup>.5</sup> -1)x(4)	27,673,683				
(8) Beginning of Year Asset Adjustment	(5,068,587)				
(9) Investment Income in Excess of Projected Income	(94,847,981)				
(10) Excess Investment Income Recognized					
This Year (5 year recognition)					
(10a) From This Year	(18,969,596)				
(10b) From One Year Ago	(9,914,898)	\$ (8,433,265)			
(10c) From Two Years Ago	2,179,948	(9,914,898)	\$ (8,433,265)		
(10d) From Three Years Ago	0	2,179,948	(9,914,898)	\$ (8,433,265)	
(10e) From Four Years Ago	0	0	2,179,946	(9,914,899)	(\$8,433,267)
(10f) Total Recognized Investment Gain	(26,704,546)	(16,168,215)	(16,168,217)	(18,348,164)	(8,433,267)
(11) Change in Actuarial Value of Assets					
=(4)+(7)+(8)+(10f)	7,059,997				
End of Year:					
<b>(3) Market Value of Assets</b>	<b>295,589,314</b>				
(12) Preliminary Actuarial Value of Assets = (2)+(11)	396,852,500				
(12a) Upper Collar Limit 120% x (3)	354,707,177				
(12b) Lower Collar Limit 80% x (3)	236,471,451				
(13) Adjustment to Remain within 20% Corridor	(42,145,323)				
<b>(14) Final Actuarial Value of Assets as of 6/30</b>	<b>354,707,177</b>				
(15) Difference Between Market & Actuarial Values	(59,117,863)				
(16) Actuarial Value Rate of Return	(10.48)%				
(17) Market Value Rate of Return	(18.81)%				
(18) Ratio of Actuarial Value to Market Value	120%				

## Investment Performance

The Market Value of Assets (MVA) returned (lost) approximately **20.28%** during 2009. Most systems will have experienced a similar or even larger loss during fiscal years ending June 30, 2009.

The Actuarial Value of Assets (AVA) returned (lost) 11.57% for the year. The difference between (20.28%) and (11.57%) is primarily the result of the smoothing method utilized for the calculation of the Actuarial Value of Assets. In periods of very good performance, the rate of return on the AVA can lag significantly behind the rate of return on the MVA, while in a period of severely negative returns (currently as well as the period from 2000 to 2003), the AVA does not decline as rapidly as the MVA. Because the MVA is less than the AVA, the MVA must earn in excess of the assumption of 7.75% (about 9.3% for FYE 2010) for the AVA to earn at least 7.75%.

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**SECTION III**  
**LIABILITIES**

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

- **Plan liabilities** at June 30, 2009 and June 30, 2008; and
- Statement of **changes** in these liabilities during the year.

## **Plan Liabilities**

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 work, accrue benefits and receive salary increases in accordance with assumptions. The calculation does not consider future participants.
- **Actuarial Liabilities:** Used for actuarially determined calculations and GASB disclosures, this liability is calculated by taking the Total Future Obligations above and subtracting the present value of future Member Contributions and future Employer Normal Costs under an acceptable actuarial funding method. The method used by the System is referred to as the **Individual Entry Age Normal Cost Method**. This represents the amount of assets that “should have” been accumulated in the past based on the current actuarial assumptions.
- **Accrued Benefit 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 or salary increases. These liabilities are also required for accounting purposes (FAS No. 35) and are used to assess whether the plan can meet its current benefit commitments.

The investment return assumption is the same in all three calculations.

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**.

<b>Liabilities/Net Surplus (Unfunded) (State and Municipal)</b>	<b>6/30/2009</b>	<b>6/30/2008</b>
Total Future Obligations		
Active Participant Benefits	\$35,000,949,595	\$33,572,044,044
Retiree and Inactive Benefits	28,914,824,184	27,224,603,428
<b>Total Future Obligations</b>	<b>\$63,915,773,779</b>	<b>\$60,796,647,472</b>
Market Value of Assets	\$28,570,473,847	\$36,613,710,023
Future Member Contributions	4,643,057,506	3,950,993,983
Future Employer Contributions	30,702,242,426	20,231,943,466
<b>Total Resources</b>	<b>\$63,915,773,779</b>	<b>\$60,796,647,472</b>
Actuarial Liability		
Total Future Obligations	\$63,915,773,779	\$60,796,647,472
Present Value of Future Normal Costs		
Less Employer Portion	(6,543,544,943)	(6,601,606,282)
Less Employee Portion	(4,643,057,506)	(3,950,993,983)
<b>Actuarial Liability</b>	<b>\$52,729,171,330</b>	<b>\$50,244,047,207</b>
Less Actuarial Value of Assets	(34,284,568,617)	(39,504,284,202)
<b>Net (Surplus) Unfunded</b>	<b>\$18,444,602,713</b>	<b>\$10,739,763,005</b>
Accrued Benefit Liability		
Total Future Obligations	\$63,915,773,779	\$60,796,647,472
Less Present Value of Future Benefit Accruals	(16,930,615,509)	(17,301,232,378)
Accrued Benefit Liability	\$46,985,158,270	\$43,495,415,094
Less Market Value of Assets	(28,570,473,847)	(36,613,710,023)
<b>Net (Surplus) Unfunded</b>	<b>\$18,414,684,423</b>	<b>\$6,881,705,071</b>

## 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 or employee 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.

(State and Municipal)	\$ in Millions		
	Total Future Obligation	Actuarial Liability	Accrued Benefit Liability
Liabilities 6/30/2008	\$60,796	\$50,244	\$43,495
Liabilities 6/30/2009	\$63,916	\$52,729	\$46,985
Liability Increase (Decrease)	\$ 3,120	\$ 2,485	\$ 3,490
Change due to:			
Plan Amendment	\$ 0	\$ 0	\$ 0
Assumption Change	\$ 136	\$ 111	\$ 100
Actuarial (Gain)/Loss	N/A	\$ 1,300	N/A
Benefits Accumulated and Other Sources	\$ 2,984	\$ 1,074	\$ 3,390

Actuarial Liability by System  
As of June 30, 2009  
(State and Municipal)

	Total Systems	Teachers' Retirement & Pension	Employees' Retirement & Pension	State Police	Judges	LEOPS	CORS
1. Actuarial Liabilities for:							
a. Active Members	\$23,814,347,146	\$14,087,832,360	\$8,777,623,557	\$375,812,177	\$161,619,011	\$399,187,065	\$12,272,976
b. Retired, Disabled and Beneficiary Members	27,638,063,932	16,492,731,171	9,079,268,092	1,327,326,473	258,598,643	480,139,553	0
c. Vested Deferred and Inactive Status Members	<u>1,276,760,252</u>	<u>592,353,643</u>	<u>660,594,774</u>	<u>7,217,647</u>	<u>821,310</u>	<u>15,772,878</u>	<u>0</u>
2. Total Actuarial Liability: (1(a) + 1(b) + 1(c))	\$52,729,171,330	\$31,172,917,174	\$18,517,486,423	\$1,710,356,297	\$421,038,964	\$895,099,496	\$12,272,976
3. Actuarial Value of Assets	<u>34,284,568,617</u>	<u>20,605,618,296</u>	<u>11,839,115,494</u>	<u>1,119,765,683</u>	<u>270,869,530</u>	<u>441,826,566</u>	<u>7,373,048</u>
4. Unfunded Actuarial Liability: (2 – 3)	<u>\$18,444,602,713</u>	<u>\$10,567,298,878</u>	<u>\$6,678,370,929</u>	<u>\$590,590,614</u>	<u>\$150,169,434</u>	<u>\$453,272,930</u>	<u>\$4,899,928</u>

**Summary of Valuation Results by System  
As of June 30, 2009  
(State and Municipal)**

	<b>Teachers</b>	<b>Employees (State)</b>	<b>State Police</b>	<b>Judges</b>	<b>LEOPS (State)</b>	<b>Total State</b>
Total Actuarial Liability	\$ 31,172,917,174	\$ 15,080,783,161	\$ 1,710,356,297	\$ 421,038,964	\$ 684,423,500	\$ 49,069,519,096
Actuarial Value of Assets	<u>20,605,618,296</u>	<u>9,230,381,170</u>	<u>1,119,765,683</u>	<u>270,869,530</u>	<u>354,707,177</u>	<u>31,581,341,856</u>
Unfunded Actuarial Accrued Liability	10,567,298,878	5,850,401,991	590,590,614	150,169,434	329,716,323	17,488,177,240
Funded Ratio	66.1%	61.2%	65.5%	64.3%	51.8%	64.4%

	<b>Employees (Municipal)</b>	<b>LEOPS (Municipal)</b>	<b>CORS (Municipal)</b>	<b>Total Municipal</b>
Total Actuarial Liability	\$ 3,436,703,262	\$ 210,675,996	\$ 12,272,976	\$ 3,659,652,234
Actuarial Value of Assets	<u>2,608,734,324</u>	<u>87,119,389</u>	<u>7,373,048</u>	<u>2,703,226,761</u>
Unfunded Actuarial Accrued Liability	827,968,938	123,556,607	4,899,928	956,425,473
Funded Ratio	75.9%	41.4%	60.1%	73.9%

	<b>Teachers</b>	<b>Employees</b>	<b>State Police</b>	<b>Judges</b>	<b>LEOPS</b>	<b>CORS</b>	<b>Total SRPS</b>
Total Actuarial Liability	\$ 31,172,917,174	\$ 18,517,486,423	\$ 1,710,356,297	\$ 421,038,964	\$ 895,099,496	\$ 12,272,976	\$ 52,729,171,330
Actuarial Value of Assets	<u>20,605,618,296</u>	<u>11,839,115,494</u>	<u>1,119,765,683</u>	<u>270,869,530</u>	<u>441,826,566</u>	<u>7,373,048</u>	<u>34,284,568,617</u>
Unfunded Actuarial Accrued Liability	10,567,298,878	6,678,370,929	590,590,614	150,169,434	453,272,930	4,899,928	18,444,602,713
Funded Ratio	66.1%	63.9%	65.5%	64.3%	49.4%	60.1%	65.02%



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**SECTION IV**  
CONTRIBUTIONS

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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.

**Actuarially Determined Rate**

For this Fund, the funding scheme employed is the **Individual Entry Age Normal Cost Method**. Under this method there are two components to the total contribution, a **normal cost**, and an **amortization payment**. The normal cost rate is determined as the value, as of the member’s entry age into the plan, of the member’s projected future benefits and divided by the value, also as of the member’s entry age, of the member’s expected future salary. This rate is then applied to each system’s payroll to determine the System’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 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 paid on a timely basis, and all actuarial assumptions been realized.

Please refer to page C-13 for more detail on 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.

<b>Actuarially Determined Contribution (State Portion Only)</b>	<b>FY 11</b>	<b>FY 10</b>
Entry Age Normal Cost	7.33%	6.91%
Amortization Payment	<u>12.41%</u>	<u>7.51%</u>
Total State Contribution	19.74%	14.42%

The figures in the above table ignore the effect of the corridor method on ECS and TCS.

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

**Table IV-1**  
**Actuarially Determined State Contribution Rates**  
**Compared with Corridor Rate**  
**Fiscal Year 2011**  
**(State Portion Only)**

	<b>Total State</b>	<b>Teachers’ Retirement &amp; Pension</b>	<b>Employees’ Retirement &amp; Pension</b>	<b>State Police</b>	<b>Judges</b>	<b>LEOPS</b>
New Entrant Normal Contributions as Percent of Payroll:	7.33%	7.22%	6.46%	25.51%	31.30%	18.06%
Unfunded Actuarial Liability Contribution as Percent of Payroll:	<u>12.41%</u>	<u>11.88%</u>	<u>12.27%</u>	<u>31.52%</u>	<u>27.77%</u>	<u>29.61%</u>
Total Contributions as Percent of Payroll:	19.74%	19.10%	18.73%	57.03%	59.07%	47.67%
Total Corridor Contribution Rate	14.33%	14.34%	11.69%	N/A	N/A	N/A

Table IV-2  
 Budgeted State Contribution Rates by System  
 June 30, 1992 – June 30, 2009  
 (State Portion Only)

Valuation Date 30-Jun	Total Systems	Teachers' Combined	Employees' Combined	State Police	Judges	LEOPS
2009	14.33%	14.34%	11.69%	57.03%	59.07%	47.67%
2008	12.62	13.15	9.93	30.79	48.89	38.63
2007 Revised	12.09	12.92	9.01	25.27	44.09	39.90
2007 Budgeted	11.14	11.70	8.73	20.53	43.61	36.99
2006	11.10	11.60	8.86	15.44	44.12	41.74
2005	9.18	9.71	6.83	13.83	42.43	40.60
2004	8.46	9.35	5.76	8.22	41.12	38.47
2003	7.97	9.35	4.73	0.00	36.72	37.73
2002	7.98	9.35	4.73	7.58	43.74	35.13
2001	7.98	9.35	4.73	5.78	43.92	36.10
2000	7.98	9.35	4.73	5.83	42.66	32.41
1999	9.31	10.95	5.71	8.44	46.75	23.38
1998	10.70	12.54	7.15	1.26	48.18	22.96
1997	11.67	13.99	7.13	10.91	52.12	25.60
1996	12.90	15.48	8.21	13.08	52.49	26.27
1995	13.50	16.09	8.54	17.65	52.56	35.15
1994	13.61	16.22	8.61	19.13	52.51	35.68
1993	13.43	15.92	8.70	19.36	52.84	34.07
1992	13.40	15.76	8.70	25.74	54.25	32.56

## Budgeted Rates (based on Corridor Method)

For the State Police, Judges and LEOPs Systems, the State's total contribution rate is equal to the normal cost plus the unfunded actuarial contribution rate. The unfunded actuarial contribution rate consists of the July 1, 2000 unfunded actuarial liability being amortized over 20 years (11 years remaining) plus 25 year amortization of the unfunded actuarial liability that emerges each subsequent year. Amortizations are calculated as a level percent of pay.

For the Teachers Combined System and the Employees' Combined System, the State's contribution is equal to the 2000 valuation contribution percentage (first applicable for fiscal 2002) as long as each System's actuarial funded status remains within a corridor of 90% to 110%. The normal cost rate and actuarial liability will continue to be measured using the individual entry age normal cost method. If the funded status falls outside the corridor, a credit (if above 110%) or charge (if below 90%) will be established equal to one-fifth of the difference between the prior year budgeted rate and the actuarially determined rate. Once the funded status returns to within the corridor the contribution rate will become fixed until the funded status falls outside of the corridor.

This year the Teachers' Combined System and the Employees' Combined System remained less than 90% funded. A charge of one-fifth of the difference between the prior year budgeted rate of 13.15% for the Teachers' Combined System and the actuarially determined rate of 19.10% was calculated, resulting in a budgeted rate of 14.34% of payroll. A charge of one-fifth of the difference between the prior year budgeted rate of 9.93% for the Employees' Combined System and the actuarially determined rate of 18.73% was calculated, resulting in a budgeted rate of 11.69% of payroll.

The table below presents and compares the weighted average budgeted contribution rates for the State for this valuation and the prior one.

	<b>FY 11</b>	<b>FY 10</b>
Budgeted State Rate (based on Corridor Method)	14.33%	12.62%

On the following page we show the budgeted rate by System for this valuation and the prior one.

**Table IV-3**  
**Summary of State Contributions Based on Corridor Method**  
**(State Portion Only)**

		<b>Total State</b>	<b>Teachers' Retirement &amp; Pension</b>	<b>State Employees' Retirement &amp; Pension</b>	<b>State Police</b>	<b>Judges</b>	<b>LEOPS</b>
7/1/2008 Valuation Results (FY2010)	Unfunded Actuarial Liability – State Portion Only	\$10,302,350,129	\$6,084,300,801	\$3,638,042,336	\$258,367,357	\$100,065,567	\$221,574,068
	Illustrated Contribution Dollars	\$ 1,233,261,207	\$ 832,619,351	\$ 319,697,557	\$ 27,554,124	\$ 19,199,760	\$ 34,190,416
	Total Contributions as Percentage of Payroll*	12.62%	13.15%	9.93%	30.79%	48.89%	38.63%
	Corridor Percentage of Actuarially Determined Rate		93.59%	72.96%			
7/1/2009 Valuation Results **	Unfunded Actuarial Liability – State Portion Only	\$17,488,177,240	\$10,567,298,878	\$5,850,401,991	\$590,590,614	\$150,169,434	\$329,716,323
	Illustrated Contribution Dollars	\$ 1,424,604,437	\$ 919,416,231	\$ 386,612,669	\$ 50,516,633	\$ 24,617,614	\$ 43,441,290
	Total Contributions as Percentage of Payroll**	14.33%	14.34%	11.69%	57.03%	59.07%	47.67%
	Corridor Percentage of Actuarially Determined Rate		75.08%	62.41%			

\* The contribution rate would be 14.05% for Teachers, 13.61% for Employees, and 14.42% for the Total State if the corridor method were not in effect.

\*\* The contribution rate would be 19.10% for Teachers, 18.73% for Employees, and 19.74% for the Total State if the corridor method were not in effect.

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## **SECTION V**

### **ACCOUNTING STATEMENT INFORMATION**

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**This information is presented in draft form for review by the Plan's auditor. Please let us know if there are any items that the auditor changes so that we may maintain consistency with the Plan's financial statements.**

Statement No. 35 of the Financial Accounting Standards Board was previously used by 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 the possibility that alternative interest rates would have to be used to determine the FASB liabilities, these values may not be a good indication of the amount of money it would take to buy the benefits for all members if the plan were to terminate.

The GASB-25 actuarial accrued liability is the same as the actuarial liability amount calculated for funding purposes.

Both the present value of accrued benefits (FASB-35) and the actuarial accrued liability (GASB-25) are determined assuming that the plan is ongoing and participants continue to terminate employment, retire, etc., in accordance with the actuarial assumptions. Liabilities are discounted at the assumed valuation interest rate of 7.75% per annum.

FASB Statement No. 35 specifies that a comparison of the present value of accrued (accumulated) benefits with the market value of the assets as of the valuation date must be provided. 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. GASB Statement No. 25 requires the actuarial accrued liability be compared with the actuarial value of assets for funding purposes. The relevant amounts as of June 30, 2009 are exhibited in Table V-1, Table V-2, and Table V-3. Finally, Table V-4 reconciles the FASB-35 liabilities determined as of the prior valuation, June 30, 2008, to the liabilities as of June 30, 2009.



**TABLE V-1**  
**ACCOUNTING STATEMENT INFORMATION**  
**THE TOTAL SYSTEMS OF THE STATE OF MARYLAND**  
**(STATE AND MUNICIPAL)**

	<b>2009</b>	<b>2008</b>
<b>A. FASB No. 35 Basis</b>		
1. Present Value of Benefits Accrued to Date:		
a. Members Currently Receiving Payments	\$27,638,063,932	\$26,024,615,048
b. Former Vested Members	1,276,760,252	1,199,988,380
c. Active Members	<u>18,070,334,086</u>	<u>16,270,811,666</u>
2. Total Present Value of Accrued Benefits (1(a) + 1(b) + 1(c))	<u>\$46,985,158,270</u>	<u>\$43,495,415,094</u>
3. Assets at Market Value	<u>\$28,570,473,847</u>	<u>\$36,613,710,023</u>
4. Unfunded Present Value of Benefits: (2 - 3)	\$18,414,684,423	\$6,881,705,071
5. Ratio of Assets to Value of Benefits: (3 / 2)	60.81%	84.18%
<b>B. GASB No. 25 Basis</b>		
1. Actuarial accrued liabilities for retirees and beneficiaries currently receiving benefits and terminated employees not yet receiving benefits	\$28,914,824,184	\$27,224,603,428
2. Actuarial accrued liabilities for current Employees	<u>23,814,347,146</u>	<u>23,019,443,779</u>
3. Total actuarial accrued liability: (1 + 2)	\$52,729,171,330	\$50,244,047,207
4. Net actuarial assets available for benefits	34,284,568,617	39,504,284,202
5. Unfunded actuarial accrued liability: (3 - 4)	<u>\$18,444,602,713</u>	<u>\$10,739,763,005</u>

Table V-2  
Accounting Statement Information – FASB No. 35  
As of June 30, 2009  
(State and Municipal)

	Total Systems	Teachers' Retirement & Pension	Employees' Retirement & Pension	State Police	Judges	LEOPS	CORS
1. Present Value of Benefits							
Accrued to Date:							
a. Members Currently							
Receiving Payments	\$27,638,063,932	16,492,731,171	9,079,268,092	1,327,326,473	258,598,643	480,139,553	0
b. Former Vested Members	1,276,760,252	592,353,643	660,594,774	7,217,647	821,310	15,772,878	0
c. Active Members	<u>18,070,334,086</u>	<u>10,485,655,834</u>	<u>6,709,096,869</u>	<u>365,190,297</u>	<u>155,353,543</u>	<u>345,862,299</u>	<u>9,175,244</u>
2. Total Present Value of Accrued Benefits: (1(a) + 1(b) + 1(c))	\$46,985,158,270	\$27,570,740,648	\$16,448,959,736	\$1,699,734,417	\$414,773,496	\$841,774,730	\$9,175,244
3. Assets at Market Value	<u>28,570,473,847</u>	<u>17,171,348,580</u>	<u>9,865,929,578</u>	<u>933,138,069</u>	<u>225,724,608</u>	<u>368,188,805</u>	<u>6,144,207</u>
4. Unfunded Value of Accrued Benefits: (2-3)	<u>\$18,414,684,423</u>	<u>\$10,399,392,068</u>	<u>\$6,583,030,158</u>	<u>\$766,596,348</u>	<u>\$189,048,888</u>	<u>\$473,585,925</u>	<u>\$3,031,037</u>
5. Ratio of Assets to Value of Accrued Benefits: (3 / 2)	60.81%	62.28%	59.98%	54.90%	54.42%	43.74%	66.97%

Table V-3  
Accounting Statement Information – GASB No. 25  
As of June 30, 2009  
(State and Municipal)

	Total Systems	Teachers' Retirement & Pension	Employees' Retirement & Pension	State Police	Judges	LEOPS	CORS
1. Actuarial Accrued Liability:							
a. Employee Contributions	\$ 2,959,415,829	\$ 1,717,389,104	\$ 1,108,649,029	\$ 70,103,277	\$ 24,123,471	\$ 38,315,101	\$ 835,847
b. Retirees, Term. Vesteds & Inactives	28,914,824,184	17,085,084,814	9,739,862,866	1,334,544,120	259,419,953	495,912,431	0
c. Active Members	20,854,931,317	12,370,443,256	7,668,974,528	305,708,900	137,495,540	360,871,964	11,437,129
2. Total Actuarial Accrued Liability (1(a) + 1(b) + 1(c))	\$52,729,171,330	\$31,172,917,174	\$18,517,486,423	\$1,710,356,297	\$421,038,964	\$895,099,496	\$12,272,976
3. Actuarial Value of Assets	<u>34,284,568,617</u>	<u>20,605,618,296</u>	<u>11,839,115,494</u>	<u>1,119,765,683</u>	<u>270,869,530</u>	<u>441,826,566</u>	<u>7,373,048</u>
4. Unfunded Actuarial Accrued Liability: (2-3)	<u>\$18,444,602,713</u>	<u>\$10,567,298,878</u>	<u>\$ 6,678,370,929</u>	<u>\$ 590,590,614</u>	<u>\$150,169,434</u>	<u>\$453,272,930</u>	<u>\$ 4,899,928</u>
5. Funded Ratio	65.02%	66.10%	63.93%	65.47%	64.33%	49.36%	60.08%
6. Annual Payroll	\$10,714,241,111	\$ 6,194,734,040	\$ 4,249,536,108	\$85,585,708	\$ 40,266,330	\$140,071,292	\$ 4,047,633
7. UAAL as % of Payroll	172%	171%	157%	690%	373%	324%	121%
8. Annual Required Contribution (ARC) State Only	17.99%	17.18%	17.15%	65.81%	59.07%	47.67%	
9. Equivalent Single Amortization Period in Years - State Only for FY 2011	29.867	30.000	30.000	30.000	19.834	18.127	

Table V-4  
Statement of Changes in Total Actuarial  
Present Value of all Accrued Benefits  
(State and Municipal)

<b>(In Millions)</b>	<b>Accumulated Benefit Obligation (FASB No. 35)</b>
Actuarial Present Value of Accrued Benefits at June 30, 2008	\$ 43,495
Increase (Decrease) During years Attributable to:	
Benefits Paid – FY 2009	(2,329)
Operation of Decrements	5,719
Plan Amendment	0
Actuarial Assumption Changes	<u>100</u>
Net Increase (Decrease)	3,490
Actuarial Present Value of Accrued Benefits at June 30, 2009	<u><u>\$ 46,985</u></u>

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## **APPENDIX A**

### DETAILED ACTUARIAL INFORMATION

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## Detailed Actuarial Information

<b>Maryland State Retirement and Pension System (State Portion)</b>		
<b>Actuarial Valuation Performed</b>		
	<b>June 30, 2009 (for FY 2011)</b>	<b>June 30, 2008 (for FY 2010)</b>
1. Present Value of Projected Benefits Attributable to:		
a. Retired and Disabled Members, and Beneficiaries	\$ 26,031,142,615	\$ 24,513,174,830
b. Terminated Vested Members	1,159,745,545	1,094,434,779
c. Active Members	32,168,281,907	30,910,927,857
d. Total Present Value	<u>\$ 59,359,170,067</u>	<u>\$ 56,518,537,466</u>
2. Less Present Value Total Future Normal Costs	<u>10,289,650,971</u>	<u>9,692,648,075</u>
3. Actuarial Accrued Liability (1d - 2)	\$ 49,069,519,096	\$ 46,825,889,391
4. Less Actuarial Value of Assets	<u>31,581,341,856</u>	<u>36,523,539,262</u>
5. Unfunded Actuarial Accrued Liability (UAAL) (3 - 4)	\$ 17,488,177,240	\$ 10,302,350,129
6. Less Special Liability Payments	49,757,778	52,482,987
7. Less UAAL Layers Already Recognized	<u>10,308,630,741</u>	<u>8,845,539,783</u>
8. New UAAL Layer for 25 Year Amortization (5 - 6 - 7)	\$ 7,129,788,721	\$ 1,404,327,359
9. Amortization Payment for New Layer	460,187,121	90,641,306
10. Amortization of Earlier UAAL Layers	<u>733,456,035</u>	<u>618,011,866</u>
11. Amortization Payments (9 + 10)	\$ 1,193,643,156	\$ 708,653,172
12. Employer Normal Cost	\$ 724,126,354	\$ 652,393,569
13. Total Projected Payroll	\$ 9,879,964,692	\$ 9,438,452,173
14. Total Normal Cost Rate	12.38%	
15. Employee Contribution Rate	<u>5.05%</u>	
16. Employer Normal Cost Rate	7.33%	6.91%
17. UAAL Amortization Rate	12.41%	7.51%
18. Total Employer Contribution Rate	19.74%	14.42%
19. Total Employer Contribution Rate (Corridor for TCS and ECS)	14.33%	12.62%
The Employee Normal Cost Rate is the weighted average of the different employee contribution rates applied to payroll.		

## Detailed Actuarial Information

<b>Maryland State Retirement and Pension System (Teachers' Combined System)</b>		
	<b>Actuarial Valuation Performed</b>	
	<b>June 30, 2009 (for FY 2011)</b>	<b>June 30, 2008 (for FY 2010)</b>
1. Present Value of Projected Benefits Attributable to:		
a. Retired and Disabled Members, and Beneficiaries	\$ 16,492,731,171	\$ 15,607,093,599
b. Terminated Vested Members	592,353,643	556,896,776
c. Active Members	21,250,091,823	20,447,769,006
d. Total Present Value	\$ 38,335,176,637	\$ 36,611,759,381
2. Less Present Value Total Future Normal Costs	7,162,259,463	6,743,054,827
3. Actuarial Accrued Liability (1d - 2)	\$ 31,172,917,174	\$ 29,868,704,554
4. Less Actuarial Value of Assets	20,605,618,296	23,784,403,753
5. Unfunded Actuarial Accrued Liability (UAAL) (3 - 4)	\$ 10,567,298,878	\$ 6,084,300,801
6. Less Special Liability Payments	0	0
7. Less UAAL Layers Already Recognized	6,098,455,714	5,326,325,534
8. New UAAL Layer for 25 Year Amortization (5 - 6 - 7)	\$ 4,468,843,164	\$ 757,975,267
9. Amortization Payment for New Layer	288,438,291	48,922,972
10. Amortization of Earlier UAAL Layers	456,044,645	391,699,873
11. Amortization Payments (9 + 10)	\$ 744,482,936	\$ 440,622,845
12. Employer Normal Cost	\$ 462,913,891	\$ 418,865,017
13. Total Projected Payroll	\$ 6,411,549,731	\$ 6,117,590,424
14. Total Normal Cost Rate	12.27%	
15. Employee Contribution Rate	5.05%	
16. Employer Normal Cost Rate	7.22%	6.85%
17. UAAL Amortization Rate	11.88%	7.20%
18. Total Employer Contribution Rate	19.10%	14.05%
19. Total Employer Contribution Rate (Corridor)		
[ 13.15% + 20% of ( 19.10% - 13.15% )]	14.34%	13.15%
The Employee Normal Cost Rate is the weighted average of the different employee contribution rates applied to payroll.		

## Detailed Actuarial Information

<b>Maryland State Retirement and Pension System (Employees' Combined System - State Portion)</b>		
<b>Actuarial Valuation Performed</b>		
	<b>June 30, 2009 (for FY 2011)</b>	<b>June 30, 2008 (for FY 2010)</b>
1. Present Value of Projected Benefits Attributable to:		
a. Retired and Disabled Members, and Beneficiaries	\$ 7,536,600,215	\$ 7,040,978,021
b. Terminated Vested Members	546,646,631	516,805,384
c. Active Members	9,705,888,907	9,328,304,111
d. Total Present Value	<u>\$ 17,789,135,753</u>	<u>\$ 16,886,087,516</u>
2. Less Present Value Total Future Normal Costs	<u>2,708,352,592</u>	<u>2,548,626,846</u>
3. Actuarial Accrued Liability (1d - 2)	\$ 15,080,783,161	\$ 14,337,460,670
4. Less Actuarial Value of Assets	<u>9,230,381,170</u>	<u>10,699,418,334</u>
5. Unfunded Actuarial Accrued Liability (UAAL) (3 - 4)	\$ 5,850,401,991	\$ 3,638,042,336
6. Less Special Liability Payments	49,757,778	52,482,987
7. Less UAAL Layers Already Recognized	<u>3,618,484,577</u>	<u>3,007,698,861</u>
8. New UAAL Layer for 25 Year Amortization (5 - 6 - 7)	\$ 2,182,159,636	\$ 577,860,488
9. Amortization Payment for New Layer	140,845,935	37,297,593
10. Amortization of Earlier UAAL Layers	<u>244,241,311</u>	<u>198,684,351</u>
11. Amortization Payments (9 + 10)	\$ 385,087,246	\$ 235,981,944
12. Employer Normal Cost	\$ 210,002,233	\$ 187,256,314
13. Total Projected Payroll	\$ 3,250,808,568	\$ 3,110,639,760
14. Total Normal Cost Rate	11.45%	
15. Employee Contribution Rate	<u>4.99%</u>	
16. Employer Normal Cost Rate	6.46%	6.02%
17. UAAL Amortization Rate	12.27%	7.59%
18. Total Employer Contribution Rate	18.73%	13.61%
19. Total Employer Contribution Rate (Corridor)		
[ 9.93% + 20% of ( 18.73% - 9.93% ) ]	11.69%	9.93%
The Employee Normal Cost Rate is the weighted average of the different employee contribution rates applied to payroll.		



## Detailed Actuarial Information

<b>Maryland State Retirement and Pension System (State Police)</b>		
<b>Actuarial Valuation Performed</b>		
	<b>June 30, 2009 (for FY 2011)</b>	<b>June 30, 2008 (for FY 2010)</b>
1. Present Value of Projected Benefits Attributable to:		
a. Retired and Disabled Members, and Beneficiaries	\$ 1,327,326,473	\$ 1,234,993,433
b. Terminated Vested Members	7,217,647	6,813,832
c. Active Members	570,865,167	553,299,192
d. Total Present Value	<u>\$ 1,905,409,287</u>	<u>\$ 1,795,106,457</u>
2. Less Present Value Total Future Normal Costs	<u>195,052,990</u>	<u>193,530,604</u>
3. Actuarial Accrued Liability (1d – 2)	\$ 1,710,356,297	\$ 1,601,575,853
4. Less Actuarial Value of Assets	<u>1,119,765,683</u>	<u>1,343,208,496</u>
5. Unfunded Actuarial Accrued Liability (UAAL) (3 - 4)	\$ 590,590,614	\$ 258,367,357
6. Less Special Liability Payments	0	0
7. Less UAAL Layers Already Recognized	<u>272,317,187</u>	<u>194,945,439</u>
8. New UAAL Layer for 25 Year Amortization (5 - 6 - 7)	\$ 318,273,427	\$ 63,421,918
9. Amortization Payment for New Layer	20,542,731	4,093,522
10. Amortization of Earlier UAAL Layers	<u>6,055,929</u>	<u>1,757,617</u>
11. Amortization Payments (9 + 10)	\$ 26,598,660	\$ 5,851,139
12. Employer Normal Cost	\$ 22,211,705	\$ 20,766,052
13. Total Projected Payroll	\$ 87,070,577	\$ 83,190,937
14. Total Normal Cost Rate	33.51%	
15. Employee Contribution Rate	<u>8.00%</u>	
16. Employer Normal Cost Rate	25.51%	24.02%
17. UAAL Amortization Rate	31.52%	6.77%
18. Total Employer Contribution Rate	57.03%	30.79%
The Employee Normal Cost Rate is the weighted average of the different employee contribution rates applied to payroll.		

## Detailed Actuarial Information

<b>Maryland State Retirement and Pension System (Judges)</b>		
	<b>Actuarial Valuation Performed</b>	
	<b>June 30, 2009 (for FY 2011)</b>	<b>June 30, 2008 (for FY 2010)</b>
1. Present Value of Projected Benefits Attributable to:		
a. Retired and Disabled Members, and Beneficiaries	\$ 258,598,643	\$ 252,792,048
b. Terminated Vested Members	821,310	2,090,167
c. Active Members	249,985,483	230,433,259
d. Total Present Value	\$ 509,405,436	\$ 485,315,474
2. Less Present Value Total Future Normal Costs	88,366,472	78,533,731
3. Actuarial Accrued Liability (1d – 2)	\$ 421,038,964	\$ 406,781,743
4. Less Actuarial Value of Assets	270,869,530	306,716,176
5. Unfunded Actuarial Accrued Liability (UAAL) (3 - 4)	\$ 150,169,434	\$ 100,065,567
6. Less Special Liability Payments	0	0
7. Less UAAL Layers Already Recognized	99,805,675	78,692,815
8. New UAAL Layer for 25 Year Amortization (5 - 6 - 7)	\$ 50,363,759	\$ 21,372,752
9. Amortization Payment for New Layer	3,250,693	1,379,489
10. Amortization of Earlier UAAL Layers	7,991,603	6,341,865
11. Amortization Payments (9 + 10)	\$ 11,242,296	\$ 7,721,354
12. Employer Normal Cost	\$ 12,822,023	\$ 10,466,038
13. Total Projected Payroll	\$ 40,964,931	\$ 37,638,491
14. Total Normal Cost Rate	37.30%	
15. Employee Contribution Rate	6.00%	
16. Employer Normal Cost Rate	31.30%	28.54%
17. UAAL Amortization Rate	27.77%	20.35%
18. Total Employer Contribution Rate	59.07%	48.89%
<p>This is the employee contribution rate through 16 years of service. For members with over 16 years of service, the present value of the 6% future employee contributions is included in the actuarial accrued liability.</p>		

## Detailed Actuarial Information

<b>Maryland State Retirement and Pension System</b>		
<b>(LEOPS - State Portion)</b>		
<b>Actuarial Valuation Performed</b>		
	<b>June 30, 2009</b>	<b>June 30, 2008</b>
	<b>(for FY 2011)</b>	<b>(for FY 2010)</b>
1. Present Value of Projected Benefits Attributable to:		
a. Retired and Disabled Members, and Beneficiaries	\$ 415,886,113	\$ 377,317,729
b. Terminated Vested Members	12,706,314	11,828,620
c. Active Members	391,450,527	351,122,289
d. Total Present Value	<u>\$ 820,042,954</u>	<u>\$ 740,268,638</u>
2. Less Present Value Total Future Normal Costs	<u>135,619,454</u>	<u>128,902,067</u>
3. Actuarial Accrued Liability (1d – 2)	\$ 684,423,500	\$ 611,366,571
4. Less Actuarial Value of Assets	<u>354,707,177</u>	<u>389,792,503</u>
5. Unfunded Actuarial Accrued Liability (UAAL) (3 - 4)	\$ 329,716,323	\$ 221,574,068
6. Less Special Liability Payments	0	0
7. Less UAAL Layers Already Recognized	<u>219,567,588</u>	<u>237,877,134</u>
8. New UAAL Layer for 25 Year Amortization (5 - 6 - 7)	\$ 110,148,735	\$ (16,303,066)
9. Amortization Payment for New Layer	7,109,471	(1,052,270)
10. Amortization of Earlier UAAL Layers	<u>19,122,547</u>	<u>19,528,160</u>
11. Amortization Payments (9 + 10)	\$ 26,232,018	\$ 18,475,890
12. Employer Normal Cost	\$ 16,176,502	\$ 14,676,161
13. Total Projected Payroll	\$ 89,570,885	\$ 85,814,415
14. Total Normal Cost Rate	22.06%	
15. Employee Contribution Rate	<u>4.00%</u>	
16. Employer Normal Cost Rate	18.06%	17.10%
17. UAAL Amortization Rate	29.61%	21.53%
18. Total Employer Contribution Rate	47.67%	38.63%

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## **APPENDIX B**

### **MEMBERSHIP INFORMATION**

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**State Retirement and Pension System**  
**Summary of Membership Data as of June 30, 2009**  
**(State and Municipal)**

		<b>Active Members</b>		<b>Retirees and Beneficiaries</b>			<b>Members (Includes Inactives)</b>	<b>Total Counts</b>
		<b>Count</b>	<b>Salary</b>	<b>Count</b>	<b>Benefits</b>	<b>Ave. Age</b>	<b>Count</b>	
Teachers' Retirement	Total	3,554	\$ 306,096,545					
	Vested	3,554	\$ 306,096,545					
	Non-vested	0	\$ -	30,598	\$ 954,585,558	73.8	996	35,148
Teachers' Pension	Total	102,553	\$ 5,888,637,495					
	Vested	71,208	\$ 4,489,646,956					
	Non-vested	31,345	\$ 1,398,990,539	25,158	\$ 439,788,741	67.2	21,999	149,710
Employees' Retirement	Total	9,962	\$ 483,871,203					
	Vested	6,461	\$ 345,742,524					
	Non-vested	3,501	\$ 138,128,679	23,778	\$ 436,560,853	72.6	1,065	34,805
Employees' Pension	Total	79,418	\$ 3,765,591,310					
	Vested	56,009	\$ 2,854,246,379					
	Non-vested	23,409	\$ 911,344,932	32,832	\$ 356,708,098	67.2	27,543	139,793
State Police	Total	1,408	\$ 85,585,708					
	Vested	968	\$ 65,704,383					
	Non-vested	440	\$ 19,881,325	2,226	\$ 94,121,168	59.4	68	3,702
Judges	Total	297	\$ 40,266,330					
	Vested	297	\$ 40,266,330					
	Non-vested	0	\$ 0	348	\$ 23,548,132	76.1	6	651
LEOPS	Total	2,445	\$ 140,071,292					
	Vested	1,760	\$ 108,522,465					
	Non-vested	685	\$ 31,548,827	1,067	\$ 32,668,983	56.8	189	3,701
CORS	Total	68	\$ 4,047,633					
	Vested	51	\$ 3,284,087					
	Non-vested	17	\$ 763,546	0	\$ -	0.0	0	68
Total Systems	Total	199,705	\$ 10,714,167,517					
	Vested	140,308	\$ 8,213,509,669					
	Non-vested	59,397	\$ 2,500,657,848	116,007	\$ 2,337,981,534	69.8	51,866	367,578

State Retirement and Pension System  
 Summary of Membership Data as of June 30, 2009  
 (Municipal Corporations)

		Active Members		Retirees and Beneficiaries			Vested Former Members (Includes Inactives)	Total Counts
		Count	Salary	Count	Benefits	Ave. Age	Count	
Employees'	Total	329	\$ 19,326,113					
Retirement	Vested	327	\$ 19,247,371					
	Non-vested	2	\$ 78,742	4,264	\$ 63,841,485	76.3	83	4,676
Employees'	Total	25,195	\$ 1,034,765,905					
Pension	Vested	16,928	\$ 765,846,197					
	Non-vested	8,267	\$ 268,919,708	8,552	\$ 76,777,165	67.7	6,411	40,158
LEOPS	Total	929	\$ 52,027,915					
	Vested	656	\$ 39,852,067					
	Non-vested	273	\$ 12,175,848	126	\$ 4,121,828	52.4	46	1,101
CORS	Total	68	\$ 4,047,633					
	Vested	51	\$ 3,284,087					
	Non-vested	17	\$ 763,546	0	\$ -	0.0	0	68
Total Systems	Total	26,521	\$ 1,110,167,566					
	Vested	17,962	\$ 828,229,722					
	Non-vested	8,559	\$ 281,937,844	12,942	\$ 144,740,478	70.4	6,540	46,003

State Retirement and Pension System  
 Summary of Membership Data as of June 30, 2009  
 (State Portion Only)

		Active Members		Retirees and Beneficiaries			Vested Former Members (Includes Inactives)	Total Counts
		Count	Salary	Count	Benefits	Ave. Age	Count	
Teachers' Retirement	Total	3,554	\$ 306,096,545					
	Vested	3,554	\$ 306,096,545					
	Non-vested	0	\$ -	30,598	\$ 954,585,558	73.8	996	35,148
Teachers' Pension	Total	102,553	\$ 5,888,637,495					
	Vested	71,208	\$ 4,489,646,956					
	Non-vested	31,345	\$ 1,398,990,539	25,158	\$ 439,788,741	67.2	21,999	149,710
Employees' Retirement	Total	9,633	\$ 464,545,090					
	Vested	6,134	\$ 326,495,153					
	Non-vested	3,499	\$ 138,049,937	19,514	\$ 372,719,368	71.9	982	30,129
Employees' Pension	Total	54,223	\$ 2,730,825,405					
	Vested	39,081	\$ 2,088,400,181					
	Non-vested	15,142	\$ 642,425,224	24,280	\$ 279,930,934	67.0	21,132	99,635
State Police	Total	1,408	\$ 85,585,708					
	Vested	968	\$ 65,704,383					
	Non-vested	440	\$ 19,881,325	2,226	\$ 94,121,168	59.4	68	3,702
Judges	Total	297	\$ 40,266,330					
	Vested	297	\$ 40,266,330					
	Non-vested	0	\$ 0	348	\$ 23,548,132	76.1	6	651
LEOPS	Total	1,516	\$ 88,043,377					
	Vested	1,104	\$ 68,670,398					
	Non-vested	412	\$ 19,372,979	941	\$ 28,547,155	57.4	143	2,600
Total Systems	Total	173,184	\$ 9,603,999,950					
	Vested	122,346	\$ 7,385,279,947					
	Non-vested	50,838	\$ 2,218,720,004	103,065	2,193,241,056	69.8	45,326	321,575

## Membership Information

<b>Maryland State Retirement and Pension System</b>				
<b>Membership Statistics</b>				
<b>June 30, 2009</b>				
<b>System</b>	<b>Count</b>	<b>Average Age</b>	<b>Average Service</b>	<b>Average Salary</b>
Teachers' Retirement	3,554	59.7	34.1	86,127
Teachers' Pension	102,553	44.3	11.2	57,420
Employees' Retirement – State	1,540	58.5	33.9	65,484
Employees' Retirement – Municipal	329	58.6	33.4	58,742
Employees' Retirement – Legislators	178	55.2	10.5	43,646
Employees' Retirement – Correctional Officers	7,915	40.1	9.2	44,969
Employees' Retirement – Total	<u>9,962</u>	<u>43.8</u>	<u>13.8</u>	<u>48,572</u>
Employees' Pension – State	54,223	47.6	13.2	50,363
Employees' Pension – Municipal	25,195	48.1	10.9	41,070
Employees' Pension – Total	<u>79,418</u>	<u>47.8</u>	<u>12.5</u>	<u>47,415</u>
State Police	1,408	35.1	10.7	60,785
Judges	297	57.3	9.4	135,577
LEOPS – State	1,516	41.3	11.1	58,076
LEOPS – Municipal	929	38.5	10.3	56,004
LEOPS – Total	<u>2,445</u>	<u>40.2</u>	<u>10.8</u>	<u>57,289</u>
CORS	68	44.2	0.0	59,524
<b>TOTAL SYSTEMS</b>	<b>199,705</b>	<b>45.85</b>	<b>12.20</b>	<b>53,650</b>
	<b>Teachers</b>		<b>State and Municipal</b>	
	<b>Count</b>	<b>Earnings</b>	<b>Count</b>	<b>Earnings</b>
Unlimited COLA	2,236	\$ 194,806,165	10,550	\$ 519,387,919
5% COLA Cap	880	74,493,093	576	37,864,886
Bifurcate	438	12,389,679,856	141	9,033,574
	<u>3,554</u>	<u>\$ 12,658,979,114</u>	<u>11,267</u>	<u>\$ 566,286,379</u>



## Active Membership – Age Distributions

### Total Systems 2009

Age	Number of People	Total Salary	Average Salary
Under 20	148	\$ 3,582,570	\$24,207
20 To 24	6,734	251,643,834	37,369
25 To 29	19,051	840,385,687	44,112
30 To 34	18,916	939,551,783	49,670
35 To 39	21,553	1,153,414,985	53,515
40 To 44	23,785	1,270,505,917	53,416
45 To 49	27,664	1,456,379,186	52,645
50 To 54	29,145	1,630,729,776	55,952
55 To 59	28,152	1,713,515,349	60,867
60 To 64	17,638	1,078,475,270	61,145
65 & UP	6,919	375,983,160	54,341
Totals	199,705	\$10,714,167,517	\$53,650

### Teachers' Retirement

### Teachers' Pension

Age	Count	All Years 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	0	0
45 To 49	8	395,149
50 To 54	602	49,083,756
55 To 59	1,496	128,984,194
60 To 64	935	82,833,666
65 & UP	513	44,799,780
Totals	3,554	\$306,096,545

Age	Count	All Years Salary
Under 20	21	\$ 298,487
20 To 24	3,648	146,029,453
25 To 29	12,924	598,940,131
30 To 34	11,697	627,490,439
35 To 39	12,076	711,021,327
40 To 44	11,718	689,824,377
45 To 49	12,862	726,845,715
50 To 54	13,210	792,024,490
55 To 59	13,437	884,409,010
60 To 64	8,287	551,978,580
65 & UP	2,673	159,775,485
Totals	102,553	\$5,888,637,495

**Employees' Retirement  
State Regular**

Age	All Years	
	Count	Salary
Under 20	0	\$ 0
20 To 24	0	0
25 To 29	2	72,954
30 To 34	0	0
35 To 39	3	109,875
40 To 44	0	0
45 To 49	55	3,038,236
50 To 54	360	21,728,699
55 To 59	548	36,653,440
60 To 64	405	28,006,839
65 & UP	167	11,235,779
Totals	1,540	\$ 100,845,822

**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	0	0
45 To 49	16	933,680
50 To 54	102	6,222,811
55 To 59	88	5,740,397
60 To 64	66	4,000,288
65 & UP	57	2,428,937
Totals	329	\$ 19,326,113

**Employees' Retirement  
Legislative**

Age	All Years	
	Count	Salary
Under 20	0	\$ 0
20 To 24	0	0
25 To 29	2	87,000
30 To 34	12	522,000
35 To 39	11	478,500
40 To 44	14	609,000
45 To 49	23	1,000,500
50 To 54	24	1,044,000
55 To 59	26	1,131,000
60 To 64	24	1,057,000
65 & UP	42	1,840,000
Totals	178	\$ 7,769,000

**Employees' Retirement  
Correctional Officers**

Age	All Years	
	Count	Salary
Under 20	25	\$ 928,145
20 To 24	849	33,144,053
25 To 29	844	33,656,825
30 To 34	946	38,991,487
35 To 39	1,267	56,513,883
40 To 44	1,290	60,447,851
45 To 49	1,128	54,227,052
50 To 54	796	39,396,762
55 To 59	507	25,180,481
60 To 64	224	11,489,605
65 & UP	39	1,954,124
Totals	7,915	\$ 355,930,268

**Employees' Pension  
State Regular**

Age	All Years	
	Count	Salary
Under 20	27	\$ 608,241
20 To 24	1,173	37,840,129
25 To 29	3,380	133,656,305
30 To 34	4,143	183,139,624
35 To 39	5,136	246,477,596
40 To 44	6,737	331,790,541
45 To 49	8,696	445,857,211
50 To 54	9,440	504,557,110
55 To 59	8,336	457,208,651
60 To 64	5,238	288,570,292
65 & UP	1,917	101,119,705
Totals	54,223	\$ 2,730,825,405

**Employees' Pension  
Municipal**

Age	All Years	
	Count	Salary
Under 20	54	\$ 1,232,714
20 To 24	768	22,000,315
25 To 29	1,344	46,852,314
30 To 34	1,563	59,530,050
35 To 39	2,274	92,319,801
40 To 44	3,244	136,521,348
45 To 49	4,372	187,247,151
50 To 54	4,281	190,462,404
55 To 59	3,496	154,208,940
60 To 64	2,339	97,868,961
65 & UP	1,460	46,521,908
Totals	25,195	\$ 1,034,765,905

**State Police**

<u>Age</u>	<u>All Years</u>	
	<u>Count</u>	<u>Salary</u>
Under 20	20	\$ 480,870
20 To 24	175	7,420,408
25 To 29	244	12,575,903
30 To 34	225	13,162,592
35 To 39	306	19,715,324
40 To 44	281	20,301,914
45 To 49	120	9,036,892
50 To 54	34	2,659,756
55 To 59	3	232,049
60 To 64	0	0
65 & UP	0	0
Totals	1,408	\$ 85,585,708

**Judges**

<u>Age</u>	<u>All Years</u>	
	<u>Count</u>	<u>Salary</u>
Under 20	0	\$ 0
20 To 24	0	0
25 To 29	0	0
30 To 34	0	0
35 To 39	3	381,756
40 To 44	8	1,031,116
45 To 49	32	4,253,264
50 To 54	60	8,093,620
55 To 59	85	11,577,698
60 To 64	68	9,280,344
65 & UP	41	5,648,532
Totals	297	\$ 40,266,330

**LEOPS  
State Regular**

<u>Age</u>	<u>All Years</u>	
	<u>Count</u>	<u>Salary</u>
Under 20	1	\$ 34,113
20 To 24	73	3,200,606
25 To 29	159	7,650,959
30 To 34	163	8,403,093
35 To 39	260	14,586,463
40 To 44	318	19,108,205
45 To 49	252	16,547,721
50 To 54	158	10,075,495
55 To 59	91	5,840,809
60 To 64	36	2,249,078
65 & UP	5	346,835
Totals	1,516	\$ 88,043,377

**LEOPS  
Municipal**

<u>Age</u>	<u>All Years</u>	
	<u>Count</u>	<u>Salary</u>
Under 20	0	\$ 0
20 To 24	48	2,008,869
25 To 29	146	6,633,816
30 To 34	158	7,820,880
35 To 39	208	11,341,452
40 To 44	168	10,489,436
45 To 49	83	5,830,466
50 To 54	66	4,637,787
55 To 59	34	2,043,977
60 To 64	14	1,026,713
65 & UP	4	194,519
Totals	929	\$ 52,027,915

## Retiree, Beneficiary and Disability Membership – Age Distributions

### Total Systems 2009

Age	Number of People	Total Benefits	Average Benefit
Under 25	35	\$ 306,382	\$ 8,754
25 To 29	35	530,186	15,148
30 To 34	112	2,477,640	22,122
35 To 39	359	8,810,924	24,543
40 To 44	892	21,462,749	24,061
45 To 49	1,915	41,665,556	21,757
50 To 54	4,032	90,033,357	22,330
55 To 59	10,050	251,417,178	25,017
60 To 64	20,678	479,410,772	23,185
65 To 69	23,614	460,910,184	19,519
70 To 74	18,943	346,619,790	18,298
75 To 79	15,182	275,071,478	18,118
80 & Up	20,160	359,265,336	17,821
<b>Totals</b>	<b>116,007</b>	<b>\$ 2,337,981,534</b>	<b>\$ 20,154</b>

### Teachers' Retirement

### Teachers' Pension

Age	All Years	
	Count	Benefit
Under 25	4	\$ 53,566
25 To 29	3	60,604
30 To 34	5	34,396
35 To 39	4	79,268
40 To 44	12	213,525
45 To 49	27	371,897
50 To 54	241	7,584,214
55 To 59	1,828	74,054,536
60 To 64	4,608	176,181,189
65 To 69	5,032	175,937,391
70 To 74	4,869	154,922,295
75 To 79	5,102	147,451,471
80 & Up	8,863	217,641,206
<b>Totals</b>	<b>30,598</b>	<b>\$ 954,585,558</b>

Age	All Years	
	Count	Benefit
Under 25	4	\$ 41,776
25 To 29	4	71,919
30 To 34	19	433,452
35 To 39	55	1,245,734
40 To 44	94	2,225,149
45 To 49	172	3,347,140
50 To 54	461	10,453,300
55 To 59	2,436	58,572,133
60 To 64	6,484	131,674,580
65 To 69	7,325	121,669,014
70 To 74	4,506	64,378,176
75 To 79	2,489	32,909,573
80 & Up	1,109	12,766,796
<b>Totals</b>	<b>25,158</b>	<b>\$ 439,788,741</b>

<b>Employees' Retirement State</b>			<b>Employees' Retirement Municipal</b>		
<b>All Years</b>			<b>All Years</b>		
<b>Age</b>	<b>Count</b>	<b>Benefit</b>	<b>Age</b>	<b>Count</b>	<b>Benefit</b>
Under 25	10	\$ 82,604	Under 25	0	\$ 0
25 To 29	8	81,885	25 To 29	0	0
30 To 34	23	348,872	30 To 34	0	0
35 To 39	90	1,780,245	35 To 39	2	17,623
40 To 44	284	5,225,085	40 To 44	4	21,437
45 To 49	627	11,135,194	45 To 49	9	165,384
50 To 54	1,073	20,349,471	50 To 54	70	1,591,950
55 To 59	1,456	33,137,583	55 To 59	176	4,801,252
60 To 64	2,334	55,730,058	60 To 64	355	8,662,502
65 To 69	2,350	53,940,284	65 To 69	531	11,346,942
70 To 74	2,376	50,106,875	70 To 74	705	11,599,909
75 To 79	2,699	49,015,025	75 To 79	776	10,473,260
80 & Up	5,940	88,242,423	80 & Up	1,636	15,161,226
<b>Totals</b>	<b>19,270</b>	<b>\$ 369,175,603</b>	<b>Totals</b>	<b>4,264</b>	<b>\$ 63,841,485</b>

**Employees' Retirement  
Legislative**

<b>All Years</b>		
<b>Age</b>	<b>Count</b>	<b>Benefit</b>
Under 25	0	\$ 0
25 To 29	0	0
30 To 34	0	0
35 To 39	0	0
40 To 44	1	5,220
45 To 49	0	0
50 To 54	2	8,352
55 To 59	3	52,089
60 To 64	35	561,229
65 To 69	44	658,402
70 To 74	50	733,157
75 To 79	47	695,681
80 & Up	62	829,635
<b>Totals</b>	<b>244</b>	<b>\$ 3,543,765</b>

<b>Employees' Pension State</b>			<b>Employees' Pension Municipal</b>		
<b>All Years</b>			<b>All Years</b>		
<b>Age</b>	<b>Count</b>	<b>Benefit</b>	<b>Age</b>	<b>Count</b>	<b>Benefit</b>
Under 25	12	\$ 83,214	Under 25	0	\$ 0
25 To 29	11	119,900	25 To 29	3	27,290
30 To 34	21	296,491	30 To 34	7	113,543
35 To 39	74	1,428,569	35 To 39	34	568,069
40 To 44	183	3,325,851	40 To 44	102	1,821,703
45 To 49	507	9,098,132	45 To 49	239	4,031,479
50 To 54	1,233	21,713,338	50 To 54	427	7,987,183
55 To 59	2,799	45,913,266	55 To 59	736	11,117,116
60 To 64	4,876	66,857,040	60 To 64	1,363	15,262,075
65 To 69	5,849	63,028,097	65 To 69	2,057	16,982,165
70 To 74	4,321	39,163,319	70 To 74	1,787	11,244,757
75 To 79	2,730	19,407,977	75 To 79	1,127	5,190,713
80 & Up	1,664	9,495,741	80 & Up	670	2,431,071
<b>Totals</b>	<b>24,280</b>	<b>\$ 279,930,934</b>	<b>Totals</b>	<b>8,552</b>	<b>\$ 76,777,165</b>

**State Police**

<u>Age</u>	<u>All Years</u>	
	<u>Count</u>	<u>Benefit</u>
Under 25	2	\$ 26,624
25 To 29	2	50,431
30 To 34	28	995,679
35 To 39	65	2,571,857
40 To 44	165	7,096,844
45 To 49	235	10,127,909
50 To 54	290	12,798,108
55 To 59	358	15,600,674
60 To 64	381	15,856,169
65 To 69	285	11,517,009
70 To 74	200	7,499,924
75 To 79	124	4,686,234
80 & Up	91	5,293,707
Totals	2,226	\$ 94,121,168

**Judges**

<u>Age</u>	<u>All Years</u>	
	<u>Count</u>	<u>Benefit</u>
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	42,417
50 To 54	1	21,209
55 To 59	2	84,835
60 To 64	35	2,606,110
65 To 69	48	3,237,083
70 To 74	77	5,585,916
75 To 79	66	4,720,044
80 & Up	118	7,250,518
Totals	348	\$ 23,548,132

**LEOPS  
State Regular**

<u>Age</u>	<u>All Years</u>	
	<u>Count</u>	<u>Benefit</u>
Under 25	3	\$ 18,597
25 To 29	3	87,193
30 To 34	7	196,302
35 To 39	28	908,628
40 To 44	35	1,183,744
45 To 49	83	2,793,549
50 To 54	193	6,117,814
55 To 59	225	7,049,714
60 To 64	196	5,712,310
65 To 69	87	2,419,330
70 To 74	52	1,385,462
75 To 79	22	521,500
80 & Up	7	153,014
Totals	941	\$ 28,547,155

**LEOPS  
Municipal**

<u>Age</u>	<u>All Years</u>	
	<u>Count</u>	<u>Benefit</u>
Under 25	0	\$ 0
25 To 29	1	30,965
30 To 34	2	58,905
35 To 39	7	210,933
40 To 44	12	344,192
45 To 49	15	552,455
50 To 54	41	1,408,420
55 To 59	31	1,033,981
60 To 64	11	307,510
65 To 69	6	174,467
70 To 74	0	0
75 To 79	0	0
80 & Up	0	0
Totals	126	\$ 4,121,828

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## **APPENDIX C**

### **ACTUARIAL ASSUMPTIONS AND METHODS**

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# Actuarial Assumptions and Methods

## A. ACTUARIAL ASSUMPTIONS

	<b>1. Valuation Interest Rate</b>	<b>2. Annual Rate of Increase in Cost of Living</b>	<b>3. Aggregate Payroll Growth</b>
Teachers' Retirement	7.75%	2.75% <sup>#</sup>	3.5%
Teachers' Pension	7.75%	2.75%	3.5%
Employees' Retirement			
Regular	7.75%	2.75% <sup>#</sup>	3.5%
Correctional	7.75%	3.00%	3.5%
Legislative	7.75%	3.50%	3.5%
Employees' Pension	7.75%	2.75% <sup>*</sup>	3.5%
State Police Retirement	7.75%	3.00%	3.5%
Judges Pension	7.75%	3.50%	3.5%
LEOPS	7.75%	2.75% <sup>**#</sup>	3.5%
CORS Municipal	7.75%	3.00%	3.5%

\* 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.

# For groups whose COLA is capped at 5% a 2.95% COLA was assumed. A 3.00% COLA was assumed for groups with an unlimited COLA.



## Actuarial Assumptions and Methods

### A. ACTUARIAL ASSUMPTIONS

#### Rates of Salary Increases

Years of Service	Annual Rates of Salary Increases for First 10 Years of Service							
	Teachers' Retirement & Pension	Employees' Retirement			Employees' Pension	State Police	Judges	LEOPS
		Regular	Correctional	Legislative				
0	7.25%	5.50%	8.25%	8.00%	5.50%	12.00%	3.50%	8.00%
1	7.25	5.50	7.25	8.00	5.50	12.00	3.50	8.00
2	7.25	5.50	5.75	8.00	5.50	8.75	3.50	6.50
3	7.25	5.50	5.75	8.00	5.50	7.50	3.50	6.50
4	7.25	5.50	5.75	8.00	5.50	6.00	3.50	5.75
5	7.25	5.00	5.00	8.00	5.00	5.00	3.50	5.50
6	7.25	4.50	5.00	8.00	4.50	4.00	3.50	5.50
7	7.25	4.50	5.00	8.00	4.50	4.00	3.50	5.00
8	7.25	4.50	5.00	8.00	4.50	4.00	3.50	5.00
9	7.25	4.50	4.50	8.00	4.50	4.00	3.50	4.50

CORS Municipal assumptions were the same as shown for Employees' Retirement Correctional.

## Actuarial Assumptions and Methods

### A. ACTUARIAL ASSUMPTIONS

#### Rates of Salary Increases

Years of Service	Annual Rates of Salary Increases for Sample Ages with 10 or More Years of Service							
	Teachers' Retirement & Pension	Employees' Retirement			Employees' Pension	State Police	Judges	LEOPS
		Regular	Correctional	Legislative				
25	7.50%	5.00%	5.75%	8.00%	5.00%	4.50%	3.50%	5.00%
30	7.25	5.00	5.75	8.00	5.00	4.00	3.50	5.00
35	6.75	4.50	4.75	8.00	4.50	3.75	3.50	4.75
40	5.50	4.25	4.75	8.00	4.25	3.50	3.50	4.75
45	4.75	4.00	4.75	8.00	4.00	3.50	3.50	4.25
50	4.25	3.75	4.75	8.00	3.75	3.50	3.50	3.50
55	4.00	3.75	4.50	8.00	3.75	3.50	3.50	3.50
60	3.75	3.50	4.50	8.00	3.50	3.50	3.50	3.50
65	3.50	3.50	3.50	8.00	3.50	3.50	3.50	3.50

CORS Municipal assumptions were the same as shown for Employees' Retirement Correctional.

# Actuarial Assumptions and Methods

## A. ACTUARIAL ASSUMPTIONS

### Rates of Withdrawal

Sample Ages	Years of Service	Annual Rates of Withdrawal from Active Service													
		Teachers' Retirement & Pension		Employees' Retirement					Employees' Pension		State Police		Judges	LEOPS	
		Male	Female	Regular		Correctional		Legislative	Male	Female	Male	Female		Male	Female
				Male	Female	Male	Female								
All	0	15.00%	14.00%	20.00%	20.00%	18.00%	17.00%	*	20.00%	20.00%	9.50%	11.00%	0.00%	12.00%	16.00%
	1	15.00	14.00	15.00	13.00	18.00	17.00	*	15.00	13.00	7.50	9.00	0.00	10.00	15.00
	2	13.00	12.00	12.00	10.00	14.00	11.00	*	12.00	10.00	5.50	8.00	0.00	9.00	13.00
	3	11.00	10.00	9.00	8.00	12.00	11.00	*	9.00	8.00	4.00	7.00	0.00	8.00	11.00
	4	9.00	8.00	8.00	6.00	8.00	10.00	*	8.00	6.00	3.00	6.00	0.00	7.50	9.00
	5	7.00	7.00	7.00	6.00	8.00	10.00	*	7.00	6.00	3.00	5.00	0.00	7.00	8.00
	6	6.00	6.00	6.00	6.00	7.00	10.00	*	6.00	6.00	3.00	4.00	0.00	6.00	7.00
	7	5.50	5.50	6.00	5.50	7.00	10.00	*	6.00	5.50	2.50	0.67	0.00	5.00	6.00
	8	5.00	5.00	5.00	5.00	7.00	10.00	*	5.00	5.00	2.50	0.67	0.00	4.00	5.00
	9	4.00	5.00	5.00	4.50	4.00	10.00	*	5.00	4.50	2.50	0.67	0.00	2.00	3.00
25	10	4.00	5.00	5.00	4.50	4.00	5.00	*	5.00	4.50	1.00	0.67	0.00	1.50	3.00
30	& Over	4.00	5.00	4.00	3.00	4.00	5.00	*	4.00	3.00	1.00	0.67	0.00	1.50	3.00
35		4.00	5.00	4.00	3.00	4.00	5.00	*	4.00	3.00	1.00	0.67	0.00	1.50	3.00
40		2.00	3.00	3.00	2.50	4.00	5.00	*	3.00	2.50	1.00	0.67	0.00	1.50	3.00
45		1.00	2.50	2.50	2.50	3.00	5.00	*	2.50	2.50	1.00	0.67	0.00	1.50	3.00
50		1.00	1.00	2.50	2.00	3.00	5.00	*	2.50	2.00	1.00	0.67	0.00	1.50	3.00
55		1.00	1.00	2.00	1.50	2.50	2.50	*	2.00	1.50	1.00	0.67	0.00	1.50	3.00
60		1.00	1.00	2.00	1.50	2.50	2.50	*	2.00	1.50	1.00	0.67	0.00	1.50	3.00
65		1.00	1.00	2.00	1.50	2.50	2.50	*	2.00	1.50	1.00	0.67	0.00	1.50	3.00

CORS Municipal assumptions were the same as shown for Employees' Retirement Correctional.

\* 20% of legislative members are assumed to withdraw after 8 years and each fourth year thereafter.

# Actuarial Assumptions and Methods

## A. ACTUARIAL ASSUMPTIONS

### Healthy Retired Mortality

Sample	Actuarial Present Value of \$1 Monthly for Life (Without COLA)											
	Teachers' Retirement & Pension		Employees' Retirement & Pension		Employees' Retirement Correctional & Legislative		State Police		Judges		LEOPS	
	Ages	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
50	\$144.05	\$146.77	\$139.21	\$144.83	\$139.21	\$144.83	\$141.78	\$142.63	\$144.05	\$146.77	\$141.78	\$142.63
55	137.81	141.43	131.36	138.80	131.36	138.80	134.76	135.85	137.81	141.43	134.76	135.85
60	129.52	134.26	121.36	130.83	121.36	130.83	125.62	127.08	129.52	134.26	125.62	127.08
65	119.10	125.08	109.36	120.89	109.36	120.89	114.36	116.46	119.10	125.08	114.36	116.46
70	106.76	114.14	95.75	109.32	95.75	109.32	101.39	104.20	106.76	114.14	101.39	104.20
75	92.85	101.56	80.72	96.13	80.72	96.13	86.87	90.52	92.85	101.56	86.87	90.52
80	77.62	87.65	65.13	81.78	65.13	81.78	71.38	75.75	77.62	87.65	71.38	75.75

Sample	Future Life Expectancy (Years)											
	Teachers' Retirement & Pension		Employees' Retirement & Pension		Employees' Retirement Correctional & Legislative		State Police		Judges		LEOPS	
	Ages	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
50	34.60	37.44	30.84	35.53	30.84	35.53	32.72	33.64	34.60	37.44	32.72	33.64
55	29.90	32.69	26.22	30.81	26.22	30.81	28.05	28.95	29.90	32.69	28.05	28.95
60	25.31	28.03	21.78	26.21	21.78	26.21	23.53	24.42	25.31	28.03	23.53	24.42
65	20.93	23.54	17.65	21.82	17.65	21.82	19.26	20.16	20.93	23.54	19.26	20.16
70	16.87	19.36	13.92	17.79	13.92	17.79	15.36	16.27	16.87	19.36	15.36	16.27
75	13.22	15.54	10.61	14.12	10.61	14.12	11.88	12.78	13.22	15.54	11.88	12.78
80	10.00	12.13	7.79	10.89	7.79	10.89	8.86	9.72	10.00	12.13	8.86	9.72

CORS Municipal assumptions were the same as shown for Employees' Retirement Correctional.

# Actuarial Assumptions and Methods

## A. ACTUARIAL ASSUMPTIONS

### Disabled Retired Mortality

Sample	Actuarial Present Value of \$1 Monthly for Life (Without COLA)											
	Teachers' Retirement & Pension		Employees' Retirement & Pension		Employees' Retirement Correctional & Legislative		State Police		Judges		LEOPS	
	Ages	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
50	\$121.94	\$126.33	\$109.40	\$123.44	\$109.40	\$123.44	\$104.19	\$123.44	\$121.94	\$126.33	\$104.19	\$123.44
55	115.29	119.00	102.91	115.98	102.91	115.98	97.74	115.98	115.29	119.00	97.74	115.98
60	107.68	111.33	96.42	108.08	96.42	108.08	90.90	108.08	107.68	111.33	90.90	108.08
65	98.74	102.89	89.43	99.17	89.43	99.17	83.10	99.17	98.74	102.89	83.10	99.17
70	88.40	93.21	81.40	89.04	81.40	89.04	74.16	89.04	88.40	93.21	74.16	89.04
75	76.86	82.61	72.27	78.27	72.27	78.27	64.61	78.27	76.86	82.61	64.61	78.27
80	64.81	71.74	62.71	67.40	62.71	67.40	55.40	67.40	64.81	71.74	55.40	67.40

Sample	Future Life Expectancy (Years)											
	Teachers' Retirement & Pension		Employees' Retirement & Pension		Employees' Retirement Correctional & Legislative		State Police		Judges		LEOPS	
	Ages	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
50	24.60	26.62	20.25	25.15	20.25	25.15	18.25	25.15	24.60	26.62	18.25	25.15
55	21.39	23.06	17.78	21.73	17.78	21.73	15.98	21.73	21.39	23.06	15.98	21.73
60	18.35	19.83	15.55	18.62	15.55	18.62	13.86	18.62	18.35	19.83	13.86	18.62
65	15.43	16.85	13.44	15.70	13.44	15.70	11.80	15.70	15.43	16.85	11.80	15.70
70	12.67	14.04	11.39	12.98	11.39	12.98	9.81	12.98	12.67	14.04	9.81	12.98
75	10.12	11.47	9.43	10.53	9.43	10.53	7.99	10.53	10.12	11.47	7.99	10.53
80	7.88	9.23	7.65	8.42	7.65	8.42	6.43	8.42	7.88	9.23	6.43	8.42

CORS Municipal assumptions were the same as shown for Employees' Retirement Correctional.

# Actuarial Assumptions and Methods

## A. ACTUARIAL ASSUMPTIONS

### Rates of Disability

Sample Ages	Annual Rates of Disability															
	Teachers' Retirement *		Teachers' Pension *		Employees' Retirement										Employees' Pension Ordinary	
					Ordinary					Accidental						
	Regular		Correctional		Legislative	Regular		Correctional		Legislative	Ordinary					
Male	Female	Male	Female	Male		Female	Male	Female	Male		Female	Male	Female			
25	0.007%	0.015%	0.031%	0.028%	0.041%	0.038%	0.298%	0.459%	0.000%	0.010%	0.009%	0.053%	0.081%	0.000%	0.123%	0.087%
30	0.007	0.015	0.031	0.028	0.040	0.037	0.357	0.459	0.000	0.010	0.009	0.063	0.081	0.000	0.122	0.086
35	0.007	0.035	0.031	0.063	0.070	0.065	0.451	0.459	0.000	0.014	0.013	0.080	0.081	0.000	0.211	0.148
40	0.022	0.069	0.102	0.128	0.133	0.120	0.569	0.510	0.000	0.018	0.017	0.101	0.090	0.000	0.400	0.274
45	0.045	0.119	0.204	0.219	0.168	0.178	0.714	0.587	0.000	0.016	0.017	0.126	0.104	0.000	0.507	0.406
50	0.067	0.173	0.306	0.319	0.203	0.255	1.012	0.765	0.000	0.014	0.018	0.179	0.135	0.000	0.613	0.581
55	0.089	0.297	0.408	0.546	0.271	0.353	1.309	1.173	0.000	0.014	0.018	0.231	0.207	0.000	0.818	0.805
60	0.111	0.297	0.510	0.546	0.354	0.488	1.606	2.066	0.000	0.014	0.019	0.284	0.365	0.000	1.069	1.113

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

Sample Ages	Annual Rates of Disability											
	Employees' Pension		State Police				Judges		LEOPS			
	Accidental		Ordinary		Accidental				Ordinary		Accidental	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
25	0.029%	0.020%	0.783%	2.430%	0.522%	1.620%	0.031%	0.028%	0.286%	0.469%	0.190%	0.313%
30	0.030	0.021	0.998	2.603	0.554	1.446	0.031	0.028	0.366	0.503	0.203	0.279
35	0.042	0.030	1.255	2.627	0.680	1.423	0.031	0.064	0.458	0.507	0.248	0.275
40	0.055	0.038	1.666	3.057	0.787	1.443	0.103	0.129	0.606	0.595	0.286	0.281
45	0.049	0.039	2.233	3.721	0.872	1.454	0.206	0.221	0.813	0.721	0.318	0.282
50	0.044	0.041	3.191	4.885	1.219	1.865	0.309	0.322	1.163	0.947	0.444	0.362
55	0.041	0.041	4.103	7.459	1.590	2.891	0.412	0.552	1.495	1.446	0.579	0.560
60	0.042	0.044	5.032	13.107	1.965	5.118	0.515	0.552	1.834	2.537	0.716	0.991

CORS Municipal assumptions were the same as shown for Employees' Retirement Correctional.

# Actuarial Assumptions and Methods

## A. ACTUARIAL ASSUMPTIONS

### Rates of Normal Retirement

Ages	Annual Rates of Normal Retirement															
	Teachers' Retirement				Teachers' Pension				Employees' Retirement *				Employees' Pension			
	First Year Eligible		Subsequent Years		First Year Eligible		Subsequent Years		First Year Eligible		Subsequent Years		First Year Eligible		Subsequent Years	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
45	25%	25%	15%	15%	15%	13%	10%	10%	17%	21%	5%	12%	14%	16%	7%	10%
46	25	25	15	15	15	13	10	10	17	21	5	12	14	16	7	10
47	25	25	15	15	15	13	10	10	17	21	5	12	14	16	7	10
48	25	25	15	15	15	13	10	10	17	21	5	12	14	16	7	10
49	25	25	15	15	15	13	10	10	17	21	11	12	14	16	7	10
50	25	25	15	15	15	13	10	10	17	21	11	12	14	16	7	10
51	25	25	15	15	15	13	10	10	17	21	11	12	14	17	7	10
52	25	25	15	15	15	13	10	10	17	21	11	12	14	17	7	10
53	25	25	15	15	15	13	10	10	17	21	11	12	14	17	7	10
54	25	25	15	15	15	13	10	10	17	21	11	15	14	17	7	10
55	25	25	15	15	15	13	10	10	17	21	11	15	14	17	7	10
56	25	25	15	15	15	13	10	10	17	21	11	15	14	17	7	10
57	25	25	15	20	15	24	10	10	17	21	11	15	14	17	7	10
58	25	25	15	20	15	24	10	10	17	21	11	15	14	26	7	11
59	25	25	18	20	20	24	10	10	17	21	11	15	14	26	11	11
60	25	25	18	20	20	24	17	13	17	21	11	15	14	26	11	16
61	25	25	18	20	20	24	17	13	17	21	20	15	14	26	18	16
62	25	25	20	30	20	24	25	24	17	21	40	30	22	26	34	35
63	25	25	18	25	20	7	14	17	17	21	20	22	25	6	14	16
64	25	25	18	20	20	7	14	17	17	21	20	22	5	6	14	16
65	25	25	20	30	20	7	22	20	17	21	20	30	5	6	20	23
66	25	25	18	25	20	7	16	20	17	21	20	22	5	6	15	16
67	25	25	18	20	20	7	16	15	17	21	20	22	5	6	15	16
68	25	25	18	20	20	7	16	15	17	21	20	22	5	6	15	16
69	25	25	18	20	20	7	16	15	17	21	20	22	5	6	15	16
70	25	100	20	20	20	7	16	15	17	21	20	22	5	6	15	16
71	25		20	20	20	7	16	15	17	21	20	22	5	6	15	16
72	25		10	20	20	7	16	15	17	21	20	22	5	6	15	16
73	25		10	20	20	7	16	15	17	21	20	22	5	6	15	16
74	25		10	20	20	7	16	15	17	21	20	22	5	6	15	16
75 & Over	100		100	100	100	100	100	100	100	100	100	100	100	100	100	100

\* 100% of Legislative members are assumed to retire at first eligibility.

# Actuarial Assumptions and Methods

## A. ACTUARIAL ASSUMPTIONS

### Rates of Normal Retirement

Ages	Annual Rates of Normal Retirement															
	Correctional Officers				State Police *				Judges				LEOPS			
	First Year Eligible		Subsequent Years		First Year Eligible		Subsequent Years		First Year Eligible		Subsequent Years		First Year Eligible		Subsequent Years	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
40	24%	24%	12%	12%	30%	30%	30%	30%					53%	53%	15%	15%
41	24	24	12	12	30	30	30	30					53	53	15	15
42	24	24	12	12	30	30	30	30					53	53	15	15
43	24	24	12	12	30	30	30	30					53	53	15	15
44	24	24	12	12	30	30	30	30					53	53	15	15
45	24	24	12	12	30	30	30	30					53	53	15	15
46	24	24	12	12	30	30	30	30					53	53	15	15
47	24	24	12	12	30	30	30	30					53	53	15	15
48	24	24	12	12	30	30	30	30					53	53	15	15
49	24	24	12	12	30	30	30	30					53	53	15	15
50	24	24	12	12	30	30	30	30					23	23	15	15
51	24	24	12	12	30	30	30	30					23	23	15	15
52	24	24	12	12	30	30	30	30					23	23	15	15
53	24	24	12	12	30	30	30	30					23	23	15	15
54	24	24	12	12	30	30	30	30					23	23	15	15
55	24	24	12	12	30	30	60	60					23	23	20	20
56	24	24	12	12	30	30	38	38					23	23	20	20
57	24	24	12	12	30	30	45	45					23	23	20	20
58	24	24	12	12	30	30	60	60					23	23	20	20
59	24	24	12	12	30	30	75	75					23	23	20	20
60	30	30	12	12	100	100	100	100	10%	30%	10%	20%	23	23	30	30
61	30	30	12	12					10	30	10	20	23	23	30	30
62	30	30	31	31					10	30	10	20	100	100	40	40
63	30	30	21	21					10	30	10	20			40	40
64	30	30	21	21					10	30	10	20			40	40
65	99	99	21	21					10	30	10	20			100	100
66	99	99	21	21					10	30	10	20				
67	99	99	21	21					10	30	10	20				
68	99	99	21	21					10	30	20	20				
69	99	99	21	21					10	30	50	50				
70 & Over	100	100	100	100					10	30	100	100				

\* 50% of participants are expected to elect DROP participation.



# Actuarial Assumptions and Methods

## A. ACTUARIAL ASSUMPTIONS

### Rates of Early Retirement

Ages	Annual Rates of Early Retirement *															
	Teachers' Retirement				Teachers' Pension				Employees' Retirement				Employees' Pension			
	First Year Eligible		Subsequent Years		First Year Eligible		Subsequent Years		First Year Eligible		Subsequent Years		First Year Eligible		Subsequent Years	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
40	3.0%	1.0%	1.0%	1.0%					2.5%	2.0%	2.0%	2.0%				
41	3.0	1.0	1.0	1.0					2.5	2.0	2.0	2.0				
42	3.0	1.0	1.0	1.0					2.5	2.0	2.0	2.0				
43	3.0	1.0	1.0	1.0					2.5	2.0	2.0	2.0				
44	3.0	1.0	1.0	1.0					2.5	2.0	2.0	2.0				
45	3.0	1.0	1.0	1.0					2.5	2.0	2.0	2.0				
46	3.0	1.0	1.0	1.0					2.5	2.0	2.0	2.0				
47	3.0	2.0	1.0	1.0					2.5	2.0	2.0	2.0				
48	3.0	2.0	1.0	1.0					2.5	2.0	2.0	2.0				
49	3.0	2.0	1.0	1.5					2.5	2.0	2.0	2.0				
50	3.0	2.0	1.0	1.5					2.5	2.0	2.0	2.0				
51	3.0	2.0	1.0	1.5					2.5	2.0	4.0	3.0				
52	3.0	2.0	2.0	2.0					2.5	2.0	4.0	3.0				
53	3.0	4.0	2.0	2.5					2.5	2.0	4.0	3.0				
54	3.5	4.0	3.0	2.5					2.5	2.0	4.0	3.0				
55	4.0	6.5	3.0	2.5	2.0%	4.5%	2.0%	4.5%	8.0	9.0	6.0	2.0	3.0%	3.5%	7.0%	10.0%
56	5.0	8.5	3.0	3.5	6.0	4.5	2.5	3.5	8.0	9.0	6.0	2.0	3.0	3.5	2.5	3.5
57	5.5	10.0	3.0	4.5	6.0	4.5	2.5	3.5	8.0	9.0	6.0	2.0	3.0	3.5	2.5	3.5
58	6.0	12.5	3.0	5.0	6.0	4.5	2.5	3.5	8.0	9.0	7.0	6.0	3.0	3.5	2.5	3.5
59	6.5	15.0	3.0	5.5	6.0	8.0	4.5	5.0	8.0	9.0	7.0	6.0	3.0	3.5	4.5	5.5
60					6.0	8.0	4.5	5.0					8.0	8.0	4.5	5.5
61					6.0	8.0	6.0	8.0					8.0	8.0	13.0	13.0
62																

\* Divisions without early retirement eligibility are not shown.

# Actuarial Assumptions and Methods

## A. ACTUARIAL ASSUMPTIONS

Ages	Probability of Leaving Contributions in the Plan Upon Withdrawal						
	Teachers' Retirement and Pension		Employees' Retirement and Pension		Correctional & Legislative	State Police & LEOPS	Judges
	Male	Female	Male	Female			
20	75.0%	66.7%	87.5%	94.4%	100.0%	100.0%	50.0%
25	91.5	91.3	76.8	86.9	100.0	100.0	50.0
30	90.3	93.0	70.6	87.2	100.0	100.0	100.0
35	88.4	93.5	68.2	84.6	100.0	100.0	100.0
40	100.0	100.0	100.0	100.0	100.0	100.0	100.0

## Actuarial Assumptions and Methods

### A. ACTUARIAL ASSUMPTIONS

#### Social Security Covered Compensation

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Teachers' Retirement	Not applicable
Teachers' Pension	Future covered compensation levels, used to estimate member contributions and retirement allowances, were calculated using a 3.5% per annum compounded increase in the 2009 Social Security Maximum Taxable Wage Base.
Employees' Retirement	Not applicable
Employees' Pension	Future covered compensation levels, used to estimate member contributions and retirement allowances, were calculated using a 3.5% per annum compounded increase in the 2009 Social Security Maximum Taxable 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 3.5% per annum compounded increase in the 2009 Social Security Maximum Taxable Wage Base.
Correctional Officers' Retirement System	Not applicable

# Actuarial Assumptions and Methods

## B. ACTUARIAL PROCEDURES

### 1. Asset Valuation Method

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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 assets reflects annually one-fifth of the market value gains for the five prior years. The resulting value is restricted to be not less than 80% of market value nor greater than 120% of market value. As of June 30, 2007, the calculation of market gains included the difference between market and actuarial assets as of June 30, 2006</p>
Employees' Retirement & Pension	
State Police	
Judges	
LEOPS	
Correctional Officers' Retirement System	

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.

# Actuarial Assumptions and Methods

## B. ACTUARIAL PROCEDURES

### 2. Funding Method

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Teachers' Retirement & Pension

Employees' Retirement & Pension

State Police

Judges

LEOPS

Correctional Officers' Retirement System

All six Systems use the individual entry age normal method 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.

The individual Entry Age Normal cost rate is determined as the value, as of age at entry into the plan, of the member's projected future benefits, and divided by the value, also as of the member's entry age, of his expected future salary.

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 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.

Actuarial contributions for the Teachers and Employees Systems are based on a corridor method as described elsewhere.

**SUMMARY OF ASSUMPTIONS USED**  
**JUNE 30, 2009**  
**MISCELLANEOUS AND TECHNICAL ASSUMPTIONS**

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<b>Marriage Assumption:</b>	75% of males and females are assumed to be married for purposes of death-in-service benefits.
<b>Pay Increase Timing:</b>	Teachers' Systems assume beginning of (Fiscal) year. This is equivalent to assuming that reported pays represent amounts paid to members during the year ended on the valuation date. All other Systems assume middle of (Fiscal) year. This is equivalent to assuming that reported pays represent the annualized rate of pay at the beginning of the (Fiscal) year.
<b>Decrement Timing:</b>	Decrements of all types are assumed to occur mid-year. Except for Teachers' Systems which assumed beginning of year for retirement and termination.
<b>Eligibility Testing:</b>	Eligibility for benefits is determined based upon the age nearest birthday and rounded integer service on the date the decrement is assumed to occur.
<b>Benefit Service:</b>	Exact fractional service is used to determine the amount of benefit payable.
<b>Decrement Operation:</b>	Disability operates during retirement eligibility.
<b>Incidence of Contributions:</b>	Contributions are assumed to be received continuously throughout the year based upon the computed percent of payroll shown in this report, and the actual payroll payable at the time contributions are made. New entrant normal cost contributions are applied to the funding of new entrant benefits.
<b>Unused Sick Leave:</b>	Each member is assumed to have an additional 5 months of service at retirement attributable to sick leave.
<b>Unknown Data for Participants:</b>	Average characteristics of the group as a whole are used to fill in the unknown data.
<b>Age of Spouse:</b>	In the absence of complete data, females are assumed to be 4 years younger than males.
<b>Liability Adjustments:</b>	A factor was used to adjust for optional forms of payment elected by actives decrementing under age and service retirement or vesting conditions and by vested terminated upon commencement as follows: Teachers' Retirement & Pension: 0.975 Employees' Retirement & Pension: 0.9775

## DEFINITIONS OF TECHNICAL TERMS

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**Accrued Service** - Service credited under the system which was rendered before the date of the actuarial valuation.

**Actuarial Accrued Liability** - The difference between the actuarial present value of system benefits and the actuarial present value of future normal costs. Also referred to as "past service liability."

**Actuarial Assumptions** - Estimates of future experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and salary increases. Decrement assumptions (rates of mortality, disability, turnover and retirement) are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (salary increases and investment income) consist of an underlying rate in an inflation-free environment plus a provision for a long-term average rate of inflation.

**Actuarial Cost Method** - A mathematical budgeting procedure for allocating the dollar amount of the "actuarial present value of future benefits" between future normal costs and actuarial accrued liability. Sometimes referred to as the "actuarial funding method."

**Actuarial Equivalent** - One series of payments is said to be actuarially equivalent to another series of payments if the two series have the same actuarial present value.

**Actuarial Gain (Loss)** - The difference between actual unfunded actuarial accrued liabilities and anticipated unfunded actuarial accrued liabilities -- during the period between two valuation dates. It is a measurement of the difference between actual and expected experience.

**Actuarial Present Value** - The amount of funds currently required to provide a payment or series of payments in the future. It is determined by discounting future payments at predetermined rates of interest, and by probabilities of payments.

**Amortization** - Paying off an interest-discounted amount with periodic payments of interest and (generally) principal -- as opposed to paying off with a lump sum payment.

**Normal Cost** - The portion of the actuarial present value of future benefits that is assigned to the current year by the actuarial cost method. Sometimes referred to as "current service cost."

**Projected Benefit Obligation** - The portion of a member's projected benefit attributable to service before the valuation date - allocated based on the ratio of accrued service to projected total service and based on anticipated future compensation.

**Unfunded Actuarial Accrued Liabilities** - The difference between actuarial accrued liabilities and valuation assets. Sometimes referred to as "unfunded past service liability" or "unfunded supplemental present value."

Most retirement systems have unfunded actuarial accrued liabilities. They arise each time new benefits are added and each time an actuarial loss occurs.

The existence of unfunded actuarial accrued liabilities is not in itself bad, any more than a mortgage on a house is bad. Unfunded actuarial accrued liabilities do not represent a debt that is payable today. What is important is the ability to amortize the unfunded actuarial accrued liabilities and the trend in their amount (after due allowance for devaluation of the dollar).



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## **APPENDIX D**

### SUMMARY OF PLAN PROVISIONS

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# **TEACHERS' RETIREMENT SYSTEM OF THE STATE OF MARYLAND**

## **1. Membership**

Membership ended for teachers employed on or after January 1, 1980. Members on December 31, 1979 continue to be members unless they elected to transfer into the Teachers' Pension system (established January 1, 1980) prior to January 1, 2005.

Membership includes employees of public school systems, public libraries, community colleges and institutions of higher education.

## **2. Member Contributions**

Retirement System members participate under one of three elections (effective July 1, 1984):

- Plan A: Generally 7% of earnable compensation to maintain all benefits, including unlimited cost of living adjustments.
- Plan B: Generally 5% of earnable compensation to maintain all benefits, except the cost of living adjustments which are capped at 5%.
- Plan C: 5% of earnable compensation as determined under the employee contribution for the Teachers' Pension System (Plan C provides a two-part benefit based on benefits of the Teachers' Retirement System and the Teachers' Pension System).

Interest earned on all employee contributions is 4% per year.

## **3. Service Retirement Allowance**

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

Allowance:  $1/55^{\text{th}}$  of average final compensation for the three highest years as a member for each year of creditable service. Creditable service is given based on a full normal working time for teachers – ten months equals one year.

Plan C: For creditable service before election date, the amount determined by the service retirement formula for Teachers' Retirement System; for creditable service after election date, the amount determined by the service retirement formula for the Teachers' Pension System.

## **4. Early Retirement Allowance**

Eligibility: 25 years of eligibility service.

Allowance: Service Retirement allowance reduced by .005 for each month that date of retirement precedes the earlier of age 60 or .006 for each month from the date the member would have completed 30 years of eligibility service. The maximum reduction is 30%.

## **TEACHERS' RETIREMENT SYSTEM OF THE STATE OF MARYLAND**

Plan C: For creditable service before election date, the amount determined by the service retirement formula for Teachers' Retirement System with a maximum reduction of 30%; for creditable service after election date, the amount determined by the service retirement formula for the Teachers' Pension System with a .005 reduction for each month retirement occurs prior to age 62 (maximum reduction of 42%).

### **5. Disability Retirement Allowance**

#### **Ordinary**

Eligibility: Five years of eligibility service and certification of the medical board designated by the Board of Trustees that member is mentally or physically incapacitated from the performance of the normal duties of the member's position, and that incapacity is permanent.

Allowance: The benefit is  $1/55^{\text{th}}$  of average final compensation for the three highest years as a member for each year of creditable service. The minimum benefit is 25% of average final compensation; the maximum benefit can be no greater than  $1/55^{\text{th}}$  of average final compensation for each year of creditable service the member would have accrued if employment continued to age 60.

Plan C: The benefit is the greater of the Teachers' Retirement System allowance noted above, or the ordinary disability benefit of the Teachers' Pension System.

#### **Accidental**

Eligibility: Certification of the medical board designated by the Board of Trustees that member is totally and permanently incapacitated from the performance of the normal duties of the member's position as the natural and proximate result of an accident that occurred in the actual performance of duty.

Allowance: The benefit is  $66 \frac{2}{3}\%$  of average final compensation for the three highest years as a member, plus the annuity provided by accumulated contributions. The maximum benefit cannot be greater than the average final compensation.

### **6. Death Benefits**

#### **Ordinary**

Eligibility: One year of eligibility service.

Benefit: One time lump sum payment of member's annual earnable compensation at time of death plus accumulated contributions. If member dies prior to accruing one year of service, payment is only the return of accumulated contributions.

## **TEACHERS' RETIREMENT SYSTEM OF THE STATE OF MARYLAND**

### **Spouse Law**

Eligibility: Surviving spouse designated as the sole primary beneficiary and the deceased member was eligible to retire or was age 55 with at least 15 years of eligibility service.

Benefit: Surviving spouse may elect a one time lump sum payment of member's annual earnable compensation at time of death plus accumulated contributions, or a monthly allowance under Option 2 (100% survivor benefit).

### **Special Death Benefit**

Eligibility: Killed in the line of duty.

Benefit: 66 2/3% of average final compensation for the three highest years as a member payable to a surviving spouse, dependent children or dependent parents. Accumulated contributions are paid to the designated beneficiary(ies).

Note: Death benefits outlined above are payable upon death of an active member. If member is not active, only member accumulated contributions and interest are payable at time of death.

### **7. Vested Retirement Allowance**

Eligibility: Five years of eligibility service.

Allowance: Accrued retirement allowance payable at age 60, provided member does not withdraw accumulated contributions.

### **8. Cost-of-Living Adjustments (COLA)**

All retirement allowances are adjusted based on the Consumer Price Index. The adjustments are effective July 1 for all benefits which have been in payment for one year.

- Plan A: Unlimited and compounded
- Plan B: Capped at 5% and compounded
- Plan C: Combination of COLA for Plan A or Plan B (depending on member election prior to electing Plan C) - for benefit calculated under the Teachers' Retirement System, plus capped 3% compounded COLA on benefit calculated under the Teachers' Pension System.

### **9. Optional Forms of Payment**

Normal service allowance is a single life annuity.

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.

## **TEACHERS' RETIREMENT SYSTEM OF THE STATE OF MARYLAND**

- 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 remaining at date of death.
- Option 5: 100% "pop-up" joint and survivor annuity with adjustment to maximum benefit if beneficiary predeceases retiree.
- Option 6: 50% "pop-up" joint and survivor annuity with adjustment to maximum benefit if beneficiary predeceases retiree.

Retirees who are to receive a service retirement, early service retirement, disability benefit, or vested allowance of less than \$50 a month may elect to receive a lump-sum payment equal to the present value in lieu of a monthly benefit.

### **10. Reduction for Benefits Payable Under Workers' Compensation**

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

### **11. Change in Benefits**

Effective June 1, 2008, the Special Death Benefit was added.

# **TEACHERS' PENSION SYSTEM OF THE STATE OF MARYLAND**

## **1. Membership**

Membership is a condition of employment for all teachers hired on or after January 1, 1980. Certain eligible higher education employees may elect to join an optional defined contribution 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.

All members of the Teacher's Pension System participate in the Alternate Contributory Pension Selection (ACPS) except for the few members who transferred from the Teachers' Retirement System after April 1, 1998 or former vested members who terminated employment prior to January 1, 1998.

## **2. Member Contributions**

Effective for the period July 1, 2007 – June 30, 2008, members were required to make contributions of 4% of earnable compensation.

Effective July 1, 2008, members are required to make contributions of 5% of earnable compensation.

Contributions earn interest at 5% per year.

## **3. Service Retirement Allowance**

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

- Age 62 with 5 years of eligibility service.
- Age 63 with 4 years of eligibility service.
- Age 64 with 3 years of eligibility service.
- Age 65 or older with 2 years of eligibility service.

## **TEACHERS' PENSION SYSTEM OF THE STATE OF MARYLAND**

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

- (i) 1.2% of average final compensation for the three highest consecutive years as an employee for each year of creditable service on or before June 30, 1998;
- (ii) 0.8% of average final compensation for the three highest consecutive years as an employee up to the Social Security integration level plus 1.5% of average final compensation over the integration level for each year of creditable service on or before June 30, 1998;
- (iii) 1.8% of average final compensation for the three highest consecutive years as an employee for each year of creditable service after June 30, 1998.

The Social Security integration level (SSIL) 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.

Note: Members who transferred into the Teachers' Pension System, on or after April, 1, 1998, receive benefits based on the provisions of the NCPS (refer to page D-17) as in effect of January 1, 1980 except for COLA benefits. The COLAs are capped at a maximum of 3% compounded annually.

### **4. Early Retirement Allowance**

Eligibility: Attainment of age 55 with at least 15 years of eligibility service.

Allowance: Service retirement allowance computed as of early retirement date, reduced by .005 for each month that early retirement date precedes age 62 (maximum reduction is 42%).

### **5. Disability Retirement Allowance**

#### **Ordinary**

Eligibility: Five years of eligibility service and certification of the medical board designated by the Board of Trustees that member is mentally or physically incapacitated from the performance of the normal duties of the member's position, and that incapacity is permanent.

Allowance: The benefit is the service retirement allowance computed on the basis that service continues until age 62 without any change in rate of earnable compensation. If disability occurs after age 62, the benefit is based on creditable service at time of retirement.



## **TEACHERS' PENSION SYSTEM OF THE STATE OF MARYLAND**

### **Accidental**

Eligibility: Certification of the medical board designated by the Board of Trustees that member is totally and permanently incapacitated from the performance of the normal duties of the member's position as the natural and proximate result of an accident that occurred in the actual performance of duty.

Allowance: The benefit is 66 2/3% of average final compensation for the three highest consecutive years as a member plus the annuity provided by accumulated contributions. The maximum benefit cannot be greater than the average final compensation.

## **6. Death Benefits**

### **Ordinary**

Eligibility: One year of eligibility service.

Benefit: One time lump sum payment of member's annual earnable compensation at time of death plus accumulated contributions. If member dies prior to accruing one year of service, payment is only the return of accumulated contributions.

### **Spouse Law**

Eligibility: Surviving spouse designated as the sole primary beneficiary and the deceased member was eligible to retire or had at least 25 years of eligibility service, or was at least 55 years old with at least 15 years of eligibility service.

Benefit: Surviving spouse may elect a one time lump sum payment of member's annual earnable compensation at time of death plus accumulated contributions, or a monthly allowance under Option 2 (100% survivor benefit).

### **Special Death Benefit**

Eligibility: Killed in the line of duty.

Benefit: 66 2/3% of average final compensation for the three highest consecutive years as a member payable to a surviving spouse, dependent children or dependent parents. Accumulated contributions are paid to the designated beneficiary(ies).

Note: Death benefits outlined above are payable upon death of an active member. If member is not active, only member accumulated contributions and interest are payable at time of death.

## **TEACHERS' PENSION SYSTEM OF THE STATE OF MARYLAND**

### **7. Vested Retirement Allowance**

Eligibility: Five years of eligibility service.

Allowance: Accrued retirement allowance payable at age 62 provided member does not withdraw accumulated contributions. A member who has completed 15 years of eligibility service may begin to receive benefit payments at any time on or after attainment of age 55, reduced by .005 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, only accumulated contributions are returned.

### **8. Cost-of-Living Adjustments (COLA)**

All retirement allowances are adjusted each year based on the Consumer Price Index. Effective July 1, 1998, the annual adjustment is capped at a maximum 3% compounded and is applied to all benefits which have been in payment for one year.

However, former members of the Retirement System who elected to transfer to the Pension System on or after April 1, 1998 receive annual adjustments capped at a maximum 3% compounded annually.

All increases are effective July 1.

### **9. Optional Forms of Payment**

Normal service allowance is a single life annuity.

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 remaining at date of death.

Option 5: 100% "pop-up" joint and survivor annuity with adjustment to maximum benefit if beneficiary predeceases retiree.

Option 6: 50% "pop-up" joint and survivor annuity with adjustment to maximum benefit if beneficiary predeceases retiree.

## **TEACHERS' PENSION SYSTEM OF THE STATE OF MARYLAND**

Retirees who are to receive a service retirement, early service retirement, disability benefit, or vested allowance of less than \$50 a month may elect to receive a lump-sum payment equal to the present value in lieu of a monthly benefit.

### **10. Reduction for Benefits Payable Under Workers' Compensation**

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

### **11. Change in Benefits**

Effective June 1, 2008, the Special Death Benefit was added.

# EMPLOYEES' RETIREMENT SYSTEM OF THE STATE OF MARYLAND

## 1. Membership

Membership ended for employees employed on or after January 1, 1980. Members on December 31, 1979 continue to be members unless they elected to transfer into the Employees' Pension System (established January 1, 1980) prior to January 1, 2005.

Membership includes employees of the State and approximately 115 participating employers.

## 2. Member Contributions

- Plan A: Generally 7% of earnable compensation to maintain all benefits, including unlimited cost of living adjustments.
- Plan B: Generally 5% of earnable compensation to maintain all benefits, except the cost of living adjustments which are capped at 5%.
- Plan C: (Plan C provides a two-part benefit based on benefits of the Employees' Retirement System and the Employees' Pension System). Employee contributions, if any are based on participation of the employer in one of the three plans under the Employees' Pension System (refer to summary of Employees' Pension System).

Interest earned on all employee contributions is 4% per year.

## 3. Service Retirement Allowance

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

Allowance:  $1/55^{\text{th}}$  of average final compensation for the three highest years as a member for each year of creditable service.

Plan C: For creditable service before election date, the amount determined by the service retirement formula for Employees' Retirement System; for creditable service after election date, the amount determined by the service retirement formula for the Employees' Pension System under which the employer participates.

## 4. Early Retirement Allowance

Eligibility: 25 years of eligibility service.

Allowance: Service retirement allowance reduced by .005 for each month that date of retirement precedes the earlier of age 60 or the date the member would have completed 30 years of eligibility service. The maximum reduction is 30%.

## **EMPLOYEES' RETIREMENT SYSTEM OF THE STATE OF MARYLAND**

Plan C: For creditable service before election date, the amount determined by the service retirement formula for Employees' Retirement System with a maximum reduction of 30%; for creditable service after election date, the amount determined by the service retirement formula for the Employees' Pension System under which the employer participates with a .005 reduction for each month retirement occurs prior to age 62 (maximum reduction of 42%).

### **5. Disability Retirement Allowance**

#### **Ordinary**

Eligibility: Five years of eligibility service and certification of the medical board designated by the Board of Trustees that member is mentally or physically incapacitated from the performance of the normal duties of the member's position, and that incapacity is permanent.

Allowance: The benefit is  $1/55^{\text{th}}$  of average final compensation for the three highest years as a member for each year of creditable service. The minimum benefit is 25% of average final compensation; the maximum benefit can be no greater than  $1/55^{\text{th}}$  of average final compensation for each year of creditable service the member would have accrued if employment continued to age 60.

Plan C: The benefit is the greater of the Employees' Retirement System allowance noted above, or the ordinary disability benefit of the Employees' Pension System.

#### **Accidental**

Eligibility: Certification of the medical board designated by the Board of Trustees that member is totally and permanently incapacitated from the performance of the normal duties of the member's position as the natural and proximate result of an accident that occurred in the actual performance of duty.

Allowance: The benefit is  $66 \frac{2}{3}\%$  of average final compensation for the three highest years as a member, plus the annuity provided by accumulated contributions. The maximum benefit cannot be greater than the average final compensation.

**EMPLOYEES' RETIREMENT SYSTEM OF  
THE STATE OF MARYLAND**

**6. Death Benefits**

**Ordinary**

Eligibility: One year of eligibility service.

Benefit: One time lump sum payment of member's annual earnable compensation at time of death plus accumulated contributions. If member dies prior to accruing one year of service, payment is only the return of accumulated contributions.

**Spouse Law**

Eligibility: Surviving spouse designated as the sole primary beneficiary and the deceased member was eligible to retire or was at least age 55 with at least 15 years of eligibility service.

Benefit: Surviving spouse may elect a one time lump sum payment of member's annual earnable compensation at time of death plus accumulated contributions, or a monthly allowance under Option 2 (100% survivor benefit).

**Special Death Benefit**

Eligibility: Killed in the line of duty.

Benefit: 66 2/3% of average final compensation for the three highest years as a member payable to a surviving spouse, dependent children or dependent parents. Accumulated contributions are paid to the designated beneficiary(ies).

Note: Death benefits outlined above are payable upon death of an active member. If member is not active, only member accumulated contributions and interest are payable at time of death.

**7. Vested Retirement Allowance**

Eligibility: Five years of eligibility service.

Allowance: Accrued retirement allowance payable at age 60, provided member does not withdraw accumulated contributions.

## **EMPLOYEES' RETIREMENT SYSTEM OF THE STATE OF MARYLAND**

### **8. Cost-of-Living Adjustments (COLA)**

All retirement allowances are adjusted based on the Consumer Price Index. The adjustments are effective July 1 for all benefits which have been in payment for one year.

- Plan A: Unlimited and compounded
- Plan B: Capped at 5% and compounded
- Plan C: Combination of COLA for Plan A or Plan B (depending on member election prior to electing Plan C) - for benefit calculated under the Employees' Retirement System, plus capped at a maximum 3% compounded COLA on benefit calculated under the Employees' Pension System under which the employer participates.

### **9. Optional Forms of Payment**

Normal service allowance is a single life annuity.

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 remaining at date of death.

Option 5: 100% "pop-up" joint and survivor annuity with adjustment to maximum benefit if beneficiary predeceases retiree.

Option 6: 50% "pop-up" joint and survivor annuity with adjustment to maximum benefit if beneficiary predeceases retiree.

Retirees who are to receive a service retirement, early service retirement, disability benefit, or vested allowance of less than \$50 a month may elect to receive a lump-sum payment equal to the present value in lieu of a monthly benefit.

### **10. Reduction for Benefits Payable Under Workers' Compensation**

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

## **EMPLOYEES' RETIREMENT SYSTEM OF THE STATE OF MARYLAND**

### **11. Miscellaneous Provisions**

#### **For Members of the General Assembly**

The retirement allowance is equal to 3.00% of current legislative salary for each year of creditable service (maximum 22 years 3 months) upon attainment of age 60 and at least 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 .005 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 contributions in the system and receive a retirement allowance at age 60, or a reduced benefit on or after age 50. If termination occurs before the completion of eight years of eligibility service, the member may make contributions equal to the member's and the State's required contributions until the member would have completed eight years of eligibility service, (and receive 24% of last earnable compensation at age 60 or a reduced benefit after age 50.)

A member who is certified as disabled after completing at least 8 years of eligibility service may resign from the General Assembly and immediately receive a retirement allowance based on their eligibility service.

The **member's surviving spouse receives 50% of the member's retirement allowance** if the member i) is retired, ii) is eligible for a deferred vested 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.

Members contribute 5% of their earnable compensation during their first 22 years 3 months of service with contributions earning interest at 4% per year.

All retirement allowances are recalculated each time the salary for current members of the General Assembly are increased.

#### **For Correctional Officers**

Correctional officers serving in the first six job classifications, maximum security attendants at Clifton T. Perkins Hospital Center, a Correctional Dietary, Maintenance or Supply Officer, Maryland Correctional Enterprise Officers and Trainees, Plant Supervisors, Plant Managers, and Regional Managers; and Laundry Officers participate under this System. In addition, effective July 1, 2006, Maryland counties may elect to participate on behalf of their detention center officers.



## **EMPLOYEES' RETIREMENT SYSTEM OF THE STATE OF MARYLAND**

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 at least five years in one of the positions noted above immediately preceding retirement. The vested retirement allowance of a correctional officer who was in the first six job classifications for at least five years preceding retirement commences at age 55; for the security attendant it commences at age 60.

### **12. Change in Benefits**

Effective June 1, 2008, the special death benefit was added.

## **EMPLOYEES' PENSION SYSTEM OF THE STATE OF MARYLAND**

### **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, law enforcement officers, and members of the General Assembly. Certain governmental units also have elected to participate in the System.

There are three plans under the Employees' Pension System.

- Noncontributory Pension System (**NCPS**) – the original pension system established on January 1, 1980 that only applies to certain participating governmental units that did not elect to participate in the Contributory Pension System or the Alternate Contributory Pension Selection.
- Employees' Contributory Pension System (**ECPS**) – The ECPS established July 1, 1998 that only applies to certain participating governmental units that elected the ECPS but did not elect to participate in the Alternate Contributory Pension Selection.
- Alternate Contributory Pension Selection (**ACPS**) – applies to all State employees and those participating governmental units that elected the ACPS effective July 1, 2006.

### **2. Member Contributions**

**NCPS:** Members are only required to make contributions of 5% on earnable compensation that exceeds the Social Security Taxable Wage Base.

**ECPS:** Members are required to make contributions of 2% of earnable compensation.

**ACPS:** Effective for the period July 1, 2007 — June 30, 2008, members were required to make contributions of 4% of earnable compensation.

Effective July 1, 2008, ACPS members are required to make contributions of 5% of earnable compensation.

Contributions earn interest at 5% per year.

**EMPLOYEES' PENSION SYSTEM  
OF THE STATE OF MARYLAND**

**3. Service Retirement Allowance**

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

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

NCPS Allowance:

0.8% of average final compensation up to the SSIL for the three highest consecutive years as a member plus 1.5% of average final compensation over the SSIL for each year of creditable service;

ECPS Allowance: The greater of (i) or (ii), plus (iii), as described below:

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

ACPS Allowance: The greater of (i) or (ii), plus (iii), as described below:

- (i) 1.2% of average final compensation for the three highest consecutive years as an employee for each year of creditable service on or before June 30, 1998;
- (ii) 0.8% of average final compensation up to the SSIL for the three highest consecutive years as a member plus 1.5% of average final compensation over the SSIL for each year of creditable service on or before June 30, 1998;
- (iii) 1.8% of average final compensation for the three highest consecutive years as an employee for each year of creditable service after June 30, 1998.

The Social Security integration level (SSIL) 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.

## **EMPLOYEES' PENSION SYSTEM OF THE STATE OF MARYLAND**

Note: Members who transferred into the Employees' Pension System, on or after April, 1, 1998, receive benefits based on the provisions of the NCPS as in effect of January 1, 1980 except for COLA benefits. The COLAs are capped at a maximum of 3% compounded annually.

### **4. Early Retirement Allowance**

Eligibility - Attainment of age 55 and at least 15 years of eligibility service.

Allowance - Service retirement allowance computed as of early retirement date, reduced by .005 for each month that early retirement date precedes age 62 (maximum reduction is 42%).

### **5. Disability Retirement Allowance**

#### **Ordinary**

Eligibility: Five years of eligibility service and certification of the medical board designated by the Board of Trustees that member is mentally or physically incapacitated from the performance of the normal duties of the member's position, and that incapacity is permanent.

Allowance: The benefit is the service retirement allowance computed on the basis that service continues until age 62 without any change in the rate of earnable compensation. If disability occurs on or after age 62, the benefit is based on creditable service at time of retirement.

#### **Accidental**

Eligibility: Certification of the medical board designated by the Board of Trustees that member is totally and permanently incapacitated from the performance of the normal duties of the member's position as the natural and proximate result of an accident that occurred in the actual performance of duty.

Allowance: The benefit is  $66 \frac{2}{3}\%$  of average final compensation for the three highest consecutive years as a member, plus the annuity provided by accumulated contributions. The maximum benefit cannot be greater than the average final compensation.

### **6. Death Benefits**

#### **Ordinary**

Eligibility - One year of eligibility service.

Benefit: One time lump sum payment of member's annual earnable compensation at time of death plus accumulated contributions. If member dies prior to accruing one year of service, payment is only the return of accumulated contributions.

## **EMPLOYEES' PENSION SYSTEM OF THE STATE OF MARYLAND**

### **Spouse Law**

Eligibility: Surviving spouse designated as the sole primary beneficiary and the deceased member was eligible to retire or was at least age 55 with at least 15 years of eligibility service.

Benefit: Surviving spouse may elect a one time lump sum payment of member's annual earnable compensation at time of death plus accumulated contributions, or a monthly allowance under Option 2 (100% survivor benefit).

### **Special Death Benefit**

Eligibility: Killed in the line of duty.

Benefit: 66 2/3% of average final compensation for the three highest consecutive years as a member payable to a surviving spouse, dependent children or dependent parents. Accumulated contributions are paid to the designated beneficiary(ies).

Note: Death benefits outlined above are payable upon death of an active member. If member is not active, only member accumulated contributions and interest are payable at time of death.

### **7. Vested Retirement Allowance**

Eligibility - Five 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 on or after attainment of age 55, reduced by .005 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, the accumulated contributions are returned.

### **8. Cost-of-Living Adjustments (COLA)**

All retirement allowances are adjusted each year based on the Consumer Price Index. Effective July 1, 1998, the annual adjustment is capped at a maximum of 3% compounded COLA, and is applied to all benefits which have been in payment for one year. All increases are effective July 1.

## **EMPLOYEES' PENSION SYSTEM OF THE STATE OF MARYLAND**

However, retirement allowances of NCPS retirees (retirees of participating employers who did not elect the ECPS or ACPS) have an annual COLA that is capped at a maximum of 3% of the initial benefit. The COLA is applied to all benefits which have been in payment for one year. All increases are effective July 1.

### **9. Optional Forms of Payment**

Normal service allowance is a single life annuity.

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 remaining at date of death.

Option 5: 100% "pop-up" joint and survivor annuity with adjustment to maximum benefit if beneficiary predeceases retiree.

Option 6: 50% "pop-up" joint and survivor annuity with adjustment to maximum benefit if beneficiary predeceases retiree.

Retirees who are to receive a service retirement, early service retirement, disability benefit, or vested allowance of less than \$50 a month may elect to receive a lump-sum payment equal to the present value in lieu of a monthly benefit.

### **10. Reduction for Benefits Payable Under Workers' Compensation**

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

### **11. Change in Benefits**

Effective June 1, 2008, the special death benefit was added.

## **STATE POLICE RETIREMENT SYSTEM OF THE STATE OF MARYLAND**

### **1. Membership**

Membership is a condition of employment for all officers of the Maryland State Police. 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.

Contributions earn 4% interest per year.

### **3. Service Retirement Allowance**

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

Allowance - 2.55% of average final compensation for the three highest years as a member for each of the first 28 years of creditable service. Maximum benefit is 71.4% of average final compensation.

### **4. Early Retirement Allowance**

Not applicable to this System.

### **5. Disability Retirement Allowance**

#### **Ordinary**

Eligibility: Five years of eligibility service and certification of the medical board designated by the Board of Trustees that member is mentally or physically incapacitated from the performance of the normal duties of the member's position, and that incapacity is permanent.

Allowance - 2.55% of average final compensation for the three highest years as a member for each of the first 28 years of creditable service. Minimum payable is 35% of average final compensation.

**STATE POLICE RETIREMENT SYSTEM  
OF THE STATE OF MARYLAND**

**Special (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 66 2/3% of average final compensation plus the annuity provided by accumulated contributions with a maximum of average final compensation.

**6. Death Benefits**

**Ordinary**

Eligibility: 1 through 2 years of eligibility service and not eligible for special death benefit as noted below.

Benefit: Member's annual earnable compensation at time of death plus accumulated contributions.

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

**Special Death Benefit**

Eligibility: Two or more years of eligibility service or death in the performance of duty.

Benefit: Accumulated contributions paid to designated beneficiary plus an allowance of one-half (two-thirds if death arises out of or in the course of the actual performance of duty) of the member's average final compensation. Payment is made to the surviving spouse; however if there is no surviving spouse or spouse dies before youngest child reaches age 18, one-half of average final compensation continues until the youngest child reaches age 18. If there is no surviving spouse or children under the age of 18, payment is made to dependent parents. If none of the above conditions are met, the ordinary death benefit is paid to the designated beneficiary(ies).

Note: Death benefits outlined above are payable upon death of an active member. If member is not active, only member accumulated contributions and interest are payable at time of death, unless benefit payment has commenced.

**7. Vested Retirement Allowance**

Eligibility - Five years of eligibility service.

Allowance: Service retirement allowance payable at age 50.



## **STATE POLICE RETIREMENT SYSTEM OF THE STATE OF MARYLAND**

### **8. Cost-of-Living Adjustments (COLA)**

All retirement allowances are adjusted each year based on the Consumer Price Index. Unlimited compounded COLAs are effective July 1 and are applied to all benefits which have been in payment for one year.

Retirees and beneficiaries receiving a retirement allowance on or before June 30, 1999, receive an annual adjustment to their benefit ranging from \$1,200 to \$2,400 with separate COLAs on this adjustment commencing effective July 1, 2000.

### **9. Optional Forms of Payment**

**Normal service allowance is 80% joint and survivor annuity with spouse**, if any. If there is no surviving spouse or upon the death of the surviving spouse, payment is made to any children of the deceased retiree under the age of 18 years, until each child becomes age 18. If there is 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 remaining at date of death.

Option 5: 100% "pop-up" joint and survivor annuity with adjustment to maximum benefit if beneficiary predeceases retiree.

Option 6: 50% "pop-up" joint and survivor annuity with adjustment to maximum benefit if beneficiary predeceases retiree.

### **10. Reduction for Benefits Payable Under Workers' Compensation**

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

**STATE POLICE RETIREMENT SYSTEM  
OF THE STATE OF MARYLAND**

**11. Deferred Retirement Option Program (DROP)**

Members with 22 years of eligibility service but less than 28 years of eligibility service, and who are less than 60 years of age may elect to enter the DROP program for no more than four years. Members who enter DROP are retired and cease making member contributions, and cease accruing service credit and additional benefits. The service retirement allowance, with annual COLA adjustments, is credited to an account earning interest at the rate of 6% per year, compounded monthly. When the DROP period ends, members terminate employment and begin receiving their monthly allowance plus the lump sum payment from their DROP account. During the DROP period, members remain eligible for Special Disability benefits if incapacitated while in DROP.

**12. Changes in Benefits**

None.

## **JUDGES RETIREMENT SYSTEM OF THE STATE OF MARYLAND\***

### **1. Membership**

Membership is a condition of employment for a judge of the Court of Appeals, Court of Special Appeals, Circuit Court, or District Court of Maryland. Members of the State Workers' Compensation Commission also participate.

### **2. Member Contributions**

Members are required to make contributions of 6% of salary until they have accrued 16 years of service credit.

Contributions earn 4% interest per year.

### **3. Service Retirement Allowance**

Eligibility: Attainment of age 60 or retired by order of the Court of Appeals.

Allowance: 66 2/3% of current judicial salary for 16 years of service. With less than 16 years, the benefit is prorated based on the ratio of years of service to 16.

### **4. Early Retirement Allowance**

Not applicable to this System.

### **5. Disability Retirement Allowance**

Eligibility: 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: Same as immediate service allowance, payable immediately. However, if a judge has at least three years of eligibility service, the pension will not be less than 1/3 of salary.

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

## **JUDGES RETIREMENT SYSTEM OF THE STATE OF MARYLAND**

### **6. Death Benefits**

#### **Monthly Allowance**

Eligibility: Death of a judge or former judge at any age, leaving a surviving spouse or dependent children under the age of 18.

Allowance: 50% of the pension that would have been payable to the judge or former judge at the date of death as if the judge or former judge was eligible to receive a retirement allowance is payable to surviving spouse. If there is no spouse, payment is paid to children until age 18.

#### **Lump Sum**

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

Allowance: Annual salary at time of death plus return of accumulated contributions paid to designated beneficiary.

### **7. Deferred Vested Allowance**

Eligibility: Termination of service prior to age 60.

Allowance: Same as service allowance payable at age 60.

In lieu of a deferred vested allowance pension, a former judge may elect to withdraw accumulated contributions within six months following the member's termination of service.

### **8. Cost-of-Living Adjustments (COLA)**

Allowances are recalculated each time the salary for a sitting judge from the Court from which the judge retired increases.

NOTE: Masters who retire from the Judges' Retirement System receive COLA benefits equal to the percentage increase in salary provided to judges of the Circuit Court.

## **JUDGES RETIREMENT SYSTEM OF THE STATE OF MARYLAND**

### **9. Optional Forms of Payment**

**Normal service allowance is 50% joint and survivor annuity with spouse.** However, a judge or former judge, who at the time of retirement, does not have a spouse or eligible minor children, may elect one of the following 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 remaining at date of death.
- Option 5: 100% "pop-up" joint and survivor annuity with adjustment to maximum benefit if beneficiary predeceases retiree.
- Option 6: 50% "pop-up" joint and survivor annuity with adjustment to maximum benefit if beneficiary predeceases retiree.

### **10. Change in Benefits**

None.

**LAW ENFORCEMENT OFFICERS PENSION SYSTEM  
OF THE STATE OF MARYLAND  
(RETIREMENT PLAN)**

**A. Retirement System Provisions**

**1. Membership**

The retirement tier was closed to new participants effective January 1, 2005.

**2. Member Contributions**

Members who transferred from Employees' Retirement System (Plan A) are required to contribute 7% of earnable compensation. Members who transferred from the Employees' Retirement System (Plan B) contribute 5% of earnable compensation.

Contributions earn interest at 4% per year.

**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 a member for each of the first 30 years of creditable service, plus 1.0% of average compensation for each additional year.

**4. Early Retirement Allowance**

Not applicable to this System.

**5. Disability Retirement Allowance**

**Ordinary**

Eligibility: 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: Service retirement allowance with a minimum of 25% of average final 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.

**LAW ENFORCEMENT OFFICERS PENSION SYSTEM  
OF THE STATE OF MARYLAND  
(RETIREMENT PLAN)**

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

**6. Death Benefits**

**Ordinary**

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.

**Special Benefit**

Eligibility: Two or more years of eligibility service

Benefit: Accumulated contributions paid to designated beneficiary plus an allowance of 50% of the ordinary disability benefit. Payment is made to the surviving spouse; however if there is no surviving spouse or spouse dies before youngest child reaches age 18, one-half of average final compensation continues until the youngest child reaches age 18. If none of the above conditions are met, the ordinary death benefit is paid to the designated beneficiary(ies).

Eligibility: Death arises out of or in the course of the actual performance of duty

Benefit: Accumulated contributions paid to designated beneficiary plus an allowance of 66 2/3% of the member's average final compensation. Payment is made to the surviving spouse; however if there is no surviving spouse or spouse dies before youngest child reaches age 18, one-half of average final compensation continues until the youngest child reaches age 18. If none of the above conditions are met, the ordinary death benefit is paid to the designated beneficiary(ies).

Note: Death benefits outlined above are payable upon death of an active member. If member is not active, only member accumulated contributions and interest are payable at time of death, unless benefit payment has commenced.

**LAW ENFORCEMENT OFFICERS PENSION SYSTEM  
OF THE STATE OF MARYLAND  
(RETIREMENT PLAN)**

**7. Vested Retirement Allowance**

Eligibility: Five years of eligibility service.

Allowance: Accrued retirement allowance payable at age 50 if the member does not withdraw the member's accumulated contributions.

**8. Cost-of-Living Adjustments (COLA)**

All retirement allowances are adjusted each year based on the Consumer Price Index. COLAs are effective July 1 and are applied to all benefits which have been in payment for one year. For members contributing 7% of earnable compensation, unlimited COLA is compounded annually. For members contributing 5% of earnable compensation, the cost-of-living adjustment is capped at a maximum 5% compounded annually.

**9. Optional Forms of Payment**

**The normal service allowance 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.

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 remaining at date of death.

Option 5: 100% "pop-up" joint and survivor annuity with adjustment to maximum benefit if beneficiary predeceases retiree.

Option 6: 50% "pop-up" joint and survivor annuity with adjustment to maximum benefit if beneficiary predeceases retiree.



**LAW ENFORCEMENT OFFICERS PENSION SYSTEM  
OF THE STATE OF MARYLAND  
(RETIREMENT PLAN)**

**10. Reduction for Benefits Payable under Workers' Compensation**

Disability retirement allowances, excluding annuity reserves, are reduced for workers' compensation benefits payable after retirement from injury occurring during employment with the State, if the workers' compensation benefits are for the same injury for which disability 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 eligibility service, but less than 30 years of eligibility service, may elect to enter the DROP program for no more than five years. Members who enter DROP are retired and cease making member contributions, and cease accruing service credit and additional benefits. The service retirement allowance, with annual COLA adjustments, is credited to an account earning interest at the rate of 6% per year, compounded monthly. When the DROP period ends, members terminate employment and begin receiving their monthly allowance plus the lump sum payment from their DROP account. During the DROP period, members remain eligible for Accidental Disability benefits if incapacitated while in DROP.

**12. Change in Benefit**

Effective July 1, 2008, members entering DROP may only be considered for Accidental Disability based on incapacity that occurs on or after participation in DROP.

## **LAW ENFORCEMENT OFFICERS PENSION SYSTEM OF THE STATE OF MARYLAND**

### **B. Pension System Provisions**

#### **1. Membership**

Membership is a condition of employment for all law enforcement officers who are employees of the State as provided in the Annotated Code of Maryland, State Personnel and Pensions Article, Title 26, Section 26-201. This includes participating governmental units who elect to have their law enforcement officers or firefighters/paramedics participate in the System.

#### **2. Member Contributions**

Members are required to contribute 4% of earnable compensation.

Contributions earn 5% interest per year.

#### **3. Service Retirement Allowance**

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

Allowance: 2.0% of average final compensation for the three highest consecutive years as an employee for each of the first 30 years of creditable service. Maximum benefit is 60% of average final compensation.

#### **4. Early Retirement Allowance**

Not applicable to this System.

#### **5. Disability Retirement Allowance**

##### **Ordinary**

Eligibility: 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: Service retirement allowance computed on the basis that service continues until age 50 without any change in rate of earnable compensation. If disability occurs after age 50, the benefit is based on creditable service at time of retirement.

##### **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.

## **LAW ENFORCEMENT OFFICERS PENSION SYSTEM OF THE STATE OF MARYLAND**

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

### **6. Death Benefits**

#### **Ordinary**

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.

#### **Special Benefit**

Eligibility: Two or more years of eligibility service.

Benefit: Accumulated contributions paid to designated beneficiary plus an allowance of 50% of the ordinary disability benefit. Payment is made to the surviving spouse; however if there is no surviving spouse or spouse dies before youngest child reaches age 18, one-half of average final compensation continues until the youngest child reaches age 18. If none of the above conditions are met, the ordinary death benefit is paid to the designated beneficiary(ies).

Eligibility: Death arises out of or in the course of the actual performance of duty.

Benefit: Accumulated contributions paid to designated beneficiary plus an allowance of 66 2/3% of the member's average final compensation. Payment is made to the surviving spouse; however if there is no surviving spouse or spouse dies before youngest child reaches age 18, one-half of average final compensation continues until the youngest child reaches age 18. If none of the above conditions are met, the ordinary death benefit is paid to the designated beneficiary(ies).

Note: Death benefits outlined above are payable upon death of an active member. If member is not active, only member accumulated contributions and interest are payable at time of death, unless benefit payment has commenced.

**LAW ENFORCEMENT OFFICERS PENSION SYSTEM  
OF THE STATE OF MARYLAND**

**7. Vested Retirement Allowance**

Eligibility: Five years of eligibility service.

Allowance: Accrued retirement allowance payable at age 50 if the member does not withdraw the member's accumulated contributions.

**8. Cost-of-Living Adjustments (COLA)**

All retirement allowances are adjusted each year based on the Consumer Price Index. Effective July 1, 2000, the annual adjustment is capped at a maximum 3% compounded and is applied to all benefits which have been in payment for one year. All increases are effective July 1.

**9. Optional Forms of Payment**

**The normal service allowance 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 attains 18 years of age.

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 remaining at date of death.

Option 5: 100% "pop-up" joint and survivor annuity with adjustment to maximum benefit if beneficiary predeceases retiree.

Option 6: 50% "pop-up" joint and survivor annuity with adjustment to maximum benefit if beneficiary predeceases retiree.

**LAW ENFORCEMENT OFFICERS PENSION SYSTEM  
OF THE STATE OF MARYLAND**

**10. Reduction for Benefits Payable under Workmen's Compensation**

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

**11. Deferred Retirement Option Plan (DROP)**

Members with 25 years of eligibility service, but less than 30 years of eligibility service, may elect to enter the DROP program for no more than five years. Members who enter DROP are retired and cease making member contributions, and cease accruing service credit and additional benefits. The service retirement allowance, with annual COLA adjustments, is credited to an account earning interest at the rate of 6% per year, compounded monthly. When the DROP period ends, members terminate employment and begin receiving their monthly allowance plus the lump sum payment from their DROP account. During the DROP period, members remain eligible for Accidental Disability benefits if incapacitated while in DROP.

**12. Change in Benefit**

Effective July 1, 2008, members entering DROP may only be considered for Accidental Disability based on incapacity that occurs on or after participation in DROP.

Effective July 2008, police officers of the Baltimore City Community College participate in the Pension Plan portion of this System.