Investing in Pennsylvania

Providing a source of reliable, predictable income to the Commonwealth's economy, in calendar year 2012 nearly 91% of PSERS' $5.7 billion annual pension disbursements were distributed to Commonwealth residents.

Actuarial Section

buckconsultants A Xerox Company

January 15, 2013

The Retirement Board
Public School Employees'
Retirement System of Pennsylvania
5 North 5th Street
Harrisburg, Pennsylvania 17101-1905

Re: Actuary's Certification Letter

Members of the Board:

An actuarial valuation of the Public School Employees' Retirement System of Pennsylvania (Retirement System or PSERS) is performed annually to measure the ongoing costs of the Retirement System and the progress towards the funding goals of the Retirement System over time. The financing objective of the Retirement System is to:

- Fully fund all current costs based on the normal contribution rate determined under the funding method; and

- Liquidate the unfunded accrued liability based on level percentage of pay amortization schedules required by the Public School Employees' Retirement Code, 24 Pa. C.S. §8101 et. seq. (Retirement Code) as amended by Act 2010-120, i.e., a schedule of 24 years for the unfunded accrued liability as of June 30, 2010 and each change in the unfunded accrued liability due to actuarial experience after the June 30, 2010 valuation. Any legislation after June 30, 2010 that increases the liability will be funded over 10 years.

- As directed by Act 2010-120, use pension rate collars to moderate the rise of annual employer pension contribution rates to reach the full actuarially determined contribution funding level in a budgetary sound manner and within a financially responsible period of time.

Based on the June 30, 2012 actuarial valuation, a total contribution rate of 24.75% of payroll payable by employers for FY2013/2014, when taken together with the contributions payable by the members, current assets, and expected future asset returns, is sufficient to achieve the financing objective. However, Act 2010-120 limits the contribution for FY 2013/2014 to 16.93% of payroll. This has the effect of deferring part of the FY 2013/2014 contribution to future years.

The valuation takes into account all of the promised benefits to which members are entitled as of June 30, 2012, including pension and survivor benefits, and as required by the Retirement Code is the basis for the contribution rate for fiscal year 2013/2014. There were no legislative or administrative changes since the prior valuation.

As required under Section 8502(j) of the Retirement Code, experience studies are performed once in every five year period, the most recent being June 30, 2010. This valuation was prepared on the basis of the demographic and economic assumptions that were determined from the July 1, 2005 – June 30, 2010 Experience Review and approved by the Board of Trustees at the March 11, 2011 meeting.

The actuarial assumptions and methods for financial reporting meet the parameters set forth in Governmental Accounting Standards Board (GASB) Statements No. 25, 43, and 50, and are unchanged from the prior valuation. The actuarial assumptions and methods for GASB 25 disclosure are the same as for pension funding, except that the GASB 25 amortization payment will be determined based on 30-year level-dollar funding. The Health Insurance funding provisions of the Retirement Code differ from the GASB 43 disclosure requirements. For funding purposes the actuarial liability equals the assets in the health insurance account, and a contribution is determined that will assure the solvency of the account through the third fiscal year following the valuation date. For purposes of GASB 43 disclosure the Health Insurance actuarial liability and normal cost requirements have been determined under the entry age actuarial cost method, with 30-year level dollar funding. (The entry age actuarial cost method meets the GASB 43 parameters for determining actuarial liability and normal cost, and is the cost method specified by the Retirement Code for the PSERS pension plan.)

The Retirement System reported the individual data for members of the Retirement System as of the valuation date to the actuary. While we did not verify the data at their source, we did perform tests for internal consistency and reasonableness. The amount of assets in the trust fund taken into account in the valuation was based on statements prepared for us by the Retirement System.

The valuation does not take into account any changes in U.S. equity prices and bond yields that have occurred after the valuation date. Taking these into account may significantly change the market and actuarial value of assets shown. The effect of these events on any funded ratios shown, and on Retirement System calculations, is not known. Retirement System funding and financial accounting rules generally prohibit reflection of changes in assets and underlying economic conditions that occur after the valuation date.

In our opinion, the attached schedules of valuation results fairly represent the status of the Public School Employees' Retirement System and present an accurate view of historical data. The underlying assumptions and methods used for both funding and GASB disclosure purposes are consistent with the statutory specifications and represent a best estimate of the aggregate future experience of the Retirement System.

The following supporting schedules in the Actuarial Section were prepared by Buck Consultants:

• Summary of Results of Actuarial Valuation as of June 30, 2012

• History and Projection of Contribution Rates and Funded Ratios

• Summary of Actuarial Assumptions and Methods

• Schedule of Active Member Valuation Data

• Schedule of Retired Members and Beneficiaries Added To and Removed From Rolls

• Postemployment Benefits Other Than Pension
  Schedule of Retired Members and Beneficiaries Added To and Removed From Rolls

• Solvency Test

• Analysis of Past Financial Experience
  Reconciliation of Employer Contribution Rates

In addition, Buck Consultants prepared the "Schedule of Funding Progress" and the "Schedule of Employer Contributions" in the Financial Section.

To the best of our knowledge, this information is complete and accurate. The valuation was performed by, and under the supervision of, independent qualified actuaries who are members of the American Academy of Actuaries with experience in performing valuations for public retirement systems.

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The valuation was prepared in accordance with the principles of practice prescribed by the Actuarial Standards Board and generally accepted actuarial procedures and methods. The calculations are based on the current provisions of the Retirement System, and on actuarial assumptions that are individually and in the aggregate internally consistent and reasonable based on the actual experience of the Retirement System.

Respectfully submitted,

Buck Consultants

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SUMMARY OF RESULTS OF ACTUARIAL VALUATION AS OF JUNE 30, 2012 ($ Amounts in Thousands)

Item	June 30, 2012	June 30, 2011
Member Data		
1. Number of Members		
a) Active Members	273,504	279,152
b) Inactive Members and Vestees	122,286	115,102
c) Annuitants, Beneficiaries and Survivor Annuitants	202,015	194,622
d) Total	597,805	588,876
2. Annualized Salaries ($ Amounts in Thousands)	$ 12,714,371	$ 12,910,043
3. Annual Annuities ($ Amounts in Thousands)	$ 4,872,918	$ 4,650,798
Valuation Results		
4. Present Value of Future Pension Benefits		
a) Active Members	$ 59,970,002	$ 60,127,465
b) Inactive Members and Vestees	1,232,277	1,095,894
c) Annuitants, Beneficiaries and Survivor Annuitants	47,511,912	45,648,780
d) Total	$ 108,714,191	$ 106,872,139
5. Present Value of Future Pension Normal Cost		
a) Active Members	$ 9,836,166	$ 9,923,829
b) Employer	11,117,365	11,307,927
c) Total	$ 20,953,531	$ 21,231,756
6. Pension Accrued Liability		
a) Active Members (4a) – (5c)	$ 39,016,471	$ 38,895,709
b) Inactive Members and Vestees	1,232,277	1,095,894
c) Annuitants, Beneficiaries and Survivor Annuitants	47,511,912	45,648,780
d) Total	$ 87,760,660	$ 85,640,383
7. Health Insurance Assets for Premium Assistance	$ 93,753	$ 111,258
8. Total Accrued Liability for Funding (6) + (7)	$ 87,854,413	$ 85,751,641
9. Actuarial Value of Assets	$ 58,321,375	$ 59,252,389
10. Funded Status (9) / (8)	66.4 %	69.1 %
11. Unfunded Accrued Liability (8) – (9)	$ 29,533,038	$ 26,499,252
12. Total Normal Cost Rate	16.00 %	16.06 %
13. Member Contribution Rate	7.43 %	7.40 %
14. Employer Normal Cost Rate (12) – (13)	8.57 %	8.66 %
Employer Annual Funding Requirement	**Fiscal 2013/2014**	**Fiscal 2012/2013**
15. Employer Contribution Rate Calculated by Actuary		
a) Normal	8.57 %	8.66 %
b) Unfunded Accrued Liability	15.25 %	12.99 %
c) Preliminary Pension Rate	23.82 %	21.65 %
d) Act 120 Employer Pension Rate Collar	16.00 %	11.50 %
e) Health Insurance	0.93 %	0.86 %
f) Total Rate	16.93 %	12.36 %

HISTORY AND PROJECTION OF CONTRIBUTION RATES AND FUNDED RATIOS[1]

Fiscal Year Ending June	Appropriation Payroll[11] (thousands)	Contribution Rates[2]							
			Employer						
		Employee	Normal Cost	Unfunded Liability	Preliminary Pension	Final Pension[9]	Health Insurance	Total	Funded Ratio
2000	$ 8,939,598	5.72 %	6.40 %	(2.04) %	4.36 %	4.36 %	0.25 %	4.61 %	123.8 %
2001	9,414,884	5.77	6.29	(4.65)	1.64	1.64	0.30	1.94	114.4
2002[3]	9,378,944	6.43	5.63	(6.05)	(0.42)	0.00	1.09	1.09	104.8
2003[4]	9,652,881	7.10	7.20	(10.03)	1.00	0.18	0.97	1.15	97.2
2004	10,030,705	7.08	7.25	(4.27)	2.98	2.98	0.79	3.77	91.2
2005[5]	11,062,589	7.12	7.48	(7.10)	0.38	4.00	0.23	4.23	83.7
2006	11,505,093	7.16	7.61	(4.28)	3.33	4.00	0.69	4.69	81.2
2007[6]	11,821,951	7.21	6.62	(0.95)	5.67	5.72	0.74	6.46	85.8
2008	12,881,244	7.25	6.68	(0.24)	6.44	6.44	0.69	7.13	86.0
2009	12,500,000	7.29	6.68	(3.37)	3.31	4.00	0.76	4.76	79.2
2010[7]	12,899,000	7.32	7.35	(3.72)	3.63	4.00	0.78	4.78	75.1
2011[7,8]	13,510,000	7.34	8.08	(0.50)	7.58	5.00	0.64	5.64	69.1
2012	14,112,000	7.37	8.12	10.15	18.27	8.00	0.65	8.65	66.4
2013[10]	14,297,000	7.40	8.66	12.99	21.65	11.50	0.86	12.36	63.7
2014	13,720,000	7.43	8.57	15.25	23.82	16.00	0.93	16.93	61.5
2015	14,081,432	7.44	8.27	16.95	25.22	20.50	0.81	21.31	59.7
2016	14,451,877	7.45	8.01	18.40	26.41	25.00	0.80	25.80	58.5
2017	14,856,092	7.46	7.77	19.74	27.51	27.51	0.79	28.30	57.2
2018	15,277,378	7.47	7.54	20.84	28.38	28.38	0.77	29.15	56.6
2019	15,727,920	7.47	7.34	22.04	29.38	29.38	0.76	30.14	57.8
2020	16,199,868	7.48	7.14	22.99	30.13	30.13	0.74	30.87	59.1
2021	16,688,649	7.48	6.95	23.11	30.06	30.06	0.72	30.78	60.0
2022	17,199,637	7.49	6.76	23.29	30.05	30.05	0.71	30.76	61.4
2023	17,725,437	7.49	6.58	23.66	30.24	30.24	0.69	30.93	62.9
2024	18,263,477	7.49	6.40	23.90	30.30	30.30	0.67	30.97	64.5

1. The projection of contribution rates is based on the assumption that there are no changes in demographic assumptions, no changes in benefit provisions, and no actuarial gains or losses other than gains or losses on the actuarial value of assets that result from recognizing currently deferred gains or losses on the market value of assets.
2. In general, the Preliminary Employer Pension Rate equals the sum of the rates for the Employer Normal Cost and the Unfunded Liability; and the Final Employer Pension Rate is the greater of the Preliminary Pension Rate and any Pension Rate Floor or Collar stated in the Retirement Code. The Total Employer Rate is the sum of the Final Employer Pension Rate and the Employer Health Insurance Rate.
3. For fiscal years ending on or before June 30, 2002, there was no floor specified in the Retirement Code, but the Final Employer Pension Rate could not be less than 0%, since money can only be removed from the trust for purposes allowed by the Retirement Code.
4. Act 2002-38 amended the Retirement Code to place a permanent 1% floor on the Employer Pension Rate, but also provided that the Total Employer Rate for the year ending June 30, 2003 could not exceed 1.15%, resulting in a 0.18% Final Employer Pension Rate (the Total Employer Rate of 1.15% minus the 0.97% Employer Health Insurance Rate).
5. Act 2003-40 amended the Retirement Code to increase the Employer Pension Rate Floor from 1% to 4%.
6. Revised actuarial assumptions based on a five-year experience review ending June 30, 2005 were used to determine the contributions for the fiscal year ending June 30, 2007. Since the benefit changes under Act 2001-9 had not been in effect throughout the entire period covered by the study the Board decided, at its December 2005 meeting, to delay making any changes to the retirement rate assumptions until further data became available. The 5.72% Final Employer Pension Rate equals the 6.46% Total Employer Rate certified by the Board at that meeting, minus the 0.74% Employer Health Insurance Rate. The 5.67% Preliminary Employer Pension Rate equals the sum of the Employer Normal Cost and Unfunded Liability rates. The Normal Cost and Unfunded Liability rates were calculated by the actuary in January 2006, based on the package of assumptions adopted at the December 2005 meeting.
7. The Board at its January 2009 meeting adopted to reduce the interest rate from 8.50% to 8.25% for the June 30, 2008 valuation and to 8.00% thereafter.
8. Act 2010-46 recertified the fiscal year ending June 30, 2011 pension rate from 7.58% to 5.00%.
9. The Final Employer Pension rate is limited by the Act 2010-120 pension rate collars for fiscal years 2012 through 2016.
10. Revised actuarial assumptions based on a five-year experience review ending June 30, 2010 were used to determine the contributions for the fiscal year ending June 30, 2013 and thereafter, which includes an interest rate of 7.50%.
11. Beginning fiscal year ending June 30, 2005, the appropriation payroll shown is estimated payroll used for valuation purposes, not actual appropriation payroll. Prior to fiscal year ending June 30, 2005, the appropriation payroll shown is the annualized salary.

DESCRIPTION OF ACTUARIAL ASSUMPTIONS AND METHODS

ASSUMPTIONS

Investment Rate of Return: 7.50% per annum, compounded annually (adopted as of June 30, 2011). The components are 3.00% for inflation and 4.50% for the real rate of return. Actuarial equivalent benefits are determined based on 4% (since 1960).

Separation from Service: Illustrative rates of assumed separation from service are shown in the following table (adopted as of June 30, 2011).

Age	Annual Rate of:						
	Non-Vested Withdrawal	Vested Withdrawal*		Death	Disability	Early Retirement**	Superannuation Retirement
		Less Than 10 Years of Service	10 or More Years of Service				
MALES							
25	12.50%	5.50%	2.00%	.037%	.024%		
30	10.50	3.20	2.00	.038	.024		
35	11.00	3.00	1.50	.056	.100		
40	13.00	3.50	1.25	.090	.180		
45	13.00	3.50	1.25	.121	.180		25.00%
50	13.00	3.50	1.70	.173	.280		25.00
55	11.00	3.50	3.00	.245	.430	15.00%	30.00
60	10.50	3.50	4.50	.363	.580	12.00	28.00
65				.592	.100		20.00
69				.810	.100		18.00
FEMALES							
25	13.00%	8.50%	5.00%	.018%	.030%		
30	13.00	6.50	4.00	.019	.040		
35	13.00	5.50	3.00	.022	.060		
40	10.90	4.50	1.50	.035	.100		
45	10.90	4.00	1.50	.055	.150		30.00%
50	10.90	3.75	1.75	.085	.200		30.00
55	10.90	3.75	3.00	.133	.380	15.00%	30.00
60	10.90	4.50	5.50	.197	.380	15.00	30.00
65				.301	.130		25.00
69				.428	.130		20.00

* Vested Withdrawal – At least 5 years service for Class T-C and Class T-D members and 10 years of service for Class T-E and Class T-F members but not eligible for Early or Superannuation retirement.

** Early Retirement – Age 55 with 25 years service, but not eligible for Superannuation retirement.

DESCRIPTION OF ACTUARIAL ASSUMPTIONS AND METHODS
(Continued)

Death after Retirement: The RP-2000 Combined Healthy Annuitant Tables (Male and Female) with age set back 3 years for both genders for healthy annuitants and for dependent beneficiaries. The RP-2000 Combined Disabled Tables (Male and Female) with age set back 7 years for males and set back 3 years for females for disabled annuitants. (A unisex table based on the RP-2000 Combined Healthy Annuitant Tables (Male and Female) with age set back 3 years for both genders assuming the population consists of 25% males and 75% females is used to determine actuarial equivalent benefits.) No provision has been made for future improvements in mortality.

Salary Increase: Effective average of 5.50% per annum, compounded annually (adopted as of June 30, 2011). The components are 3.00% for inflation, 1% for real wage growth and 1.5% for merit or seniority increases. Representative values are as follows:

Age	Annual Rate of Salary Increase
20	10.75%
30	8.25
40	6.25
50	4.25
55	3.75
60	3.75
65	3.75
70	3.75

Payroll Growth: 3.50% per annum.

MISCELLANEOUS

Option 4 Elections: 100% of Class T-C and Class T-D members are assumed to elect a refund of contributions and a reduced annuity.

Withdrawal Annuity: 90% of members are assumed to commence payment immediately and 10% are assumed to defer payment to superannuation age.

Health Insurance

Elections: 66% of eligible retirees are assumed to elect premium assistance.

Administrative Expenses: Assumed equal to 2% of contributions made during the year.

METHODS

Calculations: The actuarial calculations were performed by qualified actuaries in accordance with accepted actuarial procedures, based on the current provisions of the Retirement System, and on actuarial assumptions that are internally consistent and reasonable based on the actual experience of the Retirement System.

Asset Valuation Method: A ten-year smoothed market average (five-year smoothed market average prior to June 30, 2010) value of assets that recognizes the 7.50% (8.00% prior to June 30, 2011, 8.25% prior to June 30, 2009, and 8.50% prior to June 30, 2008) actuarial expected investment return immediately and spreads the difference between the actual return on the market value of assets and the expected return on the actuarial value of assets over a period of ten years. The averaging period is being phased-in from fiscal year 2006.

DESCRIPTION OF ACTUARIAL ASSUMPTIONS AND METHODS (Continued)

Actuarial Cost Method for Pension Funding: Entry Age Normal Cost Method (modified slightly as of June 30, 2005 to use a pay-weighted average normal contribution rate). The results of each June 30 valuation normally determine the employer contribution rate for the second succeeding fiscal year. Act 120 revised the funding method effective with the June 30, 2010 valuation. Act 120 mandated that the outstanding balance of the unfunded accrued liability as of June 30, 2010, including changes in the unfunded accrued liability due to the funding reforms of Act 120, be amortized over a 24-year period, as a level percent of pay, beginning July 1, 2011. Future valuation gains and losses, and changes in the unfunded accrued liability resulting from changes in actuarial assumptions and methods, are amortized over a 24-year period, as a level percent of pay. Future increases in the unfunded accrued liability due to legislation will be amortized over a 10-year period, as a level percent of pay. Act 120 also modified the employer pension contribution requirements by imposing collars on the rate at which employer contributions may rise from year to year. For the fiscal years ending June 30, 2012, June 30, 2013, and on or after June 30, 2014 the pension contribution rate can be no more than 3%, 3.5% and 4.5%, respectively, of total compensation of all active members, greater than the prior year's final contribution rate. Beginning with the fiscal year in which the actuarially required contribution rate is less than the collared rate, the final contribution rate is the actuarially determined contribution rate, provided that the final contribution rate is not less than the employer normal contribution rate.

Actuarial Cost Method for GASB 25 Accounting for Pensions: Same as for pension funding, except that the GASB 25 amortization payment will be set equal to the level dollar amount that will amortize the unfunded accrued liability over a period of 30 years.

Actuarial Cost Method for Health Insurance Funding: The actuarial liability equals the assets in the health insurance account, and the results of the June 30 valuation determine the contribution rate for the second succeeding fiscal year. The rate so determined is the rate necessary to establish reserves sufficient to cover administrative expenses and provide premium assistance payments for all participating eligible annuitants during the third fiscal year that follows the valuation date.

Actuarial Cost Method for GASB 43 Accounting for Health Insurance: The actuarial liability is determined under the entry age actuarial cost method, and the Annual Required Contribution (ARC) for the second fiscal year that follows the valuation date is equal to the entry age normal cost for health insurance plus an amount that will amortize the entry age unfunded actuarial liability for health insurance over a period of 30 years.

DATA

Census and Assets: The valuation was based on members of the Retirement System as of June 30, 2012 and does not take into account future members. All census data was supplied by the Retirement System and was subject to reasonable consistency checks. The actuary adjusts the data to account for service and pay earned by members on or before the valuation that is not reported by the Retirement System until after the actuarial valuation is performed. Asset data was supplied by the Retirement System.

SCHEDULE OF ACTIVE MEMBERS VALUATION DATA

Valuation as of June 30	Number of Active Members	Annual Compensation (Thousands)	Average Compensation	% Increase in Average
2012	273,504	$ 12,714,371	$ 46,487	0.52 %
2011	279,152	12,910,043	46,247	1.99
2010	282,041	12,788,847	45,344	1.26
2009	279,701	12,524,593	44,779	2.43
2008	272,690	11,921,469	43,718	1.16
2007	264,023	11,410,257	43,217	(0.33)

SCHEDULE OF RETIRED MEMBERS AND BENEFICIARIES ADDED TO AND REMOVED FROM ROLLS

Valuation Date as of June 30	Added to Rolls		Removed from Rolls		Rolls at End of Year		% Increase in Annual Allowance	Average Annual Allowance
	Number	Annual Allowance (Millions)	Number	Annual Allowance (Millions)	Number*	Annual Allowance** (Millions)		
2012	14,579	$ 332.7	7,186	$ 66.6	202,015	$ 4,872.9	4.78 %	$ 24,122
2011	16,228	453.7	6,540	76.4	194,622	4,650.8	7.17	23,897
2010	12,649	372.8	5,678	77.6	184,934	4,339.6	8.59	23,466
2009	9,651	314.9	5,228	74.4	177,963	3,996.3	4.85	22,456
2008	10,911	345.3	5,397	73.9	173,540	3,811.5	8.18	21,963
2007	10,612	307.5	4,399	56.0	168,026	3,523.4	7.60	20,970

* Excludes inactive members and vestees.

** Reflects changes in annuities for continuing payees due to finalization of benefit calculations and due to the commencement of supplemental annuity payments.

POSTEMPLOYMENT BENEFITS OTHER THAN PENSIONS SCHEDULE OF RETIRED MEMBERS ADDED TO AND REMOVED FROM ROLLS*

Valuation Date as of June 30	Number		
	Added to Rolls	Removed from Rolls	Rolls at End of Year
2012	5,751	1,372	133,298
2011	8,185	2,074	128,919
2010	6,709	2,323	122,808
2009	6,285	3,079	118,422
2008	8,792	6,050	115,216
2007	7,072	2,637	112,474

* Number of retired members eligible to participate in the Health Insurance Premium Assistance; 66% of eligible retirees are assumed to elect premium assistance.

SOLVENCY TEST
COMPARATIVE SUMMARY OF ACCRUED LIABILITY AND ACTUARIAL VALUE OF ASSETS
($ Amounts in Thousands)

PENSIONS

Valuation as of June 30	(1) Active Member Contributions	(2) Retirees and Beneficiaries	(3) Active Member Employer Financed	Actuarial Value of Assets	Portion of Accrued Liability Covered by Valuation Assets		
					(1)	(2)	(3)
2012	$ 12,535,442	$ 47,511,912	$ 27,713,306	$ 58,227,622	100 %	96 %	0 %
2011	12,242,308	45,648,780	27,749,295	59,141,131	100	100	5
2010	11,850,031	40,284,383	26,871,014	59,306,848	100	100	27
2009	11,087,345	37,112,318	27,321,073	59,781,575	100	100	42
2008	10,532,683	34,617,953	25,695,001	60,922,157	100	100	61
2007	10,183,433	31,603,788	24,708,649	57,057,838	100	100	62

POSTEMPLOYMENT BENEFITS OTHER THAN PENSIONS

Valuation as of June 30	(1) Active Member Contributions	(2) Retirees and Beneficiaries	(3) Active Member Employer Financed	Actuarial Value of Assets	Portion of Accrued Liability Covered by Valuation Assets		
					(1)	(2)	(3)
2012	$ 0	$ 934,506	$ 430,161	$ 93,753	N/A	10 %	0 %
2011	0	909,076	430,368	111,258	N/A	12	0
2010	0	767,587	394,632	116,831	N/A	15	0
2009	0	759,891	399,164	105,114	N/A	14	0
2008	0	749,070	383,941	95,785	N/A	13	0
2007	0	684,677	373,415	97,292	N/A	14	0

The solvency test compares the actuarial accrued liabilities by various categories with the Retirement System's actuarial value of assets.

ANALYSIS OF PAST FINANCIAL EXPERIENCE
RECONCILIATION OF EMPLOYER CONTRIBUTION RATES

Fiscal Year Ending June 30	2014	2013	2012	2011	2010	2009
Effective Prior Year Contribution Rate	12.36%	8.65%	5.64%	4.78%	4.76%	7.13%
Prior Year Adjustment for Legislation	10.15	10.27	2.58	(0.37)	(0.69)	N/A
Net Change Due to:						
Change in Normal Rate	(0.09)	(0.22)	0.04	0.00	(0.02)	0.00
Payroll Growth and Liability Experience	0.72	(0.21)	0.40	(0.03)	0.33	(0.88)
Investment Loss/(Gain)	0.78	0.59	1.94	2.04	(1.71)	(2.25)
Health Insurance Contribution Change	0.07	0.21	0.01	(0.14)	0.02	0.07
Assumption Change	N/A	3.04	N/A	1.94	1.72	N/A
Act 40 4.00% Floor*	N/A	N/A	N/A	N/A	0.37	0.69
Act 120 Funding Reforms	N/A	N/A	8.31	N/A	N/A	N/A
Amortization of Prior Legislation Deferrals	0.76	0.18	N/A	N/A	N/A	N/A
Legislation Deferrals:						
Act 46 Rate Cap**	N/A	N/A	N/A	(2.58)	N/A	N/A
Act 120 Collar***	(7.82)	(10.15)	(10.27)	N/A	N/A	N/A
Actual Contribution Rate	16.93%	12.36%	8.65%	5.64%	4.78%	4.76%

* Act 2003-40 amended the Retirement Code to increase the Employer Pension Rate Floor from 1% to 4%.

** Act 2010-46 recertified the fiscal year ending June 30, 2011 pension rate from 7.58% to 5.00%.

*** The Final Employer Pension rate is limited by the Act 2010-120 pension rate collar. For the fiscal years ending June 30, 2012, June 30, 2013, and on or after June 30, 2014 the pension contribution rate can be no more than 3%, 3.5% and 4.5%, respectively, of total compensation of all active members, greater than the prior year's final contribution rate. Beginning with the fiscal year in which the actuarially required contribution rate is less than the collared rate, the final contribution rate is the actuarially determined contribution rate, provided that the final contribution rate is not less than the employer normal contribution rate.

SCHEDULE OF FUNDING PROGRESS FOR PENSIONS*
GASB STATEMENT NO. 25 DISCLOSURE
($ Amounts in Thousands)

Valuation as of June 30	Actuarial Value of Assets	Actuarial Accrued Liability	Unfunded Actuarial Accrued Liability	Funded Ratio	Covered Payroll	Unfunded Accrued Liability as a Percentage of Covered Payroll
2012	$ 58,227,622	$ 87,760,660	$ 29,533,038	66.3%	$ 12,714,371	232.3%
2011	59,141,131	85,640,383	26,499,252	69.1	12,910,043	205.3
2010	59,306,848	79,005,428	19,698,580	75.1	12,788,847	154.0
2009	59,781,575	75,520,736	15,739,161	79.2	12,524,593	125.7
2008	60,922,157	70,845,637	9,923,480	86.0	11,921,469	83.2
2007	57,057,838	66,495,870	9,438,032	85.8	11,410,257	82.7

*The amounts reported above include assets and liabilities for Pensions.

SCHEDULE OF FUNDING PROGRESS FOR POSTEMPLOYMENT BENEFITS OTHER THAN PENSIONS*
GASB STATEMENT NO. 43 DISCLOSURE
($ Amounts in Thousands)

Valuation as of June 30	Actuarial Value of Assets	Actuarial Accrued Liability	Unfunded Actuarial Accrued Liability	Funded Ratio	Covered Payroll	Unfunded Accrued Liability as a Percentage of Covered Payroll
2012	$ 93,753	$ 1,364,667	$ 1,270,914	6.9%	$ 12,714,371	10.0%
2011	111,258	1,339,444	1,228,186	8.3	12,910,043	9.5
2010	116,831	1,162,219	1,045,388	10.1	12,788,847	8.2
2009	105,114	1,159,055	1,053,941	9.1	12,524,593	8.4
2008	95,785	1,133,011	1,037,226	8.5	11,921,469	8.7
2007	97,292	1,058,092	960,800	9.2	11,410,257	8.4

* The amounts reported above include assets and liabilities for Health Insurance Premium Assistance. The health insurance liabilities for GASB 43 disclosure have been calculated under the entry age normal cost method, which provides liabilities that differ from those determined under the funding requirements of the Retirement Code.

SCHEDULE OF EMPLOYER CONTRIBUTIONS FOR PENSIONS
GASB STATEMENT NO. 25 DISCLOSURE
($ Amounts in Thousands)

Fiscal Year Ended June 30	Annual Required Contribution	Actual Employer Contribution	Percentage Contributed
2012	$ 2,629,244	$ 1,001,140	38%
2011	2,436,602	647,000	27
2010	1,928,278	527,212	27
2009	1,761,295	503,227	29
2008	1,852,238	753,532	41
2007	1,708,821	659,545	39

The Annual Required Contribution (ARC) presented above was determined as part of the actuarial valuation as of two years prior to the dates indicated (i.e., the ARC for the fiscal year ended June 30, 2012 was determined by the valuation completed as of June 30, 2010 which was based on an 8.00% interest rate).

Additional information as of the latest actuarial valuation follows:

Valuation Date:	6/30/2012
Actuarial Cost Method:	Entry Age
Amortization Method:	Level Dollar, Open
Remaining Amortization Period:	30 Years
Asset Valuation Method:	10 Year Smoothed Market
Actuarial Assumptions:	
- Investment Rate of Return*	7.50%
- Projected Salaried Increases*	5.50%
*Includes Inflation at:	3.00%

SCHEDULE OF EMPLOYER CONTRIBUTIONS FOR POSTEMPLOYMENT BENEFITS OTHER THAN PENSIONS GASB STATEMENT NO. 43 DISCLOSURE ($ Amounts in Thousands)

Fiscal Year Ended June 30	Annual Required Contribution	Actual Employer Contribution	Percentage Contributed
2012	$ 102,104	$ 80,936	79%
2011	119,320	88,796	74
2010	117,187	102,703	88
2009	109,531	92,493	84
2008	101,352	81,317	80
2007	94,970	86,763	91

The Annual Required Contribution (ARC) beginning with the fiscal year ended June 30, 2009 was determined as part of the actuarial valuation as of two years prior to the date indicated (i.e., the ARC for the fiscal year ended June 30, 2012 was determined by the valuation completed as of June 30, 2010, which was based on an 8.00% interest rate). Prior to the fiscal year which ended June 30, 2009, the ARC was determined as part of the actuarial valuation as of one year prior to the dates indicated.

Additional information as of the latest actuarial valuation follows:

Valuation Date:	6/30/2012
Actuarial Cost Method:	Entry Age
Amortization Method:	Level Dollar, Open
Remaining Amortization Period:	30 Years
Asset Valuation Method:	Market
Actuarial Assumptions:	
- Investment Rate of Return*	7.50%
- Projected Salaried Increases*	5.50%
*Includes Inflation at:	3.00%

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