



**Cavanaugh Macdonald**  
CONSULTING, LLC

*The experience and dedication you deserve*



**Report on the Retiree Health Care  
Valuation of the  
School Employees Retirement System of Ohio**

**Prepared as of June 30, 2018**





# Cavanaugh Macdonald

CONSULTING, LLC

*The experience and dedication you deserve*

November 7, 2018

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

Dear Members of the Board:

We have submitted the results of the annual actuarial valuation of the Retiree Health Care Valuation of the School Employees Retirement System of Ohio (SERS) prepared as of June 30, 2018. While not verifying the data at the source, the actuary performed tests for consistency and reasonability. The valuation indicates that an actuarially determined contribution of 5.51% of active payroll payable for the fiscal year ending June 30, 2019 is required to fund the benefits.

On June 2, 2015, GASB Statement No. 74 and GASB Statement No. 75 (GASB 74 and 75) were unanimously adopted by the GASB Board. The disclosure requirements of GASB 74 and 75 will be similar to the disclosure requirements for pension benefits under GASB Statement No. 67 and GASB Statement No. 68. GASB 74 relates to accounting disclosures for plan sponsors and, as such, replaces GASB 43 beginning with fiscal years ending September 30, 2017. GASB 75 relates to accounting disclosures for contributing employers and, as such, replaces GASB 45 beginning with fiscal years ending September 30, 2018. GASB 74 and 75 will require applicable OPEB plan sponsors and contributing employers to disclose the net OPEB liability on the statement of financial position and book an accounting expense based upon the entry age normal actuarial cost method. Beyond the use of a specified actuarial cost method, GASB's new disclosure standards will also require the discount rate used to calculate liabilities to be based upon the yield of 20-year, tax-exempt municipal bonds and the expected rate of return on plan assets, to the extent plan assets are projected to be available for the payment of future benefits. Additionally, GASB 74 and 75 will bring about many other changes in the liability valuation and accounting disclosure processes currently in place which are expected to significantly impact data collection, timing, and effort. As details for the new GASB OPEB disclosure standards emerge, planning and coordination between plan sponsors, contributing employers, actuaries, and auditors is recommended. Separate reports will be prepared to provide accounting information under Governmental Accounting Standards Board Statements No. 74 and 75, when applicable.

The medical and drug benefits of the Plan are included in the actuarially calculated contribution rates which are developed using the entry age normal cost method with the normal cost rate determined as a level percentage of payroll. GASB requires the discount rate used to value a plan be based on the likely return of the assets held in trust to pay benefits. The discount rate used in this valuation is 5.25%. Gains and losses are reflected in the unfunded accrued liability that is amortized by regular annual contributions as a level percentage of payroll within a 30-year period, on the assumption that payroll will increase by 3.50% annually. The assumptions recommended by the actuary are, in the aggregate, reasonably related to the experience under the Plan and to reasonable expectations of anticipated experience under the Plan.



November 7, 2018  
Board of Trustees  
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The impact of the Affordable Care Act (ACA) was addressed in this valuation. Review of the information currently available did not identify any specific provisions of the ACA that are anticipated to significantly impact results. While the impact of certain potential future provisions such as the excise tax on high-value health insurance plans (if applicable), mandated benefits and participation changes due to the individual mandate should be recognized in the determination of liabilities, overall future plan costs and the resulting liabilities are driven by amounts employers and retirees can afford (i.e., trend). The trend assumption forecasts the anticipated increase to initial per capita costs, taking into account health care cost inflation, increases in benefit utilization, plan changes, government-mandated benefits, and technological advances. Given the uncertainty regarding the ACA's implementation (e.g., the impact of excise tax on high-value health insurance plans, changes in participation resulting from the implementation of state-based health insurance exchanges), continued monitoring of the ACA's impact on the Plan's liability will be required.

To the best of our knowledge, this report is complete and accurate. The valuation was performed by, and under the supervision of, independent actuaries who are members of the American Academy of Actuaries with experience in performing valuations for public retirement systems. The undersigned are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

The valuation was prepared in accordance with the principles of practice prescribed by the Actuarial Standards Board.

Future actuarial results may differ significantly from the current results presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Since the potential impact of such factors is outside the scope of a normal annual actuarial valuation, an analysis of the range of results is not presented herein.

The actuarial calculations were performed by qualified actuaries according to generally accepted actuarial procedures and methods. The calculations are based on the current provisions of the system, and on actuarial assumptions that are, in the aggregate, internally consistent and reasonably based on the actual experience of the system.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read 'Alisa Bennett'.

Alisa Bennett, FSA, FCA, EA, MAAA  
Principal and Consulting Actuary

A handwritten signature in blue ink, appearing to read 'John J. Garrett'.

John J. Garrett, ASA, FCA, MAAA  
Principal and Consulting Actuary

AB/JJG:bvb



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**REPORT ON THE ANNUAL VALUATION OF THE  
SCHOOL EMPLOYEES RETIREMENT SYSTEM OF OHIO**

**PREPARED AS OF JUNE 30, 2018**

**SECTION I – SUMMARY OF PRINCIPAL RESULTS**

1. This report, prepared as of June 30, 2018, presents the results of the annual actuarial valuation of retiree health care offered to SERS members. For convenience of reference, the principal results of the valuation and a comparison with the preceding valuation results are summarized in the following table.

	June 30, 2018	June 30, 2017
<b>Active members included in valuation</b>		
Number	158,343	157,981
Annual Compensation	\$3,332,395,171	\$3,303,055,969
<b>Service Retirees</b>		
Number	32,055	32,085
<b>Disability Retirees</b>		
Number	3,079	3,208
<b>Spouses of Retirees</b>		
Number	5,426	5,566
<b>Spouses of Deceased Retirees</b>		
Number	1,740	1,808
<b>Survivor Benefit Recipients</b>		
Number	775	803
<b>Children</b>		
Number	346	388
<b>Deferred Vesteds</b>		
Number	5,089	4,860
<b>Assets</b>		
Market Value	\$435,629,637	\$382,109,560
<b>Unfunded Accrued Liability</b>	\$2,089,252,492	\$2,014,376,745
<b>Actuarial Accrued Liability</b>	\$2,524,882,129	\$2,396,486,305
<b>Funded Ratio (MVA/AAL)</b>	17.25%	15.94%
<b>Employer Contribution Rate</b>		
Normal	2.87%	2.76%
Accrued Liability	<u>2.62%</u>	<u>2.55%</u>
Total	5.49%	5.31%
Employer Contribution Toward Health Care*	2.00%	2.00%
Accrued liability amortization period	30	30

\* Includes 1.50% of payroll surcharge



2. The valuation assumes an allocation of 13.50% to the basic benefits and 0.50% to health care consistent with SERS' funding policy. The funding policy requires at least 13.50% of the employers' contributions be allocated to SERS' basic benefits when the funded ratio is 70% but less than 80%, with the remainder allocated to the health care fund. Therefore, the employer health contribution rate is set at 0.50%, plus a health care surcharge of 1.50%, or 2.00%. This rate includes the anticipated revenue from the minimum surcharge level for FY2019 of \$21,600.
3. The valuation balance sheet showing the results of the valuation is given in Schedule A.
4. Comments on the valuation results are given in Section IV, comments on the experience and actuarial gains during the valuation year are given in Section V, and the rates of contribution payable by the employer are given in Section VI.
5. There were no changes in interest rate, or age related morbidity assumptions since the last valuation. The following changes were reflected in this valuation:

### **Medicare Eligible**

#### **Premiums**

Premiums will decrease in 2019 for most enrollees in Aetna Medicare Plan (PPO). For some enrollees with only Medicare Part B, premiums will remain the same. There will be a premium decrease for enrollees in the Paramount Elite Medicare Plan, and PrimeTime Plan. Some AultCare enrollees with only Medicare Part B coverage will see an increase in premiums.

#### **Specialist Office Co-Pay**

The specialist office co-pay will decrease from \$40 to \$30.

#### **Chiropractic Co-Pay**

The chiropractic co-pay will be increasing to \$20 from \$15.

#### **Ambulance Co-Pay**

The ambulance is changing to an \$80 co-pay from 20% coinsurance

### **Non-Medicare Eligible**

#### **Premiums**

Aetna Choice POS II plan participants will see a decrease in premiums. AultCare enrollees will see an increase in premiums. Premium information for Marketplace plans was not available until October.



### **Emergency Room Co-Pay**

The emergency room co-pay is changing to a \$150 copay from 20% coinsurance.

6. The statute sets a contribution cap of 24% of payroll: 14% from employers and 10% from employees. The funding policy states that employer contributions in excess of those required to support the basic benefits may be allocated to retiree health care funding. If the funded ratio is less than 70%, the entire 14% employers' contribution shall be allocated to SERS' basic benefits. If the funded ratio is 70% but less than 80%, at least 13.50% of the employers' contribution shall be allocated to SERS' basic benefits, with the remainder (if any) allocated to the Health Care Fund. If the funded ratio is 80% but less than 90%, at least 13.25% of the employers' contribution shall be allocated to SERS' basic benefits, with the remainder (if any) allocated to the Health Care Fund. If the funded ratio is 90% or greater, the Health Care Fund may receive any portion of the employers' contribution that is not needed to fund SERS' basic benefits.



## **SECTION II – MEMBERSHIP DATA**

Data regarding the membership of the System for use as a basis for the valuation were furnished by the System's office. The following tables summarize the membership of the system as of June 30, 2018 upon which the valuation was based. Detailed tabulations of the data are given in Schedule D.

### **Active Members**

<b>Number</b>	<b>Payroll</b>	<b>Group Averages</b>		
		<b>Salary</b>	<b>Age</b>	<b>Service</b>
158,343	\$3,332,395,171	\$21,045	46.8	7.4

The following table shows a six-year schedule of active member valuation data.

### **SCHEDULE OF SERS ACTIVE MEMBER VALUATION DATA**

<b>Valuation Date</b>	<b>Number</b>	<b>Annual Payroll</b>	<b>Annual Average Pay</b>	<b>% Increase in Average Pay</b>
6/30/2013	121,642	2,746,827,535	22,581	(1.3%)
6/30/2014	121,251	2,759,281,606	22,757	0.8
6/30/2015	122,855	2,845,443,802	23,161	1.8
6/30/2016	124,540	2,932,236,551	23,545	1.7
6/30/2017	157,981*	3,303,055,969	20,908	(11.2)
6/30/2018	158,343	3,332,395,171	21,045	0.7

\*Effective in FY2017, the active member headcount reflects an increase of members who have been re-categorized from inactive to active status.





The following table shows the number of retiree members and their beneficiaries receiving health care as of the valuation date as well as average ages.

**Retiree Lives**

Type of Benefit Recipient	Number	Average Age
Service Retirees	32,055	75.9
Disability Retirees	3,079	68.4
Spouses	7,941	78.4
Children	346	29.7
Total	43,421	75.4

This valuation also includes 5,089 inactive members eligible for health care.



### SECTION III – ASSETS

1. As of June 30, 2018 the total market value of assets amounted to \$424,282,108.

Asset Summary Based on Market Value			
(1)	Assets at June 30, 2017	\$	382,109,560
(2)	Contributions and Misc. Revenue		180,432,788
(3)	Investment Gain (Loss)		25,534,704
(4)	Benefit Payments		<u>(152,447,415)</u>
(5)	Assets at June 30, 2018	\$	435,629,637
	(1) + (2) + (3) + (4)		
(6)	Annualized Rate of Return*		6.4 %

\*Based on the approximation formula:  $I/[0.5 \times (A + B - I)]$ , where

- I = Investment Gain (Loss)
- A = Beginning of year asset value
- B = End of year asset value



#### **SECTION IV - COMMENTS ON VALUATION**

Schedule A of this report contains the valuation balance sheet which shows the present and prospective assets and liabilities of the System as of June 30, 2018.

1. The total health care valuation balance sheet shows that the System has total future health care liabilities of \$3,447,999,968 of which \$947,646,519 is for the future benefits payable for present retiree members and beneficiaries of deceased members; \$20,310,571 is for the future benefits payable for current deferred vested members; and \$2,480,042,878 is for the future benefits payable for present active members. Against these health care liabilities the System has a total market value of assets of \$424,282,108 as of June 30, 2018. The difference of \$3,023,717,860 between the total liabilities and the total present actuarial value of assets represents the present value of contributions to be made in the future for health care. Of this amount, no future contributions are expected to be made by members, and the balance of \$3,023,717,860 represents the present value of future contributions payable by SERS.
2. SERS' contributions on account of health care consists of normal contributions and accrued liability contributions. The valuation indicates that employer normal contributions at the rate of 2.87% of payroll are required to provide the benefits of the System for the average new member of SERS.
3. Prospective employer normal contributions on account of health care at the above rates have a present value of \$923,117,839. When this amount is subtracted from \$3,023,717,860 which is the present value of the total future contributions to be made by the employer, there remains \$2,100,600,021 as the amount of future accrued liability contributions.
4. It is recommended that the accrued liability contribution rate payable by SERS on account of health care be set at 2.64% of payroll. This rate is sufficient to liquidate the unfunded accrued liability of \$2,100,600,021 over 30 years on the assumption that the aggregate payroll for members will increase by 3.50% each year.



## **SECTION V – DERIVATION OF EXPERIENCE GAINS AND LOSSES**

Actual experience will never (except by coincidence) coincide exactly with assumed experience. It is assumed that gains and losses will be in balance over a period of years, but sizable year-to-year fluctuations are common. Detail on the derivation of the experience gain (loss) for the year ended June 30, 2018 is shown below.

### **Experience Gain/(Loss) (\$ Thousands)**

(1)	UAAL* as of 6/30/17	\$ 2,014,377
(2)	Normal cost from last valuation	91,440
(3)	Expected employer contributions	176,950
(4)	Interest accrual: [(1) + (2)] x .0525 - (3) x .0525/2	<u>105,910</u>
(5)	Expected UAAL before changes: (1) + (2) - (3) + (4)	\$ 2,034,777
(6)	Change due to claims and retiree premiums	(71,420)
(7)	Expected UAAL after changes: (5) - (6)	\$ 2,106,197
(8)	Actual UAAL* as of 6/30/18	\$ 2,089,252
(9)	Total gain/(loss): (7) - (8)	\$ 16,945
	(a) Contribution shortfall	(78,912)
	(b) Investment Gain/(Loss)	4,739
	(c) Experience Gain/(Loss) (9) - (9a) - (9b)	\$ 91,118
(10)	Accrued Liabilities as of 6/30/18	\$ 2,524,882
(11)	Experience Gain/(Loss) as percent of actuarial accrued liabilities at start of year (9c) / (10)	3.6%

\* unfunded actuarial accrued liability



**ANALYSIS OF FINANCIAL EXPERIENCE  
Gains and Losses in Accrued Liabilities  
Resulting from Difference Between  
Assumed Experience and Actual Experience  
(\$ Millions)**

Type of Activity	\$ Gain (or Loss) For Year Ending 6/30/18
<b>Age &amp; Service Retirements.</b> If members retire at older ages or participate in lower numbers, there is a gain. If younger ages or higher participation, a loss.	\$ 30.8
<b>Disability Retirements.</b> If disability claims are less than assumed, there is a gain. If more claims, a loss.	(0.4)
<b>Death-in Service Benefits.</b> If survivor claims are less than assumed, there is a gain. If more claims, there is a loss.	(1.9)
<b>Withdrawal From Employment.</b> If more liabilities are released by withdrawals than assumed, there is a gain. If smaller releases, a loss.	39.2
<b>Claims Increases (Including Wrap Plan).</b> If there are smaller claims increases than assumed creates a gain; larger, a loss.	(71.4)
<b>New Members.</b> Additional accrued liability attributable to members who entered the plan since the last valuation.	(21.2)
<b>Investment Income.</b> If there is a greater investment income than assumed, there is a gain. If less income, a loss.	4.7
<b>Contribution Shortfall.</b> If there are more contributions than the ARC, there is a gain. If less contributions, a loss.	(78.9)
<b>Death After Retirement.</b> If retiree members live longer than assumed, there is a loss. If not as long, a gain.	35.4
<b>Other.</b> Miscellaneous gains and losses resulting from changes in valuation software, data adjustments, timing of financial transactions, etc.	9.2
<b>Gain (or Loss) During Year From Financial Experience</b>	\$ (54.5)
<b>Non-Recurring Items.</b> Adjustments for plan amendments, assumption changes and method changes	0.0
<b>Composite Gain (or Loss) During Year</b>	\$ (54.5)



**SECTION VI – REQUIRED CONTRIBUTION RATES**

The valuation balance sheet gives the basis for determining the percentage rates for contributions to be made by employers to the Retirement System. The following tables show the rates of contribution payable by employers as determined from the present valuation for FY2019.

**Required Contribution Rates**

<b>Contribution for</b>	<b>Amount</b>	<b>% of Payroll</b>
A. Normal Cost	\$ 98,710,376	2.87%
B. Member Contributions*	\$ 0	0.00%
C. Employer Normal Cost: [A - B]	\$ 98,710,376	2.87%
D. Unfunded Actuarial Accrued Liability**	\$ 90,187,123	2.62%
E. Total Recommended Employer Contribution Rate: [C + D]	\$ 188,897,499	5.49%
F. Employer Contribution Toward Health Care <sup>+</sup>	\$ 68,731,163	2.00%

\* The liabilities are net of retiree contributions towards their health care.

\*\* Based on 30-year amortization of the UAAL from June 30, 2018.

+ Includes 1.50% payroll surcharge.

**Ten-Year History of Employer Contribution Rates**

<b>Fiscal Year Ending June 30</b>	<b>Employer Health Care Contribution Rate</b>	<b>Surcharge Percentage</b>	<b>Total Health Care Contribution Rate</b>
2009	4.16%	1.50%	5.66%
2010	0.46	1.50	1.96
2011	1.43	1.50	2.93
2012	0.55	1.50	2.05
2013	0.16	1.50	1.66
2014	0.14	1.50	1.64
2015	0.82	1.50	2.32
2016	0.00	1.50	1.50
2017	0.00	1.50	1.50
2018	0.50	1.50	2.00



**SECTION VII - ACCOUNTING INFORMATION**

Governmental Accounting Standards Board Statements 74 and 75 set forth certain items of required supplementary information to be disclosed in the financial statements of the System and the employer. The information presented in the required supplementary schedules was determined as part of the actuarial valuation at June 30, 2018. Additional information will be provided in separate reports.

Valuation date	6/30/2018
Actuarial cost method	Entry Age
Amortization	Level Percent Open
Remaining amortization period	30 years
Asset valuation method	Market Value
Actuarial assumptions	
Investment rate of return*	5.25%
* Includes price inflation at	2.75%
Wage increases	3.50%
Medical Trend Assumption	
Pre-Medicare	7.25% - 4.75%
Medicare	5.375% - 4.75%
Year of Ultimate Trend	2022 - 2028

Another required item of disclosure is the Schedule of Funding Progress shown in the following table.



**Schedule of Funding Progress  
(\$ Millions)**

Actuarial Valuation Date	Value of Plan Assets (a)	Actuarial Accrued Liability (AAL) Entry Age (b)	Unfunded AAL (UAAL) (b - a)	Funded Ratio (a / b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b - a) / (c))
6/30/2012	355	2,691	2,336	13.2%	2,788	83.8%
6/30/2013	379	2,918	2,539	13.0	2,747	92.4
6/30/2014	414	2,476	2,062	16.7	2,759	74.7
6/30/2015	408	2,425	2,016	16.8	2,845	70.9
6/30/2016	370	2,407	2,037	15.4	2,932	69.5
6/30/2017	382	2,396	2,014	15.9	3,303	61.0
6/30/2018	436	2,525	2,089	17.3	3,332	62.7

**Schedule of Employer Contributions**

Year Ended	Annual Required Contribution (ARC) (a)	Employer Contribution (b)	Federal Subsidies and Other Receipts (c)	Total Contribution (d) = (b)+(c)	Percentage of ARC Contributed (e) = (d)/(a)
June 30, 2012	\$155,857,785	\$56,476,230	\$0	\$56,476,230	36.2%
June 30, 2013	171,402,038	45,489,443	0	45,489,443	26.5
June 30, 2014	190,390,431	46,097,206	29,200,200	75,297,406	39.5
June 30, 2015	164,182,107	68,904,867	20,084,826	88,989,693	54.2
June 30, 2016	161,566,234	44,855,441	32,493,250	77,348,691	47.9
June 30, 2017	178,034,717	47,672,886	17,341,005	65,013,891	36.5
June 30, 2018	176,950,184	63,539,354	36,517,382	100,056,736	56.5





## SCHEDULE A

### Valuation Balance Sheet

The following valuation balance sheet shows the assets and liabilities of the retirement system as of the current valuation date of June 30, 2018 and, for comparison purposes, as of the immediately preceding valuation date of June 30, 2017.

#### VALUATION BALANCE SHEET SHOWING THE ASSETS AND LIABILITIES OF THE SCHOOL EMPLOYEES RETIREMENT SYSTEM OF OHIO

	June 30, 2018	June 30, 2017
<b>ASSETS</b>		
Current market value of assets	\$ 435,629,637	\$ 382,109,560
Prospective contributions		
Employer normal contributions	923,117,839	878,918,618
Unfunded accrued liability contributions	<u>2,089,252,492</u>	<u>2,014,376,745</u>
Total prospective contributions	<u>\$ 3,012,370,331</u>	<u>\$ 2,893,295,363</u>
Total assets	<u>\$ 3,447,999,968</u>	<u>\$ 3,275,404,923</u>
<b>LIABILITIES</b>		
Present value of benefits payable on account of present retiree members and beneficiaries	\$ 947,646,519	\$ 902,506,385
Present value of benefits payable on account of active members	2,480,042,878	2,359,428,384
Present value of benefits payable on account of deferred vested members	<u>20,310,571</u>	<u>13,470,154</u>
Total liabilities	<u>\$ 3,447,999,968</u>	<u>\$ 3,275,404,923</u>



The following table provides the solvency test for SERS members. The table allocates the valuation assets of the System to its liabilities based on an order of precedence. The highest order of precedence is active member contributions. The second highest order of precedence are members in pay status, and vested and non-vested terminated members. The lowest order of precedence is the employer financed portion of active member accrued benefits. The liabilities are determined using the System's assumed rate of return.

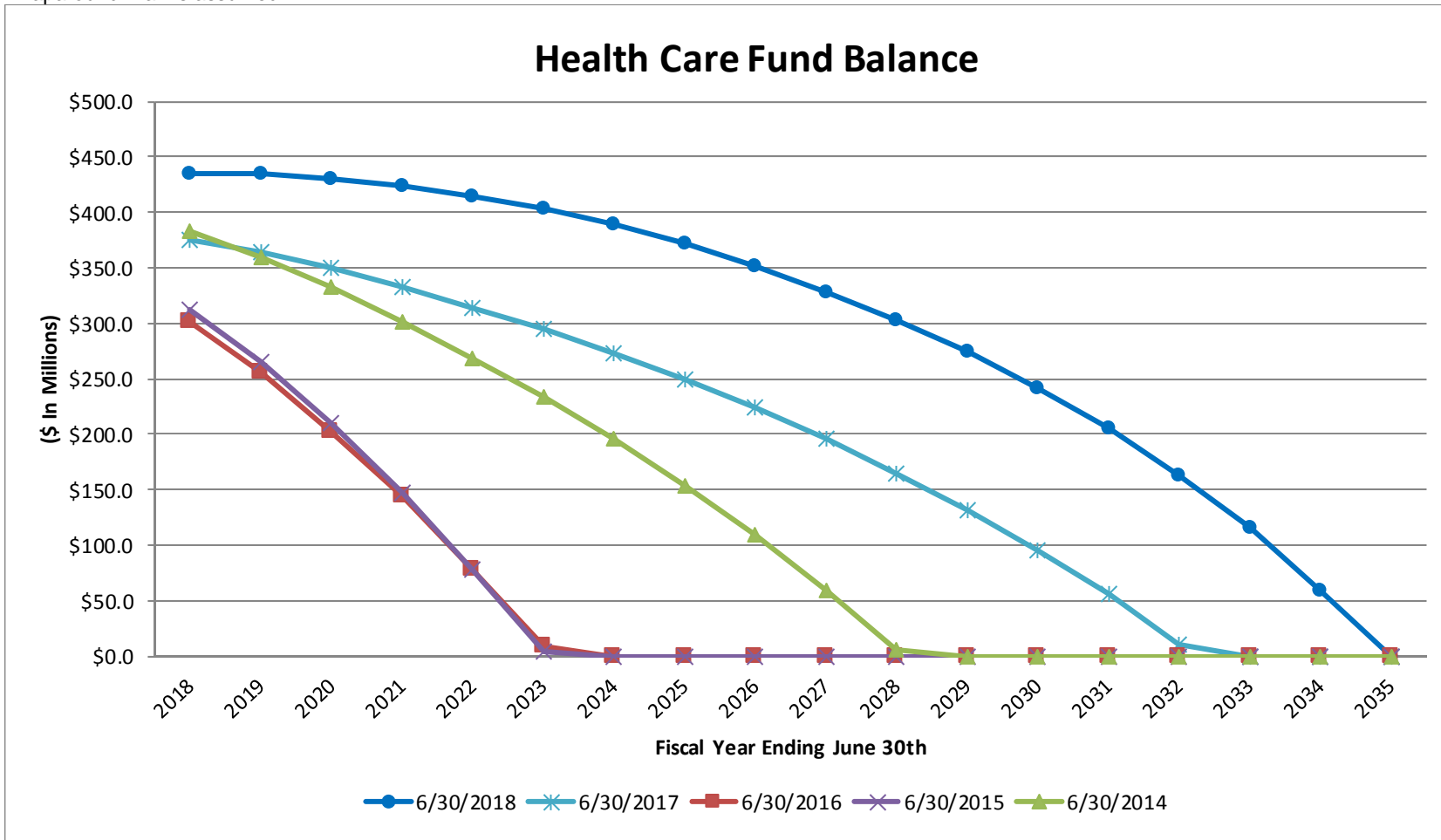
**Solvency Test  
(\$ Millions)**

Valuation Date	Aggregate Accrued Liabilities For				Actuarial Value of Assets	Portion of Accrued Liabilities Covered by Reported Asset		
	(1) Active Member Contributions	(2) Retiree Members & Beneficiaries	(3) Active Members (Employer Financed Portion)			(1)	(2)	(3)
6/30/2012	\$0	\$1,074	\$1,617	\$355	100.0%	33.1%	0.0%	
6/30/2013	0	1,157	1,761	379	100.0	32.8	0.0	
6/30/2014	0	968	1,508	414	100.0	42.8	0.0	
6/30/2015	0	979	1,507	408	100.0	41.7	0.0	
6/30/2016	0	918	1,489	370	100.0	40.3	0.0	
6/30/2017	0	916	1,480	382	100.0	41.7	0.0	
6/30/2018	0	968	1,557	436	100.0	45.0	0.0	



### Solvency Chart

The following chart shows the projected Health Care Fund Balances from the five most recent valuations. The prior year projections were based on the funding policy and assumptions in effect on the prior year valuation dates. The projections are based on a 7.75% future asset rate of return assumption for 2013-2015 and 7.50% starting June 30, 2016 and assumed health care contribution rates based on the pension valuation and the surcharge calculation. Starting with the June 30, 2015 valuation, the new funding policy was taken into account. Starting with the June 30, 2016 valuation, 10% participation in the pre-Medicare Wraparound Plan is assumed.





**SCHEDULE B**

**STATEMENT OF ACTUARIAL ASSUMPTIONS AND METHODS**

The decremental assumptions used in the valuation were adopted by the Board in April, 2016.

INTEREST RATE: 5.25% per annum, compounded annually (net after all System expenses).

HEALTH CARE COST TREND RATES: Following is a chart detailing trend assumptions:

Calendar Year	Non-Medicare	Medicare
2018	7.25%	5.38%
2019	7.00	5.25
2020	6.75	5.13
2021	6.50	5.00
2022	6.25	4.75
2023	6.00	4.75
2024	5.75	4.75
2025	5.50	4.75
2026	5.25	4.75
2027	5.00	4.75
2028 and beyond	4.75	4.75

AGE RELATED MORBIDITY: Per capita costs are adjusted to reflect expected cost changes related to age. The increase to the net incurred claims was assumed to be:

Participant Age	Annual Increase	
	Medical	Prescription Drug
Under 41	0.00%	0.00%
41 – 45	2.50	1.25
46 – 50	2.60	1.30
51 – 55	3.20	1.60
56 – 60	3.40	1.70
61 – 65	3.70	1.85
66 – 70	3.20	1.60
71 – 75	2.40	1.20
76 – 80	1.80	0.90
81 – 85	1.30	0.65
85 and over	0.00	0.00



ANTICIPATED PLAN PARTICIPATION: The assumed annual rates of retiree participation and spouse coverage are as follows:

Retiree Gender	Spouse Coverage	Dependent Child Coverage
Male	50.0%	0.0%
Female	30.0%	0.0%

Wives are assumed to be three years younger than husbands.

Years of Service	Service Retiree Participation	Disabled Retiree Participation	Deferred Vested Retiree Participation	Death in Service Surviving Spouse Participation
1.5 – 5	N/A	N/A	N/A	100.0%
5 – 9	N/A	50.0%	N/A	100.0
10 – 14	25.0%	50.0	50.0%	100.0
15 – 19	45.0	70.0	50.0	100.0
20 – 24	70.0	75.0	50.0	100.0
25 – 29	75.0	75.0	50.0	100.0
30 – 34	80.0	80.0	50.0	100.0
35 and over	90.0	90.0	50.0	100.0

ANTICIPATED PLAN ELECTIONS: The assumed annual rates of member plan elections are as follows:

Plan Type	Future Retirees	
	Non-Medicare	Medicare
PPO	90.0%	94.0%
HMO	0.0%	6.0%
Wraparound Plan	10.0%	N/A

Anticipated plan elections within the above plan types are further expanded below:

Plan Type	Future Retirees*	
	Non-Medicare	Medicare
<b>PPO</b>		
Aetna Choice POS II	95.8%	0.0%
Aetna Medicare <sup>SM</sup> Plan	0.0%	100.0%
AultCare PPO	4.2%	0.0%
<b>HMO</b>		
PrimeTime	N/A	69.5%
Paramount HMO	N/A	30.5%

\* Future disabled retirees assumed 85% Non-Medicare coverage and 15% Medicare coverage before age 65.



ANTICIPATED MEDICARE COVERAGE AT AGE 65: The assumed annual rates of future retirees obtaining Medicare coverage at age 65 are as follows:

Medicare Coverage	Percent Covered
No Medicare at age 65	1.0%
Medicare Part A	98.0%
Medicare Part B Only	1.0%

Current service retirees, disabled benefit recipients, spouses and dependent children under age 65 were assumed to have similar Medicare coverage at age 65 as their post-Medicare counterparts.

HEALTH CARE PREMIUM DISCOUNT PROGRAM PARTICIPATION: Current Medicare-eligible service retirees, disabled benefit recipients, spouses and dependent children reported as qualifying for the health care Premium Discount Program were assumed to continue participating in the program for their lifetime. The health care premium Discount Program is not available for non-Medicare participants.



MONTHLY EXPECTED MEDICAL/PRESCRIPTION DRUG CLAIMS COSTS (INCLUDES ADMINISTRATIVE EXPENSES): Following are charts detailing expected claims for the year following the valuation date. For the Medicare Advantage plans, the Health Insurance Provider Fee under the Affordable Care Act has been included since the moratoriums in 2017 and 2019 are temporary.

Retiree Costs				
Medicare Status	Aetna Choice POS II and Aetna Medicare <sup>SM</sup>	Aetna Traditional Choice	AultCare PPO and PrimeTime	Paramount HMO
Non-Medicare	\$1,247	N/A	\$1,007	N/A
Medicare A	\$194	\$786	\$225	\$208
Medicare B Only	\$527	N/A	\$1,007	\$348

Spouse Costs				
Medicare Status	Aetna Choice POS II and Aetna Medicare <sup>SM</sup>	Aetna Traditional Choice	AultCare PPO and PrimeTime	Paramount HMO
Non-Medicare	\$997	N/A	\$804	N/A
Medicare A	\$194	\$786	\$225	\$208
Medicare B Only	\$527	N/A	\$804	\$348

Children Costs				
Medicare Status	Aetna Choice POS II and Aetna Medicare <sup>SM</sup>	Aetna Traditional Choice	AultCare PPO and PrimeTime	Paramount HMO
Non-Medicare	\$312	N/A	\$178	N/A
Medicare A	\$194	\$786	\$225	\$208

The above amounts are shown as average costs and represent premiums paid to insurers.



ANNUAL EXPECTED MEDICAL/PRESCRIPTION DRUG COSTS (INCLUDES ADMINISTRATIVE EXPENSES) (continued): In the valuation, the premium costs are converted to age 65 amounts, age adjusted and blended based on actual elections for current retirees, current disabled retirees, current retiree spouses and current dependent children, and based on projected elections for future retirees and future spouses. For this valuation, we have assumed 10% participation in the SERS Marketplace Wraparound Plan for pre-Medicare retirees. Current authority allows the Wraparound plan to enroll through 2019 with continuation under discussion. Going forward, administrative and/or legislative action to allow continuation of this plan will be monitored. The age adjusted and blended amounts are as follows:

Annual Pre-65 Blended Costs Age Adjusted to 65							
Pre-65 Cost Type	Future Service Retirees	Future Disabled Retirees	Future Spouses	Current Service Retires	Current Disabled Retirees	Current Retiree Spouses	Current Dependent Children
Medical	\$11,892	\$10,178	\$9,516	\$11,928	\$8,293	\$5,688	\$4,764
Prescription Drug	2,868	2,683	2,328	2,832	2,356	2,004	1,188

Annual 65 & Older Blended Costs Age Adjusted to 65						
65 & Older Cost Type	Future Service Retirees	Future Disabled Retirees	Future Spouses	Current Service Retires	Current Disabled Retirees	Current Retiree Spouses
Medical	\$468	\$468	\$432	\$492	\$684	\$408
Prescription Drug	1,632	1,632	1,608	1,596	1,620	1,560





SEPARATIONS FROM ACTIVE SERVICE: Representative values of the assumed rates of separation from active service are as follows:

Service	Annual Rates of Withdrawal
0	45.00%
1	31.00
2	23.00
3	17.00
4	13.00
5	10.50
10	4.00
15	2.00
20	2.00
25	1.50

Age	Annual Rates of			
	Death *		Disability	
	Male	Female	Male	Female
20	.022%	.013%	.020%	.010%
25	.053	.018	.038	.010
30	.063	.019	.068	.026
35	.059	.024	.122	.055
40	.068	.032	.212	.102
45	.081	.044	.311	.170
50	.126	.074	.411	.300
55	.218	.124	.530	.450
60	.361	.188	.590	.450
65	.607	.274	.550	.300
70	1.071	.415	.300	.200
74	1.570	.629	.300	.200

\* Pre-retirement mortality is based on the RP-2014 Blue Collar Mortality Table with fully generational projection and a five year age set-back for both males and females. The above rates represent the base rates used.



Annual Rates of								
Age	Retirement Eligible prior to 8/1/17				Retirement Eligible after 8/1/17			
	Reduced	Reduced (55/25)	First Eligible Unreduced	Subsequent Unreduced	Reduced	Reduced (60/25)	First Eligible Unreduced	Subsequent Unreduced
50			27%	19%				
55		10%	27%	19%				
60	11%	14%	27%	19%		14%	30%	19%
65			25%	19%	11%	14%	30%	19%
70			20%	22%			30%	22%
75			100%	100%			100%	100%

SALARY INCREASES: Representative values of the assumed annual rates of salary increases are as follows:

Service	Annual Rates of		
	Merit & Seniority (A)	Base (Economy) (B)	Increase Next Year (1+(A))*(1+(B))
0	14.20%	3.50%	18.20%
1	5.55	3.50	9.25
2	3.14	3.50	6.75
3	2.17	3.50	5.75
4	1.45	3.50	5.00
5	1.20	3.50	4.75
6	0.97	3.50	4.50
7	0.72	3.50	4.25
8	0.48	3.50	4.00
9	0.24	3.50	3.75
10 & over	0.00	3.50	3.50

PAYROLL GROWTH: 3.50% per annum, compounded annually.

PRICE INFLATION: 3.00% per annum, compounded annually.

DEATH AFTER RETIREMENT: The RP-2014 Blue Collar Mortality Table with fully generational projection and Scale BB, 120% of male rates and 110% of female rates is used to evaluate allowances to be paid. The RP-2000 Disabled Mortality Table with 90% for male rates and 100% for female rates set back five years is used for the period after disability retirement. These assumptions are used to measure the probabilities of each benefit payment being made after retirement.



VALUATION METHOD: Entry age normal cost method. Entry age is established on an individual basis.

ASSET VALUATION METHOD: Market value.



## SCHEDULE C

### SCHOOL EMPLOYEES RETIREMENT SYSTEM OF OHIO Summary of Main Plan Provisions as of June 30, 2018

#### **ELIGIBILITY FOR ACCESS TO RETIREE HEALTH CARE:**

##### **Normal Retirement:**

*Retire before August 1, 2017 or have 25 years of service or more on or before August 1, 2017:* Attainment of age 65 with at least ten years of creditable service, or completion of 30 years of creditable service, regardless of age.

*Members attaining 25 years of service after August 1, 2017:* Attainment of age 67 with at least ten years of creditable service, or attainment of age 57 with at least 30 years of creditable service. Buy-up option available.

##### **Early Retirement:**

*Retire before August 1, 2017 or have 25 years of service or more on or before August 1, 2017:* Not eligible for unreduced service retirement but has attained age 55 with at least 25 years of service, or age 60 with ten years of service.

*Members attaining 25 years of service after August 1, 2017:* Attainment of age 62 with at least ten years of creditable service, or attainment of age 60 with at least 25 years of creditable service.

**Disability Retirement:** Permanently disabled after completion of at least 5 years of total service credit.

**Survivor Allowances:** Beneficiary must be receiving monthly benefits due to the death of a member, age and service retiree or disability benefit recipient.

**Termination:** Members that terminated with at least ten years of creditable service and have attained age 60 (age 62 for those retiring after August 1, 2017).

#### **PREMIUM PAYMENTS:**

Retirees, spouses and dependent children pay either all or a portion of the cost of health care and prescription drug coverage as well as a \$35 monthly surcharge. The remainder of the cost is paid by SERS.

Medicare-eligible retirees, spouses and dependent children may qualify for the health care Premium Discount Program if their household income falls at or below a specified level. Income limits are updated annually and those wishing to participate in the program are re-verified every year. Retirees, spouses and dependent children qualifying for the program will receive a 25% discount in their monthly health care premiums.



**PREMIUM PAYMENTS (Continued):**

The following schedule lists the percentage of the retiree premium paid by service retirees:

Years of Service	Retirement Date on or before July 1, 1989	Retirement Date August 1, 1989 through July 1, 2008	Retirement Date on or after August 1, 2008
	Service Retiree Premium Contribution Percentage		
5 – 9	50.0%	N/A	N/A
10 – 14	17.5	100.0%	100.0%
15 – 19	17.5	50.0	100.0
20 – 24	17.5	25.0	50.0
25 – 29	17.5	17.5	30.0
30 – 34	17.5	17.5	20.0
35 and over	17.5	17.5	15.0*

\* Additional 1% reduction for each year over 35.

The following schedule lists the percentage of the retiree premium paid by disability benefit recipients:

Years of Service	Disabled Benefit Recipient Premium Contribution Percentage
5 – 9	50.0%
10 – 24	33.0
25 and over	17.5

The following schedule lists the percentage of the spouse premium paid by spouses of retirees:

Service Retiree, Disability Recipient, or Member's Qualified Service	Spouse Premium Contribution Percentage
1.5 – 24	100.0%
25 – 29	90.0
30 and over	80.0

Dependent children pay 70.0% of the child premium.

In addition, SERS offered a new coverage option beginning in 2017, the Marketplace Wraparound Plan. This option is only available to healthcare participants who are not eligible for Medicare and who are not enrolled in Medicaid. Participants will be able to choose insurance from any insurer offering coverage in the federal Marketplace, and if eligible, receive a federal subsidy to lower the premium and cost-sharing amounts. The SERS Marketplace Wraparound Plan offers additional benefits to help pay for deductibles, co-pays, and other costs.



**OTHER POST-EMPLOYMENT BENEFITS:** Health care and prescription drug coverage is provided in all post-employment group health care plan options. Dental and vision coverage are made available to retirees, spouses and dependent children at the full cost.

**2019 RETIREE GROUP HEALTH CARE PLAN OPTIONS:**

**Options available to members without Medicare**

- ◇ Aetna Choice POS II with Express Scripts prescription drug coverage
- ◇ AultCare PPO with AultCare prescription drug coverage

**Options available to members with Medicare:**

- ◇ Aetna Medicare<sup>SM</sup> Plan (PPO) with Express Scripts Medicare Part D Prescription Drug Plan
- ◇ Aetna Traditional Choice with Express Scripts Medicare Part D Prescription Drug Plan (only available to members with special circumstances)
- ◇ AultCare PPO with AultCare prescription drug coverage (only available to members with Part B Only)
- ◇ Paramount Elite Medicare Advantage with Express Scripts Medicare Part D Prescription Drug Plan
- ◇ PrimeTime Health Plan through AultCare with PrimeTime Medicare Part D prescription drug coverage

The following pages contain information that was provided by SERS in the 2019 Open Enrollment Guide and the 2019 Member Health Care Guide.



### 2019 Contribution Rates

Years of Service	Aetna Choice POS II and Aetna Medicare <sup>SM</sup>	Aetna Traditional Choice	AultCare PPO and PrimeTime	Paramount Elite HMO
<b>Service Retirement Date on or before July 1, 1989 Premiums</b>				
5-9.999 years				
Without Medicare	\$659		\$539	N/A
With Medicare A & B	\$117	\$428	\$148	\$139
With Medicare B Only	\$297		\$539	\$209
10-24.999 years				
Without Medicare	\$253		\$211	N/A
With Medicare A & B	\$64	\$173	\$74	\$71
With Medicare B Only	\$127		\$211	\$96
25 years & over				
Without Medicare	\$253		\$211	N/A
With Medicare A & B	\$64	\$173	\$74	\$71
With Medicare B Only	\$64		\$74	\$71

Years of Service	Aetna Choice POS II and Aetna Medicare <sup>SM</sup>	Aetna Traditional Choice	AultCare PPO and PrimeTime	Paramount HMO
<b>Service Retirement Date August 1, 1989 through July 1, 2008 Premiums</b>				
10-14.999 years				
Without Medicare	\$1,282		\$1,042	N/A
With Medicare A & B	\$198	\$821	\$260	\$243
With Medicare B Only	\$558		\$1,042	\$383
15-19.999 years				
Without Medicare	\$659		\$539	N/A
With Medicare A & B	\$117	\$428	\$148	\$139
With Medicare B Only	\$297		\$539	\$209
20-24.999 years				
Without Medicare	\$347		\$287	N/A
With Medicare A & B	\$76	\$232	\$91	\$87
With Medicare B Only	\$166		\$287	\$122
25 years & over				
Without Medicare	\$253		\$211	N/A
With Medicare A & B	\$64	\$173	\$74	\$71
With Medicare B Only	\$64		\$74	\$71



**2019 Contribution Rates  
(continued)**

<b>Years of Service</b>	Aetna Choice POS II and Aetna Medicare <sup>SM</sup>	Aetna Traditional Choice	AultCare PPO and PrimeTime	Paramount Elite HMO
<b>Service Retirement Date on or after August 1, 2008 Premiums*</b>				
10-19.999 years				
Without Medicare	\$1,282		\$1,042	N/A
With Medicare A & B	\$198	\$821	\$260	\$243
With Medicare B Only	\$558		\$1,042	\$383
20-24.999 years				
Without Medicare	\$659		\$539	N/A
With Medicare A & B	\$117	\$428	\$148	\$139
With Medicare B Only	\$297		\$539	\$209
25-29.999 years				
Without Medicare	\$409		\$337	N/A
With Medicare A & B	\$84	\$271	\$103	\$97
With Medicare B Only	\$84		\$103	\$97
30-34.999 years*				
Without Medicare	\$284		\$236	N/A
With Medicare A & B	\$68	\$192	\$80	\$77
With Medicare B Only	\$68		\$80	\$77

\* Further reductions for each year over 35.

<b>Years of Service</b>	Aetna Choice POS II and Aetna Medicare <sup>SM</sup>	Aetna Traditional Choice	AultCare PPO and PrimeTime	Paramount Elite HMO
<b>Disability Benefit Recipient Premiums</b>				
5-9.999 years				
Without Medicare	\$659		\$539	N/A
With Medicare A & B	\$117	\$428	\$148	\$139
With Medicare B Only	\$297		\$539	\$209
10-24.999 years				
Without Medicare	\$447		\$367	N/A
With Medicare A & B	\$89	\$294	\$109	\$104
With Medicare B Only	\$208		\$367	\$150
25 years & over				
Without Medicare	\$253		\$211	N/A
With Medicare A & B	\$64	\$173	\$74	\$71
With Medicare B Only	\$64		\$74	\$71





**2019 Contribution Rates  
(continued)**

<b>Years of Service</b>	Aetna Choice POS II and Aetna Medicare <sup>SM</sup>	Aetna Traditional Choice	AultCare PPO and PrimeTime	Paramount Elite HMO
<b>Spouse Premiums (Service Retiree, Disability Recipient, or Member's Qualified Service)</b>				
Up to 25 years				
Without Medicare	\$1,032		\$839	N/A
With Medicare A & B	\$198	\$821	\$260	\$243
With Medicare B Only	\$558		\$383	\$383
25-29.999 years				
Without Medicare	\$932		\$759	N/A
With Medicare A & B	\$182	\$743	\$238	\$222
With Medicare B Only	\$182		\$222	\$222
30 years & over				
Without Medicare	\$833		\$678	N/A
With Medicare A & B	\$166	\$664	\$215	\$201
With Medicare B Only	\$166		\$201	\$201

<b>Years of Service</b>	Aetna Choice POS II and Aetna Medicare <sup>SM</sup>	Aetna Traditional Choice	AultCare PPO and PrimeTime	Paramount Elite HMO
<b>Child Premiums</b>				
<b>Child</b> w/o Medicare A	\$253		\$159	N/A
<b>Child</b> with Medicare A & B	\$149	\$585	\$193	\$181



## **SERS' Non-Medicare Plans**

Non-Medicare plans are available to benefit recipients and dependents under age 65 and not Medicare eligible.

### **Aetna Choice POS II**

This is a Preferred Provider Organization (PPO) plan with prescription drug coverage by Express Scripts. The plan is available throughout the United States.

To enroll in this plan, a member must:

- Be under age 65 and not eligible for Medicare

Use of out-of-network providers will increase out-of-pocket costs.

### **AultCare PPO**

This is a Preferred Provider Organization (PPO) plan with prescription drug coverage by AultCare.

To enroll in this plan, a member must:

- Be under age 65 and not eligible for Medicare.
- Live in one of the Ohio counties listed on the map in the 2019 Open Enrollment Guide.

Use of out-of-network providers will increase out-of-pocket costs.

### **2019 SERS Marketplace Wraparound Plan**

The SERS Marketplace Wraparound Plan is available to participants who are not eligible for Medicare and who are not enrolled in Medicaid. Participants are able to choose insurance from any insurer offering coverage in the federal Marketplace. If eligible, participants receive a federal subsidy to lower the premium and cost-sharing amounts. The SERS Market place Wraparound Plan offers additional benefits to help pay for deductibles, co-pays, and other costs.



## **SERS' Medicare Plans**

### **Aetna Medicare Plan (PPO)**

This is a Medicare Advantage plan with Medicare Part D prescription drug coverage administered by Express Scripts.

**Ohio Residents:** Aetna has a preferred provider network. Use of out-of-network providers will increase out-of-pocket costs.

**Non-Ohio Residents:** Can use any medical provider that accepts Medicare patients and agrees to file claims with Aetna.

This plan is available throughout the United States. To enroll, members must have:

- Medicare Part B
- Medicare Part A, if eligible

### **Aetna Traditional Choice Plan**

This plan is NOT available for optional enrollment. It is only available in special circumstances. SERS determines when enrollment is appropriate. Medicare Part D prescription drug coverage is administered through Express Scripts.

### **Paramount Elite Medicare Advantage**

This is a Medicare Advantage plan with Medicare Part D prescription drug coverage administered by Express Scripts. Members must use Paramount providers or pay the full cost for services.

To enroll in this plan, members must:

- Have Medicare Part B.
- Have Medicare Part A, if eligible.
- Live in one of the Ohio counties listed on the map in the 2019 Open Enrollment Guide or live in the Michigan counties of Lenawee or Monroe.

### **PrimeTime Health Plan**

This is a Medicare Advantage plan with Medicare Part D prescription drug coverage by PrimeTime.

Members must use PrimeTime providers or pay the full cost for services.

To enroll in this plan, members must:

- Have Medicare Part A and Part B.
- Live in one of the Ohio counties listed on the map in the 2019 Open Enrollment Guide.

### **AultCare PPO**

This plan is available to individuals who do not have Medicare Part A but have Medicare Part B only. Prescription drug coverage is administered by AultCare.

To enroll in this plan, members must:

- Have Medicare Part B only.
- Live in one of the Ohio counties listed on the map in the 2019 Open Enrollment Guide.



## Prescription Drug Coverage

Prescription drug coverage is included in SERS health care coverage and does not require a separate premium. Express Scripts provides the prescription drug coverage for Aetna and Paramount. PrimeTime and AultCare provide their own prescription coverage. All prescription plans have a formulary of covered medications. These are referred to as preferred medications. Medications not on the formulary are referred to as non-preferred. The amount members are responsible for paying, known as the co-pay, is based on the medication's preferred status. Members pay the least for generic medications. Members pay the most for brand-name medications that are not preferred. Members can get prescriptions at retail pharmacies or through the mail. Members save money by having prescriptions for maintenance medications mailed to their homes.

The following is a partial list of situations or types of medications that are not covered.

- Prescriptions or medications dispensed in a hospital. These are typically covered under the medical plan.
- Prescriptions covered by Workers' Compensation.
- Prescriptions for fertility, erectile dysfunction, or cosmetic drugs.
- Over-the-counter drugs and herbal preparations, including homeopathic preparations.

With the exception of insulin, Express Scripts does not cover non-preferred medications. Members pay the full amount for non-preferred medications, and these costs do not count toward any out-of-pocket maximum or the Medicare coverage gap.

All prescription plans include these common coverage rules:

- Prior Authorization - For some medications, the doctor must contact the drug plan before certain prescriptions can be filled. The prescription is only covered if the doctor is able to confirm that the medication is necessary.
- Quantity Limits - Limits how much of a specific medication members can get at a time.
- Step Therapy - A process where certain medications that have proven to be safe and effective are tried as the first choice rather than starting with a more expensive prescribed medication.

### Medicare Part D Prescription Drugs

SERS' health plan participants enrolled in a Medicare plan are automatically covered under a Medicare Part D prescription drug plan through SERS and should not enroll in a separate Medicare Part D plan. Enrolling in another Part D plan would cause cancellation of SERS coverage for both medical and prescription drug benefits per federal law.



### Non-Medicare Plan Benefits

	Aetna Choice POS II (In-Network)	AultCare PPO (In Network)
Annual Combined Medical & Prescription Drug Out-of-Pocket Maximum	\$7,350/person \$14,700/family	\$7,350/person \$14,700/family
Deductible	\$2,000/person \$4,000/family	\$2,000/person \$4,000/family
Primary Care Office Visit	\$20 co-pay	\$20 co-pay
Specialist Office Visit	\$40 co-pay	\$40 co-pay
Outpatient Diagnostic X-Ray and Lab	20% coinsurance	20% coinsurance
Retail Walk-In Clinic	\$20 co-pay	\$20 co-pay
Urgent Care	\$40 co-pay	\$40 co-pay
Emergency Room	\$150 co-pay	\$150 co-pay
Ambulance	20% coinsurance	20% coinsurance
Inpatient Hospital	20% coinsurance after \$250 co-pay	20% coinsurance after \$250 co-pay
Outpatient Surgery	20% coinsurance	20% coinsurance
Skilled Nursing Facility (100-day max)	20% coinsurance	20% coinsurance
Home Health Care	20% coinsurance	20% coinsurance
Hospice Health Care	100% coverage	Inpatient: 100% coverage Outpatient: 20% coinsurance
Outpatient Short-Term Rehab	20% coinsurance	20% coinsurance
Chiropractic	20% coinsurance	20% coinsurance
Durable Medical Equipment	20% coinsurance	20% coinsurance
Prescription Drugs	<b>Express Scripts</b> <u>Retail 30-day max:</u> \$7.50 generic, 25% preferred brand (\$25 min, \$100 max) <u>Mail order 90-day max:</u> \$15 generic, 25% preferred brand (\$45 min, \$200 max) <u>Insulin Retail</u> 25% or \$30 max preferred brand, 25% or \$45 max non-preferred brand <u>Insulin Mail Order</u> 25% or \$60 preferred brand, 25% or \$115 max non-preferred brand	<b>AultCare</b> <u>Retail 30-day max:</u> \$7.50 generic, 25% preferred brand (\$25 min, \$100 max) <u>Mail order 90-day max:</u> \$15 generic, 25% preferred brand (\$45 min, \$200 max) Non-preferred at 100% <u>Insulin Retail</u> \$30 preferred brand, \$45 non-preferred brand <u>Insulin Mail Order</u> \$60 preferred brand, \$115 non-preferred brand



**Non-Medicare Plan Benefits  
(continued)**

<b>2019 Wraparound Benefits</b>	<b>Maximum Reimbursement</b>
<b>Deductible</b>	Up to \$2,000*
<b>Covered Prescription Drugs co-payment/coinsurance</b>	50% of the Marketplace plan's prescription drug co-payment/coinsurance (up to \$200 per prescription)*
<b>Physician Office Visit co-payment</b>	Up to \$50 per visit*
<b>Inpatient Hospital Admission co-payment/coinsurance</b>	Up to \$300 per admission*
<b>Imaging (X-rays, CT/PET scans, MRI) co-payment or coinsurance</b>	Up to \$100 per service*
<b>Hearing Aid</b>	One hearing aid per year; up to \$1,500**

\*This is the maximum amount that the Wraparound Plan will reimburse each participant for each benefit category. Reimbursement is limited to cost-sharing after the participant's Marketplace plan has adjudicated any claim(s). Actual reimbursement may vary according to the participant's Marketplace plan's terms, but will in no event exceed the participant's actual out-of-pocket expenses under the applicable Marketplace plan.

\*\*The Wraparound Plan will reimburse each participant on a first dollar basis up to this limit

The 2019 SERS Marketplace Wraparound Plan benefits noted above only apply to covered services under your Marketplace plan. Claims for non-covered services are not eligible for reimbursement, except for hearing aids.



### Medicare Plan Benefits

	Aetna Medicare <sup>SM</sup> Plan (PPO)	PrimeTime Health Plan	Paramount Elite Medicare Advantage
Annual Out-of-Pocket Maximum	\$3,000 per person	\$3,000 per person	\$3,000 per person
Deductible	None	None	None
Primary Care Office Visit	\$20 co-pay	\$20 co-pay	\$20 co-pay
Specialist Office Visit	\$30 co-pay	\$30 co-pay	\$30 co-pay
Outpatient Diagnostic X-Ray	\$25 co-pay	100% coverage	100% coverage
Outpatient Diagnostic Lab	100% coverage	100% coverage	100% coverage
Urgent Care	\$40 co-pay	\$40 co-pay	\$40 co-pay
Emergency Room	\$100 co-pay	\$100 co-pay	\$100 co-pay
Ambulance	\$80 co-pay	\$80 co-pay	\$80 co-pay
Inpatient Hospital	\$150 co-pay per day 1-5, then 100%	\$150 co-pay per day 1-5, then 100%	\$150 co-pay per day 1-5, then 100%
Outpatient Surgery /Procedures	15% coinsurance up to \$200 max	\$200 co-pay	15% coinsurance up to \$200 max
Skilled Nursing Facility (100-day max)	Co-pay: \$0 per day 1-10, \$25 per day 11-20, \$50 per day 21-100	Co-pay: \$0 per day 1-15, \$20 per day 16-30, \$0 per day 31-100	Co-pay: \$0 per day 1-20, \$95 per day 21-100
Home Health Care	100% coverage	100% coverage	100% coverage
Hospice	Covered per Medicare	Covered per Medicare	Covered per Medicare
Outpatient Short-Term Rehab	\$20 co-pay	\$5 co-pay (cardiac rehab at 100% coverage)	\$20 co-pay(\$10 co-pay for cardiac/pulmonary rehab)
Chiropractic	\$20 co-pay limited to Medicare coverage	\$20 co-pay limited to Medicare coverage	\$20 co-pay limited to Medicare coverage
Durable Medical Equipment	20% coinsurance	20% coinsurance	20% coinsurance
Prescription Drugs	<b>Express Scripts Medicare D PDP</b> <u>Retail 30-day max:</u> \$7.50 generic, 25% preferred brand (\$25 min,\$100 max) <u>Mail order 90-day max:</u> \$15 generic, 25% preferred brand (\$45 min, \$200 max) <u>Insulin Retail</u> 25% or \$30 max preferred brand, 25% or \$45 max non-preferred brand <u>Insulin Mail Order</u> 25% or \$60 max preferred brand, 25% or \$115 max non-preferred brand	<b>PrimeTime</b> <u>Retail 30-day max:</u> \$7.50 generic, 25% preferred brand (\$25 min, \$100 max), 50% non-preferred brand <u>Mail order 90-day max:</u> \$15 generic, 25% preferred brand (\$45 min, \$200 max), 50% non-preferred brand <u>Insulin Retail</u> \$30 preferred brand, \$45 non-preferred brand <u>Insulin Mail Order</u> \$60 preferred brand, \$115 non-preferred brand	<b>Express Scripts Medicare D PDP</b> <u>Retail 30-day max:</u> \$7.50 generic, 25% preferred brand (\$25 min,\$100 max) <u>Mail order 90-day max:</u> \$15 generic, 25% preferred brand (\$45 min, \$200 max) <u>Insulin Retail</u> 25% or \$30 max preferred brand, \$45 max non-preferred brand <u>Insulin Mail Order</u> 25% or \$60 preferred brand, \$115 max non-preferred brand



**SCHEDULE D**

**DETAILED TABULATIONS OF THE DATA**

**All Retirees, Spouses and Dependents Receiving Health Care  
Male and Female Demographic Breakdown  
As of June 30, 2018  
Tabulated by Attained Ages**

Attained Age	Number of		Total
	Males	Females	Number
Under 20	42	48	90
20-24	58	69	127
25-29	26	19	45
30-34	0	5	5
35-39	5	1	6
40-44	7	10	17
45-49	20	27	47
50-54	119	150	269
55-59	543	697	1,240
60-64	1,320	2,392	3,712
65-69	2,122	4,888	7,010
70-74	2,107	5,360	7,467
75-79	2,302	5,600	7,902
80-84	2,102	4,966	7,068
85-89	1,254	3,403	4,657
90-94	532	2,204	2,736
95-99	138	745	883
100	4	54	58
101	9	31	40
102	3	16	19
103	0	11	11
104	0	7	7
105 & Over	0	5	5
<b>Total</b>	<b>12,713</b>	<b>30,708</b>	<b>43,421</b>





**Schedule of Retiree Members Added to and Removed From Rolls  
Last Six Fiscal Years**

Year Ended	Added to Rolls		Removed from Rolls*		Rolls at Year-End		% Increase in Projected Benefits	Average Projected Benefits
	Number	Projected Benefits	Number	Projected Benefits	Number	Projected Benefits		
6/30/2012	2,073	9,280,779	3,785	5,391,796	46,439	90,708,513	11.49%	1,953
6/30/2013	2,110	8,977,566	3,217	4,370,993	45,332	100,514,730	10.81%	2,217
6/30/2014	2,251	8,658,731	2,873	4,834,922	44,710	87,007,272	(13.44)%	1,946
6/30/2015	2,329	8,897,861	2,932	4,682,901	44,107	90,855,858	4.42%	2,060
6/30/2016	2,820	10,209,470	2,650	4,258,016	44,277	90,484,518	(0.41)%	2,044
6/30/2017	2,355	10,099,985	2,774	4,834,866	43,858	91,554,056	1.18%	2,088
6/30/2018	2,383	10,099,985	2,820	5,004,204	43,421	90,696,175	(0.94)%	2,089

\* The benefits removed from rolls do not include subsidies that were changed due to premium changes, plan election changes or reductions due to members obtaining Medicare eligibility.

**Terminated Vested Members Eligible for Health Care  
Male and Female Demographic Breakdown  
As of June 30, 2018  
Tabulated by Attained Ages**

Attained Age	Number of		Total Number
	Males	Females	
Under 35	10	4	14
35-39	55	74	129
40-44	91	207	298
45-49	149	467	616
50-54	219	853	1,072
55-59	261	1,376	1,637
60 & Over	215	1,108	1,323
<b>Total</b>	<b>1,000</b>	<b>4,089</b>	<b>5,089</b>



**Total Active Members as of June 30, 2018  
Tabulated by Attained Ages and Years of Service**

Attained Age	Years of Service to Valuation Date							Totals
	0-4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30+	
Under 20	3,091							3,091
Avg Pay	\$8,346							\$8,346
20-24	10,426	81						10,507
Avg Pay	\$9,521	\$25,992						\$9,648
25-29	10,043	713	45	1				10,802
Avg Pay	\$13,652	\$29,823	\$34,749	\$60,631				\$14,812
30-34	8,913	1,463	439	37				10,852
Avg Pay	\$15,195	\$30,040	\$38,013	\$48,239				\$18,232
35-39	10,277	2,131	994	452	48			13,902
Avg Pay	\$15,015	\$28,396	\$39,236	\$45,034	\$44,055			\$19,874
40-44	10,827	2,666	1,438	907	294	28		16,160
Avg Pay	\$13,992	\$25,619	\$33,811	\$44,744	\$46,056	\$52,855		\$20,051
44-49	10,958	3,758	2,612	1,914	810	273	29	20,354
Avg Pay	\$13,857	\$24,028	\$30,668	\$37,629	\$47,454	\$51,876	\$61,382	\$22,042
50-54	8,743	3,446	3,438	3,472	1,781	714	277	21,871
Avg Pay	\$14,306	\$24,416	\$28,394	\$33,012	\$38,976	\$48,676	\$50,333	\$24,670
55-59	7,056	2,919	3,324	4,525	3,491	1,454	648	23,417
Avg Pay	\$13,802	\$24,116	\$27,883	\$31,588	\$33,994	\$41,265	\$48,305	\$26,193
60-64	5,108	2,017	1,845	2,460	2,317	1,779	1,001	16,527
Avg Pay	\$12,346	\$23,602	\$29,195	\$32,426	\$33,066	\$36,486	\$41,760	\$25,874
65-69	2,878	790	647	714	654	673	680	7,036
Avg Pay	\$9,652	\$20,358	\$26,630	\$30,436	\$33,720	\$35,118	\$38,229	\$21,959
70 & over	1,762	494	393	278	203	201	493	3,824
Avg Pay	\$7,497	\$14,364	\$20,925	\$24,050	\$30,901	\$31,739	\$31,400	\$16,566
<b>Totals</b>	<b>90,082</b>	<b>20,478</b>	<b>15,175</b>	<b>14,760</b>	<b>9,598</b>	<b>5,122</b>	<b>3,128</b>	<b>158,343</b>
<b>Avg Pay</b>	<b>\$13,119</b>	<b>\$24,990</b>	<b>\$30,023</b>	<b>\$33,912</b>	<b>\$36,166</b>	<b>\$40,085</b>	<b>\$41,657</b>	<b>\$21,045</b>

Averages:  
Age: 46.8  
Service: 7.4  
Annual Pay: \$21,045



**Male Active Members as of June 30, 2018  
Tabulated by Attained Ages and Years of Service**

Attained Age	Years of Service to Valuation Date							Totals
	0-4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30+	
Under 20	1,785							1,785
Avg Pay	\$8,764							\$8,764
20-24	4,770	52						4,822
Avg Pay	\$9,540	\$28,716						\$9,747
25-29	4,147	340	26	1				4,514
Avg Pay	\$14,009	\$34,694	\$41,425	\$60,631				\$15,735
30-34	3,156	636	244	26				4,062
Avg Pay	\$16,703	\$34,767	\$41,852	\$53,858				\$21,280
35-39	2,990	725	417	236	20			4,388
Avg Pay	\$16,660	\$35,980	\$48,078	\$53,217	\$49,556			\$24,954
40-44	3,296	697	366	333	139	17		4,848
Avg Pay	\$14,253	\$32,545	\$46,718	\$57,460	\$53,605	\$54,598		\$23,571
44-49	3,623	833	497	407	306	135	14	5,815
Avg Pay	\$14,061	\$31,517	\$43,276	\$53,649	\$59,751	\$56,479	\$64,073	\$25,339
50-54	3,153	845	591	525	377	272	118	5,881
Avg Pay	\$14,264	\$30,574	\$42,340	\$48,587	\$56,080	\$58,532	\$56,406	\$28,067
55-59	2,634	888	693	673	444	307	257	5,896
Avg Pay	\$15,102	\$29,484	\$38,519	\$45,932	\$51,850	\$55,305	\$55,726	\$30,171
60-64	2,087	862	559	516	301	271	273	4,869
Avg Pay	\$13,662	\$27,676	\$37,358	\$44,518	\$47,722	\$51,102	\$53,114	\$28,535
65-69	1,324	416	257	184	106	96	114	2,497
Avg Pay	\$11,062	\$22,437	\$31,333	\$37,568	\$44,623	\$48,581	\$54,985	\$21,869
70 & over	844	253	202	107	54	26	49	1,535
Avg Pay	\$8,976	\$17,428	\$25,537	\$28,989	\$41,626	\$39,316	\$39,818	\$16,590
<b>Totals</b>	<b>33,809</b>	<b>6,547</b>	<b>3,852</b>	<b>3,008</b>	<b>1,747</b>	<b>1,124</b>	<b>825</b>	<b>50,912</b>
<b>Avg Pay</b>	<b>\$13,463</b>	<b>\$30,555</b>	<b>\$40,435</b>	<b>\$48,004</b>	<b>\$52,794</b>	<b>\$54,259</b>	<b>\$54,053</b>	<b>\$22,651</b>

Averages:  
Age: 44.8  
Service: 5.7  
Annual Pay: \$22,651



**Female Active Members as of June 30, 2018  
Tabulated by Attained Ages and Years of Service**

Attained Age	Years of Service to Valuation Date							Totals
	0-4	5 - 19	20 - 24	25 - 219	30 - 24	25 - 219	30+	
Under 30	1,306							1,306
Avg Pay	\$7,774							\$7,774
30-24	5,656	29						5,685
Avg Pay	\$9,504	\$21,107						\$9,564
25-219	5,896	373	19					6,288
Avg Pay	\$13,402	\$25,383	\$25,612					\$14,149
30-34	5,757	827	195	11				6,790
Avg Pay	\$14,369	\$26,404	\$33,208	\$34,958				\$16,409
35-319	7,287	1,406	577	216	28			9,514
Avg Pay	\$14,341	\$24,485	\$32,845	\$36,094	\$40,126			\$17,532
40-44	7,531	1,969	1,072	574	155	11		11,312
Avg Pay	\$13,879	\$23,167	\$29,405	\$37,367	\$39,287	\$50,161		\$18,542
44-419	7,335	2,925	2,115	1,507	504	138	15	14,539
Avg Pay	\$13,756	\$21,895	\$27,705	\$33,303	\$39,988	\$47,373	\$58,870	\$20,723
50-54	5,590	2,601	2,847	2,947	1,404	442	159	15,990
Avg Pay	\$14,329	\$22,416	\$25,499	\$30,238	\$34,383	\$42,610	\$45,827	\$23,421
55-519	4,422	2,031	2,631	3,852	3,047	1,147	391	17,521
Avg Pay	\$13,027	\$21,769	\$25,082	\$29,082	\$31,392	\$37,507	\$43,427	\$24,855
60-64	3,021	1,155	1,286	1,944	2,016	1,508	728	11,658
Avg Pay	\$11,437	\$20,561	\$25,646	\$29,217	\$30,878	\$33,859	\$37,502	\$24,763
65-619	1,554	374	390	530	548	577	566	4,539
Avg Pay	\$8,450	\$18,046	\$23,531	\$27,960	\$31,611	\$32,878	\$34,854	\$22,009
70 & over	918	241	191	171	149	175	444	2,289
Avg Pay	\$6,137	\$11,148	\$16,047	\$20,959	\$27,014	\$30,614	\$30,471	\$16,549
<b>Totals</b>	<b>56,273</b>	<b>13,931</b>	<b>11,323</b>	<b>11,752</b>	<b>7,851</b>	<b>3,998</b>	<b>2,303</b>	<b>107,431</b>
<b>Avg Pay</b>	<b>\$12,912</b>	<b>\$22,375</b>	<b>\$26,481</b>	<b>\$30,305</b>	<b>\$32,466</b>	<b>\$36,101</b>	<b>\$37,216</b>	<b>\$20,285</b>

Averages:

Age: 47.8

Service: 8.2

Annual Pay: \$20,285



**Active Members as of June 30, 2018  
Tabulated by Annual Pay**

Annual Pay	Number of Active Members			Portion of Total Number	
	Men	Women	Totals	Group	Cumulative
Less than \$1,000	2,306	4,090	6,396	4.0%	4.0%
\$1,000 - 1,999	2,950	3,612	6,562	4.1%	8.2%
2,000 - 2,999	3,707	3,739	7,446	4.7%	12.9%
3,000 - 3,999	3,455	3,288	6,743	4.3%	17.1%
4,000 - 4,999	2,608	3,051	5,659	3.6%	20.7%
5,000 - 5,999	1,857	2,944	4,801	3.0%	23.8%
6,000 - 6,999	1,451	2,946	4,397	2.8%	26.5%
7,000 - 7,999	1,271	2,767	4,038	2.6%	29.1%
8,000 - 8,999	1,042	2,741	3,783	2.4%	31.5%
9,000 - 9,999	977	2,766	3,743	2.4%	33.8%
10,000 - 11,999	1,930	6,045	7,975	5.0%	38.9%
12,000 - 13,999	1,683	5,445	7,128	4.5%	43.4%
14,000 - 15,999	1,669	5,734	7,403	4.7%	48.0%
16,000 - 17,999	1,456	6,356	7,812	4.9%	53.0%
18,000 - 19,999	1,371	6,529	7,900	5.0%	58.0%
20,000 - 24,999	3,065	13,636	16,701	10.5%	68.5%
25,000 - 29,999	2,310	8,988	11,298	7.1%	75.6%
30,000 - 35,999	2,995	7,403	10,398	6.6%	82.2%
36,000 and over	12,809	15,351	28,160	17.8%	100.0%
<b>Totals</b>	<b>50,912</b>	<b>107,431</b>	<b>158,343</b>		



## **SCHEDULE E**

### **GLOSSARY**

**Actuarial Accrued Liability.** The difference between (i) the actuarial present value of future plan benefits, and (ii) the actuarial present value of future normal cost. Sometimes referred to as "accrued liability" or "past service liability".

**Accrued Service.** The service credited under the plan which was rendered before the date of the actuarial valuation.

**Actuarial Assumptions.** 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.

**Actuarial Cost Method.** A mathematical budgeting procedure for allocating the dollar amount of the "actuarial present value of future plan benefits" between the actuarial present value of future normal cost and the actuarial accrued liability. Sometimes referred to as the "actuarial funding method".

**Actuarial Equivalent.** A series of payments is called an actuarial equivalent of another series of payments if the two series have the same actuarial present value.

**Actuarial Present Value.** The amount of funds presently required to provide a payment or series of payments in the future. It is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

**Age-Related Morbidity.** Assumed increase to the net incurred claims related to increase in age.

**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.

**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.

**Health Care Cost Trend Rates.** The annual assumed rate of increase for both claims and contributions.

**Normal Cost.** The annual cost assigned, under the actuarial funding method, to current and subsequent plan years. Sometimes referred to as "current service cost". Any payment toward the unfunded actuarial accrued liability is not part of the normal cost.

**Plan Termination Liability.** The actuarial present value of future plan benefits based on the assumption that there will be no further accruals for future service and salary. The termination liability will generally be less than the liabilities computed on a "going concern" basis and is not normally determined in a routine actuarial valuation.

**Reserve Account.** An account used to indicate that funds have been set aside for a specific purpose and are not generally available for other uses.



Unfunded Actuarial Accrued Liability. The difference between the actuarial accrued liability and valuation assets. Sometimes referred to as "unfunded accrued liability".

Valuation Assets. The value of current plan assets recognized for valuation purposes. Generally based on book value plus a portion of unrealized appreciation or depreciation.