

MARYLAND STATE RETIREMENT AND PENSION SYSTEM
ACTUARIAL VALUATION REPORT
AS OF JUNE 30, 2014

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November 25, 2014

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

Dear Members of the Board:

The results of the **June 30, 2014 annual actuarial valuation** of the Maryland State Retirement and Pension System (“MSRPS”) are presented in this report.

This report was prepared at your request and is intended for use by the Maryland State Retirement Agency (SRA) and the Board of Trustees of the MSRPS and those designated or approved by the SRA or the Board. This report may be provided to other parties only in its entirety and only with the permission of the SRA or the Board.

The purposes of the valuation are as follows:

- Measure the financial position of MSRPS with regard to funding,
- Provide the Board with State and PGU contribution rates for certification,
- Determine actuarial and statutory contribution rates with reinvested savings,
- Provide historical actuarial reporting and disclosure information for the System’s financial report, and
- Analyze the aggregate experience of the System over the past year.

Information required by Statement No. 67 of the Governmental Accounting Standards Board (“GASB”) that is first effective for fiscal year 2014 is provided in a separate report.

The individual member data required for the valuations was furnished by the SRA, together with pertinent data on financial operations (unaudited). The cooperation and collaboration of SRA staff in furnishing these materials is acknowledged with appreciation. We checked for internal and year-to-year consistency, but did not otherwise audit the data. We are not responsible for the accuracy or completeness of the information provided by SRA.

Actuarial valuations are based upon assumptions regarding future activity in specific risk areas including the rates of investment return and payroll growth, eligibility for the various classes of benefits, and longevity among retired lives. The Board adopts these assumptions after considering the advice of the actuary and other professionals. The assumptions and the methods comply with the requirements of GASB Statements No. 25 and No. 67. The budgeted contribution rates for Teachers’ Combined System and Employees’ Combined System have not been equal to the GASB Statement No. 25 Annual Required Contribution, due to the statutorily required corridor funding method for TCS and ECS. Additional calculations have been performed for these Systems to develop GASB Annual Required Contribution rates that meet the State of Maryland’s reporting requirements under GASB Statement Nos. 25 and No. 27.

Each actuarial valuation takes into account all prior differences between actual and assumed experience in each risk area and adjusts the contribution rates as needed. GRS performed an experience study of MSRPS for the period 2006-2010 after completion of the June 30, 2010 valuations. Certain assumptions from the experience study including mortality rates, retirement rates, withdrawal rates, disability rates, and rates of salary increase were adopted by the Board for first use in the actuarial valuation as of June 30, 2012. The Board adopted new economic assumptions for the June 30, 2013 valuation, in particular, an investment return assumption of 7.70% and an inflation assumption of 2.95%. The ultimate assumptions of a 7.55% investment return and 2.80% price inflation are being phased in over a four-year period. As a result, an investment return assumption of 7.65% and an inflation assumption of 2.90% were used for the June 30, 2014 valuation. The COLA, salary increase and payroll growth assumptions have also changed as a result of the change in the inflation assumption. In addition to the changes in economic assumptions, the disabled retiree mortality assumptions were updated for State Police and LEOPS in the June 30, 2014 valuation.

New funding methodology set forth by Maryland legislation was first reflected in the June 30, 2013 valuation. The legislation requires amortizing unfunded liabilities over a single 25-year closed period and the phase-out of the corridor funding method over a 10-year period with 8 years remaining for the corridor phase-out for the June 30, 2014 valuation.

The benefit provisions valued in the actuarial valuation as of June 30, 2014, are the same as the provisions from the last actuarial valuation as of June 30, 2013. A portion of the savings from the 2011 pension reforms passed by the General Assembly are to be reinvested as additional contributions into the Systems. Legislation enacted in 2014 reduced the amount of reinvested savings from \$300 million each year to \$100 million each year for fiscal years 2014 and 2015, \$150 million for fiscal year 2016, \$200 million for fiscal year 2017, \$250 million for fiscal year 2018, and \$300 million each year in fiscal year 2019 and thereafter until the later of the combined funded ratio of the Systems reaching 85% and the corridor funding method being fully phased out.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. The actuary did not perform an analysis of the potential range of such future measurements in this actuarial valuation report, although an interested reader is directed to the Board presentation dated November 18, 2014.

This report has been prepared by actuaries who have substantial experience valuing public employee retirement systems. We certify that, to the best of our knowledge, this report is complete and accurate and has been prepared in accordance with Maryland's Annotated Code and generally recognized and accepted actuarial principles and practices which are consistent with the Code of Professional Conduct and applicable Actuarial Standards of Practice as promulgated by the Actuarial Standards Board. The actuarial assumptions used for the valuation produce results which, individually and in the aggregate, are reasonable.

This report should not be relied on for any purpose other than the purposes previously described.

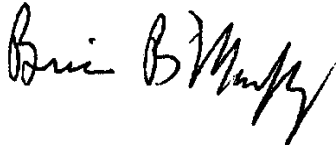
The signing actuaries are independent of the plan sponsor.

Board of Trustees
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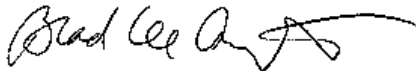
This is one of multiple documents comprising the actuarial report. The other documents comprising the actuarial report are the PowerPoint presentation presented to the Board on September 16, 2014, and the subsequent PowerPoint presentation to the Board and the Joint Committee on Pensions at separate meetings which both occurred on November 18, 2014.

Brian B. Murphy, Brad L. Armstrong and Amy Williams are Members of the American Academy of Actuaries (MAAA), and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

Respectfully submitted,



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SECTION I
BOARD SUMMARY

INTRODUCTION

This report presents the results of the June 30, 2014 annual actuarial valuation of the Maryland State Retirement and Pension System (MSRPS). The purposes of the annual valuations are as follows:

- Measure the financial position of MSRPS,
- Assist the Board in determining employer contribution rates (including reinvested savings) necessary to fund the benefits provided by MSRPS, as well as establishing statutory employer contribution rates,
- Indicate trends in the financial progress of the fund,
- Provide actuarial reporting and disclosure information for the System's financial report, and
- Analyze the experience of the System over the past year.

A summary of the primary valuation results as of June 30, 2014 is presented on the following page.

SUMMARY OF VALUATION RESULTS
JUNE 30, 2014
(\$ IN MILLIONS)
(STATE AND MUNICIPAL)

	2014						2013		% Change
	TCS	ECS	State Police	Judges	LEOPS	CORS ¹	Total	Total	
A. Demographic Information									
1. Active Number Counts	104,470	84,825	1,351	301	2,484	91	193,522	192,810	0.4%
2. Active Payroll	\$ 6,310	\$ 4,215	\$ 86	\$ 42	\$ 146	\$ 5	\$ 10,804	\$ 10,478	3.1%
3. Retired Number Counts	68,929	69,459	2,468	395	1,613	23	142,887	137,925	3.6%
4. Annual Benefits for Retired Members ²	\$ 1,851	\$ 1,100	\$ 113	\$ 29	\$ 54	\$ 1	\$ 3,148	\$ 2,989	5.3%
5. Deferred / Inactive Number Counts	24,220	27,538	82	8	283	2	52,133	51,552	1.1%
6. Total Number Counts	197,619	181,822	3,901	704	4,380	116	388,542	382,287	1.6%
B. Assets									
1. Market Value (MV)	\$ 27,491	\$ 15,345	\$ 1,307	\$ 409	\$ 768	\$ 20	\$ 45,340	\$ 40,363	12.3%
2. Rate of Return on MV ³							14.27 %	10.44 %	
3. Funding Value (FV)	\$ 26,068	\$ 14,547	\$ 1,242	\$ 389	\$ 732	\$ 19	\$ 42,997	\$ 39,351	9.3%
4. Rate of Return on FV							11.22 %	7.49 %	
5. Ratio of FV to MV							94.8%	97.5%	
C. Actuarial Results									
1. Normal Cost as a % of Payroll	12.11%	10.71%	33.56%	36.55%	22.32%	14.49%	11.97%	12.42%	
2. Actuarial Accrued Liability (AAL)									
a. Active	\$ 15,035	\$ 8,969	\$ 360	\$ 149	\$ 409	\$ 9	\$ 24,931	\$ 24,058	3.6%
b. Retired	21,098	12,278	1,596	308	788	10	36,077	34,498	4.6%
c. Deferred/Inactive	749	813	11	2	26	0	1,602	1,504	6.5%
d. Total	\$ 36,883	\$ 22,060	\$ 1,967	\$ 459	\$ 1,222	\$ 20	\$ 62,610	\$ 60,060	4.2%
3. Unfunded AAL (UAAL)	\$ 10,815	\$ 7,512	\$ 725	\$ 70	\$ 490	\$ 1	\$ 19,613	\$ 20,709	-5.3%
4. Funded Ratio	70.68 %	65.95 %	63.14 %	84.68 %	59.92 %	95.64 %	68.67 %	65.52 %	
D. Contribution Rates⁴									
	STATE PORTION ONLY								
	FY 2016						FY 2015⁵	FY 2015⁶	
1. Pension Contributions									
a. Employer Normal Cost	5.12%	4.32%	25.56%	30.27%	15.63%		5.25%	5.72%	5.72%
b. Member Contribution Rate	6.99%	6.72%	8.00%	6.28%	7.00%		6.72%	6.70%	6.70%
c. UAAL Contribution Rate	<u>11.03%</u>	<u>13.57%</u>	<u>53.35%</u>	<u>10.43%</u>	<u>24.14%</u>		<u>12.36%</u>	<u>13.19%</u>	<u>13.19%</u>
d. Total	23.14%	24.61%	86.91%	46.98%	46.77%		24.33%	25.61%	25.61%
2. Total Actuarial Employer Rate (1.a + 1.c)	16.15%	17.89%	78.91%	40.70%	39.77%		17.61%	18.91%	18.91%
3. Total Employer Budgeted Rate									
a. Prior Year Budgeted Rate	15.47%	15.53%							
b. 36% * (2 - 3a.)	<u>0.24%</u>	<u>0.85%</u>							
c. Employer Budgeted Rate	15.71%	16.38%	78.91%	40.70%	39.77%		16.83%	16.41%	16.41%
d. Reinvested Savings Rate	<u>1.56%</u>	<u>1.32%</u>	<u>2.33%</u>	<u>0.00%</u>	<u>2.37%</u>		<u>1.49%</u>	<u>1.03%</u>	<u>3.07%</u>
e. Total Employer Budgeted Rate	17.27%	17.70%	81.24%	40.70%	42.14%		18.32%	17.44%	19.48%

¹Includes CORS Municipal only. State CORS included in ECS.

²Retiree benefit amounts include the cost-of-living-adjustment granted July 1, 2014 and July 1, 2013, respectively.

³Actuarial estimation method shown is expected to differ modestly from figures reported by State Street

⁴Contribution rates shown in the "Total" column are for informational purposes only and are not used for funding purposes.

⁵Reflects the reduction of reinvested savings from \$300 million to \$100 million passed by the General Assembly.

⁶Does not reflect the reduction of reinvested savings.

Totals may not add due to rounding.

ACTUARY'S COMMENTS

The System's assets earned **14.27%**¹ for the year ended June 30, 2014, which is more than the 7.70% assumed rate of investment return. Recognized asset gains from fiscal years 2010, 2011, 2013 and 2014 offset recognized asset losses from fiscal year 2012 in the actuarial value of assets as of June 30, 2014. This resulted in a gain under the asset smoothing method.

UAAL and Actuarial Gain/(Loss)

(\$ in Millions)

	State	Municipal	Total SRPS
Unfunded Actuarial Accrued Liability (UAAL) as of June 30, 2013	\$ 19,716	\$ 993	\$ 20,709
Expected UAAL as of June 30, 2014 before changes	20,163	979	21,142
Changes in benefit provisions	-	-	-
Changes in methods and assumptions:	298	22	320
Expected UAAL as of June 30, 2014 after changes	20,461	1,001	21,462
Actual UAAL as of June 30, 2014	18,750	863	19,613
Net actuarial gain/(loss)	1,711	138	1,849
Actuarial gain/(loss) by source			
Actuarial investment experience	1,259	114	1,373
Actuarial accrued liability experience	452	24	476

In relative terms, the overall System funded ratio of actuarial value of assets to liabilities increased from 65.52% in 2013, to **68.67%** this year. If market value of assets were the basis for the measurements, the funded ratio would have increased from 67.20% to 72.42% funded. The market value of assets exceeds the retiree liabilities by about 26% in total, an increase from 17% last year. This is referred to as a short condition test and is demonstrated in the chart at the bottom of this page. It is looking at the current retiree liabilities as the benefits that will be paid the soonest since these benefits are already in pay status. Active liabilities and deferred vested liabilities do not have associated immediate cash flow requirements. Although the market value of assets exceeds the current retiree liabilities in total, this is not true for two of the smaller systems. For State Police and LEOPS, the market value of assets is less than the retiree liabilities.

(\$ in Millions)

	TCS	ECS	State Police	Judges	LEOPS	CORS	Total
Market Value of Assets (MVA)	\$ 27,491	\$ 15,345	\$ 1,307	\$ 409	\$ 768	\$ 20	\$ 45,340
Retiree Liability	21,098	12,278	1,596	308	788	10	36,077
MVA as % of Retiree Liability	130%	125%	82%	133%	98%	193%	126%

¹Actuarial estimation method shown is expected to differ modestly from figures reported by State Street.

In the 2013 legislative session, the Legislature changed the method used to fund the State Systems of the MSRPS. The unfunded liability for each System is being amortized over a single closed 25-year period beginning July 1, 2014 and ending June 30, 2039 (24 years remaining as of the June 30, 2014 valuation, which determines the fiscal year 2016 contribution). In addition, the corridor method used by the Teachers' Combined System and the State portion of the Employees' Combined System, which was established in 2001, is being phased-out over a 10-year period (eight years remaining for the fiscal year 2016 contribution calculated in the June 30, 2014 valuation). Under the corridor funding method, the State appropriation is fixed at the prior fiscal year's rate, but adjusted to reflect the cost of any legislative benefit changes, as long as the actuarial funded status of these Systems remains in a corridor of 90% funded to 110% funded. Once the ratio falls outside this corridor, the appropriated or budgeted rate will be adjusted 36% in fiscal year 2016, (44% in fiscal year 2017, etc.) of the way toward the underlying actuarially calculated rate, with the exception of the cost of/or the savings from legislative benefit changes, which are fully recognized regardless of whether the Systems are within or outside of the corridor. The Teachers' Combined System (TCS) has remained out of the corridor since the June 30, 2005 valuation and the State portion of the Employees Combined System (ECS) remained out of the corridor since the June 30, 2004 valuation resulting in contribution rates for TCS and ECS that are less than actuarial rates.

In 2011, the General Assembly enacted pension reforms which were effective July 1, 2011, and affect both current actives and new hires. The member contribution rate was increased for members of the Teachers' Pension System and Employees' Pension System from 5% to 7%, and from 4% to 6% in fiscal year 2012 and to 7% in fiscal year 2013 and beyond for LEOPS. In addition, the benefit attributable to service on or after July 1, 2011, is subject to different cost-of-living adjustments (COLAs) that are based on the increase in the Consumer Price Index and capped at 2.5% or 1.0% based on whether the market value investment return from the preceding calendar year was higher or lower than the investment return assumption used in the valuation (currently 7.65%). There were also changes to the provisions for members hired on or after July 1, 2011. The valuation as of June 30, 2012, was the first valuation which included members covered under the Reformed Benefit Plans applicable to members hired on or after July 1, 2011.

In addition to the benefit provision changes, a portion of the savings from the pension reforms is to be reinvested in certain State Systems (TCS, ECS, State Police, and LEOPS). Legislation enacted in 2014 reduced the amount of reinvested savings from \$300 million each year beginning in fiscal year 2014, to \$100 million each year for fiscal years 2014 and 2015, \$150 million for fiscal year 2016, \$200 million for fiscal year 2017, \$250 million for fiscal year 2018, and \$300 million each year beginning in fiscal year 2019 and thereafter until the later of the combined funded ratio of the Systems reaching 85% and the corridor funding method being fully phased out. The allocation of reinvested savings by System is in proportion to the savings from the pension reforms as measured in the actuarial valuation as of June 30, 2011.

On the following page is a summary by the State System of the budgeted contribution rates and the actuarially determined contribution rates. The budgeted contribution rates use the corridor funding method for TCS and ECS.

The actuarially determined rates exclude the corridor funding method and are equal to the employer normal cost plus the unfunded actuarial accrued liability contribution rate. The unfunded actuarial contribution rate is equal to the payment resulting from amortizing the current unfunded liability as a level percentage of pay over a single 25-year closed period as of June 30, 2013 (24 years remaining as of June 30, 2014).

The fiscal year 2016 budgeted rate for TCS is about 97.3% (97.5% with the addition of reinvested savings) of the actuarially determined rate, and the budgeted rate for ECS is about 91.6% (92.1% with the addition of reinvested savings) of the actuarially determined rate.

FY2016 Contribution Rates (State Portion Only)

	TCS	ECS	State Police	Judges	LEOPS	Total
Budgeted Contribution Rate ¹	15.71%	16.38%	78.91%	40.70%	39.77%	16.83%
Actuarially Determined Rate ¹	16.15%	17.89%	78.91%	40.70%	39.77%	17.61%
Budgeted / Actuarially Determined Rate	97.28%	91.56%	100.00%	100.00%	100.00%	95.57%
Budgeted Contribution Rate with Reinvested Savings	17.27%	17.70%	81.24%	40.70%	42.14%	18.32%
Actuarially Determined Rate with Reinvested Savings	17.71%	19.21%	81.24%	40.70%	42.14%	19.08%
Budgeted with Reinvested Savings / Actuarial with Reinvested Savings	97.52%	92.14%	100.00%	100.00%	100.00%	96.01%

¹Excludes reinvested savings.

The budgeted rates with reinvested savings are based on a projection of payroll. It is our understanding that the Retirement Agency will monitor contributions to ensure that the System receives the proper amount of reinvested dollar savings during fiscal year 2016.

Beginning in fiscal year 2013, local employers contributed a portion of the statutory normal cost contribution for the Teachers Combined System. Normal cost contribution amounts for local employers for fiscal years 2013 through 2016 are defined by the Maryland statutes. Beginning in fiscal year 2017, local employers will contribute the full normal cost contribution on behalf of their employees.

Under the present circumstances, the corridor method results in contributions that are less than those determined actuarially and those needed to make sufficient progress toward funding the current unfunded liability. However, with the phasing out of the corridor method and the inclusion of reinvested savings, the return to actuarial funding is on the horizon.

The results of this valuation report disclose the actuarially determined rates and the budgeted contribution rates. Under the phase out of the corridor funding method, the budgeted rates will equal the actuarially determined rates by fiscal year 2024. The analysis in this report will focus on the actuarially determined rates but will footnote the appropriated or budgeted rates where applicable.

The schedules required under Government Accounting Standards Board Statement (GASB) No. 67 (beginning with fiscal year 2014) and No. 68 (beginning with fiscal year 2015) are provided in a separate report. The GASB Statement No. 68 schedules produced for fiscal year 2014 were pro-forma only.

PRIOR YEAR EXPERIENCE

ASSETS (STATE AND MUNICIPAL)

Plan assets for this System are measured on both a market value and an actuarial or smoothed value basis. The actuarial smoothing method, described in detail in Appendix A, annually recognizes 20% of the difference between (a) the expected investment return if the market value of assets had earned the assumed rate of 7.70% during FY 2014, and (b) the actual investment return. In addition, there is a market value collar that constrains the actuarial value to be within 20% of the market value of assets. In periods of high returns, this method defers the amount of asset gains above the assumed return (7.70% for FY 2014 and 7.65% for FY 2015). Conversely, in periods of returns below the assumed rate, recognition of the losses is deferred. The primary advantage of this smoothing technique is contribution stability. The System does not immediately feel the full impact of lower (or higher) costs when asset values fluctuate dramatically. In the Teachers' and Employees' Systems, the impact is further reduced by the corridor method. In Systems where both the corridor method and the asset smoothing method are in effect, it can take 15 or more years to recognize a single year's gain or loss. The statutory phase-out of corridor will ultimately reduce this to 5 years.

For the plan year ending June 30, 2014, the System's assets earned **14.27%**¹ on a market value basis and **11.22%** on a smoothed or actuarial basis. The System experienced an investment gain of **\$2,626** million on a market value basis and a loss of **\$1,373** million on an actuarial basis. A reconciliation of market value and actuarial value of assets are presented below.

(STATE AND MUNICIPAL)

Item (In Millions)	Market Value	Actuarial Value
June 30, 2013 Value	\$ 40,363	\$ 39,351
June 30, 2013 Municipal Withdrawals / New Entrants	-	-
Employer Contributions	1,734	1,734
Member Contributions	728	728
Benefit Payments and Other Disbursements	(3,191)	(3,191)
Expected Investment Earnings (7.70% in FY2014)	3,080	3,002
Expected Value June 30, 2014	\$ 42,714	\$ 41,624
Investment Gain/(Loss)	2,626	1,373
June 30, 2014 Value	\$ 45,340	\$ 42,997

Figures may not add exactly due to rounding

¹ Actuarial estimation method shown is expected to differ modestly from figures reported by State Street.

TRENDS (STATE AND MUNICIPAL)

One of the best ways to measure or evaluate the financial condition of a pension plan is to examine the historical trends that are evolving. Below are three charts which illustrate trend information from 1993 through the end of 2014, on the System's assets and liabilities, annual cash flows in and out of the fund, and the State contribution rate. Our comments on each follow.

Chart A: Assets/Liabilities

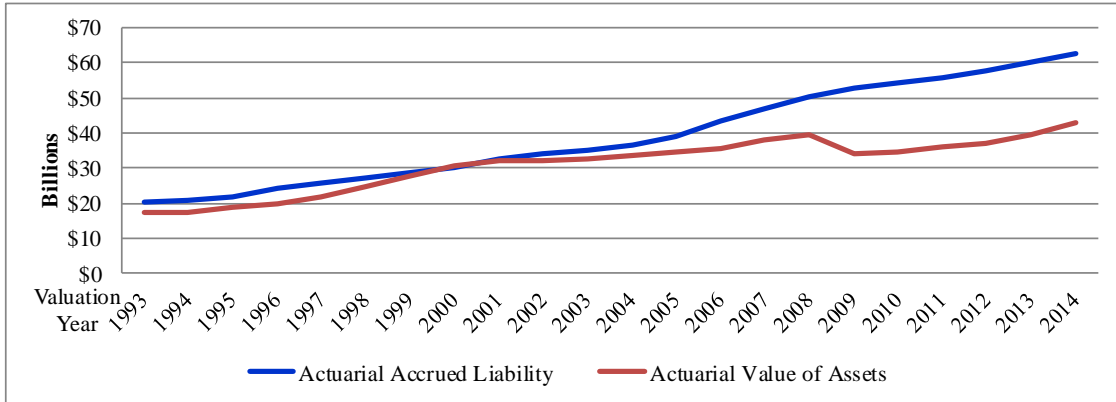


Chart B: Benefits vs. Contributions

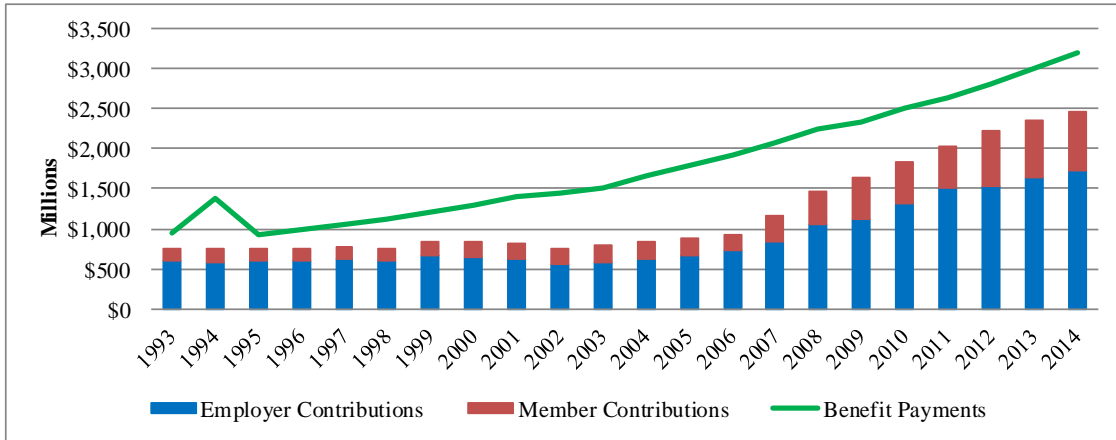
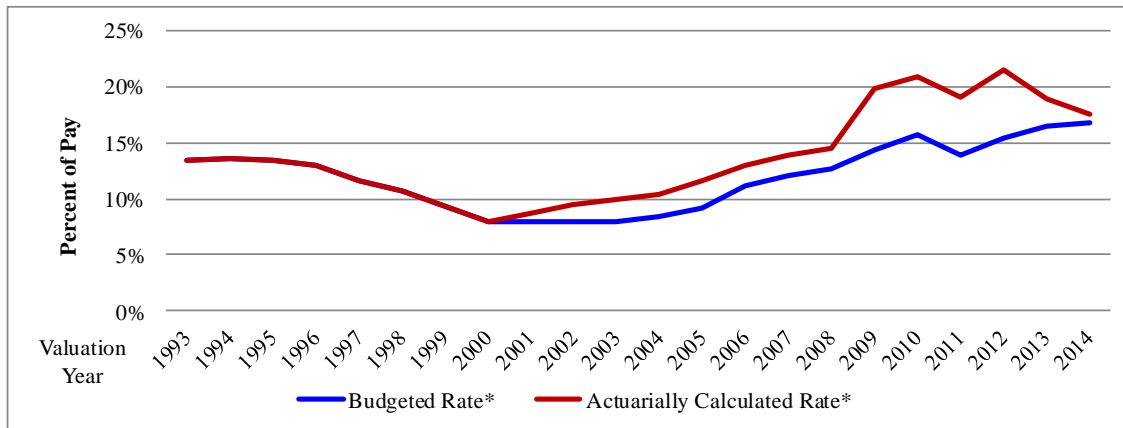


Chart C: State Contribution Rate



* Excludes reinvested savings in valuation years 2011- 2014. 2010 rates are prior to the 2011 GA Reforms.

COMMENTS

Chart A displays a comparison of the actuarial value of assets and the actuarial accrued liability. As of June 30, 2014, the actuarial value of assets under the 5-year asset smoothing method are 95% of the market value of assets, compared with 97% as of June 30, 2013.

Chart B presents non-investment cash flow trend information that can have investment implications. Many statewide retirement systems, with the aging and retirements of the baby boom generation, are seeing payments to retirees on the increase. This is expected for mature retirement systems. Benefit payments, which is the total amount below the green line, exceeds the total contributions, which is the total amount below the top of the red bar. The amount needed to pay excess benefit payments over total contributions comes from investment return or current assets. If the difference between the total benefit payments and total contributions increases, a larger portion of investment return will be needed to pay benefits and may require a change in asset allocation. As long as cash into the fund from employer and employee contributions is increasing in a similar manner to benefit payments, the financial objectives of the System will continue to be met. The budgeted rates under the corridor funding method first became less than the actuarial rates in FY 2006 for ECS and in FY 2007 for TCS. The corridor method increased the extent of negative cash flows, which could affect the manner in which the assets are invested.

Finally, Chart C, looks at the composite actuarially determined and budgeted State contribution rates. The budgeted contribution rates by System determine the fiscal year State appropriation. It shows the impact of the 1990's decade sustained investment gains, a continuous lowering of the rate until 2000. Effective with the 2001 valuation, the State appropriations were performed under a corridor funding method for the two largest plans. The appropriation remained essentially level for a few years before increasing with the 2004 valuation. In the absence of significant favorable investment and/or demographic experience, the contribution rates can be expected to increase to the level indicated if the corridor method had not been adopted. Without the corridor method, the State contribution in FY 2016 would be 0.78% of payroll higher (excluding reinvested savings) than the amount to be budgeted under the corridor method. The actual contribution rate for FY 2016 is therefore 4% less than the actuarially determined rate.

Legislation enacted in 2013 is phasing out the corridor funding method for TCS and ECS over a 10-year period beginning with the valuation as of June 30, 2013. The budgeted rate is expected to increase and will converge with the actuarial rate for TCS and ECS at the end of the 10-year period.

Chart C further illustrates that, since inception, the corridor method has consistently acted to reduce the State's contribution. The new amortization method and the phase-out of the corridor will result in budgeted contribution rates that are equal to the actuarially determined ones in 8 years (when the corridor is fully phased by the valuation as of June 30, 2022).

SECTION II
VALUATION RESULTS

STATE SYSTEMS (EXCLUDES MUNICIPALITIES) VALUATION RESULTS

The combined State System's (excluding PGU's) unfunded actuarial accrued liability decreased by \$966 million, from \$19,716 million as of June 30, 2013, to \$18,750 million as of June 30, 2014. There was an expected increase in the unfunded actuarial accrued liability of \$447 million, if all actuarial assumptions had been realized. The expected increase reflects the actual contributions made, including a lower amount of reinvested savings contributions made in fiscal year 2014 than previously assumed. The unfunded liability is expected to grow if the total contributions are less than the total normal cost plus interest on the unfunded liability. The member contributions plus the state budgeted contributions are less than the normal cost plus interest on the unfunded liability due to the corridor funding method for Teachers' and Employees' Combined Systems and the current funding policy. There was an additional increase of \$298 million from assumption and method changes.

There was a decrease in the unfunded actuarial accrued liability of \$1,711 million due to favorable plan experience which offset the expected increase in the unfunded actuarial accrued liability. The decrease in the unfunded liability is attributable to slower growth in the actuarial liabilities than in the assets assuming all actuarial assumptions are met and the budgeted contributions are made.

The net gain due to plan experience of \$1,711 million is comprised of demographic gains on the liabilities of \$452 million, and an asset gain (on the actuarial value of assets) of \$1,259 million.

The combined State System's market value of assets earned 14.26%¹ for the year ended June 30, 2014, which is more than the 7.70% assumed rate of investment return. The actuarial, or smoothed, rate of return measured from this past year was 11.24%, more than the assumed rate of investment return, which resulted in an actuarial gain on assets. Partial recognition of asset gains from FY2010, 2011 and 2013 compared to the actuarial assumption of 7.70%, were recognized in the actuarial value of assets as of June 30, 2014, under the asset smoothing method, resulting in an overall asset gain of \$1,259 million.

There were liability gains due to lower retiree COLA increases on average than assumed. COLA increases of 1.47% were granted to eligible retirees who have a COLA cap of 3.00%, 5.00%, or no COLA cap compared to the actuarial assumptions of 2.70%, 2.92% and 2.95%, respectively. TCS and Judges experienced gains, and ECS, State Police and LEOPS experienced losses, due to actual increases in salaries compared to the actuarial assumptions. ECS was the only system that had a small net loss on liabilities from demographic experience.

There was a shift between accrued liabilities and normal cost due to a method change for TCS and ECS to reflect the different benefit accrual rates for pre and post June 30, 1998 service in the calculation of the normal cost rate. This change did not affect the present value of future benefits and was made in order to adhere to the new GASB No. 67 and No. 68 attribution rules for the entry age normal cost method.

In addition, there was a small increase in liabilities due to the phase down of the investment return assumption from 7.70% to 7.65%, the payroll growth assumption from 3.45% to 3.40%, and slight changes in the COLA assumptions.

¹ *The actuarially computed rate of return, excluding municipalities.*

The combined State System funded ratio increased from 64.6% at June 30, 2013, to 67.7% at June 30, 2014.

The actuarially determined contribution rates decreased for each System from those calculated in the June 30, 2013 valuation to those calculated in the June 30, 2014 valuation, which determines the FY2015 and FY2016 contributions, respectively.

A reconciliation of the actuarial contribution rate (excluding reinvested savings) is shown below:

(STATE ONLY)

	Teachers' Combined System	Employees' Combined System	State Police	Judges	LEOPS	Total
Actuarially Determined Calculations						
FY2015 Contribution Rate	17.42%	19.32%	83.06%	42.74%	41.37%	18.91%
Change due to Investment Return	-0.85%	-0.73%	-2.79%	-1.63%	-1.01%	-0.83%
Change due to Demographic Experience	-0.45%	0.00%	-0.73%	-0.52%	-0.04%	-0.30%
Change due to Reduced Reinvested Savings	0.14%	0.12%	0.21%	0.00%	0.22%	0.14%
Change due to Corridor	0.38%	0.47%	0.00%	0.00%	0.00%	0.40%
Change due to Other	-0.33%	-1.12%	-4.23%	0.10%	-2.40%	-0.59%
Change due to Method Changes	-0.23%	-0.22%	0.00%	0.00%	0.00%	-0.22%
Change due to Assumption Changes	<u>0.06%</u>	<u>0.05%</u>	<u>3.38%</u>	<u>0.01%</u>	<u>1.64%</u>	<u>0.11%</u>
FY2016 Contribution Rate	16.15%	17.89%	78.91%	40.70%	39.77%	17.61%

The budgeted contribution rates increased for the Teachers' and Employees' Combined Systems as a result of the corridor funding method and are expected to increase during the corridor phase out period until the budgeted rates reach the actuarial rates.

There was a decrease in the contribution rates due to favorable investment return and demographic experience and the method changes for TCS and ECS. There was an increase in the contribution rates from what was expected due to the reduction in the reinvested savings contributions from \$300 million to \$100 million for fiscal year 2014. There was an increase in the contribution rates for TCS and ECS due to the corridor funding method, as the contribution made for fiscal year 2014 was less than the actuarially determined contribution. There was a slight increase in the contribution rate due to the assumption changes.

There was a decrease in the contribution rate for all Systems except for Judges due to factors other than those previously described. The normal cost rate decreased for most Systems as a result of more active members being covered under the benefit provisions of the reformed benefit plans. In addition, the increase in total payroll was higher than expected under the actuarial assumptions for most Systems. Total payroll was expected to increase by 3.45% in FY2013, and the total payroll increased by more than 3.45% for each System except TCS from June 30, 2013. Total payroll increased by 2.0% for TCS, 5.0% for ECS, 7.3% for State Police, 5.8% for Judges, and 9.8% for LEOPS. Total payroll growth that was higher than assumed put downward pressure on the contribution rates because the unfunded liability contribution is spread over a larger payroll base.

Funded ratios are expected to progress toward 100% at a slightly faster rate as the deferred investment gains from FY2011, FY2013 and FY2014 are recognized in the actuarial value of assets. Budgeted contribution rates are expected to increase for TCS and ECS as the corridor funding method is phased out.

DERIVATION OF EXPERIENCE GAIN (LOSS)
YEAR ENDED JUNE 30, 2014
STATE ONLY
(IN MILLIONS)

Actual experience will never (except by coincidence) coincide exactly with assumed experience. Gains and losses often offset one another over a period of years, but sizable year-to-year fluctuations are common.

	Fiscal Year Ended June 30,	
	2014	2013
(1) UAAL* at start of year	\$19,716	\$19,618
(2) Normal cost from last valuation	1,226	1,204
(3) Actual contributions	2,258	2,182
(4) Interest accrual: $[(1) \times .077 + \{(2)-(3)\} \times \{[1.077^{.5}]-1\}]$	1,479	1,483
(5) Expected UAAL before changes: (1) + (2) - (3) + (4)	20,163	20,123
(6) Change in benefit provisions	0	0
(7) Changes in methods and assumptions	298	52
(8) Expected UAAL after changes: (5) + (6) + (7)	20,461	20,175
(9) Actual UAAL at end of year	18,750	19,716
(10) Gain/(loss): (8) - (9)	\$1,711	\$459
(10a) Portion of gain/(loss) due to Assets	1,259	(88)
(10b) Portion of gain/(loss) due to Liabilities	452	547
(10c) Actuarial accrued liabilities at beginning of year	55,707	53,707
(11) Gain (loss) as a percent of beginning accrued liabilities	3.1%	0.9%

* *Unfunded actuarial accrued liability.*
Numbers may not add due to rounding.

**SUMMARY OF VALUATION RESULTS BY SYSTEM
AS OF JUNE 30, 2014
(STATE AND MUNICIPAL)**

<u>State Sponsored Plans</u>	<u>Employees</u>				<u>LEOPS</u>	<u>Total State*</u>
	<u>Teachers</u>	<u>(State)</u>	<u>State Police</u>	<u>Judges</u>	<u>(State)</u>	
Actuarial Liability - Active Members	\$ 15,035,431,905	\$ 7,101,809,176	\$ 359,738,560	\$ 149,135,452	\$ 258,493,805	\$ 22,904,608,898
Actuarial Liability - Retirees, Term. Vested, & Inactives	<u>21,847,154,752</u>	<u>10,721,198,147</u>	<u>1,606,833,862</u>	<u>310,311,770</u>	<u>637,195,309</u>	<u>35,122,693,840</u>
Total Actuarial Liability	\$ 36,882,586,657	\$ 17,823,007,323	\$ 1,966,572,422	\$ 459,447,222	\$ 895,689,114	\$ 58,027,302,738
Actuarial Value of Assets	<u>26,067,576,669</u>	<u>11,039,950,378</u>	<u>1,241,758,473</u>	<u>389,071,868</u>	<u>538,907,415</u>	<u>39,277,264,803</u>
Unfunded Actuarial Accrued Liability (UAAL)	10,815,009,988	6,783,056,945	724,813,949	70,375,354	356,781,699	18,750,037,935
Funded Ratio	70.68%	61.94%	63.14%	84.68%	60.17%	67.69%
Active Member Payroll	\$ 6,310,253,394	\$ 3,177,701,403	\$ 85,660,006	\$ 42,313,395	\$ 93,026,889	\$ 9,708,955,087
UAAL as a Percent of Payroll	171.4%	213.5%	846.2%	166.3%	383.5%	193.1%
<i>Before Reinvested Savings</i>						
Employer Normal Cost Contribution	5.12%	4.32%	25.56%	30.27%	15.63%	5.25%
UAAL Contribution	<u>11.03%</u>	<u>13.57%</u>	<u>53.35%</u>	<u>10.43%</u>	<u>24.14%</u>	<u>12.36%</u>
Total Employer Contribution Without Reinvested Savings	16.15%	17.89%	78.91%	40.70%	39.77%	17.61%
Employer Corridor Contribution	15.71%	16.38%	NA	NA	NA	16.83%
<i>After Reinvested Savings</i>						
Total Employer Contribution Without Reinvested Savings	15.71%	16.38%	78.91%	40.70%	39.77%	16.83%
Reinvested Savings Rate	<u>1.56%</u>	<u>1.32%</u>	<u>2.33%</u>	<u>0.00%</u>	<u>2.37%</u>	<u>1.49%</u>
Total Employer Contribution With Reinvested Savings	17.27%	17.70%	81.24%	40.70%	42.14%	18.32%

<u>Municipal Plans</u>	<u>Employees</u>	<u>LEOPS</u>	<u>CORS</u>	<u>Total Municipal</u>
	<u>(Municipal)</u>	<u>(Municipal)</u>	<u>(Municipal)</u>	
Actuarial Liability - Active Members	\$ 1,867,226,096	\$ 150,058,438	\$ 9,022,597	\$ 2,026,307,131
Actuarial Liability - Retirees, Term. Vested, & Inactives	<u>2,369,531,262</u>	<u>176,389,735</u>	<u>10,662,708</u>	<u>2,556,583,705</u>
Total Actuarial Liability	\$ 4,236,757,358	\$ 326,448,173	\$ 19,685,305	\$ 4,582,890,836
Actuarial Value of Assets	<u>3,507,439,238</u>	<u>193,425,698</u>	<u>18,826,786</u>	<u>3,719,691,722</u>
Unfunded Actuarial Accrued Liability (UAAL)	729,318,120	133,022,475	858,519	863,199,114
Funded Ratio	82.79%	59.25%	95.64%	81.16%
Active Member Payroll	\$ 1,037,279,250	\$ 52,645,649	\$ 4,752,059	\$ 1,094,676,958
UAAL as a Percent of Payroll	70.3%	252.7%	18.1%	78.9%

<u>State and Municipal Sponsored Plans</u>	<u>Teachers</u>	<u>Employees</u>	<u>State Police</u>	<u>Judges</u>	<u>LEOPS</u>	<u>CORS</u>	<u>Total SRPS</u>
	Actuarial Liability - Active Members	\$ 15,035,431,905	\$ 8,969,035,272	\$ 359,738,560	\$ 149,135,452	\$ 408,552,243	
Actuarial Liability - Retirees, Term. Vested, & Inactives	<u>21,847,154,752</u>	<u>13,090,729,409</u>	<u>1,606,833,862</u>	<u>310,311,770</u>	<u>813,585,044</u>	<u>10,662,708</u>	<u>37,679,277,545</u>
Total Actuarial Liability	\$ 36,882,586,657	\$ 22,059,764,681	\$ 1,966,572,422	\$ 459,447,222	\$ 1,222,137,287	\$ 19,685,305	\$ 62,610,193,574
Actuarial Value of Assets	<u>26,067,576,669</u>	<u>14,547,389,616</u>	<u>1,241,758,473</u>	<u>389,071,868</u>	<u>732,333,113</u>	<u>18,826,786</u>	<u>42,996,956,525</u>
Unfunded Actuarial Accrued Liability (UAAL)	10,815,009,988	7,512,375,065	724,813,949	70,375,354	489,804,174	858,519	19,613,237,049
Funded Ratio	70.68%	65.95%	63.14%	84.68%	59.92%	95.64%	68.67%
Active Member Payroll	\$ 6,310,253,394	\$ 4,214,980,653	\$ 85,660,006	\$ 42,313,395	\$ 145,672,538	\$ 4,752,059	\$ 10,803,632,045
UAAL as a Percent of Payroll	171.4%	178.2%	846.2%	166.3%	336.2%	18.1%	181.5%

* Contribution rates shown in the "Total" column are for informational purposes only and are not used for funding purposes.

CALCULATION OF CONTRIBUTION RATE ATTRIBUTABLE TO REINVESTMENT AMOUNTS (STATE ONLY)

	Teachers	Employees (State)	State Police	Judges	LEOPS (State)	Total State
Percentage of Total Pension Reform Savings Reinvested Savings	67.7%	29.4%	1.4%	0.0%	1.5%	100.0%
	\$ 101,545,135	\$ 44,039,606	\$ 2,100,413	\$ -	\$ 2,314,845	\$ 150,000,000
FY 2016 Contributions						
Employer Normal Cost Contribution	5.12%	4.32%	25.56%	30.27%	15.63%	5.25%
UAAL Contribution	11.03%	13.57%	53.35%	10.43%	24.14%	12.36%
Total Actuarial Employer Contribution	16.15%	17.89%	78.91%	40.70%	39.77%	17.61%
Employer Corridor Contribution	15.71%	16.38%	NA	NA	NA	16.83%
Total Employer Contribution	15.71%	16.38%	78.91%	40.70%	39.77%	16.83%
Reinvested Saving Rate	1.56%	1.32%	2.33%	0.00%	2.37%	1.49%
Estimated Total Employer Contribution ¹	17.27%	17.70%	81.24%	40.70%	42.14%	18.32%
Projected Payroll	\$ 6,524,802,009	\$ 3,341,134,000	\$ 90,065,592	\$ 44,489,618	\$ 97,811,362	\$ 10,098,302,581
Illustrated Contribution Dollars	\$ 1,025,046,396	\$ 547,277,749	\$ 71,070,759	\$ 18,107,275	\$ 38,899,579	\$ 1,700,401,758
Dollar Reinvested Savings	\$ 101,545,135	\$ 44,039,606	\$ 2,100,413	\$ -	\$ 2,314,845	\$ 150,000,000
Total Illustrated Contribution Dollars ¹	\$ 1,126,591,531	\$ 591,317,355	\$ 73,171,172	\$ 18,107,275	\$ 41,214,424	\$ 1,850,401,758

¹ Includes reinvestment of savings and \$254,754,591 attributable to TCS local employers.

SUMMARY OF STATE CONTRIBUTIONS – INCLUDING REINVESTED SAVINGS (STATE PORTION ONLY)

		Corridor Rates						
		Teachers' Combined	Employees' Combined	State Police	Judges	LEOPS	Total State#	
7/1/2014 Valuation Results (FY 2016)	Unfunded Actuarial Liability	\$ 10,815,009,988	\$ 6,783,056,945	\$ 724,813,949	\$ 70,375,354	\$ 356,781,699	\$ 18,750,037,935	
	Illustrated Contribution Dollars	\$ 1,126,591,531	\$ 591,317,355	\$ 73,171,172	\$ 18,107,275	\$ 41,214,424	\$ 1,850,401,758	
	Local Employers' Portion	254,754,591	NA	NA	NA	NA	\$ 254,754,591	
	State Portion	\$ 871,836,940	\$ 591,317,355	\$ 73,171,172	\$ 18,107,275	\$ 41,214,424	\$ 1,595,647,167	
	Projected Payroll	\$ 6,524,802,009	\$ 3,341,134,000	\$ 90,065,592	\$ 44,489,618	\$ 97,811,362	\$ 10,098,302,581	
	Total Contributions as Percentage of Payroll**	17.27%	17.70%	81.24%	40.70%	42.14%	18.32%	
	Corridor Percentage of Actuarially Determined Rate	97.52%	92.14%	NA	NA	NA	NA	
7/1/2013 Valuation Results (FY 2015)	Unfunded Actuarial Liability	\$ 11,684,822,505	\$ 6,866,129,030	\$ 718,284,024	\$ 83,936,875	\$ 362,369,067	\$ 19,715,541,501	
After Reduction in Reinvested Savings	Illustrated Contribution Dollars	\$ 1,057,554,663	\$ 523,836,596	\$ 71,183,635	\$ 17,988,538	\$ 38,427,444	\$ 1,708,990,875	
	Local Employers' Portion	221,578,201	NA	NA	NA	NA	\$ 221,578,201	
	State Portion	\$ 835,976,462	\$ 523,836,596	\$ 71,183,635	\$ 17,988,538	\$ 38,427,444	\$ 1,487,412,674	
	Projected Payroll	\$ 6,398,564,359	\$ 3,184,010,674	\$ 84,015,602	\$ 42,088,297	\$ 89,156,911	\$ 9,797,835,843	
	Total Contributions as Percentage of Payroll**	16.53%	16.45%	84.73%	42.74%	43.10%	17.44%	
	Corridor Percentage of Actuarially Determined Rate	89.45%	81.27%	NA	NA	NA	NA	
Before Reduction in Reinvested Savings	Illustrated Contribution Dollars	\$ 1,192,948,176	\$ 582,556,071	\$ 73,984,186	\$ 17,988,538	\$ 41,513,905	\$ 1,908,990,875	
	Local Employers' Portion	221,578,201	NA	NA	NA	NA	\$ 221,578,201	
	State Portion	\$ 971,369,975	\$ 582,556,071	\$ 73,984,186	\$ 17,988,538	\$ 41,513,905	\$ 1,687,412,674	

** The FY 2016 contribution rate would be 17.71% for Teachers, 19.21% for Employees, and 19.07% for the Total State if the corridor method were not in effect.

* The FY 2015 contribution rate would be 18.48% for Teachers, 20.24% for Employees, and 19.94% for the Total State if the corridor method were not in effect.

Contribution rates shown in the "Total" column are for informational purposes only and are not used for funding purposes.

**STATE BUDGETED CONTRIBUTION RATES BY SYSTEM
FOR THE FISCAL YEARS 1994 TO 2016
(STATE PORTION ONLY)**

Valuation Date June 30,	Fiscal Year	Teachers' Combined	Employees' Combined	State Police	Judges	LEOPS	Total State*
2014	2016 @	17.27%	17.70%	81.24%	40.70%	42.14%	18.32%
2014	2016 #	15.71%	16.38%	78.91%	40.70%	39.77%	16.83%
2013	2015 @^	16.53%	16.45%	84.73%	42.74%	43.10%	17.44%
2013	2015 @	18.64%	18.30%	88.06%	42.74%	46.56%	19.48%
2013	2015 #	15.47%	15.53%	83.06%	42.74%	41.37%	16.41%
2012	2014 @	17.94%	16.84%	71.85%	50.92%	57.72%	18.54%
2012	2014 #	14.71%	14.05%	66.71%	50.92%	52.47%	15.43%
2011	2013 @	15.30%	14.05%	64.57%	61.18%	50.14%	15.80%
2011	2013 #	13.29%	12.29%	61.21%	61.18%	46.81%	13.85%
2010	2012	15.45	13.40	61.01	60.37	49.26	15.67
2009	2011	14.34	11.69	57.03	59.07	47.67	14.33
2008	2010	13.15	9.93	30.79	48.89	38.63	12.62
2007	2009	11.70	8.73	20.53	43.61	36.99	11.14
2006	2008	11.60	8.86	15.44	44.12	41.74	11.10
2005	2007	9.71	6.83	13.83	42.43	40.60	9.18
2004	2006	9.35	5.76	8.22	41.12	38.47	8.46
2003	2005	9.35	4.73	0.00	36.72	37.73	7.97
2002	2004	9.35	4.73	7.58	43.74	35.13	7.98
2001	2003	9.35	4.73	5.78	43.92	36.10	7.98
2000	2002	9.35	4.73	5.83	42.66	32.41	7.98
1999	2001	10.95	5.71	8.44	46.75	23.38	9.31
1998	2000	12.54	7.15	1.26	48.18	22.96	10.70
1997	1999	13.99	7.13	10.91	52.12	25.60	11.67
1996	1998	15.48	8.21	13.08	52.49	26.27	12.90
1995	1997	16.09	8.54	17.65	52.56	35.15	13.50
1994	1996	16.22	8.61	19.13	52.51	35.68	13.61
1993	1995	15.92	8.70	19.36	52.84	34.07	13.43
1992	1994	15.76	8.70	25.74	54.25	32.56	13.40

* Contribution rates shown in the "Total" column are for informational purposes only and are not used for funding purposes.

@ Includes effect of reinvested savings. # Excludes effect of reinvested savings.

^ Reflects the reduction of reinvested savings from \$300 million to \$100 million passed by the General Assembly.

DETAILED ACTUARIAL INFORMATION

TEACHERS' COMBINED SYSTEM

	<u>Actuarial Valuation Performed</u>		<u>% Change</u>
	<u>June 30, 2014</u> <u>(for FY 2016)</u>	<u>June 30, 2013</u> <u>(for FY 2015)</u>	
A. Demographic Information			
1. Active Number Count	104,470	104,028	0.4%
2. Retired Member and Beneficiary Count	68,929	66,390	3.8%
3. Vested Former Member Count	24,220	23,555	2.8%
4. Total Number Count	197,619	193,973	1.9%
5. Active Payroll	\$ 6,310,253,394	\$ 6,185,175,794	2.0%
6. Annual Benefits for Retired Members [#]	\$ 1,850,897,041	\$ 1,758,581,907	5.2%
B. Actuarial Results			
1. Present Value of Projected Benefits Attributable to:			
a. Retired and Disabled Members, and Beneficiaries	\$ 21,097,666,150	\$ 20,216,264,802	4.4%
b. Terminated Vested Members	749,488,602	688,353,793	8.9%
c. Active Members	23,126,386,072	22,759,260,163	1.6%
d. Total Present Value	\$ 44,973,540,824	\$ 43,663,878,758	3.0%
2. Less Present Value Total Future Normal Costs	8,090,954,167	8,133,437,982	-0.5%
3. Actuarial Accrued Liability (1d - 2)	\$ 36,882,586,657	\$ 35,530,440,776	3.8%
4. Less Actuarial Value of Assets	26,067,576,669	23,845,618,271	9.3%
5. Unfunded Actuarial Accrued Liability (UAAL) (3 - 4)	\$ 10,815,009,988	\$ 11,684,822,505	-7.4%
6. Funded Ratio	70.68%	67.11%	
7. Amortization Payments	\$ 714,900,534	\$ 754,156,433	-5.2%
8. Employer Normal Cost	\$ 334,069,863	\$ 360,879,030	-7.4%
9. Total Projected Payroll	\$ 6,524,802,009	\$ 6,398,564,359	2.0%
10. Total Normal Cost Rate	12.11%	12.62%	
11. Employee Contribution Rate	6.99%	6.98%	
12. Employers' [@] Normal Cost Rate	5.12%	5.64%	
13. UAAL Amortization Rate*	11.03%	11.78%	
14. Total Actuarial Employer Contribution Rate	16.15%	17.42%	
C. Corridor Results			
15. Prior Year Corridor Rate	15.47%	14.71%	
16. 36% of Difference between Preliminary Funding Rate and Prior year Corridor Rate (14 - 15) x 36%	0.24%	0.76%	
17. Employer Corridor Contribution Rate	15.71%	15.47%	
18. Estimated Employer Rate after Reinvestment of Savings [^]	17.27%	16.53%	

[#] Retiree benefit amounts include the cost-of-living-adjustment granted July 1, 2014 and July 1, 2013, respectively.

[@] Employers include the State and local Boards of Education.

^{*} Includes the effects of the two-year lag between the valuation date and the contribution period.

[^] FY 2015 Employer Rate was 18.64% before the reduction of reinvested savings from \$300 million to \$100 million.

DETAILED ACTUARIAL INFORMATION

EMPLOYEES' COMBINED SYSTEM (STATE)

	<u>Actuarial Valuation Performed</u>		<u>% Change</u>
	<u>June 30, 2014</u> <u>(for FY 2016)</u>	<u>June 30, 2013</u> <u>(for FY 2015)</u>	
A. Demographic Information			
1. Active Number Count	60,151	60,129	0.0%
2. Retired Member and Beneficiary Count	53,457	51,798	3.2%
3. Vested Former Member Count	20,914	21,078	-0.8%
4. Total Number Count	<u>134,522</u>	<u>133,005</u>	1.1%
5. Active Payroll	\$ 3,177,701,403	\$ 3,026,068,623	5.0%
6. Annual Benefits for Retired Members [#]	\$ 895,790,605	\$ 851,247,252	5.2%
B. Actuarial Results			
1. Present Value of Projected Benefits Attributable to:			
a. Retired and Disabled Members, and Beneficiaries	\$ 10,064,688,318	\$ 9,638,752,678	4.4%
b. Terminated Vested Members	656,509,829	630,414,273	4.1%
c. Active Members	<u>9,764,720,906</u>	<u>9,367,289,759</u>	4.2%
d. Total Present Value	\$ 20,485,919,053	\$ 19,636,456,710	4.3%
2. Less Present Value Total Future Normal Costs	<u>2,662,911,730</u>	<u>2,621,181,598</u>	1.6%
3. Actuarial Accrued Liability (1d - 2)	\$ 17,823,007,323	\$ 17,015,275,112	4.7%
4. Less Actuarial Value of Assets	<u>11,039,950,378</u>	<u>10,149,146,082</u>	8.8%
5. Unfunded Actuarial Accrued Liability (UAAL) (3 - 4)	\$ 6,783,056,945	\$ 6,866,129,030	-1.2%
a. Less Special Liability Payments**	<u>32,308,798</u>	<u>35,825,553</u>	-9.8%
b. State Portion of UAAL (5 - 6)	6,750,748,147	6,830,303,477	-1.2%
6. Funded Ratio	61.94%	59.65%	
7. Amortization Payments	\$ 446,242,163	\$ 440,838,302	1.2%
8. Employer Normal Cost	\$ 139,590,898	\$ 146,812,285	-4.9%
9. Total Projected Payroll	\$ 3,231,270,793	\$ 3,077,825,687	5.0%
10. Total Normal Cost Rate	11.04%	11.49%	
11. Employee Contribution Rate	<u>6.72%</u>	<u>6.72%</u>	
12. Employer Normal Cost Rate	4.32%	4.77%	
13. UAAL Amortization Rate*	13.57%	14.55%	
14. Total Employer Contribution Rate	17.89%	19.32%	
C. Corridor Results			
15. Prior Year Corridor Rate	15.53%	14.05%	
16. 36% of Difference between Preliminary Funding Rate and Prior year Corridor Rate (14 - 15) x 36%	<u>0.85%</u>	<u>1.48%</u>	
17. Employer Corridor Contribution Rate	16.38%	15.53%	
18. Estimated Employer Rate after Reinvestment of Savings [^]	17.70%	16.45%	

** For Municipalities that withdrew prior to 1996, and thus are part of the State pool.

* Includes the effects of the two-year lag between the valuation date and the contribution period.

Retiree benefit amounts include the cost-of-living-adjustment granted July 1, 2014 and July 1, 2013, respectively.

^ FY 2015 Employer Rate was 18.30% before the reduction of reinvested savings from \$300 million to \$100 million.

SPECIAL LIABILITY PAYMENTS

EMPLOYEES' COMBINED SYSTEM (STATE)

Schedule of Special Payments as of June 30, 2014 for December 2015 Billing
(Unless noted, amounts are amortized over 25 years with payments increasing 5% per year)

LOC Number	Municipal Corporation	Outstanding Balance as of 6/30/2014*	December 2015 Payment	Last Payment Year
7012	Caroline County Roads Board	\$ 129,049	\$ 26,620 **	2019
7716	Harford County Liquor Board	50,281	10,372 **	2019
8006	Montgomery County Public Library	18,199	3,754 **	2019
8028	Interstate Comm. on Potomac River Basin	21,762	4,489 **	2019
8031	Bethesda Fire Department	10,583	2,183 **	2019
8032	Chevy Chase Fire Department	21,670	4,470 **	2019
8712	Wicomico County Roads Board	22,358	4,612 **	2019
6529	Health Systems Agency of Western MD	204,030	39,392	2019
6611	Anne Arundel County Government	10,085,012	1,947,108	2019
6735	Lexington Market Authority	409,911	79,141	2019
6740	Univ of MD Medical Systems Corp	2,898,741	693,629 ***	2019
8002	Montgomery County Board of Education	3,054,907	589,809	2019
8011	Montgomery County Government	6,786,373	1,310,241	2019
8026	MD Nat. Capital Parks and Planning Comm.	2,286,592	441,471	2019
8128	Washington Suburban Sanitary Commission	4,699,600	907,349	2019
8325	St. Mary's Nursing Home	537,521	103,779	2019
8611	Washington County Commission	399,881	77,205	2019
8612	Washington County Roads Board	322,677	62,299	2019
8614	Washington County License Commission	2,424	468	2019
8626	Washington County Sanitary District	97,395	18,804	2019
8726	Wicomico Co. Dept. Recreation & Parks	249,832	48,235	2019
	TOTAL	\$ 32,308,798	\$ 6,375,430	

* *The outstanding balance is based on the 7.65% valuation interest rate in order to determine what portion of the total unfunded liability is attributable to the State liability and the special payment liability. The special payment liability is based on the present value of the contributions based on the payment schedule established at entry or withdrawal discounted at the current investment return assumption. Actual payoff amounts will be based on the interest rate in effect when the balance was first established.*

** *Level dollar payments or credits.*

*** *Dollar payments decrease each year.*

DETAILED ACTUARIAL INFORMATION

STATE POLICE

	<u>Actuarial Valuation Performed</u>		
	<u>June 30, 2014</u> <u>(for FY 2016)</u>	<u>June 30, 2013</u> <u>(for FY 2015)</u>	<u>% Change</u>
A. Demographic Information			
1. Active Number Count	1,351	1,320	2.3%
2. Retired Member and Beneficiary Count	2,468	2,428	1.6%
3. Vested Former Member Count	82	84	-2.4%
4. Total Number Count	3,901	3,832	1.8%
5. Active Payroll	\$ 85,660,006	\$ 79,848,029	7.3%
6. Annual Benefits for Retired Members [#]	\$ 113,133,192	\$ 109,850,900	3.0%
B. Actuarial Results			
1. Present Value of Projected Benefits Attributable to:			
a. Retired and Disabled Members, and Beneficiaries	\$ 1,595,644,082	\$ 1,532,406,924	4.1%
b. Terminated Vested Members	11,189,780	10,990,724	1.8%
c. Active Members	563,376,029	526,042,950	7.1%
d. Total Present Value	\$ 2,170,209,891	\$ 2,069,440,598	4.9%
2. Less Present Value Total Future Normal Costs	203,637,469	186,939,247	8.9%
3. Actuarial Accrued Liability (1d – 2)	\$ 1,966,572,422	\$ 1,882,501,351	4.5%
4. Less Actuarial Value of Assets	1,241,758,473	1,164,217,327	6.7%
5. Unfunded Actuarial Accrued Liability (UAAL) (3 - 4)	\$ 724,813,949	\$ 718,284,024	0.9%
6. Funded Ratio	63.14%	61.84%	
7. Amortization Payments	\$ 47,912,104	\$ 46,359,157	3.3%
8. Employer Normal Cost	\$ 22,263,796	\$ 20,530,830	8.4%
9. Total Projected Payroll	\$ 87,104,054	\$ 81,213,728	7.3%
10. Total Normal Cost Rate	33.56%	33.28%	
11. Employee Contribution Rate	8.00%	8.00%	
12. Employer Normal Cost Rate	25.56%	25.28%	
13. UAAL Amortization Rate*	53.35%	57.78%	
14. Total Employer Contribution Rate	78.91%	83.06%	
15. Estimated Employer Rate after Reinvestment of Savings [^]	81.24%	84.73%	

* Includes the effects of the two-year lag between the valuation date and the contribution period.

[#] Retiree benefit amounts include the cost-of-living-adjustment granted July 1, 2014 and July 1, 2013, respectively.

[^] FY 2015 Employer Rate was 88.06% before the reduction of reinvested savings from \$300 million to \$100 million.

DETAILED ACTUARIAL INFORMATION

JUDGES

	<u>Actuarial Valuation Performed</u>		
	<u>June 30, 2014</u> <u>(for FY 2016)</u>	<u>June 30, 2013</u> <u>(for FY 2015)</u>	<u>% Change</u>
A. Demographic Information			
1. Active Number Count	301	288	4.5%
2. Retired Member and Beneficiary Count	395	378	4.5%
3. Vested Former Member Count	8	10	-20.0%
4. Total Number Count	<u>704</u>	<u>676</u>	4.1%
5. Active Payroll	\$ 42,313,395	\$ 40,000,518	5.8%
6. Annual Benefits for Retired Members [#]	\$ 28,712,353	\$ 26,520,948	8.3%
B. Actuarial Results			
1. Present Value of Projected Benefits Attributable to:			
a. Retired and Disabled Members, and Beneficiaries	\$ 308,116,460	\$ 284,123,388	8.4%
b. Terminated Vested Members	2,195,310	2,353,109	-6.7%
c. Active Members	<u>245,448,006</u>	<u>237,913,106</u>	3.2%
d. Total Present Value	\$ 555,759,776	\$ 524,389,603	6.0%
2. Less Present Value Total Future Normal Costs	<u>96,312,554</u>	<u>85,553,226</u>	12.6%
3. Actuarial Accrued Liability (1d – 2)	\$ 459,447,222	\$ 438,836,377	4.7%
4. Less Actuarial Value of Assets	<u>389,071,868</u>	<u>354,899,502</u>	9.6%
5. Unfunded Actuarial Accrued Liability (UAAL) (3 - 4)	\$ 70,375,354	\$ 83,936,875	-16.2%
6. Funded Ratio	84.68%	80.87%	
7. Amortization Payments	\$ 4,651,996	\$ 5,417,415	-14.1%
8. Employer Normal Cost	\$ 13,024,185	\$ 12,176,924	7.0%
9. Total Projected Payroll	\$ 43,026,710	\$ 40,684,676	5.8%
10. Total Normal Cost Rate	36.55%	36.18%	
11. Employee Contribution Rate	<u>6.28%</u>	<u>6.25%</u>	
12. Employer Normal Cost Rate	30.27%	29.93%	
13. UAAL Amortization Rate*	10.43%	12.81%	
14. Total Employer Contribution Rate	40.70%	42.74%	

*Includes the effects of the two-year lag between the valuation date and the contribution period.

[#]Retiree benefit amounts include the cost-of-living-adjustment granted July 1, 2014 and July 1, 2013, respectively.

DETAILED ACTUARIAL INFORMATION

LEOPS (STATE)

	<u>Actuarial Valuation Performed</u>		
	<u>June 30, 2014</u> <u>(for FY 2016)</u>	<u>June 30, 2013</u> <u>(for FY 2015)</u>	<u>% Change</u>
A. Demographic Information			
1. Active Number Count	1,543	1,459	5.8%
2. Retired Member and Beneficiary Count	1,309	1,246	5.1%
3. Vested Former Member Count	192	172	11.6%
4. Total Number Count	<u>3,044</u>	<u>2,877</u>	5.8%
5. Active Payroll	\$ 93,026,889	\$ 84,734,305	9.8%
6. Annual Benefits for Retired Members [#]	\$ 42,974,947	\$ 40,433,959	6.3%
B. Actuarial Results			
1. Present Value of Projected Benefits Attributable to:			
a. Retired and Disabled Members, and Beneficiaries	\$ 619,789,532	\$ 579,516,790	6.9%
b. Terminated Vested Members	17,405,777	15,799,129	10.2%
c. Active Members	402,003,719	373,489,669	7.6%
d. Total Present Value	<u>\$ 1,039,199,028</u>	<u>\$ 968,805,588</u>	7.3%
2. Less Present Value Total Future Normal Costs	<u>143,509,914</u>	<u>128,408,389</u>	11.8%
3. Actuarial Accrued Liability (1d – 2)	\$ 895,689,114	\$ 840,397,199	6.6%
4. Less Actuarial Value of Assets	<u>538,907,415</u>	<u>478,028,132</u>	12.7%
5. Unfunded Actuarial Accrued Liability (UAAL) (3 - 4)	\$ 356,781,699	\$ 362,369,067	-1.5%
6. Funded Ratio	60.17%	56.88%	
7. Amortization Payments	\$ 23,584,206	\$ 23,387,857	0.8%
8. Employer Normal Cost	\$ 14,785,218	\$ 13,142,996	12.5%
9. Total Projected Payroll	\$ 94,595,128	\$ 86,183,578	9.8%
10. Total Normal Cost Rate	22.63%	22.25%	
11. Employee Contribution Rate	<u>7.00%</u>	<u>7.00%</u>	
12. Employer Normal Cost Rate	15.63%	15.25%	
13. UAAL Amortization Rate*	24.14%	26.12%	
14. Total Employer Contribution Rate	39.77%	41.37%	
15. Estimated Employer Rate after Reinvestment of Savings [^]	42.14%	43.10%	

*Includes the effects of the two-year lag between the valuation date and the contribution period.

[#]Retiree benefit amounts include the cost-of-living-adjustment granted July 1, 2014 and July 1, 2013, respectively.

[^]FY 2015 Employer Rate was 46.56% before the reduction of reinvested savings from \$300 million to \$100 million.

SECTION III
ASSETS

ASSETS

Pension plan assets play a key role in the financial operation of the plan and in the decisions the Trustees may make with respect to future deployment of those assets. The level of assets, the allocation of assets among asset classes, and the methodology used to measure assets will likely impact benefit levels, negotiated contributions, and the ultimate security of participants' benefits.

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

- **Disclosure** of plan assets at June 30, 2014 and June 30, 2013;
- Statement of the **changes** in market values during the year;
- Development of the Actuarial Value of Assets; and
- An assessment of **investment performance**.

DISCLOSURE

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

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

**DISCLOSURE OF PLAN MARKET VALUE OF ASSETS
(STATE AND MUNICIPAL)
(IN THOUSANDS)**

	June 30,	
	2014	2013
Assets:		
Cash & Cash Equivalents	\$ 2,054,181	\$ 2,085,086
<i>Receivables</i>		
Contributions		
Employers	19,971	23,126
Employers - Long Term	34,806	38,040
Members	11,003	11,016
Accrued Investment Income	57,800	195,152
Investment Sales Proceeds	725,188	1,187,822
Total Receivables	848,768	1,455,156
<i>Investments</i>		
U.S. Government Obligations	3,422,824	3,556,575
Domestic Corporate Obligations	3,803,260	2,771,786
International Obligations	1,870,144	1,603,739
Domestic Stocks	8,344,356	8,255,430
International Stocks	8,057,309	7,827,082
Mortgages & Mortgage Related Securities	1,926,733	2,079,512
Real Estate	-	-
Alternative Investments	16,358,754	12,227,172
Collateral For Loaned Securities	2,490,916	2,876,448
Total Investments	46,274,296	41,197,744
Total Assets	49,177,245	44,737,986
Liabilities:		
Accounts Payable & Accrued Expenses	60,964	57,112
Investment Commitments Payable	1,285,377	1,438,653
Obligation For Collateral For Loaned Securities	2,490,916	2,876,448
Other Liabilities	-	2,556
Total Liabilities	3,837,257	4,374,769
Net Assets Held in Trust for Pension Benefits	\$ 45,339,988	\$ 40,363,217

CHANGES IN MARKET VALUES (STATE AND MUNICIPAL)

	Teachers	Employees (State)	State Police	Judges	LEOPS (State)	Total State
State Sponsored Plans						
Market Value of Assets as of 6/30/2013	\$ 24,469,625,323	\$ 10,413,059,081	\$ 1,188,562,609	\$ 362,332,458	\$ 488,317,833	\$ 36,921,897,304
Employer Contributions	1,000,192,293	468,714,277	56,243,748	21,109,044	46,116,747	1,592,376,109
Member Contributions	441,559,511	209,019,729	6,591,667	2,566,468	5,862,518	665,599,893
Investment Returns	3,458,511,883	1,473,332,226	165,097,098	50,172,862	68,212,749	5,215,326,818
Disbursements from the Trust	(1,878,800,624)	(917,143,584)	(109,963,978)	(27,298,019)	(42,936,866)	(2,976,143,071)
Net Transfers	(33,426)	(207,656)	16,425	-	224,657	-
Market Value of Assets as of 6/30/2014	\$ 27,491,054,960	\$ 11,646,774,073	\$ 1,306,547,569	\$ 408,882,813	\$ 565,797,638	\$ 41,419,057,053

	Employees (Municipal)	LEOPS (Municipal)	CORS (Municipal)	Total Municipal
Municipal Plans				
Market Value of Assets as of 6/30/2013	\$ 3,256,541,265	\$ 167,504,675	\$ 17,273,999	\$ 3,441,319,939
Employer Contributions	123,033,000	17,806,000	437,189	141,276,189
Member Contributions	57,886,000	4,007,000	233,344	62,126,344
Investment Returns	464,506,281	23,955,717	2,479,158	490,941,156
Disbursements from the Trust	(203,572,000)	(10,582,000)	(577,885)	(214,731,885)
Net Transfers	-	-	-	-
Market Value of Assets as of 6/30/2014	\$ 3,698,394,546	\$ 202,691,392	\$ 19,845,805	\$ 3,920,931,743

	Teachers	Employees (State & Municipal)	State Police	Judges	LEOPS (State & Municipal)	CORS (Municipal)	Total State & Municipal
State and Municipal Sponsored Plans							
Market Value of Assets as of 6/30/2013	\$ 24,469,625,323	\$ 13,669,600,346	\$ 1,188,562,609	\$ 362,332,458	\$ 655,822,508	\$ 17,273,999	\$ 40,363,217,243
Employer Contributions	1,000,192,293	591,747,277	56,243,748	21,109,044	63,922,747	437,189	1,733,652,298
Member Contributions	441,559,511	266,905,729	6,591,667	2,566,468	9,869,518	233,344	727,726,237
Investment Returns	3,458,511,883	1,937,838,507	165,097,098	50,172,862	92,168,466	2,479,158	5,706,267,974
Disbursements from the Trust	(1,878,800,624)	(1,120,715,584)	(109,963,978)	(27,298,019)	(53,518,866)	(577,885)	(3,190,874,956)
Net Transfers	(33,426)	(207,656)	16,425	-	224,657	-	-
Market Value of Assets as of 6/30/2014	\$ 27,491,054,960	\$ 15,345,168,619	\$ 1,306,547,569	\$ 408,882,813	\$ 768,489,030	\$ 19,845,805	\$ 45,339,988,796

SUMMARY OF THE DEVELOPMENT OF THE ACTUARIAL VALUE OF ASSETS

JUNE 30, 2014

	Total State	Total Municipal	Total MSRPS
Beginning of Year:			
(1) Market Value of Assets	\$36,921,897,305	\$3,441,319,939	\$40,363,217,244
(2) Actuarial Value of Assets	35,991,909,314	3,359,060,039	39,350,969,353
End of Year:			
(3) Market Value of Assets	41,419,057,053	3,920,931,743	45,339,988,796
(4) Net Cash Flow with Adjustment	(718,167,069)	(11,329,352)	(729,496,421)
(5) Total Investment Income			
=(3)-(1)-(4)	\$ 5,215,326,817	\$ 490,941,156	\$ 5,706,267,973
(6) Projected Rate of Return	7.70%	7.70%	7.70%
(7) Projected Investment Income			
=(1)x(6)+([1+(6)] ^{.5} -1)x(4)	\$ 2,815,849,356	\$ 264,553,544	\$ 3,080,402,900
(8) Beginning of Year Asset Adjustment	0	0	0
(9) Investment Income in Excess of Projected Income	\$ 2,399,477,461	\$ 226,387,612	\$ 2,625,865,073
(10) Excess Investment Income Recognized			
This Year (5 year recognition)			
(10a) From This Year	479,895,493	45,277,522	525,173,015
(10b) From One Year Ago	180,934,609	16,983,489	197,918,098
(10c) From Two Years Ago	(510,957,970)	(46,972,266)	(557,930,236)
(10d) From Three Years Ago	701,322,392	63,123,989	764,446,381
(10e) From Four Years Ago	336,478,679	28,994,757	365,473,436
(10f) Total Recognized Investment Gain/(Loss)	1,187,673,203	107,407,491	1,295,080,694
(11) Change in Actuarial Value of Assets			
=(4)+(7)+(8)+(10f)	3,285,355,490	360,631,683	3,645,987,173
End of Year:			
(3) Market Value of Assets as of 6/30	41,419,057,053	3,920,931,743	45,339,988,796
(12) Preliminary Actuarial Value of Assets = (2)+(11)	39,277,264,804	3,719,691,722	42,996,956,526
(12a) Upper Collar Limit 120% x (3)	49,702,868,465	4,705,118,091	54,407,986,556
(12b) Lower Collar Limit 80% x (3)	33,135,245,641	3,136,745,395	36,271,991,036
(13) Adjustment to Remain within 20% Collar	0	0	0
(14) Final Actuarial Value of Assets as of 6/30	39,277,264,804	3,719,691,722	42,996,956,526
(15) Difference Between Market & Actuarial Values	2,141,792,249	201,240,021	2,343,032,270
(16) Actuarial Value Rate of Return	11.24%	11.09%	11.22%
(17) Market Value Rate of Return	14.26%	14.29%	14.27%
(18) Ratio of Actuarial Value to Market Value	95%	95%	95%

SUMMARY OF THE DEVELOPMENT OF THE ACTUARIAL VALUE OF ASSETS (STATE PORTION ONLY)

JUNE 30, 2014

	TCS	ECS	State Police	Judges	LEOPS	Total State
Beginning of Year:						
(1) Market Value of Assets	\$24,469,625,324	\$10,413,059,081	\$ 1,188,562,609	\$362,332,458	\$488,317,833	\$36,921,897,305
(2) Actuarial Value of Assets	23,845,618,271	10,149,146,082	1,164,217,327	354,899,502	478,028,132	35,991,909,314
End of Year:						
(3) Market Value of Assets	27,491,054,960	11,646,774,073	1,306,547,569	408,882,813	565,797,638	41,419,057,053
(4) Net Cash Flow with Adjustment	(437,082,246)	(239,617,234)	(47,112,138)	(3,622,507)	9,267,056	(718,167,069)
(5) Total Investment Income						
=(3)-(1)-(4)	\$ 3,458,511,882	\$1,473,332,226	\$ 165,097,098	\$ 50,172,862	\$ 68,212,749	\$ 5,215,326,817
(6) Projected Rate of Return	7.70%	7.70%	7.70%	7.70%	7.70%	7.70%
(7) Projected Investment Income						
=(1)x(6)+([1+(6)] ^{.5} -1)x(4)	\$ 1,867,645,514	\$ 792,751,347	\$ 89,739,137	\$ 27,762,719	\$ 37,950,639	\$ 2,815,849,356
(8) Beginning of Year Asset Adjustment	0	0	0	0	0	0
(9) Investment Income in Excess of Projected Income	\$ 1,590,866,368	\$ 680,580,879	\$ 75,357,961	\$ 22,410,143	\$ 30,262,110	\$ 2,399,477,461
(10) Excess Investment Income Recognized						
This Year (5 year recognition)						
(10a) From This Year	318,173,274	136,116,176	15,071,592	4,482,029	6,052,422	479,895,493
(10b) From One Year Ago	119,935,340	51,912,796	5,533,803	1,397,446	2,155,224	180,934,609
(10c) From Two Years Ago	(339,438,345)	(146,265,821)	(15,331,928)	(4,051,944)	(5,869,932)	(510,957,970)
(10d) From Three Years Ago	469,855,870	199,152,245	18,565,176	5,794,379	7,954,722	701,322,392
(10e) From Four Years Ago	222,868,991	96,754,787	11,075,504	2,410,244	3,369,152	336,478,679
(10f) Total Recognized Investment Gain/(Loss)	791,395,130	337,670,183	34,914,147	10,032,154	13,661,588	1,187,673,203
(11) Change in Actuarial Value of Assets						
=(4)+(7)+(8)+(10f)	2,221,958,398	890,804,296	77,541,146	34,172,366	60,879,283	3,285,355,490
End of Year:						
(3) Market Value of Assets as of 6/30	27,491,054,960	11,646,774,073	1,306,547,569	408,882,813	565,797,638	41,419,057,053
(12) Preliminary Actuarial Value of Assets = (2)+(11)	26,067,576,669	11,039,950,378	1,241,758,473	389,071,868	538,907,415	39,277,264,804
(12a) Upper Collar Limit 120% x (3)	32,989,265,952	13,976,128,888	1,567,857,083	490,659,376	678,957,166	49,702,868,465
(12b) Lower Collar Limit 80% x (3)	21,992,843,968	9,317,419,258	1,045,238,055	327,106,250	452,638,110	33,135,245,641
(13) Adjustment to Remain within 20% Collar	0	0	0	0	0	0
(14) Final Actuarial Value of Assets as of 6/30	26,067,576,669	11,039,950,378	1,241,758,473	389,071,868	538,907,415	39,277,264,804
(15) Difference Between Market & Actuarial Values	1,423,478,291	606,823,695	64,789,096	19,810,945	26,890,223	2,141,792,249
(16) Actuarial Value Rate of Return	11.25%	11.27%	10.93%	10.70%	10.69%	11.24%
(17) Market Value Rate of Return	14.26%	14.31%	14.17%	13.92%	13.84%	14.26%
(18) Ratio of Actuarial Value to Market Value	95%	95%	95%	95%	95%	95%

DEVELOPMENT OF THE ACTUARIAL VALUE OF ASSETS TEACHERS' COMBINED SYSTEM

	2013	2014	2015	2016	2017	2018
Beginning of Year:						
(1) Market Value of Assets	\$22,501,533,438	\$24,469,625,324				
(2) Actuarial Value of Assets	22,523,977,712	23,845,618,271				
End of Year:						
(3) Market Value of Assets	24,469,625,324	27,491,054,960				
(4) Net of Contributions and Disbursements	(361,699,322)	(437,082,246)				
(5) Total Investment Income						
=(3)-(1)-(4)	2,329,791,208	3,458,511,882				
(6) Projected Rate of Return	7.75%	7.70%				
(7) Projected Investment Income						
=(1)x(6)+([1+(6)] ^{.5-1})x(4)	1,730,114,510	1,867,645,514				
(8) Beginning of Year Asset Adjustment	0	0				
(9) Investment Income in						
Excess of Projected Income	599,676,698	1,590,866,368				
(10) Excess Investment Income Recognized						
This Year (5 year recognition)						
(10a) From This Year	119,935,340	318,173,274				
(10b) From One Year Ago	(339,438,345)	119,935,340	\$ 318,173,274			
(10c) From Two Years Ago	469,855,870	(339,438,345)	119,935,340	\$ 318,173,274		
(10d) From Three Years Ago	222,868,993	469,855,870	(339,438,345)	119,935,340	\$ 318,173,274	
(10e) From Four Years Ago	(519,996,487)	222,868,991	469,855,868	(339,438,345)	119,935,338	\$ 318,173,272
(10f) Total Recognized Investment Gain/(Loss)	(46,774,629)	791,395,130	568,526,137	98,670,269	438,108,612	318,173,272
(11) Change in Actuarial Value of Assets						
=(4)+(7)+(8)+(10f)	1,321,640,559	2,221,958,398				
End of Year:						
(3) Market Value of Assets	24,469,625,324	27,491,054,960				
(12) Preliminary Actuarial Value of Assets = (2)+(11)	23,845,618,271	26,067,576,669				
(12a) Upper Collar Limit 120% x (3)	29,363,550,389	32,989,265,952				
(12b) Lower Collar Limit 80% x (3)	19,575,700,259	21,992,843,968				
(13) Adjustment to Remain within 20% Collar	0	0				
(14) Final Actuarial Value of Assets as of 6/30	23,845,618,271	26,067,576,669				
(15) Difference Between Market & Actuarial Values	624,007,052	1,423,478,291				
(16) Actuarial Value Rate of Return	7.53%	11.25%				
(17) Market Value Rate of Return	10.44%	14.26%				
(18) Ratio of Actuarial Value to Market Value	97%	95%				

DEVELOPMENT OF THE ACTUARIAL VALUE OF ASSETS EMPLOYEES' COMBINED SYSTEM (STATE)

	2013	2014	2015	2016	2017	2018
Beginning of Year:						
(1) Market Value of Assets	\$9,638,646,493	\$10,413,059,081				
(2) Actuarial Value of Assets	9,664,964,253	10,149,146,082				
End of Year:						
(3) Market Value of Assets	10,413,059,081	11,646,774,073				
(4) Net of Contributions and Disbursements	(223,642,064)	(239,617,234)				
(5) Total Investment Income						
=(3)-(1)-(4)	998,054,652	1,473,332,226				
(6) Projected Rate of Return	7.75%	7.70%				
(7) Projected Investment Income						
=(1)x(6)+([1+(6)] ⁵ -1)x(4)	738,490,672	792,751,347				
(8) Beginning of Year Asset Adjustment	0	0				
(9) Investment Income in Excess of Projected Income	259,563,980	680,580,879				
(10) Excess Investment Income Recognized						
This Year (5 year recognition)						
(10a) From This Year	51,912,796	136,116,176				
(10b) From One Year Ago	(146,265,821)	51,912,796	\$ 136,116,176			
(10c) From Two Years Ago	199,152,245	(146,265,821)	51,912,796	\$ 136,116,176		
(10d) From Three Years Ago	96,754,785	199,152,245	(146,265,821)	51,912,796	\$ 136,116,176	
(10e) From Four Years Ago	(232,220,784)	96,754,787	199,152,244	(146,265,819)	51,912,796	\$ 136,116,175
(10f) Total Recognized Investment Gain/(Loss)	(30,666,779)	337,670,183	240,915,395	41,763,153	188,028,972	136,116,175
(11) Change in Actuarial Value of Assets						
=(4)+(7)+(8)+(10f)	484,181,829	890,804,296				
End of Year:						
(3) Market Value of Assets	10,413,059,081	11,646,774,073				
(12) Preliminary Actuarial Value of Assets = (2)+(11)	10,149,146,082	11,039,950,378				
(12a) Upper Collar Limit 120% x (3)	12,495,670,897	13,976,128,888				
(12b) Lower Collar Limit 80% x (3)	8,330,447,265	9,317,419,258				
(13) Adjustment to Remain within 20% Collar	0	0				
(14) Final Actuarial Value of Assets as of 6/30	10,149,146,082	11,039,950,378				
(15) Difference Between Market & Actuarial Values	263,912,999	606,823,695				
(16) Actuarial Value Rate of Return	7.41%	11.27%				
(17) Market Value Rate of Return	10.48%	14.31%				
(18) Ratio of Actuarial Value to Market Value	97%	95%				

DEVELOPMENT OF THE ACTUARIAL VALUE OF ASSETS STATE POLICE

	2013	2014	2015	2016	2017	2018
Beginning of Year:						
(1) Market Value of Assets	\$ 1,127,384,096	\$ 1,188,562,609				
(2) Actuarial Value of Assets	1,134,510,589	1,164,217,327				
End of Year:						
(3) Market Value of Assets	1,188,562,609	1,306,547,569				
(4) Net of Contributions and Disbursements	(51,889,566)	(47,112,138)				
(5) Total Investment Income						
=(3)-(1)-(4)	113,068,079	165,097,098				
(6) Projected Rate of Return	7.75%	7.70%				
(7) Projected Investment Income						
=(1)×(6)+[(1+(6)) ^{.5-1} ×(4)]	85,399,064	89,739,137				
(8) Beginning of Year Asset Adjustment	0	0				
(9) Investment Income in Excess of Projected Income	27,669,015	75,357,961				
(10) Excess Investment Income Recognized						
This Year (5 year recognition)						
(10a) From This Year	5,533,803	15,071,592				
(10b) From One Year Ago	(15,331,928)	5,533,803	\$ 15,071,592			
(10c) From Two Years Ago	18,565,176	(15,331,928)	5,533,803	\$ 15,071,592		
(10d) From Three Years Ago	11,075,505	18,565,176	(15,331,928)	5,533,803	\$ 15,071,592	
(10e) From Four Years Ago	(23,645,316)	11,075,504	18,565,174	(15,331,928)	5,533,803	\$ 15,071,593
(10f) Total Recognized Investment Gain/(Loss)	(3,802,760)	34,914,147	23,838,641	5,273,467	20,605,395	15,071,593
(11) Change in Actuarial Value of Assets						
=(4)+(7)+(8)+(10f)	29,706,738	77,541,146				
End of Year:						
(3) Market Value of Assets	1,188,562,609	1,306,547,569				
(12) Preliminary Actuarial Value of Assets = (2)+(11)	1,164,217,327	1,241,758,473				
(12a) Upper Collar Limit 120% x (3)	1,426,275,131	1,567,857,083				
(12b) Lower Collar Limit 80% x (3)	950,850,087	1,045,238,055				
(13) Adjustment to Remain within 20% Collar	0	0				
(14) Final Actuarial Value of Assets as of 6/30	1,164,217,327	1,241,758,473				
(15) Difference Between Market & Actuarial Values	24,345,282	64,789,096				
(16) Actuarial Value Rate of Return	7.36%	10.93%				
(17) Market Value Rate of Return	10.27%	14.17%				
(18) Ratio of Actuarial Value to Market Value	98%	95%				

DEVELOPMENT OF THE ACTUARIAL VALUE OF ASSETS JUDGES

	2013	2014	2015	2016	2017	2018
Beginning of Year:						
(1) Market Value of Assets	\$329,322,119	\$362,332,458				
(2) Actuarial Value of Assets	330,153,704	354,899,502				
End of Year:						
(3) Market Value of Assets	362,332,458	408,882,813				
(4) Net of Contributions and Disbursements	482,304	(3,622,507)				
(5) Total Investment Income						
=(3)-(1)-(4)	32,528,035	50,172,862				
(6) Projected Rate of Return	7.75%	7.70%				
(7) Projected Investment Income						
=(1)x(6)+[(1+(6)) ⁵ -1]x(4)	25,540,805	27,762,719				
(8) Beginning of Year Asset Adjustment	0	0				
(9) Investment Income in Excess of Projected Income	6,987,230	22,410,143				
(10) Excess Investment Income Recognized						
This Year (5 year recognition)						
(10a) From This Year	1,397,446	4,482,029				
(10b) From One Year Ago	(4,051,944)	1,397,446	\$ 4,482,029			
(10c) From Two Years Ago	5,794,379	(4,051,944)	1,397,446	\$ 4,482,029		
(10d) From Three Years Ago	2,410,242	5,794,379	(4,051,944)	1,397,446	\$ 4,482,029	
(10e) From Four Years Ago	(6,827,434)	2,410,244	5,794,379	(4,051,942)	1,397,446	\$ 4,482,027
(10f) Total Recognized Investment Gain/(Loss)	(1,277,311)	10,032,154	7,621,910	1,827,533	5,879,475	4,482,027
(11) Change in Actuarial Value of Assets						
=(4)+(7)+(8)+(10f)	24,745,798	34,172,366				
End of Year:						
(3) Market Value of Assets	362,332,458	408,882,813				
(12) Preliminary Actuarial Value of Assets = (2)+(11)	354,899,502	389,071,868				
(12a) Upper Collar Limit 120% x (3)	434,798,950	490,659,376				
(12b) Lower Collar Limit 80% x (3)	289,865,966	327,106,250				
(13) Adjustment to Remain within 20% Collar	0	0				
(14) Final Actuarial Value of Assets as of 6/30	354,899,502	389,071,868				
(15) Difference Between Market & Actuarial Values	7,432,956	19,810,945				
(16) Actuarial Value Rate of Return	7.34%	10.70%				
(17) Market Value Rate of Return	9.87%	13.92%				
(18) Ratio of Actuarial Value to Market Value	98%	95%				

DEVELOPMENT OF THE ACTUARIAL VALUE OF ASSETS LEOPS (STATE)

	2013	2014	2015	2016	2017	2018
Beginning of Year:						
(1) Market Value of Assets	\$434,547,280	\$488,317,833				
(2) Actuarial Value of Assets	435,857,803	478,028,132				
End of Year:						
(3) Market Value of Assets	488,317,833	565,797,638				
(4) Net of Contributions and Disbursements	8,975,699	9,267,056				
(5) Total Investment Income						
=(3)-(1)-(4)	44,794,854	68,212,749				
(6) Projected Rate of Return	7.75%	7.70%				
(7) Projected Investment Income						
=(1)x(6)+[(1+(6))^5-1]x(4)	34,018,733	37,950,639				
(8) Beginning of Year Asset Adjustment	0	0				
(9) Investment Income in Excess of Projected Income	10,776,121	30,262,110				
(10) Excess Investment Income Recognized						
This Year (5 year recognition)						
(10a) From This Year	2,155,224	6,052,422				
(10b) From One Year Ago	(5,869,932)	2,155,224	\$ 6,052,422			
(10c) From Two Years Ago	7,954,722	(5,869,932)	2,155,224	\$ 6,052,422		
(10d) From Three Years Ago	3,369,150	7,954,722	(5,869,932)	2,155,224	\$ 6,052,422	
(10e) From Four Years Ago	(8,433,267)	3,369,152	7,954,724	(5,869,930)	2,155,225	\$ 6,052,422
(10f) Total Recognized Investment Gain/(Loss)	(824,103)	13,661,588	10,292,438	2,337,716	8,207,647	6,052,422
(11) Change in Actuarial Value of Assets						
=(4)+(7)+(8)+(10f)	42,170,329	60,879,283				
End of Year:						
(3) Market Value of Assets	488,317,833	565,797,638				
(12) Preliminary Actuarial Value of Assets = (2)+(11)	478,028,132	538,907,415				
(12a) Upper Collar Limit 120% x (3)	585,981,400	678,957,166				
(12b) Lower Collar Limit 80% x (3)	390,654,266	452,638,110				
(13) Adjustment to Remain within 20% Collar	0	0				
(14) Final Actuarial Value of Assets as of 6/30	478,028,132	538,907,415				
(15) Difference Between Market & Actuarial Values	10,289,701	26,890,223				
(16) Actuarial Value Rate of Return	7.54%	10.69%				
(17) Market Value Rate of Return	10.20%	13.84%				
(18) Ratio of Actuarial Value to Market Value	98%	95%				

SECTION IV

ACCOUNTING STATEMENT INFORMATION

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

GASB STATEMENT NO. 25

Statement No. 25 of the Governmental Standards Board (GASB) establishes standards for disclosure of pension information by public employee retirement systems (PERS) and governmental employers in notes to financial statements and supplementary information for fiscal years prior to fiscal year ending June 30, 2014 for Systems with June 30 fiscal years and June 30, 2015 for employers with June 30 fiscal years.

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

The actuarial accrued liability (GASB 25) is determined assuming that the plan is ongoing and participants continue to terminate employment, retire, etc., in accordance with the actuarial assumptions. Liabilities are discounted at the assumed valuation interest rate of 7.65% per annum as of June 30, 2014.

GASB Statement No. 25 requires the actuarial accrued liability be compared with the actuarial value of assets for funding purposes.

GASB Statement No. 67 and No. 68 are new accounting standards which are replacing Statement No. 25 and 27. GASB Statement No. 67 is first effective for fiscal year 2014 and GASB Statement No. 68 is first effective for fiscal year 2015.

The significant provisions of GASB Statement No. 67 and 68 include:

1. Recognizing the entire Net Pension Liability (similar to the unfunded liability) on the balance sheet (compared with the Net Pension Obligation which is currently shown as a footnote).
2. Possible use of a blended discount rate to calculate liabilities for accounting purposes (to the extent that current and future assets attributable to current members are not sufficient to pay all current members' benefit payments).
3. Use of market value of assets to calculate the Net Pension Liability.
4. Elimination of the Annual Required Contribution (ARC) and having a pension expense that requires a much shorter amortization period than 30 years.

A separate GASB Statement No. 67 report has been issued outside of this report. This report contains GASB Statement No. 27 reporting information for fiscal year 2014 and historical GASB Statement No. 25 and No. 27 reporting information for prior fiscal years.

ACCOUNTING STATEMENT INFORMATION – GASB STATEMENT NO. 25
AS OF JUNE 30, 2014
(STATE AND MUNICIPAL)

	Teachers’ Combined System	Employees’ Combined System	State Police	Judges	LEOPS	CORS	Total MSRPS
1. Actuarial Accrued Liability:							
a. Employee Contributions	\$ 3,218,385,260	\$ 1,977,563,003	\$ 76,544,895	\$ 27,606,241	\$ 68,154,516	\$ 1,552,872	\$ 5,369,806,786
b. Retirees, Term. Vesteds & Inactives	21,847,154,752	13,090,729,409	1,606,833,862	310,311,770	813,585,044	10,662,708	37,679,277,545
c. Active Members	11,817,046,645	6,991,472,269	283,193,666	121,529,211	340,397,727	7,469,725	19,561,109,243
2. Total Actuarial Accrued Liability (1(a) + 1(b) + 1(c))	\$36,882,586,657	\$22,059,764,681	\$1,966,572,422	\$459,447,222	\$1,222,137,287	\$19,685,305	\$62,610,193,574
3. Actuarial Value of Assets	<u>26,067,576,669</u>	<u>14,547,389,616</u>	<u>1,241,758,473</u>	<u>389,071,868</u>	<u>732,333,113</u>	<u>18,826,786</u>	<u>42,996,956,525</u>
4. Unfunded Actuarial Accrued Liability: (2-3)	<u>\$10,815,009,988</u>	<u>\$ 7,512,375,065</u>	<u>\$ 724,813,949</u>	<u>\$70,375,354</u>	<u>\$489,804,174</u>	<u>\$ 858,519</u>	<u>\$19,613,237,049</u>
5. Funded Ratio	70.68%	65.95%	63.14%	84.68%	59.92%	95.64%	68.67%
6. Annual Payroll	\$ 6,310,253,394	\$ 4,214,980,653	\$ 85,660,006	\$ 42,313,395	\$145,672,538	\$ 4,752,059	\$10,803,632,045
7. UAAL as % of Payroll	171%	178%	846%	166%	336%	18%	182%

SCHEDULE OF FUNDING PROGRESS
(STATE AND MUNICIPAL)
(IN THOUSANDS)

Actuarial Valuation Date June 30,	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b - a)	Funded Ratio (a / b)	Payroll (c)	UAAL as a Percentage of Payroll [(b - a) / c]
2001	\$ 31,914,778	\$ 32,469,942	\$ 555,164	98.29%	\$ 7,255,036	8%
2002	32,323,263	34,131,284	1,808,021	94.70%	7,867,794	23%
2003	32,631,465	34,974,601	2,343,136	93.30%	8,134,419	29%
2004	33,484,657	36,325,704	2,841,047	92.18%	8,069,481	35%
2005	34,519,500	39,133,450	4,613,949	88.21%	8,603,761	54%
2006	35,795,025	43,243,492	7,448,467	82.78%	9,287,576	80%
2007	37,886,936	47,144,354	9,257,418	80.36%	9,971,012	93%
2008	39,504,284	50,244,047	10,739,763	78.62%	10,542,806	102%
2009	34,284,569	52,729,171	18,444,603	65.02%	10,714,241	172%
2010	34,688,346	54,085,081	19,396,735	64.14%	10,657,944	182%
2011	36,177,656	55,917,543	19,739,887	64.70%	10,478,800	188%
2012	37,248,401	57,869,145	20,620,745	64.37%	10,336,537	199%
2013	39,350,969	60,060,091	20,709,122	65.52%	10,477,544	198%
2014	42,996,957	62,610,194	19,613,237	68.67%	10,803,632	182%

SCHEDULE OF FUNDING PROGRESS
(IN THOUSANDS)

TEACHERS' COMBINED SYSTEM

Actuarial Valuation Date June 30,	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b - a)	Funded Ratio (a / b)	Payroll (c)	UAAL as a Percentage of Payroll [(b - a) / c]
2001	\$ 19,182,749	\$ 20,126,943	\$ 944,194	95.31%	\$ 3,994,201	24%
2002	19,424,000	21,117,047	1,693,047	91.98%	4,323,054	39%
2003	19,626,676	21,152,063	1,525,387	92.79%	4,522,202	34%
2004	20,155,415	21,724,178	1,568,764	92.78%	4,543,444	35%
2005	20,801,529	23,305,198	2,503,669	89.26%	4,867,396	51%
2006	21,575,451	25,617,484	4,042,033	84.22%	5,269,185	77%
2007	22,814,760	28,122,575	5,307,815	81.13%	5,709,765	93%
2008	23,784,404	29,868,705	6,084,301	79.63%	6,117,590	99%
2009	20,605,618	31,172,917	10,567,299	66.10%	6,194,734	171%
2010	20,908,149	31,963,421	11,055,272	65.41%	6,254,648	177%
2011	21,868,875	32,985,145	11,116,270	66.30%	6,196,976	179%
2012	22,523,978	34,252,715	11,728,737	65.76%	6,080,603	193%
2013	23,845,618	35,530,441	11,684,823	67.11%	6,185,176	189%
2014	26,067,577	36,882,587	10,815,010	70.68%	6,310,253	171%

SCHEDULE OF FUNDING PROGRESS
(IN THOUSANDS)

EMPLOYEES' COMBINED SYSTEM
(STATE AND MUNICIPAL)

Actuarial Valuation Date June 30,	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b - a)	Funded Ratio (a / b)	Payroll (c)	UAAL as a Percentage of Payroll [(b - a) / c]
2001	\$ 11,021,958	\$ 10,789,907	\$ (232,051)	102.15%	\$ 3,084,859	-8%
2002	11,162,265	11,385,749	223,484	98.04%	3,356,671	7%
2003	11,244,008	12,083,197	839,189	93.05%	3,424,054	25%
2004	11,514,655	12,621,578	1,106,923	91.23%	3,337,543	33%
2005	11,855,673	13,671,756	1,816,083	86.72%	3,537,602	51%
2006	12,287,942	15,291,091	3,003,149	80.36%	3,793,125	79%
2007	13,026,321	16,385,823	3,359,502	79.50%	4,016,221	84%
2008	13,599,717	17,609,769	4,010,052	77.23%	4,165,013	96%
2009	11,839,115	18,517,486	6,678,371	63.93%	4,249,536	157%
2010	11,937,944	19,009,788	7,071,844	62.80%	4,137,474	171%
2011	12,387,810	19,722,264	7,334,453	62.81%	4,027,810	182%
2012	12,667,592	20,283,028	7,615,436	62.45%	3,998,475	190%
2013	13,326,586	21,046,733	7,720,147	63.32%	4,030,261	192%
2014	14,547,390	22,059,765	7,512,375	65.95%	4,214,981	178%

SCHEDULE OF FUNDING PROGRESS
(IN THOUSANDS)

STATE POLICE

Actuarial Valuation Date June 30,	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b - a)	Funded Ratio (a / b)	Payroll (c)	UAAL as a Percentage of Payroll [(b - a) / c]
2001	\$ 1,305,556	\$ 993,847	\$ (311,710)	131.36%	\$ 79,383	-393%
2002	1,300,402	1,030,575	(269,827)	126.18%	83,142	-325%
2003	1,285,201	1,062,383	(222,818)	120.97%	80,839	-276%
2004	1,287,981	1,200,605	(87,376)	107.28%	76,445	-114%
2005	1,289,345	1,284,950	(4,395)	100.34%	76,463	-6%
2006	1,301,877	1,325,875	23,998	98.19%	80,649	30%
2007	1,334,375	1,516,935	182,560	87.97%	83,191	219%
2008	1,343,208	1,601,576	258,367	83.87%	86,464	299%
2009	1,119,766	1,710,356	590,591	65.47%	85,586	690%
2010	1,085,281	1,722,564	637,283	63.00%	81,705	780%
2011	1,090,383	1,759,676	669,293	61.96%	75,551	886%
2012	1,134,511	1,826,546	692,035	62.11%	77,690	891%
2013	1,164,217	1,882,501	718,284	61.84%	79,848	900%
2014	1,241,758	1,966,572	724,814	63.14%	85,660	846%

SCHEDULE OF FUNDING PROGRESS
(IN THOUSANDS)

JUDGES

Actuarial Valuation Date June 30,	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b - a)	Funded Ratio (a / b)	Payroll (c)	UAAL as a Percentage of Payroll [(b - a) / c]
2001	\$ 229,022	\$ 254,913	\$ 25,891	89.84%	\$ 30,554	85%
2002	234,558	267,532	32,974	87.67%	31,824	104%
2003	240,208	279,008	38,801	86.09%	33,169	117%
2004	250,272	312,285	62,013	80.14%	32,937	188%
2005	260,125	328,033	67,908	79.30%	33,074	205%
2006	273,679	352,537	78,858	77.63%	35,939	219%
2007	293,052	371,987	78,936	78.78%	37,638	210%
2008	306,716	406,782	100,066	75.40%	37,943	264%
2009	270,870	421,039	150,169	64.33%	40,266	373%
2010	276,643	426,215	149,572	64.91%	39,961	374%
2011	293,801	433,240	139,439	67.81%	38,810	359%
2012	330,154	421,286	91,132	78.37%	39,955	228%
2013	354,900	438,836	83,937	80.87%	40,001	210%
2014	389,072	459,447	70,375	84.68%	42,313	166%

SCHEDULE OF FUNDING PROGRESS
(IN THOUSANDS)

LEOPS
(STATE AND MUNICIPAL)

Actuarial Valuation Date June 30,	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b - a)	Funded Ratio (a / b)	Payroll (c)	UAAL as a Percentage of Payroll [(b - a) / c]
2001	\$ 165,478	\$ 290,504	\$ 125,026	56.96%	\$ 60,438	207%
2002	191,100	312,058	120,958	61.24%	65,916	184%
2003	225,111	382,287	157,176	58.89%	69,470	226%
2004	271,587	454,815	183,228	59.71%	77,369	237%
2005	310,087	537,736	227,648	57.67%	87,220	261%
2006	352,416	649,826	297,410	54.23%	106,669	279%
2007	414,153	738,549	324,396	56.08%	122,015	266%
2008	465,386	748,005	282,619	62.22%	133,445	212%
2009	441,827	895,099	453,273	49.36%	140,071	324%
2010	471,728	950,236	478,508	49.64%	140,199	341%
2011	526,807	1,002,708	475,900	52.54%	135,177	352%
2012	580,826	1,070,087	489,261	54.28%	135,185	362%
2013	642,678	1,143,154	500,476	56.22%	137,613	364%
2014	732,333	1,222,137	489,804	59.92%	145,673	336%

SCHEDULE OF FUNDING PROGRESS
(IN THOUSANDS)

CORS

Actuarial Valuation Date June 30,	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b - a)	Funded Ratio (a / b)	Payroll (c)	UAAL as a Percentage of Payroll [(b - a) / c]
2009	\$ 7,373	\$ 12,273	\$ 4,900	60.08%	\$ 4,048	121%
2010	8,601	12,858	4,257	66.89%	3,956	108%
2011	9,980	14,511	4,531	68.78%	4,475	101%
2012	11,341	15,483	4,143	73.24%	4,628	90%
2013	16,971	18,426	1,456	92.10%	4,646	31%
2014	18,827	19,685	859	95.64%	4,752	18%

**SCHEDULE OF EMPLOYER CONTRIBUTIONS
(STATE AND MUNICIPAL)
(IN THOUSANDS)**

Fiscal Year Ended June 30,	Annual Required Contributions	Actual Contributions	Percentage Contributed
2001	\$ 634,309	\$ 634,309	100%
2002	574,019	574,019	100%
2003	654,578	602,212	92%
2004	710,632	632,462	89%
2005	805,564	668,618	83%
2006	874,079	716,745	82%
2007	1,025,972	831,037	81%
2008	1,183,765	1,053,551	89%
2009	1,313,560	1,109,564	84%
2010	1,519,980	1,308,920	86%
2011	2,035,401	1,512,473	74%
2012	2,146,624	1,521,761	71%
2013	2,149,985	1,643,101	76%
2014	2,320,991	1,733,652	75%

**SCHEDULE OF EMPLOYER CONTRIBUTIONS BY SYSTEM
(STATE AND MUNICIPAL)
(IN THOUSANDS)**

	Fiscal Year Ended June 30,	Annual Required Contributions	Actual Contributions	Percentage Contributed
Teachers' Combined System	2009	\$ 753,475	\$ 673,256	89%
	2010	889,605	820,867	92%
	2011	1,224,606	919,313	75%
	2012	1,288,886	917,564	71%
	2013	1,265,418	981,004	78%
	2014	1,358,991	1,000,192	74%
Employees' Combined System	2009	464,633	354,682	76%
	2010	524,797	394,125	75%
	2011	677,783	466,525	69%
	2012	721,776	475,403	66%
	2013	741,003	526,532	71%
	2014	812,206	591,747	73%
State Police	2009	31,040	17,214	55%
	2010	37,114	25,465	69%
	2011	51,292	44,915	88%
	2012	54,452	47,283	87%
	2013	59,329	51,330	87%
	2014	64,325	56,244	87%
Judges	2009	17,520	17,520	100%
	2010	19,955	19,955	100%
	2011	23,854	23,854	100%
	2012	24,077	24,077	100%
	2013	24,062	24,062	100%
	2014	21,109	21,109	100%
LEOPS	2009	46,140	46,140	100%
	2010	47,756	47,756	100%
	2011	57,070	57,070	100%
	2012	56,624	56,624	100%
	2013	55,272	55,272	100%
	2014	63,923	63,923	100%
CORS (Muni)	2009	752	752	100%
	2010	753	753	100%
	2011	796	796	100%
	2012	809	809	100%
	2013	4,901	4,901	100%
	2014	437	437	100%
Total State	2009	1,207,471	1,003,474	83%
	2010	1,417,209	1,206,149	85%
	2011	1,901,320	1,378,392	72%
	2012	2,019,096	1,394,232	69%
	2013	2,037,989	1,531,106	75%
	2014	2,179,715	1,592,376	73%
Total Municipal	2009	106,089	106,089	100%
	2010	102,771	102,771	100%
	2011	134,080	134,080	100%
	2012	127,528	127,528	100%
	2013	111,995	111,995	100%
	2014	141,276	141,276	100%
Total MSRPS	2009	1,313,560	1,109,563	84%
	2010	1,519,980	1,308,920	86%
	2011	2,035,401	1,512,473	74%
	2012	2,146,624	1,521,761	71%
	2013	2,149,985	1,643,101	76%
	2014	2,320,991	1,733,652	75%

REQUIRED SUPPLEMENTARY INFORMATION FOR COMPLIANCE WITH GASB STATEMENT NO. 25

The information presented in the required supplementary schedules was determined as part of the actuarial valuations at the dates indicated. Additional information as of the latest valuation date follows:

Valuation date	June 30, 2014
Actuarial cost method	Individual entry age
Amortization method for unfunded actuarial accrued liabilities (UAAL)	Level percent closed
Amorization period	25-year closed schedule ending June 30, 2039; 24 years remaining
Asset valuation method	5-year smoothed market (max. 120% and min. 80% of market value)
Actuarial assumptions:	
Investment rate of return	7.65%
Projected salary increases including wage inflation at 3.4%	3.40% - 10.65%
Cost-of-living adjustments	2.65% - 3.40% for service prior to July 1, 2011.* 1.68% - 3.40% for service after June 30, 2011.*
	<i>* Based on System and provisions. See page A-1 and Appendix C for details.</i>

Membership consisted of the following at June 30, 2014:

Retirees and beneficiaries receiving benefits	142,887
Terminated plan members entitled to but not yet receiving benefits	52,133
Active plan members	<u>193,522</u>
Total	388,542

**REQUIRED SUPPLEMENTARY INFORMATION
FOR COMPLIANCE WITH GASB STATEMENT NO. 27
(STATE AND MUNICIPAL)
(IN THOUSANDS)**

	Fiscal Year Ending June 30,	
	2014	2013
Annual Required Contribution (ARC)	\$2,320,991	\$2,149,985
Interest on NPO	224,477	185,575
Adjustment to ARC	(214,437)	(171,684)
Annual Pension Cost	<u>\$2,331,031</u>	<u>\$2,163,876</u>
Contributions Made	<u>1,733,652</u>	<u>1,643,101</u>
Increase in NPO	\$ 597,379	\$ 520,775
NPO Beginning of Year	<u>2,915,291</u>	<u>2,394,516</u>
NPO End of Year	\$3,512,670	\$2,915,291
Percent of ARC Contributed	74.7%	76.4%
Amortization Period (Years)	20.211	21.033

**SUMMARY OF NET PENSION OBLIGATION BY SYSTEM
(STATE PORTION ONLY)
(IN THOUSANDS)**

FISCAL YEAR ENDING JUNE 30, 2014

	<u>TCS</u>	<u>ECS (State)</u>	<u>State Police</u>	<u>Judges</u>	<u>LEOPS (State)</u>	<u>Total State</u>
Annual Required Contribution (ARC)	\$1,358,991	\$689,173	\$64,325	\$21,109	\$46,117	\$2,179,715
Interest on NPO	106,520	114,710	4,570	-	-	225,800
Adjustment to ARC	(105,872)	(105,829)	(3,466)	-	-	(215,167)
Annual Pension Cost (APC)	<u>\$1,359,639</u>	<u>\$698,054</u>	<u>\$65,429</u>	<u>\$21,109</u>	<u>\$46,117</u>	<u>\$2,190,348</u>
Contributions Made	<u>1,000,192</u>	<u>468,714</u>	<u>56,244</u>	<u>21,109</u>	<u>46,117</u>	<u>1,592,376</u>
Increase in NPO	\$ 359,446	\$229,340	\$9,185	\$ 0	\$ 0	\$ 597,972
NPO Beginning of Year	<u>1,383,374</u>	<u>1,489,746</u>	<u>59,348</u>	<u>-</u>	<u>-</u>	<u>1,772,601</u>
NPO End of Year	<u>\$1,742,821</u>	<u>\$1,719,086</u>	<u>\$68,534</u>	<u>\$ 0</u>	<u>\$ 0</u>	<u>\$3,530,441</u>
Percent of ARC Contributed	73.6%	68.0%	87.4%	100.0%	100.0%	73.1%
Percent of APC Contributed	73.6%	67.1%	86.0%	100.0%	100.0%	72.7%
Amortization Period (Years)	19.024	21.340	30.000	13.865	15.532	19.897

APPENDIX A

ACTUARIAL ASSUMPTIONS AND METHODS

ACTUARIAL ASSUMPTIONS AND METHODS

Actuarial assumptions were developed in connection with a study of 2007-2010 experience dated March 14, 2011 and adopted by the Board on July 17, 2012. On November 18, 2014, the Board adopted a new set of assumptions for post-disability mortality for State Police and LEOPS. Specific assumptions are shown below.

A. ACTUARIAL ASSUMPTIONS

	1. Valuation Interest Rate	2. Annual Rate of Increase in Cost of Living		3. Aggregate Payroll Growth	
		Service Before 7/1/11	Service After 7/1/11		
Teachers' Retirement	7.65%	2.90%	2.90%	#	3.40%
Teachers' Pension	7.65%	2.65%	1.68%	***	3.40%
Employees' Retirement					
Regular	7.65%	2.90%	2.90%	#	3.40%
Correctional	7.65%	2.90%	1.68%	***	3.40%
Legislative	7.65%	3.40%	3.40%		3.40%
Employees' Pension	7.65%	2.65%	1.68%	*,***	3.40%
State Police Retirement	7.65%	2.90%	1.68%	***	3.40%
Judges Pension	7.65%	3.40%	3.40%		3.40%
LEOPS	7.65%	2.65%	1.68%	**,***,#	3.40%
CORS Municipal	7.65%	2.90%	1.68%	***	3.40%

* A 2.90% simple rate is applicable for municipal members of these Systems, who do not elect to be covered under the improved plan.

** A 2.90% simple rate is applicable for former EPS members.

*** The increase is capped at the lesser of 2.5% and increase in CPI if the most recent calendar year market value rate of return was greater than or equal to the assumed rate (currently 7.65% as approved by the Board of Trustees). The increase is capped at the lesser of 1% and increase in CPI if the market value return was less than the assumed rate of 7.65%.

For groups whose COLA is capped at 5% a 2.88% COLA was assumed. A 2.90% COLA was assumed for groups with an unlimited COLA, 2.65% is assumed for groups that are capped at 3%.

ACTUARIAL ASSUMPTIONS AND METHODS

A. ACTUARIAL ASSUMPTIONS

Rates of Salary Increases

Years of Service	Annual Rates of Salary Increases for First 10 Years of Service							
	Teachers' Retirement & Pension	Employees' Retirement			Employees' Pension	State Police	Judges	LEOPS
		Regular	Correctional	Legislative				
0	8.90%	6.90%	9.15%	3.40%	6.90%	9.65%	3.40%	7.40%
1	7.90%	6.90%	7.65%	3.40%	6.90%	10.65%	3.40%	7.90%
2	7.15%	6.15%	4.90%	3.40%	6.15%	9.65%	3.40%	6.90%
3	7.15%	5.40%	4.90%	3.40%	5.40%	9.15%	3.40%	6.15%
4	7.15%	5.40%	4.90%	3.40%	5.40%	6.15%	3.40%	6.15%
5	7.15%	5.15%	4.90%	3.40%	5.15%	5.65%	3.40%	5.65%
6	7.15%	5.15%	4.90%	3.40%	5.15%	5.40%	3.40%	5.65%
7	7.15%	5.15%	4.40%	3.40%	5.15%	4.65%	3.40%	5.15%
8	7.15%	4.90%	4.40%	3.40%	4.90%	4.65%	3.40%	5.15%
9	7.15%	4.90%	4.40%	3.40%	4.90%	4.65%	3.40%	5.15%

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

ACTUARIAL ASSUMPTIONS AND METHODS

A. ACTUARIAL ASSUMPTIONS

Rates of Salary Increases

Sample Ages	Annual Rates of Salary Increases for Sample Ages with 10 or More Years of Service							
	Teachers' Retirement & Pension	Employees' Retirement			Employees' Pension	State Police	Judges	LEOPS
		Regular	Correctional	Legislative				
25	7.15%	4.90%	4.40%	3.40%	4.90%	4.65%	3.40%	4.90%
30	7.15%	4.90%	4.40%	3.40%	4.90%	4.65%	3.40%	4.90%
35	6.65%	4.65%	4.40%	3.40%	4.65%	4.40%	3.40%	4.90%
40	5.65%	4.40%	4.15%	3.40%	4.40%	3.90%	3.40%	4.90%
45	5.15%	4.15%	3.90%	3.40%	4.15%	3.65%	3.40%	4.40%
50	4.90%	3.90%	3.40%	3.40%	3.90%	3.40%	3.40%	3.40%
55	4.40%	3.65%	3.40%	3.40%	3.65%	3.40%	3.40%	3.40%
60	3.90%	3.65%	3.40%	3.40%	3.65%	3.40%	3.40%	3.40%
65	3.40%	3.40%	3.40%	3.40%	3.40%	3.40%	3.40%	3.40%

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

ACTUARIAL ASSUMPTIONS AND METHODS

A. ACTUARIAL ASSUMPTIONS

Rates of Withdrawal

Sample Ages	Years of Service	Annual Rates of Withdrawal from Active Service													
		Teachers' Retirement & Pension		Employees' Retirement					Employees' Pension		State Police		Judges	LEOPS	
		Male	Female	Regular		Correctional		Legislative	Male	Female	Male	Female		Male	Female
				Male	Female	Male	Female						Male		
All	0	18.00%	14.00%	21.00%	20.00%	18.20%	21.00%	*	21.00%	20.00%	14.00%	14.00%	0.00%	17.00%	17.00%
	1	15.00%	12.50%	15.00%	14.00%	15.00%	18.00%	*	15.00%	14.00%	9.00%	9.00%	0.00%	10.00%	10.00%
	2	14.00%	12.00%	12.25%	11.00%	11.50%	12.00%	*	12.25%	11.00%	6.50%	6.50%	0.00%	9.00%	9.00%
	3	11.00%	9.00%	9.50%	9.00%	10.50%	11.50%	*	9.50%	9.00%	4.00%	4.00%	0.00%	8.00%	8.00%
	4	8.50%	7.75%	8.50%	7.00%	7.00%	10.50%	*	8.50%	7.00%	4.00%	4.00%	0.00%	8.00%	8.00%
	5	6.50%	6.50%	7.25%	6.50%	7.00%	9.00%	*	7.25%	6.50%	2.80%	2.80%	0.00%	6.00%	6.00%
	6	5.75%	5.50%	6.00%	6.00%	5.50%	8.50%	*	6.00%	6.00%	2.50%	2.50%	0.00%	5.00%	5.00%
	7	5.00%	5.00%	5.50%	5.50%	5.00%	8.50%	*	5.50%	5.50%	2.00%	2.00%	0.00%	3.50%	3.50%
	8	4.50%	4.25%	5.00%	4.75%	5.00%	7.00%	*	5.00%	4.75%	2.00%	2.00%	0.00%	3.50%	3.50%
	9	3.75%	4.00%	5.00%	4.00%	4.00%	6.50%	*	5.00%	4.00%	1.50%	1.50%	0.00%	2.50%	2.50%
25	10	4.00%	4.00%	5.00%	4.00%	4.00%	4.50%	*	5.00%	4.00%	1.00%	1.00%	0.00%	2.50%	2.50%
30	& Over	3.75%	4.00%	5.00%	4.00%	4.00%	4.50%	*	5.00%	4.00%	1.00%	1.00%	0.00%	2.50%	2.50%
35		3.00%	3.50%	3.50%	4.00%	4.00%	4.50%	*	3.50%	4.00%	1.00%	1.00%	0.00%	2.50%	2.50%
40		1.50%	2.50%	2.50%	2.50%	4.00%	4.50%	*	2.50%	2.50%	1.00%	1.00%	0.00%	1.50%	1.50%
45		1.00%	2.00%	2.00%	2.00%	4.00%	4.50%	*	2.00%	2.00%	1.00%	1.00%	0.00%	1.50%	1.50%
50		1.00%	1.00%	2.00%	2.00%	4.00%	4.50%	*	2.00%	2.00%	1.00%	1.00%	0.00%	1.50%	1.50%
55		1.00%	1.00%	2.00%	2.00%	4.00%	4.50%	*	2.00%	2.00%	1.00%	1.00%	0.00%	1.50%	1.50%
60		1.00%	1.00%	2.00%	2.00%	4.00%	4.50%	*	2.00%	2.00%	1.00%	1.00%	0.00%	1.50%	1.50%
65	1.00%	1.00%	2.00%	2.00%	4.00%	4.50%	*	2.00%	2.00%	1.00%	1.00%	0.00%	1.50%	1.50%	

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

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

For active members of the Teachers Retirement and Pension Systems and Employees' Retirement (Regular) and Pension Systems, the probability of electing a refund upon withdrawal (if eligible for a vested benefit) is 15% upon first becoming vested, grading down to 0% upon reaching first eligibility for retirement. Active members that terminate from the other Systems that are eligible for a deferred vested benefit are assumed to leave their contributions in the plan and 100% are assumed to elect a deferred benefit.

ACTUARIAL ASSUMPTIONS AND METHODS

A. ACTUARIAL ASSUMPTIONS

Rates of Mortality
(Multipliers by System Applicable to Base Mortality Tables)

Mortality Assumptions

	Pre-Retirement Mortality	Non-Disabled Retiree Mortality		Disabled Mortality	
	RP-2000 Combined Healthy Mortality, projected to the year 2025			RP-2000 Disabled Mortality	
			Future Life		Future Life
	Multiplier*	Multiplier	Expectancy Age 65	Multiplier	Expectancy Age 65
Teachers' Combined System					
Male	0.62250	0.830	20.98	0.665	15.35
Female	0.57375	0.765	23.57	0.830	17.43
Employees' Combined System					
Male	0.87750	1.170	18.44	0.700	14.87
Female	0.76500	1.020	21.11	1.000	15.70
State Police					
Male	0.75000	1.000	19.58	0.500**	16.91
Female	0.75000	1.000	21.28	0.750**	18.08
Judges					
Male	0.62250	0.830	20.98	0.665	15.35
Female	0.57375	0.765	23.57	0.830	17.43
LEOPS					
Male	0.75000	1.000	19.58	0.500**	16.91
Female	0.75000	1.000	21.28	0.750**	18.08

* Pre-retirement mortality assumption is 75% of the non-disabled retiree mortality assumption.

** Mortality rates are set to the greater of the disabled mortality rates with the multiplier and the healthy mortality rates.

ACTUARIAL ASSUMPTIONS AND METHODS

A. ACTUARIAL ASSUMPTIONS

Healthy Retired Mortality

Sample	Actuarial Present Value of \$1 Monthly for Life (Without COLA)											
	Teachers' Retirement & Pension		Employees' Retirement & Pension		Employees' Retirement Correctional & Legislative		State Police		Judges		LEOPS	
	Ages	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
50	\$146.22	\$148.25	\$142.74	\$145.50	\$142.74	\$145.50	\$144.40	\$145.70	\$146.22	\$148.25	\$144.40	\$145.70
55	139.74	142.46	135.13	138.78	135.13	138.78	137.32	139.05	139.74	142.46	137.32	139.05
60	131.26	135.07	125.33	130.31	125.33	130.31	128.13	130.66	131.26	135.07	128.13	130.66
65	120.75	125.98	113.46	120.09	113.46	120.09	116.88	120.51	120.75	125.98	116.88	120.51
70	108.25	115.24	99.74	108.27	99.74	108.27	103.70	108.77	108.25	115.24	103.70	108.77
75	93.13	102.67	83.54	94.77	83.54	94.77	87.96	95.33	93.13	102.67	87.96	95.33
80	76.28	88.12	66.02	79.46	66.02	79.46	70.69	80.06	76.28	88.12	70.69	80.06

Sample	Future Life Expectancy (Years)											
	Teachers' Retirement & Pension		Employees' Retirement & Pension		Employees' Retirement Correctional & Legislative		State Police		Judges		LEOPS	
	Ages	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
50	34.83	37.44	31.98	34.75	31.98	34.75	33.27	34.93	34.83	37.44	33.27	34.93
55	30.04	32.63	27.26	29.98	27.26	29.98	28.52	30.16	30.04	32.63	28.52	30.16
60	25.40	27.98	22.71	25.41	22.71	25.41	23.92	25.58	25.40	27.98	23.92	25.58
65	20.98	23.57	18.44	21.11	18.44	21.11	19.58	21.28	20.98	23.57	19.58	21.28
70	16.88	19.45	14.54	17.16	14.54	17.16	15.58	17.31	16.88	19.45	15.58	17.31
75	13.05	15.64	10.94	13.55	10.94	13.55	11.87	13.69	13.05	15.64	11.87	13.69
80	9.66	12.16	7.83	10.29	7.83	10.29	8.63	10.41	9.66	12.16	8.63	10.41

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

ACTUARIAL ASSUMPTIONS AND METHODS

A. ACTUARIAL ASSUMPTIONS

Disabled Retired Mortality

Sample Ages	Actuarial Present Value of \$1 Monthly for Life (Without COLA)											
	Teachers' Retirement & Pension		Employees' Retirement & Pension		Employees' Retirement Correctional & Legislative		State Police		Judges		LEOPS	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
50	\$117.44	\$128.75	\$115.97	\$124.47	\$115.97	\$124.47	\$124.67	\$130.84	\$117.44	\$128.75	\$124.67	\$130.84
55	111.50	121.72	109.94	116.89	109.94	116.89	119.02	124.05	111.50	121.72	119.02	124.05
60	104.99	114.14	103.36	108.86	103.36	108.86	112.59	116.66	104.99	114.14	112.59	116.66
65	97.43	105.50	95.73	99.81	95.73	99.81	104.80	108.13	97.43	105.50	104.80	108.13
70	88.63	95.60	86.88	89.56	86.88	89.56	95.30	98.23	88.63	95.60	95.30	98.23
75	79.04	84.94	77.26	78.67	77.26	78.67	83.96	87.32	79.04	84.94	83.96	87.32
80	69.45	74.01	67.68	67.69	67.68	67.69	70.36	75.67	69.45	74.01	70.36	75.67

Sample Ages	Future Life Expectancy (Years)											
	Teachers' Retirement & Pension		Employees' Retirement & Pension		Employees' Retirement Correctional & Legislative		State Police		Judges		LEOPS	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
50	23.11	27.37	22.46	25.15	22.46	25.15	25.86	28.34	23.11	27.37	25.86	28.34
55	20.40	23.80	19.81	21.73	19.81	21.73	22.79	24.68	20.40	23.80	22.79	24.68
60	17.84	20.52	17.31	18.62	17.31	18.62	19.82	21.29	17.84	20.52	19.82	21.29
65	15.35	17.43	14.88	15.70	14.88	15.70	16.91	18.08	15.35	17.43	16.91	18.08
70	12.96	14.53	12.53	12.98	12.53	12.98	14.04	15.04	12.96	14.53	14.04	15.04
75	10.75	11.91	10.37	10.53	10.37	10.53	11.26	12.26	10.75	11.91	11.26	12.26
80	8.81	9.62	8.48	8.42	8.48	8.42	8.59	9.75	8.81	9.62	8.59	9.75

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

ACTUARIAL ASSUMPTIONS AND METHODS

A. ACTUARIAL ASSUMPTIONS

Accidental Death Mortality Rates	
State Police and LEOPS	
Sample Ages	Male and Female
20	0.0079%
25	0.0230%
30	0.0300%
35	0.0300%
40	0.0300%
45	0.0389%
50	0.0600%
55	0.0150%
60	0.0079%
65	0.0079%
70	0.0079%
75	0.0079%
80	0.0079%

Based on the experience study for the period July 1, 2006 through June 30, 2010, we estimate that the current mortality assumption contains the following estimated margin for future improvements:

<u>System</u>	<u>Margin for Improvement*</u>					
	<u>Non-Disabled Retired Mortality</u>			<u>Disabled Retired Mortality</u>		
	<u>Males</u>	<u>Females</u>	<u>Total</u>	<u>Males</u>	<u>Females</u>	<u>Total</u>
Teachers Combined System, Judges	15%	15%	15%	15%	15%	15%
Employees Combined System (Includes CORS)	15%	15%	15%	15%	15%	15%
State Police, LEOPS	15%	201%	24%	Information Not Available		

*Margin for future mortality improvement based on the ratio of actual to expected deaths based on the current assumptions. The experience for some of the groups has very limited credibility due to small sample sizes.

ACTUARIAL ASSUMPTIONS AND METHODS

A. ACTUARIAL ASSUMPTIONS

Rates of Disability

Sample Ages	Annual Rates of Disability															
	Teachers' Retirement				Teachers' Pension				Employees' Retirement							
	Ordinary		Accidental		Ordinary		Accidental		Ordinary				Accidental			
	Male		Female		Male		Female		Regular		Correctional		Regular		Correctional	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
25	0.00525%	0.00962%	0.00070%	0.00148%	0.02763%	0.02382%	0.00184%	0.00111%	0.02665%	0.02451%	0.17850%	0.45900%	0.00960%	0.00880%	0.10413%	0.16065%
30	0.00525%	0.00962%	0.00070%	0.00148%	0.02763%	0.02382%	0.00184%	0.00111%	0.02633%	0.02425%	0.21420%	0.45900%	0.01000%	0.00920%	0.12495%	0.16065%
35	0.00525%	0.02256%	0.00070%	0.00347%	0.02763%	0.05452%	0.00184%	0.00254%	0.04550%	0.04225%	0.27030%	0.45900%	0.01400%	0.01300%	0.15768%	0.16065%
40	0.01673%	0.04505%	0.00223%	0.00693%	0.09180%	0.10982%	0.00612%	0.00511%	0.08619%	0.07794%	0.34170%	0.51000%	0.01840%	0.01670%	0.19933%	0.17850%
45	0.03345%	0.07722%	0.00446%	0.01188%	0.18351%	0.18817%	0.01223%	0.00875%	0.10933%	0.11557%	0.42840%	0.58650%	0.01630%	0.01730%	0.24990%	0.20528%
50	0.05018%	0.11265%	0.00669%	0.01733%	0.27531%	0.27417%	0.01835%	0.01275%	0.13195%	0.16562%	0.60690%	0.76500%	0.01450%	0.01820%	0.35403%	0.26775%
55	0.06683%	0.19305%	0.00891%	0.02970%	0.36711%	0.46999%	0.02447%	0.02186%	0.17635%	0.22926%	0.78540%	1.17300%	0.01370%	0.01780%	0.45815%	0.41055%
60	0.08355%	0.19305%	0.01114%	0.02970%	0.45882%	0.46999%	0.03059%	0.02186%	0.23043%	0.31701%	0.96390%	2.06550%	0.01400%	0.01930%	0.56228%	0.72293%

Sample Ages	Annual Rates of Disability														
	Employees' Pension				State Police				Judges		LEOPS				
	Ordinary		Accidental		Ordinary		Accidental				Ordinary		Accidental		
	Male		Female		Male		Female		Male		Female		Male		Female
25	0.11088%	0.08854%	0.04608%	0.02323%	0.35235%	1.09350%	0.65250%	2.02500%	0.00595%	0.01110%	0.19992%	0.60996%	0.28560%	0.62560%	
30	0.10962%	0.08752%	0.04832%	0.02438%	0.44915%	1.17158%	0.69300%	1.80813%	0.00595%	0.01110%	0.25627%	0.65351%	0.30510%	0.55860%	
35	0.18972%	0.15127%	0.06752%	0.03416%	0.56489%	1.18220%	0.84963%	1.77863%	0.00595%	0.02603%	0.32032%	0.65949%	0.37185%	0.54940%	
40	0.35964%	0.27948%	0.08864%	0.04370%	0.74966%	1.37547%	0.98325%	1.80425%	0.01896%	0.05198%	0.42434%	0.77324%	0.42945%	0.56160%	
45	0.45612%	0.41371%	0.07872%	0.04531%	1.00481%	1.67459%	1.09013%	1.81713%	0.03791%	0.08910%	0.56910%	0.93756%	0.47640%	0.56360%	
50	0.55188%	0.59313%	0.07008%	0.04773%	1.43613%	2.19825%	1.52325%	2.33125%	0.05687%	0.12998%	0.81382%	1.23149%	0.66585%	0.72340%	
55	0.73593%	0.82151%	0.06608%	0.04669%	1.84622%	3.35673%	1.98738%	3.61325%	0.07574%	0.22275%	1.04636%	1.87954%	0.86880%	1.12040%	
60	0.91863%	1.07447%	0.06752%	0.05060%	2.26458%	5.89811%	2.45650%	6.39763%	0.09469%	0.22275%	1.28373%	3.29797%	1.07415%	1.98120%	

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

ACTUARIAL ASSUMPTIONS AND METHODS

A. ACTUARIAL ASSUMPTIONS

Rates of Normal Retirement

Ages	Annual Rates of Normal Retirement													
	Teachers' Retirement		Teachers' Pension				Employees' Retirement		Legislators		Employees' Pension			
	All Years of Service		At Least 30 Years		Less Than 30 Years		All Years of Service		All Years of Service		At Least 30 Years		Less Than 30 Years	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
45	17.0%	15.0%	10.0%	9.0%			17.0%	16.0%			9.0%	12.0%		
46	17.0%	15.0%	10.0%	9.0%			17.0%	16.0%			9.0%	12.0%		
47	17.0%	15.0%	10.0%	9.0%			17.0%	16.0%			9.0%	12.0%		
48	17.0%	15.0%	10.0%	9.0%			17.0%	16.0%			9.0%	12.0%		
49	17.0%	15.0%	10.0%	9.0%			17.0%	16.0%			9.0%	12.0%		
50	17.0%	15.0%	10.0%	9.0%			12.5%	14.0%			8.5%	12.0%		
51	17.0%	15.0%	10.0%	9.0%			12.5%	14.0%			8.5%	12.0%		
52	17.0%	15.0%	10.0%	9.0%			12.5%	14.0%			8.5%	12.0%		
53	17.0%	15.0%	10.0%	9.0%			12.5%	14.0%			8.5%	12.0%		
54	17.0%	15.0%	10.0%	9.0%			12.5%	14.0%			8.5%	12.0%		
55	15.0%	15.0%	10.0%	10.0%			11.5%	14.0%			8.5%	11.0%		
56	15.0%	15.0%	10.0%	10.0%			11.5%	14.0%			8.5%	11.0%		
57	15.0%	15.0%	10.0%	10.0%			11.5%	14.0%			8.5%	11.0%		
58	15.0%	15.0%	10.0%	10.0%			11.5%	14.0%			8.5%	11.0%		
59	15.0%	15.0%	10.0%	11.0%			11.5%	14.0%			8.5%	11.0%		
60	15.0%	18.0%	13.0%	12.0%			13.0%	14.0%	25.0%	30.0%	10.0%	14.0%		
61	15.0%	18.0%	15.0%	16.0%			18.0%	18.0%	25.0%	30.0%	15.0%	14.0%		
62	25.0%	25.0%	22.0%	23.0%	14.0%	21.0%	25.0%	25.0%	25.0%	30.0%	25.0%	30.0%	18.0%	20.0%
63	16.0%	20.0%	18.0%	20.0%	14.0%	16.0%	25.0%	22.0%	25.0%	30.0%	20.0%	22.0%	14.0%	16.0%
64	16.0%	20.0%	18.0%	18.0%	14.0%	16.0%	19.0%	22.0%	25.0%	30.0%	17.0%	20.0%	14.0%	16.0%
65	18.0%	25.0%	20.0%	20.0%	16.0%	16.0%	19.0%	22.0%	25.0%	30.0%	17.0%	20.0%	14.0%	16.0%
66	18.0%	25.0%	22.0%	22.0%	16.0%	19.0%	25.0%	25.0%	40.0%	40.0%	25.0%	25.0%	18.0%	18.0%
67	18.0%	20.0%	18.0%	15.0%	16.0%	15.0%	19.0%	20.0%	25.0%	30.0%	20.0%	25.0%	14.0%	15.0%
68	18.0%	18.0%	18.0%	15.0%	16.0%	15.0%	19.0%	15.0%	25.0%	30.0%	16.0%	18.0%	14.0%	15.0%
69	18.0%	18.0%	18.0%	15.0%	16.0%	15.0%	19.0%	15.0%	25.0%	30.0%	16.0%	18.0%	14.0%	15.0%
70	21.0%	18.0%	18.0%	20.0%	16.0%	15.0%	15.0%	22.0%	25.0%	30.0%	20.0%	18.0%	16.0%	16.0%
71	14.0%	18.0%	18.0%	20.0%	16.0%	15.0%	15.0%	22.0%	25.0%	30.0%	20.0%	18.0%	12.0%	14.0%
72	14.0%	18.0%	18.0%	20.0%	16.0%	15.0%	15.0%	22.0%	25.0%	30.0%	20.0%	18.0%	12.0%	14.0%
73	14.0%	18.0%	18.0%	20.0%	16.0%	15.0%	15.0%	22.0%	25.0%	30.0%	20.0%	18.0%	12.0%	14.0%
74	14.0%	18.0%	18.0%	20.0%	16.0%	15.0%	15.0%	22.0%	25.0%	30.0%	20.0%	18.0%	12.0%	14.0%
75 & Over	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

ACTUARIAL ASSUMPTIONS AND METHODS

A. ACTUARIAL ASSUMPTIONS

Rates of Normal Retirement

Ages	Annual Rates of Normal Retirement													
	Correctional Officers				State Police *				Judges		LEOPS			
	At Least 20 Years		Less Than 20 Years		At Least 22 Years		Less Than 22 Years		All Years of Service		At Least 25 Years		Less Than 25 Years	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
40	25.0%	25.0%			20.0%	20.0%					45.0%	45.0%		
41	18.0%	18.0%			25.0%	25.0%					45.0%	45.0%		
42	18.0%	18.0%			30.0%	30.0%					45.0%	45.0%		
43	18.0%	18.0%			32.0%	32.0%					45.0%	45.0%		
44	18.0%	18.0%			32.0%	32.0%					45.0%	45.0%		
45	18.0%	18.0%			32.0%	32.0%					35.0%	35.0%		
46	16.0%	16.0%			30.0%	30.0%					32.0%	32.0%		
47	16.0%	16.0%			30.0%	30.0%					32.0%	32.0%		
48	16.0%	16.0%			32.0%	32.0%					32.0%	32.0%		
49	15.0%	15.0%			32.0%	32.0%					32.0%	32.0%		
50	13.0%	13.0%			30.0%	30.0%	15.0%	15.0%			30.0%	30.0%	12.0%	12.0%
51	13.0%	13.0%			30.0%	30.0%	15.0%	15.0%			25.0%	25.0%	12.0%	12.0%
52	13.0%	13.0%			30.0%	30.0%	15.0%	15.0%			20.0%	20.0%	12.0%	12.0%
53	13.0%	13.0%			30.0%	30.0%	15.0%	15.0%			20.0%	20.0%	12.0%	12.0%
54	13.0%	13.0%			30.0%	30.0%	15.0%	15.0%			23.0%	23.0%	12.0%	12.0%
55	11.0%	11.0%	8.0%	8.0%	50.0%	50.0%	25.0%	25.0%			23.0%	23.0%	12.0%	12.0%
56	11.0%	11.0%	8.0%	8.0%	50.0%	50.0%	25.0%	25.0%			23.0%	23.0%	12.0%	12.0%
57	11.0%	11.0%	8.0%	8.0%	50.0%	50.0%	25.0%	25.0%			23.0%	23.0%	12.0%	12.0%
58	11.0%	11.0%	8.0%	8.0%	50.0%	50.0%	25.0%	25.0%			23.0%	23.0%	12.0%	12.0%
59	11.0%	11.0%	8.0%	8.0%	50.0%	50.0%	25.0%	25.0%			18.0%	18.0%	12.0%	12.0%
60	12.5%	12.5%	8.0%	8.0%	100.0%	100.0%	100.0%	100.0%	10.0%	25.0%	23.0%	23.0%	12.0%	12.0%
61	12.5%	12.5%	8.0%	8.0%					10.0%	10.0%	23.0%	23.0%	12.0%	12.0%
62	30.0%	30.0%	18.0%	18.0%					10.0%	10.0%	35.0%	35.0%	35.0%	35.0%
63	30.0%	30.0%	18.0%	18.0%					10.0%	10.0%	35.0%	35.0%	35.0%	35.0%
64	20.0%	20.0%	18.0%	18.0%					10.0%	10.0%	35.0%	35.0%	35.0%	35.0%
65	20.0%	20.0%	18.0%	18.0%					10.0%	10.0%	100.0%	100.0%	100.0%	100.0%
66	35.0%	35.0%	25.0%	25.0%					10.0%	10.0%				
67	25.0%	25.0%	25.0%	25.0%					10.0%	10.0%				
68	25.0%	25.0%	25.0%	25.0%					10.0%	10.0%				
69	25.0%	25.0%	25.0%	25.0%					10.0%	10.0%				
70 & Over	100.0%	100.0%	100.0%	100.0%					100.0%	100.0%				

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

ACTUARIAL ASSUMPTIONS AND METHODS

A. ACTUARIAL ASSUMPTIONS

Rates of Normal Retirement

Ages	Additional Rates to Add to Annual Rates of Normal Retirement at Age of First Eligibility							
	Teachers' Pension Reformed				Employees' Pension Reformed			
	At Least 30 Years		Less Than 30 Years		At Least 30 Years		Less Than 30 Years	
	Male	Female	Male	Female	Male	Female	Male	Female
55 and Under	35.0%	35.0%			35.0%	35.0%		
56	28.0%	28.0%			28.0%	28.0%		
57	21.0%	21.0%			21.0%	21.0%		
58	14.0%	14.0%			14.0%	14.0%		
59	7.0%	7.0%			7.0%	7.0%		
60	0.0%	0.0%			0.0%	0.0%		
61	0.0%	0.0%			0.0%	0.0%		
62	0.0%	0.0%			0.0%	0.0%		
63	0.0%	0.0%			0.0%	0.0%		
64	0.0%	0.0%			0.0%	0.0%		
65+	0.0%	0.0%	25.0%	25.0%	0.0%	0.0%	25.0%	25.0%

ACTUARIAL ASSUMPTIONS AND METHODS

A. ACTUARIAL ASSUMPTIONS

Rates of Early Retirement

Ages	Annual Rates of Early Retirement *											
	Teachers' Retirement		Teachers' Pension				Employees' Retirement		Employees' Pension			
			Non-Reformed		Reformed				Non-Reformed		Reformed	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
40	1.0%	1.0%					1.0%	1.0%				
41	1.0%	1.0%					1.0%	1.0%				
42	1.0%	1.0%					1.0%	1.0%				
43	1.0%	1.0%					1.0%	1.0%				
44	1.0%	1.0%					1.0%	1.0%				
45	1.0%	1.0%					1.0%	1.0%				
46	1.0%	1.0%					1.0%	1.0%				
47	1.0%	1.0%					1.0%	1.0%				
48	1.0%	1.0%					1.0%	1.0%				
49	1.5%	1.5%					1.0%	1.0%				
50	1.5%	1.5%					1.0%	1.0%				
51	1.5%	1.5%					4.0%	3.0%				
52	2.0%	1.5%					4.0%	3.0%				
53	2.0%	1.5%					4.0%	3.0%				
54	2.0%	1.5%					4.0%	3.0%				
55	2.0%	3.0%	2.0%	3.5%			6.0%	2.5%	2.0%	2.5%		
56	2.0%	3.0%	1.5%	3.0%			6.0%	2.5%	2.0%	2.5%		
57	3.0%	3.0%	2.0%	3.5%			6.0%	5.0%	2.0%	2.5%		
58	3.0%	4.0%	2.0%	3.5%			6.0%	5.0%	2.0%	3.0%		
59	3.0%	5.0%	3.5%	4.5%			6.0%	5.0%	3.5%	4.5%		
60			4.5%	5.5%	10.0%	15.0%			4.0%	5.0%	10.0%	15.0%
61			6.5%	7.0%	6.5%	7.0%			8.0%	9.0%	8.0%	9.0%
62					6.5%	7.0%					8.0%	9.0%
63					6.5%	7.0%					8.0%	9.0%
64					6.5%	7.0%					8.0%	9.0%

* Divisions without early retirement eligibility are not shown. Early retirement rates are not applied for members of the General Assembly covered under the Employees' Retirement System.

ACTUARIAL ASSUMPTIONS AND METHODS

A. ACTUARIAL ASSUMPTIONS

Social Security Covered Compensation

Teachers' Retirement	Not applicable
Teachers' Pension	Future covered compensation levels, used to estimate member contributions and retirement allowances, were calculated using a 3.40% per annum compounded increase in the 2014 Social Security Maximum Taxable Wage Base.
Employees' Retirement	Not applicable
Employees' Pension	Future covered compensation levels, used to estimate member contributions and retirement allowances, were calculated using a 3.40% per annum compounded increase in the 2014 Social Security Maximum Taxable Wage Base.
State Police Retirement	Not applicable
Judges' Pension	Not applicable
LEOPS	Future covered compensation levels, used to estimate member contributions and retirement allowances, were calculated using a 3.40% per annum compounded increase in the 2014 Social Security Maximum Taxable Wage Base.
Correctional Officers' Retirement System	Not applicable

ACTUARIAL ASSUMPTIONS AND METHODS

B. ACTUARIAL PROCEDURES

1. Asset Valuation Method

All six Systems use a method based on the principle that the difference between actual and expected investment returns should be subject to partial recognition to smooth out fluctuations in the total return achieved by the fund from year to year. Under this method, the actuarial value of assets reflects annually one-fifth of the market value gains or losses for the five prior years. The resulting value is restricted to be not less than 80% of market value nor greater than 120% of market value. As of June 30, 2007, the calculation of market gains or losses included the difference between market and actuarial assets as of June 30, 2006.

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

ACTUARIAL ASSUMPTIONS AND METHODS

B. ACTUARIAL PROCEDURES

2. Funding Method

All six Systems use the individual entry age normal method to determine costs. Under this funding method, a total contribution rate is determined which consists of two elements, the normal cost rate and the Unfunded Actuarial Liability (UAL) rate.

The individual Entry Age Normal cost rate is determined as the value, as of age at entry into the plan, of the member's projected future benefits, and divided by the value, also as of the member's entry age, of the member's expected future salary. For purposes of calculating the normal cost rate, the same benefit accrual rates used to calculate the present value of future benefits are used to calculate the normal cost. The benefit provisions applicable to each member are used in developing his/her individual normal cost rate.

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

The System's unfunded actuarial liability is funded over a 25-year closed amortization period ending June 30, 2039 (24 years remaining as of June 30, 2014) as a level percentage of payroll.

There is an additional component in the unfunded actuarial accrued liability amortization contribution rate that accounts for the effects of the lag between the valuation date and when the contribution is made. This calculation assumes the contributions that would be received in fiscal year 2015 are equal to the budgeted contributions developed in the valuation as of June 30, 2013, plus the proportionate share of reinvested savings allocated to each System for fiscal year 2015 under the pension reforms.

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

A portion of the savings from the 2011 pension reforms passed by the General Assembly are to be reinvested as additional contributions into the Systems. In fiscal year 2012, \$120 million will be reduced from the rates that were certified by the Board from the 2010 valuation. In fiscal year 2013, additional contributions will be made equal to the total savings from the pension reforms less \$120 million. The General Assembly amended the schedule for additional contributions from \$300 million each year to the schedule below for fiscal year 2014 and thereafter.

Fiscal Year	Additional Contributions
2014	\$100 Million
2015	\$100 Million
2016	\$150 Million
2017	\$200 Million
2018	\$250 Million
2019 & After	\$300 Million until the combined funded ratio reaches 85% and the corridor is fully phased out.

SUMMARY OF ASSUMPTIONS USED
JUNE 30, 2014
MISCELLANEOUS AND TECHNICAL ASSUMPTIONS

Marriage Assumption:	75% of males and females are assumed to be married for purposes of death-in-service benefits.
Pay Increase Timing:	Teachers' Systems assume beginning of (Fiscal) year. This is equivalent to assuming that reported pays represent amounts paid to members during the year ended on the valuation date. All other Systems assume middle of (Fiscal) year. This is equivalent to assuming that reported pays represent the annualized rate of pay at the beginning of the (Fiscal) year.
Decrement Timing:	Decrements of all types are assumed to occur mid-year, except for Teachers' Systems which assumed beginning of year (i.e., July 1) for retirement and termination.
Eligibility Testing:	Eligibility for benefits is determined based upon the age nearest birthday and rounded integer service on the date the decrement is assumed to occur.
Benefit Service:	Exact fractional service is used to determine the amount of benefit payable.
Decrement Operation:	Mortality and disability operate during retirement eligibility.
Incidence of Contributions:	Contributions are assumed to be received continuously throughout the year based upon the computed percent of payroll shown in this report, and the actual payroll payable at the time contributions are made. New entrant normal cost contributions are applied to the funding of new entrant benefits.
Unused Sick Leave:	Each member is assumed to have an additional 5 months of service at retirement attributable to sick leave.
Unknown Data for Participants:	Average characteristics of the group as a whole are used to fill in the unknown data.
Age of Spouse:	In the absence of complete data, females are assumed to be 4 years younger than males.
Option Elections:	It was assumed optional forms of payment were actuarially equivalent to the normal form of payment.
Reinvested Savings Allocation:	Total savings from the 2011 pension reforms that are to be reinvested in each of the Systems as additional contributions are allocated between the Systems in proportion to the savings as measured in the actuarial valuation as of June 30, 2011.

**SUMMARY OF ASSUMPTIONS USED
JUNE 30, 2014**

MISCELLANEOUS AND TECHNICAL ASSUMPTIONS

**Vested Deferred Benefit
Commencement:**

Active members assumed to terminate with a vested benefit, current vested deferred, and inactive members are assumed to commence receiving benefits at the following ages.

Correctional Officers: Age 55

Employees' and Teachers' Retirement, Judges, and Legislators: Age 60

Employees' and Teachers' Pension: Age 62 or age 55 if the member has at least 15 years of service

Employees' and Teachers' Pension Reformed: Age 65 or age 60 if the member has at least 15 years of service

LEOPS and State Police: Age 50

Liability Adjustments:

An additional liability was added to the aggregate results for Teachers' and Employees' Pension Systems to reflect that the past service benefits would be calculated based on the full time salary equivalent for part-time members. The additional liability amounts are \$175,540,000 for TPS and \$47,130,000 for EPS state.

For State Police and LEOPS, the value of the DROP interest credits of 4% to 6% vs. the valuation interest rate of 7.65% was accounted for through the use of certain load factors as shown in the table below. The assumed length of time members would stay in the DROP was 3.93 years for State Police and 4.84 years for LEOPS, based on the average projected DROP period of current DROP members in the data provided by the SRA.

<u>Load Applied to</u>	<u>Load Factor</u>	
	<u>State Police</u>	<u>LEOPS</u>
Active Normal Retirement Decrement	0.9925	0.9893
Liabilities for Members in the DROP	0.9945	0.9950
DROP Account Balances	0.9630	0.9474

DEFINITIONS OF TECHNICAL TERMS

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

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

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

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

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

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

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

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

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

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

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

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

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

APPENDIX B

MEMBERSHIP INFORMATION

STATE RETIREMENT AND PENSION SYSTEM
SUMMARY OF MEMBERSHIP DATA AS OF JUNE 30, 2014
(STATE AND MUNICIPAL)

		Active Members		Retirees and Beneficiaries			Vested Former Members (Includes Inactives)	Total Number
		Number	Salary	Number	Benefits#	Ave. Age		
Teachers' Retirement - STATE	Total	235	\$ 24,669,303					
	Vested	235	\$ 24,669,303					
	Non-vested	0	\$ -	3,878	\$ 134,853,614	78.2	61.9	146
Teachers' Pension - STATE	Total	8,826	\$ 481,699,198					
	Vested	6,235	\$ 366,734,690					
	Non-vested	2,591	\$ 114,964,508	4,789	\$ 74,377,061	71.4	63.1	2,871
Teachers' Retirement - LOCAL	Total	1,041	\$ 91,687,113					
	Vested	1,041	\$ 91,687,113					
	Non-vested	0	\$ -	24,884	\$ 895,443,729	75.5	58.3	296
Teachers' Pension - LOCAL	Total	94,368	\$ 5,712,197,780					
	Vested	74,084	\$ 4,804,761,605					
	Non-vested	20,284	\$ 907,436,175	35,378	\$ 746,222,636	68.8	61.5	20,907
Employees' Retirement	Total	8,741	\$ 423,960,682					
	Vested	6,439	\$ 330,318,340					
	Non-vested	2,302	\$ 93,642,342	22,013	\$ 473,857,374	73.2	57.4	831
Employees' Pension	Total	76,084	\$ 3,791,019,971					
	Vested	56,250	\$ 2,976,754,889					
	Non-vested	19,834	\$ 814,265,082	47,446	\$ 626,632,715	68.7	61.9	26,707
State Police	Total	1,351	\$ 85,660,006					
	Vested	998	\$ 69,532,374					
	Non-vested	353	\$ 16,127,632	2,468	\$ 113,133,192	61.9	47.9	82
Judges	Total	301	\$ 42,313,395					
	Vested	254	\$ 35,828,819					
	Non-vested	47	\$ 6,484,576	395	\$ 28,712,353	76.7	65.1	8
LEOPS	Total	2,484	\$ 145,672,538					
	Vested	1,832	\$ 114,701,190					
	Non-vested	652	\$ 30,971,348	1,613	\$ 53,739,964	58.6	52.4	283
CORS	Total	91	\$ 4,752,059					
	Vested	50	\$ 2,937,878					
	Non-vested	41	\$ 1,814,181	23	\$ 680,025	56.3	55.7	2
Total Systems	Total	193,522	\$ 10,803,632,045					
	Vested	147,418	\$ 8,817,926,201					
	Non-vested	46,104	\$ 1,985,705,844	142,887	\$ 3,147,652,663	70.7	60.2	52,133

* Includes normal and early service retirees only.

#Retiree benefit amounts include the cost-of-living-adjustment granted July 1, 2014.

STATE RETIREMENT AND PENSION SYSTEM
SUMMARY OF MEMBERSHIP DATA AS OF JUNE 30, 2014
(STATE ONLY)

		<u>Active Members</u>		<u>Retirees and Beneficiaries</u>				<u>Vested Former Members (Includes Inactives)</u>	<u>Total</u>
		<u>Number</u>	<u>Salary</u>	<u>Number</u>	<u>Benefits#</u>	<u>Ave. Age</u>	<u>Avg. Age at Ret.*</u>	<u>Number</u>	<u>Number</u>
Teachers' Retirement - STATE	Total	235	\$ 24,669,303						
	Vested	235	\$ 24,669,303						
	Non-vested	0	\$ -	3,878	\$ 134,853,614	78.2	61.9	146	4,259
Teachers' Pension - STATE	Total	8,826	\$ 481,699,198						
	Vested	6,235	\$ 366,734,690						
	Non-vested	2,591	\$ 114,964,508	4,789	\$ 74,377,061	71.4	63.1	2,871	16,486
Teachers' Retirement - LOCAL	Total	1,041	\$ 91,687,113						
	Vested	1,041	\$ 91,687,113						
	Non-vested	0	\$ -	24,884	\$ 895,443,729	75.5	58.3	296	26,221
Teachers' Pension - LOCAL	Total	94,368	\$ 5,712,197,780						
	Vested	74,084	\$ 4,804,761,605						
	Non-vested	20,284	\$ 907,436,175	35,378	\$ 746,222,636	68.8	61.5	20,907	150,653
Employees' Retirement	Total	8,622	\$ 416,964,224						
	Vested	6,320	\$ 323,321,882						
	Non-vested	2,302	\$ 93,642,342	18,520	\$ 408,926,251	72.3	56.9	791	27,933
Employees' Pension	Total	51,529	\$ 2,760,737,179						
	Vested	38,549	\$ 2,171,135,516						
	Non-vested	12,980	\$ 589,601,663	34,937	\$ 486,864,353	68.6	61.4	20,123	106,589
State Police	Total	1,351	\$ 85,660,006						
	Vested	998	\$ 69,532,374						
	Non-vested	353	\$ 16,127,632	2,468	\$ 113,133,192	61.9	47.9	82	3,901
Judges	Total	301	\$ 42,313,395						
	Vested	254	\$ 35,828,819						
	Non-vested	47	\$ 6,484,576	395	\$ 28,712,353	76.7	65.1	8	704
LEOPS	Total	1,543	\$ 93,026,889						
	Vested	1,109	\$ 71,625,721						
	Non-vested	434	\$ 21,401,168	1,309	\$ 42,974,947	59.6	52.5	192	3,044
Total Systems	Total	167,816	\$ 9,708,955,087						
	Vested	128,825	\$ 7,959,297,023						
	Non-vested	38,991	\$ 1,749,658,064	126,558	\$ 2,931,508,137	70.8	60.0	45,416	339,790

* Includes normal and early service retirees only.

Retiree benefit amounts include the cost-of-living-adjustment granted July 1, 2014.

STATE RETIREMENT AND PENSION SYSTEM
SUMMARY OF MEMBERSHIP DATA AS OF JUNE 30, 2014
(MUNICIPAL ONLY)

		<u>Active Members</u>		<u>Retirees and Beneficiaries</u>				<u>Vested Former Members (Includes Inactives)</u>	<u>Total Number</u>
		<u>Number</u>	<u>Salary</u>	<u>Number</u>	<u>Benefits#</u>	<u>Avg. Age</u>	<u>Avg. Age at Ret.*</u>	<u>Number</u>	
Employees' Retirement	Total	119	\$ 6,996,458						
	Vested	119	\$ 6,996,458						
	Non-vested	0	\$ -	3,493	\$ 64,931,123	77.8	60.1	40	3,652
Employees' Pension	Total	24,555	\$ 1,030,282,792						
	Vested	17,701	\$ 805,619,373						
	Non-vested	6,854	\$ 224,663,419	12,509	\$ 139,768,361	69.1	63.2	6,584	43,648
LEOPS	Total	941	\$ 52,645,649						
	Vested	723	\$ 43,075,469						
	Non-vested	218	\$ 9,570,180	304	\$ 10,765,017	54.3	51.9	91	1,336
CORS	Total	91	\$ 4,752,059						
	Vested	50	\$ 2,937,878						
	Non-vested	41	\$ 1,814,181	23	\$ 680,025	56.3	55.7	2	116
Total Systems	Total	25,706	\$ 1,094,676,958						
	Vested	18,593	\$ 858,629,178						
	Non-vested	7,113	\$ 236,047,780	16,329	\$ 216,144,525	70.7	62.3	6,717	48,752

* Includes normal and early service retirees only.

Retiree benefit amounts include the cost-of-living-adjustment granted July 1, 2014.

ACTIVE MEMBERSHIP INFORMATION

Maryland State Retirement and Pension System Active Membership Statistics June 30, 2014				
System	Number	Average Age	Average Credited Service	Average Salary
Teachers' Retirement	1,276	63.6	38.4	\$ 91,188
Teachers' Pension	103,194	44.9	12.2	60,022
Employees' Retirement – State	680	62.2	38.4	71,007
Employees' Retirement – Municipal	119	61.8	37.8	58,794
Employees' Retirement – Legislators	187	57.6	12.2	43,639
Employees' Retirement – Correctional Officers	7,755	41.8	10.3	46,489
Employees' Retirement – Total	8,741	44.0	12.9	48,503
Employees' Pension – State	51,529	48.3	13.0	53,576
Employees' Pension – Municipal	24,555	49.2	10.9	41,958
Employees' Pension – Total	76,084	48.6	12.3	49,827
State Police	1,351	35.5	11.0	63,405
Judges	301	57.7	8.9	140,576
LEOPS – State	1,543	41.8	10.4	60,290
LEOPS – Municipal	941	39.1	10.6	55,946
LEOPS – Total	2,484	40.8	10.5	58,644
CORS	91	41.4	8.4	52,220
TOTAL SYSTEMS	193,522	46.3	12.1	55,826
	Teachers' Retirement		Employees' Retirement	
	Number	Earnings	Number	Earnings
Unlimited COLA	770	\$ 71,600,994	501	\$ 34,716,080
5% COLA Cap	311	27,627,393	235	16,128,991
Bifurcate	195	17,128,029	63	4,436,220
	<u>1,276</u>	<u>\$ 116,356,416</u>	<u>799</u>	<u>\$ 55,281,291</u>

**ACTIVE MEMBERSHIP – AGE & SERVICE DISTRIBUTION
JUNE 30, 2014**

TEACHERS' COMBINED SYSTEM

Age Nearest Birthday	Nearest Whole Years of Service on the Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Valuation Payroll
Under 20	12							12	\$ 220,927
20-24	2,214	7						2,221	89,620,817
25-29	7,315	2,698	14					10,027	457,540,460
30-34	3,496	7,623	2,222	11				13,352	708,208,731
35-39	2,451	3,377	5,118	1,384	3			12,333	747,794,876
40-44	2,241	2,786	2,919	4,179	889	6		13,020	845,664,940
45-49	2,127	2,767	2,311	2,479	2,563	719	6	12,972	829,817,605
50-54	1,638	2,698	2,430	2,077	1,467	1,853	462	12,625	781,070,598
55-59	1,008	1,994	2,351	2,293	1,491	1,526	1,818	12,481	800,026,711
60	136	290	393	481	343	273	520	2,436	163,046,793
61	146	305	350	414	340	295	558	2,408	163,205,595
62	117	238	313	376	366	327	584	2,321	164,511,032
63	85	228	253	304	262	226	459	1,817	125,580,137
64	89	178	220	212	207	179	371	1,456	102,737,029
65	66	170	170	153	166	162	310	1,197	81,028,586
66	53	118	141	142	121	140	248	963	65,758,833
67	31	102	114	104	86	107	204	748	52,119,779
68	28	68	80	81	66	63	164	550	36,831,289
69	19	46	66	36	32	44	85	328	21,125,144
70	12	44	53	32	32	29	99	301	20,053,764
71	11	36	32	25	15	18	73	210	13,722,897
72	5	21	39	21	10	14	60	170	10,616,251
73	4	14	29	16	13	14	44	134	8,316,359
74	5	16	14	9	7	10	31	92	5,330,606
75	5	16	14	7	2	4	22	70	4,489,145
76	8	7	9	7	5	4	17	57	2,501,867
77	2	6	7	8	1	1	10	35	1,630,190
78	6	3	2	7	3	4	24	49	2,919,781
79+		14	15	9	8	5	34	85	4,762,652
Totals	23,330	25,870	19,679	14,867	8,498	6,023	6,203	104,470	\$6,310,253,394

**ACTIVE MEMBERSHIP – AGE & SERVICE DISTRIBUTION
JUNE 30, 2014**

EMPLOYEES' COMBINED SYSTEM

Age Nearest Birthday	Nearest Whole Years of Service on the Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Valuation Payroll
Under 20	21							21	\$ 531,268
20-24	1,321	24						1,345	42,393,459
25-29	4,092	1,400	35					5,527	215,806,824
30-34	3,540	2,813	651	18				7,022	308,183,521
35-39	2,850	2,514	1,717	603	13			7,697	360,621,650
40-44	2,536	2,433	1,908	1,715	503	76		9,171	453,879,180
45-49	2,499	2,644	2,010	1,874	1,322	1,152	85	11,586	583,055,585
50-54	2,363	2,787	2,085	2,013	1,485	2,047	1,117	13,897	722,867,486
55-59	1,907	2,184	1,933	1,856	1,407	1,722	2,475	13,484	721,993,685
60	278	386	366	314	250	296	531	2,421	133,244,238
61	221	344	325	271	259	281	538	2,239	124,260,906
62	206	309	252	265	197	248	436	1,913	104,857,269
63	146	280	222	225	141	187	403	1,604	88,647,724
64	152	237	209	200	126	151	316	1,391	75,818,154
65	111	227	200	146	98	115	232	1,129	60,034,141
66	98	186	154	147	103	73	230	991	53,794,034
67	67	141	119	122	77	71	150	747	40,794,166
68	61	105	98	83	59	55	108	569	29,572,260
69	43	74	62	46	46	53	74	398	19,962,596
70	46	64	74	49	37	28	65	363	17,765,098
71	28	57	56	50	28	23	56	298	13,841,734
72	23	36	45	32	24	20	46	226	10,566,325
73	21	30	26	20	18	25	32	172	7,430,724
74	14	29	34	14	14	18	16	139	5,624,702
75	19	19	21	22	5	14	20	120	5,271,654
76	12	14	16	17	10	12	21	102	4,280,770
77	3	13	15	14	4	6	10	65	2,721,399
78	2	7	9	9	6	5	7	45	1,596,549
79+	6	26	29	20	23	10	29	143	5,563,552
Totals	22,686	19,383	12,671	10,145	6,255	6,688	6,997	84,825	\$4,214,980,653

ACTIVE MEMBERSHIP – AGE & SERVICE DISTRIBUTION JUNE 30, 2014

STATE POLICE

Age Nearest Birthday	Nearest Whole Years of Service on the Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Valuation Payroll
Under 20	8							8	\$ 206,944
20-24	111	6						117	4,966,582
25-29	157	104	11					272	13,674,377
30-34	49	128	82	5				264	15,595,713
35-39	18	43	81	61	12			215	14,659,358
40-44	5	36	36	96	66			239	17,871,605
45-49	5	20	17	46	68	14		170	13,215,660
50-54		4	8	5	25	9	2	53	4,406,141
55-59			3	4	2		4	13	1,063,626
Totals	353	341	238	217	173	23	6	1,351	\$85,660,006

**ACTIVE MEMBERSHIP – AGE & SERVICE DISTRIBUTION
JUNE 30, 2014**

JUDGES

Age Nearest Birthday	Nearest Whole Years of Service on the Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Valuation Payroll
35-39	2							2	\$ 263,616
40-44	12	2						14	1,950,112
45-49	20	6	1					27	3,712,116
50-54	23	19	11					53	7,391,124
55-59	17	19	17	20				73	10,278,084
60	4	2	5	5				16	2,229,278
61		2	3	8				13	1,827,504
62	4	10	1	3				18	2,550,294
63	3	1	2	4				10	1,498,980
64	1	3	5	8				17	2,380,636
65	1	1	5	10				17	2,383,417
66	1	2	2	7				12	1,672,202
67	3	1	3	7				14	1,988,512
68	1	3	2	3				9	1,299,972
69		2	2	1				5	742,640
70				1				1	144,908
Totals	92	73	59	77	0	0	0	301	\$42,313,395

ACTIVE MEMBERSHIP – AGE & SERVICE DISTRIBUTION

JUNE 30, 2014

LEOPS

Age Nearest Birthday	Nearest Whole Years of Service on the Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Valuation Payroll
20-24	111	7						118	\$ 5,274,309
25-29	201	114	9					324	15,253,062
30-34	96	167	76	5				344	17,660,359
35-39	53	105	135	33	2			328	18,381,845
40-44	48	72	109	137	66	1		433	26,922,917
45-49	70	58	68	97	113	27	1	434	28,195,590
50-54	44	47	27	37	38	34	9	236	15,706,234
55-59	24	42	21	16	22	12	17	154	10,569,509
60	1	8	4	1	2	1	3	20	1,305,008
61	6	4	4	4	1		3	22	1,474,609
62		3	3	3		2	1	12	727,557
63		3	4	4	3		3	17	1,282,526
64	1	2	1	3	2	1	2	12	891,758
65	2	3	1		3			9	617,130
66	1	3	3	3			2	12	780,671
67				1	2			3	225,904
68		1			1		1	3	219,588
71		1			1			2	106,205
73					1			1	77,757
Totals	658	640	465	344	257	78	42	2,484	\$145,672,538

**ACTIVE MEMBERSHIP – AGE & SERVICE DISTRIBUTION
JUNE 30, 2014**

CORS

Age Nearest Birthday	Nearest Whole Years of Service on the Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Valuation Payroll
20-24	3							3	\$ 129,168
25-29	11							11	480,315
30-34	8	7						15	705,744
35-39	5		2	4				11	595,402
40-44	6	4	5	3				18	948,253
45-49	4	3		1	1			9	447,929
50-54	1	3	2	1	2		2	11	711,569
55-59	3	3	2	1			1	10	580,882
60			1					1	57,762
63		1						1	45,219
64		1						1	49,816
Totals	41	22	12	10	3	0	3	91	\$4,752,059

RETIRED MEMBERSHIP STATISTICS
JUNE 30, 2014
(STATE AND MUNICIPAL)

System	Number	Average Age	Average Credited Service*	Average Final Average Salary*	Average Benefit#
Teachers' Retirement	28,762	75.9	28.4	\$ 49,324	\$ 35,821
Teachers' Pension	40,167	69.1	21.9	54,830	20,430
Employees' Retirement – State	18,520	72.3	24.3	\$ 36,038	\$ 22,080
Employees' Retirement – Municipal	3,493	77.8	24.3	28,602	18,589
Employees' Retirement – Total	<u>22,013</u>	73.2	24.3	34,858	21,526
Employees' Pension – State	34,937	68.6	20.5	\$ 41,673	\$ 13,935
Employees' Pension – Municipal	<u>12,509</u>	69.1	17.3	35,721	11,173
Employees' Pension – Total	<u>47,446</u>	68.7	19.6	40,104	13,207
State Police	2,468	61.9	23.8	\$ 49,059	\$ 45,840
Judges	395	76.7	14.0	\$ 143,482	\$ 72,690
LEOPS – State	1,309	59.6	23.0	\$ 55,256	\$ 32,830
LEOPS – Municipal	<u>304</u>	54.3	22.5	62,108	35,411
LEOPS – Total	<u>1,613</u>	58.6	22.9	56,548	33,317
CORS – Municipal	23	56.3	23.7	\$ 67,690	\$ 29,566
Total - State	126,558	70.8	23.4	\$ 47,365	\$ 23,163
Total - Municipal	16,329	70.7	18.9	34,735	13,237
TOTAL SYSTEMS	142,887	70.7	22.9	45,922	22,029

*Only non-zero values included in averages.

RETIRED MEMBERSHIP STATISTICS –BY TYPE
JUNE 30, 2014
(STATE AND MUNICIPAL)

System	Service Retirees		Disabilities		Beneficiaries	
	Number	Average Age	Number	Average Age	Number	Average Age
Teachers' Retirement	25,513	75.6	849	75.1	2,400	78.4
Teachers' Pension	35,599	69.8	3,450	62.4	1,118	69.5
Employees' Retirement – State	14,258	72.5	1,643	61.4	2,619	78.3
Employees' Retirement – Municipal	2,644	77.7	253	74.8	596	79.5
Employees' Retirement – Total	16,902	73.3	1,896	63.1	3,215	78.6
Employees' Pension – State	27,769	69.8	5,277	61.8	1,891	69.8
Employees' Pension – Municipal	9,450	71.1	2,417	61.1	642	69.5
Employees' Pension – Total	37,219	70.1	7,694	61.6	2,533	69.7
State Police	1,583	63.2	612	54.4	273	71.0
Judges	278	75.1	3	66.6	114	81.0
LEOPS – State	953	61.7	280	51.8	76	62.2
LEOPS – Municipal	218	56.9	77	46.9	9	54.6
LEOPS – Total	1,171	60.8	357	50.7	85	61.4
CORS – Municipal	19	58.0	4	47.7		
Total - State	105,953	71.4	12,114	62.2	8,491	75.0
Total - Municipal	12,331	72.2	2,751	61.9	1,247	74.2
TOTAL SYSTEMS	118,284	71.5	14,865	62.2	9,738	74.9

#Retiree benefit amounts include the cost-of-living-adjustment granted July 1, 2014.

RETIRED MEMBERSHIP – ATTAINED AGE
JUNE 30, 2014
(STATE AND MUNICIPAL)

Age At Valuation Date	Teachers'		Employees		State Police		Judges		LEOPS		CORS (Municipal)		Total	
	Number	Annual Benefits#	Number	Annual Benefits#	Number	Annual Benefits#	Number	Annual Benefits#	Number	Annual Benefits#	Number	Annual Benefits#	Number	Annual Benefits
Under 30	11	\$ 125,640	50	\$ 733,936	8	\$ 221,918	-	-	5	\$ 108,830	-	-	74	\$ 1,190,324
30-34	21	597,625	62	1,158,881	9	343,497	-	-	23	778,386	-	-	115	2,878,389
35-39	57	1,571,876	124	2,467,016	36	1,441,646	-	-	28	917,839	-	-	245	6,398,378
40-44	119	3,158,441	423	9,315,261	109	5,251,290	-	-	67	2,399,234	-	-	718	20,124,226
45-49	219	6,044,358	1,082	22,597,328	304	14,523,241	-	-	151	5,620,160	4	\$ 63,424	1,760	48,848,512
50-54	471	11,764,741	2,506	52,207,741	307	14,581,954	1	\$ 45,500	281	10,040,076	7	240,005	3,573	88,880,017
55-59	2,323	72,383,889	5,363	110,803,294	327	15,526,241	2	46,385	335	11,695,014	6	182,954	8,356	210,637,777
60-64	10,721	325,321,801	11,136	201,606,209	350	16,564,018	25	2,026,389	311	10,187,657	3	91,211	22,546	555,797,284
65-69	18,915	511,272,879	15,936	257,133,216	372	16,662,806	60	4,893,393	239	7,142,606	2	29,626	35,524	797,134,527
70-74	14,041	361,098,910	12,105	173,800,929	287	12,377,107	91	6,765,667	99	2,873,112	1	72,804	26,624	556,988,529
75-79	9,091	230,077,593	8,717	116,889,704	194	7,833,862	79	5,913,785	52	1,449,886	-	-	18,133	362,164,830
80-84	6,651	170,768,191	6,135	77,496,836	104	4,188,223	60	4,199,138	18	440,387	-	-	12,968	257,092,776
85-89	4,073	102,514,243	3,732	48,747,733	42	2,092,602	48	2,917,181	4	86,775	-	-	7,899	156,358,534
90-94	1,740	41,672,375	1,640	20,084,353	17	1,308,359	22	1,427,074	-	-	-	-	3,419	64,492,160
95-99	406	10,326,845	396	4,884,703	2	216,430	5	347,029	-	-	-	-	809	15,775,007
100-104	66	2,085,185	50	531,920	-	-	2	130,812	-	-	-	-	118	2,747,917
105-109	4	112,448	2	31,030	-	-	-	-	-	-	-	-	6	143,478
	68,929	\$ 1,850,897,041	69,459	\$ 1,100,490,089	2,468	\$ 113,133,192	395	\$ 28,712,353	1,613	\$ 53,739,964	23	\$ 680,025	142,887	\$ 3,147,652,663

[#]Retiree benefit amounts include the cost-of-living-adjustment granted July 1, 2014.

RETIRED MEMBERSHIP* – BY CALENDAR YEAR OF RETIREMENT
JUNE 30, 2014
(STATE AND MUNICIPAL)

Year of Retirement	Teachers'		Employees		State Police		Judges		LEOPS		CORS (Municipal)		Total	
	Number	Annual Benefits#	Number	Annual Benefits#	Number	Annual Benefits#	Number	Annual Benefits#	Number	Annual Benefits#	Number	Annual Benefits#	Number	Annual Benefits
Before 1984	2,842	\$ 75,944,562	2,361	\$ 34,444,315	236	\$ 10,296,612	24	\$ 965,832	-	-	-	-	5,463	\$ 121,651,321
1984	651	17,310,313	657	9,689,773	46	1,594,061	7	275,981	-	-	-	-	1,361	28,870,127
1985	628	15,125,115	588	8,566,580	57	2,075,712	9	636,189	-	-	-	-	1,282	26,403,596
1986	778	19,533,457	654	9,136,548	49	1,782,895	5	223,464	-	-	-	-	1,486	30,676,364
1987	680	16,998,628	724	10,583,049	47	1,801,689	9	564,265	-	-	-	-	1,460	29,947,631
1988	784	21,281,177	843	12,917,559	44	1,527,055	7	420,834	-	-	-	-	1,678	36,146,626
1989	956	25,143,573	863	13,140,365	58	2,401,024	8	375,948	-	-	-	-	1,885	41,060,910
1990	982	26,715,014	941	13,749,668	49	1,943,120	13	820,141	12	246,656	-	-	1,997	43,474,598
1991	1,203	36,290,801	1,202	18,476,067	47	2,086,407	4	231,733	17	452,260	-	-	2,473	57,537,268
1992	1,776	55,328,906	1,396	20,767,590	98	4,363,722	9	570,068	21	582,970	-	-	3,300	81,613,255
1993	1,427	39,563,347	1,309	18,148,598	63	2,714,634	5	253,109	14	380,115	-	-	2,818	61,059,803
1994	1,511	38,623,327	1,398	19,133,447	72	3,168,611	7	491,843	12	347,493	-	-	3,000	61,764,721
1995	1,674	42,148,530	1,625	22,812,261	60	2,627,481	15	997,605	14	420,451	-	-	3,388	69,006,328
1996	1,875	48,753,238	2,742	44,598,864	81	3,388,784	15	1,036,787	14	401,766	-	-	4,727	98,179,440
1997	1,964	51,450,210	1,879	28,310,505	61	2,494,202	8	613,203	15	333,247	-	-	3,927	83,201,368
1998	2,134	58,108,847	1,719	22,623,403	63	2,647,720	10	598,448	25	556,274	-	-	3,951	84,534,693
1999	2,608	72,440,686	1,857	25,959,214	63	3,103,099	10	897,753	35	755,109	-	-	4,573	103,155,860
2000	2,614	70,066,104	1,984	26,492,830	138	6,913,385	12	1,063,592	78	2,193,147	-	-	4,826	106,729,059
2001	2,553	68,169,447	2,091	29,671,219	96	4,930,051	14	984,461	100	3,383,825	-	-	4,854	107,139,004
2002	2,695	70,287,459	2,384	34,327,071	91	4,955,670	15	1,057,896	92	3,088,133	-	-	5,277	113,716,228
2003	2,706	72,569,351	2,832	44,147,993	106	5,902,675	11	1,000,398	92	3,503,976	-	-	5,747	127,124,393
2004	3,089	83,483,943	3,175	50,930,714	101	5,116,728	14	1,086,598	82	2,875,168	-	-	6,461	143,493,151
2005	3,126	79,786,941	3,395	54,653,485	116	5,578,820	15	1,242,583	96	3,440,223	-	-	6,748	144,702,052
2006	2,745	71,150,594	3,052	48,725,469	86	4,132,154	17	1,281,052	90	3,002,256	-	-	5,990	128,291,525
2007	3,036	82,454,008	3,345	56,861,274	100	4,464,546	23	1,840,310	92	2,942,184	-	-	6,596	148,562,322
2008	3,118	82,061,202	3,480	58,134,727	83	3,724,789	13	1,108,812	99	3,461,313	-	-	6,793	148,490,843
2009	3,013	74,162,608	3,569	57,791,759	71	3,374,943	17	1,420,996	123	4,288,226	1	13,545	6,794	141,052,077
2010	3,550	97,394,878	4,183	73,529,745	76	4,189,891	16	1,362,349	99	3,596,084	7	187,090	7,931	180,260,037
2011	4,313	123,911,734	4,432	79,932,925	81	3,702,817	16	1,341,702	121	4,235,754	3	177,192	8,966	213,302,126
2012	3,574	96,549,424	3,613	60,506,655	53	2,515,935	14	1,214,922	120	4,147,429	3	96,759	7,377	165,031,123
2013	3,556	99,392,829	3,838	68,700,410	60	2,857,856	21	1,645,131	118	4,050,592	6	166,578	7,599	176,813,396
2014	768	18,696,788	1,328	23,026,007	16	756,106	12	1,088,347	32	1,055,310	3	38,860	2,159	44,661,417
	68,929	\$ 1,850,897,041	69,459	\$ 1,100,490,089	2,468	\$ 113,133,192	395	\$ 28,712,353	1,613	\$ 53,739,964	23	\$ 680,025	142,887	\$ 3,147,652,663

* Does not include beneficiaries. # Retiree benefit amounts include the cost-of-living-adjustment granted July 1, 2014.

APPENDIX C

SUMMARY OF PLAN PROVISIONS

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TEACHERS' RETIREMENT SYSTEM OF THE STATE OF MARYLAND

1. Membership

System closed to new members hired on or after January 1, 1980. Members on December 31, 1979 continue to be members unless they elected to transfer into the Teachers' Pension System (established January 1, 1980) prior to January 1, 2005.

Membership includes any teacher, helping teacher, principal, supervisor, superintendent, or clerk employed in public day school within the State of Maryland, or controlled by the State; any librarian or clerical employee of a library established or operated under the Education Article; any professional or clerical employee of a community college established or operated under the Education Article; or staff employee of the University System of Maryland, Morgan University or St. Mary's College who is a member as of January 1, 1998.

2. Member Contributions

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

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

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

3. Service Retirement Allowance

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

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

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

TEACHERS' RETIREMENT SYSTEM OF THE STATE OF MARYLAND

4. Early Retirement Allowance

Eligibility: 25 years of eligibility service.

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

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

5. Disability Retirement Allowance

Ordinary

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

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

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

Accidental

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

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

TEACHERS' RETIREMENT SYSTEM OF THE STATE OF MARYLAND

6. Death Benefits

Eligibility: One year of eligibility service.

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

Spouse Law

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

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

Special Death Benefit

Eligibility: Killed in line of duty.

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

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

7. Vested Retirement Allowance

Eligibility: Five years of eligibility service.

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

8. Cost-of-Living Adjustments (COLA)

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

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

TEACHERS' RETIREMENT SYSTEM OF THE STATE OF MARYLAND

In years in which COLAs would be less than zero due to a decline in the Consumer Price Index, retirement allowances will not be adjusted. COLAs in succeeding years are adjusted until the difference between the negative COLA that would have applied and the zero COLA is fully recovered.

9. Optional Forms of Payment

Normal service allowance is a single life annuity.

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

Option 2: 100% joint and survivor annuity. Your named beneficiary cannot be more than 10 years younger than you unless the beneficiary is your spouse or disabled child.

Option 3: 50% joint and survivor annuity.

Option 4: This option guarantees a return of accumulated member contributions remaining at date of death.

Option 5: 100% "pop-up" joint and survivor annuity with adjustment to maximum benefit if beneficiary predeceases retiree. Your named beneficiary cannot be more than 10 years younger than you unless the beneficiary is your spouse or disabled child.

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

For Option 5 and 6 – If the designated beneficiary predeceases the retiree, a new beneficiary may be named. However, the retirement allowance will be re-calculated.

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

10. Reduction for Benefits Payable under Workers' Compensation

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

11. Change in Benefits

None.

TEACHERS' PENSION SYSTEM OF THE STATE OF MARYLAND

1. Membership

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

All individuals who are members of the Teacher's Pension System on or before June 30, 2011, participate in the Alternate Contributory Pension Selection (ACPS) except for the few members who transferred from the Teachers' Retirement System after April 1, 1998 or former vested members who terminated employment prior to July 1, 1998.

All individuals who enroll in the Teachers' Pension System on or after July 1, 2011, participate in the Reformed Contributory Pension Benefit (RCPB).

2. Member Contributions

Members of both the ACPS and the RCPB are required to make contributions of 7% of earnable compensation.

Contributions earn interest at 5% per year.

3. Service Retirement Allowance

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

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

RCPB Eligibility: Combined age and eligibility service of at least 90 years or age 65 after 10 years of eligibility service.

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

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

TEACHERS' PENSION SYSTEM OF THE STATE OF MARYLAND

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

The Social Security integration level (SSIL) is the average of all Social Security Wage Bases over the thirty –five (35) calendar years prior to your retirement. Eligibility service is given based on a full normal working time in one year equal to ten months.

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

4. Early Retirement Allowance

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

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

RCPB Eligibility: Attainment of age 60 with at least 15 years of eligibility service.

RCPB Allowance: Service retirement allowance computed as of early retirement date, reduced by .005 for each month that early retirement date precedes age 65 (maximum reduction is 30%).

5. Disability Retirement Allowance

Ordinary

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

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

TEACHERS' PENSION SYSTEM OF THE STATE OF MARYLAND

Accidental

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

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

6. Death Benefits

Eligibility: One year of eligibility service.

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

Spouse Law

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

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

Special Death Benefit

Eligibility: Killed in line of duty.

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

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

7. Vested Retirement Allowance

ACPS Eligibility: Five years of eligibility service.

TEACHERS' PENSION SYSTEM OF THE STATE OF MARYLAND

ACPS Allowance: Accrued retirement allowance payable at age 62 provided member does not withdraw accumulated contributions. A member who has completed 15 years of eligibility service may begin to receive benefit payments at any time on or after attainment of age 55, reduced by .005 for each month that benefit commencement date precedes age 62.

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

RCPB Eligibility: Ten years of eligibility service.

RCPB Allowance: Accrued retirement allowance payable at age 65 provided member does not withdraw accumulated contributions. A member who has completed 15 years of eligibility service may begin to receive benefit payments at any time on or after attainment of age 60, reduced by .005 for each month that benefit commencement date precedes age 65.

If member does not commence to receive benefit payments, and dies before attaining age 65, only accumulated member contributions are returned.

8. Cost-of-Living Adjustments (COLA)

Retirement allowances may be adjusted each year based on the Consumer Price Index (CPI). Effective July 1, 1998, the adjustment is capped at a maximum 3% compounded and is applied to all benefits which have been in payment for one year.

For benefits attributable to service on or after July 1, 2011, the Cost-of-living adjustment is capped at the lesser of 2.5% or the increase in CPI if the most recent calendar year market value rate of return was greater than or equal to the assumed rate of investment return from the most recent actuarial valuation. The adjustment is capped at the lesser of 1% or the increase in CPI if the most recent calendar year market value rate of return was less than the assumed rate of investment return from the most recent actuarial valuation.

In years in which COLAs would be less than zero due to a decline in the CPI, retirement allowances will not be adjusted. COLAs in succeeding years are adjusted until the difference between the negative COLA that would have applied and the zero COLA is fully recovered.

Any adjustments are effective July 1.

9. Optional Forms of Payment

Normal service allowance is a single life annuity.

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

TEACHERS' PENSION SYSTEM OF THE STATE OF MARYLAND

- Option 2: 100% joint and survivor annuity. Your named beneficiary cannot be more than 10 years younger than you unless the beneficiary is your spouse or disabled child.
- Option 3: 50% joint and survivor annuity.
- Option 4: This option guarantees a return of accumulated member contributions remaining at date of death.
- Option 5: 100% “pop-up” joint and survivor annuity with adjustment to maximum benefit if beneficiary predeceases retiree. Your named beneficiary cannot be more than 10 years younger than you unless the beneficiary is your spouse or disabled child.
- Option 6: 50% “pop-up” joint and survivor annuity with adjustment to maximum benefit if beneficiary predeceases retiree.

For Option 5 and 6 – If the designated beneficiary predeceases the retiree, a new beneficiary may be named. However, the retirement allowance will be re-calculated.

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

10. Reduction for Benefits Payable under Workers' Compensation

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

11. Change in Benefits

None.

EMPLOYEES' RETIREMENT SYSTEM OF THE STATE OF MARYLAND

1. Membership

System closed to new members hired on or after January 1, 1980. Members on December 31, 1979 continue to be members unless they elected to transfer into the Employees' Pension System (established January 1, 1980) prior to January 1, 2005.

Membership includes employees of the State and approximately 121 participating employers.

2. Member Contributions

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

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

3. Service Retirement Allowance

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

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

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

EMPLOYEES' RETIREMENT SYSTEM OF THE STATE OF MARYLAND

4. Early Retirement Allowance

Eligibility: 25 years of eligibility service.

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

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

5. Disability Retirement Allowance

Ordinary

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

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

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

Accidental

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

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

EMPLOYEES' RETIREMENT SYSTEM OF THE STATE OF MARYLAND

6. Death Benefits

Eligibility: One year of eligibility service.

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

Spouse Law

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

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

Special Death Benefit

Eligibility: Killed in line of duty.

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

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

7. Vested Retirement Allowance

Eligibility: Five years of eligibility service.

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

EMPLOYEES' RETIREMENT SYSTEM OF THE STATE OF MARYLAND

8. Cost-of-Living Adjustments (COLA)

Retirement allowances may be adjusted based on the Consumer Price Index (CPI). Any adjustments are effective July 1 for all benefits which have been in payment for one year.

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

In years in which COLAs would be less than zero due to a decline in the Consumer Price Index, retirement allowances will not be adjusted. COLAs in succeeding years are adjusted until the difference between the negative COLA that would have applied and the zero COLA is fully recovered.

9. Optional Forms of Payment

Normal service allowance is a single life annuity.

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

Option 2: 100% joint and survivor annuity. Your named beneficiary cannot be more than 10 years younger than you unless the beneficiary is your spouse or disabled child.

Option 3: 50% joint and survivor annuity.

Option 4: This option guarantees a return of accumulated member contributions remaining at date of death.

Option 5: 100% "pop-up" joint and survivor annuity with adjustment to maximum benefit if beneficiary predeceases retiree. Your named beneficiary cannot be more than 10 years younger than you unless the beneficiary is your spouse or disabled child.

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

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

For Option 5 and 6 – If the designated beneficiary predeceases the retiree, a new beneficiary may be named. However, the retirement allowance will be re-calculated.

EMPLOYEES' RETIREMENT SYSTEM OF THE STATE OF MARYLAND

10. Reduction for Benefits Payable Under Workers' Compensation

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

11. Miscellaneous Provisions

For Members of the General Assembly

For individuals who are members of the Legislative Pension Plan on or before December 31, 2014, the retirement allowance is equal to 3.00% of current legislative salary for each year of creditable service (maximum 22 years, 3 months) upon attainment of age 60 and at least eight years of creditable service. Reduced benefits are payable upon attainment of age 50 and completion of 8 years of creditable service. The benefit is reduced by .005 for each month between ages 50 and 60 that the early retirement date precedes age 60.

An individual who is a member of the Legislative Pension Plan on or before December 31, 2014, with eight years of creditable service who has not attained age 60 may leave contributions in the system and receive a retirement allowance at age 60, or a reduced benefit on or after age 50. If termination occurs before the completion of eight years of creditable service, the member may make contributions equal to the member's and the State's required contributions until the member would have completed eight years of eligibility service, (and receive 24% of creditable compensation at age 60 or a reduced benefit on or after age 50).

For individuals who join the Legislative Pension Plan on or after January 1, 2015, the retirement allowance is equal to 3.00% of current legislative salary for each year of creditable service (maximum 22 years, 3 months) upon attainment of age 62 and at least eight years of creditable service. Reduced benefits are payable upon attainment of age 55 and completion of 8 years of creditable service. The benefit is reduced by .005 for each month between ages 55 and 62 that the early retirement date precedes age 62.

An individual who joins the Legislative Pension Plan on or after January 1, 2015, accrues eight years of creditable service, and who has not attained age 62 may leave contributions in the system and receive a retirement allowance at age 62, or a reduced benefit on or after age 55. If termination occurs before the completion of eight years of creditable service, the member may make contributions equal to the member's and the State's required contributions until the member would have completed eight years of eligibility service, (and receive 24% of creditable compensation at age 62 or a reduced benefit on or after age 55).

A member who is certified as disabled by the Medical Board and approved by the Board of Trustees for a disability retirement benefit after attaining at least 8 years of creditable service may resign from the General Assembly and immediately receive a retirement allowance based on their creditable service.

EMPLOYEES' RETIREMENT SYSTEM OF THE STATE OF MARYLAND

The **member's surviving spouse receives 50% of the member's retirement allowance** if the member i) is retired, ii) is eligible for a deferred vested benefit, or iii) is active and has eight years of creditable service. The surviving spouse of a member who had accrued less than eight years of creditable service and dies in office shall receive a lump sum death benefit of accumulated contributions plus an amount equal to the deceased's annual earnable compensation at the time of death.

Members contribute 5% (7% beginning January 1, 2015) of their earnable compensation during their first 22 years, 3 months of service with contributions earning interest at 4% per year.

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

For Correctional Officers

Correctional officers serving in the first six job classifications, maximum security attendants at Clifton T. Perkins Hospital Center, a Correctional Dietary, Maintenance or Supply Officer, Maryland Correctional Enterprise Officers and Trainees, Plant Supervisors, Plant Managers, and Regional Managers and Laundry Officers participate under this System. Effective July 1, 2006, Maryland counties may elect to participate on behalf of their detention center officers. Additionally, beginning July 1, 2014, individuals serving as a security chief, a facility administrator, an assistant warden or a warden will participate in this System.

The retirement allowance for an individual who is a correctional officer on or before June 30, 2011, is 1/55th of average final compensation for the three highest years as a member for each year of creditable service. The retirement allowance for an individual who is a correctional officer on or after July 1, 2011, is 1/55th of average final compensation for the five highest years as a member for each year of creditable service.

An immediate service retirement allowance is payable to a correctional officer if, on or before the retirement, the officer has completed 20 years of eligibility service and served at least five years in one of the positions noted above immediately preceding retirement. For individuals who are correctional officers on June 30, 2011, the vested retirement allowance of a correctional officer who was in the first six job classifications for at least 5 years preceding retirement commences at age 55; for the security attendant it commences at age 60. For individuals who become correctional officers on or after July 1, 2011, the vested retirement allowance for a correctional officer who was in the first six job classifications for at least 10 years preceding retirement commences at age 55; for the security attendant it commences at age 60.

For benefits attributable to service on or after July 1, 2011, the cost-of-living adjustment for Correctional Officers is capped at the lesser of 2.5% or the increase in CPI if the most recent calendar year market value rate of return was greater than or equal to the assumed rate of investment return from the most recent actuarial valuation. The adjustment is capped at the lesser of 1% or the increase in CPI if the most recent calendar year market value rate of return was less than the assumed rate of investment return from the most recent actuarial valuation.

EMPLOYEES' RETIREMENT SYSTEM OF THE STATE OF MARYLAND

12. Changes in Benefits for Employees' Retirement System and Correctional Officers

For members that join the Legislative Pension Plan on or after January 1, 2015, the retirement allowance is payable upon attaining age 62. A reduced early retirement allowance is available between ages 55 and 62. All Legislative Pension Plan members will contribute 7% of earnable compensation beginning January 1, 2015.

Beginning July 1, 2014, individuals serving as a security chief, a facility administrator, an assistant warden or a warden will participate in this System.

EMPLOYEES' PENSION SYSTEM OF THE STATE OF MARYLAND

1. Membership

Membership is a condition of employment for all regular employees of the State of Maryland hired on or after January 1, 1980, excluding those eligible for the Teachers' Retirement System, Teachers' Pension System, State Police Retirement System, certain judges, correctional officers, and members of the General Assembly. Certain governmental units also have elected to participate in the System.

There are four plans under the Employees' Pension System.

- Noncontributory Pension System (**NCPS**) - The original pension system established on January 1, 1980 that only applies to certain participating governmental units that did not elect to participate in the Contributory Pension System or the Alternate Contributory Pension Selection.
- Employees' Contributory Pension System (**ECPS**) – The ECPS established July 1, 1998 that only applies to certain participating governmental units that elected the ECPS but did not elect to participate in the Alternate Contributory Pension Selection.
- Alternate Contributory Pension Selection (**ACPS**) - Applies to all State employees and employees of participating governmental units that are members of the ACPS on or before June 30, 2011.
- Reformed Contributory Pension Benefit (**RCPB**) – Applies to all State employees and employees of participating governmental units enrolling in the Employees' Pension System on or after July 1, 2011. It does not apply to employees of participating governmental units participating in the NCPS or ECPS who in enroll in the Employees' Pension System on or after July 1, 2011.

2. Member Contributions

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

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

ACPS: Members are required to make contributions of 7% of earnable compensation.

RCPB: Members are required to make contributions of 7% of earnable compensation.

Contributions earn interest at 5% per year.

3. Service Retirement Allowance

NCPS, ECPS, and ACPS Eligibility - 30 years of eligibility service or attainment of one of the following:

- Age 62 with 5 years of eligibility service
- Age 63 with 4 years of eligibility service

EMPLOYEES' PENSION SYSTEM OF THE STATE OF MARYLAND

Age 64 with 3 years of eligibility service

Age 65 or older with 2 years of eligibility service

NCPS Allowance:

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

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

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

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

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

The Social Security Integration Level (SSIL) is the average of all Social Security Wage Bases over the thirty –five (35) calendar years prior to your retirement.

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

RCPB Eligibility - Combined age and eligibility service of at least 90 years or age 65 after 10 years of eligibility service.

RCPB Allowance: 1.5% of average final compensation for the five highest consecutive years as an employee for each year of creditable service on or after July 1, 2011.

EMPLOYEES' PENSION SYSTEM OF THE STATE OF MARYLAND

4. Early Retirement Allowance

NCPS, ECPS, and ACPS Eligibility: Attainment of age 55 and at least 15 years of eligibility service.

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

RCPB Eligibility: Attainment of age 60 with at least 15 years of eligibility service.

RCPB Allowance: Service retirement allowance computed as of early retirement date, reduced by .005 for each month that early retirement date precedes age 65 (maximum reduction is 30%).

5. Disability Retirement Allowance

Ordinary

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

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

Accidental

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

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

6. Death Benefits

Eligibility: One year of eligibility service.

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

EMPLOYEES' PENSION SYSTEM OF THE STATE OF MARYLAND

Spouse Law

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

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

Special Death Benefit

Eligibility: Killed in line of duty.

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

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

7. Vested Retirement Allowance

NCPS, ECPS, and ACPS Eligibility: Five years of eligibility service.

NCPS, ECPS, and ACPS Allowance: Accrued retirement allowance payable at age 62. A member who has completed 15 years of eligibility service may begin to receive benefit payments at any time on or after attainment of age 55, reduced by .005 for each month that benefit commencement date precedes age 62.

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

RCPB Eligibility: Ten years of eligibility service.

RCPB Allowance: Accrued retirement allowance payable at age 65 provided member does not withdraw accumulated contributions. A member who has completed 15 years of eligibility service may begin to receive benefit payments at any time on or after attainment of age 60, reduced by .005 for each month that benefit commencement date precedes age 65.

If member does not commence to receive benefit payments, and dies before attaining age 65, only accumulated member contributions are returned.

EMPLOYEES' PENSION SYSTEM OF THE STATE OF MARYLAND

8. Cost-of-Living Adjustments (COLA)

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

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

For benefits attributable to service on or after July 1, 2011, the Cost-of-living adjustment is capped at the lesser of 2.5% or the increase in CPI if the most recent calendar year market value rate of return was greater than or equal to the assumed rate of investment return from the most recent actuarial valuation. The adjustment is capped at the lesser of 1% or the increase in CPI if the most recent calendar year market value rate of return was less than the assumed rate of investment return from the most recent actuarial valuation.

9. Optional Forms of Payment

Normal service allowance is in a single life annuity.

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

Option 2: 100% joint and survivor annuity. Your named beneficiary cannot be more than 10 years younger than you unless the beneficiary is your spouse or disabled child.

Option 3: 50% joint and survivor annuity.

Option 4: This option guarantees a return of accumulated member contributions remaining at date of death.

Option 5: 100% “pop-up” joint and survivor annuity with adjustment to maximum benefit if beneficiary predeceases retiree. Your named beneficiary cannot be more than 10 years younger than you unless the beneficiary is your spouse or disabled child.

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

For Option 5 and 6 – If the designated beneficiary predeceases the retiree, a new beneficiary may be named. However, the retirement allowance will be re-calculated.

EMPLOYEES' PENSION SYSTEM OF THE STATE OF MARYLAND

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

10. Reduction for Benefits Payable Under Workers' Compensation

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

11. Change in Benefits

None.

STATE POLICE RETIREMENT SYSTEM OF THE STATE OF MARYLAND

1. Membership

Membership is a condition of employment for all officers of the Maryland State Police. The Superintendent of the Maryland State Police may elect membership in this System or the Employees' Pension System.

2. Member Contributions

Members are required to contribute 8% of earnable compensation.

Contributions earn interest at 4% per year.

3. Service Retirement Allowance

Eligibility: For individuals who are members on or before June 30, 2011, 22 years of eligibility service or attainment of age 50. For individuals who become members on or after July 1, 2011, 25 years of eligibility service or attainment of age 50. Retirement at age 60 is mandatory for all but the Superintendent.

Allowance: For individuals who are members on or before June 30, 2011, 2.55% of average final compensation for the three highest years as a member for each of the first 28 years of creditable service. For individuals who become members on or after July 1, 2011, 2.55% of average final compensation for the five highest years as a member for each of the first 29 years of creditable service. Maximum benefit is 71.4% of average final compensation.

4. Early Retirement Allowance

Not applicable to this System.

5. Disability Retirement Allowance

Ordinary

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

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

Special (Accidental)

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

STATE POLICE RETIREMENT SYSTEM OF THE STATE OF MARYLAND

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

6. Death Benefits

Normal

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

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

Special Death Benefit

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

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

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

7. Vested Retirement Allowance

Eligibility: For individuals who are members on or before June 30, 2011, 5 years of eligibility service. For individuals who become member on or after July 1, 2011, 10 years of eligibility service

Allowance: Service retirement allowance payable at age 50.

8. Cost-of-Living Adjustments (COLA)

Retirement allowances may be adjusted each year based on the Consumer Price Index (CPI). Unlimited compounded COLAs are effective July 1 and are applied to all benefits which have been in payment for one year.

STATE POLICE RETIREMENT SYSTEM OF THE STATE OF MARYLAND

For benefits attributable to service on or after July 1, 2011, the Cost-of-living adjustment is capped at the lesser of 2.5% or the increase in CPI if the most recent calendar year market value rate of return was greater than or equal to the assumed rate of investment return from the most recent actuarial valuation. The adjustment is capped at the lesser of 1% or the increase in CPI if the most recent calendar year market value rate of return was less than the assumed rate of investment return from the most recent actuarial valuation.

In years in which COLAs would be less than zero due to a decline in the CPI, retirement allowances will not be adjusted. COLAs in succeeding years are adjusted until the difference between the negative COLA that would have applied and the zero COLA is fully recovered.

Retirees and beneficiaries receiving a retirement allowance on or before June 30, 1999, who receive an annual adjustment to their benefit ranging from \$1,200 to \$2,100 may receive separate COLAs on this adjustment commencing effective July 1, 2000.

9. Optional Forms of Payment

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

- Option 1: Cash refund equal to excess of present value of retirement allowance at date of retirement over total amount of payments made to date of death.
- Option 2: 100% joint and survivor annuity. Your named beneficiary cannot be more than 10 years younger than you unless the beneficiary is your spouse or disabled child.
- Option 3: 50% joint and survivor annuity.
- Option 4: This option guarantees a return of accumulated member contributions remaining at date of death.
- Option 5: 100% “pop-up” joint and survivor annuity with adjustment to maximum benefit if beneficiary predeceases retiree. Your named beneficiary cannot be more than 10 years younger than you unless the beneficiary is your spouse or disabled child.
- Option 6: 50% “pop-up” joint and survivor annuity with adjustment to maximum benefit if beneficiary predeceases retiree.

For Option 5 and 6 – If the designated beneficiary predeceases the retiree, a new beneficiary may be named. However, the retirement allowance will be re-calculated

STATE POLICE RETIREMENT SYSTEM OF THE STATE OF MARYLAND

10. Reduction for Benefits Payable Under Workers' Compensation

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

11. Deferred Retirement Option Program (DROP)

For members who are less than 60 years old and who enter DROP on or before June 30, 2011, DROP participation is the lesser of 4 years or the difference between 28 years and the member's creditable service. For members who are less than 60 years old and who enter DROP on or after July 1, 2011, DROP participation is the lesser of 4 years or the difference between 29 years and the member's creditable service. Members who enter DROP are retired and cease making member contributions, and cease accruing service credit and additional benefits. For members who enter DROP on or before June 30, 2011, the service retirement allowance, with COLAs, is credited to an account earning interest at the rate of 6% per year, compounded monthly. For members who enter DROP on or after July 1, 2011, the service retirement allowance, with COLAs, is credited to an account earning interest at the rate of 4% per year, compounded annually. When the DROP period ends, members terminate employment and begin receiving their monthly allowance plus the lump sum payment from their DROP account. During the DROP period, members remain eligible for Special Disability benefits if incapacitated while in DROP.

12. Changes in Benefits

None.

JUDGES RETIREMENT SYSTEM OF THE STATE OF MARYLAND*

1. Membership

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

2. Member Contributions

Members are required to make contributions of 6% of salary until they have accrued 16 years of service credit. Beginning July 1, 2012, members are required to make contributions of 8% of salary until they have accrued 16 years of service credit.

Contributions earn interest at 4% per year.

3. Service Retirement Allowance

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

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

4. Early Retirement Allowance

Not applicable to this System.

5. Disability Retirement Allowance

Eligibility: Certification of the medical board designated by the Board of Trustees that member is incapacitated for the performance of duty, and that incapacity is permanent.

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

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

JUDGES RETIREMENT SYSTEM OF THE STATE OF MARYLAND

6. Death Benefits

Monthly Allowance

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

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

Lump Sum

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

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

7. Deferred Vested Allowance

Eligibility: For individuals who are members before July 1, 2012, termination of service prior to age 60. For individuals who join the Judges' Retirement System on or after July 1, 2012, five years of eligibility service.

Allowance: Same as service allowance payable at age 60.

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

8. Cost-of-Living Adjustments

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

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

JUDGES RETIREMENT SYSTEM OF THE STATE OF MARYLAND

9. Optional Forms of Payment

Normal service allowance is 50% joint and survivor annuity with spouse. However, a judge or former judge, who at the time of retirement, does not have a spouse or eligible minor children, may elect one of the following optional forms of payment:

- Option 1: Cash refund equal to excess of present value of retirement allowance at date of retirement over total amount of payments made to date of death.
- Option 2: 100% joint and survivor annuity. Your named beneficiary cannot be more than 10 years younger than you unless the beneficiary is your spouse or disabled child.
- Option 3: 50% joint and survivor annuity.
- Option 4: This option guarantees a return of accumulated member contributions remaining at date of death.
- Option 5: 100% “pop-up” joint and survivor annuity with adjustment to maximum benefit if beneficiary predeceases retiree. Your named beneficiary cannot be more than 10 years younger than you unless the beneficiary is your spouse or disabled child.
- Option 6: 50% “pop-up” joint and survivor annuity with adjustment to maximum benefit if beneficiary predeceases retiree.

For Option 5 and 6 – If the designated beneficiary predeceases the retiree, a new beneficiary may be named. However, the retirement allowance will be re-calculated

Special note: After retirement neither the option nor designation of beneficiary may be changed.

10. Change in Benefits

None.

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

A. Retirement System Provisions

1. Membership

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

2. Member Contributions

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

Contributions earn interest at 4% per year.

3. Service Retirement Allowance

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

Allowance: 2.3% of average final compensation for the three highest years as a member for each of the first 30 years of creditable service, plus 1.0% of average final compensation for each additional year.

4. Early Retirement Allowance

Not applicable to this System.

5. Disability Retirement Allowance

Ordinary

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

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

Accidental

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

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

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

6. Death Benefits

Ordinary

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

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

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

Special Benefit

Eligibility: Two or more years of eligibility service.

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

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

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

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

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

7. Vested Retirement Allowance

Eligibility: Five years of eligibility service.

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

8. Cost-of-Living Adjustments (COLA)

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

In years in which COLAs would be less than zero due to a decline in the CPI, retirement allowances will not be adjusted. COLAs in succeeding years are adjusted until the difference between the negative COLA that would have applied and the zero COLA is fully recovered.

9. Optional Forms of Payment

The normal service allowance is a 50% joint and survivor annuity with spouse, if any; or if there is no surviving spouse or upon the death of the surviving spouse, to any children of the deceased under the age of 18 years, until every child dies or becomes 18 years.

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

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

Option 2: 100% joint and survivor annuity. Your named beneficiary cannot be more than 10 years younger than you unless the beneficiary is your spouse or disabled child.

Option 3: 50% joint and survivor annuity.

Option 4: This option guarantees a return of accumulated member contributions remaining at date of death.

Option 5: 100% "pop-up" joint and survivor annuity with adjustment to maximum benefit if beneficiary predeceases retiree. Your named beneficiary cannot be more than 10 years younger than you unless the beneficiary is your spouse or disabled child.

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

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

For Option 5 and 6 – If the designated beneficiary predeceases the retiree, a new beneficiary may be named. However, the retirement allowance will be re-calculated

10. Reduction for Benefits Payable under Workers’ Compensation

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

11. Deferred Retirement Option Program (DROP)

Members with 25 years of eligibility service, but less than 30 years of eligibility service, may elect to enter the DROP program for no more than five years. Members who enter DROP are retired and cease making member contributions, and cease accruing service credit and additional benefits. For members who enter DROP on or before June 30, 2011, the service retirement allowance, with annual COLAs, is credited to an account earning interest at the rate of 6% per year, compounded monthly. For members who enter DROP on or after July 1, 2011, the service retirement allowance, with COLAs, is credited to an account earning interest at the rate of 4% per year, compounded annually. When the DROP period ends, members terminate employment and begin receiving their monthly allowance plus the lump sum payment from their DROP account. During the DROP period, members remain eligible for Accidental Disability benefits if incapacitated while in DROP.

12. Change in Benefit

None.

LAW ENFORCEMENT OFFICERS PENSION SYSTEM OF THE STATE OF MARYLAND

B. Pension System Provisions

1. Membership

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

2. Member Contributions

Beginning July 1, 2011, members are required to make contributions of 6% of earnable compensation. Beginning July 1, 2012, member contributions will increase to 7% of earnable compensation.

Contributions earn interest at 5% per year.

3. Service Retirement Allowance

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

Allowance: For individuals who are members on or before June 30, 2011, 2.0% of average final compensation for the three highest consecutive years as an employee for each of the first 30 years of creditable service. For individuals who are members on or after July 1, 2011, 2.0% of average compensation for the five highest consecutive years as an employee for each of the first 30 years of creditable service. Maximum benefit is 60% of average final compensation.

4. Early Retirement Allowance

Not applicable to this System.

5. Disability Retirement Allowance

Ordinary

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

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

LAW ENFORCEMENT OFFICERS PENSION SYSTEM OF THE STATE OF MARYLAND

Accidental

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

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

6. Death Benefits

Normal

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

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

Special Death Benefit

Eligibility: Two or more years of eligibility service.

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

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

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

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

LAW ENFORCEMENT OFFICERS PENSION SYSTEM OF THE STATE OF MARYLAND

7. Vested Retirement Allowance

Eligibility: For individuals who are members on or before June 30, 2011, 5 years of eligibility service. For individuals who become members on or after July 1, 2011, 10 years of eligibility service.

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

8. Cost-of-Living Adjustments (COLA)

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

For benefits attributable to service on or after July 1, 2011, the Cost-of-living adjustment is capped at the lesser of 2.5% or the increase in CPI if the most recent calendar year market value rate of return was greater than or equal to the assumed rate of investment return from the most recent actuarial valuation. The adjustment is capped at the lesser of 1% or the increase in CPI if the most recent calendar year market value rate of return was less than the assumed rate of investment return from the most recent actuarial valuation.

In years in which COLAs would be less than zero due to a decline in the CPI, retirement allowances will not be adjusted. COLAs in succeeding years are adjusted until the difference between the negative COLA that would have applied and the zero COLA is fully recovered.

9. Optional Forms of Payment

The normal service allowance is a 50% joint and survivor annuity with spouse, if any; or if there is no surviving spouse or upon the death of the surviving spouse, to any children of the deceased under the age of 18 years, until every child attains 18 years of age.

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

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

Option 2: 100% joint and survivor annuity. Your named beneficiary cannot be more than 10 years younger than you unless the beneficiary is your spouse or disabled child.

Option 3: 50% joint and survivor annuity.

Option 4: This option guarantees a return of accumulated member contributions remaining at date of death.

LAW ENFORCEMENT OFFICERS PENSION SYSTEM OF THE STATE OF MARYLAND

Option 5: 100% “pop-up” joint and survivor annuity with adjustment to maximum benefit if beneficiary predeceases retiree. Your named beneficiary cannot be more than 10 years younger than you unless the beneficiary is your spouse or disabled child.

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

For Option 5 and 6 – If the designated beneficiary predeceases the retiree, a new beneficiary may be named. However, the retirement allowance will be re-calculated.

10. Reduction for Benefits Payable under Workers’ Compensation

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

11. Deferred Retirement Option Plan (DROP)

DROP participation is the lesser of 5 years or the difference between 30 years and the member’s creditable service. Members who enter DROP are retired and cease making member contributions, and cease accruing service credit and additional benefits. For members who enter DROP on or before June 30, 2011, the service retirement allowance, with annual COLAs, is credited to an account earning interest at the rate of 6% per year, compounded monthly. For members who enter DROP on or after July 1, 2011, the service retirement allowance, with annual COLAs, is credited to an account earning interest at the rate of 4% per year, compounded annually. When the DROP period ends, members terminate employment and begin receiving their monthly allowance plus the lump sum payment from their DROP account. During the DROP period, members remain eligible for Accidental Disability benefits if incapacitated while in DROP.

12. Changes in Benefits

None.