

# **STATE RETIREMENT AND PENSION SYSTEM OF MARYLAND**

**Actuarial Valuation and Review for Maryland Municipal Corporations  
as of June 30, 2007**

**State Retirement and Pension System of Maryland**

*Actuarial Valuation and Review for Maryland Municipal  
Corporations as of June 30, 2007*

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*June 6, 2008*

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

*Dear Board Members:*

*We are providing this revised Actuarial Valuation and Review for The State Retirement and Pension System of Maryland for Municipal Corporations participating in the Employees' Combined System (ECS), the Law Enforcement Officers Pension System (LEOPS) and the Local Fire and Police System (LFPS) as of June 30, 2007. This report summarizes the actuarial data used in the valuation and establishes the contribution rates for the 2009 fiscal year.*

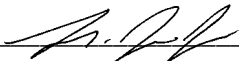
*The census information on which our calculations were based was prepared by the System and the financial information was provided by the MSRA Finance Division. That assistance is gratefully acknowledged. The actuarial calculations were completed under the supervision of Jeanette R. Cooper, FSA, MAAA, Enrolled Actuary.*

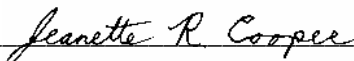
*This actuarial valuation has been completed in accordance with generally accepted actuarial principles and practices. To the best of our knowledge, the information supplied in this actuarial valuation is complete and accurate. Further, in our opinion, the assumptions as approved by the Board are reasonably related to the experience of and the expectations for the Plan.*

*Sincerely,*

*THE SEGAL COMPANY*

*By:*

  
\_\_\_\_\_  
*Leon F. (Rocky) Joyner, Jr., FCA, ASA, MAAA, EA  
Vice President and Consultant*

  
\_\_\_\_\_  
*Jeanette R. Cooper, FSA, MAAA, EA  
Consulting Actuary*

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**State Retirement and Pension System of Maryland**

*Actuarial Valuation and Review for Maryland Municipal  
Corporations as of June 30, 2007*

# **SECTION 1**

## **VALUATION SUMMARY**

## **SECTION 1: Valuation Summary for the State Retirement and Pension System of Maryland**

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### **Purpose**

This revised report has been prepared by The Segal Company to present a valuation of the State Retirement and Pension System of Maryland for Municipal Corporations participating in the Employees' Combined System (ECS), the Law Enforcement Officers' Pension System (LEOPS) and the Local Fire and Police System (LFPS) as of June 30, 2007. The valuation was performed to determine whether the assets and contributions are sufficient to provide the prescribed benefits. The valuation presents the contribution rates for the 2009 fiscal year. The valuation results presented in this report are based on:

- The benefit provisions of the Pension Plan, as administered by the Board;
- The characteristics of covered active members, inactive vested members, and retired members and beneficiaries as of June 30, 2007, provided by the System;
- The assets of the Plan as of June 30, 2007, provided by the MSRA Finance Division;
- Economic assumptions regarding future salary increases and investment earnings; and
- Other actuarial assumptions, regarding employee terminations, retirement, death, etc.

### **Significant Issues in Valuation Year**

The following key findings were the result of this actuarial valuation:

- The total basic contribution rate applied to the active member payroll of each municipal corporation participating in ECS is 3.87%, a decrease of 1.40% from the 5.27% rate reported last year. The change in the basic ECS rate is attributable to several factors including a 0.80% decrease due to changes in the funding and asset method, a 0.34% decrease due to new actuarial assumptions, and a remaining 0.26% decrease due to demographic and asset experience.
- As in prior years, the additional surcharge on all payroll for those municipal corporations electing to provide the Contributory Pension Benefit (CPB) is 2.42%, while the additional Retirement System surcharge on all current ECS Retirement System payroll including bifurcated participants is 5.00%.
- The surcharge rate for municipal corporations who formerly elected the CPB and who have now elected the Alternate Contributory Pension Selection (ACPS) is 1.11%. This surcharge is applied to Pension System payroll only, including bifurcated participants.

## SECTION 1: Valuation Summary for the State Retirement and Pension System of Maryland

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- The surcharge rate for municipal corporations who did not formerly elect the CPB and who have now elected the ACPS is 7.44%. This surcharge is applied to Pension System payroll only, including bifurcated participants.
- The total basic contribution rate applied to the active member payroll of each municipal corporation participating in LEOPS is 30.53%, a decrease of 6.27% from the 36.80% rate reported last year. Of the 6.27% decrease, a 2.69% decrease is attributable to new assumptions, a 1.69% increase is attributable to changes in the funding and asset valuation methods, and the remaining 5.27% decrease is attributable to actuarial experience. Last year, participants from the Baltimore City Deputies and Sheriffs department were valued in the LEOPS municipal valuation. However, our understanding is that they should be included in the LEOPS state valuation. There are 96 active participants, 8 terminated vested participants, 47 retirees, 10 disabled participants, and 7 beneficiaries who are affected by this change. This group of participants accounts for 2.21% of the decrease. The remaining 3.06% decrease is due to other asset and demographic experience.
- The total basic contribution rate applied to the active member payroll of each municipal corporation participating in the Local Fire and Police System is 20.03%, a decrease of 1.55% from the 21.58% rate reported last year. The change in the basic Local Fire and Police rate is attributable to a 1.39% decrease due to new actuarial assumptions, a 0.04% increase due to changes in the funding and asset method, and a remaining 0.20% decrease due to demographic and asset experience.
- As in prior years, the surcharge on all payroll for those municipal corporations in LFPS offering a benefit not integrated with Social Security is 2.95%.
- Effective with the June 30, 2007 valuation, as a result of the recent actuarial experience review, the Board elected to modify the actuarial valuation methods as well as the demographic assumptions used to determine system contributions. These methods and assumptions are outlined in Section 6 of the report.
- As a result of the recent actuarial experience review, the Board elected to modify the actuarial cost (funding) method from the Aggregate Entry Age Normal method to the Individual Entry Age Normal method, effective with this valuation. The Individual method is more generally accepted. The Internal Revenue Service does not deem the Aggregate Entry Age Normal method to be a reasonable funding method. While this IRS ruling is not binding for governmental pension plans, the Aggregate EAN method is rarely used and can mask plan experience and funding levels.

### **Cost Components (All Systems)**

The funding requirements for the municipal corporations include:

- Basic employer normal cost rate
- Basic unfunded actuarial liability rate (basic UAL rate)
- Normal cost rate surcharges depending on selected benefit formula



## SECTION 1: Valuation Summary for the State Retirement and Pension System of Maryland

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- UAL rate surcharges depending on selected benefit formula
- Special UAL charges or credits for corporations in the ECS who were underfunded or overfunded as of June 30, 1995
- Special UAL charges or credits for new entrants to the Systems (new entrant liability payments or credits)

Below is a description of how each of these components affects each of the Systems.

Note that the deficit/surplus balances as well as the new entrant balances require adjustments when participants withdraw from a system, transfer between systems or when municipal corporations pay amounts that deviate from the scheduled amount. These events can result in changes to future payments as well as the amortization period.

### **Cost Components for Employees' Combined System (ECS)**

- Each employer within ECS must contribute the basic cost rate of 3.87% of total system payroll, which includes a 5.07% normal cost rate and a -1.20% UAL rate. The basic normal cost rate is determined under the Entry Age Normal actuarial cost method and is calculated for the unenhanced Pension System. The basic UAL rate is an additional rate that covers benefits not funded by any of the other cost components. It can be positive or negative. For ECS, beginning June 30, 1980, the UAL through June 30, 2000 is amortized over 40 years as a level percentage of payroll. At June 30, 2007, the remaining period is 13 years. Each year's gain or loss arising subsequent to June 30, 2000 is being amortized over a new 25-year period as a level percentage of payroll.
- Municipal corporations with participants in the Retirement System have an additional normal cost surcharge of 5.00% of the payroll of these participants.
- Municipal corporations who elected to provide the CPB have a 2.42% surcharge which consists of a 1.00% normal cost rate surcharge and a 1.42% UAL rate surcharge. The 2.42% surcharge is applied to all payroll of the municipal corporation including both Pension and Retirement System participants.
- Municipal corporations who elected to provide the CPB and who later elected to participate in the ACPS pay a 1.11% surcharge which is the net result of a -0.40% normal cost rate credit and a 1.51% UAL rate surcharge. These municipal corporations as well as new entrants to the ACPS will pay both the CPB surcharge of 2.42% as well as the ACPS surcharge of 1.11%.
- Municipal corporations who did not elect the CPB but did elect the ACPS pay a 7.44% surcharge rate, which consists of a 0.60% normal cost rate surcharge and a 6.84% UAL rate surcharge.

## SECTION 1: Valuation Summary for the State Retirement and Pension System of Maryland

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- The basic and surcharge normal cost rates and UAL rates are shown on Chart 1 on page 2-1. Details on the surcharge development for the current and prior valuations are shown on Chart A-2 and A-4 on pages 5-2 and 5-4, respectively.
- A special charge applies to each corporation considered underfunded as of June 30, 1995. A municipal corporation in the Retirement System was considered underfunded if the present value of accrued benefits was greater than assets as of June 30, 1995. This amount of underfunding (or deficit) is being amortized over 25 years from 1995 with the amortization payments increasing 5% each year. If the initial deficit amortization amount was greater than 2% of payroll, the amortization period is 40 years instead of 25 years. The schedule of deficit amounts and payments is shown on Chart A-5 on page 5-5. There were no special adjustments to the schedule for this valuation.
- A special credit applies to each municipal corporation considered overfunded as of June 30, 1995. A municipal corporation in the Retirement System was considered overfunded if the present value of accrued benefits was less than assets as of June 30, 1995. This amount of overfunding or surplus is being amortized over 25 years from 1995 with the amortization credits increasing 5% each year. The schedule of surplus amounts is shown on Chart A-6 on page 5-6. There were no special adjustments to the schedule for this valuation.
- Municipal corporations who join the System after June 30, 1995 have a new entrant liability or surplus. These amounts are determined in a separate valuation that takes into account the group's demographics, benefit provisions, and in some cases asset transfers. The liability or surplus is then amortized over a set number of years as either a level dollar payment or a level percentage of payroll where the payment generally increases 5% each year. For municipal corporations who join after January 1, 2002, unless otherwise specified, the amortization schedule is based on level dollar payments over 25 years. The schedule of new entrant payments and credits is shown on Chart A-7 on pages 5-7 and 5-8. Since the prior valuation, the Town of Greensboro, the Town of Landover Hills, and the Town of Bladensburg entered ECS. In addition, the City of District Heights and the Town of Queenstown paid off their remaining balances.

### **Cost Components for Law Enforcement Officers' Pension System (LEOPS)**

- Each municipal corporation within LEOPS must contribute the basic cost rate of 30.53% of total system payroll which includes a 16.43% normal cost rate and a 14.10% UAL rate. The basic normal cost rate is determined under the Entry Age Normal actuarial cost method. The basic UAL rate is an additional rate that covers benefits not funded by any of the other cost components and it can be positive or negative. For LEOPS, the UAL is being amortized over 40 years beginning June 30, 1999. Under current state law, there remains a 32-year amortization of the unfunded liability. This is greater than GASB's maximum of 30 years for financial expense reporting purposes. However, since this is a closed amortization period, the amortization period will be in compliance with GASB in two years. If a 30-year amortization period were used this year, the basic cost rate would be 30.99%. The amortization payment is calculated as a level percentage of payroll. The basic normal cost and UAL rates are shown on Chart 1 on page 2-1.

## SECTION 1: Valuation Summary for the State Retirement and Pension System of Maryland

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- Municipal corporations who join the System after June 30, 1999 have a new entrant liability or surplus. These amounts are determined in a separate valuation and factor in the group's demographics, benefit provisions, and in some cases asset transfers. The liability or surplus is then amortized over a set number of years as either a level dollar payment or a level percentage of payroll where the payment generally increases 5% each year. For municipal corporations who join after January 1, 2002, unless otherwise specified, the amortization schedule is based on level dollar payments over 25 years. The schedule of new entrant payments and credits is shown on Chart B-3 on page 5-11. Since the prior valuation, new entrant liabilities for the Town of Hampstead and Dorchester County were added. Dorchester County's new entrant liability included some transferred participants from ECS.

### **Cost Components for Local Fire and Police System (LFPS)**

- Each municipal corporation within LFPS must contribute the basic cost rate of 20.03% of total system payroll which includes an 8.46% normal cost rate and an 11.57% UAL rate. The basic normal cost rate is determined under the Entry Age Normal actuarial cost method. The basic UAL rate is an additional rate that covers benefits not funded by any of the other cost components. It can be positive or negative. For LFPS, the UAL is being amortized over 40 years beginning June 30, 1989. The amortization payment is calculated as a level percentage of payroll. At June 30, 2007, the remaining period is 22 years.
- Municipal corporations in LFPS who offer a benefit that is not integrated with Social Security have an additional normal cost surcharge of 2.95% of the payroll of these participants.
- The basic and surcharge normal cost rates and UAL rates are shown on Chart 1 on page 2-1. Details on the surcharge development are on lines 12 through 14 on Chart C-1 on page 5-12.
- Municipal corporations who join the System after June 30, 1989 have a new entrant liability or surplus. These amounts are determined in a separate valuation that takes into account the group's demographics, benefit provisions, and in some cases asset transfers. The liability or surplus is then amortized over a set number of years as either a level dollar payment or a level percentage of payroll where the payment generally increases 5% each year. For municipal corporations who joined after January 1, 2002, unless otherwise specified, the amortization schedule is based on level dollar payments over 25 years. The schedule of new entrant payments and credits is shown on Chart C-3 on page 5-14. There were no special adjustments to the schedule for this valuation.

**SECTION 1: Valuation Summary for the State Retirement and Pension System of Maryland**

**Summary of Key Valuation Results – Employees’ Combined System (Municipal)**

<b>Valuation year</b>	<b>2007</b>	<b>2006</b>
<b>Contribution rates:</b>		
Basic employer normal cost rate	5.07%	6.55%
Basic unfunded liability rate	<u>(1.20)%</u>	<u>(1.28)%</u>
Basic contribution rate for fiscal year 2009*	3.87%	--
Basic contribution rate for fiscal year 2008*	--	5.27%
<b>Funding elements for valuation as of June 30:</b>		
Market value of assets	\$2,811,102,968	\$2,368,711,739
Actuarial value of assets	2,694,056,983	2,462,183,796
Actuarial accrued liability	3,022,315,853	2,765,652,067
Unfunded/(overfunded) actuarial accrued liability	328,258,870	303,468,271
Less net assigned liabilities	364,540,308	364,294,823
Pooled unfunded/(overfunded) actuarial accrued liability	(36,281,438)	(60,826,552)
<b>Demographic data for valuation as of June 30:</b>		
Number of retired members and beneficiaries	12,232	11,967
Number of vested former members	6,491	6,244
Number of active members	25,266	24,526
Covered salary at June 30	\$974,260,035	\$894,071,951
Total salary for valuation**	\$993,745,236	\$917,622,377
Average salary based on valuation salary	\$39,331	\$37,414

\* Does not include surcharge rates

\*\* Includes mandated salary increases effective July 1 of the next fiscal year

**SECTION 1: Valuation Summary for the State Retirement and Pension System of Maryland**

**Summary of Key Valuation Results – LEOPS (Municipal)**

<b>Valuation year</b>	<b>2007</b>	<b>2006</b>
<b>Contributions rates:</b>		
Basic employer normal cost rate	16.43%	20.90%
Basic unfunded liability rate	<u>14.10%</u>	<u>15.90%</u>
Basic contribution rate for fiscal year 2009	30.53%	--
Basic contribution rate for fiscal year 2008	--	36.80%
<b>Funding elements for valuation as of June 30:</b>		
Market value of assets	\$62,026,594	\$45,184,995
Actuarial value of assets	59,788,778	47,180,264
Actuarial accrued liability	145,240,531	140,183,731
Unfunded/(overfunded) actuarial accrued liability	85,451,753	93,003,467
Less net assigned liability	(14,124,774)	(13,360,835)
Pooled unfunded/(overfunded) actuarial accrued liability	99,576,527	106,364,302
<b>Demographic data for valuation as of June 30:</b>		
Number of retired members and beneficiaries	74	116
Number of vested former members	27	43
Number of active members	740	711
Covered salary at June 30	\$39,153,258	\$34,331,490
Total salary for valuation*	\$39,936,323	\$35,058,163
Average salary based on valuation salary	\$53,968	\$49,308

\* Includes mandated salary increases effective July 1 of the next fiscal year

**SECTION 1: Valuation Summary for the State Retirement and Pension System of Maryland**

**Summary of Key Valuation Results – Local Fire and Police System**

<b>Valuation year</b>	<b>2007</b>	<b>2006</b>
<b>Contribution rates:</b>		
Basic employer normal cost rate	8.46%	11.25%
Basic unfunded liability rate	<u>11.57%</u>	<u>10.33%</u>
Basic contribution rate for fiscal year 2009*	20.03%	--
Basic contribution rate for fiscal year 2008*	--	21.58%
<b>Funding elements for valuation as of June 30:</b>		
Market value of assets	\$4,607,027	\$3,776,461
Actuarial value of assets	4,275,538	3,661,181
Actuarial accrued liability	8,484,998	7,492,170
Unfunded/(overfunded) actuarial accrued liability	4,209,460	3,830,989
Less net assigned liability	589,508	629,171
Pooled unfunded/(overfunded) actuarial accrued liability	3,619,952	3,201,818
<b>Demographic data for valuation as of June 30:</b>		
Number of retired members and beneficiaries	16	16
Number of vested former members	7	7
Number of active members	56	55
Covered salary at June 30	\$2,138,649	\$1,958,717
Total salary for valuation**	\$2,181,422	\$2,008,605
Average salary based on valuation salary	\$38,954	\$36,520

\* Does not include surcharge rates

\*\* Includes mandated salary increases effective July 1 of the next fiscal year

**State Retirement and Pension System of Maryland**

*Actuarial Valuation and Review for Maryland Municipal  
Corporations as of June 30, 2007*

# **SECTION 2**

## **VALUATION RESULTS**

**SECTION 2: Valuation Results for the State Retirement and Pension System of Maryland**

**ACTUARIALLY DETERMINED CONTRIBUTION RATES**

The Individual Entry Age Actuarial Cost Method is used to fund these Systems. Under this method, the amount of annual contribution required to fund the Systems is comprised of an employer normal cost payment and a payment on the unfunded/ (overfunded) actuarial accrued liability. This total amount is then divided by the projected salaries for active members to determine each current total funding rate. In addition, special surcharges apply as noted below.

The actuarially determined contribution rates are determined for each system. These amounts are shown below.

**CHART 1**

**Actuarially Determined Contribution Rates for Fiscal Year 2009**

	<b>Employees' Combined System</b>	<b>LEOPS</b>	<b>Local Fire and Police</b>
Basic normal cost as percent of payroll	5.07%	16.43%	8.46%
Unfunded actuarial accrued liability (UAL) contribution as percent of payroll	<u>-1.20%</u>	<u>14.10%</u>	<u>11.57%</u>
Total employer cost as percent of payroll	3.87%	30.53%	20.03%
Normal cost rate surcharge for Retirement System	5.00%	N/A	N/A
Normal cost rate surcharge for electing CPB	1.00%	N/A	N/A
Normal cost rate surcharge for CPB electing ACPS	-0.40%	N/A	N/A
Normal cost rate surcharge for Noncontributory electing ACPS	0.60%	N/A	N/A
UAL rate surcharge for electing CPB	1.42%	N/A	N/A
UAL rate surcharge for CPB electing ACPS	1.51%	N/A	N/A
UAL rate surcharge for Noncontributory electing ACPS	6.84%	N/A	N/A
Normal cost rate surcharge for non-integrated benefits	N/A	N/A	2.95%



**SECTION 2: Valuation Results for the State Retirement and Pension System of Maryland**

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**CHART 2**

**Basic Contribution Rates By System for Fiscal Years 2006 to 2009**

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<b>Fiscal Year</b>	<b>Employees' Combined System</b>	<b>LEOPS</b>	<b>Local Fire And Police</b>
2006	4.80%	32.67%	20.44%
2007	5.68%	33.18%	19.40%
2008	5.27%	36.80%	21.58%
2009*	3.87%	30.53%	20.03%

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*\* Reflects change from Aggregate Entry Age Normal Cost Method to Individual Entry Age Cost Method*

**State Retirement and Pension System of Maryland**

*Actuarial Valuation and Review for Maryland Municipal  
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# **SECTION 3**

## **SYSTEM BY SYSTEM DEMOGRAPHIC INFORMATION**

**SECTION 3: System by System Demographic Information for the State Retirement and Pension System of Maryland**

**Chart A**

**Summary of Membership Data as of June 30, 2007 (Municipal Corporations)**

		Active Members		Retirees & Beneficiaries			Vested Former Members	Total
		Count	Salary*	Count	Benefits**	Avg. Age	Count	Counts
<b>Employees' Retirement</b>	Vested	425						
	Non-Vested	0						
	<b>Total</b>	425	\$22,884,477	4,718	\$63,138,991	75.8	135	5,278
<b>Employees' Pension</b>	Vested	16,478						
	Non-Vested	8,363						
	<b>Total</b>	24,841	\$970,860,759	7,514	\$59,377,540	67.3	6,356	38,711
<b>LEOPS</b>	Vested	497						
	Non-Vested	243						
	<b>Total</b>	740	\$39,936,323	74	\$2,289,978	53.3	27	841
<b>LFPS</b>	Vested	44						
	Non-Vested	12						
	<b>Total</b>	56	\$2,181,422	16	\$286,329	59.4	7	79
<b>Total Systems</b>	Vested	17,444						
	Non-Vested	8,618						
	<b>Total</b>	26,062	\$1,035,862,981	12,322	\$125,092,838	70.5	6,525	44,909

\* Includes mandated salary increases effective July 1 of the next fiscal year

\*\* Total combined annual benefit for all retirees and beneficiaries

**SECTION 3: System by System Demographic Information for the State Retirement and Pension System of Maryland**

**Chart B**

**Table of Plan Coverage – Employees’ Combined System (Municipal)**

<b>Category</b>	<b>Valuation Year Ended June 30</b>		<b>Change From Prior Year</b>
	<b>2007</b>	<b>2006</b>	
<b>Active members in valuation:</b>			
Number	25,266	24,526	3.0%
Average age	47.6	46.9	0.7 years
Average service	10.6	10.6	- -
Total salary	\$993,745,236	\$917,622,377	8.3%
Average salary	\$39,331	\$37,414	5.1%
Account balances	\$148,563,201	\$126,925,960	17.0%
Total active vested members	16,903	16,567	2.0%
<b>Vested terminated members</b>			
	6,491	6,244	4.0%
<b>Retired members:</b>			
Number in pay status	9,011	8,809	2.3%
Average age	72.5	71.9	0.6 years
Average monthly benefit	\$783	\$745	5.1%
<b>Disabled members:</b>			
Number in pay status	2,147	2,102	2.1%
Average age	60.9	60.3	0.6 years
Average monthly benefit	\$1,124	\$1,064	5.6%
<b>Beneficiaries in pay status</b>			
	1,074	1,056	1.7%
<b>Inactive non-vested members</b>			
	3,606	3,582	0.7%

**SECTION 3: System by System Demographic Information for the State Retirement and Pension System of Maryland**

**Chart C**

**Table of Plan Coverage – LEOPS (Municipal)**

<b>Category</b>	<b>Valuation Year Ended June 30</b>		<b>Change From Prior Year</b>
	<b>2007</b>	<b>2006</b>	
<b>Active members in valuation:</b>			
Number	740	711	4.1%
Average age	37.1	37.9	-0.8 years
Average service	10.1	10.2	-0.1 years
Total salary	\$39,936,323	\$35,058,163	13.9%
Average salary	\$53,968	\$49,308	9.5%
Account balances	\$11,255,177	\$9,931,248	13.3%
Total active vested members	497	499	-0.4%
<b>Vested terminated members</b>	27	43	-37.2%
<b>Retired service members:</b>			
Number in pay status	60	89	-32.6%
Average age	54.6	56.7	-2.1 years
Average monthly benefit	\$2,591	\$2,085	24.3%
<b>Disabled members:</b>			
Number in pay status	13	19	-31.6%
Average age	47.2	47.5	-0.3 years
Average monthly benefit	\$2,636	\$2,483	6.2%
<b>Beneficiaries in pay status</b>	1	8	-87.5%
<b>Inactive non-vested members</b>	54	54	- -

**SECTION 3: System by System Demographic Information for the State Retirement and Pension System of Maryland**

**Chart D**

**Table of Plan Coverage – Local Fire and Police**

<b>Category</b>	<b>Valuation Year Ended June 30</b>		<b>Change From Prior Year</b>
	<b>2007</b>	<b>2006</b>	
<b>Active members in valuation:</b>			
Number	56	55	1.8%
Average age	38.6	37.2	1.4 years
Average service	12.1	11.0	1.1 years
Total salary	\$2,181,422	\$2,008,605	8.6%
Average salary	\$38,954	\$36,520	6.7%
Account balances	\$1,373	\$1,308	5.0%
Total active vested members	44	36	22.2%
<b>Vested terminated members</b>	7	7	--
<b>Retired service members:</b>			
Number in pay status	14	14	--
Average age	59.6	58.6	1.0 years
Average monthly benefit	\$1,461	\$1,421	2.8%
<b>Disabled members:</b>			
Number in pay status	2	2	--
Average age	58.5	57.5	1.0 years
Average monthly benefit	\$1,706	\$1,659	2.8%
<b>Beneficiaries in pay status</b>	0	0	--
<b>Inactive non-vested members</b>	0	0	--

**State Retirement and Pension System of Maryland**

*Actuarial Valuation and Review for Maryland Municipal  
Corporations as of June 30, 2007*

# **SECTION 4**

## **FINANCIAL INFORMATION**

## SECTION 4: Financial Information for the State Retirement and Pension System of Maryland

### Development of Actuarial and Market Value of Assets for the Year Ended June 30, 2007

Plan	Employees' Combined System	LEOPS	LFPS	Total
1. Actuarial value of assets at 6/30/2006	\$ 2,462,183,796	\$ 47,180,264	\$ 3,661,181	\$ 2,513,025,241
2. Actuarial value of assets at 6/30/2006 before transfers	2,462,525,661	35,706,599	3,661,181	2,501,893,441
3. Market value of assets at 6/30/2006	2,368,711,739	45,184,995	3,776,461	2,417,673,195
4. Market value of assets at 6/30/2006 before transfers	2,369,023,029	33,741,884	3,776,461	2,406,541,374
5. Market value of assets with interest to 6/30/2007	2,552,622,314	36,356,880	4,069,137	2,593,048,331
Employer contributions	74,388,880	16,316,342	514,978	91,220,200
Member contributions	<u>22,727,677</u>	<u>8,738,009</u>	<u>0</u>	<u>31,465,686</u>
6. Total contributions	\$ 97,116,557	\$ 25,054,351	\$ 514,978	\$ 122,685,886
7. Interest on contributions to 6/30/2007	3,693,049	952,741	19,583	4,665,373
8. Disbursements from trust	(77,464,749)	(6,577,775)	(284,917)	(84,327,441)
9. Interest on disbursements to 6/30/2007	(2,945,750)	(250,133)	(10,835)	(3,206,718)
10. Expected market value of assets: (5) + (6) + (7) + (8) + (9)	2,573,021,421	55,536,064	4,307,946	2,632,865,431
11. Actual market value of assets at 6/30/2007 before transfers	2,812,894,185	60,235,377	4,607,027	2,877,736,589
12. Actual market value of assets minus expected market value of assets: (11) – (10)	239,872,764	4,699,313	299,081	244,871,158
13. Calculation of unrecognized return				
(a) Year ended 6/30/07 - original amount*: (12) + (3) – (1)	146,400,707	2,704,044	414,361	149,519,112
(b) Year ended 6/30/07 - unrecognized amount: 80% x (13)(a)	117,120,566	2,163,235	331,489	119,615,290
14. Preliminary actuarial value of assets: (11) – (13)(b)	2,695,773,619	58,072,142	4,275,538	2,758,121,299
15. Adjustment to be within 20% corridor	0	0	0	0
16. Actuarial value of assets at 6/30/2007 before transfers	\$ 2,695,773,619	\$ 58,072,142	\$ 4,275,538	\$ 2,758,121,299
17. Asset transfer in on actuarial value of assets basis	0	1,716,636	0	1,716,636
18. Asset transfer out on actuarial value of assets basis	(1,716,636)	0	0	(1,716,636)
19. Actuarial value of assets at 6/30/2007: (16) + (17) + (18)	\$ <u>2,694,056,983</u>	\$ <u>59,788,778</u>	\$ <u>4,275,538</u>	\$ <u>2,758,121,299</u>
20. Asset transfer in on market value of assets basis	0	1,791,217	0	1,791,217
21. Asset transfer out on market value of assets basis	(1,791,217)	0	0	(1,791,217)
22. Market value of assets at 6/30/2007: (11) + (20) + (21)	\$ <u>2,811,102,968</u>	\$ <u>62,026,594</u>	\$ <u>4,607,027</u>	\$ <u>2,877,736,589</u>

\* Includes difference between market and actuarial value of assets at June 30, 2006.



**State Retirement and Pension System of Maryland**

*Actuarial Valuation and Review for Maryland Municipal  
Corporations as of June 30, 2007*

# **SECTION 5**

## **SYSTEM BY SYSTEM CONTRIBUTION INFORMATION**

**SECTION 5: System by System Contribution Information for the State Retirement and Pension System of Maryland**

**Chart A-1  
Employees' Combined System (Municipal)**

Item	Valuation Year Ended June 30	
	2007	2006*
1. Entry age actuarial accrued liability attributable to:		
a. Retired and disabled members, and beneficiaries	\$ 1,375,991,571	
b. Terminated vested and nonvested members	109,784,578	
c. Active members	<u>1,536,539,704</u>	
d. Total entry age actuarial accrued liability	\$ 3,022,315,853	
2. Actuarial value of assets	2,694,056,983	
3. Assigned liabilities		
a. Deficit balances (Chart A-5)	62,509,257	
b. Surplus balances (Chart A-6)	(2,847,115)	
c. New entrant liability balances (Chart A-7)	11,214,384	
d. UAL portion of CPB surcharge (Chart A-2)	110,971,593	
e. UAL portion of CPB to ACPS surcharge (Chart A-2)	173,783,926	
f. UAL portion of Noncontributory to ACPS surcharge (Chart A-2)	<u>8,908,263</u>	
g. Total net assigned liabilities	\$ 364,540,308	
4. Basic unfunded actuarial accrued liability: (1)d – (2)	328,258,870	
5. Pooled actuarial accrued liability: (1)d – (3)g	2,657,775,545	
6. Pooled unfunded actuarial accrued liability: (5) – (2)	(36,281,438)	
7. Total salary for valuation as of June 30	993,745,236	
8. UAL amortization payment for fiscal year 2009 based on pooled UAL	(11,890,127)	
9. Basic unfunded actuarial liability rate: (8) / (7)	(1.20%)	
10. a. Employer normal cost	54,498,012	
b. Retirement system normal cost surcharge (Chart A-2)	1,144,224	
c. CPB normal cost surcharge (Chart A-2)	7,854,860	
d. CPB to ACPS normal cost surcharge (Chart A-2)	(3,043,364)	
e. Noncontributory to ACPS normal cost surcharge (Chart A-2)	<u>51,659</u>	
f. Employer normal cost (after adjustment for surcharges): (a) – [(b) through (e)]	\$ 48,490,633	
11. Employer normal cost adjusted for timing	50,334,585	
12. Employer normal cost rate: (11) / (7)	5.07%	
13. Employer contribution: (8) + (11)	38,444,458	
14. Basic employer cost rate: (13) / (7)**	3.87%	

\* See Chart A-3

\*\* Applicable to fiscal year 2009

**SECTION 5: System by System Contribution Information for the State Retirement and Pension System of Maryland**

**Chart A-2  
Employees' Combined System (Municipal)**

Detail on Surcharges	Valuation Year Ended June 30	
	2007	2006*
Retirement System payroll	\$22,884,477	
Retirement System normal cost surcharge rate	5.00%	
Retirement System normal cost surcharge	\$1,144,224	
Payroll for Municipals under CPB	\$785,485,954	
CPB normal cost surcharge rate	1.00%	
CPB normal cost surcharge	\$7,854,860	
Payroll for Municipals going from CPB to ACPS	\$760,841,046	
Municipals going from CPB to ACPS normal cost surcharge rate	-0.40%	
Municipals going from CPB to ACPS normal cost surcharge	(\$3,043,364)	
Payroll for Municipals going from Noncontributory to ACPS	\$8,609,902	
Municipals going from Noncontributory to ACPS normal cost surcharge rate	0.60%	
Municipals going from Noncontributory to ACPS normal cost surcharge	\$51,659	
Payroll for Municipals under CPB	\$785,485,954	
Amortization factor	9.94912880	
CPB unfunded accrued liability (UAL) surcharge rate	1.42%	
CPB UAL portion of surcharge	\$110,971,593	
Payroll for Municipals going from CPB to ACPS	\$760,841,046	
Amortization factor	15.12650942	
UAL rate for Municipals going from CPB to ACPS	1.51%	
UAL portion of surcharge for Municipals going from CPB to ACPS	\$173,783,926	
Payroll for Municipals going from Noncontributory to ACPS	\$8,609,902	
Amortization factor	15.12650942	
UAL surcharge rate for Municipals going from Noncontributory to ACPS	6.84%	
UAL portion of surcharge for Municipals going from Noncontributory to ACPS	\$8,908,263	

\* See Chart A-4

**SECTION 5: System by System Contribution Information for the State Retirement and Pension System of Maryland**

**Chart A-3  
Employees' Combined System (Municipal)**

Item	<u>Valuation Year Ended June 30</u> <b>2006</b>
1. Present value of projected benefits attributable to:	
a. Retired and disabled members, and beneficiaries	\$ 1,220,167,953
b. Terminated vested and nonvested members	87,022,073
c. Active members	<u>2,325,215,877</u>
d. Total present value of projected benefits	\$ 3,632,405,903
2. Present value of future normal costs	
a. Present value of future earnings	7,753,114,662
b. Employer basic normal cost rate	6.55%
c. Employer basic normal cost: a x b	507,829,010
d. Retirement System normal cost surcharge (Chart A-4)	5,055,996
e. CPB normal cost surcharge (Chart A-4)	61,181,192
f. CPB to ACPS normal cost surcharge (Chart A-4)	(23,884,513)
g. Noncontributory to ACPS normal cost surcharge (Chart A-4)	378,783
h. Employee contributions	<u>316,193,368</u>
i. Total	\$ 866,753,836
3. Basic actuarial accrued liability: (1)d - (2)i	2,765,652,067
4. Actuarial value of assets	2,462,183,796
5. Assigned liabilities	
a. Deficit balances	62,627,626
b. Surplus balances	(2,870,219)
c. New entrant liability balances	13,057,853
d. UAL portion of CPB surcharge (Chart A-4)	112,030,118
e. UAL portion of CPB to ACPS surcharge (Chart A-4)	171,614,203
f. UAL portion of Noncontributory to ACPS surcharge (Chart A-4)	<u>7,835,242</u>
g. Total net assigned liabilities	\$ 364,294,823
6. Basic unfunded actuarial accrued liability: (3) - (4)	303,468,271
7. Pooled actuarial accrued liability: (3) - (5)g	2,401,357,244
8. Pooled unfunded actuarial accrued liability: (7) - (4)	(60,826,552)
9. Total salary for valuation as of June 30	917,622,377
10. UAL amortization payment based on pooled UAL	(11,726,842)
11. Basic unfunded actuarial liability rate: (10) / (9)	-1.28%
12. Total basic rate: (11) +(2)b*	5.27%

\* *Applicable to fiscal year 2008*

**SECTION 5: System by System Contribution Information for the State Retirement and Pension System of Maryland**

**Chart A-4  
Employees' Combined System (Municipal)**

<b>Detail on Surcharges</b>	<b>Valuation Year Ended June 30</b>
	<b>2006</b>
Retirement System present value of future earnings	\$101,119,921
Retirement System normal cost surcharge rate	5.00%
Retirement System normal cost surcharge	\$5,055,996
Present value of future earnings for municipals under ECS	\$6,118,119,165
CPB normal cost surcharge rate	1.00%
CPB normal cost surcharge	\$61,181,192
Present value of future earnings for municipals going from CPB to ACPS	\$5,971,128,143
Municipals going from CPB to ACPS normal cost surcharge rate	-0.40%
Municipals going from CPB to ACPS normal cost surcharge	(\$23,884,513)
Present value of future earnings for municipals going from Noncontributory to ACPS	\$63,130,482
Municipals going from Noncontributory to ACPS normal cost surcharge rate	0.60%
Municipals going from Noncontributory to ACPS normal cost surcharge	\$378,783
Payroll for municipals under ECS	\$728,960,654
Amortization factor	10.82286804
CPB unfunded accrued liability (UAL) surcharge rate	1.42%
CPB UAL portion of surcharge	\$112,030,118
Payroll for municipals going from CPB to ACPS	\$698,836,022
Amortization factor	16.26301260
UAL rate for municipals going from CPB to ACPS	1.51%
UAL portion of surcharge for municipals going from CPB to ACPS	\$171,614,203
Payroll for municipals going from Noncontributory to ACPS	\$7,043,610
Amortization factor	16.26301260
UAL surcharge rate for municipals going from Noncontributory to ACPS	6.84%
UAL portion of surcharge for municipals going from Noncontributory to ACPS	\$7,835,242

**SECTION 5: System by System Contribution Information for the State Retirement and Pension System of Maryland**

**Chart A-5**

**Employees Combined System (Municipal)**

**Schedule of Deficit Amounts as of July 1, 2007 for December 2008 Billing**

(Unless noted, amounts are amortized over 25 years with payments increasing 5% per year)

<b>LOC#</b>	<b>Municipal Corporation</b>	<b>Deficit Amount as of 7/1/2007*</b>	<b>December 2008 Payment</b>	<b>Last Payment Year</b>
6504	Allegheny Co. Community College	\$97,128	\$8,897	2020
6526	Cumberland, City of	2,956,679	155,913**	2035
7402	Dorchester Co. Bd. of Education	319,133	29,233	2020
7412	Dorchester Co. Roads Board	624,099	32,910***	2035
7425	Cambridge, City of	549,695	50,352	2020
7602/8	Garrett Co. Bd. of Ed & Bd of Ed Café	300,068	27,486	2020
7711	Harford Co. Government	6,287,027	575,892	2020
8030	Takoma Park, City of	1,419,459	74,852***	2035
8102	Prince Georges Co. Bd of Education	11,814,960	1,082,251	2020
8111	Prince Georges Co. Government	29,644,188	2,715,410	2020
8125	Greenbelt, City of	1,614,089	85,115**	2035
8134	Cheverly, City of	349,155	31,982	2020
8135	Prince Georges Co. Crossing Guards	18,401	1,686	2020
8502	Talbot Co. Bd. of Education	480,498	25,337***	2035
8604	Hagerstown Junior College	161,396	14,784	2020
8625	Hagerstown, City of	5,029,214	265,203***	2035
8725	Salisbury, City of	513,363	47,024	2020
8811	Worcester Co. Commission	109,427	10,024	2020
8816	Worcester Co. Liquor Bd.	9,556	875	2020
8827	Berlin, Town of	<u>211,722</u>	<u>19,394</u>	2020
<b>TOTAL</b>		<b>\$62,509,257</b>	<b>\$5,254,620</b>	

\* The outstanding balance is based on the 7.75% valuation interest rate. Actual payoff amounts will be based on the interest rate in effect when the balance was first established.

\*\* Denotes 40 year amortization, payments increasing at 5% per year.

\*\*\* Denotes 40 year amortization, payments increasing at 15% for the first 5 years, and 5% thereafter.

**SECTION 5: System by System Contribution Information for the State Retirement and Pension System of Maryland**

**Chart A-6**

**Employees Combined System (Municipal)**

**Schedule of Surplus Amounts as of July 1, 2007 for December 2008 Billing**

(Unless noted, amounts are amortized over 25 years with payments increasing 5% per year)

<b>LOC#</b>	<b>Municipal Corporation</b>	<b>Surplus Amount as of 7/1/2007*</b>	<b>December 2008 Credit</b>	<b>Last Credit Year</b>
6528	Reg. Educ. Services of Appalachia	(\$235,517)	(\$21,573)	2020
6533	Allegany Co. Housing Authority	(712)	(65)	2020
6731	Md. Health & Higher Educ. Fac. Auth	(134,369)	(12,308)	2020
7525	Brunswick, Town of	(522,027)	(47,818)	2020
7702	Harford Co. Bd. of Education	(244,173)	(22,366)	2020
7804	Howard Community College	(233,372)	(21,377)	2020
8004	Montgomery College	(241,439)	(22,116)	2020
8129	New Carrollton, City of	(358,242)	(32,815)	2020
8131	Upper Marlboro, Town of	(5,208)	(477)	2020
8202	Queen Anne Co. Bd. of Education	(61,111)	(5,598)	2020
8402	Somerset Co. Bd. of Education	(196,302)	(17,981)	2020
8426	Crisfield, City of	(27,852)	(2,551)	2020
8610	Washington Co. Library	(401,389)	(36,767)	2020
8825	Pocomoke City	(185,402)	(16,983)	2020
<b>Total</b>		<b>(\$2,847,115)</b>	<b>(\$260,795)</b>	

\* The outstanding balance is based on the 7.75% valuation interest rate. Actual payoff amounts will be based on the interest rate in effect when the balance was first established.

**SECTION 5: System by System Contribution Information for the State Retirement and Pension System of Maryland**

**Chart A-7**

**Employees Combined System (Municipal)**

**Schedule of New Entrant Payments and Credits as of July 1, 2007 for December 2008 Billing**

(Unless noted, amounts are amortized over 25 years with payments increasing 5% per year)

<b>LOC#</b>	<b>Municipal Corporation</b>	<b>Outstanding Balance as of 7/1/2007*</b>	<b>December 2008 Payment</b>	<b>Last Payment Year</b>
6533	Allegany Co Housing Authority	\$13,313	\$1,297	2019
6534	Tri-County Council of Western MD.	37,548	3,659	2019
6536	City of Frostburg	1,165,188	97,005**	2030
6628	AAC Econ Opp Com	296,349	28,880	2019
6925	Town of North Beach	190,563	18,570	2019
7025	Town of Preston	50,051	4,878	2019
7026	Town of Denton	706,603	68,860	2019
7027	Town of Ridgely	267,718	24,365**	2029
7028	Town of Federalsburg	454,754	36,433**	2030
7029	Town of Greensboro	239,948	17,642**	2031
7127	Carroll Soil Conservation District	2,668	260	2019
7128	City of Taneytown	460,572	38,802**	2030
7129	Town of Mt. Airy	301,464	85,356	2010
7206	Cecil County Library	12,124	1,182	2019
7380	So MD Tri-County Comm Action	806,844	78,629	2019
7528	Catoctin & Frederick Soil Conservation	1,141	111	2019
7529	Town of Thurmont	2,413,551	223,449**	2028
7531	City of Emmitsburg	151,952	11,224**	2030
7625	Town of Oakland	393,356	94,285**	2011
7706	Harford Co Library	7,994	779	2019
7880	Howard Co Comm Action Comm	174,230	16,979	2019
7902	Kent Co Brd of Education	811,076	79,041	2019
7926	Town of Rock Hall	11,709	1,084**	2028
8138	Town of Landover Hills	209,247	16,551**	2031
8139	Town of Bladensburg	859,976	64,857**	2031
8426	City of Crisfield	148,233	17,820**	2019
8428	Town of Princess Anne	1,087	106	2019

\* The outstanding balance is based on the 7.75% valuation interest rate. Actual payoff amounts will be based on the interest rate in effect when the balance was first established.

\*\* Level dollar payments or credits.



**SECTION 5: System by System Contribution Information for the State Retirement and Pension System of Maryland**

**Chart A-7 (continued)**

<b>LOC# Municipal Corporation</b>	<b>Outstanding Balance as of 7/1/2007*</b>	<b>December 2008 Payment</b>	<b>Last Payment Year</b>
8525 Commissioner of St. Michaels	253,716	24,725	2019
8528 Town of Oxford	101,515	9,893	2019
8618 Washington County Bd of Licenses	119,520	11,648	2019
8780 Shore Up	590,574	57,552	2019
8834 Tri-County Council for the Lower Eastern Shore	<u>(40,200)</u>	<u>(3,917)</u>	2019
<b>TOTAL</b>	<b>\$11,214,384</b>	<b>\$1,132,005</b>	

\* *The outstanding balance is based on the 7.75% valuation interest rate. Actual payoff amounts will be based on the interest rate in effect when the balance was first established.*

\*\* *Level dollar payments or credits.*

**SECTION 5: System by System Contribution Information for the State Retirement and Pension System of Maryland**

**Chart B – 1**

**LEOPS (Municipal)**

Item	Valuation Year Ended June 30	
	2007	2006*
1. Entry age actuarial accrued liability attributable to:		
a. Retired and disabled members, and beneficiaries	\$37,160,131	
b. Terminated vested and nonvested members	2,053,609	
c. Active members	<u>106,026,791</u>	
d. Total entry age actuarial accrued liability	\$145,240,531	
2. Actuarial value of assets	59,788,778	
3. Unfunded actuarial accrued liability: (1)d - (2)	85,451,753	
4. New entrant liability balance (Chart B-3)	(14,124,774)	
5. Unfunded actuarial accrued liability for amortization: (3) – (4)	99,576,527	
6. Total salary for valuation as of June 30	39,936,323	
7. Amortization factor	17.68574561	
8. Valuation amortization payment: (5) / (7)	5,630,327	
9. Unfunded liability rate: (8) / (6)	14.10%	
10. Employer normal cost	6,321,159	
11. Employer normal cost adjusted for timing	6,561,534	
12. Employer normal cost rate: (11) / (6)	16.43%	
13. Employer contribution: (8) + (11)	12,191,861	
14. Basic employer cost rate: (9) + (12)**	30.53%	

\* See Chart B-2

\*\* Applicable to fiscal year 2009

**SECTION 5: System by System Contribution Information for the State Retirement and Pension System of Maryland**

**Chart B – 2**

**LEOPS (Municipal)**

Item	Valuation Year Ended June 30
	2006
1. Present value of projected benefits attributable to:	
a. Retired and disabled members, and beneficiaries	\$44,401,107
b. Terminated vested and nonvested members	3,865,973
c. Active members	<u>180,553,649</u>
d. Total present value of projected benefits	\$228,820,729
2. Present value of future earnings	353,312,187
3. Employer normal cost rate	20.90%
4. Present value of employer future normal costs	73,842,247
5. Present value of member future contributions	14,794,751
6. Present value of future special UAL contributions	0
7. Total actuarial accrued liability: (1)d – (4) – (5) – (6)	140,183,731
8. Actuarial value of assets	47,180,264
9. Unfunded actuarial accrued liability on valuation date: (7) – (8)	93,003,467
10. New entrant liability balance	(13,360,835)
11. Unfunded actuarial accrued liability for amortization: (9) – (10)	106,364,302
12. Total salary for valuation as of June 30	35,058,163
13. Amortization factor	19.08054283
14. Valuation amortization payment: (11) / (13)	5,574,490
15. Unfunded liability rate: (14) / (12)	15.90%
16. Total basic rate: (3) + (15)*	36.80%

\* *Applicable to fiscal year 2008*

**SECTION 5: System by System Contribution Information for the State Retirement and Pension System of Maryland**

**Chart B-3**

**LEOPS (Municipal)**

**Schedule of New Entrant Payments and Credits as of July 1, 2007 for December 2008 Billing**

(Amounts are amortized over 25 years with level annual payments)

<b>LOC#</b>	<b>Municipal Corporation</b>	<b>Outstanding Balance as of 7/1/2007*</b>	<b>December 2008 Payment</b>	<b>Last Payment Year</b>
7125	Town of Westminster	(\$807,744)	(\$167,052)	2012
7128	City of Taneytown	(358,918)	(33,229)	2028
7130	Town of Hampstead	(570,263)	(50,370)	2031
7411	Dorchester County	(835,870)	(68,541)**	2016
7425	City of Cambridge	(392,765)	(39,676)	2024
7625	City of Oakland	(20,268)	(1,816)	2030
7711	Harford County Sheriffs	(5,764,050)	(879,686)	2015
7925A	Town of Chestertown	(574,573)	(51,481)	2030
8125	City of Greenbelt	1,137,653	109,559	2026
8126	City of Hyattsville	(612,777)	(59,012)	2026
8211	Queen Anne Public Safety EEs	(2,002,851)	(185,426)	2028
8428	Town of Princess Anne	(678,476)	(61,748)	2029
8628	Town of Hancock	(74,616)	(7,039)	2027
8725A	Salisbury Police	(985,098)	(92,930)	2027
8725B	Salisbury Fire	<u>(1,584,158)</u>	<u>(146,663)</u>	2028
<b>TOTAL</b>		<b>(\$14,124,774)</b>	<b>(\$1,735,110)</b>	

\* The outstanding balance is based on the 7.75% valuation interest rate. Actual payoff amounts will be based on the interest rate in effect when the balance was first established.

\*\* Denotes 10-year amortization.

**SECTION 5: System by System Contribution Information for the State Retirement and Pension System of Maryland**

**Chart C – 1**

**Local Fire and Police System**

Item	Valuation Year Ended June 30	
	2007	2006*
1. Entry age actuarial accrued liability attributable to:		
a. Retired and disabled members, and beneficiaries	\$3,943,203	
b. Terminated vested and nonvested members	42,278	
c. Active members	<u>4,499,517</u>	
d. Total entry age actuarial accrued liability	\$8,484,998	
2. Actuarial value of assets	4,275,538	
3. Unfunded actuarial accrued liability: (1)d – (2)	4,209,460	
4. New entrant liability balance (Chart C-3)	589,508	
5. Unfunded actuarial accrued liability for amortization: (3) – (4)	3,619,952	
6. Total salary for valuation as of June 30	2,181,422	
7. Amortization factor	14.3473	
8. Valuation amortization payment: (5) / (7)	252,309	
9. Unfunded liability rate: (8) / (6)	11.57%	
10. Employer normal cost	233,391	
11. Salary for non-integrated groups	1,882,467	
12. Surcharge rate	2.95%	
13. Surcharge: (11) x (12)	55,533	
14. Employer normal cost after surcharge adjustment: (10) – (13)	177,858	
15. Employer normal cost adjusted for timing	184,621	
16. Employer normal cost rate: (15) / (6)	8.46%	
17. Employer contribution: (8) + (15)	436,930	
18. Basic employer cost rate: (9) + (16)**	20.03%	

\* See Chart C-2

\*\* Applicable to fiscal year 2009

**SECTION 5: System by System Contribution Information for the State Retirement and Pension System of Maryland**

**Chart C – 2**

**Local Fire and Police System**

Item	Valuation Year Ended June 30
	2006
1. Present value of projected benefits attributable to:	
a. Retired and disabled members, and beneficiaries	\$3,801,756
b. Terminated vested and nonvested members	35,896
c. Active members	<u>6,633,323</u>
d. Total present value of projected benefits	\$10,470,975
2. Present value of future earnings	21,632,594
3. Employer basic normal cost rate	11.25%
4. Present value of basic employer future normal costs	2,433,667
5. Present value of future earnings for Municipals providing benefit without regard to Social Security Integration	18,479,252
6. Normal cost surcharge rate for non-integrated benefits	2.95%
7. Normal cost surcharge for non-integrated benefits	545,138
8. Present value of member future contributions	0
9. Present value of future special UAL contributions	0
10. Total actuarial accrued liability: (1)d – (4) – (7) – (8) – (9)	7,492,170
11. Actuarial value of assets	3,661,181
12. Unfunded actuarial accrued liability on valuation date: (10) – (11)	3,830,989
13. New entrant liability balance	629,171
14. Unfunded actuarial accrued liability for amortization: (12) – (13)	3,201,818
15. Total salary for valuation as of June 30	2,008,605
16. Amortization factor	15.4248
17. Valuation amortization payment: (14) / (16)	207,576
18. Unfunded liability rate: (17) / (15)	10.33%
19. Total basic rate: (3) + (18)*	21.58%

\* *Applicable to fiscal year 2008*

**SECTION 5: System by System Contribution Information for the State Retirement and Pension System of Maryland**

**Chart C-3**

**Local Fire and Police System**

**Schedule of New Entrant Payments and Credits as of July 1, 2007 for December 2008 Billing**

(Unless noted, amounts are amortized over 25 years with level annual payments)

<b>LOC#</b>	<b>Municipal Corporation</b>	<b>Outstanding Balance as of 7/1/2007*</b>	<b>December 2008 Payment</b>	<b>Last Payment Year</b>
6531	City of Cumberland Police Dept	\$659,092	\$64,931	2025
7427	Town of Hurlock	<u>(69,584)</u>	<u>(6,781)**</u>	2019
<b>TOTAL</b>		<b>\$589,508</b>	<b>\$58,150</b>	

\* The outstanding balance is based on the 7.75% valuation interest rate. Actual payoff amounts will be based on the interest rate in effect when the balance was first established.

\*\* Payments increasing 5% per year

**State Retirement and Pension System of Maryland**

*Actuarial Valuation and Review for Maryland Municipal  
Corporations as of June 30, 2007*

# **SECTION 6**

## **SYSTEM BY SYSTEM ACTUARIAL ASSUMPTIONS AND METHODS**



**SECTION 6: Actuarial Assumptions and Methods by System for the State Retirement and Pension System of Maryland – Employees’ Retirement System**

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**EXHIBIT A**  
**Actuarial Assumptions and Actuarial Cost Method**  
**Employees’ Retirement System**

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**Mortality Rates:**

*Healthy:* RP-2000 Combined Healthy Table with sex-distinct rates, set back 2 years in age for females.

*Disabled:* RP-2000 Male Disabled Retiree Table set back 4 years in age for males;  
 RP-2000Female Disabled Retiree Table for females

**Mortality Rates (%):**

Age	Active		Disabled	
	Male	Female	Male	Female
25	0.04	0.02	2.26	0.75
30	0.04	0.02	2.26	0.75
35	0.08	0.04	2.26	0.75
40	0.11	0.06	2.26	0.75
45	0.15	0.09	2.26	0.75
50	0.21	0.14	2.38	1.15
55	0.36	0.22	3.03	1.65
60	0.67	0.39	3.67	2.18
65	1.27	0.76	4.35	2.80

**SECTION 6: Actuarial Assumptions and Methods by System for the State Retirement and Pension System of Maryland – Employees’ Retirement System**

<b>Ordinary Disability Rates (%):</b>			<b>Accidental Disability Rates (%):</b>		
<b>Age</b>	<b>Male</b>	<b>Female</b>	<b>Age</b>	<b>Male</b>	<b>Female</b>
25	0.04	0.04	25	0.01	0.01
30	0.04	0.04	30	0.01	0.01
35	0.07	0.07	35	0.01	0.01
40	0.13	0.12	40	0.02	0.02
45	0.17	0.18	45	0.02	0.02
50	0.20	0.25	50	0.01	0.02
55	0.27	0.35	55	0.01	0.02

**Withdrawal Rates:**

<b>Rate (%) For First Ten Years</b>			<b>Sample Age Rates (%) for Subsequent Years</b>		
<b>Years</b>	<b>Male</b>	<b>Female</b>	<b>Age</b>	<b>Male</b>	<b>Female</b>
0	20.00	20.00	25	5.00	4.50
1	15.00	13.00	30	4.00	3.00
2	12.00	10.00	35	4.00	3.00
3	9.00	8.00	40	3.00	2.50
4	8.00	6.00	45	2.50	2.50
5	7.00	6.00	50	2.50	2.00
6	6.00	6.00	55	2.00	1.50
7	6.00	5.50			
8	5.00	5.00			
9	5.00	4.50			

**SECTION 6: Actuarial Assumptions and Methods by System for the State Retirement and Pension System of Maryland – Employees’ Retirement System**

**Retirement Rates (%):**

Age	Early Retirement				Normal Retirement			
	First Eligible		Subsequent Years		First Eligible		Subsequent Years	
	Male	Female	Male	Female	Male	Female	Male	Female
40	2.50	2.00	2.00	2.00				
45	2.50	2.00	2.00	2.00	17.00	21.00	5.00	12.00
50	2.50	2.00	2.00	2.00	17.00	21.00	11.00	12.00
55	8.00	9.00	6.00	2.00	17.00	21.00	11.00	15.00
60	--	--	--	--	17.00	21.00	11.00	15.00
65	--	--	--	--	17.00	21.00	20.00	30.00

**Retirement Age for Inactive Vested Participants:**

60

**Unknown Data for Participants:**

Same as those exhibited by Members with similar known characteristics. If not specified, Members are assumed to be male.

**Percent Married:**

75%

**Age of Spouse:**

Female 4 years younger than male spouse.

**Net Investment Return:**

7.75%

**Probability of Leaving Contributions in the Plan Upon Withdrawal (%):**

Age	Male	Female
20	87.50	94.44
25	76.82	86.93
30	70.55	87.18
35	68.22	84.57
40	100.00	100.00

**SECTION 6: Actuarial Assumptions and Methods by System for the State Retirement and Pension System of Maryland – Employees’ Retirement System**

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<b>Rates of Salary Increase: For First Ten Years</b>		<b>Rates of Salary Increase: Subsequent Years</b>	
<b>Years</b>	<b>Rate (%)</b>	<b>Age</b>	<b>Rate (%)</b>
0	5.50	25	5.00
1	5.50	30	5.00
2	5.50	35	4.50
3	5.50	40	4.25
4	5.50	45	4.00
5	5.00	50	3.75
6	4.50	55	3.75
7	4.50	60	3.50
8	4.50	65	3.50
9	4.50		

**Aggregate Payroll Growth:** 3.50%

**Assumed Salary Increase Granted  
On July 1, 2007:** 2.00%

**Cost of Living Increase:** 3.00%

---

**Unused Sick Leave:** Five months are added to the service of active members at retirement.

---

**Actuarial Value of Assets:** Each year’s investment gain or loss is amortized on a straight-line basis over 5 years. The final actuarial value is limited to not more than 120% nor less than 80% of the market value of assets. As of June 30, 2007, the calculation of the market gain included the difference between the market and actuarial value of assets as of June 30, 2006.

**SECTION 6: Actuarial Assumptions and Methods by System for the State Retirement and Pension System of Maryland – Employees’ Retirement System**

---

**Actuarial Cost Method:**

Individual Entry Age Normal Cost Method. Under this method, a contribution rate is determined that consists of the normal cost rate and the unfunded actuarial liability rate. The normal cost for each employee is derived as a level percentage of pay to the last assumed retirement age and applied to pay expected for the coming year. The normal cost is determined as if the ACPS Pension System accrual rate were always in effect. The sum of the individual normal costs is divided by total employee payroll to obtain the normal cost rate. The normal cost includes an offset for expected employee contributions.

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**Changes in Assumptions:**

Assumptions are periodically reviewed by the Board and as appropriate changes to these assumptions are adopted. The most recent experience study was based on data as of June 30, 2006.

As recommended in the July 1, 2002 – June 30, 2006 experience study, the following assumptions have been changed:

- The pre- and post-retirement mortality tables for healthy participants were changed to the RP-2000 Combined Healthy Table with sex-distinct rates, set back two years in age for females.
- The mortality tables for disabled participants were changed to the RP-2000 Male Disabled Retiree Table set back four years in age for males, and the RP-2000 Female Disabled Retiree Table for females.
- Ordinary and accidental disability rates were decreased.
- Withdrawal rates for all years of service were modified.
- The early retirement rates for employees for first eligibility as well as for subsequent years were decreased.
- The normal retirement rates for first eligibility and subsequent years were decreased.
- The percent married assumption was lowered from 90% to 75%.
- The rates of salary increase during the first 10 years of employment as well as for subsequent years were modified.
-

**SECTION 6: Actuarial Assumptions and Methods by System for the State Retirement and Pension System of Maryland – Employees’ Retirement System**

---

**Changes in Assumptions (continued):**

- The assumed salary increase granted on July 1 was changed from a salary-based increase to a flat 2% increase regardless of initial salary.
- The payroll growth assumption was lowered from 4.00% to 3.50%.
- The actuarial cost method was changed from the Aggregate Entry Age Normal Cost method to the Individual Entry Age Normal Cost Method.
- The method to determine the actuarial value of assets was modified to explicitly recognize investment gains and losses over a 5-year period and to limit the actuarial value to no more than 120% nor less than 80% of the market value.

**SECTION 6: Actuarial Assumptions and Methods by System for the State Retirement and Pension System of Maryland – Employees’ Pension System**

---

**EXHIBIT B**  
**Actuarial Assumptions and Actuarial Cost Method**  
**Employees’ Pension System**

---

**Mortality Rates:**

*Healthy:* RP-2000 Combined Healthy Table with sex-distinct rates, set back 2 years in age for females

*Disabled:* RP-2000 Male Disabled Retiree Table set back 4 years in age for males;  
 RP-2000 Female Disabled Retiree Table for females

**Mortality Rates (%):**

Age	Active		Disabled	
	Male	Female	Male	Female
25	0.04	0.02	2.26	0.75
30	0.04	0.02	2.26	0.75
35	0.08	0.04	2.26	0.75
40	0.11	0.06	2.26	0.75
45	0.15	0.09	2.26	0.75
50	0.21	0.14	2.38	1.15
55	0.36	0.22	3.03	1.65
60	0.67	0.39	3.67	2.18
65	1.27	0.76	4.35	2.80

**SECTION 6: Actuarial Assumptions and Methods by System for the State Retirement and Pension System of Maryland – Employees’ Pension System**

---

**Ordinary Disability Rates (%):**

Age	Male	Female
25	0.12	0.09
30	0.12	0.09
35	0.21	0.15
40	0.40	0.27
45	0.51	0.41
50	0.61	0.58
55	0.82	0.81

**Accidental Disability Rates (%):**

Age	Male	Female
25	0.03	0.02
30	0.03	0.02
35	0.04	0.03
40	0.06	0.04
45	0.05	0.04
50	0.04	0.04
55	0.04	0.04

**Withdrawal Rates:**

Rate (%) For First Ten Years		
Years	Male	Female
0	20.00	20.00
1	15.00	13.00
2	12.00	10.00
3	9.00	8.00
4	8.00	6.00
5	7.00	6.00
6	6.00	6.00
7	6.00	5.50
8	5.00	5.00
9	5.00	4.50

**Withdrawal Rates:**

Sample Age Rates (%) for Subsequent Years		
Age	Male	Female
25	5.00	4.50
30	4.00	3.00
35	4.00	3.00
40	3.00	2.50
45	2.50	2.50
50	2.50	2.00
55	2.00	1.50



**SECTION 6: Actuarial Assumptions and Methods by System for the State Retirement and Pension System of Maryland – Employees’ Pension System**

**Retirement Rates (%):**

Age	Early Retirement				Normal Retirement			
	First Eligible		Subsequent Years		First Eligible		Subsequent Years	
	Male	Female	Male	Female	Male	Female	Male	Female
45	--	--	--	--	14.00	16.00	7.00	10.00
50	--	--	--	--	14.00	16.00	7.00	10.00
55	3.00	3.50	--	--	14.00	17.00	7.00	10.00
60	8.00	8.00	4.50	5.50	14.00	26.00	11.00	16.00
65	--	--	--	--	5.00	6.00	20.00	23.00
70	--	--	--	--	5.00	6.00	15.00	16.00

**Retirement Age for Inactive Vested Participants:** 62

**Unknown Data for Participants:** Same as those exhibited by Members with similar known characteristics. If not specified, Members are assumed to be male.

**Percent Married:** 75%

**Age of Spouse:** Female 4 years younger than male spouse.

**Net Investment Return:** 7.75%

**Probability of Leaving Contributions in the Plan Upon Withdrawal (%)\*:**

Age	Male	Female
20	87.50	94.44
25	76.82	86.93
30	70.55	87.18
35	68.22	84.57
40	100.00	100.00

**SECTION 6: Actuarial Assumptions and Methods by System for the State Retirement and Pension System of Maryland – Employees’ Pension System**

---

<b>Rates of Salary Increase:</b>		<b>Rates of Salary Increase:</b>	
<b>For First Ten Years</b>		<b>Subsequent Years</b>	
<b>Years</b>	<b>Rate (%)</b>	<b>Age</b>	<b>Rate (%)</b>
0	5.50	25	5.00
1	5.50	30	5.00
2	5.50	35	4.50
3	5.50	40	4.25
4	5.50	45	4.00
5	5.00	50	3.75
6	4.50	55	3.75
7	4.50	60	3.50
8	4.50	65	3.50
9	4.50		

**Aggregate Payroll Growth:** 3.50%

**Assumed Salary Increase Granted  
On July 1, 2007:** 2.00%

---

**Cost of Living Increase:** 3.00%

---

**Unused Sick Leave:** Five months are added to the service of active members at retirement.

**SECTION 6: Actuarial Assumptions and Methods by System for the State Retirement and Pension System of Maryland – Employees’ Pension System**

---

**Actuarial Value of Assets:** Each year’s investment gain or loss is amortized on a straight-line basis over 5 years. The final actuarial value is limited to not more than 120% nor less than 80% of the market value of assets. As of June 30, 2007, the calculation of the market gain included the difference between the market and actuarial value of assets as of June 30, 2006.

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**Actuarial Cost Method:** Individual Entry Age Normal Cost Method. Under this method, a contribution rate is determined that consists of the normal cost rate and the unfunded actuarial liability rate. The normal cost for each employee is derived as a level percentage of pay to the last assumed retirement age and applied to pay expected for the coming year. The sum of the individual normal costs is divided by total employee payroll to obtain the normal cost rate. The normal cost includes an offset for expected employee contributions.

---

**Changes in Assumptions:** Assumptions are periodically reviewed by the Board and as appropriate changes to these assumptions are adopted. The most recent experience study was based on data as of June 30, 2006.

As recommended in the July 1, 2002 – June 30, 2006 experience study, the following assumptions have been changed:

- The pre- and post-retirement mortality tables for healthy participants were changed to the RP-2000 Combined Healthy Table with sex-distinct rates, set back two years in age for females.
- The mortality tables for disabled participants were changed to the RP-2000 Male Disabled Retiree Table set back four years in age for males and to the RP-2000 Female Disabled Retiree Table for females.
- The assumed rates of withdrawal for participants with less than ten years of service as well as the assumed rates for subsequent years were modified.
- The early retirement rates for first eligibility as well as for subsequent years were modified.

**SECTION 6: Actuarial Assumptions and Methods by System for the State Retirement and Pension System of Maryland – Employees’ Pension System**

---

**Changes in Assumptions (continued):**

- The normal retirement rates for first eligibility as well as for subsequent years were modified.
- The percent married assumption was lowered from 90% to 75%.
- The rates of salary increase were decreased.
- The assumed salary increase granted on July 1 was changed from a salary-based increase to a flat 2% increase regardless of initial salary.
- The payroll growth assumption was lowered from 4.00% to 3.50%.
- The actuarial cost method was changed from the Aggregate Entry Age Normal Cost method to the Individual Entry Age Normal Cost Method.
- The method to determine the actuarial value of assets was modified to explicitly recognize investment gains and losses over a 5-year period and to limit the actuarial value to no more than 120% nor less than 80% of the market value.

**SECTION 6: Actuarial Assumptions and Methods by System for the State Retirement and Pension System of Maryland – Law Enforcement Officers’ Pension System**

**EXHIBIT C**  
**Actuarial Assumptions and Actuarial Cost Method**  
**Law Enforcement Officers’ Pension System**

**Mortality Rates:**

*Healthy:* RP-2000 Combined Healthy Table with sex-distinct rates, set back 2 years in age for males  
*Disabled:* RP-2000 Disabled Retiree Table with sex-distinct rates

**Mortality Rates\* (%):**

Age	Ordinary Death		Accidental Death	Disabled	
	Male	Female		Male	Female
25	0.04	0.02	0.02	2.26	0.75
30	0.04	0.03	0.03	2.26	0.75
35	0.06	0.05	0.03	2.26	0.75
40	0.10	0.07	0.03	2.26	0.75
45	0.13	0.11	0.04	2.26	0.75
50	0.19	0.17	0.06	2.90	1.15
55	0.29	0.27	0.02	3.54	1.65
60	0.53	0.51	0.01	4.20	2.18
65	1.00	0.97	--	5.02	2.80

**SECTION 6: Actuarial Assumptions and Methods by System for the State Retirement and Pension System of Maryland – Law Enforcement Officers’ Pension System**

---

**Ordinary Disability Rates (%):**

Age	Male	Female
25	0.29	0.47
30	0.37	0.50
35	0.46	0.51
40	0.61	0.59
45	0.81	0.72
50	1.16	0.95
55	1.49	1.45

**Accidental Disability Rates (%):**

Age	Male	Female
25	0.19	0.31
30	0.20	0.28
35	0.25	0.27
40	0.29	0.28
45	0.32	0.28
50	0.44	0.36
55	0.58	0.56

**Withdrawal Rates:**

Rate (%) For First Ten Years		
Years	Male	Female
0	12.00	16.00
1	10.00	15.00
2	9.00	13.00
3	8.00	11.00
4	7.50	9.00
5	7.00	8.00
6	6.00	7.00
7	5.00	6.00
8	4.00	5.00
9	2.00	3.00

**Withdrawal Rates:**

Sample Age Rates (%) For Subsequent Years		
Age	Male	Female
30	1.50	3.00
35	1.50	3.00
40	1.50	3.00
45	1.50	3.00
50	1.50	3.00
55	1.50	3.00

**SECTION 6: Actuarial Assumptions and Methods by System for the State Retirement and Pension System of Maryland – Law Enforcement Officers’ Pension System**

---

**Retirement Rates\* (%):**

	<b>First Eligible</b>	<b>Subsequent Years</b>
Age	Rate	Rate
45	53.00	15.00
50	23.00	15.00
55	23.00	20.00
60	23.00	30.00
65	100.00	100.00

\* Rates include retirement into DROP status. 50% of members are expected to elect DROP.

**Retirement Age for Inactive Vested Participants:** 50

**Unknown Data for Participants:** Same as those exhibited by Members with similar known characteristics. If not specified, Members are assumed to be male.

**Percent Married:** 75%

**Age of Spouse:** Female 4 years younger than male spouse.

**Net Investment Return:** 7.75%

**Probability of leaving Contributions in the Plan Upon Withdrawal:** 100%

**SECTION 6: Actuarial Assumptions and Methods by System for the State Retirement and Pension System of Maryland – Law Enforcement Officers’ Pension System**

---

<b>Rates of Salary Increase:</b>		<b>Rates of Salary Increase:</b>	
<b>For First Ten Years</b>		<b>Subsequent Years</b>	
<b>Years</b>	<b>Rate (%)</b>	<b>Age</b>	<b>Rate (%)</b>
0	8.00	30	5.00
1	8.00	35	4.75
2	6.50	40	4.75
3	6.50	45	4.25
4	5.75	50	3.50
5	5.50	55	3.50
6	5.50	60	3.50
7	5.00	65	3.50
8	5.00		
9	4.50		

**Aggregate Payroll Growth:** 3.50%

**Assumed Salary Increase Granted  
On July 1, 2007:** 2.00%

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**Cost of Living Increase:** 3.00%

---

**Unused Sick Leave:** Five months are added to the service of active members at retirement.



**SECTION 6: Actuarial Assumptions and Methods by System for the State Retirement and Pension System of Maryland – Law Enforcement Officers’ Pension System**

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**Actuarial Value of Assets:** Each year’s investment gain or loss is amortized on a straight-line basis over 5 years. The final actuarial value is limited to not more than 120% nor less than 80% of the market value of assets. As of June 30, 2007, the calculation of the market gain included the difference between the market and actuarial value of assets as of June 30, 2006.

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**Actuarial Cost Method:** Individual Entry Age Normal Cost Method. Under this method, a contribution rate is determined that consists of the normal cost rate and the unfunded actuarial liability rate. The normal cost for each employee is derived as a level percentage of pay to the last assumed retirement age and applied to pay expected for the coming year. The sum of the individual normal costs is divided by total employee payroll to obtain the normal cost rate. The normal cost includes an offset for expected employee contributions.

---

**Changes in Assumptions:** Assumptions are periodically reviewed by the Board and as appropriate changes to these assumptions are adopted. The most recent experience study was based on data as of June 30, 2006.

As recommended in the July 1, 2002 – June 30, 2006 experience study, the following assumptions have been changed:

- The pre- and post-retirement mortality tables for healthy participants were changed to the RP-2000 Male Combined Healthy Table, set back two years in age for males and to the RP-2000 Female Combined Healthy Table for females.
- The mortality table for disabled participants were changed to the RP-2000 Disabled Retiree Table with sex-distinct rates.
- The assumed ordinary and accidental disability rates were decreased.
- The unisex assumed rates of withdrawal for participants with less than ten years of service as well as for participants with ten or more years of service were modified to reflect individual rates based on gender.
- The normal retirement rates for first eligibility as well as for subsequent years were modified.

**SECTION 6: Actuarial Assumptions and Methods by System for the State Retirement and Pension System of Maryland – Law Enforcement Officers’ Pension System**

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**Changes in Assumptions (continued):**

- The percent married assumption was lowered from 90% to 75%.
- The rates of salary increase were decreased.
- The assumed salary increase granted on July 1 was changed from a salary-based increase to a flat 2% increase regardless of initial salary.
- The payroll growth assumption was lowered from 4.00% to 3.50%.
- The actuarial cost method was changed from the Aggregate Entry Age Normal Cost method to the Individual Entry Age Normal Cost Method.
- The method to determine the actuarial value of assets was modified to explicitly recognize investment gains and losses over a 5-year period and to limit the actuarial value to no more than 120% nor less than 80% of the market value.

**SECTION 6: Actuarial Assumptions and Methods by System for the State Retirement and Pension System of Maryland – Local Firefighters’ and Police Officers’ Pension System**

**EXHIBIT D**  
**Actuarial Assumptions and Actuarial Cost Method**  
**Local Firefighters’ and Police Officers’ Pension System**

**Mortality Rates:**

*Healthy:* RP-2000 Combined Healthy Table with sex-distinct rates, set back 2 years in age for males  
*Disabled:* RP-2000 Disabled Retiree Table with sex-distinct rates

**Mortality Rates\* (%):**

Age	Ordinary Death		Accidental Death	Disabled	
	Male	Female		Male	Female
25	0.04	0.02	0.02	2.26	0.75
30	0.04	0.03	0.03	2.26	0.75
35	0.06	0.05	0.03	2.26	0.75
40	0.10	0.07	0.03	2.26	0.75
45	0.13	0.11	0.04	2.26	0.75
50	0.19	0.17	0.06	2.90	1.15
55	0.29	0.27	0.02	3.54	1.65
60	0.53	0.51	0.01	4.20	2.18
65	1.00	0.97	--	5.02	2.80

**SECTION 6: Actuarial Assumptions and Methods by System for the State Retirement and Pension System of Maryland – Local Firefighters’ and Police Officers’ Pension System**

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**Ordinary Disability Rates (%):**

Age	Male	Female
25	0.29	0.47
30	0.37	0.50
35	0.46	0.51
40	0.61	0.59
45	0.81	0.72
50	1.16	0.95
55	1.49	1.45

**Accidental Disability Rates (%):**

Age	Male	Female
25	0.19	0.31
30	0.20	0.28
35	0.25	0.27
40	0.29	0.28
45	0.32	0.28
50	0.44	0.36
55	0.58	0.56

**Withdrawal Rates:**

Rate (%) For First Ten Years		
Years	Male	Female
0	12.00	16.00
1	10.00	15.00
2	9.00	13.00
3	8.00	11.00
4	7.50	9.00
5	7.00	8.00
6	6.00	7.00
7	5.00	6.00
8	4.00	5.00
9	2.00	3.00

**Withdrawal Rates:**

Sample Age Rates (%) For Subsequent Years		
Age	Male	Female
30	1.50	3.00
35	1.50	3.00
40	1.50	3.00
45	1.50	3.00
50	1.50	3.00
55	1.50	3.00

**SECTION 6: Actuarial Assumptions and Methods by System for the State Retirement and Pension System of Maryland – Local Firefighters’ and Police Officers’ Pension System**

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**Retirement Rates:**

	<b>First Eligible</b>	<b>Subsequent Years</b>
Age	Rate (%)	Rate (%)
45	53.00	15.00
50	23.00	15.00
55	23.00	20.00
60	23.00	30.00
65	100.00	100.00

**Retirement Age for Inactive Vested Participants:**

62 (age 60 for members who transferred from the Employees’ Retirement System)

**Unknown Data for Participants:**

Same as those exhibited by Members with similar known characteristics. If not specified, Members are assumed to be male.

**Percent Married:**

75%

**Age of Spouse:**

Female 4 years younger than male spouse.

**Net Investment Return:**

7.75%

**Probability of leaving Contributions in the Plan Upon Withdrawal:**

100%

**SECTION 6: Actuarial Assumptions and Methods by System for the State Retirement and Pension System of Maryland – Local Firefighters’ and Police Officers’ Pension System**

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<b>Rates of Salary Increase:</b>		<b>Rates of Salary Increase:</b>	
<b>For First Ten Years</b>		<b>Subsequent Years</b>	
<b>Years</b>	<b>Rate (%)</b>	<b>Age</b>	<b>Rate (%)</b>
0	8.00	30	5.00
1	8.00	35	4.75
2	6.50	40	4.75
3	6.50	45	4.25
4	5.75	50	3.50
5	5.50	55	3.50
6	5.50	60	3.50
7	5.00	65	3.50
8	5.00		
9	4.50		

**Aggregate Payroll Growth:** 3.50%

**Assumed Salary Increase Granted  
On July 1, 2007:** 2.00%

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**Cost of Living Increase:** 3.00%

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**Unused Sick Leave:** Five months are added to the service of active members at retirement.

**SECTION 6: Actuarial Assumptions and Methods by System for the State Retirement and Pension System of Maryland – Local Firefighters’ and Police Officers’ Pension System**

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**Actuarial Value of Assets:** Each year’s investment gain or loss is amortized on a straight-line basis over 5 years. The final actuarial value is limited to not more than 120% nor less than 80% of the market value of assets. As of June 30, 2007, the market gain included the difference between the market and actuarial value of assets as of June 30, 2006

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**Actuarial Cost Method:** Individual Entry Age Normal Cost Method. Under this method, a contribution rate is determined that consists of the normal cost rate and the unfunded actuarial liability rate. The normal cost for each employee is derived as a level percentage of pay to the last assumed retirement age and applied to pay expected for the coming year. The sum of the individual normal costs is divided by total employee payroll to obtain the normal cost rate. The normal cost includes an offset for expected employee contributions.

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**Changes in Assumptions:** Assumptions are periodically reviewed by the Board and as appropriate changes to these assumptions are adopted. The most recent experience study was based on data as of June 30, 2006.

As recommended in the July 1, 2002 – June 30, 2006 experience study, the following assumptions have been changed:

- The pre- and post-retirement mortality tables for healthy participants were changed to the RP-2000 Male Combined Healthy Table, set back two years in age for males and to the RP-2000 Female Combined Healthy Table for females.
- The mortality table for disabled participants were changed to the RP-2000 Disabled Retiree Table with sex-distinct rates.
- The assumed disability rates were modified. The assumed accidental disability rates were decreased for males and increased for females.
- The unisex assumed rates of withdrawal for participants with less than ten years of service as well as for participants with ten or more years of service were modified to reflect individual rates based on gender.

**SECTION 6: Actuarial Assumptions and Methods by System for the State Retirement and Pension System of Maryland – Local Firefighters’ and Police Officers’ Pension System**

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**Changes in Assumptions (continued):**

- The normal retirement rates for first eligibility as well as for subsequent years were modified.
- The percent married assumption was lowered from 90% to 75%.
- The rates of salary increase were decreased.
- The assumed salary increase granted on July 1 was changed from a salary-based increase to a flat 2% increase regardless of initial salary.
- The payroll growth assumption was lowered from 4.00% to 3.50%.
- The actuarial cost method was changed from the Aggregate Entry Age Normal Cost method to the Individual Entry Age Normal Cost Method.
- The method to determine the actuarial value of assets was modified to explicitly recognize investment gains and losses over a 5-year period and to limit the actuarial value to no more than 120% nor less than 80% of the market value.



**SECTION 6: Actuarial Assumptions and Methods by System for the State Retirement and Pension System of Maryland – Definitions of Pension Terms**

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**EXHIBIT E**

**Definitions of Pension Terms**

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The following list defines certain technical terms for the convenience of the reader:

**Assumptions or Actuarial**

**Assumptions:**

The estimates on which the cost of the Plan is calculated including:

- (a) Investment return — the rate of investment yield that the Plan will earn over the long-term future;
- (b) Mortality rates — the death rates of employees and pensioners; life expectancy is based on these rates;
- (c) Retirement rates — the rate or probability of retirement at a given age;
- (d) Turnover rates — the rates at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement.

**Normal Cost:**

The amount of contributions required to fund the benefit allocated to the current year of service.

**Actuarial Accrued Liability**

**For Actives:**

The equivalent of the accumulated normal costs allocated to the years before the valuation date.

**Actuarial Accrued Liability**

**For Pensioners:**

The single sum value of lifetime benefits to existing pensioners. This sum takes account of life expectancies appropriate to the ages of the pensioners and the interest that the sum is expected to earn before it is entirely paid out in benefits.

**Unfunded Actuarial Accrued~~Unfunded Actuarial Accrued~~**

**Liability:**

The extent to which the actuarial accrued liability of the Plan exceeds the assets of the Plan. There is a wide range of approaches to paying off the unfunded actuarial accrued liability, from meeting the interest accrual only to amortizing it over a specific period of time.

**SECTION 6: Actuarial Assumptions and Methods by System for the State Retirement and Pension System of Maryland – Definitions of Pension Terms**

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**Amortization of the Unfunded**

**Actuarial Accrued Liability: ~~Actuarial Accrued Liability:-~~** Payments made over a period of years equal in value to the Plan's unfunded actuarial accrued liability.

**Investment Return:**

The rate of earnings of the Plan from its investments, including interest, dividends and capital gain and loss adjustments, computed as a percentage of the average value of the fund. For actuarial purposes, the investment return often reflects a smoothing of the capital gains and losses to avoid significant swings in the value of assets from one year to the next.

**State Retirement and Pension System of Maryland**

*Actuarial Valuation and Review for Maryland Municipal  
Corporations as of June 30, 2007*

# **SECTION 7**

## **SYSTEM BY SYSTEM PLAN PROVISIONS**

**SECTION 7: System by System Plan Provisions for the State Retirement and Pension System of Maryland – Employees’ Retirement System**

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**EXHIBIT A**  
**Employees’ Retirement System**

---

This exhibit summarizes the major provisions of the System included in the valuation. It is not intended to be, nor should it be interpreted as, a complete statement of all plan provisions.

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**Plan Year:** July 1 through June 30.

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**Service Retirement:**

<i>Eligibility Requirement</i>	Age 60 regardless of service, or 30 years of creditable service regardless of age.
<i>Allowance</i>	1/55 <sup>th</sup> of the highest three-year average compensation for each year of creditable service.
<i>Basic Form of Payment</i>	Life annuity.

---

**Early Retirement:**

<i>Eligibility Requirement</i>	25 years of creditable service.
<i>Allowance</i>	Service retirement allowance reduced by 6% for each year (1/2% for each month) the member is younger than age 60 or has less than 30 years of service (maximum reduction 30%).

---

**Ordinary Disability:**

<i>Eligibility Requirement</i>	5 years of creditable service and approval by the Medical Board and Board of Trustees that the member is permanently incapacitated.
<i>Allowance</i>	1/55 <sup>th</sup> of the highest three-year average compensation for each year of creditable service with a minimum benefit of 25% of average final compensation.

**SECTION 7: System by System Plan Provisions for the State Retirement and Pension System of Maryland – Employees’ Retirement System**

---

**EXHIBIT A (continued)**

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**Accidental Disability:**

<i>Eligibility Requirement</i>	Approval by the Medical Board and Board of Trustees that the member is totally and permanently incapacitated due to an on-the-job injury.
<i>Allowance</i>	Annuity based on 66 2/3% of the highest three consecutive years of average final compensation plus member accumulated contributions.

---

**Vesting:**

<i>Eligibility Requirement</i>	Five years of creditable service.
<i>Allowance</i>	Service Retirement allowance payable at age 60. Member may elect to withdraw accumulated contributions in lieu of receiving the vested retirement allowance in the Retirement System. If a member does not withdraw contributions and dies before age 60, accumulated contributions are returned.

---

**Death Benefit:**

<i>Eligibility Requirement</i>	One year of creditable service or death in the performance of duty.
<i>Allowance</i>	Lump sum equal to member’s annual salary at date of death plus any member accumulated contributions.

**Death Benefit (spouse option):**

<i>Creditable Requirement</i>	Member was eligible to retire or was age 55 with 15 years of service and the spouse was the sole primary beneficiary.
<i>Allowance</i>	100% of the Service Retirement allowance reduced for the 100% survivorship option and further reduced for early retirement if applicable.

---

**Member Plan Elections:**

Retirement System members participate under one of three options:

Plan A: Member elected to pay a higher contribution rate (generally 7% of pay) to maintain all benefits, including unlimited cost-of-living adjustments.

Plan B: Member continued pre-1984 contribution rate (generally 5% of pay) to maintain all benefits except unlimited cost-of-living. COLA adjustments are capped at 5%.

**SECTION 7: System by System Plan Provisions for the State Retirement and Pension System of Maryland – Employees’ Retirement System**

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**EXHIBIT A (continued)**

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Plan C: Member chose a combination, or two part (bifurcated) benefit. The portion of the service prior to the election is calculated at retirement as a Retirement System benefit; the portion of service after the election is calculated at retirement as a Pension System benefit.

Contributions under the Retirement System earn 4% a year. The rate of contribution for members with bifurcated benefits is determined under the Employees’ Pension Plan (graded percentage of compensation with contributions earning 5% a year).

---

**Bifurcated Allowance:**

A member who elected Plan C will receive the Service Retirement allowance for service before date of election. For service after the date of election, the member will receive the Service Retirement allowance of the Employee’s Pension System. Eligibility for Early Retirement is based on the Retirement System provision of 25 years of service. Early Retirement benefits are reduced by Pension System Early Retirement factors. Effective on the election date, the rate of member contributions is determined under the terms of the Employee’s Pension System.

---

**Cost-Of-Living Adjustments:**

Retirees receive an annual cost-of-living adjustment (COLA) effective each July 1 based on the Consumer Price Index. This increase is unlimited for Plan A members. The increase is limited to 5% annually for Plan B members and 3% annually for the Pension System portion of the Plan C benefit. Members must be retired at least one year to be eligible for this increase as of July 1.

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**Changes in Plan Provisions:**

None.

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**SECTION 7: System by System Plan Provisions for the State Retirement and Pension System of Maryland – Employees’ Pension System**

**EXHIBIT B**  
**Employees’ Pension System**

This exhibit summarizes the major provisions of the System included in the valuation. It is not intended to be, nor should it be interpreted as, a complete statement of all plan provisions.

**Plan Year:** July 1 through June 30.

**Service Retirement:**

*Eligibility Requirement* 30 years of eligibility service regardless of age or:

<b>Age</b>	<b>Minimum Creditable Service</b>
62	5 years
63	4 Years
64	3 Years
65 or older	2 years

<b>Plan Elected / Period of Service</b>	<b>Allowance</b>
(i) Noncontributory – All Service	0.8% of average compensation for the three highest consecutive years at retirement up to the Social Security covered earnings plus 1.5% of average compensation over the Social Security covered earnings for each year of creditable service.
(ii) ECPS /ACPS – Service on or before June 30, 1998	Larger of (i) or 1.2% of average compensation for the three highest consecutive years at retirement for each year of creditable service.
(iii) ECPS – Service after June 30, 1998	1.4% of average compensation for the three highest consecutive years at retirement for each year of creditable service.
(iii) ACPS – Service after June 30, 1998	1.8% of average compensation for the three highest consecutive years at retirement for each year of creditable service.

**SECTION 7: System by System Plan Provisions for the State Retirement and Pension System of Maryland – Employees’ Pension System**

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**EXHIBIT B (continued)**

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Formula (i) is still applicable for those current and former Retirement System members who after April 1, 1998 elected to transfer to the Pension System.

*Basic Form of Payment* Life annuity.

---

**Early Retirement:**

*Eligibility Requirement* Age 55 with 15 years of eligibility service.

*Allowance* Service retirement allowance reduced by 6% for each year (1/2% for each month) the member is younger than age 62. Maximum reduction is 42%.

---

**Ordinary Disability:**

*Eligibility Requirement* Five years of eligibility service and approval by the Medical Board and Board of Trustees that the member is permanently incapacitated.

*Allowance* Service retirement allowance computed as if service continued until age 62 based on annual compensation at disability and with no reduction for early commencement. If disability occurs after age 62, the benefit is based on creditable service at time of retirement.

---

**Accidental Disability:**

*Eligibility Requirement* Approval by the Medical Board and Board of Trustees that the member is totally and permanently incapacitated due to an on-the-job injury.

*Allowance* Annuity based on 66 2/3% of the highest three consecutive years of average final compensation plus member accumulated contributions.

---

**Vesting:**

*Eligibility Requirement* Five years of eligibility service.

*Allowance* Service Retirement allowance payable at age 62 or reduced benefit payable at early retirement age if member has at least 15 years of creditable service at termination. If a member does not withdraw contributions and dies before age 62, accumulated contributions are returned.



**SECTION 7: System by System Plan Provisions for the State Retirement and Pension System of Maryland – Employees’ Pension System**

---

**EXHIBIT B (continued)**

---

**Death Benefit:**

<i>Eligibility Requirement</i>	One year of eligibility service or death in the performance of duty.
<i>Allowance</i>	Lump sum payment equal to member’s annual salary at date of death plus accumulated contributions.

**Death Benefit (spouse option):**

<i>Eligibility Requirement</i>	Member was eligible for Service Retirement, eligible for Early Retirement or had completed at least 25 years of creditable service and the spouse was the sole primary beneficiary.
<i>Allowance</i>	100% of the Service Retirement allowance reduced for the 100% survivorship option and further reduced for early retirement if applicable.

**Member Contributions:**

<u>Percentage of Earnable Compensation*</u>	<u>Effective Date</u>
2.00%	July 1, 1998
3.00%	July 1, 2006 – June 30, 2007
4.00%	July 1, 2007 – June 30, 2008
5.00%	July 1, 2008

Contributions earn 5% a year.

**Cost-Of-Living Adjustments:**

Retirees receive an annual cost-of-living adjustment (COLA) effective each July 1 based on the Consumer Price Index. This adjustment is limited annually to 3%. Member must be retired at least one year as of July 1 to be eligible for this increase.

**Changes in Plan Provisions:**

None.

\* 2.00% applies for all years if CPB elected and ACPS not elected. If neither CPB nor ACPS elected then member contributions are 5% in excess of the Social Security wage base.

**SECTION 7: System by System Plan Provisions for the State Retirement and Pension System of Maryland – Law Enforcement Officers’ Pension System**

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**EXHIBIT C**

**Law Enforcement Officers’ Pension System – Retirement Plan  
(Closed to new members as of January 1, 2005)**

---

This exhibit summarizes the major provisions of the System included in the valuation. It is not intended to be, nor should it be interpreted as, a complete statement of all plan provisions.

---

**Plan Year:** July 1 through June 30.

---

**Service Retirement:**

<i>Eligibility Requirement</i>	Age 50 or 25 years of eligibility service.
<i>Allowance</i>	2.3% of the highest three-year average compensation at retirement for each of the first 30 years of creditable service, plus 1.0% of average compensation for each additional year.
<i>Basic Form of Payment</i>	50% joint and survivor.

---

**Early Retirement:**

<i>Eligibility Requirement</i>	Not applicable.
<i>Allowance</i>	Not applicable.

---

**Ordinary Disability:**

<i>Eligibility Requirement</i>	5 years of eligibility service and approval by the Medical Board and Board of Trustees that the member is permanently incapacitated.
<i>Allowance</i>	Service Retirement allowance with a minimum benefit of 25% of average final compensation.

**SECTION 7: System by System Plan Provisions for the State Retirement and Pension System of Maryland –  
Law Enforcement Officers’ Pension System**

---

**EXHIBIT C  
Retirement Plan (continued)**

---

**Accidental Disability:**

<i>Eligibility Requirement</i>	Approval by the Medical Board and Board of Trustees that the member is totally and permanently incapacitated arising out of work-related responsibilities or in performance of his/her duties.
<i>Allowance</i>	Annuity based on 66 2/3% of the three highest years of average compensation plus member accumulated contributions.

---

**Vesting:**

<i>Eligibility Requirement</i>	Five years of eligibility service.
<i>Allowance</i>	Service Retirement allowance payable at age 50.

---

**Ordinary Death Benefit:**

<i>Eligibility Requirement</i>	One year but less than two years of eligibility service.
<i>Allowance</i>	Lump sum equal to member’s annual salary at date of death plus member accumulated contributions.

**Special Death Benefits:**

<i>Eligibility Requirement</i>	Two or more years of eligibility service.
<i>Allowance</i>	Surviving spouse receives 50% of the ordinary disability benefit plus accumulated member contributions. If no surviving spouse, children of the deceased under age 18 divide payment until attainment of age 18.

**SECTION 7: System by System Plan Provisions for the State Retirement and Pension System of Maryland – Law Enforcement Officers’ Pension System**

---

**EXHIBIT C  
Retirement Plan (continued)**

---

<i>Eligibility Requirement</i>	Killed in the line of duty.
<i>Allowance</i>	Surviving spouse receives an allowance equal to 66 2/3% of average compensation plus accumulated member contributions. If no surviving spouse, children of the deceased under age 18 divide payment until attainment of age 18.  If no spouse or children, equals ordinary death benefit.
<b>Member Contributions:</b>	7% of earnable compensation. Members who previously elected the 5% contribution/5% COLA option contribute 5% of earnable compensation. Contributions earn 4% a year.
<b>Cost-of-Living Adjustments:</b>	Retirees receive an annual cost-of-living adjustment (COLA) effective each July 1 based on the Consumer Price Index. For members contributing 5% of earnable compensation, the adjustment is limited to 5% annually. Member must be retired at least one year as of July 1 to be eligible for this increase.
<b>Deferred Retirement Option Program (DROP):</b>	
<i>Eligibility Requirement</i>	25 years but less than 30 years of creditable service.
<i>Allowance</i>	During DROP period (maximum of five years depending on service), member ceases to make contributions or accrue additional benefits. The Service Retirement allowance with annual COLA adjustments accrues 6% interest per year compounded monthly. Upon exiting the DROP, member receives their Service Retirement allowance along with DROP account balance. During the DROP period member remains eligible for Accidental Disability benefits.
<b>Changes in Plan Provisions:</b>	None.

**SECTION 7: System by System Plan Provisions for the State Retirement and Pension System of Maryland – Law Enforcement Officers’ Pension System**

---

**EXHIBIT D**

**Law Enforcement Officers’ Pension System – Pension Plan**

---

This exhibit summarizes the major provisions of the System included in the valuation. It is not intended to be, nor should it be interpreted as, a complete statement of all plan provisions.

---

**Plan Year:** July 1 through June 30.

---

**Service Retirement:**

<i>Eligibility Requirement</i>	Age 50 or 25 years of eligibility service.
<i>Allowance</i>	2.0% of the three highest years of average compensation up to 30 years of creditable service. The maximum benefit is 60% of the average compensation.
<i>Basic Form of Payment</i>	50% joint and survivor.

---

**Early Retirement:**

<i>Eligibility Requirement</i>	Not applicable.
<i>Allowance</i>	Not applicable.

---

**Ordinary Disability:**

<i>Eligibility Requirement</i>	5 years of eligibility service and approval by the Medical Board and Board of Trustees that the member is permanently incapacitated.
<i>Allowance</i>	Service Retirement allowance computed as if service continued until age 50 with no change in salary.

---

**Accidental Disability:**

<i>Eligibility Requirement</i>	Approval by the Medical Board and Board of Trustees that the member is totally and permanently incapacitated due to a work-related accident.
<i>Allowance</i>	Annuity based on 66 2/3% of the three highest years of average compensation, with a maximum of average compensation plus member accumulated contributions.

**SECTION 7: System by System Plan Provisions for the State Retirement and Pension System of Maryland – Law Enforcement Officers’ Pension System**

---

**EXHIBIT D  
Pension Plan (continued)**

---

**Vesting:**

*Eligibility Requirement*

Five years of eligibility service.

*Allowance*

Service Retirement allowance payable at age 50. Member may elect to withdraw accumulated contributions in lieu of receiving the vested retirement allowance in the System. If a member does not withdraw contributions and dies before age 50, accumulated contributions are returned.

---

**Ordinary Death Benefit:**

*Eligibility Requirement*

One year but less than two years of eligibility service.

*Allowance*

Lump sum equal to member’s annual salary at date of death plus member accumulated contributions.

---

**Special Death Benefits:**

*Eligibility Requirement*

Two or more years of eligibility service.

*Allowance*

Surviving spouse receives 50% of the ordinary disability benefit plus accumulated member contributions. If no surviving spouse, children of the deceased under age 18 divide payment until attainment of age 18.

*Eligibility Requirement*

Killed in the line of duty.

*Allowance*

Surviving spouse receives an allowance equal to 66 2/3% of average compensation plus accumulated member contributions. If no surviving spouse, children of the deceased under age 18 divide payment until attainment of age 18.

If no spouse or children, equals ordinary death benefit.

---

**Member Contributions:**

4% of earnable compensation. Contributions earn 5% a year.

---

**Cost-of-Living Adjustments:**

Retirees receive an annual cost-of-living adjustment (COLA) effective each July 1 based on the Consumer Price Index. This adjustment is limited to 3%. Member must be retired at least one year as of July 1 to be eligible for this increase.

**SECTION 7: System by System Plan Provisions for the State Retirement and Pension System of Maryland – Law Enforcement Officers’ Pension System**

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**EXHIBIT D  
Pension Plan (continued)**

---

**Deferred Retirement Option Program (DROP):**

*Eligibility Requirement*

25 years but less than 30 years of eligibility service.

*Allowance*

During DROP period (maximum of five years depending on service), member ceases to make contributions or accrue additional benefits. The Service Retirement allowance with annual COLA adjustments accrues 6% interest per year compounded monthly. Upon exiting the DROP, member receives their Service Retirement allowance along with DROP account balance. During the DROP period member remains eligible for Accidental Disability benefits.

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**Changes in Plan Provisions:**

None.

**SECTION 7: System by System Plan Provisions for the State Retirement and Pension System of Maryland – Local Firefighters’ and Police Officers’ Pension System**

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**EXHIBIT E**

**Local Firefighters’ and Police Officers’ Pension System – Retirement Plan  
(Closed to new members as of January 1, 2005)**

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This exhibit summarizes the major provisions of the System included in the valuation. It is not intended to be, nor should it be interpreted as, a complete statement of all plan provisions.

---

**Plan Year:** July 1 through June 30.

---

**Service Retirement:**

<i>Eligibility Requirement</i>	Age 60 or 25 years of eligibility service.
<i>Allowance</i>	2.0% of the highest three-year average compensation for each of the first 30 years of creditable service, plus 1.0% of average compensation for each additional year.
<i>Basic Form of Payment</i>	Life annuity.

---

**Early Retirement:**

<i>Eligibility Requirement</i>	Not applicable.
<i>Allowance</i>	Not applicable.

---

**Ordinary Disability:**

<i>Eligibility Requirement</i>	5 years of creditable service and approval by the Medical Board and Board of Trustees that the member is permanently incapacitated.
<i>Allowance</i>	Service Retirement allowance with a minimum benefit of 25% of average final compensation.



**SECTION 7: System by System Plan Provisions for the State Retirement and Pension System of Maryland – Local Firefighters’ and Police Officers’ Pension System**

---

**EXHIBIT E  
Retirement Plan (continued)**

---

**Accidental Disability:**

<i>Eligibility Requirement</i>	Approval by the Medical Board and Board of Trustees that the member is totally and permanently incapacitated due to a work-related accident.
<i>Allowance</i>	Annuity based on 66 2/3% of the highest three-year average compensation plus member accumulated contributions. The total benefit may not exceed 100% of average compensation.

---

**Vesting:**

<i>Eligibility Requirement</i>	Five years of eligibility service.
<i>Allowance</i>	Service Retirement allowance payable at age 60. Member may elect to withdraw accumulated contributions in lieu of receiving the vested retirement allowance. If a member does not withdraw contributions and dies before age 60, accumulated contributions are returned.

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**Death Benefit:**

<i>Eligibility Requirement</i>	One year of eligibility service or death in the performance of duty.
<i>Allowance</i>	Lump sum equal to member’s annual salary at date of death plus member accumulated contributions.

---

**Death Benefit (spouse option):**

<i>Eligibility Requirement</i>	Member is eligible to retire or at least age 55 with 15 years of service upon death.
<i>Allowance</i>	100% of the Service Retirement allowance reduced for the 100% survivorship option.

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**Member Contributions:**

7% of earnable compensation. Members who previously elected either the bifurcated benefit option or the 5% contribution/5% COLA option are not required to contribute the difference between the 7% of past compensation and actual contributions to receive full benefits from this plan. Contributions earn 4% a year.

**SECTION 7: System by System Plan Provisions for the State Retirement and Pension System of Maryland –  
Local Firefighters’ and Police Officers’ Pension System**

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**EXHIBIT E  
Retirement Plan (continued)**

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**Cost-of-Living Adjustments:** Retirees receive an annual cost-of-living adjustment (COLA) on their current benefit amount effective each July 1 based on the Consumer Price Index. Member must be retired at least one year as of July 1 to be eligible for this increase.

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**Changes in Plan Provisions:** None.

**SECTION 7: System by System Plan Provisions for the State Retirement and Pension System of Maryland – Local Firefighters’ and Police Officers’ Pension System**

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**EXHIBIT F**

**Local Firefighters’ and Police Officers’ Pension System – Pension Plan**

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This exhibit summarizes the major provisions of the System included in the valuation. It is not intended to be, nor should it be interpreted as, a complete statement of all plan provisions.

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**Plan Year:** July 1 through June 30.

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**Pension System Service Retirement:**

<i>Eligibility Requirement</i>	Age 62 or 25 years of eligibility service.
<i>Allowance</i>	1.0% of average compensation for the three highest consecutive years up to the Social Security covered earnings plus 1.5% of average compensation over the Social Security covered earnings. If member is employed by a municipal corporation that does not contribute to Social Security, the benefit is based on 1.5% of average compensation for each year of creditable service.
<i>Basic Form of Payment</i>	Life annuity.

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**Early Retirement:**

<i>Eligibility Requirement</i>	Not applicable.
<i>Allowance</i>	Not applicable.

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**Ordinary Disability:**

<i>Eligibility Requirement</i>	5 years of eligibility service and approval by the Medical Board and Board of Trustees that the member is permanently incapacitated.
<i>Allowance</i>	Service Retirement allowance computed as if service continued until age 62 based on annual compensation at disability and with no reduction for early commencement. If disability occurs after age 62, the benefit is based on creditable service at time of retirement.

**SECTION 7: System by System Plan Provisions for the State Retirement and Pension System of Maryland – Local Firefighters’ and Police Officers’ Pension System**

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**EXHIBIT F  
Pension Plan (continued)**

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**Accidental Disability:**

<i>Eligibility Requirement</i>	Approval by the Medical Board and Board of Trustees that the member is totally and permanently incapacitated due to a work-related accident.
<i>Allowance</i>	Annuity based on 66 2/3% of the highest three-year compensation plus member accumulated contributions.

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**Vesting:**

<i>Eligibility Requirement</i>	Five years of eligibility service.
<i>Allowance</i>	Service Retirement allowance payable at age 62. Member may elect to withdraw accumulated contributions in lieu of receiving the vested retirement allowance. If a member does not withdraw contributions and dies before age 62, accumulated contributions are returned.

---

**Death Benefit:**

<i>Eligibility Requirement</i>	One year of eligibility service or death in the performance of duty.
<i>Allowance</i>	Lump sum equal to member’s annual salary at date of death plus member accumulated contributions.

---

**Death Benefit (spouse option):**

<i>Eligibility Requirement</i>	Member was age 62, age 55 with 15 years of service or had at least 25 years of creditable service upon death.
<i>Allowance</i>	100% of the Service Retirement allowance reduced for the 100% survivorship option.

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**Member Contributions:**

5% of earnable compensation in excess of Social Security covered earnings.  
Contributions earn 5% a year.

**SECTION 7: System by System Plan Provisions for the State Retirement and Pension System of Maryland –  
Local Firefighters’ and Police Officers’ Pension System**

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**EXHIBIT F  
Pension Plan (continued)**

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**Cost-of-Living Adjustments:** Retirees receive an annual cost-of-living adjustment (COLA) on their original benefit amount effective each July 1 based on the Consumer Price Index. This adjustment is limited to 3%. Member must be retired at least one year as of July 1 to be eligible for this increase.

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**Changes in Plan Provisions:** None.

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