

Commonwealth of Pennsylvania State Employees' Retirement System

Supplement to the 2009 Actuarial Report –
To Reflect Act 2010-46

COMMONWEALTH OF PENNSYLVANIA

STATE EMPLOYEES' RETIREMENT SYSTEM

SUPPLEMENT TO THE 2009 ACTUARIAL REPORT -

TO REFLECT ACT 2010-46

**HAY GROUP
JULY 2010**

State Employees' Retirement System Supplement to the 2009 Actuarial Report

Introduction

On July 6, 2010, Governor Rendell signed into law Act 2010-46 (previously Senate Bill No. 1042, as amended, P.N. 2141), which established (in Section 1702-N of the Fiscal Code) that the FY10-11 composite rate (expressed as a percentage of payroll) for employer funding of the Pennsylvania State Employees' Retirement System (SERS) shall be 1% greater than the composite rate of 4.00% that applied for FY09-10. This occurred just one month after Hay Group's issuance of the Commonwealth of Pennsylvania State Employees' Retirement System (SERS) 2009 Actuarial Report, covering the results of the December 31, 2009 actuarial valuation. Therefore, both the valuation and the report were based upon the State Employees' Retirement Code (SERC), under which the FY10-11 composite employer contribution rate was the actuarially determined rate of 5.64 percent of payroll.

Under Act 2010-46, the new composite employer contribution rate of 5.00 percent of payroll became effective beginning July 1, 2010, superseding the 5.64 percent of payroll employer contribution rate previously determined in the December 31, 2009 actuarial valuation and communicated in the 2009 Actuarial Report. This change necessitated a redetermination of the employer contribution rates by group for the fiscal year beginning July 1, 2010, which had been previously provided on Page 2 of the 2009 Actuarial Report. Hay Group recalculated these rates and communicated the new rates to SERS in a letter to Executive Director Leonard Knepp issued on July 7, 2010. A copy of the cover letter to this communication is included as Page iii of this report.

The new law also required changes to several other schedules included in the 2009 Actuarial Report. With the concurrence of SERS, Hay Group has prepared this supplemental report to communicate all such changes to users/readers of the 2009 Actuarial Report. Thus, we have issued this Supplement to the 2009 Actuarial Report to provide replacement schedules for those included in the original report that were affected by Act 2010-46. Pages 1-7 of this Supplement supersede pages 1, 2, 12, 13, 14, 26 and 27, respectively, of the 2009 Actuarial Report. All other pages and schedules of the 2009 Actuarial Report remain valid supporting documentation for the December 31, 2009 actuarial valuation.

As previously communicated to SERS, Hay Group has some concerns, from an actuarial perspective, regarding the new mandated 5.00 percent employer contribution rate:

- a. This rate is less than the 5.64 percent actuarially determined funding requirement for FY10-11, as previously approved by the SERS Board.
- b. Therefore, use of the 5.00 percent rate will result in underfunding (albeit small) of SERS, which is not consistent with commonly accepted actuarial funding practices currently applicable to defined benefit pension plans in the U.S.

- c. We recognize that the primary reason for this reduction in the employer funding rate is to make the required contribution level more feasible from a financial and budgetary standpoint for the employers participating in the ongoing funding of SERS.
- d. Hay Group would have preferred that the employer funding of SERS remain at the actuarially determined level for FY10-11; however, we understand, given the current fiscal challenges facing the Commonwealth and its employing agencies, that mandating a lower SERS funding requirement (than otherwise prescribed by the SERC) is a necessary part of the near-term response to those challenges.
- e. Given our longstanding experience as actuary for SERS, and despite the fact that, pursuant to Act 2010-46, SERS will be temporarily funded below the actuarially required level, Hay Group believes that SERS has been, and continues to be, funded responsibly and that SERS remains in sound financial condition.

Hay Group, Inc.
Suite 600
4301 North Fairfax Drive
Arlington, VA 22203-1653
USA

tel +1.703.841.3100
fax +1.703.841.3108

www.haygroup.com

July 7, 2010

Mr. Leonard M. Knepp
Executive Director
Pennsylvania State Employees' Retirement System
30 North Third Street, Suite 150
Harrisburg, PA 17101-1716


Dear Len:


We understand that yesterday Governor Rendell signed into law Senate Bill 1042, as amended, P.N. 2141, which established (in Section 1702-N) that the FY10-11 composite rate (expressed as a percentage of payroll) for employer funding of the Pennsylvania State Employees' Retirement System (SERS) shall be 1% greater than the composite rate of 4.00% that applied for FY09-10. As a result, a composite employer contribution rate of 5.00 percent of payroll will be effective for the fiscal year that began on July 1, 2010, superseding the 5.64 percent of payroll employer contribution rate previously determined in Hay Group's December 31, 2009 actuarial valuation.

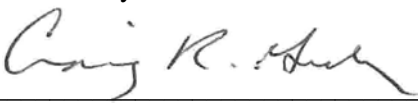
Based upon the new law, we have now redetermined the employer contribution rates by group/class for the fiscal year that began on July 1, 2010. These new rates are included in the enclosed table, and they supersede the rates previously provided on Page 2 of our 2009 Actuarial Report.

We certify that the enclosed rates are accurate and appropriate for purposes of determining contributions to be made by the Commonwealth of Pennsylvania and other participating agencies to the Pennsylvania State Employees' Retirement System for the fiscal year that began on July 1, 2010.

Respectfully submitted,
Hay Group, Inc.

By 
Brent M. Mowery, F.S.A.
Member American Academy of Actuaries
Enrolled Actuary No. 08-3885

By 
Adam J. Reese, F.S.A.
Member American Academy of Actuaries
Enrolled Actuary No. 08-4303

By 
Craig R. Graby
Member American Academy of Actuaries
Enrolled Actuary No. 08-7319

**State Employees' Retirement System
Supplement to the 2009 Actuarial Report**

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**State Employees' Retirement System
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Valuation Highlights Reflecting Act 2010-46

	<u>December 31, 2009</u>	<u>December 31, 2008</u>
	<u>Valuation</u>	<u>Valuation</u>
Summary of Employer Contributions as a Percent of Total Compensation		
SERS Plan Contribution		
Normal Cost	9.53%	9.51%
Amortization of Liabilities	-3.89%	-5.88%
Contribution Before Change Prescribed by Law	5.64%	3.63%
Total SERS Plan Contribution*	5.00%	4.00%
Benefits Completion Plan Contribution	0.01%	0.01%
Total Contribution	5.01%	4.01%

* Reflects Rates Prescribed by Law (12/31/09 - Act 2010-46; 12/31/08 - Act 2007-8)

Demographic Characteristics of the Population

Active Participants:		
Number	110,107	110,866
Average age	46.5	46.2
Average service	12.2	12.0
Average annualized compensation	\$ 50,813	\$ 48,957
Total annualized compensation	\$ 5,594,867,000	\$ 5,427,667,000
Funding payroll	\$ 5,935,988,000	\$ 5,660,319,000

Annuitants and Beneficiaries:

Number	109,639	108,146
Average age	68.5	68.3
Total annual pension	\$ 1,987,987,717	\$ 1,908,350,821

Inactive and Vested Participants:

Number	6,190	6,009
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Assets

Market Value Assets	\$ 24,654,710,857	\$ 22,789,120,240
Actuarial Value of Assets	\$ 30,204,693,112	\$ 30,635,620,922

Funded Status (Market Assets)	68.9%	66.2%
Funded Status (Actuarial Assets)	84.4%	89.0%

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**Employer Contribution Rate by Group
Fiscal Year 2010 - 2011**

	<u>SERS Plan</u>	<u>Benefits Completion Plan</u>	<u>Total</u>
Class AA Members:			
Age 60 Retirement	4.10%	0.01%	4.11%
Age 50 Retirement	6.35%	0.01%	6.36%
Park Rangers	5.96%	0.01%	5.97%
Capitol Police	5.96%	0.01%	5.97%
Enforcement Officers	6.35%	0.01%	6.36%
Class A Members:			
Age 60 Retirement	3.28%	0.01%	3.29%
Age 50 Retirement	5.08%	0.01%	5.09%
Park Rangers	4.89%	0.01%	4.90%
Capitol Police	4.89%	0.01%	4.90%
State Police	12.02%	0.01%	12.03%
Enforcement Officers	5.08%	0.01%	5.09%
Class C Members:			
State Police	12.02%	0.01%	12.03%
Enforcement Officers	5.08%	0.01%	5.09%
Class D Members:			
D-3 Legislators	19.05%	0.01%	19.06%
D-4 Legislators	7.62%	0.01%	7.63%
Class E Members	5.20%	0.01%	5.21%

The above group rates result in employer contribution rates (expressed as a percentage of total projected covered compensation for active members in fiscal year 2010-2011) of 5.00% for the SERS Plan, 0.01% for the Benefits Completion Plan and 5.01% in Total.

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Unfunded Liability and Normal Cost as of December 31, 2009

I.	Present Value of Benefits:		
	A) Active and Inactive Participants		
	1) Superannuation and Withdrawal	\$	24,195,511,975
	2) Disability		1,427,484,496
	3) Death		995,287,007
	4) Refunds		51,278,349
	5) Special Police and Enforcement Officer Benefits		318,936
	6) Subtotal	\$	26,669,880,763
	B) Annuitants and Beneficiaries		17,962,740,760
	C) Total	\$	44,632,621,523
II.	Present Value of Member and Employer Contributions:		
	A) Employer Portion of Normal Cost	\$	5,526,141,651
	B) Member Contributions		3,309,463,236
	C) Total	\$	8,835,604,887
III.	Actuarial Accrued Liability: (I) - (II)	\$	35,797,016,636
IV.	Actuarial Value of Assets	\$	30,204,693,112
V.	Unfunded Liability (III) - (IV)	\$	5,592,323,524
VI.	Employer Normal Cost Rate		
	A) Total Normal Cost Rate for new active members to fund:		
	1) Superannuation and Withdrawal		13.55%
	2) Disability		1.26%
	3) Death		0.60%
	4) Refunds		<u>0.37%</u>
	5) Total		15.78%
	B) Member Contribution Rate		6.25%
	C) Employer Normal Cost Rate (A) - (B)		9.53%

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Employer Contribution Rate in Fiscal Year 2010 - 2011

	<u>Funding Period</u>		Initial Amount of Liability	Outstanding Balance as of 12/31/09	Annual Payment Amount	Payment as a Percent of Compensation*
	Initial Years	From July 1				
I. Amortization of Liability (Asset) For:						
A) Supplemental Annuities as of 12/31/01	10	2002	\$ 1,143,657,729	\$ 308,035,990	\$ 172,737,105	2.91%
B) Act 2001-9 Benefits	30	2002	2,735,791,064	2,180,573,851	213,766,165	3.60%
C) Other Benefits as of 12/31/01	10	2002	(7,726,186,132)	(2,080,992,738)	(1,166,956,695)	-19.66%
D) Supplemental Annuities (2002 COLA)	10	2003	256,500,000	99,632,561	38,660,773	0.65%
E) Changes in 2002	30	2003	1,119,058,089	974,352,965	93,949,226	1.58%
F) Supplemental Annuities (2003 COLA)	10	2004	395,800,000	197,189,645	59,535,656	1.00%
G) Changes in 2003	30	2004	341,601,015	320,855,192	30,474,172	0.51%
H) Changes in 2004	30	2005	1,942,541,016	1,848,138,484	173,131,357	2.92%
I) Changes in 2005	30	2006	494,664,846	476,158,717	44,048,075	0.74%
J) Changes in 2006	30	2007	(341,521,725)	(332,266,802)	(30,385,166)	-0.51%
K) Changes in 2007	30	2008	(1,847,047,858)	(1,814,554,497)	(164,197,051)	-2.77%
L) Changes in 2008	30	2009	2,281,509,464	2,261,369,591	202,660,630	3.41%
M) Changes in 2009	30	2010	1,153,830,565	<u>1,153,830,565</u>	<u>102,491,808</u>	<u>1.73%</u>
Total				\$ 5,592,323,524	\$ (230,083,945)	-3.89%
II. Employer Normal Cost						9.53%
III. Total Employer Cost before Act 2010-46 = (I) + (II)						5.64%
IV. Total Employer Cost (III), reflecting the 5.00 percent contribution prescribed by Act 2010-46						5.00%

* The payment is expressed as a percentage of the total projected covered compensation for active members in fiscal year 2010-2011 of \$5,935,988,000. Percentages may not add due to rounding.

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**Employer Contribution Rate by Group
(excluding Benefits Completion Plan rate)**

Employer Group (1)	Base Contribution Rate (2)	Age 50 Retirement Adjustment (3)	Multiplier Adjustment* (4)	Past Liability Adjustment (5)	Adjusted Contribution Rate** (6)	Projected 2010-2011 Compensation (7)	Employer Contribution Amount (8)
Class AA - Age 60 Retirement	4.10%		1.0000		4.10%	\$ 4,407,622,000	\$ 180,712,502
Class A - Age 60 Retirement	4.10%		0.8000		3.28%	35,611,000	1,168,041
Class AA - Age 50 Retirement (Including Enforcement Officers)	4.10%	2.25%	1.0000		6.35%	936,839,000	59,489,277
Class A - Age 50 Retirement (Including Class A & Class C Enforcement Officers)	4.10%	2.25%	0.8000		5.08%	15,141,000	769,163
Class AA - Park Rangers & Capitol Police	4.10%	1.24%	1.0000	0.62%	5.96%	14,427,000	859,849
Class A - Park Rangers & Capitol Police	4.10%	1.24%	0.8000	0.62%	4.89%	117,000	5,721
State Police (Class A & Class C)	4.10%	2.25%	1.1395	4.78%	12.02%	381,173,000	45,816,995
Class D3	4.10%	2.25%	3.0000		19.05%	315,000	60,008
Class D4	4.10%	2.25%	1.2000		7.62%	19,302,000	1,470,812
Class E	4.10%		1.2677		5.20%	125,441,000	6,522,932
					Total***	\$ 5,935,988,000	\$ 296,875,299

* The multiplier adjustment 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 base 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 (\$296,875,299) is approximately equal to the average employer contribution rate from Schedule B (5.00 percent) times the total projected covered compensation of \$5,935,988,000. The base contribution rate of 4.10 percent was determined as the percentage needed to produce employer contribution amounts by employer group that sum to \$296,875,299.

**State Employees' Retirement System
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**Projection of Expected Contributions and Benefits - With Future COLAs
Actual Data Through 2009 (Dollars in Millions)**

Year	Calendar Year Contributions		Contributions as a Percent of Pay			Calendar Year Benefits and Expenses
	(After 2009, Based Upon Blended Fiscal Projections)		(Employer Rates Based Upon Blended Fiscal Projections)		Actual Projected	
	Employee	Employer	Employee	Employer	(Fiscal Year Beginning July 1)	
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	317	196				1,943
2007	334	242				2,361
2008	337	233				2,231
2009	349	252				2,297
2010	362	261	6.2%	4.5%	5.0%	2,501
2011	376	469	6.2%	7.8%	10.5%	2,723
2012	389	1,237	6.2%	19.8%	29.2%	2,888
2013	402	1,957	6.2%	30.4%	31.6%	3,056
2014	415	2,052	6.2%	30.9%	30.1%	3,311
2015	429	2,157	6.2%	31.4%	32.7%	3,581
2016	443	2,304	6.2%	32.5%	32.2%	3,764
2017	457	2,338	6.2%	31.9%	31.6%	3,942
2018	472	2,367	6.2%	31.3%	30.9%	4,234
2019	488	2,532	6.2%	32.4%	33.8%	4,539
2020	504	2,701	6.2%	33.4%	33.1%	4,724

This projection is based upon these assumptions: projected investment return of 8.0 percent in 2010 and after; general pay increases of 3.3 percent; COLAs in 2010, 2014, and 2018 (with a 1-year delay in COLA funding). Note that employer contributions are expected to increase sharply after June 30, 2012 when credit for the pre-Act 9 surplus has been completely amortized.

**State Employees' Retirement System
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**Projection of Expected Contributions and Benefits - No Future COLAs Assumed
Actual Data Through 2009 (Dollars in Millions)**

Year	Calendar Year Contributions (After 2009, Based Upon Blended Fiscal Projections)		Contributions as a Percent of Pay			Calendar Year Benefits and Expenses
	Employee	Employer	Calendar Year Contributions (Employer Rates Based Upon Blended Fiscal Projections)		Actual Projected	
			Employee	Employer	Employer Rate (Fiscal Year Beginning July 1)	
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	317	196				1,943
2007	334	242				2,361
2008	337	233				2,231
2009	349	252				2,297
2010	362	261	6.2%	4.5%	5.0%	2,436
2011	376	392	6.2%	6.5%	8.0%	2,583
2012	389	1,082	6.2%	17.4%	26.7%	2,739
2013	402	1,802	6.2%	28.0%	29.3%	2,898
2014	415	1,897	6.2%	28.5%	27.8%	3,055
2015	429	1,899	6.2%	27.6%	27.5%	3,215
2016	443	1,939	6.2%	27.3%	27.1%	3,379
2017	457	1,973	6.2%	26.9%	26.7%	3,536
2018	472	2,003	6.2%	26.4%	26.2%	3,694
2019	488	2,032	6.2%	26.0%	25.7%	3,850
2020	504	2,061	6.2%	25.5%	25.3%	4,005

This projection is based upon these assumptions: a projected investment return of 8.0 percent in 2010 and after; general pay increases of 3.3 percent; no future COLAs. Note that employer contributions are expected to increase sharply after June 30, 2012 when credit for the pre-Act 9 surplus has been completely amortized.