

Singing River Health System Employees' Retirement Plan and Trust

Actuarial Valuation as of October 1, 2023



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October 19, 2023

IN THE CHANCERY COURT OF JACKSON COUNTY, MISSISSIPPI

**IN RE: Singing River Health System Employees' Retirement Plan and Trust
Lay, et al. v. Singing River Health System, et al.; Cause No. 2015-0060**

This is a report on the actuarial valuation for the Singing River Health System Employees' Retirement Plan and Trust (The Plan), which was performed as of October 1, 2023. The purpose of the valuation is to:

- Compare the current value of Trust assets with accrued liabilities to assess the funded condition of the Plan,
- Compare the projected value of Trust assets with accrued liabilities to assess the long-term funded condition of the Plan,
- Provide a summary of projected cash flows for use in assessing the long-term health and sustainability of the Plan.

This valuation has been conducted in accordance with generally accepted actuarial principles and practices. The participant data is maintained by MCG Consulting Group and the Plan asset data was provided by the Plan's custodian, Fifth Third Bank and investment advisor, FCI Advisors. This data has been reviewed for reasonableness, but no attempt has been made to audit such information. We found the information provided to be reasonably consistent and comparable to information received for prior years' valuations. Valuation results are dependent upon the accuracy and integrity of the input data. If the data provided is subsequently found to be incorrect or incomplete, this valuation may need to be revised. Demographic data is snapshot data as of the valuation date.

The valuation was based on the provisions of the Plan as amended through the beginning of the Plan Year. Each actuarial assumption used in this valuation is reasonably related to the past experience of the Plan and represents reasonable expectations of future experience under the Plan. Actual future costs of the Plan will vary from those presented in this report to the extent that actual plan experience differs from that projected and assumed. The Special Fiduciary with advice and approval of the actuary sets the assumptions and methods for the valuation.

The valuation calculations presented in this report have been made on a basis consistent with our understanding of the Plan's funding requirements and policies as set forth by court order. Valuations and calculations for other purposes may differ significantly from the results contained in this report.



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MCG uses third-party software to calculate the actuarial liabilities and normal costs, as well as projection of benefit payouts and other items set forth in this report. The software is specifically designed for the purpose of performing pension valuations. We coded the plan provisions, assumptions, methods, and participant data summarized in this report, and reviewed the liability and cost outputs for reasonableness. We are not aware of any material weaknesses in the software, and our work follows Actuarial Standard of Practice 56 regarding the use of modeling software.

The consultants who worked on this assignment are pension actuaries. Advice from MCG Consulting Group is not intended to be a substitute for legal or accounting expertise. To the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices.

We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained in this report. We are available to answer any questions on the information contained in this report or to provide explanations or further details as needed.

The firm of MCG Consulting Group is owned by the Special Fiduciary, Traci M. Christian. This relationship has been disclosed to the Chancery Court overseeing the administration of the Plan and has been deemed acceptable by court order. The signing actuary has no other conflict of interest that would impair the objectivity of the work reflected in this report.

This report is intended for use by the Special Fiduciary and the Court and should not be used for any purpose other than as stated herein. This report is only valid when presented in its entirety. It must not be reproduced without permission.

Respectfully submitted,

John J. Naylor IV, ASA, MAAA



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Section One:

Valuation Results

Valuation Results

	<u>October 1, 2022</u>	<u>October 1, 2023</u>
Number of Participants		
Still Actively Employed at SRHS	329	298
In Pay Status	819	835
Vested Terminated	186	174
Non-Vested Terminated	434	423
Total	1,768	1,730
Actuarial Liability by Participant Group		
Still Actively Employed at SRHS	\$ 25,396,000	\$ 21,859,000
In Pay Status	130,974,000	133,955,000
Vested Terminated	13,170,000	12,742,000
Non-Vested Terminated	1,066,000	1,019,000
Total	\$170,606,000	\$169,575,000
Plan Assets		
Market Value of Currently Invested Assets	\$93,644,000	\$92,247,000
Percentage of Liability Currently Funded (Market)	54.9%	54.4%
Actuarial (Smoothed) Value of Current Assets	\$101,034,000	\$96,841,000
Percentage of Liability Currently Funded (Actuarial)	59.2%	57.1%
Present Value (PV) of Future Settlement Payments	63,148,000	62,663,000
Market Value plus PV of Future Settlement Payments	\$156,792,000	\$154,910,000
Percentage of Liability Funded (Market + Future)	91.9%	91.4%
Actuarial Value plus PV of Future Settlement Payments	\$164,182,000	\$159,504,000
Percentage of Liability Funded (Actuarial + Future)	96.2%	94.1%

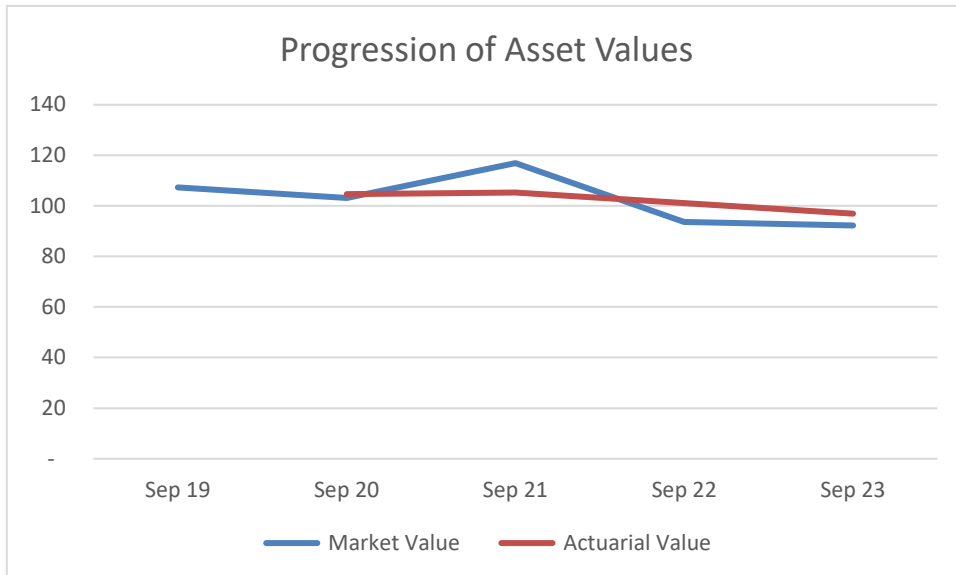
Pension Plan Experience

The assets of the Plan earned a rate of return of approximately 8.2% on a market value basis. This resulted in investment returns of almost \$2 million more than anticipated by the 6.0% assumed rate of return. This return is net of all plan expenses – investment management and administrative.

The plan paid out almost \$12.9 million in benefits to plan participants, whereas only received \$4.2 million in contributions. The difference, nearly \$8.7 million, was not fully offset by the investment returns of \$7.3 million, causing the market value of the investment trust to decline by about \$1.4 million compared to its value last year. The fact that contributions are fixed by a settlement means that successful investment returns will be the only way for the trust to keep pace with benefit payments and plan expenses.

The Cash Flow Projection on the following page shows that the plan may be depleted of assets by 2045, if all assumptions are exactly met.

To temper the year-over-year volatility of the asset returns, we calculate an “Actuarial Value” of the assets which smooths the investment gains and losses over five years. This practice provides a more tempered view of the investment values, smoothing over \$16.3 million of gains from the 2020-21 plan year, and the nearly \$20.5 million of losses realized in the 2021-22 plan year. The actuarial value of assets is \$96.84 million, which is about \$4.6 million higher than the current market value of the plan’s investments. This is not saying that the plan’s assets are to be valued more highly than they are by the market, but is intended to give a less volatile view of the plan’s long-term viability.



The projection below assumes that the investment trust will earn exactly 6% each year after investment and administrative expenses are removed. It uses the current participant data and our actuarial assumptions to project benefit payments expected to be paid from the trust. Of course, these assumptions will not be exactly met, but this projection shows the possibility that plan investments may become depleted before all benefits are settled.

Singing River Health System Employees' Retirement Plan and Trust

Cash Flow Projection

Year Beginning Oct. 1	Expected Contribution	Number of Participants	Benefit Payments	Market Value of Assets	Liability	Unfunded Liability
2023	5,700,000	1,307	12,606,000	92,247,000	169,575,000	77,328,000
2024	5,700,000	1,290	12,753,000	90,600,000	166,288,000	75,688,000
2025	4,500,000	1,271	12,779,000	88,600,000	162,651,000	74,051,000
2026	4,500,000	1,251	12,806,000	85,300,000	158,770,000	73,470,000
2027	4,500,000	1,229	12,818,000	81,700,000	154,630,000	72,930,000
2028	4,500,000	1,207	12,807,000	77,900,000	150,231,000	72,331,000
2029	4,500,000	1,183	12,886,000	73,900,000	145,581,000	71,681,000
2030	4,500,000	1,158	12,872,000	69,600,000	140,571,000	70,971,000
2031	4,500,000	1,132	12,735,000	65,000,000	135,279,000	70,279,000
2032	4,500,000	1,103	12,637,000	60,300,000	129,816,000	69,516,000
2033	4,500,000	1,075	12,411,000	55,400,000	124,131,000	68,731,000
2034	4,500,000	1,044	12,198,000	50,400,000	118,347,000	67,947,000
2035	4,500,000	1,013	12,000,000	45,400,000	112,445,000	67,045,000
2036	4,500,000	980	11,661,000	40,200,000	106,400,000	66,200,000
2037	4,500,000	945	11,360,000	35,100,000	100,353,000	65,253,000
2038	4,500,000	910	11,025,000	30,000,000	94,266,000	64,266,000
2039	4,500,000	875	10,609,000	25,000,000	88,171,000	63,171,000
2040	4,500,000	839	10,187,000	20,100,000	82,152,000	62,052,000
2041	4,500,000	801	9,716,000	15,300,000	76,223,000	60,923,000
2042	4,500,000	764	9,232,000	10,700,000	70,440,000	59,740,000
2043	4,500,000	726	8,750,000	6,300,000	64,825,000	58,525,000
2044	4,500,000	688	8,217,000	2,200,000	59,386,000	57,186,000
2045	4,500,000	650	7,679,000	(1,700,000)	54,187,000	55,887,000
2046	4,500,000	612	7,145,000	(5,200,000)	49,250,000	54,450,000
2047	4,500,000	574	6,616,000	(8,300,000)	44,584,000	52,884,000
2048	4,500,000	537	6,104,000	(11,200,000)	40,202,000	51,402,000
2049	4,500,000	501	5,606,000	(13,600,000)	36,101,000	49,701,000
2050	4,500,000	466	5,125,000	(15,700,000)	32,286,000	47,986,000
2051		433	4,662,000	(17,400,000)	28,790,000	46,190,000
2052		400	4,227,000	(18,800,000)	25,576,000	44,376,000

The results presented here are ESTIMATES.

These results are for **discussion purposes only** and should not be relied upon for any other purpose.

History of Assets and Liabilities

Valuation Date October 1:	Plan Assets and Future Contributions*	Present Value of Benefits	Projected Funded Ratio
2018	187,894,000	189,567,000	99.1%
2019	171,668,000	181,078,000	94.8%
2020	167,081,000	178,752,000	93.5%
2021	180,481,000	177,919,000	101.4%
2022	156,792,000	170,606,000	91.9%
2023	154,910,000	169,575,000	91.4%

*Includes the present value of contributions included in the settlement, discounted at the same 6% rate as are the plan benefits.

History of Asset Returns

Year Ended Sept. 30	Rate of Annual Returns	
	Market Value	Actuarial (Smoothed) Value
2018	7.7%	
2019	1.4%	
2020	4.1%	5.6%*
2021	22.4%	8.9%
2022	(12.4)%	5.2%
2023	8.2%	4.6%

*Actuarial (five year smoothed) value was initiated in the 2020 valuation.

Valuation History

2022

The assets of the Plan earned a rate of return of approximately (12.4)%. This resulted in investment returns (net of all Plan expenses) of approximately \$20,500,000 less than was expected by the 6.0% assumed rate of return. This large annual investment loss caused a large decline in the plan's funded position.

The mortality assumption was changed pursuant to a recommendation of an actuarial audit of the prior valuation. This change reduced the measurement of plan liabilities by \$4,358,000.

2021

The assets of the Plan earned a rate of return of approximately 22.4%. This resulted in investment returns (net of all plan expenses) of approximately \$16,314,000 more than was expected by the 6.0% assumed rate of return. This significant gain greatly enhanced the plan's funded position.

2020

A five-year smoothing of assets, called "actuarial value" was initiated in this valuation to give a tempered view of the market value's volatility.

2019

Based on the results of a study of retirement rates experienced by the plan, the actuarial assumption regarding the incidence of retirement was adjusted to better conform with observed experience. This change produced an actuarial gain of \$635 thousand.

2018

On April 12, 2018, the Chancery Court of Jackson County, Mississippi ordered benefits in this Plan to be reduced by 25% in an effort to secure benefits for all Plan participants.

During the final quarter of the Plan Year, the Plan – per an order of the court – began to offer a return of employee contributions in lieu of a retirement benefit to participants still employed at Singing River Health System. In this year and the succeeding one, the program paid out almost \$3.9 million in employee contributions, whereas participants elected to forego more than \$8.1 million of vested benefits, saving the plan \$4.25 million. This program continues in operation to this day.



Section Two:

***Retirement Plan
Benefit Provisions***

Benefit Provision Summary

Effective Date

February 17, 1983. The Plan was amended in 2014 to freeze accruals and employee contributions. The Plan was further amended in 2018 per Court order to decrease all Plan benefits. The Plan was amended and restated effective January 1, 2021 per court order.

Eligibility

All employees were eligible to participate on the first day of the month coincident with or next following three months of employment and authorization of payroll deduction for required contributions. No employees hired or rehired on or after October 1, 2011 are eligible to participate in the Plan.

Credited Service

A participant will receive Credited Service for the whole number of years and quarter years worked excluding any period of unpaid leave or period when he or she did not contribute to the Plan. No Credited Service will accrue for purposes of determination of the accrued benefit after the conclusion of the pay period which corresponds to paychecks distributed to employees on December 4, 2014. Service will continue to accrue for eligibility for Early Retirement and Thirty-Year Service Early Retirement.

Vesting Service

A participant will receive Vesting Service for any period worked adjusted for any period greater than 12 months excluded from Credited Service or period when he or she did not contribute to the Plan.

Compensation

Total compensation, including overtime, bonus, commissions, incentive compensation, employee contributions to the Plan, elective contributions under the cafeteria plan, and elective contributions to any plan qualified under Section 132(f), 401(k), 403(b) and 457 of the Code. Compensation excludes contributions to the Plan by the Employer not related to “pick-up”. No compensation shall be recognized after the conclusion of the pay period which corresponds to paychecks distributed to employees on December 4, 2014.

Average Compensation

The highest average during any nineteen consecutive quarters of compensation during the forty consecutive quarters of employment immediately preceding date of termination, plus the last quarter of employment compensation.

Employee Contributions

Participants were required to contribute 3% of compensation each pay period. No employee contributions will be made after the conclusion of the pay period which corresponds to paychecks distributed to employees on December 4, 2014.

Employee contributions accumulate at a rate of return based on the 3-month U.S. Treasury Rate for September, credited once annually for active participants on September 30th. The rate is applied to the average balance in the account during the preceding 12 months.

Normal Retirement Date

The first day of the month coinciding with or next following the later of the Participant's 65th birthday and the attainment of 10 years of Vesting Service.

Normal Retirement Benefit

The sum of (a), (b) and (c), not less than (d):

- (a) 1.625% of the Average Monthly Compensation multiplied by Credited Service, up to 20 years,
- (b) 1.75% of the Average Monthly Compensation multiplied by Credited Service in excess of 20 years up to 30 years,
- (c) 2% of the Average Monthly Compensation multiplied by Credited Service in excess of 30 years
- (d) Credited Service multiplied by \$5

Effective October 1, 2011, the benefits for those participants with less than 20 years of Credited Service as of September 30, 2011 were limited to 50% of Average Monthly Compensation.

Effective April 12, 2018 all benefits calculated in accordance with the above formulas were reduced by 25%.

Early Retirement Date

The first day of the month coinciding with or next following the Participant's 60th birthday and the attainment of 10 years of Credited Service.

Early Retirement Benefit

Equal to the Normal Retirement Benefit reduced 3% for each year commencement precedes Normal Retirement Date.

Thirty Year Service Early Retirement

A Participant with 30 or more years of Credited Service may commence benefit without Early Retirement reduction.

Late Retirement

A Participant may retire at any time after his Normal Retirement Date with a benefit equal to the benefit earned through the Participant's actual retirement date.

Disability Retirement

A Participant must have at least 10 years of Credited Service and be eligible for Social Security Disability to be eligible for the disability benefit. The disability benefit is equal to the accrued benefit using final average earnings at date of disability and the amount of service that would have been accrued if the Participant worked to the later of age 60 or the date of disability, reduced 3% for each year commencement precedes Normal Retirement Date, up to 15%.

Vested Termination

A Participant is 100% vested after completing 10 or more Years of Vesting Service and is entitled to receive their accrued benefit at the time of termination payable at their normal retirement date or earlier in accordance with early retirement provisions above.

A Participant is always 100% vested in their employee contributions.

Normal Form of Payment

Life Annuity.

Pre-Retirement Death Benefit

The surviving spouse will receive a benefit equal to the amount that would have been paid had the participant separated from service on his date of death and retired with a 100% qualified joint and survivor annuity, reduced 3% for each year date of death precedes Normal Retirement Date.

Cost of Living Adjustment

Cost of Living increases are suspended until further order of the Court.



Section Three:

***Actuarial Assumptions
And Methods***

Actuarial Assumptions

Economic Assumptions

Interest Rate 6.0% (net of all expenses)

Demographic Assumptions

Mortality Pri-2012 Blue Collar tables projected generationally with the MP-2021 improvement scale.

Termination of Employment A participant is assumed to terminate employment for reasons other than retirement or death in accordance with annual rates as illustrated below:

<u>Service</u>	<u>Annual Rates</u>
5	11.68%
10	6.87%
15	5.12%
20	3.93%
25	2.97%

Retirement Age

A participant is assumed to retire in accordance with annual rates as illustrated below:

<u>Age</u>	<u>Annual Rates of Retirement</u>
60-63	15%
64	20%
65	25%
66-67	30%
68+	100%

For participants with 30 years of service (regardless of age), rates are increased to 30%.

Disability

None assumed

Marital Assumption

100% of active participants are assumed to be married. Husbands are assumed to be three years older than their wives.

Assumption Changes

There were no changes to assumptions from the prior valuation.

Actuarial Funding Method – Traditional Unit Credit

The actuarial present values of all benefits allocated to all valuation years preceding the actuarial valuation date is the actuarial accrued liability.

The actuarial gain (loss) is a measure of the difference between actual experience and that expected based upon the actuarial assumptions between two actuarial valuation dates. Under this actuarial cost method, the actuarial gains (losses) are directly calculated and reduce (increase) the unfunded actuarial accrued liability.

The expected rate of return and the corresponding discount rate is expected to be net of all Plan expenses.

Assessment and Disclosure of Risk

The Actuarial Standards of Practice require the plan’s actuary to assess certain risks to the plan. Specifically, the impact of future events that may differ significantly from the assumptions used to produce the current actuarial valuation. The purpose of this information is to make the plan sponsor aware of such risks. For a more detailed analysis of any of these items, please contact our office.

Assumptions: Actuarial assumptions such as interest rates, rates of retirement as well as mortality tables are important factors in measuring the plan’s liabilities. Each actuarial assumption used in this valuation is reasonably related to the past experience of the Plan and represents reasonable expectations of future experience under the Plan. With advice from the actuary, the Special Fiduciary approves the assumptions for the valuation. If there is a decrease in the assumed future return on plan investments, the measurement of plan liabilities will increase. Updates to mortality tables often extend life expectancies, which also results in an increase to the measurement of plan liabilities.

Contribution Risk: Singing River Health System (SRHS) has agreed to make future contributions according to a fixed schedule of \$4,500,000 on September 30 of each year up to and including 2051. Additionally, \$1.2 million is promised on October 7 of 2023 and 2024. These are the only contributions the plan can expect. Should SRHS fail to meet their obligation, the plan’s ability to meet benefit obligations would be placed at additional risk, and additional benefit reductions may be required.

Investment Risk: Because contributions are fixed as described above, the success of the plan's investments are the most significant factor in the ultimate funding of the benefits of this plan. The expected return on investments is conservatively set based on the plan's target asset allocation (43% domestic equities, 19% international equities, 18% debt securities and money market, and 20% alternatives, such as timber, hedge funds, emerging market debt, mortgage loans, etc.).

The expected return assumption is supported by weighting the results of a 2020 survey of long-term capital market expectations by the plan's current investment mix as of June 30, 2023, shown in the following table:

Asset Class	(a) Investment Mix	(b) Expected Return	Product (a) x (b)
US equity – large cap	22.4%	7.06%	1.581%
US equity – small/mid cap	21.1%	7.56%	1.595%
Non US – developed	10.8%	7.48%	0.808%
Non US – emerging	6.5%	8.42%	0.547%
Real estate	2.1%	6.59%	0.138%
Fixed income – core	12.7%	3.56%	0.452%
Fixed income – high yield	1.0%	5.62%	0.056%
Commodities (timber)	7.3%	4.04%	0.295%
Hedge funds	6.7%	5.71%	0.383%
Emerging market debt	1.5%	5.85%	0.088%
Private equity	5.5%	9.87%	0.543%
Money market	2.3%	0.00%	0.000%

The sum of the right column is 6.487%, which supports the assumption of 6.0%. The plan has special risk associated with the fact that plan contributions from Singing River Health System are fixed and can't be increased nor relied upon to make up any difference should assets fail to yield the assumed returns over the long-term. Therefore, a more conservative assumption of 6.0% is assumed.



Section Four:

Valuation Data

Summary of Asset Information

(1) Market Value of Assets on September 30, 2022	93,644,000
(2) Contributions (settlement payments)	4,200,000
(3) Benefit Payments	(12,863,000)
(4) Expected Investment Return	
On Beginning of Plan Year Value	5,619,000
On Contributions	72,000
On Benefit Payments	(386,000)
Total	5,305,000
(5) Expected Assets at September 30, 2023	90,286,000
(6) Market Value of Assets on September 30, 2023	92,247,000
(7) Gain / (Loss) during Plan Year, (6) – (5)	1,961,000
(8) Unrecognized gains / (losses)	
(a) 80% of the year just ended, (80% x (7))	1,569,000
(b) 60% of two years prior	(12,299,000)
(c) 40% of three years prior	6,526,000
(d) 20% of four years prior	(390,000)
(e) Total unrec. gains / (losses), (sum of (a)–(d))	(4,594,000)
(9) Actuarial Value of Assets (6) - (8e), 90-110% of (6)	96,841,000
Rate of Return – Actuarial Value, net of all expenses	4.6%
Rate of Return – Market Value, net of all expenses	8.2%
(10) Present Value of Scheduled Settlement Contributions	62,663,000
(11) Market Value plus PV of Sched. Contribs., (6) + (10)	154,910,000
(12) Actuarial Val. plus PV of Sched. Contribs., (9) + (10)	159,504,000

Participant Summary

Retirees and Beneficiaries Included in the Valuation

There were 835 retirees and beneficiaries included in the valuation, with annual pensions totaling \$12,781,527. The breakdown by age division is as follows:

Attained Ages	Number	Average Annual Pensions
40-44	1	\$ 3,702
45-49	1	6,752
50-54	6	17,122
55-59	25	18,567
60-64	113	16,515
65-69	225	17,557
70-74	198	15,698
75-79	143	14,948
Over 80	123	9,283
Total	835	\$15,307

Vested Terminated Members Included in the Valuation

There were 174 vested terminated members included in the valuation, with annual pensions totaling \$1,912,990. The breakdown is as follows:

Attained Ages	Number	Average Annual Pensions
35-39	9	\$2,689
40-44	4	5,256
45-49	30	8,672
50-54	46	12,272
55-59	57	12,036
60-64	24	12,385
65-69	3	18,945
70-74	1	2,980
Total	174	\$10,994

Active Members – Age and Service Distribution

Age	Service							Total
	5-9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	Over 35	
20 - 24								
25 - 29								
30 - 34		2	2					4
35 - 39		5	2					7
40 - 44		7	17	6				30
45 - 49		9	10	20	4			43
50 - 54		4	15	18	22	4		63
55 - 59		8	16	14	22	10		70
60 - 64		3	7	22	20	4	4	60
65+		<u>4</u>	<u>5</u>	<u>3</u>	<u>6</u>	<u>2</u>	<u>1</u>	<u>21</u>
Total		42	74	83	74	20	5	298

Total Active Participant Information

	2023	2022	2021
Active Members	298	329	383
Average Age (yrs.)	54.6	54.3	53.6
Average Service (yrs.)	22.0	21.6	20.6

Reconciliation with Prior Year

	Actives	Retirees & Beneficiaries	Vested Terminations	Non -Vested Terminations
October 1, 2022 Participants	329	819	186	434
Corrections				
Retirements	(28)	37	(9)	
Deaths		(24)		
New Beneficiaries		3		
Benefits Expired				
Terminations				
- Vested				
- Non-vested				
- Lump Sums	(3)		(3)	(11)
October 1, 2023 Participants	298	835	174	423