

**THE PUBLIC SCHOOL EMPLOYEES'  
RETIREMENT SYSTEM OF PENNSYLVANIA**

**ACTUARIAL VALUATION  
JUNE 30, 2009**



January 15, 2010

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, 2009.

The valuation takes into account all of the promised benefits to which members are entitled as of June 30, 2009, 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 2010/2011.

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.)

### **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 2010/2011 is 8.22%. As of June 30, 2009, the total funded ratio of the plan (for Pensions and Health Insurance combined) is 79.2%, 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 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.

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  
JHC/hh  
DOC:V02694JC.DOC



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



Edward Quinn, MAAA, EA  
Director, Retirement Actuary

# THE PUBLIC SCHOOL EMPLOYEES' RETIREMENT SYSTEM OF PENNSYLVANIA

## TABLE OF CONTENTS

	<u>Table / Exhibit</u>	<u>Page</u>
Executive Summary .....		1
Table 1 — Summary of Results of Actuarial Valuation as of June 30, 2009.....		11
Table 2 — Summary of Sources of Employer Contribution Rate as of June 30, 2009....		12
Table 3 — Determination of Health Insurance Contribution Rate for Fiscal Year 2010/2011 .....		13
Table 4 — Summary of Market Value of Plan Assets as of June 30, 2009 .....		14
Table 5 — Derivation of Actuarial Value of Assets as of June 30, 2009.....		15
Table 6 — Analysis of Change in Unfunded Accrued Liability as of June 30, 2009 .....		16
Table 7 — Schedule of Funding Progress — GASB Statements No. 25 and 43 Disclosure .....		17
Table 8a — Schedule of Employer Contributions for Pensions — GASB Statement No. 25 Disclosure.....		18
Table 8b — Schedule of Employer Contributions for Postemployment Benefits Other than Pensions — GASB Statement No. 43 Disclosure .....		19
Table 9 — Solvency Test — Comparative Summary of Accrued Liability and Actuarial Value of Assets.....		20
Table 10 — History and Projection of Contribution Rates and Funded Ratios .....		21
Table 11 — History and Projection of Annuitants, Beneficiaries, Survivor Annuitants and Active Members .....		22
Table 12 — Description of Actuarial Assumptions and Methods.....		23
Table 13 — Summary of Benefit and Contribution Provisions .....		26
Table 14 — Summary of Membership Data as of June 30, 2009 .....		30
Exhibit I — Active Membership Data as of June 30, 2009 - Number and Average Annual Salary .....		31
Exhibit II — The Number and Average Annual Annuity as of June 30, 2009 – Retired on Account of Superannuation, Early Retirement and Those in Receipt of Withdrawal Annuities.....		32
Exhibit III — The Number and Average Annual Annuity as of June 30, 2009 – Beneficiaries and Survivor Annuitants.....		33
Exhibit IV — The Number and Average Annual Annuity as of June 30, 2009 – Retired on Account of Disability .....		34
Exhibit V — Annuitant and Beneficiary Membership Data as of June 30, 2009.....		35
Exhibit VI — 10-Year History of Membership Data.....		36
Exhibit VII — Detailed Tabulations of the Data.....		38
Exhibit VIII — Glossary.....		52

## **Executive Summary**

This report presents the actuarial valuation as of June 30, 2009 for the Public School Employees' Retirement System of Pennsylvania.

The principal valuation results include:

- The employer contribution rate for fiscal year 2010/2011, which is 8.22%.
- The total funded ratio of the plan determined as of June 30, 2009 under the funding requirements of Section 8328 of the Retirement Code, which is 79.2% 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 experience as of June 30, 2009, which is a loss of \$4.6 billion.
- Annual disclosures as of June 30, 2009 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 8.00% for the June 30, 2009 valuation.

The actuarial assumptions and methods are outlined in Table 12.

## **Contribution Rates**

The results of the valuation as of June 30, 2009 determine the employer contribution rate for fiscal year 2010/2011. The calculated employer contribution rate for the 2010/2011 fiscal year is 8.22%, and the Board of Trustees certified this rate at their December 2009 meeting.

The average contribution rate payable by the members is 7.34%. 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 7.50%. The average member contribution rate of 7.34% 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 4.78% for fiscal year 2009/2010 to 8.22% for fiscal year 2010/2011. The reconciliation of the employer contribution rates by source is as follows:

• FY2009/2010 rate after adjustment for pension floor	4.78%
• Adjustment due to effect of 4% floor on FY 2010 pension contribution	<u>(0.37)</u>
• FY 2009 /2010 rate prior to adjustment for pension floor	4.41%
• Increase due to change in normal rate	0.00
• Net decrease due to payroll growth and liability experience	(0.03)
• Increase due to actuarial loss on assets	2.04
• Increase due to change in interest rate from 8.25% to 8.00%	1.94
• Decrease due to change in health insurance contribution rate	<u>(0.14)</u>
• FY 2010/2011 employer contribution rate	8.22%

## 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, 2009. Comparable results from the June 30, 2008 valuation are also shown.

Item	June 30, 2009	June 30, 2008
<b>Demographics</b>		
Active Members		
• Number	279,701	272,690
• Average Annual Pay	\$ 44,779	\$ 43,718
Annuitants		
• Number	177,963	173,540
• Average Annual Benefit Payment	\$ 22,456	\$ 21,963
<b>Contribution Rates (as a Percentage of Payroll)</b>		
	(Fiscal Year 2010/2011)	(Fiscal Year 2009/2010)
Employer Contribution Rate:		
• Total Pension Contribution Rate	7.58%	4.00%
• Health Insurance Contribution Rate	<u>0.64</u>	<u>0.78</u>
• Total Contribution Rate Calculated by Actuary	8.22%	4.78%
• Total Contribution Rate Certified by Board	8.22%	4.78%
Member Average Contribution Rate		
• Total Rate	<u>7.34</u> 15.56%	<u>7.32</u> 12.10%
<b>Actuarial Funded Status*</b>		
• Accrued Liability	\$ 75,625.9 Mil	\$ 70,941.4 Mil
• Actuarial Value of Assets	<u>59,886.7</u>	<u>61,017.9</u>
• Unfunded Accrued Liability	\$ 15,739.2	\$ 9,923.5
• Funded Ratio	79.2%	86.0%
*Pensions and Health Insurance combined		



## Five-Year History of Principal Financial Results

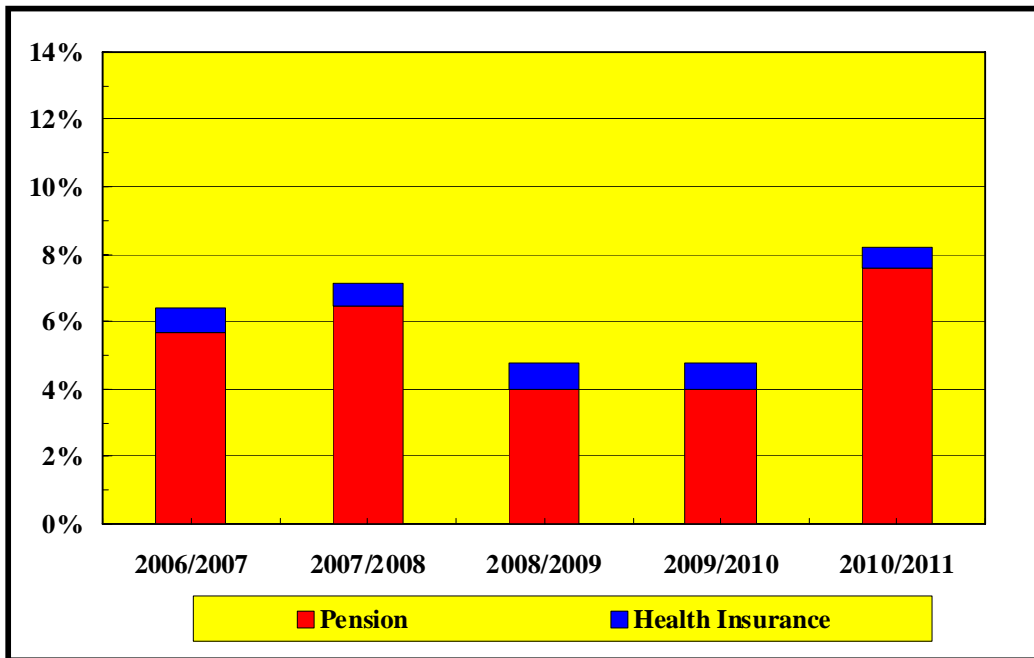
### Five-Year History of Contribution Rates (As a % of Payroll)

Fiscal Year	Member Contributions	Employer Contributions			
		Normal Cost	Unfunded Accrued Liability	Health Insurance	Total*
2010/2011	7.34%	8.08%	(0.50)%	0.64%	8.22%
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

\* 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 8.22% 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 79.2% as of June 30, 2009. This funded ratio is based on an actuarial value of assets of \$59.9 billion and an accrued liability of \$75.6 billion. The funded ratio for Pensions alone is also 79.2% as of June 30, 2009, based on an actuarial value of assets of \$59.8 billion, and an accrued liability of \$75.5 billion.

### **Reasons for Change in the Total Funded Ratio**

The total funded ratio decreased from 86.0% as of June 30, 2008 to 79.2% as of June 30, 2009. This decrease is primarily due to asset losses that occurred during the year and the additional actuarial liability due to the change in the valuation interest rate from 8.25% to 8.00%. There were additional losses due to contributions that were less than the normal cost plus one year's interest on the June 30, 2008 unfunded accrued liability. These losses were partially offset by a net actuarial experience gain.

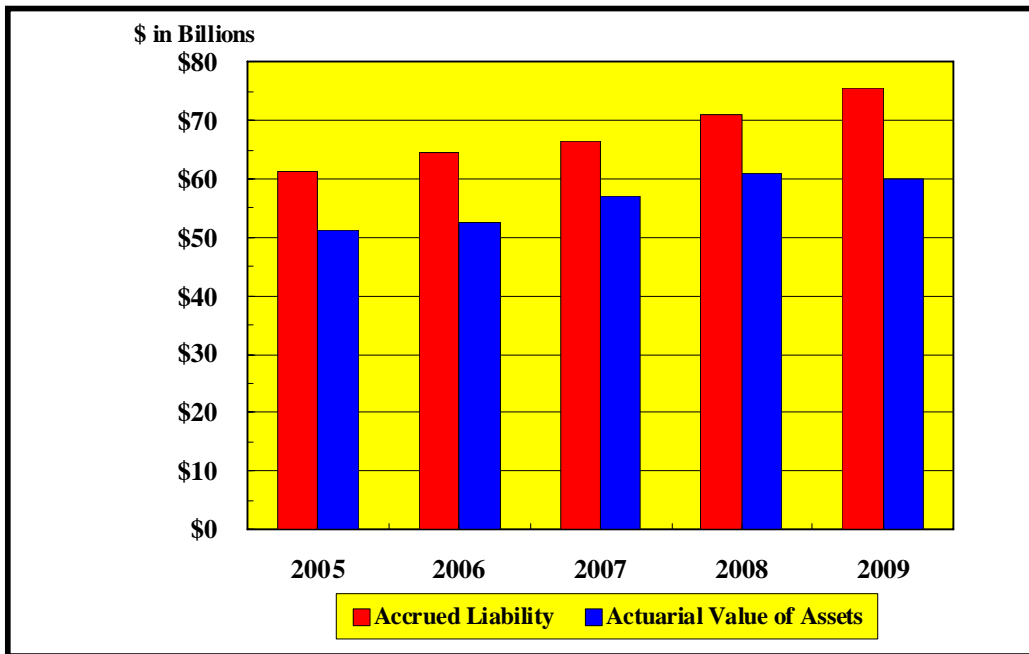
**Five-Year History of  
Total Funded Ratio\***  
(\$ Amounts in Millions)

Valuation as of June 30	Accrued Liability	Actuarial Value of Assets	Unfunded Accrued Liability	Funded Ratio
2009	\$ 75,625.9	\$ 59,886.7	\$ 15,739.2	79.2%
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

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

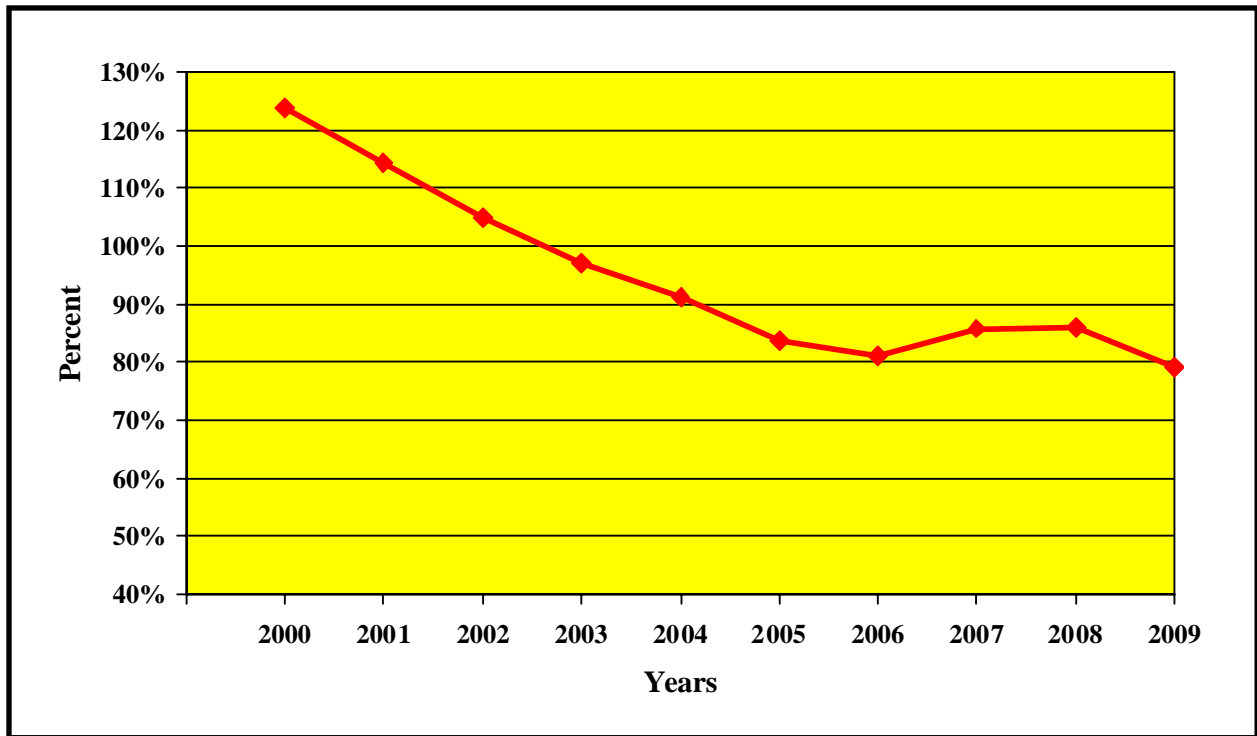
The following chart shows a five-year history of the accrued liability and the actuarial value of assets:

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



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  
(2000 – 2009)**



## **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 79.2% as of June 30, 2009. This funded ratio is based on an actuarial value of pension assets of \$59.8 billion and an accrued liability for pensions of \$75.5 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, 2009, the health insurance assets were \$105,114,000, measured on a market value basis, while the GASB 43 health insurance liabilities were \$1,159,055,000, resulting in a funded ratio of 9.1%.

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 2004/2005 through 2008/2009 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.

Fiscal Year	Rate of Return Based on	
	Market Value*	Actuarial Value
2008/2009	-26.5%	3.5%
2007/2008	-2.8	12.4
2006/2007	22.9	13.9
2005/2006	15.3	7.9
2004/2005	12.9	3.2

\* 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, 2009  
(\$ Amounts in Thousands)**

Item	June 30, 2009	June 30, 2008
<b>Member Data</b>		
1. Number of Members		
a) Active Members	279,701	272,690
b) Inactive Members and Vestees	103,805	100,803
c) Annuitants, Beneficiaries and Survivor Annuitants	177,963	173,540
d) Total	<u>561,469</u>	<u>547,033</u>
2. Annualized Salaries	\$ 12,524,593	\$ 11,921,469
3. Annual Annuities	\$ 3,996,288	\$ 3,811,499
<b>Valuation Results</b>		
4. Present Value of Future Pension Benefits		
a) Active Members	\$ 57,954,419	\$ 53,857,049
b) Inactive Members and Vestees	930,887	941,679
c) Annuitants, Beneficiaries and Survivor Annuitants	37,112,318	34,617,953
d) Total	<u>\$ 95,997,624</u>	<u>\$ 89,416,681</u>
5. Present Value of Future Pension Normal Cost		
a) Active Members	\$ 9,879,309	\$ 9,090,223
b) Employer	10,597,579	9,480,821
c) Total	<u>\$ 20,476,888</u>	<u>\$ 18,571,044</u>
6. Pension Accrued Liability		
a) Active Members (4a) - (5c)	\$ 37,477,531	\$ 35,286,005
b) Inactive Members and Vestees	930,887	941,679
c) Annuitants, Beneficiaries and Survivor Annuitants	37,112,318	34,617,953
d) Total	<u>\$ 75,520,736</u>	<u>\$ 70,845,637</u>
7. Health Insurance Assets for Premium Assistance	\$ 105,114	\$ 95,785
8. Total Accrued Liability for Funding (6) + (7)	\$ 75,625,850	\$ 70,941,422
9. Actuarial Value of Assets	\$ 59,886,689	\$ 61,017,942
10. Funded Status (9) / (8)	79.2 %	86.0 %
11. Unfunded Accrued Liability (8) - (9)	\$ 15,739,161	\$ 9,923,480
12. Total Normal Cost Rate	15.42 %	14.67 %
13. Member Contribution Rate	7.34 %	7.32 %
14. Employer Normal Cost Rate (12) - (13)	8.08 %	7.35 %
<b>Employer Annual Funding Requirement</b>		
15. Employer Contribution Rate Calculated by Actuary	<b>Fiscal 2010/2011</b>	<b>Fiscal 2009/2010</b>
a) Normal	8.08 %	7.35 %
b) Unfunded Accrued Liability	<u>(0.50)</u>	<u>(3.72)</u>
c) Preliminary Pension Rate	7.58 %	3.63 %
d) Preliminary Pension Rate with 4% Floor	7.58	4.00
e) Health Insurance	<u>0.64</u>	<u>0.78</u>
f) Total Rate	8.22 %	4.78 %



**TABLE 2**

**SUMMARY OF SOURCES OF EMPLOYER CONTRIBUTION RATE  
AS OF JUNE 30, 2009  
(\$ Amounts in Thousands)**

	Funding Period (Years)	Beginning July 1	Initial Liability	7/1/2009 Outstanding Balance	Annual Payment Amount	Percent *
1. Amortization of:						
a) 2001 Fresh Start Unfunded Base	10	2002	\$ (9,137,130)	\$ (3,858,968)	\$ (1,499,028)	(11.09)%
b) 2001 Asset Method Change (Act 38)	10	2002	(4,638,306)	(1,958,938)	(760,956)	(5.63)%
c) Other 2001 Changes	30	2002	7,570,507	6,656,353	642,168	4.75 %
d) 2002 Changes	30	2003	3,014,171	2,890,790	274,704	2.03 %
e) 2002 COLA	10	2003	463,795	251,220	75,928	0.56 %
f) 2003 COLA	10	2004	754,524	533,466	133,746	0.99 %
g) 2003 Changes	30	2004	3,229,593	3,336,953	312,757	2.32 %
h) 2004 Changes	30	2005	2,903,093	3,034,742	280,869	2.08 %
i) 2005 Changes	30	2006	3,765,745	3,978,527	363,995	2.69 %
j) 2006 Changes	30	2007	812,226	866,473	78,440	0.58 %
k) 2007 Changes	30	2008	(3,870,741)	(4,165,943)	(373,502)	(2.76)%
l) 2008 Changes	30	2009	(347,095)	(375,730)	(33,388)	(0.25)%
m) 2009 Changes	30	2010	4,550,216	<u>4,550,216</u>	<u>436,519</u>	<u>3.23 %</u>
Total Amortization Payments				\$ 15,739,161	\$ (67,748)	(0.50)%
2. Employer Normal Cost Rate						<u>8.08 %</u>
3. Preliminary Pension Rate (1) + (2)						7.58 %
4. Preliminary Pension Rate with 4% Floor -- Maximum of (3) and 4%						7.58 %
5. Health Insurance Rate						<u>0.64 %</u>
6. Final Total Employer Contribution Rate Calculated by Actuary (4) + (5)						8.22 %

\* Based on Estimated Employer Payroll for Fiscal Year Ending 2011 of \$ 13,510,000.

**TABLE 3**

**DETERMINATION OF HEALTH INSURANCE CONTRIBUTION RATE  
FOR FISCAL YEAR 2010/2011**

(\$ Amounts in Thousands)

Item			
1. June 30, 2009 Balance in Health Insurance Account			\$ 105,114
2. Estimated Fiscal 2009/2010 Contribution			
(a) Contribution Rate Certified in 2008 Valuation			0.78%
(b) Estimated Fiscal 2009/2010 payroll			<u>\$ 12,990,231</u>
(c) Estimated Contribution = (a) x (b)			\$ 101,324
3. Estimated Number of Annuitants who:	Are Eligible	Elect Coverage	
(a) Fiscal 2009/2010	117,100	77,286	
(b) Fiscal 2010/2011	119,900	79,134	
(c) Fiscal 2011/2012	122,600	80,916	
4. Estimated Disbursements:	Administration	Assistance	Total
(a) Fiscal 2009/2010	\$ 2,233	\$ 92,743	\$ 94,976
(b) Fiscal 2010/2011	2,252	94,961	97,213
(c) Fiscal 2011/2012	<u>2,342</u>	<u>97,099</u>	<u>99,441</u>
(d) Total	\$ 6,827	\$ 284,803	\$ 291,630
5. Required Fiscal 2010/2011 Contribution (4d) - (1) -(2c)			\$ 85,192
6. Required Health Insurance Contribution Rate			
(a) Estimated 2010/2011 Payroll			\$ 13,510,000
(b) Required Health Insurance Contribution Rate (5) / (6a) (rounded up)			0.64%

Notes:

1. Current estimates of fiscal 2009/2010 membership payroll and administrative expenses, and of fiscal 2010/2011 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, 2009**

(\$ Amounts in Thousands)

<b>Market Value</b>	
1. Market Value of Assets as of June 30, 2008	\$ 62,569,211
2. Contributions During Fiscal 2008/2009	1,519,500
3. Disbursements During Fiscal 2008/2009	4,750,819
4. Investment Return During Fiscal 2008/2009	
a) Investment Return (Net of Investment Expenses)	\$ (16,199,840)
b) Administrative Expenses	<u>37,458</u>
c) Investment Return After Expenses (a) - (b)	\$ (16,237,298)
5. Market Value of Assets as of June 30, 2009 (1) + (2) - (3) + (4c)	\$ 43,100,594
6. Rate of Return (per Wilshire)	(26.54) %
<b>Asset Allocation by Account</b>	
1. Members' Savings Account	\$ 11,087,345
2. Annuity Reserve Account	37,112,318
3. State Accumulation Account	(5,204,183)
4. Health Insurance Account	105,114
5. Total (1) + (2) + (3) + (4)	\$ 43,100,594

**TABLE 5**

**DERIVATION OF ACTUARIAL VALUE OF ASSETS  
AS OF JUNE 30, 2009\***  
(\$ Amounts in Thousands)

1. Market Value of Assets as of June 30, 2009					\$ 43,100,594
2. Determination of Deferred Gain (Loss)					
	<u>Return on Assets</u>				
<u>Fiscal Year</u>	<u>Actual</u>	<u>Expected</u>	<u>Difference</u>	<u>% Deferred</u>	<u>Deferred Amount</u>
2008/2009	\$ (16,237,298)	\$ 4,900,688	\$ (21,137,986)	80%	\$ (16,910,389)
2007/2008	(1,816,980)	4,728,472	(6,545,452)	60%	(3,927,271)
2006/2007	12,658,871	4,359,054	8,299,817	40%	3,319,927
2005/2006	7,901,068	4,242,878	3,658,190	20%	731,638
					<hr/> \$ (16,786,095)
3. Actuarial Value of Assets (1) - (2)					\$ 59,886,689
4. Actuarial Rate of Return **					3.54%

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

\*\* The actuarial rate of return is the investment return based on the change in the actuarial value of assets from the June 30, 2008 valuation to the June 30, 2009 valuation.

**TABLE 6****ANALYSIS OF CHANGE IN UNFUNDED ACCRUED LIABILITY**

**AS OF JUNE 30, 2009\***  
(\$ Amounts in Thousands)

Item	Amount
1. Unfunded Accrued Liability at June 30, 2008	\$ 9,923,480
2. Interest Credit to June 30, 2009	844,364
3. Contributions Toward Unfunded Accrued Liability	(421,101)
4. Expected Unfunded Accrued Liability at June 30, 2009 (1) + (2) - (3)	\$ 11,188,945
5. Actual Unfunded Accrued Liability at June 30, 2009	<u>\$ 15,739,161</u>
6. Increase (Decrease) from Expected (5) - (4)	\$ 4,550,216
7. Reasons for Increase (Decrease)	
(a) Experience (Gains) Losses	
(i) Loss from Investment Return on Actuarial Value of Assets	\$ 2,800,622
(ii) Loss from New Entrants and Pickups	310,489
(iii) Gain from Salary Increases Less than Expected	(225,166)
(iv) Loss from Mortality Experience	90,538
(v) Gain from Vested Termination Experience (Retirement/Disability/Termination)	(71,915)
(vi) Gain from Non-vested Termination Experience	(215,117)
(vii) Loss from Data/Miscellaneous	<u>75,133</u>
Subtotal	\$ 2,764,584
(b) Change in Assumption	\$ 1,785,632
(c) Grand Total	\$ 4,550,216

\* The amounts reported include assets and liabilities for Pensions only.

**TABLE 7**

**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
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
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

\* 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
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
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**

(\$ Amounts in Thousands)

Fiscal Year Ended June 30	Annual Required Contribution	Actual Employer Contribution	Percentage Contributed
2009	\$ 1,761,295	\$ 503,227	29 %
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

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, 2009 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: 6/30/2009  
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 \* 8.00%  
- 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  
(\$ Amounts in Thousands)**

Fiscal Year Ended June 30	Annual Required Contribution	Actual Employer Contribution	Percentage Contributed
2009	\$ 109,531	\$ 92,493	84 %
2008	101,352	81,317	80
2007	94,970	86,763	91

The fiscal year ended June 30, 2009 Annual Required Contribution (ARC) presented above 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, 2009 was determined by the valuation completed as of June 30, 2007, which was based on an 8.50% interest rate.) Prior to that, 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:	6/30/2009
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 *	8.00%
- Projected Salaried Increases *	6.00%

* Includes Inflation at:	3.25%
--------------------------	-------



**TABLE 9**

**SOLVENCY TEST  
COMPARATIVE SUMMARY OF ACCRUED LIABILITY AND  
ACTUARIAL VALUE OF ASSETS\***  
(\$ 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)
2009	\$ 11,087,345	\$ 37,217,432	\$ 27,321,073	\$ 59,886,689	100 %	100 %	42 %
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

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

**TABLE 10****HISTORY AND PROJECTION OF CONTRIBUTION RATES AND FUNDED RATIOS<sup>1</sup>**

Fiscal Year Ending June	Appropriation Payroll (thousands)	Contribution Rates <sup>2</sup>							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 <sup>3</sup>	9,378,944	6.43	5.63	(6.05)	(0.42)	0.00	1.09	1.09	104.8
2003 <sup>4</sup>	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 <sup>5</sup>	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 <sup>6</sup>	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	<b>79.2</b>
2010 <sup>7</sup>	12,899,000	7.32	7.35	(3.72)	3.63	4.00	0.78	4.78	73.4
<b>2011<sup>7</sup></b>	<b>13,510,000</b>	<b>7.34</b>	<b>8.08</b>	<b>(0.50)</b>	<b>7.58</b>	<b>7.58</b>	<b>0.64</b>	<b>8.22</b>	66.8
2012	13,920,859	7.37	8.02	1.85	9.87	9.87	0.72	10.59	58.3
2013	14,345,321	7.38	8.00	20.50	28.50	28.50	0.72	29.22	54.2
2014	14,797,664	7.40	7.96	23.42	31.38	31.38	0.71	32.09	55.1
2015	15,280,148	7.42	7.93	24.97	32.90	32.90	0.70	33.60	56.7
2016	15,794,512	7.43	7.91	24.68	32.59	32.59	0.68	33.27	58.5
2017	16,341,270	7.44	7.89	24.18	32.07	32.07	0.67	32.74	60.5
2018	16,926,735	7.45	7.87	23.54	31.41	31.41	0.65	32.06	62.6
2019	17,557,664	7.46	7.85	22.78	30.63	30.63	0.64	31.27	64.7
2020	18,232,076	7.46	7.84	21.97	29.81	29.81	0.61	30.42	66.8
2021	18,948,040	7.47	7.82	21.15	28.97	28.97	0.59	29.56	68.9

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
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
<b>2009</b>			<b>169,919</b>	<b>8,044</b>	<b>177,963</b>	<b>279,701</b>
2010	15,634	4,666	180,887	8,590	189,477	279,701
2011	12,845	4,808	188,924	9,099	198,023	279,701
2012	12,936	5,014	196,846	9,566	206,412	279,701
2013	12,870	5,226	204,490	10,003	214,493	279,701
2014	12,674	5,422	211,742	10,414	222,156	279,701
2015	12,137	5,618	218,261	10,812	229,073	279,701
2016	11,747	5,823	224,185	11,200	235,385	279,701
2017	11,634	6,019	229,800	11,582	241,382	279,701
2018	11,431	6,211	235,020	11,965	246,985	279,701
2019	11,405	6,406	240,019	12,346	252,365	279,701

\* 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:** 8.00% per annum, compounded annually (adopted as of June 30, 2009). The components are 3.25% for inflation and 4.75% 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):

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				
<b>MALES</b>							
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
<b>FEMALES</b>							
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 tables 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 8.00% (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 five years (adopted as of June 30, 2001).

**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

## TABLE 12

### DESCRIPTION OF ACTUARIAL ASSUMPTIONS AND METHODS

(Continued)

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 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, 2009 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, 2009, the adjusted limit is \$230,000.

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, 2009**

(\$ Amounts in Thousands)

**ACTIVE MEMBERS \***

Item	Male	Female	Total
Number of Members	75,892	203,809	279,701
Annual Salaries **	\$ 3,841,116	\$ 8,683,477	\$ 12,524,593
Average Age ***	44.4	44.7	44.6
Average Service ***	11.2	10.3	10.6

\* Excludes 103,805 inactive members and vestees.

\*\* The salaries shown in the table above represent an annual rate of pay for the year ended June 30, 2009 for members who were in active service on June 30, 2009.

\*\*\* Average completed years of age and service.

**ANNUITANTS AND BENEFICIARIES**

Item	Number	Annual Annuities <sup>#</sup>	Average Annuities	Average Age
Annuitants (Normal, Early and Withdrawal)	162,206	\$ 3,786,453	\$ 23,343	69.8
Survivors and Beneficiaries	8,044	79,117	9,836	76.0
Disabled Annuitants	<u>7,713</u>	<u>130,718</u>	16,948	63.1
Total	177,963	\$ 3,996,288	\$ 22,456	69.8

# The annuities shown in the table above represent the annual amount payable as of July 1, 2009 for participants who were in payment on June 30, 2009.

**EXHIBIT I**

**ACTIVE MEMBERSHIP DATA AS OF JUNE 30, 2009  
NUMBER AND AVERAGE ANNUAL SALARY**

Age	Service									Total
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	
<b>Under 25</b>	9,816 \$29,755	40 \$31,693								9,856 \$29,763
<b>25-29</b>	22,062 \$38,142	6,916 \$48,524	45 \$37,810							29,023 \$40,615
<b>30-34</b>	10,503 \$35,593	14,102 \$51,508	3,905 \$58,932	38 \$45,548						28,548 \$46,660
<b>35-39</b>	9,870 \$27,882	8,228 \$49,650	11,188 \$61,644	2,521 \$68,025	67 \$45,430					31,874 \$48,563
<b>40-44</b>	11,400 \$23,699	7,062 \$39,555	6,207 \$56,075	6,344 \$69,048	2,113 \$68,596	72 \$46,867				33,198 \$44,699
<b>45-49</b>	11,113 \$22,561	8,967 \$33,006	6,237 \$44,546	4,108 \$60,116	4,995 \$70,016	1,824 \$66,205	135 \$43,734			37,379 \$41,410
<b>50-54</b>	8,409 \$23,503	8,241 \$32,944	7,732 \$41,292	5,198 \$52,421	4,573 \$63,062	5,096 \$72,334	3,773 \$73,102	103 \$45,527		43,125 \$46,339
<b>55-59</b>	5,520 \$23,524	5,356 \$33,286	5,638 \$42,018	5,563 \$51,144	5,233 \$59,278	3,546 \$68,459	6,752 \$77,872	2,273 \$80,051	26 \$47,947	39,907 \$52,409
<b>60-64</b>	3,274 \$20,442	2,772 \$30,332	2,530 \$38,032	2,659 \$45,206	2,800 \$51,342	1,921 \$58,440	1,242 \$66,428	1,182 \$80,259	278 \$80,973	18,658 \$44,128
<b>Over 64</b>	2,466 \$14,637	1,520 \$21,555	1,091 \$27,635	855 \$34,105	773 \$39,126	557 \$40,252	421 \$42,200	221 \$52,802	229 \$75,317	8,133 \$27,974
<b>Total</b>	94,433 \$28,952	63,204 \$41,353	44,573 \$50,028	27,286 \$57,340	20,554 \$61,803	13,016 \$66,855	12,323 \$73,665	3,779 \$77,581	533 \$76,932	279,701 \$44,779

**EXHIBIT II**

**THE NUMBER AND AVERAGE ANNUAL ANNUITY  
AS OF JUNE 30, 2009**

**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+		
<b>Under 50</b>		2,694	1,145	366	116	19					4,340
		\$835	\$1,934	\$4,584	\$9,566	\$14,953					\$1,730
<b>50-54</b>		798	953	469	253	160	91	6			2,730
		\$1,380	\$1,821	\$4,455	\$10,029	\$20,884	\$32,112	\$35,219			\$5,101
<b>55-59</b>		691	1,917	1,034	817	1,404	5,936	2,412	3		14,214
		\$4,243	\$2,249	\$6,121	\$15,336	\$32,034	\$45,524	\$54,047	\$60,065		\$33,187
<b>60-64</b>	365	831	3,135	2,243	2,068	3,245	11,982	9,816	218		33,903
	\$7,402	\$3,694	\$3,269	\$9,141	\$19,068	\$29,914	\$41,171	\$54,349	\$59,654		\$35,767
<b>65-69</b>	706	1,271	3,138	3,152	2,998	3,754	9,397	6,189	715		31,320
	\$3,700	\$3,376	\$4,367	\$9,050	\$15,752	\$24,788	\$34,785	\$46,722	\$60,252		\$27,091
<b>70-74</b>	750	1,026	2,787	2,740	3,101	3,499	5,131	3,870	929		23,833
	\$1,386	\$2,615	\$3,939	\$7,419	\$12,270	\$20,001	\$29,530	\$37,680	\$47,554		\$20,332
<b>75-79</b>	760	1,031	2,550	2,499	2,880	3,168	3,564	2,609	1,105		20,166
	\$4,004	\$2,067	\$3,458	\$6,347	\$11,009	\$17,438	\$25,965	\$35,543	\$42,255		\$17,295
<b>80-84</b>	778	979	2,344	2,482	2,623	2,466	2,094	1,641	748		16,155
	\$5,772	\$1,732	\$3,346	\$6,276	\$10,939	\$16,650	\$22,635	\$29,621	\$39,715		\$13,932
<b>85-89</b>	766	670	1,527	1,657	1,442	1,360	956	996	335		9,709
	\$6,411	\$1,785	\$3,344	\$6,003	\$9,963	\$14,419	\$19,106	\$23,988	\$33,638		\$11,182
<b>Over 89</b>	270	483	1,007	902	836	746	549	648	395		5,836
	\$3,850	\$1,983	\$3,749	\$6,592	\$10,147	\$13,633	\$18,457	\$21,967	\$26,494		\$11,173
<b>Total</b>	4,395	10,474	20,503	17,544	17,134	19,821	39,700	28,187	4,448		162,206
	\$4,514	\$2,130	\$3,352	\$7,226	\$13,079	\$21,936	\$35,592	\$45,356	\$44,644		\$23,343

**EXHIBIT III**

**THE NUMBER AND AVERAGE ANNUAL ANNUITY  
AS OF JUNE 30, 2009**

**BENEFICIARIES AND SURVIVOR ANNUITANTS**

Age	Years of Service								Total
	0-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	
<b>Under 50</b>	82 \$7,817	32 \$1,716	28 \$3,461	33 \$5,076	27 \$7,100	23 \$12,755	9 \$16,412	11 \$11,832	245 \$7,034
<b>50-54</b>	69 \$9,356	21 \$1,934	26 \$2,799	24 \$5,769	18 \$9,116	15 \$20,814	16 \$11,913	10 \$12,710	199 \$8,500
<b>55-59</b>	123 \$14,768	23 \$3,629	26 \$4,191	38 \$6,544	40 \$12,778	68 \$13,646	38 \$16,317	11 \$8,607	367 \$12,020
<b>60-64</b>	172 \$16,059	36 \$2,736	30 \$4,009	40 \$6,098	58 \$11,464	138 \$15,549	120 \$19,099	25 \$14,316	619 \$14,031
<b>65-69</b>	190 \$15,068	56 \$3,240	68 \$5,155	59 \$7,039	64 \$11,683	156 \$17,356	148 \$20,687	36 \$15,556	777 \$14,012
<b>70-74</b>	220 \$11,504	100 \$2,995	84 \$4,527	85 \$7,641	85 \$11,143	160 \$14,149	153 \$19,150	72 \$18,767	959 \$11,838
<b>75-79</b>	247 \$9,665	112 \$2,883	133 \$4,309	126 \$6,627	117 \$9,020	206 \$12,695	173 \$14,768	105 \$20,900	1,219 \$10,286
<b>80-84</b>	330 \$7,465	149 \$2,633	136 \$3,940	154 \$6,506	162 \$8,726	183 \$11,174	229 \$11,996	102 \$16,733	1,445 \$8,516
<b>85-89</b>	249 \$6,382	149 \$2,384	136 \$3,627	128 \$5,517	143 \$7,299	146 \$9,552	240 \$11,011	100 \$12,714	1,291 \$7,356
<b>Over 89</b>	142 \$4,485	110 \$2,099	77 \$3,507	80 \$5,169	72 \$7,226	112 \$7,028	178 \$9,063	152 \$10,223	923 \$6,528
<b>Total</b>	1,824 \$10,052	788 \$2,614	744 \$4,035	767 \$6,284	786 \$9,236	1,207 \$12,835	1,304 \$14,417	624 \$14,980	8,044 \$9,836

**EXHIBIT IV**

**THE NUMBER AND AVERAGE ANNUAL ANNUITY  
AS OF JUNE 30, 2009**

**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+		
<b>Under 50</b>		242	145	90	37	12					526
		\$11,504	\$14,032	\$20,412	\$25,284	\$26,131					\$15,028
<b>50-54</b>		214	177	151	127	99	13	1			782
		\$10,048	\$12,521	\$16,491	\$25,098	\$37,413	\$45,176	\$29,573			\$18,312
<b>55-59</b>		284	298	258	255	328	160				1,583
		\$9,388	\$11,950	\$17,499	\$24,134	\$36,229	\$47,983				\$23,030
<b>60-64</b>		292	329	303	333	384	207	3	1		1,852
		\$7,464	\$10,087	\$13,722	\$22,632	\$30,818	\$42,852	\$42,642	\$1,755		\$20,516
<b>65-69</b>		198	281	242	242	178	49	2			1,192
		\$5,730	\$8,116	\$10,568	\$17,167	\$26,066	\$33,816	\$47,699			\$13,858
<b>70-74</b>		129	182	159	128	91	25	2			716
		\$5,517	\$7,033	\$8,663	\$14,078	\$20,517	\$29,012	\$42,997			\$10,963
<b>75-79</b>		86	133	128	89	46	7	1			490
		\$3,921	\$5,954	\$8,837	\$13,010	\$20,079	\$22,730	\$43,179			\$9,274
<b>80-84</b>		69	107	47	69	42	6	1	1		342
		\$3,877	\$5,874	\$8,267	\$12,527	\$17,214	\$24,289	\$24,751	\$54,601		\$9,056
<b>85-89</b>		40	37	25	25	17	8	2			154
		\$3,854	\$6,743	\$7,382	\$10,338	\$15,288	\$18,540	\$35,460			\$8,609
<b>Over 89</b>		12	24	14	8	8	10				76
		\$3,246	\$4,856	\$8,794	\$10,031	\$16,327	\$21,642				\$9,288
<b>Total</b>		1,566	1,713	1,417	1,313	1,205	485	12	2		7,713
		\$7,934	\$9,619	\$13,241	\$19,901	\$30,081	\$41,529	\$39,812	\$28,178		\$16,948

**EXHIBIT V**

**ANNUITANT AND BENEFICIARY MEMBERSHIP DATA  
AS OF JUNE 30, 2009**

**NUMBER AND AVERAGE ANNUAL BENEFIT  
EXCLUDES PARTIAL LUMP SUM PAYMENTS**

Age Last Birthday	Number	Annual Benefit (Thousands)	Average Annual Benefit
<b>Annuitants (Normal, Early and Withdrawal)</b>			
Under 60	21,284	\$ 493,158	\$ 23,170
60 - 64	33,903	1,212,609	35,767
65 - 69	31,320	848,505	27,091
70 - 74	23,833	484,580	20,332
75 - 79	20,166	348,765	17,295
Over 79	31,700	398,836	12,582
Total	162,206	\$ 3,786,453	\$ 23,343
<b>Survivors and Beneficiaries</b>			
Under 60	811	\$ 7,826	\$ 9,650
60 - 64	619	8,685	14,031
65 - 69	777	10,887	14,012
70 - 74	959	11,352	11,838
75 - 79	1,219	12,538	10,286
Over 79	3,659	27,829	7,606
Total	8,044	\$ 79,117	\$ 9,836
<b>Disabled Annuitants</b>			
Under 60	2,891	\$ 58,681	\$ 20,298
60 - 64	1,852	37,996	20,516
65 - 69	1,192	16,519	13,858
70 - 74	716	7,849	10,963
75 - 79	490	4,544	9,274
Over 79	572	5,129	8,967
Total	7,713	\$ 130,718	\$ 16,948
<b>Grand Total Average Annual Benefit</b>			
	177,963	\$ 3,996,288	\$ 22,456



**EXHIBIT VI**

**10 YEAR HISTORY OF MEMBERSHIP DATA**

Valuation as of June 30	Number of Active Members	Percentage Change in Membership	Total Annual Payroll (Thousands)	Percentage Change in Payroll
2009	279,701	2.57%	\$ 12,524,593	5.06%
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%

**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	Annual Annuities (Millions)	Average Annual Annuities	Additions*	Annual Annuities* (Millions)	Deletions*	Annual Annuities* (Millions)	Percentage Change in Membership	Percentage Change in Annuities
2009	177,963	\$ 3,996.3	\$ 22,456	9,651	\$ 314.9	5,228	\$ 74.4	2.55%	4.85%
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%

\* 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.

**EXHIBIT VII**

**DETAILED TABULATIONS OF THE DATA**

**TABLE 1**

**THE NUMBER AND ANNUAL SALARIED  
OF MEMBERS IN ACTIVE SERVICE DISTRIBUTED BY  
AGE AS OF JUNE 30, 2009**

Age	Male		Female		Total	
	Number	Salaries	Number	Salaries	Number	Salaries
17	11	\$ 177,043	5	\$ 86,996	16	\$ 264,039
18	36	401,101	27	288,465	63	689,566
19	95	1,196,925	68	636,431	163	1,833,356
20	165	2,331,614	144	1,632,097	309	3,963,712
21	203	3,271,134	223	3,026,543	426	6,297,677
22	309	6,237,194	771	19,473,677	1,080	25,710,870
23	884	25,851,849	2,356	74,994,563	3,240	100,846,412
24	1,189	38,847,585	3,370	114,888,188	4,559	153,735,773
25	1,332	47,358,100	3,820	141,095,034	5,152	188,453,133
26	1,415	53,754,009	4,143	160,698,346	5,558	214,452,354
27	1,641	65,148,661	4,369	179,085,288	6,010	244,233,949
28	1,684	71,503,519	4,365	186,368,149	6,049	257,871,668
29	1,844	83,013,225	4,410	190,753,397	6,254	273,766,622
30	1,764	80,557,024	4,280	189,218,009	6,044	269,775,033
31	1,744	83,772,223	3,941	178,344,323	5,685	262,116,546
32	1,783	86,669,717	3,933	179,668,789	5,716	266,338,506
33	1,762	90,463,125	3,775	177,488,279	5,537	267,951,404
34	1,731	90,068,586	3,835	175,810,366	5,566	265,878,951
35	1,738	97,313,684	3,752	175,282,830	5,490	272,596,514
36	1,879	105,364,499	4,008	180,651,901	5,887	286,016,400
37	1,932	108,085,386	4,499	201,500,720	6,431	309,586,107
38	2,085	115,845,613	5,039	229,059,276	7,124	344,904,889
39	1,900	108,257,587	5,042	226,550,362	6,942	334,807,949
40	1,837	103,982,126	4,863	210,284,914	6,700	314,267,040
41	1,707	98,361,399	4,729	199,984,729	6,436	298,346,128
42	1,685	94,869,012	4,890	199,093,653	6,575	293,962,665
43	1,727	96,944,257	4,844	189,194,748	6,571	286,139,005
44	1,672	90,457,579	5,244	200,753,986	6,916	291,211,565
45	1,744	95,493,236	5,481	204,177,580	7,225	299,670,816
46	1,724	90,157,408	5,477	207,319,014	7,201	297,476,422
47	1,720	89,937,275	5,684	214,644,923	7,404	304,582,199
48	1,873	98,203,004	6,030	229,960,309	7,903	328,163,313
49	1,838	96,801,266	5,808	221,164,185	7,646	317,965,451
50	1,936	100,403,885	6,106	241,695,688	8,042	342,099,573
51	2,002	106,991,572	6,418	266,858,391	8,420	373,849,963
52	2,139	117,795,647	6,677	288,596,982	8,816	406,392,630
53	2,125	118,216,469	6,648	305,715,845	8,773	423,932,313
54	2,283	130,249,415	6,791	321,858,935	9,074	452,108,350
55	2,159	124,697,933	6,771	335,753,150	8,930	460,451,083
56	2,250	132,038,760	6,630	341,756,560	8,880	473,795,320

**TABLE 1  
(Continued)**

**THE NUMBER AND ANNUAL SALARIED  
OF MEMBERS IN ACTIVE SERVICE DISTRIBUTED BY  
AGE AS OF JUNE 30, 2009**

Age	Male		Female		Total	
	Number	Salaries	Number	Salaries	Number	Salaries
57	2,201	\$ 128,103,603	6,272	\$ 321,364,443	8,473	\$ 449,468,046
58	1,894	111,394,865	5,526	279,582,969	7,420	390,977,834
59	1,677	93,894,264	4,527	222,899,923	6,204	316,794,187
60	1,536	83,856,078	3,960	183,150,981	5,496	267,007,059
61	1,333	65,683,142	3,439	148,750,484	4,772	214,433,626
62	1,224	57,181,904	3,001	123,082,393	4,225	180,264,296
63	692	29,949,951	1,511	57,620,362	2,203	87,570,313
64	616	25,068,609	1,346	48,988,835	1,962	74,057,444
65	568	20,674,875	1,013	34,555,359	1,581	55,230,234
66	483	17,210,712	825	27,175,703	1,308	44,386,415
67	405	12,975,431	619	16,717,134	1,024	29,692,565
68	275	8,015,123	457	10,937,789	732	18,952,912
69	297	8,007,508	392	9,588,797	689	17,596,305
70	212	5,722,558	309	6,914,928	521	12,637,486
71	191	5,462,801	263	6,130,591	454	11,593,392
72	156	4,004,362	220	5,037,954	376	9,042,316
73	124	3,057,020	181	3,126,639	305	6,183,659
74	96	1,815,820	141	2,768,056	237	4,583,877
75	86	1,943,154	120	2,241,407	206	4,184,561
76	64	1,571,223	102	1,857,602	166	3,428,825
77	55	1,256,311	77	1,344,078	132	2,600,388
78	48	922,145	65	1,174,763	113	2,096,908
79	30	783,203	43	708,126	73	1,491,329
80	28	414,133	28	483,532	56	897,665
81	15	358,688	31	570,792	46	929,480
82	11	212,073	21	335,144	32	547,217
83	8	126,737	19	280,068	27	406,805
84	8	144,415	15	276,748	23	421,163
85	7	77,782	17	293,573	24	371,355
86	4	101,858	2	65,206	6	167,063
87	1	36,484	1	36,966	2	73,450
<b>Total</b>	75,892	3,841,116,479	203,809	8,683,476,965	279,701	12,524,593,444

**TABLE 2**

**THE NUMBER AND ANNUAL SALARIES  
OF MEMBERS IN ACTIVE SERVICE DISTRIBUTED BY  
YEARS OF CREDITED SERVICE AS OF JUNE 30, 2009**

Service	Male		Female		Total	
	Number	Salaries	Number	Salaries	Number	Salaries
0	4,971	\$ 82,871,156	11,382	\$ 202,981,359	16,353	\$ 285,852,515
1	5,996	169,095,511	17,046	429,594,290	23,042	598,689,801
2	4,922	172,702,173	15,094	438,948,973	20,016	611,651,146
3	4,640	178,139,848	14,053	456,399,666	18,693	634,539,515
4	4,178	175,651,548	12,151	427,598,880	16,329	603,250,429
5	3,618	160,720,749	10,715	397,168,145	14,333	557,888,894
6	3,299	154,291,758	9,678	367,012,723	12,977	521,304,481
7	3,222	158,204,034	9,213	362,680,949	12,435	520,884,983
8	2,984	147,632,986	9,017	360,074,027	12,001	507,707,012
9	2,782	147,685,400	8,676	358,186,832	11,458	505,872,232
10	3,233	179,072,412	8,539	377,590,291	11,772	556,662,702
11	2,667	150,429,654	7,020	317,894,192	9,687	468,323,846
12	2,676	159,139,206	6,280	298,139,408	8,956	457,278,614
13	2,105	125,338,416	5,334	260,904,985	7,439	386,243,400
14	1,867	115,890,937	4,852	245,520,454	6,719	361,411,391
15	1,674	102,433,413	4,354	228,989,870	6,028	331,423,284
16	2,004	129,958,393	4,614	250,334,940	6,618	380,293,334
17	1,401	89,228,812	3,790	210,006,783	5,191	299,235,595
18	1,200	75,627,914	3,519	197,035,394	4,719	272,663,309
19	1,220	79,659,698	3,510	201,305,640	4,730	280,965,338
20	1,309	84,191,722	3,473	201,231,304	4,782	285,423,026
21	1,230	80,273,862	3,356	198,500,270	4,586	278,774,132
22	1,165	77,823,491	2,938	179,002,128	4,103	256,825,619
23	980	65,197,009	2,758	169,157,533	3,738	234,354,541
24	904	60,360,013	2,441	154,563,386	3,345	214,923,398
25	842	56,203,601	2,022	128,965,557	2,864	185,169,158
26	831	53,812,053	1,778	116,643,593	2,609	170,455,646
27	661	44,462,673	1,637	108,992,925	2,298	153,455,598
28	703	48,463,536	1,739	116,923,113	2,442	165,386,649
29	796	57,733,793	2,007	137,986,402	2,803	195,720,195
30	897	65,666,063	1,981	138,408,327	2,878	204,074,390
31	816	62,799,967	1,802	130,882,991	2,618	193,682,959
32	826	64,074,655	1,670	121,588,367	2,496	185,663,022
33	796	61,339,032	1,527	111,830,281	2,323	173,169,313
34	724	56,985,613	1,284	94,203,796	2,008	151,189,408
35	570	46,077,867	918	67,875,050	1,488	113,952,916
36	347	29,722,946	560	41,347,860	907	71,070,805
37	281	23,171,451	372	26,807,308	653	49,978,759
38	185	16,504,469	235	17,043,651	420	33,548,120
39	140	12,112,308	171	12,516,891	311	24,629,199

**TABLE 2**  
(Continued)

**THE NUMBER AND ANNUAL SALARIES  
OF MEMBERS IN ACTIVE SERVICE DISTRIBUTED BY  
YEARS OF CREDITED SERVICE AS OF JUNE 30, 2009**

Service	Male		Female		Total	
	Number	Salaries	Number	Salaries	Number	Salaries
40	74	\$ 6,577,223	96	\$ 6,817,066	170	\$ 13,394,289
41	53	4,640,862	67	4,533,102	120	9,173,964
42	31	2,378,543	37	2,542,352	68	4,920,895
43	24	2,369,741	31	1,903,940	55	4,273,680
44	14	1,230,561	13	713,754	27	1,944,314
45	13	1,378,285	10	712,069	23	2,090,354
46	7	628,649	10	700,694	17	1,329,343
47	1	39,701	11	884,857	12	924,558
48	4	348,655	5	410,371	9	759,026
49	2	162,098	4	236,888	6	398,986
50	4	402,421	3	217,860	7	620,281
51	1	105,000	4	210,081	5	315,081
52			1	36,046	1	36,046
53	1	70,935	2	169,530	3	240,465
54			3	218,768	3	218,768
55	1	33,663	2	106,089	3	139,751
56			1	39,631	1	39,631
62			1	71,571	1	71,571
65			1	67,625	1	67,625
66			1	46,136	1	46,136
<b>Total</b>	75,892	3,841,116,479	203,809	8,683,476,965	279,701	\$ 12,524,593,444

**TABLE 3**

**THE NUMBER AND ANNUAL ANNUITIES  
OF ANNUITANTS ON THE RETIRED LIST  
AS OF JUNE 30, 2009**

**RETIRED ON ACCOUNT OF SUPERANNUATION, EARLY RETIREMENT AND  
THOSE IN RECEIPT OF WITHDRAWAL ANNUITIES**

Age	Male		Female		Totals	
	Number	Annuities	Number	Annuities	Number	Annuities
25			1	\$ 131	1	\$ 131
26	1	\$ 349	2	540	3	889
27	3	1,931	3	842	6	2,773
28	3	1,575	10	4,380	13	5,955
29	14	9,415	20	7,766	34	17,181
30	13	8,245	22	9,508	35	17,753
31	29	22,231	37	21,794	66	44,025
32	25	17,786	60	56,821	85	74,607
33	42	30,962	73	48,501	115	79,463
34	29	23,835	86	58,267	115	82,102
35	55	54,477	93	62,881	148	117,358
36	45	42,876	91	66,699	136	109,575
37	56	62,206	112	102,091	168	164,297
38	67	84,140	131	140,345	198	224,485
39	70	109,674	156	183,334	226	293,008
40	81	146,927	146	162,811	227	309,738
41	58	104,582	151	233,502	209	338,084
42	94	200,705	173	224,046	267	424,751
43	85	197,313	169	265,597	254	462,910
44	90	219,158	188	337,714	278	556,872
45	83	228,523	228	350,843	311	579,366
46	117	311,995	223	400,770	340	712,765
47	103	285,851	225	469,013	328	754,864
48	119	498,268	253	594,337	372	1,092,605
49	127	487,487	278	556,281	405	1,043,768
50	130	584,971	302	762,834	432	1,347,805
51	163	710,167	337	940,326	500	1,650,493
52	157	777,955	413	1,650,724	570	2,428,679
53	178	1,334,860	398	2,139,574	576	3,474,434
54	178	1,670,179	474	3,354,173	652	5,024,352
55	282	4,327,093	692	9,767,512	974	14,094,605
56	484	14,754,534	1,148	27,057,690	1,632	41,812,224
57	811	29,034,683	1,867	57,954,496	2,678	86,989,179
58	1,311	52,671,945	2,768	93,114,294	4,079	145,786,239
59	1,611	67,808,713	3,240	115,231,747	4,851	183,040,460
60	2,034	88,123,785	3,570	128,773,563	5,604	216,897,348
61	2,460	103,957,220	3,988	144,107,233	6,448	248,064,453
62	3,287	131,247,782	4,885	164,696,340	8,172	295,944,122
63	2,974	113,420,785	4,392	135,580,349	7,366	249,001,134
64	2,583	93,303,585	3,730	109,398,093	6,313	202,701,678



**TABLE 3**  
(Continued)

**THE NUMBER AND ANNUAL ANNUITIES  
OF ANNUITANTS ON THE RETIRED LIST  
AS OF JUNE 30, 2009**

**RETIRED ON ACCOUNT OF SUPERANNUATION, EARLY RETIREMENT AND  
THOSE IN RECEIPT OF WITHDRAWAL ANNUITIES**

Age	Male		Female		Totals	
	Number	Annuities	Number	Annuities	Number	Annuities
65	2,490	\$ 86,646,800	3,779	\$ 102,251,454	6,269	\$ 188,898,254
66	2,722	91,222,280	4,203	104,591,574	6,925	195,813,854
67	2,764	89,911,429	4,093	96,084,189	6,857	185,995,618
68	2,224	66,064,809	3,746	84,032,104	5,970	150,096,913
69	1,971	58,378,584	3,328	69,321,321	5,299	127,699,905
70	1,809	47,907,892	3,211	62,455,467	5,020	110,363,359
71	1,842	47,365,530	3,184	59,292,460	5,026	106,657,990
72	1,762	44,583,428	2,986	51,138,866	4,748	95,722,294
73	1,726	43,419,483	2,914	48,856,421	4,640	92,275,904
74	1,595	37,138,498	2,804	42,422,362	4,399	79,560,860
75	1,545	35,813,580	2,573	38,856,350	4,118	74,669,930
76	1,490	33,346,585	2,478	35,715,860	3,968	69,062,445
77	1,536	34,275,600	2,615	36,890,953	4,151	71,166,553
78	1,418	32,777,677	2,663	38,778,136	4,081	71,555,813
79	1,376	28,219,597	2,472	34,090,449	3,848	62,310,046
80	1,178	23,005,065	2,370	29,932,381	3,548	52,937,446
81	1,101	20,940,953	2,444	29,881,518	3,545	50,822,471
82	1,088	18,999,096	2,253	26,959,603	3,341	45,958,699
83	947	17,134,737	2,081	23,942,870	3,028	41,077,607
84	867	15,224,423	1,826	19,049,297	2,693	34,273,720
85	719	11,849,906	1,763	18,340,179	2,482	30,190,085
86	599	9,101,924	1,527	14,814,358	2,126	23,916,282
87	493	6,908,337	1,413	13,311,846	1,906	20,220,183
88	388	5,780,062	1,286	12,652,313	1,674	18,432,375
89	335	4,707,944	1,186	11,095,355	1,521	15,803,299
90	210	2,843,121	918	8,719,814	1,128	11,562,935
91	209	2,535,283	865	8,704,423	1,074	11,239,706
92	151	1,862,459	725	7,204,902	876	9,067,361
93	138	1,633,455	567	5,710,609	705	7,344,064
94	86	1,049,954	454	4,998,523	540	6,048,477
95	59	877,056	370	4,182,872	429	5,059,928
96	41	548,909	282	3,557,120	323	4,106,029
97	34	489,103	226	3,096,898	260	3,586,001
98	15	211,845	146	1,979,874	161	2,191,719
99	10	154,847	110	1,514,290	120	1,669,137
100	14	276,077	74	1,119,248	88	1,395,325
101	2	29,324	49	643,281	51	672,605
102	3	54,737	40	592,646	43	647,383
103			19	280,603	19	280,603
104	1	5,152	7	132,835	8	137,987

**TABLE 3**  
(Continued)

**THE NUMBER AND ANNUAL ANNUITIES  
OF ANNUITANTS ON THE RETIRED LIST  
AS OF JUNE 30, 2009**

**RETIRED ON ACCOUNT OF SUPERANNUATION, EARLY RETIREMENT AND  
THOSE IN RECEIPT OF WITHDRAWAL ANNUITIES**

Age	Male		Female		Totals	
	Number	Annuities	Number	Annuities	Number	Annuities
105	1	\$ 16,868	2	\$ 44,582	3	\$ 61,450
106			2	33,718	2	33,718
107			4	80,331	4	80,331
108			1	13,580	1	13,580
109			1	6,351	1	6,351
<b>Total</b>	57,011	1,630,191,177	105,195	2,156,261,946	162,206	\$ 3,786,453,123

**TABLE 3**  
(Continued)

**THE NUMBER AND ANNUAL ANNUITIES  
OF ANNUITANTS ON THE RETIRED LIST  
AS OF JUNE 30, 2009**

**RETIRED ON ACCOUNT OF SUPERANNUATION, EARLY RETIREMENT AND  
THOSE IN RECEIPT OF WITHDRAWAL ANNUITIES**

OPTION	MALE		FEMALE	
Maximum	28,675	\$ 845,396,564	68,362	\$ 1,369,579,507
1	7,767	177,283,926	19,658	343,915,803
2	11,376	292,922,248	9,465	221,601,562
3	8,135	268,790,298	7,248	203,839,553
4	<u>1,058</u>	<u>45,798,141</u>	<u>462</u>	<u>17,325,521</u>
	57,011	\$ 1,630,191,177	105,195	\$ 2,156,261,946

**DEFINITIONS OF OPTIONS**

- Option 1 A life annuity to the member with a guaranteed payment to the beneficiary equal to the present value of the total maximum single life annuity less any amounts paid to the member prior to death.
- Option 2 A joint and one hundred percent (100%) survivor annuity payable during the lifetime of the member with the full amount of such annuity payable thereafter to the designated survivor annuitant, if living at the member's death.
- Option 3 A joint and fifty percent (50%) survivor annuity payable during the lifetime of the member with one-half of such annuity payable thereafter to the designated survivor annuitant, if living at the member's death.
- Option 4 A life annuity to the member with a special death benefit other than the normal option 1, 2, or 3 death benefit.

**TABLE 4**

**THE NUMBER AND ANNUAL ANNUITIES  
OF BENEFICIARIES AND SURVIVOR ANNUITANTS  
AS OF JUNE 30, 2009**

Age	Male		Female		Totals	
	Number	Annuities	Number	Annuities	Number	Annuities
8	1	\$ 2,416			1	\$ 2,416
10			1	\$ 2,727	1	2,727
14			1	2,751	1	2,751
15	1	2,775			1	2,775
16			2	9,620	2	9,620
17			1	1,614	1	1,614
18	2	10,125	1	483	3	10,607
19			1	483	1	483
20	1	1,497			1	1,497
21			1	3,484	1	3,484
22	1	1,533	2	24,567	3	26,100
23	1	2,483	2	6,576	3	9,060
24			3	28,424	3	28,424
25	3	19,285	1	16,131	4	35,416
26	1	5,289			1	5,289
27	3	28,235	3	23,371	6	51,606
28	2	14,518	4	81,714	6	96,232
29	3	3,683	2	9,679	5	13,363
30	2	1,996	2	29,687	4	31,683
31	5	42,452	2	4,878	7	47,330
32	4	8,353	3	11,418	7	19,771
33	2	8,515	1	13,554	3	22,068
34	5	78,072	2	16,411	7	94,484
35	4	20,978	3	8,447	7	29,425
36	1	4,781	5	14,541	6	19,322
37	4	42,931	2	11,641	6	54,572
38	3	20,648	8	34,062	11	54,709
39	3	13,590	2	19,977	5	33,566
40	3	21,217	7	88,057	10	109,274
41	4	14,913	5	28,995	9	43,908
42	9	56,747	8	88,950	17	145,697
43	7	42,198	7	41,856	14	84,054
44	3	14,033	7	48,203	10	62,236
45	5	20,071	11	68,344	16	88,416
46	4	29,557	10	93,779	14	123,336
47	4	38,168	7	17,182	11	55,350
48	8	53,300	10	80,488	18	133,789
49	7	43,166	12	123,589	19	166,755
50	8	29,550	31	248,689	39	278,238
51	4	27,125	25	152,098	29	179,222
52	5	25,033	36	283,408	41	308,441

**TABLE 4**  
(Continued)

**THE NUMBER AND ANNUAL ANNUITIES  
OF BENEFICIARIES AND SURVIVOR ANNUITANTS  
AS OF JUNE 30, 2009**

Age	Male		Female		Totals	
	Number	Annuities	Number	Annuities	Number	Annuities
53	15	\$ 114,398	29	\$ 295,272	44	\$ 409,670
54	8	138,527	38	377,341	46	515,868
55	9	50,859	40	470,672	49	521,531
56	15	77,247	61	602,129	76	679,376
57	19	192,964	46	540,422	65	733,386
58	21	354,714	64	931,108	85	1,285,822
59	23	248,314	69	942,922	92	1,191,234
60	24	341,049	79	1,022,338	103	1,363,386
61	26	312,033	97	1,542,783	123	1,854,816
62	28	286,371	117	1,761,823	145	2,048,194
63	30	415,750	98	1,289,415	128	1,705,165
64	18	209,114	102	1,504,550	120	1,713,664
65	34	522,461	93	1,385,977	127	1,908,438
66	43	483,289	123	1,663,569	166	2,146,859
67	29	440,603	133	2,050,109	162	2,490,712
68	28	451,469	126	1,936,925	154	2,388,394
69	23	248,596	145	1,704,160	168	1,952,757
70	33	416,296	131	1,762,736	164	2,179,033
71	28	448,481	164	1,965,591	192	2,414,071
72	30	198,136	173	2,047,346	203	2,245,482
73	26	293,206	179	1,948,317	205	2,241,522
74	31	298,365	164	1,973,886	195	2,272,251
75	33	369,196	184	2,177,624	217	2,546,820
76	33	332,256	185	2,195,163	218	2,527,420
77	23	187,824	201	1,970,724	224	2,158,548
78	41	351,345	232	2,148,798	273	2,500,143
79	49	520,667	238	2,284,659	287	2,805,325
80	28	214,988	223	2,211,791	251	2,426,779
81	38	331,082	255	2,188,961	293	2,520,044
82	43	417,282	260	2,164,121	303	2,581,403
83	45	400,172	259	2,060,320	304	2,460,492
84	47	419,584	247	1,897,436	294	2,317,019
85	42	348,479	256	1,892,026	298	2,240,505
86	39	304,604	226	1,657,090	265	1,961,694
87	39	273,201	223	1,728,604	262	2,001,805
88	31	224,746	209	1,530,156	240	1,754,902
89	28	248,405	198	1,289,003	226	1,537,408
90	27	203,216	148	972,735	175	1,175,951
91	23	182,476	163	1,030,999	186	1,213,475
92	16	108,853	123	748,838	139	857,691

**TABLE 4**  
(Continued)

**THE NUMBER AND ANNUAL ANNUITIES  
OF BENEFICIARIES AND SURVIVOR ANNUITANTS  
AS OF JUNE 30, 2009**

Age	Male		Female		Totals	
	Number	Annuities	Number	Annuities	Number	Annuities
93	15	\$ 87,182	83	\$ 532,257	98	\$ 619,439
94	10	82,462	74	537,693	84	620,156
95	5	68,091	65	413,355	70	481,447
96	3	13,085	53	350,103	56	363,188
97	2	19,575	27	196,321	29	215,897
98	6	38,502	21	133,557	27	172,059
99	2	16,809	17	88,788	19	105,597
100	1	1,684	15	99,762	16	101,447
101			8	33,834	8	33,834
102			4	34,414	4	34,414
103			3	8,239	3	8,239
104			3	13,472	3	13,472
105			3	4,793	3	4,793
106			1	2,803	1	2,803
107	1	1,200			1	1,200
108			1	591	1	591
<b>Total</b>	1,334	\$ 13,058,442	6,710	\$ 66,058,299	8,044	\$ 79,116,741

**TABLE 5**

**THE NUMBER AND ANNUAL ANNUITIES  
OF ANNUITANTS ON THE RETIRED LIST  
AS OF JUNE 30, 2009**

**RETIRED ON ACCOUNT OF DISABILITY**

Age	Male		Female		Totals	
	Number	Annuities	Number	Annuities	Number	Annuities
27	1	\$ 17,762		\$	1	\$ 17,762
31			1	18,948	1	18,948
32			1	23,647	1	23,647
33	1	17,160	6	79,091	7	96,251
34	1	20,707	2	27,775	3	48,482
35	1	9,262	3	45,082	4	54,344
36	2	31,833	7	111,155	9	142,988
37	2	31,436	6	67,740	8	99,176
38	1	14,787	9	117,935	10	132,722
39	4	51,969	12	183,965	16	235,934
40	4	63,366	11	163,357	15	226,724
41	8	135,425	10	167,031	18	302,456
42	7	126,682	11	204,770	18	331,452
43	9	124,323	19	286,768	28	411,092
44	11	172,896	32	480,020	43	652,916
45	14	231,471	44	595,897	58	827,368
46	21	291,835	40	536,538	61	828,373
47	20	315,870	47	648,541	67	964,410
48	19	348,067	62	943,890	81	1,291,957
49	21	314,054	56	883,727	77	1,197,781
50	48	845,435	68	921,278	116	1,766,713
51	42	676,650	89	1,429,387	131	2,106,038
52	56	1,086,711	85	1,264,113	141	2,350,824
53	70	1,416,454	120	2,332,155	190	3,748,609
54	62	1,400,214	142	2,947,329	204	4,347,544
55	82	1,800,487	167	3,402,846	249	5,203,334
56	96	2,185,768	197	4,099,060	293	6,284,827
57	99	2,506,022	231	5,391,508	330	7,897,530
58	101	2,732,562	249	5,894,933	350	8,627,495
59	104	2,367,642	257	6,075,742	361	8,443,384
60	151	3,848,433	276	6,174,375	427	10,022,808
61	120	2,809,006	268	5,552,821	388	8,361,827
62	137	3,156,727	286	5,481,724	423	8,638,452
63	111	2,126,197	237	4,189,691	348	6,315,888
64	87	1,800,204	179	2,856,579	266	4,656,782
65	84	1,417,419	154	2,513,348	238	3,930,767
66	86	1,304,738	187	2,515,190	273	3,819,928
67	84	1,268,613	188	2,554,844	272	3,823,457
68	56	677,691	154	1,850,946	210	2,528,636

**TABLE 5**  
(Continued)

**THE NUMBER AND ANNUAL ANNUITIES  
OF ANNUITANTS ON THE RETIRED LIST  
AS OF JUNE 30, 2009**

**RETIRED ON ACCOUNT OF DISABILITY**

Age	Male		Female		Totals	
	Number	Annuities	Number	Annuities	Number	Annuities
69	57	\$ 803,128	142	\$ 1,613,060	199	\$ 2,416,188
70	51	720,142	97	1,123,635	148	1,843,777
71	56	645,523	101	995,685	157	1,641,208
72	43	513,917	102	1,198,430	145	1,712,347
73	41	478,268	87	844,756	128	1,323,025
74	34	427,239	104	901,821	138	1,329,059
75	30	358,103	80	758,977	110	1,117,081
76	38	495,664	63	474,771	101	970,435
77	17	132,953	92	909,534	109	1,042,487
78	22	216,259	62	495,433	84	711,692
79	17	196,439	69	505,888	86	702,327
80	25	325,421	58	450,849	83	776,270
81	13	131,846	68	530,859	81	662,705
82	21	300,299	36	281,522	57	581,821
83	19	156,125	47	399,398	66	555,524
84	18	184,716	37	335,971	55	520,687
85	3	14,430	31	240,751	34	255,182
86	10	118,175	27	227,298	37	345,473
87	8	69,455	23	196,001	31	265,456
88	5	51,034	23	200,855	28	251,889
89	5	29,967	19	177,826	24	207,792
90	7	112,072	12	79,766	19	191,838
91	1	8,439	15	169,815	16	178,254
92	2	36,947	10	82,314	12	119,261
93	1	7,175	11	86,310	12	93,486
94			5	33,149	5	33,149
95			2	13,216	2	13,216
96			7	53,010	7	53,010
97			2	16,519	2	16,519
98	1	7,150			1	7,150
<b>Total</b>	2,368	\$ 44,286,763	5,345	\$ 86,431,166	7,713	\$ 130,717,929



## EXHIBIT VIII

### GLOSSARY

<b>Accrued Liability</b>	The difference between (a) the present value of future plan benefits, and (b) the present value of future normal cost. It is the portion of the present value of future plan benefits attributable to service accrued as of the valuation date. Sometimes referred to as “actuarial accrued liability.”
<b>Accrued Service</b>	The service credited under the plan that was rendered before the date of the actuarial valuation.
<b>Actuarial Assumptions</b>	Estimates of future plan experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and salary increases. Decrement assumptions (rates of mortality, disability, turnover and retirement) are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (salary increases and investment income) consist of an underlying rate in an inflation-free environment plus a provision for a long-term average rate of inflation.
<b>Actuarial Cost Method</b>	A mathematical budgeting procedure for allocating the dollar amount of the “present value of future plan benefits” between the present value of future normal cost and the accrued liability. Sometimes referred to as the “actuarial funding method.”
<b>Actuarial Equivalent</b>	A series of payments is called an actuarial equivalent of another series of payments if the two series have the same actuarial present value.
<b>Actuarial Value of Assets</b>	The value of current plan assets recognized for valuation purposes. Based on a smoothed market value that recognizes investment gains and losses over a period of five years.
<b>Amortization</b>	Paying off an interest-bearing liability by means of periodic payments of interest and principal, as opposed to paying it off with a lump sum payment.
<b>Experience Gain (Loss)</b>	A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions during the period between two actuarial valuation dates, in accordance with the actuarial cost method being used.
<b>Normal Cost</b>	The annual cost assumed, under the actuarial funding method, for current and subsequent plan years. Sometimes referred to as “current service cost.”

**EXHIBIT VIII**

**GLOSSARY**

(Continued)

<b>Present Value</b>	The amount of funds presently required to provide a payment or series of payments in the future. The present value is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.
<b>Unfunded Accrued Liability</b>	The difference between the actuarial accrued liability and valuation assets.