Actuarial

- *Actuary's Letter*
- *Valuation Results*
- *History of Rates*
- *Membership Details*
- *Assumptions and Methods*

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February 6, 2009

The Retirement Board
Public School Employees'
Retirement System of Pennsylvania
P.O. Box 125
Harrisburg, Pennsylvania 17108

Ladies and Gentlemen:

This report presents the results of the annual actuarial valuation of the Public School Employees' Retirement System of Pennsylvania (Retirement System or PSERS) as of June 30, 2008.

The valuation takes into account all of the promised benefits to which members are entitled as of June 30, 2008, including pension and survivor benefits, and as required by the Public School Employees' Retirement Code, 24 Pa. C.S. §8101 et. seq. (Retirement Code) is the basis for the contribution rate for fiscal year 2009/2010.

The valuation was based on the actuarial assumptions and methods as adopted by the Board of Trustees. As adopted by the Board of Trustees at their January 2009 meeting, the valuation interest rate was changed to 8.25% for the June 30, 2008 valuation and to 8.00% for all future valuation years.

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 in fiscal years in which the amortization requirements of the Retirement Code result in an equivalent single amortization period that is longer than 30 years, 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 retirements. 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.)

500 Plaza Drive • Secaucus, NJ 07096-1533
201.902.2300 • 201.902.2450 (fax)

The Retirement Board
Public School Employees'
Retirement System of Pennsylvania
February 6, 2009
Page 2

Assets and Membership Data

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.

Funding Adequacy

The valuation results determine that the employer contribution rate for fiscal year 2009/2010 is 4.78%. As of June 30, 2008, the total funded ratio of the plan (for Pensions and Health Insurance combined) is 86.0%, based on the accrued liability and actuarial value of assets calculated under the funding requirements of Section 8328 of the Retirement Code.

Financial Results and Membership Data

Detailed summaries of the financial results of the valuation and membership data used in preparing the valuation are shown in the valuation report. The actuary prepared supporting schedules included in the Actuarial and Statistical Section of the PSERS Comprehensive Annual Financial Report (CAFR), and also prepared the trend data schedules included in the Financial Section of the CAFR.

The report does not take into account broad declines in U.S. equity and bond prices, and increases in bond yields, that have occurred after the valuation date. Taking these into account may significantly reduce 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.

Qualified actuaries completed the valuation in accordance with accepted actuarial procedures as prescribed by the Actuarial Standards Board. The qualified actuaries are members of the American Academy of Actuaries and are experienced in performing actuarial valuations of public employee retirement systems. To the best of our knowledge, this report is complete and accurate and has been prepared in accordance with generally accepted actuarial principles and practice.

Respectfully submitted,

Janet Cranna, FSA, MAAA, EA
Principal, Consulting Actuary

Dana Spangher, FSA, MAAA, EA
Director, Consulting Actuary

Edward Quinn, MAAA, EA
Director, Retirement Actuary

Executive Summary

This report presents the actuarial valuation as of June 30, 2008 for the Public School Employees' Retirement System of Pennsylvania.

The principal valuation results include:

- The employer contribution rate for fiscal year 2009/2010, which is 4.78%.
- The total funded ratio of the plan determined as of June 30, 2008 under the funding requirements of Section 8328 of the Retirement Code, which is 86.0% based on the accrued liability and the actuarial value of assets for Pensions and Health Insurance as of that date.
- The determination of the actuarial gain or loss as of June 30, 2008, which is a gain of $1.9 billion.
- Annual disclosures as of June 30, 2008 as required by Statements No. 25, 43, and 50 of the Governmental Accounting Standards Board.

The valuation was completed based upon membership and financial data submitted by the Retirement System. Detailed summaries of the financial results of the valuation and membership data used in preparing the valuation are included in the valuation report. The actuary prepared supporting schedules included in the Actuarial and Statistical Section of the PSERS Comprehensive Annual Financial Report (CAFR), and also prepared the trend data schedules included in the Financial Section of the CAFR.

Changes Since Last Year

Legislative and Administrative Changes

There were no legislative or administrative changes since the prior valuation.

The benefit provisions and contribution provisions are summarized in Table 13.

Actuarial Assumptions and Methods

As adopted by the Board of Trustees at their January 2009 meeting, the valuation interest rate was changed to 8.25% for the June 30, 2008 valuation.

The actuarial assumptions and methods are outlined in Table 12.

Contribution Rates

The results of the valuation as of June 30, 2008 determine the employer contribution rate for fiscal year 2009/2010. The calculated employer contribution rate for the 2009/2010 fiscal year is 4.78%, and the Board of Trustees certified this rate at their December 2008 meeting.

The average contribution rate payable by the members is 7.32%. Effective January 1, 2002, the employee contribution rate for members who elected to have prior school service and intervening military service converted to Class T-D service increased by 1.25%. However, anyone who enrolls (or re-enrolls) in PSERS on or after July 1, 2001 is *automatically* a member of Class T-D with regard to all subsequent school service and subsequent intervening military service, with a member rate equal to 7.5%. The average member contribution rate of 7.32% is a pay-weighted average of member rates that vary based on date of hire and based on Class T-D membership.

Reasons for Change in the Rate Calculated by the Actuary

The employer contribution rate calculated by the actuary increased from 4.76% for fiscal year 2008/2009 to 4.78% for fiscal year 2009/2010. The reconciliation of the employer contribution rates by source is as follows:

• FY2008/2009 rate after adjustment for pension floor	4.76%
• Adjustment due to effect of 4% floor on FY 2009 pension contribution	(0.69)
• FY 2008 /2009 rate prior to adjustment for pension floor	4.07%
• Decrease due to change in normal rate	(0.02)
• Increase due to payroll growth	0.11
• Decrease due to actuarial gain on assets	(1.71)
• Increase due to actuarial loss on liabilities	0.22
• Increase due to change in interest rate from 8.50% to 8.25%	1.72
• Increase due to change in health insurance contribution rate	0.02
• FY 2009/2010 rate prior to adjustment for pension floor	4.41%
• Adjustment due to effect of 4% floor on FY 2010 pension contribution	0.37
• FY2009/2010 rate after adjustment for pension floor	4.78%

Summary of Principal Results

Summarized below are the principal financial results for the Public School Employees' Retirement System based upon the actuarial valuation as of June 30, 2008. Comparable results from the June 30, 2007 valuation are also shown.

Item	June 30, 2008	June 30, 2007
Demographics		
Active Members		
• Number	272,690	264,023
• Average Annual Pay	$ 43,718	$ 43,217
Annuitants		
• Number	173,540	168,026
• Average Annual Benefit Payment	$ 21,963	$ 20,970
Contribution Rates (as a Percentage of Payroll)	(Fiscal Year 2009/2010)	(Fiscal Year 2008/2009)
Employer Contribution Rate:		
• Total Pension Contribution Rate	4.00%	4.00%
• Health Insurance Contribution Rate	0.78	0.76
• Total Contribution Rate Calculated by Actuary	4.78%	4.76%
• Total Contribution Rate Certified by Board	4.78%	4.76%
Member Average Contribution Rate	7.32	7.29
• Total Rate	12.10%	12.05%
Actuarial Funded Status*		
• Accrued Liability	$ 70,941.4 Mil	$ 66,593.1 Mil
• Actuarial Value of Assets	61,017.9	57,155.1
• Unfunded Accrued Liability	$ 9,923.5	$ 9,438.0
• Funded Ratio	86.0%	85.8%

*Pensions and Health Insurance combined

Five-Year History of Principal Financial Results

Five-Year History of Contribution Rates

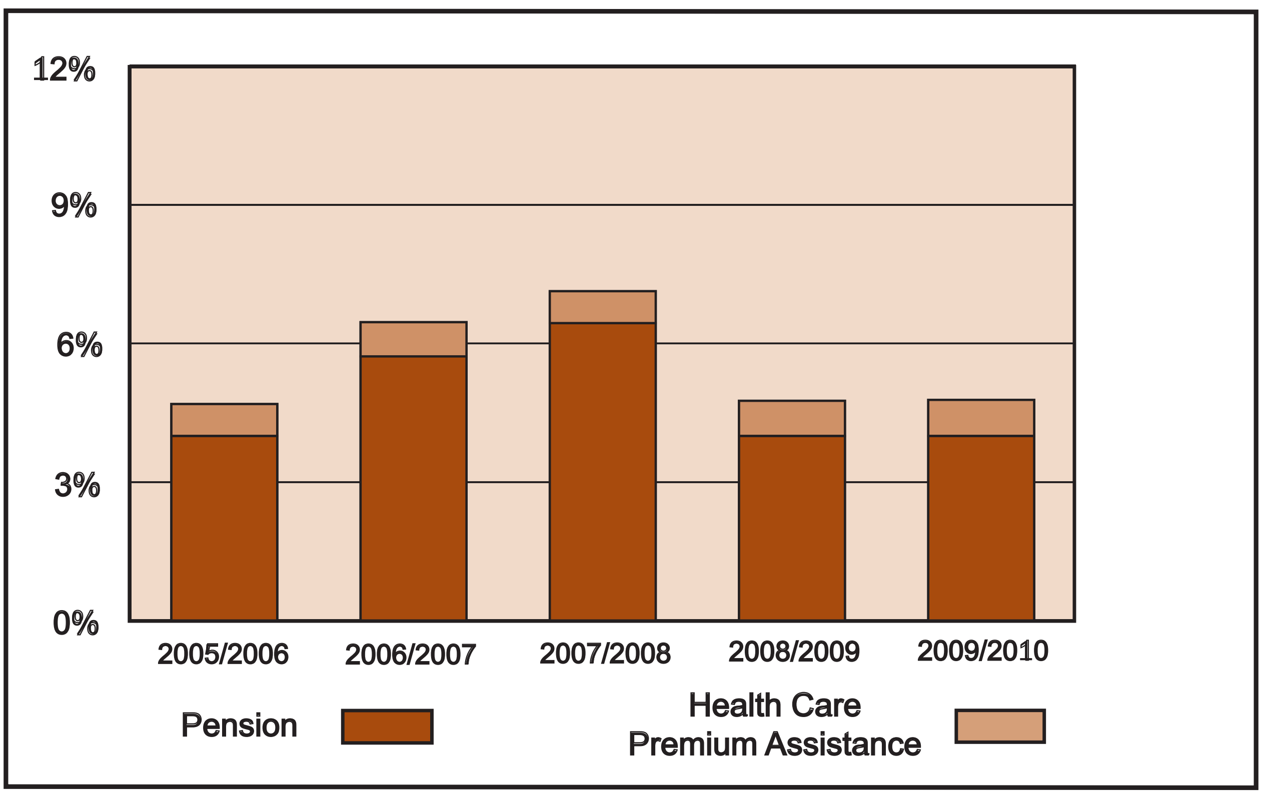
(As a % of Payroll)

Fiscal Year	Member Contributions	Employer Contributions			
		Normal Cost	Unfunded Accrued Liability	Health Insurance	Total*
2009/2010	7.32%	7.35%	(3.72)%	0.78%	4.78%
2008/2009	7.29	6.68	(3.37)	0.76	4.76
2007/2008	7.25	6.68	(0.24)	0.69	7.13
2006/2007	7.21	6.62	(0.95)	0.74	6.46
2005/2006	7.16	7.61	(4.28)	0.69	4.69

* Certified by the Board.

The following chart shows a five-year history of employer contribution rates:

Five-Year History of Employer Contribution Rates



Funded Ratio

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 the amortization schedules as required by the Retirement Code, i.e., a schedule of 10 or 30 years for each change in the unfunded accrued liability according to Act 40.

The total contribution rate of 4.78% of payroll payable by employers, when taken together with the contributions payable by the members, current assets, and expected future asset returns, is sufficient to achieve the financing objective.

The Retirement System's total funded ratio on this funding basis is measured by comparing the actuarial value of assets (based on a 5-year moving average market value) with the accrued liability. The accrued liability for Pensions is the present value of benefits accumulated to date under the Retirement System's funding method and reflects future pay increases for active employees. The accrued liability for Health Insurance equals the assets in the Health Insurance account.

On this basis, the Retirement System's total funded ratio (for Pensions and Health Insurance combined) is 86.0% as of June 30, 2008. This funded ratio is based on an actuarial value of assets of $61.0 billion and an accrued liability of $70.9 billion. The funded ratio for Pensions alone is also 86.0% as of June 30, 2008, based on an actuarial value of assets of $60.9 billion, and an accrued liability of $70.8 billion.

Reasons for Change in the Total Funded Ratio

The total funded ratio increased from 85.8% as of June 30, 2007 to 86.0% as of June 30, 2008. This increase is primarily due to asset gains that occurred during the year. These gains were partially offset by liability losses and assumption changes, and by contributions that were less than the normal cost plus one year's interest on the June 30, 2007 unfunded accrued liability.

Five-Year History of Total Funded Ratio*

(Dollar Amounts in Millions)

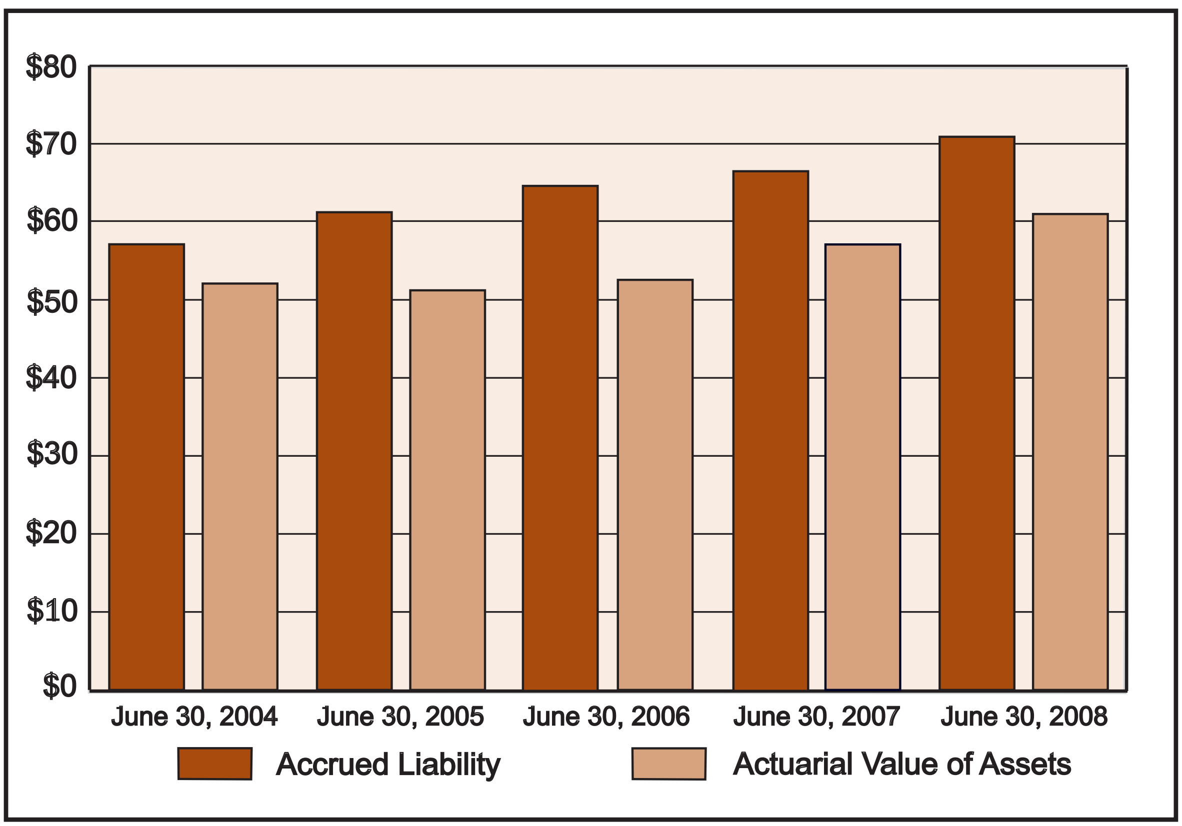
Valuation as of June 30	Accrued Liability	Actuarial Value of Assets	Unfunded Accrued Liability	Funded Ratio
2008	$ 70,941.4	$ 61,017.9	$ 9,923.5	86.0%
2007	66,593.1	57,155.1	9,438.0	85.8
2006	64,720.1	52,557.5	12,162.6	81.2
2005	61,226.6	51,219.3	10,007.3	83.7
2004	57,123.0	52,094.5	5,028.5	91.2

* For Pensions and Health Insurance (under the funding provisions of the Retirement Code)

The following chart shows a five-year history of the accrued liability and the actuarial value of assets.

Five-Year History of Accrued Liability and Actuarial Value of Assets

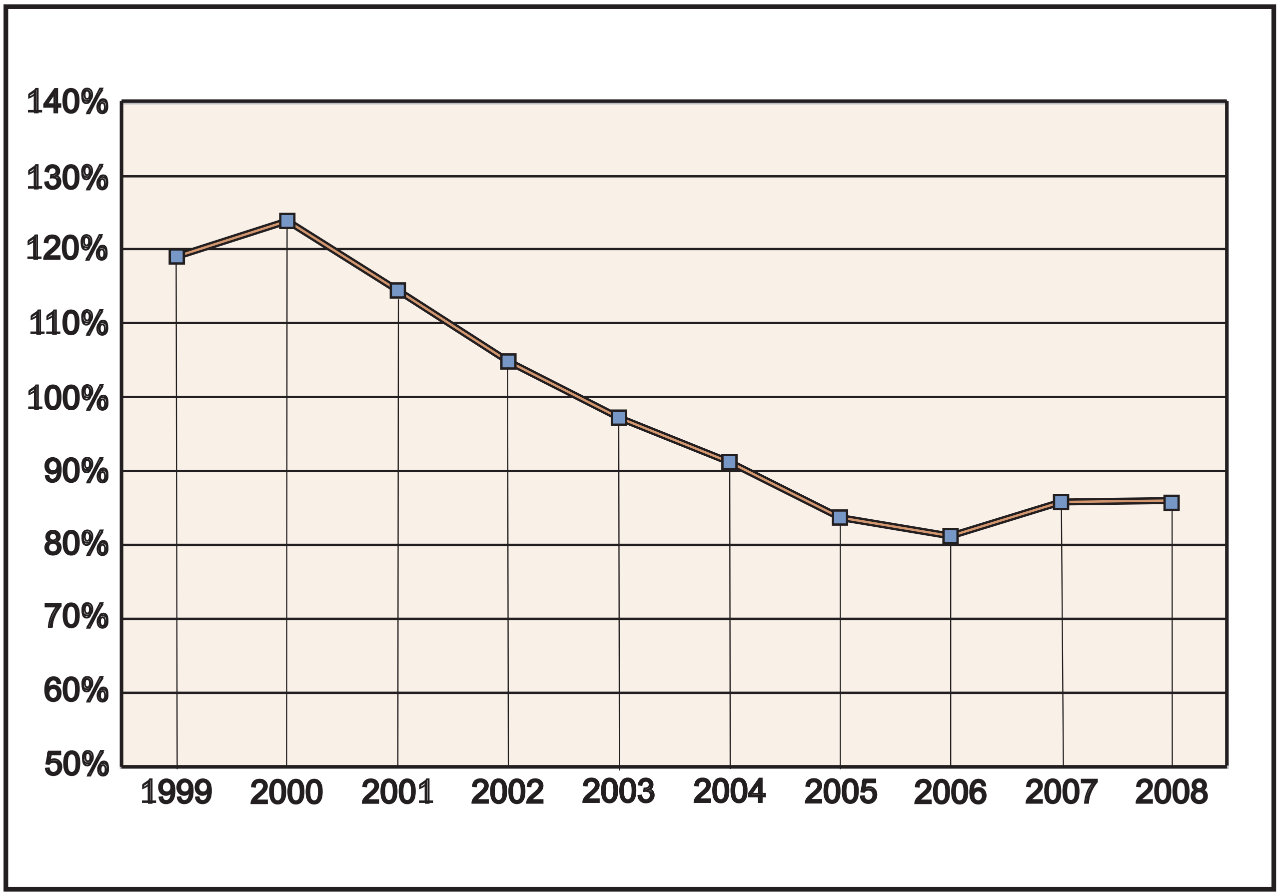
(Dollar Amounts in Billions)



The following chart shows a ten-year history of the total funded ratio for Pensions and Health Insurance:

Ten-Year History of Total Funded Ratio

(1999 - 2008)



GASB No. 25 Disclosure

Statement No. 25 of the Governmental Accounting Standards Board (GASB) established reporting standards for the annual financial reports of defined benefit pension plans. The Retirement System complied with Statement No. 25 beginning with the June 30, 1996 valuation. The statement requires disclosure of the "schedule of funding progress" and the "schedule of employer contributions" in the Retirement System's financial statements.

The "schedule of funding progress" shows historical trend information about the Retirement System's actuarial value of pension assets, the actuarial accrued liability for pensions and the unfunded actuarial accrued liability for pensions. The actuarial funded ratio for pensions is measured by comparing the actuarial value of pension assets (based on a 5-year moving average market value) with the accrued liability for pensions. The accrued liability is the present value of pension benefits accumulated to date under the Retirement System's funding method and reflects future pay increases for active employees. On this basis, the Retirement System's funded ratio for pensions is 86.0% as of June 30, 2008. This funded ratio is based on an actuarial value of pension assets of $60.9 billion and an accrued liability for pensions of $70.8 billion. See Table 7 for more detail.

The schedule of employer contributions shows historical trend information about the GASB Annual Required Contribution (ARC) for pensions, and the percentage of the ARC contributed to the Retirement System. The pension contribution requirements of the Retirement Code differ from the GASB disclosure requirements. As a result, there may be different determinations of contribution requirements for GASB accounting purposes and for State funding purposes. For GASB accounting purposes, the ARC equals the employer normal cost for pensions plus an amount that will amortize the unfunded actuarial accrued liability for pensions over a period no longer than 30 years. (For years ending on or before June 30, 2006, the maximum amortization period for the GASB ARC was 40 years.) Although the employer normal cost for GASB accounting equals the PSERS normal cost for funding, section 8328 of the Retirement Code specifies different amortization periods for different portions of the unfunded accrued liability – each change in the unfunded accrued liability is amortized over either a 10 or 30-year period – as well as a 4% floor on the employer pension rate. Therefore, the resulting equivalent single amortization period may be any number of years. Table 8a presents the GASB 25 schedule of employer contributions.

GASB No. 43 Disclosure

GASB Statement No. 43 established reporting standards for the annual financial reports of postemployment benefit plans other than pension plans, and these reporting requirements apply to the PSERS health insurance premium assistance plan. The Retirement System complied with Statement No. 43 beginning with the June 30, 2006 valuation. The statement requires disclosure of the "schedule of funding progress" and the "schedule of employer contributions" in the Retirement System's financial statements.

The health insurance liability and funding provisions of the Retirement Code differ from the GASB disclosure requirements. As a result, there are different determinations of actuarial liability and contribution requirements for GASB accounting purposes and for State funding purposes. For purposes of funding, the actuarial liability equals the assets in the health insurance account, and the contribution required is the amount necessary to establish reserves sufficient to provide premium assistance payments to all participating eligible annuitants during the fiscal year that immediately follows the year the employer contribution is made. For GASB accounting purposes, the actuarial liability has been determined under the entry age actuarial cost method, and the Annual Required Contribution (ARC) 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. (The entry age actuarial cost method was selected for this calculation because it meets the GASB parameters for determining actuarial liability and normal cost, and is the cost method specified by the Retirement Code for the PSERS pension plan.)

The GASB 43 schedule of funding progress, presented in Table 7, shows that as of June 30, 2008, the health insurance assets were $95,785,000, measured on a market value basis, while the GASB 43 health insurance liabilities were $1,133,011,000, resulting in a funded ratio of 8.5%.

The GASB 43 schedule of employer contributions first applies to fiscal year 2006/2007, and is presented in Table 8b.

Rate of Return

The investment return of the trust fund (i.e. total return including both realized and unrealized gains and losses) for fiscal years 2003/2004 through 2007/2008 is shown in the table below. The return based on the actuarial value of assets used for determining annual contribution rates is also shown.

The rate of return on market value reflects the investment earnings on the market value of assets from the beginning of the fiscal year to the end of the fiscal year. The actuarial assets are the assets recognized for valuation purposes. Actuarial assets are based on a smoothed market value that spreads the difference between the actual and expected return over a period of five years. The rate of return on the actuarial value of assets is a measure of the increase in the actuarial value of assets from the beginning of the fiscal year to the end of the fiscal year.

	Rate of Return Based on	
Fiscal Year	**Market Value***	**Actuarial Value**
2007/2008	-2.8%	12.4%
2006/2007	22.9	13.9
2005/2006	15.3	7.9
2004/2005	12.9	3.2
2003/2004	19.7	2.6

* Market Value Rate of return provided by Wilshire Associates Incorporated, PSERS investment consultant.

Table 1

Summary of Results of Actuarial Valuation
As of June 30, 2008

(Dollar Amounts in Thousands)

Item	June 30, 2008	June 30, 2007
Member Data		
1. Number of Members		
a) Active Members	272,690	264,023
b) Inactive Members and Vestees	100,803	109,186
c) Annuitants, Beneficiaries and Survivor Annuitants	173,540	168,026
d) Total	547,033	541,235
2. Annualized Salaries	$ 11,921,469	$ 11,410,257
3. Annual Annuities	$ 3,811,499	$ 3,523,429
Valuation Results		
4. Present Value of Future Pension Benefits		
a) Active Members	$ 53,857,049	$ 49,167,907
b) Inactive Members and Vestees	941,679	1,589,329
c) Annuitants, Beneficiaries and Survivor Annuitants	34,617,953	31,603,788
d) Total	$ 89,416,681	$ 82,361,024
5. Present Value of Future Pension Normal Cost		
a) Active Members	$ 9,090,223	$ 8,430,801
b) Employer	9,480,821	7,434,353
c) Total	$ 18,571,044	$ 15,865,154
6. Pension Accrued Liability		
a) Active Members (4a) - (5c)	$ 35,286,005	$ 33,302,753
b) Inactive Members and Vestees	941,679	1,589,329
c) Annuitants, Beneficiaries and Survivor Annuitants	34,617,953	31,603,788
d) Total	$ 70,845,637	$ 66,495,870
7. Health Insurance Assets for Premium Assistance	$ 95,785	$ 97,292
8. Total Accrued Liability for Funding (6) + (7)	$ 70,941,422	$ 66,593,162
9. Actuarial Value of Assets	$ 61,017,942	$ 57,155,130
10. Funded Status (9) / (8)	86.0 %	85.8 %
11. Unfunded Accrued Liability (8) - (9)	$ 9,923,480	$ 9,438,032
12. Total Normal Cost Rate	14.67 %	13.97 %
13. Member Contribution Rate	7.32 %	7.29 %
14. Employer Normal Cost Rate (12) - (13)	7.35 %	6.68 %
Employer Annual Funding Requirement	**Fiscal 2009/2010**	**Fiscal 2008/2009**
15. Employer Contribution Rate Calculated by Actuary		
a) Normal	7.35 %	6.68 %
b) Unfunded Accrued Liability	(3.72)	(3.37)
c) Preliminary Pension Rate	3.63 %	3.31 %
d) Preliminary Pension Rate with 4% Floor	4.00	4.00
e) Health Insurance	0.78	0.76
f) Total Rate	4.78 %	4.76 %

Table 2

Summary of Sources of Employer Contribution Rate
As of June 30, 2008

(Dollar Amounts in Thousands)

	Funding Period (Years)	Beginning July 1	Initial Liability	7/1/2008 Outstanding Balance	Annual Payment Amount	Annual Payment Percent *
1. Amortization of:						
a) 2001 Fresh Start Unfunded Base	10	2002	$ (9,137,130)	$ (4,949,221)	$ (1,504,168)	(11.66)%
b) 2001 Asset Method Change (Act 38)	10	2002	(4,638,306)	(2,512,387)	(763,565)	(5.92)%
c) Other 2001 Changes	30	2002	7,570,507	6,750,658	654,914	5.08 %
d) 2002 Changes	30	2003	3,014,171	2,928,010	280,308	2.17 %
e) 2002 COLA	10	2003	463,795	302,225	76,271	0.59 %
f) 2003 COLA	10	2004	754,524	616,444	134,491	1.04 %
g) 2003 Changes	30	2004	3,229,593	3,376,048	319,304	2.48 %
h) 2004 Changes	30	2005	2,903,093	3,067,132	286,891	2.22 %
i) 2005 Changes	30	2006	3,765,745	4,017,250	371,977	2.88 %
j) 2006 Changes	30	2007	812,226	874,170	80,197	0.62 %
k) 2007 Changes	30	2008	(3,870,741)	(4,199,754)	(382,034)	(2.96)%
l) 2008 Changes	30	2009	(347,095)	(347,095)	(34,165)	(0.26)%
Total Amortization Payments				$ 9,923,480	$ (479,579)	(3.72)%
2. Employer Normal Cost Rate						7.35 %
3. Preliminary Pension Rate (1) + (2)						3.63 %
4. Preliminary Pension Rate with 4% Floor -- Maximum of (3) and 4%						4.00 %
5. Health Insurance Rate						0.78 %
6. Final Total Employer Contribution Rate Calculated by Actuary (4) + (5)						4.78 %

* Based on Estimated Employer Payroll for Fiscal Year Ending 2010 of $12,899,000.

Table 3

Determination of Health Insurance Contribution Rate For Fiscal Year 2009/2010

(Dollar Amounts in Thousands)

Item						
1.	June 30, 2008 Balance in Health Insurance Account				$	95,785
2.	Estimated Fiscal 2008/2009 Contribution					
	(a)	Contribution Rate Certified in 2007 Valuation				0.76%
	(b)	Estimated Fiscal 2008/2009 payroll			$	12,402,782
	(c)	Estimated Contribution = (a) x (b)			$	94,261
3.	Estimated Number of Annuitants who:			Are Eligible		Elect Coverage
	(a)	Fiscal 2008/2009		116,900		77,154
	(b)	Fiscal 2009/2010		119,600		78,936
	(c)	Fiscal 2010/2011		122,300		80,718
4.	Estimated Disbursements:		Administration	Assistance		Total
	(a)	Fiscal 2008/2009	$ 1,963	$ 92,585	$	94,548
	(b)	Fiscal 2009/2010	2,120	94,723		96,843
	(c)	Fiscal 2010/2011	2,205	96,862		99,067
	(d)	Total	$ 6,288	$ 284,170	$	290,458
5.	Required Fiscal 2009/2010 Contribution (4d) - (1) -(2c)				$	100,412
6.	Required Health Insurance Contribution Rate					
	(a) Estimated 2009/2010 Payroll				$	12,899,000
	(b) Required Health Insurance Contribution Rate (5) / (6a) (rounded up)					0.78%

Notes:

1. Current estimates of fiscal 2008/2009 membership payroll and administrative expenses, and of fiscal 2009/2010 administrative expenses, were provided by PSERS staff.

2. 66% of eligible annuitants are assumed to elect coverage.

3. Premium Assistance payments equal $100 per month per eligible annuitant.

Table 4

Summary of Market Value of Plan Assets
As of June 30, 2008
(Dollar Amounts in Thousands)

Market Value	
1. Market Value of Assets as of June 30, 2007	$ 67,438,289
2. Contributions During Fiscal 2007/2008	1,714,447
3. Disbursements During Fiscal 2007/2008	4,766,545
4. Investment Return During Fiscal 2007/2008	
a) Investment Return (Net of Investment Expenses)	$ (1,779,873)
b) Administrative Expenses	37,107
c) Investment Return After Expenses (a) - (b)	$ (1,816,980)
5. Market Value of Assets as of June 30, 2008 (1) + (2) - (3) + (4c)	$ 62,569,211
6. Rate of Return (per Wilshire)	(2.82) %
Asset Allocation by Account	
1. Members' Savings Account	$ 10,532,683
2. Annuity Reserve Account	34,617,953
3. State Accumulation Account	17,322,790
4. Health Insurance Account	95,785
5. Total (1) + (2) + (3) + (4)	$ 62,569,211

Table 5

Derivation of Actuarial Value of Assets
As of June 30, 2008
(Dollar Amounts in Thousands)

1. Market Value of Assets as of June 30, 2008 — $ 62,569,211

2. Determination of Deferred Gain (Loss)

Fiscal Year	Return on Assets: Actual	Expected	Difference	% Deferred	Deferred Amount
2007/2008	$ (1,816,980)	$ 4,728,472	$ (6,545,452)	80%	$ (5,236,362)
2006/2007	12,658,871	4,359,054	8,299,817	60	4,979,890
2005/2006	7,901,068	4,242,878	3,658,190	40	1,463,276
2004/2005	6,044,305	4,321,981	1,722,324	20	344,465
					$ 1,551,269

3. Actuarial Value of Assets (1) - (2) — $ 61,017,942

4. Actuarial Rate of Return * — 12.43%

* The actuarial rate of return is the investment return based on the change in the actuarial value of assets from the June 30, 2007 valuation to the June 30, 2008 valuation.

Table 6

Analysis of Change in Unfunded Accrued Liability
As of June 30, 2008

(Dollar Amounts in Thousands)

Item	Amount
1. Unfunded Accrued Liability at June 30, 2007	$ 9,438,032
2. Interest Credit at 8.25% to June 30, 2008	802,232
3. Contributions Toward Unfunded Accrued Liability	(30,311)
4. Change due to Effect of 4% Floor on FY 2008 Pension Contribution	-
5. Expected Unfunded Accrued Liability at June 30, 2008 (1) + (2) - (3) + (4)	$ 10,270,575
6. Actual Unfunded Accrued Liability at June 30, 2008	$ 9,923,480
7. Increase (Decrease) from Expected (6) - (5)	$ (347,095)
8. Reasons for Increase (Decrease)	
(a) Experience (Gains) Losses	
(i) Gain from Investment Return on Actuarial Value of Assets	$ (2,186,438)
(ii) Loss from New Entrants and Pickups	419,868
(iii) Loss from Salary Increases Greater than Expected	56,062
(iv) Loss from Mortality Experience	76,098
(v) Gain from Vested Termination Experience (Retirement/Disability/Termination)	(79,875)
(vi) Gain from Non-vested Termination Experience	(189,177)
(vii) Loss from Data/Miscellaneous	8,852
Subtotal	$ (1,894,610)
(b) Change in Assumption	$ 1,547,515
(c) Grand Total	$ (347,095)

Table 7

Schedule of Funding Progress for Pensions*
GASB Statement No. 25 Disclosure

(Dollar 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
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
2006	52,464,726	64,627,361	12,162,635	81.2	11,419,049	106.5
2005	51,122,156	61,129,444	10,007,288	83.6	10,527,668	95.1
2004	51,949,622	56,978,143	5,028,521	91.2	10,030,705	50.1
2003	52,770,018	54,313,328	1,543,310	97.2	9,652,881	16.0

* 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

(Dollar 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
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
2006	92,777	1,056,154	963,377	8.8	11,419,049	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.

Table 8a

Schedule of Employer Contributions for Pensions
GASB Statement No. 25 Disclosure

(Dollar Amounts in Thousands)

Fiscal Year Ended June 30	Annual Required Contribution	Actual Employer Contribution	Percentage Contributed
2008	$ 1,852,238	$ 753,532	41 %
2007	1,708,821	659,545	39
2006	1,328,373	456,878	34
2005	945,107	431,556	46
2004	321,091	321,091	100
2003	20,831	20,831	100

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, 2008 was determined by the valuation completed as of June 30, 2006 which was based on an 8.50% interest rate).

Additional information as of the latest actuarial valuation follows:

Valuation Date:	6/30/2008
Actuarial Cost Method:	Entry Age
Amortization Method:	Level dollar open
Remaining Amortization Period:	30 Years
Asset Valuation Method:	5-year smoothed market
Actuarial Assumptions:	
- Investment Rate of Return *	8.25%
- Projected Salaried Increases *	6.00%

* Includes Inflation at: 3.25%

Table 8b

Schedule of Employer Contributions for Postemployment Benefits Other Than Pensions GASB Statement No. 43 Disclosure

(Dollar Amounts in Thousands)

Fiscal Year Ended June 30	Annual Required Contribution	Actual Employer Contribution	Percentage Contributed
2008	$ 101,352	$ 81,317	80 %
2007	94,970	86,763	91

The Annual Required Contribution (ARC) presented above was determined as part of the actuarial valuation as of one year prior to the dates indicated (i.e., the ARC for the fiscal year ended June 30, 2008 was determined by the valuation completed as of June 30, 2007 which was based on an 8.50% interest rate).

Additional information as of the latest actuarial valuation follows:

Valuation Date:	6/30/2008
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 *	8.25%
- Projected Salaried Increases *	6.00%

* Includes Inflation at: 3.25%

Table 9

Solvency Test
Comparative Summary of Accrued Liability And Actuarial Value of Assets*

(Dollar Amounts in Thousands)

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)
2008	$ 10,532,683	$ 34,713,738	$ 25,695,001	$ 61,017,942	100 %	100 %	61 %
2007	10,183,433	31,701,080	24,708,649	57,155,130	100	100	62
2006	9,571,668	29,209,941	25,938,529	52,557,503	100	100	53
2005	9,116,347	27,051,245	25,058,989	51,219,293	100	100	60
2004	8,755,109	24,482,234	23,885,657	52,094,479	100	100	79
2003	8,282,753	22,094,109	24,066,913	52,900,465	100	100	94

* The amounts reported include assets and liabilities for both Pensions and Health Insurance.

Table 10

History and Projection of Contribution Rates and Funded Ratios[1]

Fiscal Year Ending June	Appropriation Payroll (thousands)	Contribution Rates[2]							Funded Ratio
		Employee	Employer Normal Cost	Employer Unfunded Liability	Preliminary Employer Pension	Final Employer Pension	Employer Health Insurance	Total Employer	
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	12,402,782	7.29	6.68	(3.37)	3.31	4.00	0.76	4.76	85.0
2010 [7]	**12,899,000**	**7.32**	**7.35**	**(3.72)**	**3.63**	**4.00**	**0.78**	**4.78**	85.2
2011 [7]	13,297,917	7.34	8.03	(3.73)	4.30	4.30	0.76	5.06	84.4
2012	13,703,700	7.36	8.00	(4.43)	3.57	4.00	0.75	4.75	81.5
2013	14,132,543	7.38	7.97	11.45	19.42	19.42	0.74	20.16	82.6
2014	14,586,335	7.40	7.94	11.39	19.33	19.33	0.73	20.06	83.6
2015	15,066,759	7.41	7.93	10.15	18.08	18.08	0.72	18.80	84.5
2016	15,573,822	7.43	7.90	9.84	17.74	17.74	0.70	18.44	85.4
2017	16,119,772	7.44	7.88	9.53	17.41	17.41	0.69	18.10	86.3
2018	16,711,215	7.45	7.86	9.20	17.06	17.06	0.66	17.72	87.2
2019	17,349,067	7.46	7.85	8.87	16.72	16.72	0.65	17.37	88.1
2020	18,031,134	7.46	7.84	8.54	16.38	16.38	0.63	17.01	89.0

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 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.

Table 11

History and Projection of Annuitants, Beneficiaries, Survivor Annuitants and Active Members

Valuation as of June 30	New Annuitants During the Year	Annuitant Deaths During the Year	Annuitants at End of Year	Beneficiaries and Survivor Annuitants at End of Year	Total Annuitants, Beneficiaries and Survivor Annuitants	Active Members
1999			126,448	6,421	132,869	223,495
2000			127,404	6,654	134,058	234,210
2001			125,880	6,836	132,716	243,311
2002			134,300	7,114	141,414	242,616
2003			138,383	7,310	145,693	246,700
2004			143,997	7,555	151,552	247,901
2005			148,727	7,792	156,519	255,465
2006			153,757	8,056	161,813	263,350
2007			159,760	8,266	168,026	264,023
2008			**165,091**	**8,449**	**173,540**	**272,690**
2009	14,693	4,471	175,313	8,947	184,260	272,690
2010	12,404	4,643	183,074	9,409	192,483	272,690
2011	12,476	4,846	190,704	9,830	200,534	272,690
2012	12,545	5,048	198,201	10,225	208,426	272,690
2013	12,421	5,239	205,383	10,593	215,976	272,690
2014	11,996	5,425	211,954	10,943	222,897	272,690
2015	11,871	5,627	218,198	11,285	229,483	272,690
2016	11,686	5,822	224,062	11,621	235,683	272,690
2017	11,597	6,003	229,656	11,952	241,608	272,690
2018	11,370	6,199	234,827	12,287	247,114	272,690

* The number for the first year of the projection reflects the assumption that all Active members age 74 and above, and that all vested inactive members who have reached superannuation age retire immediately.

Table 12

Description of Actuarial Assumptions and Methods

ASSUMPTIONS

Interest Rate: 8.25% per annum, compounded annually (adopted as of June 30, 2008). The components are 3.25% for inflation and 5.00% 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. (Rates of non-vested withdrawal, of death, and of disability were adopted as of June 30, 2005; other rates were adopted as of June 30, 2000):

	Annual Rate of:						
		Vested Withdrawal*					
Age	Non-Vested Withdrawal	Less Than 10 Years of Service	10 or More Years of Service	Death	Disability	Early Retirement**	Superannuation Retirement
MALES							
25	12.40%	5.50%	1.40%	.042%	.024%		
30	10.00	3.00	1.40	.057	.024		
35	11.00	3.00	1.10	.062	.100		
40	11.00	3.00	.80	.072	.180		
45	11.00	3.00	.50	.100	.180		
50	11.00	3.00	1.78	.152	.280		24.00%
55	10.50	3.00	3.50	.252	.430	10.00	24.00
60	10.00	2.40	4.50	.467	.580	10.00	28.00
65				.870	.100		20.00
69				1.335	.100		20.00
FEMALES							
25	14.10%	9.50%	4.00%	.019%	.040%		
30	14.10	7.50	4.00	.023	.040		
35	14.10	5.50	2.00	.031	.080		
40	10.90	3.50	1.00	.043	.130		
45	10.90	3.00	.55	.061	.180		
50	10.90	3.00	1.50	.085	.250		10.00%
55	10.90	3.00	3.00	.146	.480	10.00	10.00
60	10.90	3.50	5.90	.284	.480	15.00	25.00
65				.561	.160		28.00
69				.866	.160		20.00

* Vested Withdrawal - At least 5 years service but not eligible for Early or Superannuation retirement.

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

Death after Retirement: The Uninsured Pensioners 1994 Mortality Table (UP94) with mortality improvements projected 10 years, and with age set back one year for males and females, adopted in 2005, are used to project mortality for healthy annuitants and for dependent beneficiaries. Special mortality table based on PSERS' experience are used for disability retirements. (The 1995 George B. Buck Mortality Tables, rated forward one year for males and unadjusted for females, adopted in 2000, are used to determine actuarial equivalent benefits.)

Table 12

Description of Actuarial Assumptions and Methods
(Continued)

Salary Increase: Effective average of 6% per annum, compounded annually (adopted as of June 30, 2005). The components are 3.25% for inflation, 1% for real wage growth and 1.75% for merit or seniority increases. Representative values are as follows:

Age	Annual Rate of Salary Increase
20	12.00%
30	9.00
40	7.00
50	4.75
55	4.50
60	4.25
65	4.25
70	4.25

MISCELLANEOUS

Option 4 Elections: 100% of 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 reasonably based on the actual experience of the System.

Asset Valuation Method: A five-year moving market average value of assets that recognizes the 8.25% (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 five years (adopted as of June 30, 2001).

Table 12

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. The outstanding balance of the unfunded accrued liability as of June 30, 2001 and the decrease in the unfunded accrued liability due to the actuarial asset method change provided by Act 38 continue to be amortized over a 10-year period, with level dollar funding, beginning July 1, 2002. The increases in the unfunded accrued liability due to the July 1, 2002 and July 1, 2003 cost-of-living adjustments provided by Act 38 were both recognized at June 30, 2002 and continue to be amortized over a 10-year period, with level dollar funding starting on July 1, 2003 and July 1, 2004, respectively. All other changes in the unfunded accrued liability at June 30, 2001 and June 30, 2002 – including the Act 9 benefit changes – are amortized over a 30-year period, with level dollar funding starting on July 1, 2002, and July 1, 2003, respectively. Post June 30, 2002 benefit changes for active members and retirees are amortized over a 10-year period with level dollar funding. Post June 30, 2002 gains and losses, and changes in the unfunded accrued liability resulting from changes in actuarial assumptions and methods, are amortized over a 30-year period with level dollar funding. Act 40 also provided a 4.00% floor on the employer pension rate.

Actuarial Cost Method for GASB 25 Accounting for Pensions: Same as for pension funding, except that in fiscal years in which the amortization requirements of the Retirement Code result in an equivalent single amortization period that is longer than the maximum allowable period specified by GASB 25 (40 years for fiscal years ending on or before June 30, 2006; and 30 years for subsequent fiscal years), the GASB 25 amortization payment will be set equal to the level dollar amount that will amortize the unfunded accrued liability over a period equal to the maximum allowable period specified by GASB 25.

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 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, 2008 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.

Table 13

Summary of Benefit and Contribution Provisions

Membership

For valuation purposes, all employees are considered to be full coverage. All employees who become members on and after January 1, 1966 are members of the dual coverage group. Dual coverage members contribute to both PSERS and to Social Security.

Benefits

Superannuation Annuity

Eligibility Age 62, or age 60 with 30 years of service, or 35 years of service regardless of age.

Amount 2.5% of final average salary times years of school service and intervening military service. 2% of final average salary for non-school service and for members who do not elect Class T D coverage. Minimum of $100 per year of service. “Final average salary” means the highest average annual salary for any 3 years of service.

Annual salary is subject to a limit of $200,000, as adjusted under Section 401(a)(17). As of June 30, 2008, the adjusted limit is $225,000.

For members who elect coverage under Class T-D, the maximum benefit is equal to the limit established by Section 415 of the Internal Revenue Code.

Early Retirement Annuity

Eligibility Age 55 with 25 years of service.

Amount Accrued benefit as of date of retirement, reduced 1/4% for each month by which commencement of payments precedes Superannuation Age.

For members who elect coverage under Class T-D, the maximum benefit is equal to the limit established by Section 415 of the Internal Revenue Code.

Table 13

Summary of Benefit and Contribution Provisions

(Continued)

Withdrawal Annuity

Eligibility	5 years of service.
Amount	Accrued benefit deferred to superannuation retirement age or an actuarially reduced benefit payable immediately. Actuarially equivalent benefits are based on 4% interest and the 1995 George B. Buck mortality tables, rated forward one year for males and unadjusted for females.

Disability Annuity

Eligibility	5 years of service.
Amount	The standard single life annuity if the total number of credited service is greater than 16.667, otherwise the standard single life annuity multiplied by the lesser of the following ratios: (Y*/Y) or (16.667/Y) where Y is the number of years of credited service and Y* is the total years of credited service if the member were to continue as a school employee until superannuation retirement age (or at current age, if later). Minimum of $100 per year of service.

Return of Contributions

Eligibility	Death or separation from service and member does not qualify for other benefits.
Amount	Refund of accumulated deductions includes interest (less annuity payments received prior to death in the case of a retired member).

Death Benefit

Eligibility	Death of an active member or vestee who was eligible to receive an annuity.
Amount	The present value of the annuity that would have been effective if the member retired on the day before death. Option 1 (see next page) assumed payable if no other option elected.

Table 13

Summary of Benefit and Contribution Provisions

(Continued)

Normal and Optional Forms of Benefits

Normal Form:	Life annuity with a guaranteed payment equal to member contributions with interest.
Option 1:	Reduced benefit with refund of balance of present value of annuity at retirement over payments received. If balance is less than $5,000, benefit is paid in lump sum; otherwise, beneficiary may elect annuity and/or lump sum.
Option 2:	Joint and 100% survivorship annuity.
Option 3:	Joint and 50% survivorship annuity.
Option 4:	Benefit of equivalent actuarial value, including lump sum payment of member contributions.

Health Care Premium Assistance

Eligibility

Retired members who:

(a) have 24½ or more years of service, or

(b) are disability annuitants, or

(c) have 15 or more years of service and who both terminated school service and retired after attaining superannuation age and

(d) participate in the PSERS health options program or in an employer-sponsored health insurance program.

Amount

Participating eligible annuitants receive health insurance premium assistance payments from the Health Insurance Account equal to the lesser of $100 per month or the actual monthly premium. All administrative expenses necessary to operate the health insurance premium assistance program are to be funded by the Health Insurance Account. The Health Insurance Account is credited with contributions of the Commonwealth and the employers.

Table 13

Summary of Benefit and Contribution Provisions

(Continued)

Contributions

By Members	Members who elected coverage under Class T-D and who were most recently enrolled prior to July 22, 1983 contribute at a rate of 6½% of compensation, while members who elected coverage under Class T-D and who were most recently enrolled on or after July 22, 1983 contribute at a rate of 7½% of compensation. Members who did not elect coverage under Class T-D and who were most recently enrolled prior to July 22, 1983 contribute at a rate of 5¼% of compensation, while members who did not elect coverage under Class T-D and who were most recently enrolled on or after July 22, 1983 and prior to July 1, 2001 contribute at a rate of 6¼% of compensation. Anyone who enrolls or re-enrolls on or after July 1, 2001 automatically has coverage under class T-D for subsequent school service and subsequent intervening military service, and must contribute at a rate of 7½% of compensation. Reduction in rate for a joint coverage member: 40% of Social Security tax, exclusive of disability and medical coverage portion.
By Commonwealth and School Districts	Balance of required contribution determined as normal contribution, accrued liability contribution, supplemental annuity contribution, experience adjustment factor and premium assistance contribution, is funded by the Commonwealth and the School Districts.

Table 14

Summary of Membership Data
As of June 30, 2008
(Dollar Amounts in Thousands)

Active Members*

Item	Male	Female	Total
Number of Members	74,159	198,531	272,690
Annual Salaries **	$ 3,694,443	$ 8,227,026	$ 11,921,469
Average Age***	44.5	44.7	44.6
Average Service***	11.4	10.4	10.7

* Excludes 100,803 inactive members and vestees.
** The salaries shown in the table above represent an annual rate of pay for the year ended June 30, 2008 for members who were in active service on June 30, 2008.
*** Average completed years of age and service.

Annuitants and Beneficiaries

Item	Number	Annual Annuities*	Average Annuities	Average Age
Annuitants (Normal, Early and Withdrawal)	157,656	$ 3,586,326	$ 22,748	69.7
Survivors and Beneficiaries	8,449	82,839	9,805	75.6
Disabled Annuitants	7,435	142,334	19,144	63.0
Total	173,540	$ 3,811,499	$ 21,963	69.7

* The annuities shown in the table above represent the annual amount payable as of July 1, 2008 for participants who were in payment on June 30, 2008.

Exhibit I

Active Membership Data as of June 30, 2008
Number and Average Annual Salary

	Years of Service									
Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total
Under 25	9,367 $30,000	55 $29,488								9,422 $29,997
25-29	21,668 $37,424	6,315 $47,116	44 $36,586							28,027 $39,607
30-34	10,047 $34,922	13,473 $50,036	3,318 $57,052	37 $42,518						26,875 $45,241
35-39	9,915 $27,218	8,751 $47,109	10,089 $60,395	2,496 $65,491	63 $42,924					31,314 $46,548
40-44	11,328 $22,953	7,411 $37,323	5,385 $53,529	5,892 $65,813	2,063 $65,562	82 $45,303				32,161 $42,026
45-49	11,058 $21,998	9,304 $32,253	5,768 $43,757	4,172 $57,788	4,851 $67,712	1,935 $63,701	118 $44,360			37,206 $40,149
50-54	8,048 $22,489	8,504 $32,329	7,033 $40,609	5,521 $51,667	4,486 $61,744	6,049 $71,239	4,325 $72,055	59 $46,703		44,025 $46,543
55-59	5,474 $23,760	5,092 $33,366	5,057 $40,907	5,477 $49,613	4,955 $58,054	3,621 $67,199	7,387 $76,205	2,194 $79,007	29 $47,795	39,286 $52,110
60-64	3,109 $19,689	2,519 $30,219	2,171 $36,373	2,507 $43,594	2,477 $49,465	1,806 $56,031	1,076 $64,115	999 $77,960	235 $78,927	16,899 $42,294
Over 64	2,264 $13,574	1,426 $21,264	976 $26,724	817 $32,436	689 $37,457	522 $37,426	387 $40,256	199 $51,431	195 $72,453	7,475 $26,612
Total	92,278 $28,381	62,850 $39,992	39,841 $48,653	26,919 $55,228	19,584 $60,223	14,015 $65,783	13,293 $72,547	3,451 $76,562	459 $74,210	272,690 $43,718

Exhibit II

The Number and Average Annual Annuity As of June 30, 2008

Retired on Account of Superannuation, Early Retirement and Those in Receipt of Withdrawal Annuities

Age	Years of Service									Total
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	
Under 50		2,343 $804	1,235 $1,839	370 $4,369	123 $8,524	26 $14,342				4,097 $1,756
50-54		632 $1,421	1,014 $1,751	511 $4,463	271 $9,815	189 $20,503	127 $30,184	13 $32,660		2,757 $5,712
55-59		553 $2,574	2,041 $2,103	1,123 $6,275	775 $12,720	1,329 $27,231	6,489 $44,546	3,281 $55,316	3 $28,558	15,594 $33,952
60-64	191 $5,759	718 $3,862	3,092 $3,103	2,195 $8,545	1,862 $16,650	2,985 $28,306	11,662 $39,614	8,965 $53,938	245 $60,434	31,915 $34,719
65-69	640 $2,676	1,136 $3,136	2,975 $4,255	3,090 $8,744	2,950 $15,134	3,656 $23,497	8,347 $33,877	5,897 $44,193	726 $58,443	29,417 $25,880
70-74	690 $1,233	1,008 $2,420	2,756 $3,753	2,625 $7,084	3,115 $11,820	3,435 $19,376	4,914 $28,981	3,457 $37,278	1,007 $45,506	23,007 $19,677
75-79	758 $4,748	1,031 $1,922	2,580 $3,442	2,625 $6,195	2,889 $11,042	3,184 $17,207	3,428 $25,303	2,482 $34,872	1,052 $41,619	20,029 $16,700
80-84	843 $6,108	990 $1,747	2,353 $3,361	2,450 $6,255	2,602 $10,739	2,364 $16,318	1,927 $21,880	1,596 $28,176	742 $38,831	15,867 $13,397
85-89	691 $6,044	665 $1,727	1,536 $3,318	1,572 $6,050	1,355 $9,763	1,272 $14,002	865 $18,798	948 $23,327	304 $31,324	9,208 $10,737
Over 89	241 $2,857	465 $2,150	957 $3,856	889 $6,586	806 $10,366	726 $13,649	572 $18,305	679 $21,905	430 $25,768	5,765 $11,435
Total	4,054 $4,261	9,541 $1,975	20,539 $3,238	17,450 $7,006	16,748 $12,387	19,166 $20,791	38,331 $34,846	27,318 $44,786	4,509 $43,545	157,656 $22,748

Exhibit III

The Number and Average Annual Annuity
As of June 30, 2008

Beneficiaries and Survivor Annuitants

Age	Years of Service									Total
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	
Under 50	36 $23,595	19 $1,734	44 $1,886	39 $3,474	42 $5,439	34 $7,486	33 $12,991	19 $15,176	14 $11,202	280 $8,777
50-54	34 $31,274	11 $1,272	23 $2,562	27 $3,463	32 $6,242	22 $9,515	19 $19,406	19 $11,743	9 $15,070	196 $12,073
55-59	67 $16,979	9 $1,483	33 $3,651	32 $3,792	44 $6,670	58 $12,589	85 $14,781	70 $18,171	14 $11,105	412 $12,379
60-64	77 $19,251	17 $2,670	46 $2,863	37 $4,555	51 $6,483	69 $12,348	168 $16,660	157 $20,366	28 $12,958	650 $14,415
65-69	102 $15,165	20 $1,576	81 $3,285	79 $5,757	69 $7,702	75 $12,767	183 $17,527	165 $20,812	48 $16,616	822 $13,658
70-74	96 $12,259	37 $1,603	120 $2,995	106 $4,701	105 $7,094	102 $10,489	203 $13,507	184 $18,660	87 $21,405	1,040 $11,487
75-79	118 $10,509	47 $1,679	136 $3,041	149 $4,286	154 $6,758	134 $8,670	218 $12,719	200 $14,096	128 $19,339	1,284 $9,845
80-84	144 $8,383	91 $1,445	200 $2,634	176 $4,062	173 $6,718	209 $8,763	214 $10,425	267 $11,853	111 $16,372	1,585 $8,067
85-89	87 $7,979	86 $1,221	168 $2,311	139 $3,486	132 $5,208	139 $7,515	151 $9,257	264 $11,039	114 $12,886	1,280 $7,176
Over 89	28 $9,580	65 $1,096	113 $2,008	90 $3,621	77 $5,210	75 $6,760	107 $6,975	177 $8,969	168 $9,669	900 $6,398
Total	789 $13,518	402 $1,451	964 $2,671	874 $4,160	879 $6,394	917 $9,398	1,381 $12,998	1,522 $14,674	721 $15,058	8,449 $9,805

Exhibit IV

The Number and Average Annual Annuity
As of June 30, 2008

Retired on Account of Disability

Age	Years of Service									Total
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	
Under 50		226 $18,054	150 $20,055	97 $32,167	38 $61,045	14 $78,991				525 $25,970
50-54		195 $16,202	172 $19,116	144 $20,864	133 $32,297	114 $51,742	20 $76,709	1 $32,568		779 $27,230
55-59		277 $13,337	282 $14,973	238 $17,972	258 $27,896	364 $37,573	184 $53,479	2 $41,372		1,605 $26,785
60-64		239 $8,141	309 $10,555	286 $13,303	309 $21,994	332 $30,179	170 $40,174	5 $55,638		1,650 $19,961
65-69		187 $5,492	275 $7,939	237 $10,334	222 $16,656	163 $25,208	43 $30,939			1,127 $13,129
70-74		130 $5,470	192 $6,906	159 $8,684	123 $14,358	81 $19,957	15 $29,416	3 $43,058		703 $10,485
75-79		99 $3,864	133 $5,763	113 $8,600	106 $12,984	43 $20,278	7 $26,313		1 $54,601	502 $9,179
80-84		67 $3,868	92 $6,036	48 $7,992	58 $11,727	40 $16,379	7 $24,413	1 $24,751		313 $8,719
85-89		37 $3,619	38 $6,077	24 $7,587	27 $10,608	20 $15,478	11 $20,993	2 $35,460		159 $9,086
Over 89		11 $3,307	21 $4,725	18 $7,955	6 $10,451	7 $14,764	9 $18,692			72 $8,515
Total		1,468 $10,511	1,664 $11,383	1,364 $14,455	1,280 $22,248	1,178 $32,569	466 $44,484	14 $44,168	1 $54,601	7,435 $19,144

Exhibit V

Annuitant and Beneficiary Membership Data
As of June 30, 2008

Number and Average Annual Benefit
Excludes Partial Lump Sum Payments

Age Last Birthday	Number	Annual Benefit (Thousands)	Average Annual Benefit
Annuitants (Normal, Early and Withdrawal)			
Under 60	22,448	$ 552,390	$ 24,608
60 - 64	31,915	1,108,060	34,719
65 - 69	29,417	761,314	25,880
70 - 74	23,007	452,713	19,677
75 - 79	20,029	334,483	16,700
Over 79	30,840	377,366	12,236
Total	157,656	$ 3,586,326	$ 22,748
Survivors and Beneficiaries			
Under 60	888	$ 9,924	$ 11,176
60 - 64	650	9,370	14,415
65 - 69	822	11,227	13,658
70 - 74	1,040	11,946	11,487
75 - 79	1,284	12,641	9,845
Over 79	3,765	27,731	7,365
Total	8,449	$ 82,839	$ 9,805
Disabled Annuitants			
Under 60	2,909	$ 77,837	$ 26,757
60 - 64	1,650	32,935	19,961
65 - 69	1,127	14,797	13,130
70 - 74	703	7,371	10,485
75 - 79	502	4,608	9,179
Over 79	544	4,786	8,798
Total	7,435	$ 142,334	$ 19,144
Grand Total Average Annual Benefit	173,540	$ 3,811,499	$ 21,963

Exhibit VI

10 year History of Membership Data

Active Members

Valuation as of June 30	Number of Active Members	Percentage Change in Membership	Total Annual Payroll (Dollars in (Thousands)	Percentage Change in Payroll
2008	272,690	3.28%	$ 11,921,469	4.48%
2007	264,023	0.26%	11,410,257	(0.08%)
2006	263,350	3.09%	11,419,049	8.47%
2005	255,465	3.05%	10,527,668	4.95%
2004	247,901	0.49%	10,030,705	3.91%
2003	246,700	1.68%	9,652,881	2.92%
2002	242,616	(0.29%)	9,378,944	(0.38%)
2001	243,311	3.89%	9,414,884	5.32%
2000	234,210	4.79%	8,939,598	8.39%
1999	223,495	1.27%	8,247,602	1.93%

Exhibit VI

(Continued)

10 Year History of Membership Data

The Number and Annual Annuities of Annuitant and Survivor Annuitant Members

Year Ended June 30	Number on roll	Annual Annuities (Dollars in Millions)	Average Annual Annuities	Additions *	Annual Annuities * (Dollars in Millions)	Deletions *	Annual Annuities * (Dollars in Millions)	Percentage Change in Membership	Percentage Change in Annuities
2008	173,540	$ 3,811.5	$ 21,963	10,911	$ 345.3	5,397	$ 73.9	3.28%	8.18%
2007	168,026	3,523.4	20,970	10,612	307.5	4,399	56.0	3.84%	7.60%
2006	161,813	3,274.5	20,236	10,637		5,343		3.38%	8.16%
2005	156,519	3,027.6	19,343	10,050		5,083		3.28%	8.20%
2004	151,552	2,798.2	18,464	10,526		4,667		4.02%	9.94%
2003	145,693	2,545.1	17,469	9,079		4,800		3.03%	13.20%
2002	141,414	2,248.3	15,899	13,003		4,305		6.55%	20.10%
2001	132,716	1,872.0	14,105	3,140		4,482		(1.00)%	0.00%
2000	134,058	1,880.6	14,028	5,923		4,734		0.89%	2.73%
1999	132,869	1,830.6	13,777	10,609		4,554		4.88%	26.51%

* The annual annuities added and deleted are for the annuitants and survivor annuitants who were added and deleted. Changes in annuities for continuing payees may also occur due to finalization of benefit calculations and due to the commencement of supplemental annuity payments.