

**SCHOOL EMPLOYEES RETIREMENT
SYSTEM OF OHIO**

**JANUARY 1, 2007
ACTUARIAL VALUATION
OF RETIREE HEALTH CARE BENEFITS**

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September 14, 2007

Board of Trustees
School Employees Retirement
System of Ohio
300 East Broad St., Suite 100
Columbus, OH 43215-3746

Dear Members of the Board:

This report presents the results of the January 1, 2007 actuarial valuation of the School Employees Retirement System of Ohio retiree health care benefits. The valuation was prepared in accordance with, and for the purpose of financial disclosure under, Governmental Accounting Standards Statement No. 43 (GASB 43).

Plan benefits include medical and prescription drug benefits for SERS members and life insurance for employees and retirees who work for SERS. The valuation is based on the plan provisions in effect January 1, 2007, and plan changes adopted in 2007 and effective in 2008.

The actuarial assumptions and methods used in the valuation were selected in compliance with the requirements under GASB 43. The demographic assumptions are consistent with the assumptions used in the June 30, 2006 actuarial valuation of the SERS pension plan benefits. The discount rate (interest rate) is 5.25%, selected in accordance with GASB 43.

The results of our calculations and analysis indicate that the Annual Required Contribution (ARC) for 2007 is 11.50% of payroll. This can be compared to the employer rate allocation toward health care benefits, including the surcharge, of 4.82% for fiscal 2007. The funded status (i.e., the ratio of assets to liabilities) of retiree health care benefits is 7.88%.

Detailed summaries of the financial results of the valuation are shown in this report. 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. It should be recognized, however, that significant differences between actual experience and these assumptions could occur. Moreover, other sets of reasonable assumptions can yield materially lesser or greater results.

The undersigned actuaries are Members of the American Academy of Actuaries (AAA) and meet the qualification standards of the AAA to render the opinion contained herein.

Respectfully submitted,



Philip Bonanno, ASA, EA
Director, Consulting Actuary



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Principal, Consulting Actuary

**SCHOOL EMPLOYEES RETIREMENT
SYSTEM OF OHIO
RETIREE HEALTH CARE BENEFITS**

**ACTUARIAL VALUATION
JANUARY 1, 2007**

TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
I Management Summary	1
II Summary of Valuation Results	6
III Retiree Health Care Benefit Provisions	11
IV Participant Data.....	22
V Assumptions and Methods.....	26
VI Glossary of Terms	34

I – Management Summary

Introduction

This report presents the results of the January 1, 2007 actuarial valuation of the School Employees Retirement System of Ohio's retiree health care benefits for SERS members and life insurance for those employees who work for SERS or have retired from SERS. As a non-guaranteed benefit subject to change, health care is not funded on a full reserve basis. Nevertheless, the purpose of this valuation is to determine the value, on a full reserve basis, of projected retiree health care benefits for current and future retirees and their dependents. SERS will be required to disclose the full reserve cost of retiree health care, in accordance with GASB 43 for the fiscal year ending June 30, 2007.

The principal valuation results include:

- The funded status of the plan as of January 1, 2007, based on the accrued liability and the market value of assets as of that date, is 7.88%.
- The actuarially required contribution rate to fund health care on a full reserve basis is 11.50% of payroll.

The valuation was based upon membership and financial data submitted by the System.

Purpose of Valuation

GASB Statement 43 was issued to provide more complete, reliable and useful financial reporting regarding the costs and financial obligations incurred when public entities provide post-employment benefits other than pensions (OPEB). Commensurate with the implementation of GASB 43, SERS will begin reporting the Annual Required Contribution and unfunded accrued liability. The main purpose of this valuation is to determine the contribution rate necessary to fund retiree health care on an actuarial basis. The valuation is based on benefit provisions and retiree premium schedules in effect on January 1, 2007, and plan changes adopted in 2007 and effective beginning in 2008.

I – Management Summary

Plan Changes in 2008

Effective beginning in 2008, the Board has adopted several changes to the health care plan including:

- Future disabled members subsidized at the same level as non-disabled members;
- An increase in the share of the cost borne by spouses, current and future;
- A revised subsidy schedule for future retirees, as described on page 18;
- The implementation of a Medicare Advantage plan; and
- The joining of a prescription drug collaborative with Ohio retirement systems.

Health Care Funded Status

As shown in Table 1, the actuarially determined accrued liability for retiree health care benefits is \$4.31 billion. Assets in the health care premium stabilization fund as of January 1, 2007 are \$340 million. The unfunded accrued liability is \$3.97 billion.

Health Care Contribution Rate

Of the total employer contribution rate of 14% of payroll, 10.68% is needed in 2007 to appropriately fund guaranteed pension benefits, survivor benefits, and Medicare Part B reimbursements and, accordingly, the Board allocates 3.32% to health care. A ten-year history of employer contributions to the health care plan is shown on the following page. In addition, SERS is collecting a surcharge of 1.50% of payroll from employers for 2007 for a total health care contribution rate of 4.82%.

I – Management Summary

Ten-Year History of Employer Contributions

Fiscal Year Ending June 30	Employer Health Care Contribution Rate	Surcharge Percentage	Total Health Care Contribution Rate
1998	4.98%	1.62%	6.60%
1999	6.30%	1.47%	7.77%
2000	8.45%	1.34%	9.79%
2001	9.80%	1.17%	10.97%
2002	7.44%	1.07%	8.51%
2003	5.83%	1.30%	7.13%
2004	4.91%	1.50%	6.41%
2005	3.43%	1.50%	4.93%
2006	3.42%	1.50%	4.92%
2007	3.32%	1.50%	4.82%

The actuarially determined health care contribution rate is 11.50%. This amount comprises 5.46% for normal cost, plus 6.04% to amortize the unfunded accrued liability of \$3.97 billion over 30 years.

Determination of 5.25% Interest Rate

GASB 43 requires that the discount rate used in the valuation be the estimated long-term yield on investments that are expected to finance postemployment benefits. Depending on the method by which a plan is financed, the relevant investments could be plan assets, employer assets or a combination of plan and employer assets. The investment return should reflect the nature and the mix of both current and expected investments and the basis used to determine the actuarial value of assets.

I – Management Summary

The School Employees Retirement System of Ohio retiree health care plan is partially funded. As such, the investments expected to be used to finance the payment of benefits are a combination of plan and employer assets. GASB outlines two reasonable methods of developing a blended discount rate when a plan is partially funded. These methods base the proportion of plan and employer asset returns on 1) the funded ratio and 2) the percentage of ARC actually being contributed to the plan. SERS contributed approximately one-third of an estimated ARC, which was assumed to have a long-term investment return of 8%. The remaining two-thirds of the ARC would come from employer assets, assumed to be from highly liquid investments with a short-term investment return of 4%. Weighting the 8% return by one-third and the 4% return by two-thirds results in an approximate rate of 5.25%. Based on our recommendation, SERS and the System's auditor approved the use of the 5.25% discount rate.

Health Care-related Assumptions

The 2007 and 2008 premium equivalent rates and HMO premiums provided by SERS were used as the basis for this valuation. We have assumed these rates, when applied to the covered population, will cover the expected claims and administrative costs for the retiree health care program for the given year. In addition, we are assuming the decrease in rates from 2007 to 2008 are due upcoming 2008 plan changes including the change to Medicare Advantage plans and expected decrease in prescription drug costs due to SERS joining the ROC purchasing pool.

Separate trend rates are developed for pre-Medicare and post-Medicare medical benefits, and prescription drug benefits. Trend rates for medical and prescription drug plans have continued to outpace inflation for a number of years. We have assumed this will continue over the short term with rates decreasing over time until an ultimate trend rate is reached. The trend assumption used for valuation purposes is summarized on page 26 of the report.

I – Management Summary

Medicare Part D

Under the Medicare Prescription Drug, Improvement and Modernization Act of 2003, sponsors of retiree prescription drug plans can apply for a 28% subsidy for the qualified prescription drug costs of their retirees. To be eligible for the subsidy, the plan coverage must be actuarially equivalent to the new Medicare Part D coverage and the sponsor must provide notices of creditable prescription drug coverage to individuals entitled to Medicare Part D.

However, in accordance with GASB Technical Bulletin No. 2006-1, for purposes of determining actuarial liability and the fund's annual required contribution under GASB 43, there is no reduction for anticipated Medicare Part D subsidy payments reflected in this valuation.

II – Summary of Valuation Results

This section outlines the results of the January 1, 2007 actuarial valuation of the School Employees Retirement System of Ohio's retiree health care benefits.

Tables 1 and 2 on the following pages summarize the valuation results for retiree health care benefits in effect on January 1, 2007. These results are based on the assumptions and methods described in Section V. All liabilities and contribution rates are net of retiree contributions.

- **Table 1** presents a summary of the actuarial valuation results for retiree health care benefits as of January 1, 2007. This is the initial valuation of the System under the Standard, so no comparative values are available.
- **Table 2** shows the value of the Health Care Stabilization Fund as of December 31, 2006.
- **Table 3** shows the Schedule of Funding Progress under GASB 43. The Schedule of Funding Progress shows the history of the plan's funded status since the initial application of GASB 43. The initial application of GASB 43 for SERS is the fiscal year ending June 30, 2007.
- **Table 4** shows the Schedule of Employer Contributions under GASB 43. This schedule shows the history of employer contributions compared to the Annual Required Contribution for health care. The initial year is the fiscal year ending June 30, 2007.

II – Summary of Valuation Results

TABLE 1

**RETIREE HEALTH CARE BENEFITS
SUMMARY OF RESULTS OF ACTUARIAL VALUATION
AS OF JANUARY 1, 2007**
(\$ amounts in thousands)

Item	January 1, 2007
Membership Data	
1. Number of Members	
a) Active Members	123,266
b) Inactive Members	3,582
c) Retirees, Spouses and Beneficiaries	<u>56,656</u>
d) Total	183,504
2. Covered Payroll for Prior Calendar Year	\$ 2,597,601
Valuation Results	
3. Total Liability	
a) Active Members	\$ 4,003,244
b) Inactive Members	14,715
c) Retirees, Spouses and Beneficiaries	<u>1,871,083</u>
d) Total	\$ 5,889,042
4. Accrued Liability	
a) Active Members	\$ 2,421,574
b) Inactive Members	14,715
c) Retirees, Spouses and Beneficiaries	<u>1,871,083</u>
d) Total	\$ 4,307,372
5. Assets	\$ 339,505
6. Unfunded Accrued Liability (4)–(5)	\$ 3,967,867
7. Funded Status (5)/(4)	7.88%
Contribution Rate*	
8. Actuarially Determined Contribution Rate	
a) Normal Cost	5.46%
b) 30-Year Amortization of Unfunded Accrued Liability	<u>6.04</u>
c) Total	11.50%
9. Employer Contribution Toward Health Care	4.82%

* Based on covered payroll for prior calendar year increased by the payroll growth assumption.

II – Summary of Valuation Results

TABLE 2

**HEALTH CARE STABILIZATION FUND
AS OF DECEMBER 31, 2006**

1. Balance as of December 31, 2005	\$ 259,908,331
2. Contributions During Period January 1, 2006 to December 31, 2006	
(a) Employer Contribution	\$ 131,099,990
(b) Surcharge	40,335,192
(c) Early Retirement Incentive	53,638
(d) Health Care Premiums	74,321,021
(e) Retiree Drug Subsidy	21,075,107
(f) Total	<u>\$ 266,884,948</u>
3. Payouts During Period January 1, 2006 to December 31, 2006	\$ 223,665,961
4. Investment Income	\$ 36,377,501
5. Balance as of December 31, 2006 (1) + (2f) – (3) + (4)	\$ 339,504,819
6. Rate of Return $2*(4) / [(1) + (5) - (4)]$	12.9%

Projected payouts during the 2007 calendar year are expected to be approximately \$252.6 million.

II – Summary of Valuation Results

TABLE 3

**SCHEDULE OF FUNDING PROGRESS
GASB STATEMENT NO. 43 DISCLOSURE**
(\$ Amounts in Thousands)

Valuation as of January 1	(a) Actuarial Value of Assets	(b) Actuarial Accrued Liability	(c) Unfunded Actuarial Accrued Liability (b)-(a)	(d) Funded Ratio (a)/(b)	(e) Covered Payroll	(f) UAAL as a % of Payroll (c)/(e)
2007	\$339,505	\$4,307,372	\$3,967,867	7.9%	\$2,597,601	152.8%

The above information is provided for the June 30, 2007 GASB 43 disclosure.

II – Summary of Valuation Results

TABLE 4

SCHEDULE OF EMPLOYER CONTRIBUTIONS
GASB STATEMENT NO. 43 DISCLOSURE
(\$ Amounts in Thousands)

Year Ended June 30	Annual Required Contribution	Percentage Contributed
2007	*	*

- * The ARC is equal to the ARC rate of 11.50% times the fiscal 2007 payroll. The expected contribution is 4.82% of payroll, or about 42% of the ARC. The ARC and the percentage contributed will be determined after fiscal 2007 has ended and will be reported in the January 1, 2008 valuation report.

Additional information as of the latest actuarial valuation follows:

Valuation Date:	January 1, 2007
Actuarial Cost Method:	Entry Age
Amortization Method:	Level Percent of Payroll, Open
Amortization Period:	30 Years
Asset Valuation Method:	Fair Market Value

Actuarial Assumptions:

— Investment Return (Discount Rate)	5.25%
— Projected Salary Increases	4.50% - 24.75%
— Payroll Increases	4.00%
— Price Inflation Assumption	3.50%
— Trend Rates:	

	<u>Initial Rate</u>	<u>Ultimate Rate</u>	<u>Ultimate Year</u>
• Pre-Medicare PPO	11.00%	5.00%	2013
• Post-Medicare PPO	11.00%	5.00%	2013
• Pre-Medicare HMO	10.50%	4.50%	2013
• Post-Medicare HMO	10.50%	4.50%	2013
• Rx Drug	12.00%	6.00%	2013

III – Retiree Health Care Benefit Provisions

ELIGIBILITY FOR COVERAGE AND EFFECTIVE DATE OF COVERAGE

Eligibility for service retirement is attainment of one of the following:

- Age 65 with at least 10 years of creditable service,
- 30 years of creditable service, regardless of age,
- Age 55 with at least 25 years of creditable service, or
- Age 60 with at least 10 years of creditable service

Eligibility for disability retirements is five years of creditable service. Members who terminated with at least ten years of service are eligible upon attainment of age 60.

For **service retirees**, coverage becomes effective the later of:

- the effective date of retirement, or
- the first of the month following the date the application is received by SERS.

For **disabled members**, coverage becomes effective the later of:

- the effective date of the disability benefit, or
- the first of the month following the approval of the disability.

For **survivor benefit recipients (survivors of deceased retirees or deceased active members)**, coverage becomes effective:

- the effective date of benefit if benefit application is received within three months of the member's death, or
- the first of the month after receipt if the benefit application is not received within three months.

HEALTH CARE PLANS OFFERED BY SERS

Coverage Features

All health care plans provide these health care benefits:

- Hospital benefits: inpatient, semiprivate room-and-board expenses, limited to medically necessary days.
- Skilled nursing facility benefits: inpatient, semiprivate room charges.
- Medical benefits: reasonable and medically necessary physicians' charges, hospital outpatient charges, laboratory expenses and charges for treatment of nervous and mental disorders.
- Qualified home health care services.
- Hospice care for terminally ill patients under a hospice care program.

III – Retiree Health Care Benefit Provisions

- Coverage for routine physical examinations (HMO only), immunizations and inoculations.
- Prescription drugs.

Types of Plans

A variety of health care plans are available to SERS members. The type of health plan(s) for which a member is eligible depends upon Medicare status and the geographic location of permanent residence. A description of these plans for 2007 is as follows.

III – Retiree Health Care Benefit Provisions

Indemnity (Traditional) Plan — Aetna Indemnity, Medical Mutual Indemnity.

- **Eligibility** — SERS benefit recipients and their covered dependents who live outside a PPO/Managed Care network area, or are enrolled in Medicare Part A (hospital).
- **Description** — “Traditional” health insurance in which reimbursement is made either to the enrollee or directly to the provider, up to a predetermined dollar amount or benefit limit. Payments are based on usual, customary and reasonable (UCR) fees, as established by the health plan administrator. Any health care provider can be used. There are no provider networks, but a member choosing the Indemnity Plan must also select a plan administrator — either Aetna or Medical Mutual.

	Aetna or Medical Mutual Indemnity
Deductible	\$340/person \$700/family
Co-Insurance Limit	\$1,500/person \$3,000/family
Office Visit	80%
Specialist	80%
Inpatient Hospital	80% after \$250 hospital admit deductible
Emergency Room	80% after \$340 deductible
Durable Medical Equipment	80%
Nursing Home Skilled Care	80%/365 days
Home Health Care	80%

III – Retiree Health Care Benefit Provisions

Preferred Provider Organization (PPO) — Aetna Managed Care, AultCare PPO, Medical Mutual PPO.

- **Eligibility** — SERS benefit recipients and their covered dependents who reside in a PPO network area. **Note:** If benefit recipients are eligible for Medicare Part A, the managed care network no longer applies.
- **Description** — A group of selected health care providers who have agreed to offer comprehensive services at preset reimbursement levels. These providers, which include physicians and hospitals, are referred to as “network” providers. Enrollees may use non-network providers, but will have higher out-of-pocket costs.
 - The AultCare PPO is a PPO for Medicare and non-Medicare benefit recipients and their dependents.

	Aetna Managed Care or MMO PPO In-Network	Aetna Managed Care or Medical Mutual PPO Out-of-Network	AultCare PPO In-Network	AultCare PPO Out-of-Network
Deductible	\$340/person \$700/family	\$700/person \$1,400/family	\$340/person \$700/family	\$700/person \$1,400/family
Co-Insurance Limit	\$1,500/person \$3,000/family	None None	\$1,500/person \$3,000/family	\$3,000/person \$6,000/family
Office Visit	\$25 Managed Care/PPO	10%	\$25 PPO	65%
Specialist	\$25 Managed Care/PPO	10%	\$25 PPO	65%
Inpatient Hospital	80% after \$250 hospital	10% after \$290 hospital admit deductible	80% after \$250 hospital admit deductible	65% after \$290 hospital admit deductible
Emergency Room	80% after \$340 deductible	80% after \$340 deductible or 10% for non-emergency	80% after \$340 deductible	80% after \$340 deductible
Durable Medical Equipment	80%	10%	80%	65%
Nursing Home Skilled Care	80%/365 days	10%/365 days	80%/365 days	65%/365 days
Home Health Care	80%	10%	80%	65%

III – Retiree Health Care Benefit Provisions

Health Maintenance Organization (HMO) — Aetna, Kaiser and Paramount.

- **Eligibility** — SERS benefit recipients and covered dependents who reside in one of the HMOs area, which depends upon the County.

Note: Enrollees who have end-stage renal disease or are in hospice are not eligible to enroll in Kaiser. Also, under most of the HMOs, if a member leaves Ohio for more than 90 consecutive days a year, he or she is not eligible to enroll.

- **Description** — A prepaid health plan in which physicians, hospitals and other health care providers either contract with or are employed directly by the HMO to provide services. An enrollee is required to use doctors and hospitals in the network for all care, including prescription drugs. There is no coverage outside the HMO network except for urgent care or a medical emergency unless covered under Medicare.

	Aetna HMO	Kaiser HMO	Paramount HMO
Deductible	--	--	--
Co-Insurance Limit	\$1,500/person \$3,000/family	\$2,000/single \$6,000/family	\$1,500/person \$3,000/family
Office Visit	\$15 copay	\$15 copay	\$15 copay
Specialist	\$30 copay	\$15 copay	\$30 copay
Inpatient Hospital	\$250 copay for each stay, 100% thereafter	\$250 copay for each stay, 100% thereafter	\$250 copay for each stay, 100% thereafter
Emergency Room	\$50 copay	\$50 copay	\$50 copay
Durable Medical Equipment	80%	80%	80%
Nursing Home Skilled Care	100% day 1-20, \$75 copay per day/21-100	100%/100 days	100% day 1-20, \$75 copay per day/21-100
Home Health Care	100%	100%	100%

III – Retiree Health Care Benefit Provisions

PRESCRIPTION DRUG COVERAGE

For all medical plans except Kaiser HMO

Prescription drug services are included but are administered under a separate plan by Medco or, for AultCare, by BioScrip Pharmacy.

The member's copayment for up to a 34-day supply of prescription drugs purchased at participating retail pharmacies is 20% of the cost of the drug, or a minimum of \$2.50 for generic and preferred drugs and 35% or \$5.00 for non-preferred brand drugs. Prescription drugs purchased from nonparticipating pharmacies are not reimbursed.

The copayment for up to a 90-day supply of prescription drugs purchased through the Medco or BioScrip Pharmacy mail-service pharmacy is \$15 for generic drugs, \$45 for formulary brand name drugs and \$80 for nonformulary brand-name drugs.

For Kaiser HMO

The member participates in a mail-service or retail pharmacy program under a separate plan. The copayment for up to a 90-day supply of prescription drugs purchased from the mail-service pharmacy is \$25. The copayment for up to a 34-day supply of prescription drugs from the retail pharmacy is \$10.

For more detailed plan features, see the 2007 Health Care Program Manual¹.

¹ Available at <http://www.ohsers.org/GD/DocumentManagement/DocumentDownload.aspx?DocumentID=2070>

III – Retiree Health Care Benefit Provisions

Premium Summary

Members who enroll in a SERS health care plan are responsible for paying all or part of the cost of health care coverage through a monthly premium deduction, co-payments/coinsurance and deductibles. SERS pays the remaining cost. The monthly premium rates differ, depending on the health care plan selected, the member's years of service and his or her Medicare status.

Retirements prior to August 1, 2008

Members will receive a subsidy according to the following schedule:

Service at Retirement	Retiree Paid Percentage
10 - 14.999	100%
15 - 19.999	50%
20 - 24.999	25%
25 and over	17.5%

Service retirees with 15 or more years of service are eligible for access and a premium subsidy. Service retirees with at least 10 years of service but less than 15 years have access to coverage, but pay 100% of their health care premium.

All disability retirees pay 17.5% of the premium. If, upon conversion to service retirement under the new disability plan, the retiree does not have 10 years of service (including the years on disability), the retiree is not eligible to continue participation in the health care program.

Upon the death of a member, the primary beneficiary receiving a survivor benefit pays 17.5% of the premium for his/her coverage. If dependent children are to be covered, additional premiums are charged.

For low income retirees (e.g. those with income below the federal poverty level of \$12,250 single, \$16,500 two person family for 2006), premiums are decreased by 25%.

III – Retiree Health Care Benefit Provisions

Retirements on or after August 1, 2008

Members will receive a subsidy according to the following schedule:

Service at Retirement	Retiree Paid Percentage
10 - 19.999	100%
20 - 24.999	50%
25 - 29.999	30%
30 - 34.999	20%
35 and over*	15%

*1% premium reduction for each year over 35.

All spouses, current and future will be subject to the following subsidy schedule, effective August 1, 2008:

Service of Member	Spouse Paid Percentage
1.5 - 24.999	100%
25 - 29.999	90%
30 and Over	80%

Children will be subsidized at 70%. All future disability retirees will be subject to the revised member schedule described above.

III – Retiree Health Care Benefit Provisions

2007 Rates-Retiree and Dependent Monthly Premiums

Years of Service	Aetna/MMO Managed Care/Indem Premiums	AultCare PPO Premiums	Aetna HMO Premiums	Kaiser HMO Premiums	Paramount HMO Premiums
10-14.999 (100%)					
w/o Medicare A	\$932	\$765	\$903	\$684	\$929
w/ Medicare A	\$258	\$248	\$338	\$279	\$283
15-19.999 (50%)					
w/o Medicare A	\$466	\$383	\$452	\$342	\$465
w/ Medicare A	\$129	\$124	\$169	\$140	\$142
20-24.999 (25%)					
w/o Medicare A	\$233	\$191	\$226	\$171	\$232
w/ Medicare A	\$65	\$62	\$85	\$70	\$71
25 & Over, Survivor, Disability, Service Retiree Prior to 8/89 (17.5%)					
w/o Medicare A	\$163	\$134	\$158	\$120	\$163
w/ Medicare A	\$45	\$43	\$59	\$49	\$50
Dependents (70%)					
Spouse w/o Medicare A	\$520	\$222	\$610	\$479	\$628
Spouse w/ Medicare A	\$181	\$73	\$237	\$195	\$198
Child w/o Medicare A	\$113	\$74	\$276	\$239	\$213
Child w/ Medicare A	\$181	\$73	\$237	\$195	\$198

III – Retiree Health Care Benefit Provisions

2008 Rates-Retiree Monthly Premiums

Years of Service	Aetna/MMO Managed Care/Indem Premiums	AultCare PPO Premiums	Aetna HMO Premiums	Kaiser HMO Premiums	Paramount HMO Premiums
<u>Retired after 8/08</u>					
10-19.999 (100%)					
w/o Medicare A	\$1,017	\$690	\$1,026	\$921	\$1,143
w/ Medicare A	\$220	\$102	\$221	\$234	\$207
20-24.999 (50%)					
w/o Medicare A	\$509	\$345	\$513	\$461	\$572
w/ Medicare A	\$110	\$51	\$111	\$117	\$104
25-29.999 (30%)					
w/o Medicare A	\$305	\$207	\$308	\$276	\$343
w/ Medicare A	\$66	\$31	\$66	\$70	\$62
30-34.999 (20%)					
w/o Medicare A	\$203	\$138	\$205	\$184	\$229
w/ Medicare A	\$44	\$20	\$44	\$47	\$41
35 & Over (15%) (1% Reduction for each year over 35)					
w/o Medicare A	\$153	\$104	\$154	\$138	\$171
w/ Medicare A	\$33	\$15	\$33	\$35	\$31
<u>Retired between 8/89 and 8/1/08</u>					
10-14.999 (100%)					
w/o Medicare A	\$1,017	\$690	\$1,026	\$921	\$1,143
w/ Medicare A	\$220	\$102	\$221	\$234	\$207
15-19.999 (50%)					
w/o Medicare A	\$509	\$345	\$513	\$461	\$572
w/ Medicare A	\$110	\$51	\$111	\$117	\$104
20-24.999 (25%)					
w/o Medicare A	\$254	\$173	\$257	\$230	\$286
w/ Medicare A	\$55	\$26	\$55	\$59	\$52
25 & Over (17.5%)					
w/o Medicare A	\$178	\$121	\$180	\$161	\$200
w/ Medicare A	\$39	\$18	\$39	\$41	\$36
<u>Retired Prior to 8/89 (17.5%)</u>					
w/o Medicare A	\$178	\$121	\$180	\$161	\$200
w/ Medicare A	\$39	\$18	\$39	\$41	\$36

III – Retiree Health Care Benefit Provisions

2008 Rates-Dependent Monthly Premiums

Years of Service	Aetna/MMO Managed Care/Indem Premiums	AultCare PPO Premiums	Aetna HMO Premiums	Kaiser HMO Premiums	Paramount HMO Premiums
Spouses					
Member Service 1.5-24.999 (100%)					
w/o Medicare A	\$809	\$551	\$816	\$739	\$909
w/ Medicare A	\$220	\$102	\$606	\$234	\$207
Member Service 25-29.999 (90%)					
w/o Medicare A	\$728	\$496	\$734	\$665	\$818
w/ Medicare A	\$198	\$92	\$545	\$211	\$186
Member Service 30 & Over (80%)					
w/o Medicare A	\$647	\$441	\$653	\$591	\$727
w/ Medicare A	\$176	\$82	\$485	\$187	\$166
Children (70%)					
w/o Medicare A	\$124	\$85	\$125	\$116	\$138
w/ Medicare A	\$154	\$71	\$155	\$164	\$145

Medicare Part B liabilities are reported in SERS' pension actuarial valuation report. Contributions for Part B are made to the pension fund and Part B reimbursements are paid from the pension fund. As such, these amounts are excluded from this report.

This valuation report does not include the dental plan because it is our understanding that SERS provides no subsidy for this benefit.

Life Insurance for SERS employees

Employees of SERS (not of participating employers) who retired prior to April 1, 2001 have life insurance coverage equal to 25% of their salary at the time of retirement, with a maximum value of \$30,000. Current SERS employees and those employees who retired on or after April 1, 2001 have coverage equal to 50% of their salary at retirement, with a maximum value of \$75,000. Only those SERS employees who retire from active status are eligible for life insurance.

IV – Participant Data

The participant data as of January 1, 2007 is summarized in the following tables:

- **Table 5** summarizes the number of participants by status.
- **Table 6** summarizes the active members by age and years of service.
- **Table 7** summarizes the retired participants and covered dependents by health care plan enrollment (for those participants currently enrolled in retiree health care coverage).

IV – Participant Data

TABLE 5

NUMBER OF PARTICIPANTS AS OF JANUARY 1, 2007

Status	Number
Active Members	123,266
Inactive Members	
Eligible for Allowances	3,582
Retirees and Beneficiaries	
Retirees	
Service Retirees	35,429
Disability Retirees	<u>4,413</u>
Total	39,842
Beneficiaries	
Spouses of Retirees	10,222
Spouses of Deceased Retirees	3,242
Survivor Benefit Recipients	2,735
Children	<u>615</u>
Total	16,814
Total Retirees and Beneficiaries	56,656
GRAND TOTAL	183,504

In addition, there are 161 active SERS employees and 45 retirees of SERS who are provided with life insurance coverage.

IV – Participant Data

TABLE 6

ACTIVE MEMBERSHIP DATA AS OF JANUARY 1, 2007

Age	Years of Service									Total
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	
Under 25	5,479	46								5,525
25-29	4,952	756	20							5,728
30-34	5,074	1,567	280	20						6,941
35-39	7,455	3,081	845	335	21					11,737
40-44	9,085	5,673	1,993	1,042	613	90				18,496
45-49	8,269	7,102	3,958	2,148	1,188	860	52			23,577
50-54	5,255	4,925	3,883	3,368	1,684	1,072	287	22		20,496
55-59	3,812	2,780	2,453	3,200	2,507	1,394	320	67		16,533
60-64	1,918	1,315	1,031	1,312	1,379	1,209	353	51	8	8,576
Over 64	<u>1,457</u>	<u>893</u>	<u>566</u>	<u>631</u>	<u>673</u>	<u>731</u>	<u>468</u>	<u>196</u>	<u>42</u>	<u>5,657</u>
Total	52,756	28,138	15,029	12,056	8,065	5,356	1,480	336	50	123,266
<div style="text-align: right; padding-right: 50px;"> Average Age: 46.62 Average Years of Service: 8.34 </div>										

IV – Participant Data

TABLE 7

CURRENT ENROLLMENT OF RETIRED PARTICIPANTS AND COVERED DEPENDENTS AS OF JANUARY 1, 2007

Age Last Birthday	Aetna/MMO Managed Care/Indem	AultCare PPO	Aetna HMO	Kaiser HMO	Paramount HMO	Total
Service Retirees						
Under 55	157	13	78	11	4	263
55-59	489	35	320	50	8	902
60-64	1,600	148	808	100	20	2,676
65-69	3,880	176	1,389	182	56	5,683
70-74	5,057	115	853	199	138	6,362
75-79	5,684	52	375	191	130	6,432
Over79	12,405	36	271	277	122	13,111
Total	29,272	575	4,094	1,010	478	35,429
Disability Retirees						
Under 55	544	14	169	44	12	783
55-59	477	13	167	26	16	699
60-64	623	17	184	25	15	864
65-69	562	6	108	12	19	707
70-74	491	1	27	13	8	540
75-79	354	1	13	10	9	387
Over79	424	-	3	4	2	433
Total	3,475	52	671	134	81	4,413
Spouses of Retirees	8,116	362	1,304	293	147	10,222
Spouses of Deceased Retirees	3,033	9	114	53	33	3,242
Survivor Benefit Recipients	2,387	19	244	56	29	2,735
Children	476	26	89	22	2	615
Total	46,759	1,043	6,516	1,568	770	56,656

V – Assumptions and Methods

ASSUMPTIONS

DISCOUNT RATE: 5.25% per annum, compounded annually.

SALARY INCREASES: Assumed annual rates of salary increases are as follows:

Service	Base (Economy)	Merit & Seniority	Total Increase
0	4.00%	20.75%	24.75%
1	4.00	13.25	17.25
2	4.00	10.75	14.75
3	4.00	8.75	12.75
4	4.00	7.75	11.75
5	4.00	5.75	9.75
6	4.00	4.75	8.75
7	4.00	3.75	7.75
8	4.00	2.75	6.75
9	4.00	1.75	5.75
10 - 14	4.00	0.75	4.75
15 & Over	4.00	0.50	4.50

HEALTH CARE COST TREND RATES: The trend rate is the annual rate at which the cost of covered medical services is assumed to increase. The starting per-capita costs are assumed to increase by the following percentages each year.

Calendar Year	Indemnity/PPO		HMO*		Rx Drug
	Under 65	Over 65	Under 65	Over 65	
2007	11.00	11.00	10.50	10.50	12.00
2008	10.00	10.00	9.50	9.50	11.00
2009	9.00	9.00	8.50	8.50	10.00
2010	8.00	8.00	7.50	7.50	9.00
2011	7.00	7.00	6.50	6.50	8.00
2012	6.00	6.00	5.50	5.50	7.00
2013 and later	5.00	5.00	4.50	4.50	6.00

* HMO trends are for medical and prescription drug expenditures combined.

V – Assumptions and Methods

ADMINISTRATIVE EXPENSE: Per-capita costs include administrative expenses.

MEMBER PARTICIPATION: Future eligible service retirees are assumed to elect to participate in the program based on their service at retirement. These assumptions are summarized in the following table:

Service at Retirement	Participation Assumption
20 - 24.999	70%
25 - 29.999	75%
30 - 34.999	80%
35 and Over	90%

50% of members who retire from an inactive status are assumed to elect coverage. 100% of members who become disabled are assumed to elect coverage.

DEPENDENTS OF FUTURE RETIREES: Participation is expressed as a percentage of covered members as follows:

<u>Male</u>	<u>Female</u>
50%	40%

Male spouses are assumed to be three years older than female spouses.

PLAN ELECTION: 14.0% of future retirees are assumed to elect HMOs, 86.0% are assumed to elect PPOs/Indemnity.

PER CAPITA HEALTH CARE COSTS: Health care costs were based on the reported 2007 and 2008 premium equivalent rates and HMO premiums provided by SERS, which are shown below. Underlying claim costs were assumed to reflect the weighted average cost based on the current enrollment, in each of the benefit plans described in Section III. We did not verify these premium equivalent rates were actually representative of the claim costs of particular groups as analysis of claim costs was outside of the scope of this review. While certain individual per capita rates for particular classes of individuals do not all look consistent with our expectations, we do not believe that the use of these rates significantly overstate or understate the overall expected

V – Assumptions and Methods

valuation liabilities. All benefit recipients were assumed to be eligible for Medicare Part A and Part B upon attainment of age 65. To simplify the valuation process, this assumption was applied to a small group of retirees over age 65 who are not covered under Medicare Part A.

V – Assumptions and Methods

2007

	Indemnity / PPO		HMO		
	Aetna/ MMO	Aultcare	Aetna	Kaiser	Paramount
Total Medical Cost					
A. Benefit Recipient without Medicare	\$868	\$580	\$787	\$544	\$896
B. Benefit Recipient with Medicare	81	153	157	201	109
C. Spouse without Medicare	686	458	622	430	708
D. Spouse with Medicare	77	115	156	186	87

	Indemnity / PPO		HMO		
	Aetna/ MMO	Aultcare	Aetna	Kaiser	Paramount
Total Drug Cost					
A. Benefit Recipient without Medicare	\$193	\$142	\$193	\$293	\$193
B. Benefit Recipient with Medicare	188	91	188	136	188
C. Spouse without Medicare	159	117	159	242	159
D. Spouse with Medicare	188	74	188	136	188

2008

	Indemnity / PPO		HMO		
	Aetna/ MMO	Aultcare	Aetna	Kaiser	Paramount
Total Medical Cost					
A. Benefit Recipient without Medicare	\$846	\$529	\$855	\$598	\$972
B. Benefit Recipient with Medicare	56	62	57	172	43
C. Spouse without Medicare	668	418	675	473	768
D. Spouse with Medicare	56	62	57	172	43

	Indemnity / PPO		HMO		
	Aetna/ MMO	Aultcare	Aetna	Kaiser	Paramount
Total Drug Cost					
A. Benefit Recipient without Medicare	\$171	\$161	\$171	\$322	\$171
B. Benefit Recipient with Medicare	164	40	164	62	164
C. Spouse without Medicare	141	133	141	266	141
D. Spouse with Medicare	164	40	164	62	164

V – Assumptions and Methods

AGE-RELATED MORBIDITY: The assumed increases in the claims costs per year of age for retirees and spouses are as follows:

Age	Annual Increase
Under 41	0.00%
41 – 45	2.50%
46 – 50	2.60%
51 – 55	3.20%
56 – 60	3.40%
61 – 65	3.70%
66 – 70	3.20%
71 – 75	2.40%
76 – 80	1.80%
81 – 85	1.30%
Over 85	0.00%

These increases were applied to per capita costs under the two PPOs.

V – Assumptions and Methods

MORTALITY, RETIREMENT, WITHDRAWAL AND DISABILITY: Assumed rates are as follows:

Mortality Rates*				
Attained Age	Healthy		Disabled	
	Males	Females	Males	Females
20	.048%	.028%	2.104%	1.826%
30	.078	.033	2.204	1.958
40	.100	.065	2.304	2.090
50	.233	.131	2.404	2.222
60	.709	.386	3.906	2.366
70	2.173	1.271	4.861	2.601
80	5.586	3.536	7.812	5.547

* Mortality rate for retirees and survivors are based on the 1994 Group Annuity Mortality table with male and female ages set back one year. Mortality for active members is 60% of the retiree table for males and 50% for females. Mortality for disabled members is developed from experience.

Retirement Rates		
Attained Age	Male	Female
50 – 54	40.0%	33.0%
55	25.0	25.0
56 – 57	20.0	20.0
58 – 59	15.0	20.0
60	10.0	20.0
61	10.0	15.0
62	15.0	15.0
63	10.0	10.0
64	10.0	10.0
65	25.0	25.0
66 – 74	20.0	20.0
75	100.0	100.0

V – Assumptions and Methods

Withdrawal Rates	
Years of Service	Unisex Rate
0	55.00%
1	20.00
2	15.00
3	10.00
4	7.50
5	6.50
10	5.00
15	3.75
20	3.50

Disability Rates		
Attained Age	Male	Female
30	.112%	.075%
35	.371	.075
40	.405	.157
45	.506	.187
50	.825	.394
55	.825	.608

For the calculation of life insurance liabilities, it was assumed that all current SERS employees would remain in active service until eligible for normal retirement.

FUTURE EXPENSES: The assumed discount rate is net of the anticipated future administrative expenses of the fund.

METHODS

ACTUARIAL COST METHOD: Entry Age Normal Cost Method with normal cost rate determined as level percentage of overall payroll based on individual calculation of present value of future normal cost. Gains and losses are reflected in the accrued liability. Amortization is over an open 30-year period as a level percentage of payroll.

V – Assumptions and Methods

ASSET VALUATION METHOD: Market value of assets.

PAYROLL GROWTH: 4.00% per annum compounded annually.

REPLACEMENT OF RETIRING MEMBERS: SERS provided data for active members as of June 30, 2006 and data for retired members as of December 31, 2006. The active member population reported as of June 30, 2006 was adjusted to December 31, 2006 by removing members receiving health care benefits as of December 31, 2006 and replacing them with hypothetical active members according to the profile of new entrants.

DATA

CENSUS AND ASSETS: The valuation was based on active and inactive members of the System as of June 30, 2006, and retired members and spouses of the System as of December 31, 2006, and does not account for future members. Assets are as of December 31, 2006. All census and asset data was supplied by the System.

VI – Glossary of Terms

Accrued Liability

The present value as of the valuation date of all of the prior normal costs of the plan. It is the portion of the present value of future plan benefits attributable to service accrued as of the valuation date. If all assumptions were realized and contributions equal to the normal cost were made annually from the inception of the plan, the accrued liability would equal the plan assets. Mathematically, the accrued liability is equal to the difference between (a) the present value of future plan benefits, and (b) the present value of future normal cost. Sometimes referred to as “actuarial accrued liability.”

Actuarial Assumptions

Estimates of future plan experience with respect to rates of mortality, disability, turnover, retirement, 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.

Actuarial Cost Method

The cost of a pension or retiree health care plan should be recognized during the working lifetime of the members who are ultimately going to receive benefits, preferably by actually funding amounts sufficient to provide completely for each member’s benefit at the time of retirement. The mathematical budgeting procedure for allocating the cost of benefits is called the “actuarial cost method.” The cost method allocates 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.”

Actuarially Required Contribution Rate

The contribution rate necessary to advance fund benefits. In this valuation, that rate is equal to the normal cost plus amortization of the unfunded accrued liability over a 30-year period.

Advance Fund

Funding on a full reserve basis. See definition of full reserve basis.

Amortization

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.

VI – Glossary of Terms

Entry Age Normal Cost Method

A funding method based upon the premise that if all assumptions are realized, the annual contribution as a percentage of payroll for an individual will remain level from year to year. This premise means that the present value of all future normal costs at a member's hire age (i.e., entry age) is exactly equal to the present value of all future benefits. If the trend rate is greater than the assumed overall payroll growth, then entry age normal cost contributions would be expected to increase year to year as an overall percentage of payroll.

Experience Gain (Loss)

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.

Full Reserve Basis

The philosophy behind every proper funding method is that benefits should be funded during the working lifetime of the members. This means that at retirement, contributions plus interest on those contributions are sufficient to provide completely for the benefits expected to be paid out. This advance funding is called funding on a full reserve basis.

Funded Status

The percentage of the total accrued liability that the assets represent.

Market Value of Assets

The value of assets segregated in the trust fund to provide benefits. The market value is the amount that the plan could reasonably expect to receive for its investments as of the valuation date in a current sale between a willing buyer and a willing seller, that is, other than in a forced or liquidation sale.

Normal Cost

The annual cost of the benefits that accrue during the year. The normal cost is the amount necessary to be contributed to pay for the benefits that are earned during the year. It is the cost of keeping the fund at the desired level if the assumptions are realized and if the assets equal the accrued liability (i.e., the cost under "normal" circumstances). Sometimes referred to as "current service cost."

Present Value

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.

Present Value of Future

The value as of the valuation date of all of the benefits expected to

VI – Glossary of Terms

Plan Benefits	be paid in the future based upon the actuarial assumptions.
Present Value of Future Normal Cost	The value as of the valuation date of all of the future normal costs of the plan based upon the actuarial assumptions.
Setback in Age	Used in applying rates of mortality. Setback in age means assuming that the age of a member is younger than it actually is. For example, if the male mortality is setback by one year that means a male age 50 is assumed to be age 49 for purposes of applying the mortality table.
Set forward in Age	Used in applying rates of mortality. Set forward in age means assuming that the age of a member is older than it actually is. For example, if the female mortality is set forward by one year that means a female age 50 is assumed to be age 51 for purposes of applying the mortality table.
Trend Rates	The annual rates at which the net incurred cost of covered medical and prescription drug benefits are assumed to increase.
Usual, Customary and Reasonable Fees (UCR)	The charges for services and supplies that a plan administrator has determined to be the prevailing levels in the geographic area where they are furnished.
Unfunded Accrued Liability	The difference between the actuarial accrued liability and the valuation assets.