HayGroup[®]

Commonwealth of Pennsylvania State Employees' Retirement System

2005 Actuarial Report

COMMONWEALTH OF PENNSYLVANIA

STATE EMPLOYEES' RETIREMENT SYSTEM

2005 ACTUARIAL REPORT

DEFINED BENEFIT PLAN

HAY GROUP APRIL 26, 2006 Hay Group. Inc.

Suite 600 4301 North Fairfax Drive Arlington, VA 22203 USA

April 26, 2006

Mr. Eric Henry Executive Director State Employees' Retirement System 30 North Third Street Suite 150 Harrisburg, PA 17101-1716

HayGroup[®]

Dear Mr. Henry:

The purpose of this letter is to certify the actuarial adequacy of the contributions being made by the Commonwealth of Pennsylvania and other participating agencies to the Pennsylvania State Employees' Retirement System (SERS), and to discuss the approach currently being taken toward meeting the financing objectives of the plan. The results provided herein are based upon the December 31, 2005 annual actuarial valuation.

The funding objective of the plan is set forth in the SERS code. The annual employer contribution is equal to the sum of the following, but not less than 4.00 percent of payroll, for the fiscal year beginning July 1, 2006:

- (1) The employer share of the normal cost.
- (2) The amortization of the December 31, 2001 liability for Act 2001-9 benefits over a 30-year period beginning July 1, 2002 and ending on June 30, 2032.
- (3) The amortization of the remaining unfunded liabilities as of December 31, 2001 over a ten-year period beginning July 1, 2002 and ending on June 30, 2012.
- (4) The amortization of all unfunded liabilities due to supplemental annuities (COLAs) after 2001, or other legislated benefit improvements after June 30, 2003, over ten-year periods beginning with the July first following the effective date of the change.
- (5) The amortization of changes in liability due to actual experience differing from assumed experience after December 31, 2001 over 30-year periods beginning with the July first following the actuarial valuation determining such changes.

The amortization payments are level amounts over the applicable amortization periods. The employer cost is determined as a percent of payroll. The total employer cost is the average contribution amount that needs to be received by the employer groups participating in the system. Some employer groups contribute a higher percent of pay, and some employer groups contribute a lower percent of pay depending on the benefits payable to their employees.

All costs and liabilities have been determined in conformance with generally accepted actuarial principles and procedures in accordance with the principles of practice prescribed by the American Academy of Actuaries. The calculations were performed on the basis of actuarial assumptions and methods, which are internally consistent, and reasonable (taking into account past experience under the SERS and reasonable expectations) and which in combination represent the best estimate of anticipated experience under the plan.

Mr. Eric Henry April 26, 2006 Page 2

The actuarial valuation is based on financial and participant data, which is prepared by SERS staff. The data are reviewed for internal and year-to-year consistency as well as general reasonableness prior to their use in the actuarial valuation.

The actuarial valuation uses assumptions regarding future rates of investment return and rates of retirement, withdrawal, death, and disability among SERS members and their beneficiaries. The current set of assumptions used in the December 31, 2005 actuarial valuation was adopted by the Board and was based on actual experience of SERS during the years 2001 through 2005. The actuarial value of assets is developed by recognizing the difference between the expected actuarial value of assets and the market value of assets over a five-year period.

Governmental Accounting Standards Board (GASB) Statement No. 25, Financial Reporting for Defined Benefit Pension Plans and Note Disclosures for Defined Contribution Plans establishes a range of actuarial cost and amortization methods for the Unfunded Actuarial Accrued Liability. The scheduled payments since July 1, 2005 have been below the minimum amount required to meet the GASB minimum. This is a temporary result of financing changes implemented by Act 2003-40 in December 2003. After June 30, 2012, we expect the SERS contribution to exceed the GASB minimum.

Based upon the valuation results, it is our opinion that the Pennsylvania State Employees' Retirement System is in sound condition in accordance with generally accepted actuarial principles and procedures. The employer contribution has been below the GASB #25 minimum since July 1, 2005 and will likely remain below the minimum through June 30, 2012. However, the employer payments scheduled after that time will exceed the GASB minimum and the plan is in sound condition over the long run.

Respectfully submitted, Hay Group

Edwin C. Hustead, F.S.A.

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Table of Contents

	<u>Schedule</u>	<u>Page</u>
Valuation Highlights	-	1
Comments on Schedules	-	6
Unfunded Liability and Normal Cost	A	12
Employer Contribution Rate	В	13
Employer Contribution Rate by Group	C	14
State Police and Enforcement Officers Additional Annuity Rate	D	15
Analysis of Change in Employer Contribution Rate and Unfunded Actuarial Accrued Liability	E	16
Actuarial Balance Sheet	F	17
Required Transfers Within SERS Accounts	G	18
Accounting Disclosure Statements	Н	19
Solvency Test	I	23
Actuarial Value of Assets	J	24
Projection of Population, Benefits, and Contributions	K	25
Profile of Plan Participants	L	27
Summary of Benefit and Contribution Provisions	M	37
Actuarial Assumptions	N	44
Actuarial Methods	O	50
Definition of Technical Terms	P	55

State Employees' Retirement System <u>Valuation Highlights</u>

	<u>De</u>	cember 31, 2005 Valuation	<u>De</u>	ecember 31, 2004 Valuation
Summary of Contributions	as a Pei	cent of Total Comp	ensa	tion
SERS Plan Contribution				
Normal Cost		8.39%		8.25%
Amortization of Liabilities		-6.32%		-7.29%
Contribution Before Act 2003-40 Minima	um	2.07%		0.96%
Total SERS Plan Contribution *		4.00%		3.00%
Benefits Completion Plan Contribution		0.02%		0.02%
Total Contribution		4.02%		3.02%
* Reflects the Act 2003-40 Minimum				
Demographic Char	acteristi	ics of the Population	n	
Active Participants:				
Number		109,981		108,405
Average age		46.0		46.1
Average service		12.6		13.0
Average annualized compensation	\$	44,815	\$	45,382
Total annualized compensation	\$	4,928,799,000	\$	4,919,636,000
Funding payroll	\$	5,138,377,000	\$	5,093,573,000
Annuitants and Beneficiaries:				
Number		101,179		98,727
Average age		68.3		68.4
Total annual pension	\$	1,603,630,204	\$	1,496,476,405
Inactive and Vested Participants:				
Number		5,461		5,608
	Assets			
Market Value Assets	\$	28,749,012,029	\$	26,639,557,158
Actuarial Value of Assets	\$	26,793,781,828	\$	26,900,026,818
Funded Status (Market Assets)		99.6%		95.1%
Funded Status (Actuarial Assets)		92.9%		96.1%

Employer Contribution Rate by Group Fiscal Year 2006 - 2007

		Benefits	
	SERS Plan	Completion Plan	Total
Class AA Members:			
Age 60 Retirement	3.21%	0.02%	3.23%
Age 50 Retirement	5.04%	0.02%	5.06%
Park Rangers	4.90%	0.02%	4.92%
Capitol Police	4.90%	0.02%	4.92%
Enforcement Officers	5.04%	0.02%	5.06%
Class A Members:			
Age 60 Retirement	2.57%	0.02%	2.59%
Age 50 Retirement	4.03%	0.02%	4.05%
Park Rangers	4.08%	0.02%	4.10%
Capitol Police	4.08%	0.02%	4.10%
State Police	11.78%	0.02%	11.80%
Enforcement Officers	4.03%	0.02%	4.05%
Class C Members:			
State Police	11.78%	0.02%	11.80%
Enforcement Officers	4.03%	0.02%	4.05%
Class D Members:			
D-3 Legislators	15.12%	0.02%	15.14%
D-4 Legislators	0.00%	0.02%	0.02%
Class E Members	4.07%	0.02%	4.09%

General Discussion

The liabilities and costs in this report were based on actuarial assumptions adopted by the State Employees' Retirement Board in 2006 and funding procedures specified in the State Employees' Retirement System (SERS) code. The most important actuarial assumptions are the investment return and salary growth. The investment return assumption is 8.5 percent per year. Salary growth is the total of assumed increases in salary rates and career salary growth. It is generally assumed that the salary rates will increase at 3.3 percent a year due to general salary schedule increases and that career salary growth (promotion and longevity growth) will average an additional 3.8 percent a year. Thus, the total average salary increase for an individual will generally be 7.1 percent a year. These assumed salary increases were modified, however, in this valuation to reflect negotiated increases through June 30, 2007. The investment return and the salary rate increase assumptions are based on an underlying inflation rate of 3.0 percent a year.

The SERS plan employer contribution is determined as a percent of payroll that is the total of (1) the employer normal cost percent and (2) the net amortization of the unfunded liability, but not less than any applicable minimum contribution prescribed by the SERS code. The employer contribution determined as of December 31, 2005, before application of the minimum contribution rate, was 2.07 percent of payroll. However, Act 2003-40 requires the employer contribution for the fiscal year beginning July 1, 2006 to be at least 4.00 percent of payroll. So our recommended plan employer contribution is 4.00 percent of payroll.

The SERS code requires that the Board conduct a study of the actuarial experience of the SERS plan every five years as a basis for setting the actuarial assumptions used in the valuation. A five year study was conducted and delivered to the Board for review and approval in March 2006. The Board approved the recommendations of the actuary and the new assumptions were used in this valuation.

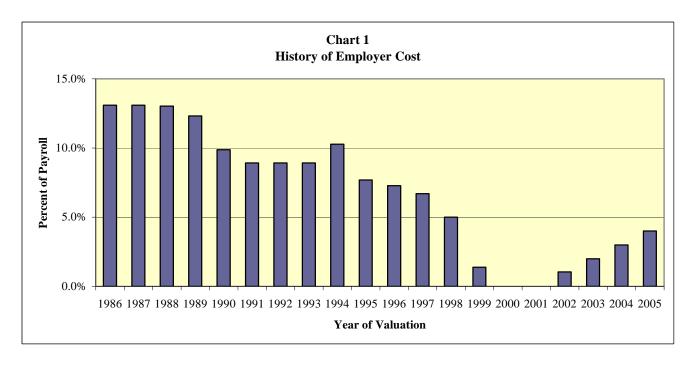
The Board contracted with Milliman to conduct an actuarial review of the actuarial methods, procedures and assumptions in 2005. Milliman "found the actuarial procedures and practices to be of a high quality and in compliance with all major aspects of the applicable actuarial standards." However, Milliman found a number of areas for changes to be considered by SERS and the actuary. The Milliman recommendations were considered in the preparation of the experience study and this valuation. All but a few of the recommendations concerning the valuation and experience study were considered and either (1) implemented or (2) an explanation was provided as to why the recommendation was not being implemented. The few remaining recommendations will be considered in the 2006 valuation and are estimated to have a negligible impact on cost.

A separate and distinct Benefits Completion Plan (BCP) provides benefits to certain members whose SERS benefits are limited by IRC Section 415(b) maximum benefit limitations. The BCP employer contribution requirements for fiscal year 2006-2007, which were determined by a separate December 31, 2005 actuarial valuation, are presented in the Valuation Highlights herein. Otherwise, BCP costs and liabilities are not included in the schedules of this report.

History of the Employer Contribution Rate

Chart 1 shows the history of the employer contribution rate from 1986 through 2005. The contribution was zero in 2000 and 2001 since the amortization of the surplus (negative unfunded liability) exceeded the normal cost. The contribution has gradually increased since 2001 as a result of reductions in the surplus as well as minimum required contributions.

With some fluctuations, the general trend from 1986 through 2001 had been downward, with the rate declining from 13.09 percent in 1986 to zero in 2000 and 2001. The primary reasons for the 1986-2001 downward trend were (i) the excess of the actual investment return over the assumed valuation investment return in most of those years, and (ii) the reduction in cost reflected in the changes in assumptions adopted every five years. The employer contribution is expected to increase in the future for the reasons presented below in the discussion of Schedule K.



The total employer cost is the actual contribution rate during the succeeding fiscal year. For instance, the rate of 4.00 percent will be the employer contribution for fiscal year beginning July 1, 2006.

History of Inflation, Investment Return and Salary Growth

Table 1 below shows the rate of inflation, the nominal and real investment return based on the market value of assets, and the nominal and real salary growth for the past twenty years. The nominal rates are the actual investment rate and salary growth. The real rates are the nominal rates adjusted by removing inflation. The inflation rates shown are based on the Consumer Price Index for All Urban Consumers (CPI-U) data.

Table 1: Comparison of Annual Rates of Growth							
		Investment Return		Investment 1		Salary G	Frowth
Year	Inflation	Nominal	Real	Nominal	Real		
1986	1.1%	15.2%	13.9%	3.5%	2.4%		
1987	4.4	3.3	(1.1)	3.4	(1.0)		
1988	4.4	12.8	8.0	5.0	0.6		
1989	4.6	17.8	12.6	6.0	1.3		
1990	6.1	1.0	(4.8)	5.0	(1.0)		
1991	3.1	22.6	19.0	1.0	(2.0)		
1992	2.9	7.4	4.4	2.1	(0.8)		
1993	2.7	13.2	10.2	5.1	2.3		
1994	2.7	(1.1)	(3.7)	3.9	1.2		
1995	2.5	25.5	22.4	3.8	1.2		
1996	3.3	15.9	12.2	2.0	(1.3)		
1997	1.7	18.0	16.0	3.0	1.3		
1998	1.6	16.3	14.5	3.0	1.4		
1999	2.7	19.9	16.8	3.0	0.3		
2000	3.4	2.2	(1.1)	3.0	(0.4)		
2001	1.6	(7.9)	(9.3)	3.3	1.7		
2002	2.4	(10.9)	(13.0)	3.5	1.1		
2003	1.9	24.3	22.0	2.0	0.1		
2004	3.3	15.1	11.4	1.9	(1.4)		
2005	3.4	14.5	10.7	3.0	(0.4)		
Average 1986-2005	3.0%	10.8%	7.6%	3.3%	0.3%		

Comments on Schedules

Employer Contribution Rate

<u>Schedules A and B</u> summarize the development of the employer contribution rate before allocation by group. The employer contribution is equal to the sum of (1) the employer share of the normal cost and (2) amortization of the unfunded liability.

The normal cost is the level percentage of compensation needed to fund the liability for any prospective benefits earned by new active members over the period of their actual service. The normal cost calculation uses data for all active members in Class AA (60) who had not yet completed one year of credited service. The employer share of the normal cost increased from 8.25 percent in 2004 to 8.39 percent in 2005.

Portions of the unfunded liability are amortized over either 10 years or 30 years as required by the SERS law. The cost of the Act 2001-9 benefits and actuarial gains and losses since 2001 are being amortized over 30 years. The cost of supplemental annuities (COLAs) are being funded over 10 years. The surplus that existed as of December 31, 2001 is being amortized over ten years. The total unfunded liability as of December 31, 2005 was \$2.06 billion. As of December 31, 2004, the unfunded liability was \$1.10 billion.

<u>Schedule B</u> shows the allocation of the total unfunded liability by year into those liabilities being amortized over 10 years and those being amortized over 30 years. All amortization payments are level amounts over the applicable amortization period.

Although there is an unfunded liability as of December 31, 2005 of \$2.06 billion, the bottom-line annual amortization payment to fund this liability in the 2006-2007 fiscal year is a net credit, which serves to offset the employer normal cost. Although this net result may seem contradictory, it is appropriate and occurs because the large negative unfunded liability that existed on December 31, 2001 is being amortized over 10 years, whereas the large portions of the remaining positive unfunded liability are being amortized over 30 year periods. The total credit for amortization of the surplus decreased from 7.29 percent of payroll in 2004 to 6.32 percent of payroll in 2005 in line with an increase in the unfunded liability. The main reason for the increase in the unfunded liability was the recognition of investment losses. This loss was partially offset by a reduction in the unfunded liability resulting from the experience study.

The employer contribution rate is equal to the total of the normal cost and the amortization of the unfunded liabilities, but, for 2005, not less than 4.00 percent of payroll. The employer contribution rate calculated as a result, 4.00 percent of payroll in 2005, will be applied in the year beginning July 1, 2006.

Employer Contribution Rates by Group

<u>Schedule C</u> summarizes the development of the employer contribution rate for each group of members with different benefits. The Class AA(60) rate is used to determine the basic contribution

rate because the majority of new members enter that class. The basic employer contribution rate for Class AA benefits is 3.21 percent of salary.

The employer contribution rate for each class is a function of the Class AA(60) rate. Three adjustments are made for the Class rates. The first is to add the cost of earlier full retirement conditions if applicable. The second is to multiply by the ratio of (1) the annual accrual rate applicable to the Class to (2) the annual accrual rate of 2.5 percent for Class AA(60). Third, the Park Rangers, Capitol Police and State Police Officers are also charged the amount necessary to fund the past service cost of benefit improvements that were effective in prior years. These charges are explained in Schedule O. The complete schedule of contributions by group is shown in Table 2.

Table 2 Employer Contribution Rate by Group Fiscal Year 2006/2007 (Excluding Benefits Completion Plan Contribution)				
Class AA				
Age 60 benefit	3.21%			
Age 50 benefit	5.04			
Park Rangers	4.90			
Capitol Police	4.90			
Enforcement Officers	5.04			
Class A				
Age 60 benefit	2.57			
Age 50 benefit	4.03			
Park Rangers	4.08			
Capitol Police	4.08			
State Police	11.78			
Enforcement Officers	4.03			
Class C				
State Police	11.78			
Enforcement Officers	4.03			
Class D				
D-3 Legislators	15.12			
D-4 Legislators	0.00			
Class E	4.07			

The contribution rate for Class D-4 Legislators is 0.0 percent of payroll. In conjunction with the passage of Act 2001-9, the D-4 employer contributed a lump sum amount which was more than sufficient to fund the additional cost of the higher accrual rate and the retirement at age 50. Therefore, the past service liability for Class D-4 Legislators is \$0, and the past liability adjustment has been set to produce a contribution rate of zero. The excess contribution made by

the D-4 employer will continue to be used to offset future D-4 employer contribution requirements until the balance is expended.

Schedule D shows the development of the contribution rates for additional annuities for certain State Police and Enforcement Officers. These members receive an additional annuity that is equal to the accumulated member contributions and interest at retirement determined as if the members were at least age 60 at retirement. These benefits have been fully funded by past contributions so no future contribution is required. It was necessary to transfer some of the reserves from the State Accumulation Account as of December 31, 2005 to bring the State Police Benefit Account into balance. This transfer is necessary because funds had been previously transferred from the State Police Benefit Account to the State Accumulation Account.

Change in Employer Contribution Rate

<u>Schedule E</u> contains an analysis of the change in the employer contribution rate and unfunded liability from the 2004 to 2005 valuation.

The largest impact on the unfunded liability and employer contribution rate was the loss from investment earnings. The investment return has been greater than the assumed 8.5 percent in the last three years. However, recognition of a portion of these gains was more than offset by the recognition of a portion of the investment losses in 2001 and 2002.

Adoption of the assumptions from the experience study reduced the liability and employer contribution. The change in the salary increase assumptions from an age-based to service-based schedule reduced the unfunded liability by \$874 million. Other experience study changes increased the unfunded liability by \$536 million so the net effect of the experience study was to reduce the unfunded liability by \$338 million.

Adoption of recommendations from the actuarial audit increased the unfunded liability by \$89 million. All other changes reduced the unfunded liability by \$71 million.

Actuarial Balance Sheet and Account Balance Transfers

Schedule F contains the actuarial balance sheet that compares the total assets and liabilities of \$35.8 billion. The assets include current assets and the present value of future contributions. The liabilities include the present value of all benefits to current active and retired members.

Each year the account balances in the three benefit payment accounts are compared to the actuarial liabilities developed in the valuation. If needed, transfers are made to bring the accounts into balance with the liabilities. The accounts go out of balance during the year as a result of differences between actual experience and the reserves set for retirees. In 2005, a transfer of \$173.7 million was made to the Annuity Reserve Account from the State Accumulation Account to keep the former account in balance. A transfer of \$52.9 million was made from the State Accumulation Account to the State Police Benefit Account to keep the latter account in balance.

The details of these transfers are shown in Schedule G.

Accounting Disclosure Statements

<u>Schedule H</u> is a statement of disclosure to report the information required by the Governmental Accounting Standards Board (GASB) Statement No. 25. Page 1 of Schedule H shows the funding progress from December 31, 1992 through December 31, 2005.

Page 2 of Schedule H shows a comparison of the actual contributions to the system over recent years to the Annual Required Contribution (ARC) as defined by GASB Statement No. 25.

GASB Statement No. 25 defines the ARC to be equal to the employer normal cost plus an amount to amortize the unfunded actuarial accrued liability over an acceptable amortization period. The 2005-2006 employer contribution is lower than the ARC. GASB requires that the net unfunded liability be funded over a period of no more than 30 years. Because of the different funding periods for different portions of the unfunded liability, the net payments on the unfunded liability are actually negative thus reducing the total employer contribution to less than the normal cost. We anticipate that the SERS contribution will be lower than the ARC through June 30, 2012. After that date, the SERS contribution will exceed the GASB minimum. Overall, the amortization schedules are reasonable and will assure the long-term financial soundness of SERS.

<u>Schedule I</u> shows the results of the solvency test. A short-term solvency test is one means of checking a pension system's progress under its funding program. In this solvency test, the SERS assets are compared with the actuarial accrued liabilities. The liabilities are classified into the following categories:

- Liability for active member contributions in the Fund,
- Liability for future benefits to present retired members, and
- Liability for service already rendered by the active members.

The schedule shows that from 1992 through 2003 the total actuarial accrued liability was fully covered by the assets. In 2004, the funded ratio dropped to 96.1 percent and, as of December 31, 2005, the funded ratio has dropped further to 92.9 percent overall. Absent unusual circumstances, retirement funds will be below 100 percent and gradually approach 100 percent funding as liabilities become fully amortized. The SERS retirement fund had exceeded 100 percent of liabilities as a result of the high level of investment returns between 1985 and 1999. This funded ratio dropped below 100 percent largely as a result of the low investment returns of 2000 to 2002 and the amortization schedule. However, the current funding policy will eventually restore the funded ratio to 100 percent. The fund is on a sound actuarial basis even though the liabilities are temporarily greater than the assets.

Plan Assets

Schedule J summarizes the development of the actuarial value of assets as of December 31, 2005. The assets are based on the financial statements prepared by SERS. The asset valuation method smoothes out year-to-year fluctuations in the market value. The approach gradually recognizes, over a 5-year period, the differences between total investment return and the actuarial assumed rate of return (8.5 percent in 2005). This smoothing method recognizes 20 percent of the 2005 asset gain of \$1.4 billion this year, with the remainder to be recognized over the next four years.

Projection

<u>Schedule K</u> shows the number of members, contributions, and benefits from 1991 through 2005 with a projection through 2016. The first half of Schedule K shows new retirements, deaths from former employees, new survivors, and deaths from survivors during the year. The second half of Schedule K shows the projection of employer and employee contributions and a projection of the benefits and expenses.

The retirement projections in Schedule K are based upon the current retirement assumptions used for the valuation plus an assumption that there will be future supplemental annuity increases similar to past increases. The projected number of retirees has grown over last year because of the increase in the retirement rates and the decrease in the mortality assumption. The projections also reflect the greater numbers of retirements anticipated as a result of future medical program changes that will occur under the current collectively bargained agreement. The employer contribution in the projection is lower than last year, but there is still a large jump in 2012.

Participant Data

Sections I and II of <u>Schedule L</u> provides a distribution of the total of the active, inactive, and terminated vested participants as of December 31, 2005 by benefit class, sex, age, and length of service. Inactive employees include employees on furlough as well as employees with prior SERS service currently participating in the Pennsylvania Public School Employees' Retirement System (PSERS). The table also shows the average annualized salary in 2005 by age group and sex. Section III of the schedule shows retired annuitants, disabled annuitants, survivors and beneficiaries receiving benefits by age, sex, and benefit amounts.

Although we have made tests to check for reasonableness and consistency, we have not independently audited the data, which were submitted by SERS. As appropriate, we have made certain adjustments to the SERS data, including the use of a minimum annual salary assumption of \$20,000.

Plan Provisions

<u>Schedule M</u> contains a summary of the principal provisions of the plan. There were no significant changes in plan provisions in 2005.

Actuarial Assumptions

<u>Schedule N</u> summarizes the actuarial assumptions used for the valuation. The two types of assumptions are the economic assumptions, such as the investment return and salary growth assumptions, and demographic assumptions, such as the assumed rate of mortality and retirement. The assumptions have been changed as a result of recommendations made by Hay Group and adopted by the Board based on the latest five-year investigation of actuarial experience.

Actuarial Methods

<u>Schedule O</u> explains the asset valuation and funding method used in the valuation, and the determination of the annual contribution. The asset valuation method amortizes investment gains and losses over five years. The funding method provides for reasonable levels of contribution that will fund the cost of future benefits with a credit for amortization of the excess of assets over liabilities. Schedule O also explains how the individual class rates are determined. The final section of Schedule O discusses the plan provisions that are not valued.

Definitions

Schedule P defines certain technical terms used in the valuation.

State Employees' Retirement System <u>Unfunded Liability and Normal Cost as of December 31, 2005</u>

I. Present Value of Benefits:

	A) Active a	and Inactive Participants	
	1)	Superannuation and Withdrawal	\$ 19,680,895,983
	2)	Disability	1,240,984,973
	3)	Death	837,286,561
	4)	Refunds	44,715,702
	5)	Special Police and Enforcement	3,272,376
		Officer Benefits	
	6)	Subtotal	\$ 21,807,155,595
	B) An	inuitants and Beneficiaries	14,000,196,438
	C) To	tal	\$ 35,807,352,033
II.	Present Valu	ne of Member and Employer Contributions:	
	A) En	nployer Portion of Normal Cost	\$ 4,137,156,582
	B) Me	ember Contributions	2,818,479,431
	C) To	tal	\$ 6,955,636,013
III.	Actuarial Ac	ccrued Liability: (I) - (II)	\$ 28,851,716,020
IV.	Actuarial Va	alue of Assets	\$ 26,793,781,828
V.	Unfunded L	iability (III) - (IV)	\$ 2,057,934,192
VI.	Employer N	ormal Cost Rate	
	A) Normal	Cost Rate for new active members to fund:	
	1)	Superannuation and Withdrawal	12.47%
	2)	Disability	1.22%
	3)	Death	0.55%
	4)	Refunds	0.40%
	5)	Total	14.64%
	B) Member	Deductions	6.25%
	C) Employe	er Normal Cost (A) - (B)	8.39%

State Employees' Retirement System Employer Contribution Rate in Fiscal Year 2006 - 2007

	Funding Period	Period		Outstanding		Payment as a
	Initial	From	Initial From Initial Amount of	Balance as of	Annual Payment Percent of	Percent of
	Years July 1	July 1	Liability	12/31/05	Amount	Payroll *
I. Amortization of Liability (Asset) For:						
	10	2002	\$1,143,657,729	↔	\$ 174,303,527	3.39%
A) Supplemental Annuities as of 12/31/01	30	2002	2,735,791,064	2,304,025,294	222,524,490	4.33%
B) Act 2001-9 Benefits	10	2002	(7,726,186,132)	(5,361,947,708)	(1,177,538,922)	-22.92%
C) Other Benefits as of 12/31/01	10	2003	256,500,000	200,094,945	39,092,863	0.76%
D) Supplemental Annuities (2002 COLA)	30	2003	1,119,058,089	1,024,462,260	97,898,155	1.91%
E) Changes in 2002	10	2004	395,800,000	340,171,341	60,323,412	1.17%
F) Supplemental Annuities (2003 COLA)	30	2004	73446604015	335,866,817	31,786,301	0.62%
G) Changes in 2003	30	2005	1,942,541,016	1,926,901,706	180,755,296	3.52%
H) Changes in 2004	30	2006	494,664,846	494,664,846	46,029,036	$\frac{0.90\%}{}$
I) Changes in 2005						
				\$ 2,057,934,192	\$ (324,825,842)	-6.32%
Total II. Employer Normal Cost						8.39%
III. Total Employer Cost before Act 2003-40 minimum = $(I) + (II)$	ninimum = (I	$(\mathbf{H}) + (\mathbf{H})$				2.07%
IV. Total Employer Cost (III), but not less tha	n 4.00 percer	ıt as rec	less than 4.00 percent as required by Act 2003-40	3-40		4.00%

^{*} The payment is expressed as a percentage of the total projected payroll for active members in fiscal year 2006-2007 of \$5,138,377,000. Percentages may not add due to rounding.

State Employees' Retirement System Employer Contribution Rate by Group (excluding Benefits Completion Plan rate)

Employer Group (1)	Basic Contribution Rate (2)	Age 50 Retirement Adjustment (3)	Multiplier Adjustment* (4)	Past Liability Adjustment (5)	Adjusted Contribution Rate** (6)	Projected 2006-2007 Payroll (7)	Employer Contribution Amount (8)
Class AA - Age 60 Retirement	3.21%		1.0000		3.21%	\$ 3,910,696,000	\$ 125,533,342
Class A - Age 60 Retirement	3.21%		0.8000		2.57%	36,897,000	948,253
Class AA - Age 50 Retirement (Including Enforcement Officers)	3.21%	1.83%	1.0000		5.04%	730,091,000	36,796,586
Class A - Age 50 Retirement (Including Class A & Class C Enforcement Officers)	3.21%	1.83%	0.8000		4.03%	13,839,000	557,712
Class AA - Park Rangers & Capitol Police	3.21%	0.91%	1.0000	0.78%	4.90%	11,908,000	583,492
Class A - Park Rangers & Capitol Police	3.21%	0.91%	0.8000	0.78%	4.08%	81,000	3,305
State Police (Class A & Class C)	3.21%	1.83%	1.1395	6.04%	11.78%	314,694,000	37,070,953
Class D3	3.21%	1.83%	3.0000		15.12%	436,000	65,923
Class D4	3.21%	1.83%	1.2000	-6.05%	0.00%	17,306,000	-
Class E	3.21%		1.2677		4.07%	102,429,000	4,168,860

Total*** \$ 5,138,377,000 \$ 205,728,426

^{*} The multiplier adjustment at column 4 is the adjustment for the employer group contribution rate. Because the majority of SERS members are covered under Class AA(60), the 2.5 percent accrual rate for that Class is used to determine the basic contribution rate. Column (4) is the ratio of the class contribution rate to 2.5 percent.

^{**} The adjusted contribution rate is [(2) + (3)] times (4) + (5).

^{***} The total employer contribution (\$205,728,426) is approximately equal to the average employer contribution rate from Schedule B (4.00 percent) times the total projected payroll of \$5,138,377,000. The Basic Contribution Rate of 3.21 percent was determined as the percentage needed to produce employer contribution amounts by employer group that sum to \$205,728,426.

State Employees' Retirement System <u>State Police and Enforcement Officers Additional Annuity Rate</u> (Fiscal Year 2006 - 2007)

		State Police	Enforcement Officers
1)	Balance in Benefit Account as of December 31, 2005	\$1,303,098,257	\$43,369,215
2)	Present Value of Benefits for Annuitants and Beneficiaries	1,300,240,614	40,463,931
3)	Assets available for additional annuitie for Active Members: (1) - (2)	es 2,857,643	2,905,284
4)	Present Value of additional annuities for Active Members	2,857,643	414,733
5)	Present Value of Future Contribution to fund additional annuities: (4) - (3); not less than zero	-	-
6)	Present Value of Future Compensation for eligible Active Members	*	*
7)	Contribution Rate as a percentage of payroll payable January 1: (5) / (6)	0.00%	0.00%

^{*} Not calculated because additional annuity is fully funded.

State Employees' Retirement System <u>Analysis of the Change in Employer Contribution Rate</u>

	Normal <u>Cost</u>	Unfunded <u>Liability</u>	<u>Total</u>
I. December 31, 2004 Valuation	8.25%	-7.29%	0.96%
 II. Changes in the December 31, 2005 Valuation: A) Change in salary increase assumptions B) Loss from investment earnings C) Other assumption changes from the experience study D) Change resulting from the actuarial audit E) Other differences F) Pay increases different than assumptions G) Change in demographics of new entrants H) Change in amortization due to change in payroll I) Total Change 	0.31% -0.37% 0.19% 0.01% 0.00% 0.14%	-1.58% 1.48% 0.97% 0.16% -0.07% -0.04% -0.01% 0.06% 0.97%	-1.27% 1.48% 0.60% 0.35% -0.07% -0.04% 0.00% <u>0.06%</u> 1.11%
III. December 31, 2005 Valuation: (I) + (II.I)	8.39%	-6.32%	2.07%
Analysis of the Change in the Unfunded	<u>Liability</u>		
I. December 31, 2004 Unfunded Liability		\$ 1,098	,999,510
II. Expected Amortization Payment		(370	,854,878)
III. Expected Liability as of December 31, 2005 [((I) x 1.085) - (II)]		\$ 1,563	,269,346
 IV. Change in Liability Due to: A) Change in salary increase assumptions B) Loss from investment earnings C) Other assumption changes resulting from the experience study D) Change resulting from the actuarial audit E) Other differences F) Pay increases different than assumptions G) Change in demographics of new entrants H) Total change V. December 31, 2005 Unfunded Liability: 	ıdy	815 536 89 (42 (23 (4 \$ 494	,325,526) ,132,880 ,078,987 ,373,590 ,857,832) ,806,196) ,931,057) ,664,846
V. December 31, 2005 Unfunded Liability: (III) + (IV.H)		\$ 2,057	,934,192

State Employees' Retirement System Actuarial Balance Sheet as of December 31, 2005

ASSETS

LIABILITIES

Present Assets:		Present Value of Benefits Payable to Annuitants and Beneficiaries from:	d Beneficiaries from:
Members Savings Account Annuity Reserve Account	\$ 3,696,477,059	Annuity Reserve Account	\$ 12,659,491,893
State Police Benefit Account	1,303,098,257	State Police Benefit Account	1,300,240,614
Enforcement Officers Benefit Account State Accumulation Account Sunnlemental Annuity Account	43,369,215 12,380,536,582 (1 333 960 977)	Enforcement Officers Benefit Account	40,463,931
Total Present Assets (Market Value)	\$ 28,749,012,029	Total for Annuitants and Beneficiaries	\$ 14,000,196,438
Adjustment to Smooth Market Fluctuations	(1,955,230,201)		
Total Present Assets (Actuarial Value)	\$ 26,793,781,828		
Present Value of Future Contributions		Present Value of Benefits to Active and Inactive Members from:	embers from:
Members' Contributions (Employee) Normal Cost Contributions (Employer)	\$ 2,818,479,431 4,137,156,582	Members Supergangetson and with actumination Actor (1989, 1983) Disability	1,4cd94680,895,983
Accrued Liability Amortization		Death	837,286,561
(Employer)	723,973,215	Ketunds	44,715,702
Supplemental Annuity Amortization (Employer)	1,333,960,977	Subtotal	\$ 21,803,883,219
Special State Police Contributions			2,857,643
(Employer) Special Enforcement Officer	0	State Police Benefit Account	111/733
Contributions (Employer)	0	Enforcement Officers Benefit Account	007,414
Total Future Contributions	\$ 9,013,570,205	Active and Inactive Members	\$ 21,807,155,595
TOTAL ASSETS	\$ 35,807,352,033	TOTAL LIABILITIES	\$ 35,807,352,033

^{*} Includes \$2,865,356 in directed commissions.

State Employees' Retirement System Required Transfers Within SERS Accounts

I. Annuity Reserve Account

Balance as reported by SERS	\$ 12,485,799,350
Transfer from State Accumulation Account	173,692,543
Transfer to Supplemental Annuity Account	
December 31, 2005 balance after transfers	\$ 12,659,491,893

II. State Accumulation Account *

Balance as reported by SERS	\$ 12,607,132,591
Transfer to State Police Benefit Account	(52,903,466)
Transfer to Annuity Reserve Account	(173,692,543)
December 31, 2005 balance after transfers	\$ 12,380,536,582

III. Enforcement Officers' Benefit Account

Balance as reported by SERS	\$ 43,369,215
Transfer from Supplemental Annuity Account	
December 31, 2005 balance after transfers	\$ 43,369,215

IV. State Police Benefit Account

Balance as reported by SERS	\$ 1,250,194,791
Transfer from State Accumulation Account	52,903,466
Transfer from Supplemental Annuity Account	 -
December 31, 2005 balance after transfers	\$ 1,303,098,257

V. Supplemental Annuity Account

Balance as reported by SERS	\$ (1,333,960,977)
Transfer from Annuity Reserve Account	-
Transfer to State Police Benefit Account	-
Transfer to Enforcement Officers' Benefit Account	
December 31, 2005 balance after transfers	\$ (1,333,960,977)

^{*} Balance includes \$2,865,356 in directed commissions.

State Employees' Retirement System Accounting Disclosure Statements

I. Schedule of Funding Progress as of December 31, 2005

(Dollars in Thousands)

			Unfunded			Unfunded Actuarial
		Actuarial	Actuarial			Accrued Liability as a
Actuarial	Actuarial	Accrued Liability	Accrued Liability	Funded		Percentage of
Valuation Date	Value of Assets	(AAL)	(UAAL)	Ratio	Covered Payroll	Covered Payroll
	(a)	(b)	(b-a)	(a) / (b)	(c)	((b-a)/c)
12/31/1992	11,769,388	11,488,414	(280,974)	102.4%	3,533,428	%0'8-
12/31/1993	13,060,613	12,213,736	(846,877)	106.9%	3,731,515	-22.7%
12/31/1994	13,991,485	13,742,056	(249,429)	101.8%	3,990,440	-6.3%
12/31/1995 *	15,510,309	15,067,205	(443,104)	102.9%	4,021,605	-11.0%
12/31/1996	16,841,069	15,936,616	(904,453)	105.7%	4,163,683	-21.7%
12/31/1997	18,565,136	17,288,413	(1,276,723)	107.4%	4,219,034	-30.3%
12/31/1998	20,670,711	18,357,899	(2,312,812)	112.6%	4,446,147	-52.0%
12/31/1999	23,624,267	19,091,840	(4,532,427)	123.7%	4,519,112	-100.3%
12/31/2000 *	26,094,306	19,702,278	(6,392,028)	132.4%	4,769,180	-134.0%
12/31/2001	27,505,494	23,658,757	(3,846,737)	116.3%	4,872,375	%6.87-
12/31/2002	27,497,464	25,650,389	(1,847,075)	107.2%	5,093,454	-36.3%
12/31/2003	27,465,615	26,179,761	(1,285,854)	104.9%	4,965,360	-25.9%
12/31/2004	26,900,027	27,999,026	1,099,000	96.1%	5,093,573	21.6%
12/31/2005 *	26,793,782	28,851,716	2,057,934	92.9%	5,138,377	40.1%

^{*} Revised economic and demographic assumptions due to experience review.

State Employees' Retirement System Accounting Disclosure Statements (Continued)

II. Schedule of Employer Contributions as of December 31, 2005

(Dollars in Thousands)

Calendar	Annual Required	Actual	Percentage
Year	Contribution (ARC)	Contribution	Contributed
1992	319,093	319,093	100.0%
1993	310,089	304,122	98.1%
1994	342,158	342,927	100.2%
1995	376,692	384,506	102.1%
1996	373,903	373,903	100.0%
1997	324,093	324,093	100.0%
1998	310,501	310,501	100.0%
1999	269,869	269,869	100.0%
2000	168,002	168,002	100.0%
2001	52,104	76,709	147.2%
2002	22,906	50,831	221.9%
2003	55,079	67,947	123.4%
2004	105,229	105,229	100.0%
2005	319,190	147,163	46.1%

Notes Pertaining to Governmental Accounting Standards Board Statement No. 25

The actual contribution amounts in the above table include the employer share of regular contributions, the employer share of purchased service and contributions for employee service under the Public School Employees' Retirement System.

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 actuarial valuation follows.

Accounting Disclosure Statements (continued)

Valuation Date December 31, 2005

Actuarial cost method Variation of Entry-age Actuarial Cost

Method

Amortization method 10-year or 30-year schedule with level

payments

Remaining amortization period 6 to 30 years

Asset valuation method 5-year smooth market

Actuarial Assumptions

Investment rate of return 8.5 percent

Projected salary increases Average increase of 7.1 percent

(range: 4.9 to 20.2 percent)

Inflation 3.0 percent Cost-of-living adjustments None

The annual employer contribution is equal to the sum of the following:

(1) The employer share of the normal cost.

- (2) The amortization of the December 31, 2001 liability for Act 2001-9 benefits over a 30-year period beginning July 1, 2002 and ending on June 30, 2032.
- (3) The amortization of the remaining unfunded liabilities as of December 31, 2001 over a ten-year period beginning July 1, 2002 and ending on June 30, 2012.
- (4) The amortization of all unfunded liabilities due to supplemental annuities (COLAs) after 2001, or other legislated benefit improvements after June 30, 2003, over ten-year periods beginning with the July first following the effective date of the change.
- (5) The amortization of changes in liability due to actual experience differing from assumed experience after December 31, 2001 over 30-year periods beginning with the July first following the actuarial valuation determining such changes.

Valuations are performed on December 31 of each year and the results are presented to the Board as a basis for determining the employer contribution rate for the year beginning July 1 after the valuation date. The Board has adopted the rate from the valuation unless information available after the valuation supports an adjustment to the valuation rate.

As long as the annual employer contribution, as defined above, is at least equal to the minimum contribution required under GASB Statement No. 25, the annual employer contribution will be deemed to be the Annual Required Contribution (ARC). Should the annual employer contribution be less than the minimum contribution required under GASB, the GASB minimum will be the ARC.

Accounting Disclosure Statements (continued)

The Board adopted the valuation rate as the contribution rate since 1995. The Board adopted slightly different rates in 1993 and 1994 based on information available after the valuation was performed. In 1993, the valuation rate of 9.27 percent was lowered to 8.92 percent because it was determined that the payroll reported for the valuation was unusually high and that future payrolls were expected to be relatively lower. In 1994, the valuation rate of 8.53 percent was increased to 8.92 percent to allow for the extension of the early retirement window and acceleration of the longevity pay scales.

The actuary agreed with the actions taken by the Board that resulted in some difference between the ARC and the actual contribution. The table presented on page 20 shows the ARC based on the actuarial valuation. The effect of the adjustments in 1993 and 1994 extended over three calendar years so the 1993 through 1995 actual contributions are different from the ARCs in those years.

During 2001, 2002, and 2003, actual contributions exceeded the ARC. For the period July 1, 2001 through June 30, 2003, the ARC was set at zero. However, contributions were made by employers of some special class employees for the cost of additional benefits including payment of past liabilities for retroactive benefit enhancements. Collection of those amounts resulted in the actual contributions exceeding the ARC for all or part of calendar years 2001, 2002 and 2003.

All amortization payments are currently based upon a 10-year or 30-year schedule of contributions which remain level during the amortization period. The employer cost is determined as a percent of payroll, and the employer contributes that percent of the payroll of all covered members during each fiscal year.

GASB Statement No. 25 defines the ARC to be equal to the employer normal cost plus an amount to amortize the unfunded actuarial accrued liability. The Statement prescribes the maximum acceptable period over which the total unfunded actuarial liability should be amortized. When portions of the unfunded actuarial liability are amortized over different periods, as they now are under Act 40, GASB requires that the "equivalent single amortization period" for all portions combined should not exceed the maximum acceptable period. Under the Act 40 amortization rules, the current contribution level results in an "equivalent single amortization period" in excess of the maximum acceptable period and thus an actual contribution less than the ARC. Because of the different funding periods for different portions of the unfunded liability, the net payments on the unfunded liability are actually negative thus reducing the total employer contribution to less than the normal cost. The employer contribution has been below the GASB minimum since July 1, 2005 and we anticipate that the SERS contribution will be lower than the ARC through June 30, 2012. After that date, the SERS contribution will exceed the GASB minimum.

State Employees' Retirement System Solvency Test

					Funded	Ratio		102.4%	106.9	101.8	102.9	105.7	107.4	112.6	123.7	132.4	116.3	107.2	104.9	96.1	92.9
				Liabilities	Covered by Reported Assets Funded	(3)		100.0%	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	90.5	81.6
				Accrued 1	y Reporte	(2)		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
				Portion of Accrued Liabilities	Covered b	(1)		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	Value of	Assets		\$ 11,769,388	13,060,613	13,991,485	15,510,309	16,841,069	18,565,136	20,670,711	23,624,267	26,094,306	27,505,494	27,497,464	27,465,615	26,900,027	26,793,782
			Total	Actuarial	Accrued	Liability (AAL)	nds)	\$ 11,488,414	12,213,736	13,742,056	15,067,205	15,936,616	17,288,413	18,357,899	19,091,840	19,702,278	23,658,757	25,650,389	26,179,761	27,999,026	28,851,716
lities For	(3)	Active	Members	(Employer	Financed	Portion)	(Amounts in Thousands)	↔	5,236,236	6,350,104	6,918,265	7,262,653	7,588,825	8,253,666	8,322,358	8,370,626	11,629,915	12,022,048	11,294,578	11,625,880	11,155,043
Actuarial Accrued Liabilities For	(2)				Retirees &	Contributions Beneficiaries	(Ar	\$ 4,621,318	4,806,907	5,039,221	5,649,454	6,027,333	6,951,411	4,266,366	7,779,993	8,148,876	8,684,734	10,129,669	11,296,520	12,779,570	14,000,196
Actuari	(1)			Active	Member	Contributions		\$ 1,994,567	2,170,593	2,352,731	2,499,485	2,646,630	2,748,177	2,904,232	2,989,489	3,182,776	3,344,107	3,498,672	3,588,664	3,593,576	3,696,477
	1				Valuation	Date		December 31, 1992	December 31, 1993	December 31, 1994	December 31, 1995	December 31, 1996	December 31, 1997	December 31, 1998	December 31, 1999	December 31, 2000	December 31, 2001	December 31, 2002	December 31, 2003	December 31, 2004	December 31, 2005

State Employees' Retirement System <u>Actuarial Value of Assets</u>

I.	Dev(A) B) C) D) E)	elopment of 12/31/05 Expected Actuarial Value: Actuarial Value as of 12/31/04 Contributions in 2005 Benefits and Expenses in 2005 Investment return at 8.5% to 12/31/05 on (A) Investment return at 8.5% to 12/31/05 on (B) and (C) .5 x ((B) + (C)) Expected Actuarial Value as of 12/31/05: (A) + (B) + (C) + (D) + (E)	26,900,026,818 452,787,274 (1,966,086,449) 2,286,502,280 (64,315,215) 27,608,914,708
II.	Prev	ious Differences Not Yet Amortized:	
	A)	Unrecognized amount of 12/31/01 Difference: .2 x (\$4,403,319,681)	\$ (880,663,936)
	B)	Unrecognized amount of 12/31/02 Difference: .4 x (\$5,022,717,365)	(2,009,086,946)
	C)	Unrecognized amount of 12/31/03 Difference: .6 x \$2,652,816,560	1,591,689,936
	D)	Unrecognized amount of 12/31/04 Difference: .8 x \$1,296,989,107	1,037,591,286
	E)	Total	\$ (260,469,660)
III.	Gair	n or Loss from 2005	
	A)	Market Value of Assets on 12/31/05	\$ 28,749,012,029
	B)	Expected Market Value $II(E) + I(F)$	27,348,445,048
	C)	Gain (loss) from 2005 Investments (A) - (B)	\$ 1,400,566,981
IV.	Dev	elopment of Actuarial Value of Assets as of 12/31/05:	
	A)	20% of (\$4,403,319,681) (12/31/01 Difference):	\$ (880,663,936)
	B)	20% of (\$5,022,717,365) (12/31/02 Difference):	(1,004,543,473)
	C)	20% of \$2,652,816,560 (12/31/03 Difference):	530,563,312
	D)	20% of \$1,296,989,107 (12/31/04 Difference):	259,397,821
	E)	20% of \$1,400,566,981 (12/31/05 Difference):	280,113,396
	F)	Total Difference: (A) + (B) + (C) + (D) + (E)	\$ (815,132,880)
	G)	Actuarial Value at $12/31/05$: $I(F) + IV(F)$	\$ 26,793,781,828

State Employees' Retirement System **Projection of Population, Benefits, and Contributions**

Projection of Annuitants and Employees Actual Data Through 2005

	New			New				
	Retirements	Deaths	Former	Survivors	Deaths		Total Retired	
Calendar	During the	During	Employees	During the	During	Survivors	and Survivor	Active
Year	Year	the Year	(EOY)	Year	the Year	(EOY)	Lives	Employees
1991			69,908			6,332	76,240	105,731
1991			73,897			6,595	80,492	109,609
1992			73,894			6,796	80,492	111,962
1993 1994			*			•	*	
			73,780			7,055	80,835	114,120
1995			74,110			7,094	81,204	112,637
1996			75,609			7,477	83,086	110,922
1997			77,667			7,790	85,457	108,684
1998			78,017			7,817	85,834	108,893
1999			80,095			7,948	88,043	108,035
2000			80,289			8,103	88,392	109,469
2001			80,911			8,306	89,217	109,716
2001			82,805			8,423	91,228	111,059
			•				*	
2003			85,808			8,604	94,412	109,018
2004			89,869			8,858	98,727	108,405
2005			92,120			9,059	101,179	109,981
2006	4,868	3,209	93,779	642	512	9,189	102,968	109,981
2007	5,154	3,242	95,691	648	560	9,277	104,968	109,981
2008	5,727	3,266	98,152	653	601	9,329	107,481	109,981
2009	5,435	3,291	100,296	658	635	9,352	109,648	109,981
2010	5,379	3,308	102,367	662	662	9,352	111,719	109,981
2011	5,303	3,334	104,336	667	685	9,334	113,670	109,981
2011	5,079	3,350	104,330	670	701	9,303	115,368	109,981
2012	4,839	3,366	100,003	673	701	9,303	115,308	109,981
2013	4,602	3,386	107,338	677	712	9,204	110,802	109,981
	*	•	*			•	*	
2015	4,378	3,403	109,729	681	722	9,181	118,910	109,981
2016	4,257	3,433	110,553	687	725	9,143	119,696	109,981

The retirement projections in Schedule K are based upon the current retirement assumptions used for the valuation; however they also reflect the greater numbers of retirements anticipated as a result of future medical program changes that will occur under the current collectively bargained agreement.

State Employees' Retirement System Projection of Population, Benefits, and Contributions

Projection of Expected Contributions and Benefits Actual Data Through 2005 (Dollars in Millions)

		Contri	butions		Contributio	ns as a	Percent	of Pay	Benefits and
Calendar Year	Emplo	oyee	Employ	/er	Employ	ee	Emplo	oyer	Expenses
1991	\$	183	\$	381					\$ 664
1992		187		319					851
1993		190		304					781
1994		193		343					812
1995		202		385					894
1996		210		374					943
1997		213		324					1,037
1998		222		311					1,080
1999		224		270					1,248
2000		232		168					1,198
2001		240		77					1,266
2002		304		51					1,450
2003		308		68					1,656
2004		302		106					1,880
2005		306		147					1,966
2006		311		179	(5.1%		3.5%	2,138
2007		318		229	(5.1%		4.4%	2,372
2008		330		207	(5.1%		3.8%	2,588
2009		340		137	(5.1%		2.4%	2,775
2010		352		106	(5.1%		1.8%	3,061
2011		363		207	(5.1%		3.5%	3,374
2012		375		821	(5.1%		13.3%	3,610
2013		388	1,	,325	(5.1%		20.8%	3,853
2014		400	1,	290	(5.1%		19.6%	4,215
2015		414	1.	432	(5.1%		21.1%	4,606
2016		427	1,	611	(5.1%		22.9%	4,905

The projection is based upon the following assumptions: a projected investment return of 8.5 percent in 2006 and after; general pay increases of 3.3 percent adjusted for negotiated increases; and supplemental annuity increases in 2006, 2010 and 2014.

Males - Full Years of Service to December 31, 2005

Age Group	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30+	Total	Average Salary
Less than 20	29	0		0	0	0		29	\$ 21,731
20-24	884	8	0	0	0	0	0	892	25,513
25-29	1,881	373	4	0	0	0	0	2,258	32,348
30-34	1,565	1,006	282	10	0	0	0	2,863	36,834
35-39	1,544	1,121	1,176	436	17	0	0	4,294	40,993
40-44	1,545	999	1,096	1,292	607	45	0	5,584	43,824
45-49	1,578	1,032	1,101	1,392	1,443	939	54	7,539	45,906
50-54	1,552	1,013	1,130	1,231	1,294	1,694	1,221	9,135	48,740
55-59	1,329	834	983	1,008	1,002	1,167	2,232	8,555	51,436
60-64	610	401	481	375	273	230	570	2,940	51,865
65+	263	205	280	132	81	50	226	1,237	52,872
		-			_	_			
Total	12,780	6,992	6,533	5,876	4,717	4,125	4,303	45,326	\$ 45,710

Average Age 47.48 Average Service 13.33

Females - Full Years of Service to December 31, 2005

Age									Average
Group	0 - 4	5 - 9	<u>10 - 14</u>	<u>15 - 19</u>	<u>20 - 24</u>	<u>25 - 29</u>	_30+_	_Total_	Salary
Less than 20	52	0	0	0	0	0	0	52	\$ 22,144
20-24	1,140	39	0	0	0	0	0	1,179	24,806
25-29	2,102	549	25	0	0	0	0	2,676	30,569
30-34	1,672	992	434	31	0	0	0	3,129	33,893
35-39	1,676	1,010	962	684	56	0	0	4,388	36,339
40-44	1,647	1,004	935	1,080	853	146	0	5,665	38,983
45-49	1,802	1,116	1,135	1,174	1,134	1,135	158	7,654	40,516
50-54	1,545	1,006	1,080	1,256	1,136	1,443	1,682	9,148	43,605
55-59	1,063	756	849	1,090	924	894	1,292	6,868	43,613
60-64	308	313	397	367	267	211	223	2,086	42,298
65+	132	109	<u>172</u>	125	69	<u>54</u>	92	<u>753</u>	41,022
Total	13,139	6,894	5,989	5,807	4,439	3,883	3,447	43,598	\$ 39,594

Average Age 46.08 Average Service 12.69

SCHEDULE L (Page 1 of 10)

^{*} The following three pages contain information on members in special categories. These include selected hazardous duty members, legislators, judges and district justices. The above information is for all other active members. Page five of Schedule L is the total of all active categories. Page six is the total of all active employees and inactive and vested participants.

Selected Hazardous Duty*

Males - Full Years of Service to December 31, 2005

Age									Average
Group	0 - 4	5 - 9	<u>10 - 14</u>	<u>15 - 19</u>	<u>20 - 24</u>	<u>25 - 29</u>	30+	_Total_	Salary
Less than 20	0	0	0	0	0	0	0	0	\$ -
	-	-	_			0			·
20-24	211	0	0	0	0	U	0	211	30,640
25-29	985	126	3	0	0	0	0	1,114	36,440
30-34	933	978	275	5	0	0	0	2,191	44,399
35-39	762	986	1,740	512	7	0	0	4,007	53,848
40-44	502	449	958	1,118	336	4	0	3,367	55,633
45-49	310	320	351	570	678	161	3	2,393	56,834
50-54	200	224	315	328	322	229	52	1,670	55,450
55-59	190	188	335	314	223	104	119	1,473	52,908
60-64	42	61	133	97	49	30	27	439	53,299
65+	9	9	<u>21</u>	<u>18</u>	8	<u>4</u>	<u>3</u>	<u>72</u>	56,632
Total	4,144	3,341	4,131	2,962	1,623	532	204	16,937	\$ 52,042

Average Age 41.91 Average Service 10.97

Females - Full Years of Service to December 31, 2005

Age									Average
Group	0 - 4	5 - 9	<u>10 - 14</u>	<u>15 - 19</u>	<u>20 - 24</u>	<u>25 - 29</u>	_30+_	_Total_	Salary
Less than 20	0	0	0	0	0	0	0	0	\$ -
20-24	51	0	0	0	0	0	0	51	29,372
25-29	208	26	0	0	0	0	0	234	35,306
30-34	220	133	29	0	0	0	0	382	40,099
35-39	159	163	127	24	0	0	0	473	44,244
40-44	114	124	103	72	28	1	0	442	46,704
45-49	123	100	94	91	84	38	1	531	49,735
50-54	74	84	95	72	49	45	9	428	51,243
55-59	35	32	56	52	30	14	12	231	52,827
60-64	10	11	17	13	6	7	1	65	53,299
65+	<u>1</u>	<u>1</u>	<u>11</u>	<u>6</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>22</u>	57,440
Total	995	674	532	330	198	106	24	2,859	\$ 46,142

Average Age 42.57 Average Service 9.02

SCHEDULE L (Page 2 of 10)

^{*} Enforcement officers, correction officers, psychiatric security aides, and officers of the Pennsylvania State Police and the Delaware River Port Authority

Legislators

Males - Full Years of Service to December 31, 2005

Age									Average
Group	0 - 4	5 - 9	<u>10 - 14</u>	<u>15 - 19</u>	<u>20 - 24</u>	<u>25 - 29</u>	_30+_	_Total_	_Salary_
Less than 20	0	0	0	0	0	0	0	0	\$ -
20-24	0	0	0	0	0	0	0	0	-
25-29	1	0	0	0	0	0	0	1	72,187
30-34	6	3	0	0	0	0	0	9	72,187
35-39	4	5	0	0	0	0	0	9	72,187
40-44	5	12	7	0	0	0	0	24	72,187
45-49	11	6	2	6	5	4	0	34	76,562
50-54	6	8	11	2	4	8	0	39	76,313
55-59	4	2	5	8	6	9	5	39	75,600
60-64	2	2	3	4	5	5	7	28	76,827
65+	0	2	<u>5</u>	4	<u>6</u>	<u>7</u>	<u>11</u>	<u>35</u>	75,766
	_	_	_		_	_			
Total	39	40	33	24	26	33	23	218	\$ 75,389

Average Age 53.72 Average Service 15.87

Females - Full Years of Service to December 31, 2005

Age									Average
Group	0 - 4	5 - 9	<u>10 - 14</u>	<u>15 - 19</u>	<u>20 - 24</u>	<u>25 - 29</u>	_30+_	_Total_	_Salary_
Less than 20	0	0	0	0	0	0	0	0	\$ -
20-24	0	0	0	0	0	0	0	0	-
25-29	0	0	0	0	0	0	0	0	-
30-34	2	0	0	0	0	0	0	2	72,187
35-39	0	1	0	0	0	0	0	1	72,187
40-44	1	0	2	0	0	0	0	3	72,187
45-49	0	2	2	0	0	0	0	4	72,187
50-54	1	0	0	1	2	0	0	4	72,187
55-59	2	0	2	1	0	0	0	5	72,187
60-64	1	2	4	0	0	0	0	7	75,080
65+	<u>1</u>	0	<u>1</u>	4	<u>1</u>	0	1	8	74,104
Total	8	5	11	6	3	0	1	34	\$ 73,234

Average Age 56.38 Average Service 12.44

Judges And Magisterial District Judges

Males - Full Years of Service to December 31, 2005

Age									Average
Group	0 - 4	5 - 9	<u>10 - 14</u>	<u>15 - 19</u>	<u>20 - 24</u>	<u>25 - 29</u>	_30+_	_Total_	Salary
Less than 20	0	0	0	0	0	0	0	0	\$ -
20-24	0	0	0	0	0	0	0	0	-
25-29	1	0	0	0	0	0	0	1	66,998
30-34	1	1	0	0	0	0	0	2	65,834
35-39	7	8	2	0	0	0	0	17	66,313
40-44	14	14	9	2	1	0	0	40	78,543
45-49	20	27	18	7	4	0	0	76	91,747
50-54	26	26	52	26	20	7	1	158	92,843
55-59	30	39	54	37	30	19	8	217	100,568
60-64	9	12	34	29	30	15	12	141	105,371
65+	4	<u>15</u>	<u>25</u>	<u>17</u>	<u>19</u>	<u>16</u>	<u>12</u>	108	103,734
Total	112	142	194	118	104	57	33	760	\$ 97,360

Average Age 56.07 Average Service 13.98

Females - Full Years of Service to December 31, 2005

Age									Average
Group	0 - 4	5 - 9	<u>10 - 14</u>	<u>15 - 19</u>	<u>20 - 24</u>	<u>25 - 29</u>	30+	_Total_	Salary
Less than 20	0	0	0	0	0	0	0	0	\$ -
20-24	0	0	0	0	0	0	0	0	-
25-29	0	0	0	0	0	0	0	0	-
30-34	4	1	0	0	0	0	0	5	66,532
35-39	6	7	0	0	0	0	0	13	80,685
40-44	7	7	6	0	0	0	0	20	75,724
45-49	12	16	7	5	2	0	0	42	99,012
50-54	15	11	24	14	4	4	0	72	105,836
55-59	5	6	16	9	13	1	1	51	101,263
60-64	1	5	3	9	7	2	0	27	101,074
65+	<u>1</u>	3	<u>5</u>	3	2	4	<u>1</u>	<u>19</u>	88,938
Total	51	56	61	40	28	11	2	249	\$ 97,422

Average Age 52.53 Average Service 11.75

All Active Employees

Males - Full Years of Service to December 31, 2005

Age									Average
Group	0 - 4	5 - 9	10 - 14	<u>15 - 19</u>	<u>20 - 24</u>	<u>25 - 29</u>	_30+_	Total	Salary
Less than 20	29	0	0	0	0	0	0	29	\$ 21,731
			-			-	_		*
20-24	1,095	8	0	0	0	0	0	1,103	26,494
25-29	2,868	499	7	0	0	0	0	3,374	33,721
30-34	2,505	1,988	557	15	0	0	0	5,065	40,180
35-39	2,317	2,120	2,918	948	24	0	0	8,327	47,264
40-44	2,066	1,474	2,070	2,412	944	49	0	9,015	48,464
45-49	1,919	1,385	1,472	1,975	2,130	1,104	57	10,042	48,961
50-54	1,784	1,271	1,508	1,587	1,640	1,938	1,274	11,002	50,490
55-59	1,553	1,063	1,377	1,367	1,261	1,299	2,364	10,284	52,775
60-64	663	476	651	505	357	280	616	3,548	54,366
65+	<u>276</u>	<u>231</u>	<u>331</u>	<u>171</u>	<u>114</u>	<u>77</u>	<u>252</u>	<u>1,452</u>	57,394
Total	17,075	10,515	10,891	8,980	6,470	4,747	4,563	63,241	\$ 48,129

Average Age 46.12 Average Service 12.71

Females - Full Years of Service to December 31, 2005

Age	0 4	5.0	10 14	15 10	20 24	25 20	20.	m . 1	Average
<u>Group</u>	0 - 4	5 - 9	10 - 14	<u>15 - 19</u>	<u>20 - 24</u>	<u>25 - 29</u>	30+	<u>Total</u>	Salary
Less than 20	52	0	0	0	0	0	0	52	\$ 22,144
20-24	1,191	39	0	0	0	0	0	1,230	24,995
25-29	2,310	575	25	0	0	0	0	2,910	30,950
30-34	1,898	1,126	463	31	0	0	0	3,518	34,635
35-39	1,841	1,181	1,089	708	56	0	0	4,875	37,232
40-44	1,769	1,135	1,046	1,152	881	147	0	6,130	39,690
45-49	1,937	1,234	1,238	1,270	1,220	1,173	159	8,231	41,424
50-54	1,635	1,101	1,199	1,343	1,191	1,492	1,691	9,652	44,420
55-59	1,105	794	923	1,152	967	909	1,305	7,155	44,341
60-64	320	331	421	389	280	220	224	2,185	43,500
65+	<u>135</u>	<u>113</u>	<u>189</u>	<u>138</u>	<u>73</u>	<u>59</u>	<u>95</u>	<u>802</u>	42,937
Total	14,193	7,629	6,593	6,183	4,668	4,000	3,474	46,740	\$ 40,331

Average Age 45.91 Average Service 12.46

State Employees' Retirement System II. Age and Service Profile of Active Employees and Inactive and Vested Participants As of December 31, 2005

Active Employees and Inactive and Vested Participants

Males - Full Years of Service to December 31, 2005

Age								
Group	0 - 4	5 - 9	10 - 14	<u>15 - 19</u>	<u>20 - 24</u>	<u>25 - 29</u>	_30+_	_Total_
Less than 20	29	0	0	0	0	0	0	29
20-24	1,096	8	0	0	0	0	0	1,104
25-29	2,875	517	7	0	0	0	0	3,399
30-34	2,520	2,059	567	16	0	0	0	5,162
35-39	2,347	2,215	2,982	950	24	0	0	8,518
40-44	2,100	1,556	2,148	2,437	946	49	0	9,236
45-49	1,982	1,467	1,567	2,026	2,141	1,108	57	10,348
50-54	1,885	1,358	1,600	1,637	1,683	1,964	1,290	11,417
55-59	1,738	1,157	1,472	1,440	1,294	1,328	2,398	10,827
60-64	745	506	689	534	373	286	631	3,764
65+	308	<u>246</u>	<u>346</u>	182	<u>121</u>	82	<u>256</u>	1,541
Total	17,625	11,089	11,378	9,222	6,582	4,817	4,632	65,345

Average Age 46.26 Average Service 12.62

Females - Full Years of Service to December 31, 2005

Age								
Group	0 - 4	5 - 9	10 - 14	<u>15 - 19</u>	<u>20 - 24</u>	<u>25 - 29</u>	_30+_	_Total_
Less than 20	52	0	0	0	0	0	0	52
20-24	1,192	39	0	0	0	0	0	1,231
25-29	2,327	604	25	0	0	0	0	2,956
30-34	1,930	1,228	473	32	0	0	0	3,663
35-39	1,896	1,312	1,165	719	56	0	0	5,148
40-44	1,840	1,234	1,148	1,183	885	147	0	6,437
45-49	2,059	1,385	1,393	1,329	1,229	1,175	160	8,730
50-54	1,915	1,299	1,367	1,430	1,226	1,505	1,698	10,440
55-59	1,526	961	1,050	1,231	1,005	932	1,327	8,032
60-64	470	383	463	416	305	236	235	2,508
65+	<u>175</u>	<u>140</u>	202	<u>151</u>	<u>77</u>	<u>59</u>	<u>96</u>	900
Total	15,382	8,585	7,286	6,491	4,783	4,054	3,516	50,097

Average Age 46.23 Average Service 12.16

Superannuation Annuitants

	Male			Female	Total		
<u>Age</u>	<u>Number</u>	Annual Pension	<u>Number</u>	Annual Pension	Number Annual Pension		
Under 25	-	\$ -	-	\$ -	- \$ -		
25-29	-	-	-	-			
30-34	-	-	-	-			
35-39	-	-	-	-			
40-44	-	-	-	-			
45-49	-	-	-	-			
50-54	424	13,015,431	177	5,125,479	601 18,140,910		
55-59	2,090	77,256,146	831	27,997,616	2,921 105,253,762		
60-64	4,416	147,325,467	2,635	64,310,374	7,051 211,635,842		
65-69	5,306	140,546,866	3,501	64,268,279	8,807 204,815,145		
70-74	4,837	102,513,872	3,407	46,579,014	8,244 149,092,886		
75-79	4,763	85,768,317	3,719	41,736,080	8,482 127,504,397		
80-84	3,863	58,621,140	3,595	33,611,539	7,458 92,232,679		
85-89	2,040	25,288,997	2,489	20,133,006	4,529 45,422,003		
90 & over	919	11,076,484	1,450	12,366,006	2,369 23,442,490		
Total	28,658	\$ 661,412,721	21,804	\$ 316,127,393	50,462 \$ 977,540,114		

Average Age 73.3 Average Annual Pension \$19,372

Early Retirement Annuitants

	Male			Female		Total
<u>Age</u>	<u>Number</u>	Annual Pension	Number	Annual Pension	<u>Number</u>	Annual Pension
Under 25	-	\$ -	1	\$ 381	1	\$ 381
25-29	12	8,112	28	16,261	40	24,373
30-34	95	111,439	114	113,439	209	224,878
35-39	271	567,394	283	470,922	554	1,038,316
40-44	452	1,688,878	544	1,358,032	996	3,046,911
45-49	841	7,200,596	1,143	5,129,096	1,984	12,329,692
50-54	1,733	22,053,633	2,817	26,489,472	4,550	48,543,104
55-59	4,629	92,235,920	3,866	52,511,298	8,495	144,747,217
60-64	4,181	88,329,398	2,616	37,252,437	6,797	125,581,835
65-69	2,335	35,435,768	1,759	18,734,984	4,094	54,170,751
70-74	1,793	25,400,884	1,451	13,513,666	3,244	38,914,550
75-79	1,106	15,167,912	1,029	8,601,112	2,135	23,769,024
80-84	431	5,178,221	584	4,321,876	1,015	9,500,098
85-89	148	1,712,957	219	1,868,337	367	3,581,294
90 & over	45	533,261	61	584,815	106	1,118,076
Total	18,072	\$ 295,624,373	16,515	\$ 170,966,127	34,587	\$ 466,590,500

Average Age 60.9 Average Annual Pension \$13,490

Disabled Annuitants

	Male		I	Female	,	Total
<u>Age</u>	Number	Annual Pension	Number	Annual Pension	<u>Number</u>	Annual Pension
Under 25	-	\$ -	-	\$ -	-	\$ -
25-29	1	7,270	2	21,352	3	28,622
30-34	12	117,299	10	100,353	22	217,652
35-39	40	489,685	56	535,311	96	1,024,996
40-44	146	1,822,395	153	1,825,490	299	3,647,885
45-49	242	3,528,136	353	4,766,516	595	8,294,652
50-54	511	7,698,642	644	9,467,489	1,155	17,166,131
55-59	794	12,188,947	760	11,095,856	1,554	23,284,803
60-64	601	7,464,546	585	6,892,585	1,186	14,357,132
65-69	415	4,143,079	414	3,866,340	829	8,009,419
70-74	269	2,526,861	316	2,552,299	585	5,079,161
75-79	189	1,896,792	192	1,423,998	381	3,320,791
80-84	95	877,177	142	999,756	237	1,876,934
85-89	40	340,872	60	364,514	100	705,386
90 & over	7	52,530	22	137,244	29	189,774
Total	3,362	\$ 43,154,234	3,709	\$ 44,049,103	7,071	\$ 87,203,337

Average Age 60.1 Average Annual Pension \$12,333

Beneficiaries and Survivor Annuitants

	Male]	Female			Total		
<u>Age</u>	<u>Number</u>	Annual Pension	<u>Number</u>	Aı	nnual Pension	Number	Ar	nnual Pension	
Under 25	21	\$ 321,168	14	\$	102,090	35	\$	423,259	
25-29	14	193,571	9		79,806	23		273,377	
30-34	11	297,666	13		150,202	24		447,868	
35-39	21	215,905	23		237,089	44		452,994	
40-44	13	73,437	53		628,328	66		701,764	
45-49	47	320,014	104		913,436	151		1,233,450	
50-54	70	392,930	262		2,281,760	332		2,674,689	
55-59	99	718,639	442		4,694,600	541		5,413,239	
60-64	100	879,598	553		6,664,791	653		7,544,389	
65-69	94	806,753	702		7,381,071	796		8,187,824	
70-74	97	863,830	914		8,999,611	1,011		9,863,441	
75-79	107	714,875	1,402		11,230,009	1,509		11,944,884	
80-84	103	588,990	1,520		10,150,888	1,623		10,739,878	
85-89	67	367,573	1,294		7,568,654	1,361		7,936,227	
90 & over	26	82,423	864		4,376,548	890		4,458,971	
Total	890	\$ 6,837,371	8,169	\$	65,458,882	9,059	\$	72,296,253	

Average Age 75 Average Annual Pension \$7,981

Benefit and Contribution Provisions as of December 31, 2005 (as embodied in Act 31 of 1974, and amended through Act 40 in December 2003)

The State Employees' Retirement System makes provision for retirement, disability, and death benefits for all State employees, except those specifically excluded under Section 5301 of the State Code, and certain other eligible groups. The major provisions are summarized as follows:

Eligible Employees

<u>Class AA</u> -	All eligible employees hired after June 30, 2001, except State Police Officers, members of the judiciary and legislators, and employees hired before July 1, 2001 who elected Class AA by December 31, 2001.
Class A -	State Police Officers hired on or after March 1, 1974, members of the judiciary who have not elected Class E-1 or E-2, legislators elected before July 1, 2001 who have not elected Class AA or Class D-4 and Class A employees hired before July 1, 2001 who remained in Class A.
<u>Class C</u> -	Liquor Law enforcement officers and other officers and certain employees of the State Police who have been members and employees continuously since prior to March 1, 1974.
Class D-3 -	Legislators who have been members and employees continuously since prior to March 1, 1974.
<u>Class D-4</u> -	Legislators coming into service after June 30, 2001 who elect to be SERS members, and legislators who elected Class D-4 before July 1, 2001.
Class E-1 -	Judges who elect Class E-1.
Class E-2 -	Magisterial District Judges who elect Class E-2.

Benefit and Contribution Provisions as of December 31, 2005 (continued) (as embodied in Act 31 of 1974, and amended through Act 40 in December 2003)

Age and Service Requirements for Superannuation (full formula benefits)

Class AA & Class A

General Conditions Age 60 with three years of service; or 35 or more

years of credited service, regardless of age.

Legislators and certain enforcement

officers Age 50 with three years of service.

Park Rangers & Capitol Police Age 50 with 20 years of Park Ranger or Capitol Police

service.

State Police Age 50. State Police are eligible for unreduced

> benefits after 20 years of service, regardless of age; however, age 50 remains their superannuation age.

Class C

State Police Age 50. State Police are eligible for unreduced

benefits after 20 years of service, regardless of age;

however, age 50 remains their superannuation age.

Age 50 with three years of service. Other Hazardous Duty

Class D-3 & Class D-4 Age 50 with three years of service.

Class E-1 & Class E-2 Age 60 with three years of service; or 35 or more years

of credited service, regardless of age.

Formula for Superannuation Annuity

The single-life annuity applicable to members of Class AA is equal to 2.5 percent of the high 3-year final average salary ("F.A.S.") of the member multiplied by the years and fractions of credited service.

The standard single-life annuity applicable to members of Class A and Class C is equal to 2 percent of the high 3-year final average salary ("F.A.S.") of the member multiplied by the years and fractions of credited service.

The applicable single-life annuity for Class C State Police and Class A State Police is 50 percent of the highest annual salary if the member has over 20 but less than 25 years of service. With more than 25 years of service the benefit is 75 percent of the highest annual salary.

Benefit and Contribution Provisions as of December 31, 2005 (continued) (as embodied in Act 31 of 1974, and amended through Act 40 in December 2003)

The benefit accrual rates for other classes of members are as follows:

Class	Benefit Accrual Rate
D-3	7.5 percent
D-4	3.0 percent
E-1	4.0 percent for each of the first 10 years of judicial service, dropping to 3.0 percent for each subsequent year of judicial service.
E-2	3.0 percent for each year of judicial service.

Members who have 41 or more years of combined Class A and AA service are entitled to a supplemental benefit ranging from 2 percent of the single-life annuity for members with 41 years of service to 10 percent of the single-life annuity for members with 45 or more years of service.

The benefit for a member who works past age 70 is at least equal to a benefit that is the actuarial equivalent of the prior year's benefit. This determination is made each year after age 70.

In addition to the standard single-life annuity as determined above, a member of Class C receives a "member's annuity" actuarially equivalent to the regular accumulated member contributions and interest at retirement but not less than such annuity determined as if the member was age 60 at retirement.

In addition to the above benefits, a member who has elected Social Security Integration Coverage is entitled to a single-life annuity of 2 percent of the members' "Average Non-Covered Salary" for each year of Social Security Integration (SSI) coverage. All Class E members can elect SSI coverage. Other members must have elected SSI coverage before March, 1974. "Average Non-Covered Salary" is the average annual salary received while covered by the Retirement System since January 1, 1956 in excess of the maximum covered wages under Social Security.

Limitations on Annuity

The annuity paid to a member shall not exceed the member's highest salary during any period of twelve consecutive months of creditable service; however, late retirement increase benefits, if any, are not subject to this limitation. The amount of annual retirement benefit a member may receive shall not exceed the dollar limit specified under Section 415 (b) of the Internal Revenue Code. However, members will not receive a lower benefit than they would have been entitled to receive had Act 2001-9 not been enacted.

Benefit and Contribution Provisions as of December 31, 2005 (continued) (as embodied in Act 31 of 1974, and amended through Act 40 in December 2003)

Age and Service Requirements for Disability Retirement

A member is eligible for disability retirement if the member is unable to perform his or her current job and has at least 5 years of service. An officer of the State Police or enforcement officer does not have a service requirement.

Formula for Disability Benefit

The disability benefit is equal to the benefit calculated as for full retirement, based on years of credited service at disability, if the result is greater than or equal to 33-1/3 percent of F.A.S. at time of disability. If the benefit so calculated is less than 33-1/3 percent of F.A.S., the disability benefit is equal to the smaller of:

- (a) the benefit calculated as for full retirement based on service projected to retirement date, or
- (b) 33-1/3 percent of F.A.S. at time of disability.

For service connected disabilities, the disability benefit payable will be increased, as needed, so that the sum of the plan benefit and the benefits paid or payable under the Workers' Compensation Act, The Pennsylvania Occupational Disease Act, and the Social Security Act equals 70 percent of F.A.S.

Eligibility for Vested Benefit

A member is eligible for a vested benefit after 5 years of service.

Vested Benefit

The vested benefit is equal to the benefit calculated as for retirement, based on years of credited service at the time of leaving the plan. The former member can receive the full benefit beginning at retirement age, or an actuarially reduced early retirement benefit beginning at any date after separation but before retirement. The early retirement benefit is reduced from the earlier of age 60, or the age at which the member would have 35 years of credited service. Benefits for Park Rangers and Capitol Police who have 20 years of service are reduced from age 50. Benefits for other members who have an age 50 superannuation age are reduced from age 50 irrespective of the amount of service they have.

Eligibility for Death Benefit Prior to Retirement

A member is eligible if the member (1) is under superannuation age with 5 years of credited service or (2) has attained superannuation age with 3 years of credited service.

Benefit and Contribution Provisions as of December 31, 2005 (continued) (as embodied in Act 31 of 1974, and amended through Act 40 in December 2003)

Amount of Death Benefit Prior to Retirement

An eligible beneficiary receives the full present value of the benefits to which the member would have been entitled had the member retired the day before he or she died, assuming the member had elected Option 1 if no other option had been elected. This death benefit includes the present value associated with benefits, if any, to which the member may not have been entitled because they exceeded the member's highest consecutive twelve months of salary.

Death Benefits After Retirement

A member who elects the single-life annuity is entitled to a refund of the unpaid balance of the member accumulated contributions and interest at the time of retirement. A member may elect one of several optional reduced pensions in lieu of the single-life annuity to provide additional death benefit protection. The optional forms of benefit are actuarially equivalent to the single life benefit using 4.0 percent interest per annum, and the actuarial equivalence factors described below.

The beneficiary of a disabled member who did not elect an alternative option receives benefits determined under Option 1. Option 1 provides that the beneficiary will receive a benefit equal to the present value of the single-life annuity at retirement reduced by any payments received by the annuitant. The Option 1 benefit is provided to a disabled member without any reduction in the member's benefit.

The beneficiary of a member whose benefit was limited to the member's highest salary will be paid a death benefit equal to the present value of the benefit in excess of the highest salary. This payment is in addition to any death benefit that may be paid as a result of the optional election.

The "Extra Piece"

The retirement code provides for an "extra piece" to be added to the annual benefit if the member's accumulated deductions, excluding any Class C deductions, exceed one-half of the actuarially equivalent value of the annual benefit. The extra piece is equal to the difference between the total accumulated deductions and one-half of the actuarially equivalent value of the annual benefit.

Cost-of-Living Allowances (COLAs)

Supplemental annuities applying cost-of-living increases to the benefits of annuitants have been instituted from time to time. The last cost-of-living increase was a two-stage increase under Act 2002-38. The first stage was applicable to annuitants who retired on or before July 1, 1990, and it became effective in July of 2002. The second stage provided cost-of-living increases to annuitants who retired after July 1, 1990 but prior to July 2, 2002, and it became effective in July of 2003.

Benefit and Contribution Provisions as of December 31, 2005 (continued) (as embodied in Act 31 of 1974, and amended through Act 40 in December 2003)

Rate of Member Contribution

(i) Regular member contributions, excluding Social Security Integration contributions

Class AA - 6.25 percent of total salary

Class A - 5.00 percent

<u>Class C</u> - 5.00 percent

<u>Class D-3</u> - 18.75 percent

Class D-4 - 7.50 percent

Class E-1 - 10.00 percent during the first 10 years of judicial service

and 7.50 percent thereafter.

<u>Class E-2</u> - 7.50 percent

(ii) Additional contribution for Social Security Integration Credit

Any member who elects the Social Security Integration Credit pays 5.00 percent of any salary in excess of the amount of salary covered by Social Security during the year for which contributions are being made. A member electing to end additional contributions is ineligible to make future contributions or accrue future benefits.

(iii) Waiver of contributions

Members may elect to waive future contributions if their maximum single life annuity exceeds 110 percent of their highest calendar year compensation.

Interest Credited on Member Contributions

A rate of 4 percent, stipulated as the statutory rate of interest, has been credited on the member contributions since the inception of the system.

Benefit and Contribution Provisions as of December 31, 2005 (continued) (as embodied in Act 31 of 1974, and amended through Act 40 in December 2003)

Refund of Accumulated Member Contributions

On the death of a member not qualifying for death benefits, the accumulated member contributions and interest will be paid to the beneficiary. Any member terminating service when not eligible for another form of benefit is paid a refund of the accumulated contributions and interest. Other terminating members may elect to receive a lump sum payment of a portion of the present value of their benefit, not to exceed their accumulated contributions and interest. Their lump sum payment results in a decrease to the annuity benefit otherwise payable.

Employer Contributions

The employer pays the balance of the cost in excess of the members' contributions with payment schedules determined by law. Act 2003-40 made changes to the SERS funding rules which significantly affect the required employer contributions. See Section III of Schedule O for the details.

Actuarial Equivalence

The actuarial table used to determine optional and early retirement benefits for members who entered service after August 1983 is the 1983 Group Annuity Mortality (1983GAM) Unisex table.

Members who entered service before August 1983 receive the better of benefits based on the 1983 GAM table or a variation of the 1971 Group Annuity Mortality (1971GAM) male table. The 1971 GAM table that applies in determining the benefits for members who entered service before August 1983 is:

For service before August, 1983:

Males (members or survivors) – 1971 GAM for males Females (members or survivors) – 1971 GAM for males, set back 6 years

For service after August, 1983:

Members (male or female) – 1971 GAM for males, set back 6 years Survivors (male or female) – 1971 GAM for males

Actuarial Assumptions

Schedule N shows the actuarial assumptions used for the valuation. The assumptions were based on a review of experience under SERS from 2001 through 2005. Schedule N contains an extract of the full set of rates used in the valuation. The full set of rates is in the Sixteenth Investigation of Actuarial Experience of the State Employees' Retirement System of the Commonwealth of Pennsylvania; March 15, 2006; which can be obtained from SERS. The rates are the probabilities that an event will occur in the year after the valuation and are all assumed to occur at the beginning of the year. For instance, the male retirement rate of 25.0 percent at age 60 means that 250 of every 1,000 employees age 60 and who are eligible for full benefits are expected to retire at the date of the valuation.

<u>Interest Rate</u>: 8.5 percent compounded annually. The assumed interest rate of 8.5 percent is the investment return less investment and administrative expenses.

Mortality After Retirement:

Non-disabled Retirees, Beneficiaries and Survivors: The RP-2000 Healthy Annuitant Mortality Table projected to 2008.

<u>Disability Retirees</u>: The RP-2000 Disabled Retiree Mortality Table projected to 2008.

Spouse Age Difference: Females are assumed to be 2 years younger than males.

Assumptions for General Employees while Active Members

Rates of Separation for Eligibility for Full Unreduced Benefits:

(35 years of service under age 60; 3 years of service over age 60)

On June 30, 2008, the minimum service for eligibility for subsidized health benefits will increase from 15 to 20 years. Accordingly, we increased the separation rates for general employees with 15 to 19 years of service to a minimum of 50 percent in 2008.

Representative Rates of Separation for Eligibility for Full Unreduced Benefits								
Age	Age Male Female							
45 - 59	30.0%	30.0%						
60 - 61	25.0	25.0						
62	33.0	33.0						
63 - 64	22.0	22.0						
65	33.0	33.0						
66 - 79	22.0	22.0						
80	100.0%	100.0%						

Actuarial Assumptions (continued)

Rates of Separation for Eligibility for Reduced Benefits (only apply to members not eligible for full unreduced benefits)

Representative Rates of Separation for Eligibility for Reduced Benefits									
	5 – 14 Year	s of Service	15 or More Years of Service						
Age	Male	Female	Male	Female					
25	3.0%	3.9%	N/A	N/A					
30	2.5	3.5	N/A	N/A					
35	1.9	2.8	2.6%	2.7%					
40	1.7	1.7	2.6	2.7					
45	1.1	1.6	2.6	2.7					
50	1.0	1.3	2.6	2.7					
55	2.3	2.3	3.9	3.9					

Rates of Separation Due to Withdrawal

It is assumed that the benefit will be reduced from age 58 for general members (to factor 35 years of service before age 60) and at age 50 for members eligible for age 50 retirement.

	Representative Rates of Separation Due to Withdrawal									
	Male					Female				
	,	Years of	f Service	•		Years	of Servic	e		
Age	0	5	9	14	0	5	9	14		
20	11.9%	N/A	N/A	N/A	11.2%	N/A	N/A	N/A		
25	11.6	2.0%	2.0%	N/A	10.2	2.7%	2.1%	N/A		
30	11.1	2.0	1.5	1.5%	10.2	2.7	1.9	2.0%		
35	10.9	1.8	1.0	1.1	10.2	2.2	1.4	1.6		
40	10.9	1.3	1.0	1.1	10.0	2.2	0.9	0.6		
45	10.5	1.3	0.5	0.6	9.8	2.0	0.9	0.6		
50	10.2	1.1	0.5	0.6	9.8	2.0	0.5	0.6		
55	10.2	1.5	1.5	1.5	9.8	1.7	1.4	1.6		

Actuarial Assumptions (continued)

Rates of Separation Due to Death and Disability (Disability rates only apply to members not eligible for full retirement)

Represer	Representative Rates of Separation Due to Death and Disability									
	De	ath	Disa	bility						
Age	Male	Female	Male	Female						
20	0.02%	0.02%	N/A	N/A						
25	0.02	0.02	0.03%	0.07%						
30	0.03	0.02	0.09	0.17						
35	0.05	0.03	0.16	0.29						
40	0.06	0.05	0.25	0.38						
45	0.12	0.07	0.44	0.60						
50	0.21	0.12	0.61	0.91						
55	0.33	0.18	0.80	1.15						
60	0.48	0.30	N/A	N/A						

For Special Benefit Classes if Different from General Employee Rates:

Rates of Separation Due to Withdrawal				
Years of	State Police/			
Service	Hazardous Duty	Legislators	Judicial Officers	
0	5.6%	0.0%	0.0%	
1	5.6	3.9	0.2	
2	3.7	3.9	0.2	
3 - 4	2.8	3.9	0.2	
5	1.9	3.9	0.2	
6	1.9	3.9	0.2	
7 - 9	.9	3.9	0.2	
10+	.9	3.9	0.2	
1				

Actuarial Assumptions (continued)

Rates of Separation Due to Early Retirement at Any Age			
State Police/ Judicial			
Hazardous Duty	Legislators	Officers	

Representative Rates of Separation Due to Retirement other than State Police with 19 or More Years of Service			
Age	State Police/ Hazardous Duty	Legislators	Judicial Officers
50	7.2%	1.25%	N/A
55	7.2	1.9	2.3
60	7.2	2.5	2.3
65	71.8	3.8	2.3
70	34.5	5.0	100.0
75	34.5	6.3	N/A
80	100.0	100.0	N/A

Actuarial Assumptions (continued)

Rates of Separation due to Retirement for State Police with 19* or More Years of Service				
Years of Service				
19*	4.0%	26-32	15.8%	
20 – 23	1.0	33	29.7	
24*	29.7	34-38	40.6	
25	16.8	39+	100.0	

^{*} State Police with 19 and 24 years of service at the beginning of the year are assumed to retire at the point they reach 20 and 25 years respectively during the year and to receive the FOP award.

Years of Service Purchased by Eligible Members

Service	Number of Years Purchased
0	0.4
1	0.3
2	0.2
3	0.1
4+	0.0

It is assumed that the member will elect to pay for the reduction through an actuarial debt and that all purchased service is a 2 percent accrual.

Form of Payment: Members are assumed to elect the maximum benefit 32 percent of the time, some form of joint and survivor annuity 27 percent of the time, and some form of guaranteed present value (including joint and survivor with a guaranteed present value) 41 percent of the time. Also, 84 percent of members are assumed to elect an Option 4 withdrawal of contributions.

Career Salary Increases

The career salary scale shown on the following page includes average increases in the employee salary due to promotions and longevity growth. The average career salary growth is 3.8 percent per year. In addition, it is assumed that the salary schedules will increase by 3.3 percent a year. The scale on the following page does not include the assumed 3.3 percent general salary increase.

Actuarial Assumptions (continued)

Assumed future salary increases were modified with respect to Class AA and Class A employees (other than members of the judiciary, legislators and select others) who are subject to the age 60/35 years of service superannuation requirements, to reflect negotiated increases applicable to such employees through June 30, 2007, as summarized below:

Valuation Assumptions for Negotiated Salary Increases				
Fiscal Year Assumed Average				
Beginning July 1	General	Longevity	Promotion	Total
2005	3.0%	0.0%	1.7%	4.7%
2006	3.5%	3.6%	1.7%	8.8%

	Career Salary S	Scale for Members	
Completed Years of Service	Annual Increase	Completed Years of Service	Annual Increase
1	16.90%	14	2.80%
2	8.30%	15	2.70%
3	5.90%	16	2.60%
4	4.60%	17	2.50%
5	4.20%	18	2.40%
6	3.80%	19	2.30%
7	3.50%	20	2.20%
8	3.20%	21	2.10%
9	3.20%	22	2.00%
10	3.10%	23	1.90%
11	3.00%	24	1.80%
12	2.90%	25	1.70%
13	2.80%	26+	1.60%

The above scale does not apply to members in Classes D and E. It is assumed that only the general salary increase (3.3 percent each year) would apply to members in these classes.

Actuarial Methods

I. Asset Valuation

The actuarial value of assets is developed by recognizing the difference between the <u>expected actuarial</u> value of assets and the <u>market</u> value of assets over a five-year period. The expected actuarial value is last year's actuarial value brought forward to reflect actual contributions, benefit payments and expenses, and assumed investment income. Each year 20 percent of the difference between this expected value and the market value is recognized in determining the current actuarial value of assets with the remaining 80 percent to be recognized over the next four years.

II. Funding Method

The State Employees' Retirement System funding policy provides for employer contributions at actuarially determined rates that will amortize liabilities over a ten-year or 30-year period beginning with the July first following the measurement of the liability. See Section III below for details regarding the specific liabilities subject to amortization and the applicable amortization periods. This policy assures that the SERS is appropriately funded and also that the fund will accumulate sufficient assets to pay benefits when they are due. The policy is set by the State Employees' Retirement Board in conformance with specific legal requirements as to the method of funding.

A variation of the Entry-Age Actuarial Cost Method is used to determine the liabilities and costs related to all SERS benefits including retirement, withdrawal, death and disability benefits. The significant difference between the method used for SERS and the typical Entry-Age Actuarial Cost Method is that the normal cost is based on the benefits and contributions for new employees rather than for all current employees from their date of entry. The SERS variation should produce approximately the same results as the typical method over the long run.

III. Determination of the Annual Contribution

The annual employer contribution is equal to the sum of the following:

- (1) The employer share of the normal cost.
- (2) The amortization of the December 31, 2001 liability for Act 2001-9 benefits over a 30-year period beginning July 1, 2002 and ending on June 30, 2032.
- (3) The amortization of the remaining unfunded liabilities as of December 31, 2001 over a ten-year period beginning July 1, 2002 and ending on June 30, 2012.
- (4) The amortization of all unfunded liabilities due to supplemental annuities (COLAs) after 2001, or other legislated benefit improvements after June 30, 2003, over ten-year periods beginning with the July first following the effective date of the change.
- (5) The amortization of changes in liability due to actual experience differing from assumed experience after December 31, 2001 over 30-year periods beginning with the July first following the actuarial valuation determining such changes.

Actuarial Methods (Continued)

The amortization payments are level amounts over the applicable amortization period. The employer cost is determined as a percent of payroll, and the employer contributes that percent of the payroll of all covered members during each fiscal year. The employer cost for fiscal year 2006/2007 is the total of (1) the employer normal cost percent and (2) the net amortization payment for fiscal year 2006/2007 divided by the projected payroll for the fiscal year. Under Act 2003-40, the total annual employer contribution rate for fiscal year 2006/2007 shall not be less than 4 percent of the active member payroll.

The assumptions used in determining the actuarial cost are stated in Schedule N, and the employer cost, as a percent of payroll, is determined in Schedules A and B. The assumptions used for the current valuation were based upon an evaluation of SERS experience from 2001 through 2005.

The investment return assumption is 8.5 percent per year. Salary growth is the total of assumed increases in salary rates and career salary growth. It is generally assumed that the total payroll will increase at 3.3 percent a year and that employee career salary growth (promotion and longevity growth) will average an additional 3.8 percent a year. Therefore, the average total salary growth for an individual will generally be 7.1 (3.3 plus 3.8) percent a year. These assumed salary increases were modified, however, in this valuation to reflect negotiated increases through June 30, 2007. The investment return and the salary rate increase assumptions are based on assumed underlying inflation of 3.0 percent a year.

All costs and liabilities have been determined in conformance with generally accepted actuarial principles and procedures in accordance with the principles of practice prescribed by the Actuarial Standards Board of the American Academy of Actuaries. The calculations were performed on the basis of actuarial assumptions and methods, which are internally consistent, and reasonable (taking into account past experience under the SERS and reasonable expectations) and which in combination represent the best estimate of anticipated experience under the plan.

IV. Allocation of the Annual Contribution Among Employer Groups

The annual contribution (total employer cost) is expressed as a percentage of the total projected payroll for active members. This amount is reflected on Schedule B, line IV. and is referred to as the total employer cost. The total employer cost is the average contribution amount that needs to be received by the employer groups participating in the system. Therefore, some employer groups contribute a higher percent of pay, and some employer groups contribute a lower percent of pay.

Actuarial Methods (Continued)

Schedule C develops the contribution rate for each of the employer groups. The allocation method used to determine the employer rate takes into consideration the cost of additional benefits for special classes of members. For example, the contribution rate for Class E members takes into consideration the additional accrual rate those members receive at retirement. The Basic Contribution Rate (column 2 on Schedule C) is determined as the percentage needed to produce employer contribution amounts by class that, when added together, equal the total employer contribution.

The following is an explanation of the elements of Schedule C.

<u>Column (1)</u> is the employer group.

<u>Column (2)</u> is the Basic Contribution Rate. The Basic Contribution Rate is the amount needed to fund the benefits for Class AA(60) members. Because the majority of SERS members are covered under Class AA(60), the 2.5 percent accrual rate for that Class is used to determine the basic contribution rate.

<u>Column (3)</u> is the additional cost for members who are eligible to retire before reaching age 60, (or 35 years of service if earlier). The age 50 normal cost is determined for two groups of members: members who can retire at age 50 if they have 3 years of service, and members who can retire at age 50 once they obtain 20 service credits. Park Rangers and Capitol Police fall into the latter category. The additional cost for members who can retire at age 50 if they have 3 years of service is larger than the additional cost for members who can retire at age 50 if they have 20 years of service.

<u>Column (4)</u> is the multiplier adjustment to the basic benefit, which is applicable to members in classes that receive a larger, or smaller, percent accrual rate than the accrual rate for Class AA members. The normal cost is determined for members who would receive the standard 2.5 percent single-life annuity set by Act 9 (Class AA). For example, members in Class D-3 receive an annuity equal to 3.75 times the standard single-life annuity. The multiplier adjustment (Column (4)) for Class D-3 is 3.0, which is the ratio of 3.75 to the 1.25 multiplier for Class AA. The multiplier adjustment for members who receive a smaller accrual rate will be less than 1.00 (members in Class A).

Actuarial Methods (Continued)

<u>Column (5)</u> is the past-service liability component for certain employee groups. These employee groups were granted benefit improvements that were retroactive at the date of passage, and therefore cover all credited service for the class. The stipulation of each benefit improvement was that the employers of the individual employee group, not the Commonwealth, would fund the benefit improvement.

At implementation of the new benefit provision, a liability is established for the members who are eligible for the new benefit provisions, and a schedule is determined to pay off the increase in liability. For example, Park Rangers and Capitol Police Officers where formerly covered under the age 60 retirement provisions. Effective with the valuation at December 31, 1992, Park Rangers and Capitol Police Officers became eligible to retire at age 50 if they have 20 years of service. At that valuation, a liability was established that would fund the increase in benefits.

The liability for the increase in benefits for past service is paid off in equal installments by the employers of the member group. Each year, the annual contribution as a percent of payroll is determined as the annual payment divided by the funding payroll for the group. The outstanding balance is carried forward with interest each year.

The following table shows the payment schedule for the two groups of employees who have a past service liability.

Amortization Schedule for Past Liabilities			
Employer Group Payment		Last Payment (fiscal year beginning)	
State Police	\$19,004,493	July 2029	
Park Rangers / Capitol Police	\$93,603	July 2027	

In conjunction with the passage of Act 9, the D-4 employer contributed a lump sum amount which was more than sufficient to fund the additional cost of the higher accrual rate and the retirement at age 50. Therefore, the past service liability for Class D-4 Legislators is \$0, and the past liability adjustment has been set to produce a contribution rate of zero. The remaining excess contributions made by the D-4 employer, plus interest, was equal to \$3,749,248 as of December 31, 2005. The amount needed to produce a zero contribution rate in 2005 was greater than the interest earned on the excess contributions so the available fund decreased in 2005. These funds will continue to be used to offset future D-4 employer contribution requirements, until the balance is expended.

<u>Column (6)</u> is the adjusted contribution rate, and is equal to column (2) plus column (3), multiplied by column (4). Column (5) is added.

Actuarial Methods (Continued)

<u>Column (7)</u> is the projected payroll for the class of employees. The projected payroll is for the fiscal year to which the contribution rate is applicable.

<u>Column (8)</u> is the dollar amount of the employer group contribution. Except when the basic employer contribution rate is zero, the sum of the dollar amounts for each group is (approximately) equal to the total employer contribution (as a percent of payroll) multiplied by the total projected payroll for the active members.

V. Plan Provisions Not Valued

The cost effect of two plan provisions was not included in this valuation because the effect of the provisions is minimal. These are the limit on the amount of retirement benefit imposed by Section 5702(c) (100 percent limit) and the supplemental death benefit payable when the retirement benefit is limited by Section 5702(c).

These two provisions are not valued because they only apply to very few SERS members. Since by definition the liability for the supplemental death benefit is lower than the reduction in liability for the 100 percent limit, the net effect of not including these provisions in the actuarial valuation is a minimal overstatement in the total employer cost.

VI. Determination of Present Value of Benefits for Inactive and Vested Members

The present value of benefits for inactive members not currently receiving benefits is determined using the same methods and procedures as for active members. They are valued using the final average pay and service as of separation and are assumed to begin receiving benefits in accordance with the active employee assumptions.

Definition of Technical Terms

<u>Accrued Service</u>. Service credited under the system, which was rendered before the date of the actuarial valuation.

<u>Actuarial Accrued Liability</u>. The portion of the actuarial present value of benefits which is not provided for by 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, investment income and salary growth. 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.

<u>Actuarial Cost Method</u>. A mathematical budgeting procedure for allocating the actuarial present value of future benefits between future normal costs and the actuarial accrued liability.

<u>Actuarial Present Value</u>. The amount of funds currently required to provide a payment or series of payments in the future. It is determined by discounting projected future payments at assumed rates of interest and probabilities of payment.

<u>Amortization</u>. Paying off an amount with periodic payments of interest and principal -- as opposed to paying off with a lump sum payment.

<u>Normal Cost</u>. The portion of the actuarial present value of future benefits that is allocated to the current year by the actuarial cost method.

<u>Unfunded Actuarial Accrued Liability</u>. The difference between actuarial accrued liability and valuation assets.