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PERS
of MISSISSIPPI

Report on the Annual Valuation of the Supplemental Legislative Retirement Plan of Mississippi

Prepared as of June 30, 2018

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October 9, 2018

Board of Trustees
Public Employees' Retirement System of Mississippi
429 Mississippi Street
Jackson, MS 39201-1005

Ladies and Gentlemen:

Presented in this report are the results of the annual actuarial valuation of the Supplemental Legislative Retirement Plan of Mississippi. The purpose of the valuation was to measure the Plan's funding progress and to determine the unfunded actuarial accrued liability amortization period beginning July 1, 2018. The results may not be applicable for other purposes.

The date of the valuation was June 30, 2018.

The valuation was based upon data, furnished by the Executive Director and the PERS staff, concerning active, inactive and retired members along with pertinent financial information. While not verifying data at the source, the actuary performed tests for consistency and reasonableness. The complete cooperation of the PERS staff in furnishing materials requested is hereby acknowledged with appreciation.

Your attention is directed particularly to the presentation of results on page 1 and the comments on page 8.

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 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. We have reviewed the actuarial methods, including the asset valuation method, and continue to believe they are appropriate for the purpose of determining employer contribution levels.

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.

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This actuarial valuation was performed to determine the adequacy of statutory contributions to fund the plan. The asset values used to determine unfunded liabilities and funded ratios are not market values but less volatile market related values. A smoothing technique is applied to market values to determine the market related values. The unfunded liability amounts and funded ratios using the market value of assets would be different. The interest rate used for determining liabilities is based on the expected return on assets. Therefore, liability amounts in this report cannot be used to assess a settlement of the obligation.

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 plan, and on actuarial assumptions that are, in the aggregate, internally consistent and reasonably based on the actual experience of the plan.

Respectfully submitted,

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REPORT ON THE ANNUAL VALUATION OF THE
SUPPLEMENTAL LEGISLATIVE RETIREMENT PLAN OF MISSISSIPPI
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 the Plan. For convenience of reference, the principal results of the valuation and a comparison with the preceding year's results are summarized below. The current valuation and reported benefits amount reflect any benefit increases granted to retirees as of July 1, 2018. Based on the funding policy adopted by the Board in 2012, the employer contribution rate is to be set at 7.40% of annual compensation and the amortization period calculated on an open basis.

VALUATION DATE	June 30, 2018	June 30, 2017
Active members included in valuation		
Number	174	174
Annual compensation	$ 6,832,961	$ 6,928,085
Retirees		
Number	207	205
Annual allowances	$ 1,304,548	$ 1,279,471
Assets		
Market related actuarial value	$ 17,945,000	$ 17,208,000
Market value	$ 18,036,000	$ 17,342,000
Unfunded actuarial accrued liability	$ 4,373,685	$ 4,640,868
Funded Ratio	80.4%	78.8%
Employer contribution rate		
Normal Cost*	2.79%	2.76%
Accrued liability	4.61	4.64
Total	7.40%	7.40%
Anticipated accrued liability payment period	20.1 years	21.6 years
Unfunded actuarial accrued liability based on Market value of assets	$ 4,282,685	$ 4,506,868
Funded Ratio	80.8%	79.4%
Payment period	19.5 years	20.6 years

* Includes load for administrative expenses. See Section VI for more contribution rate detail.

2. The valuation balance sheet showing the results of the valuation is given in Section III.

3. Comments on the valuation results are given in Section IV, comments on the experience and actuarial gains and losses during the valuation year are given in Section V and the rates of contribution payable by employers are given in Section VI.

4. Schedule A of this report presents the development of the actuarial value of assets. The estimated investment return for the plan year ending June 30, 2018 on an actuarial value of assets basis was 8.57%, compared to the assumed rate of return for the period of 7.75%.

5. Schedule B details the actuarial assumptions and methods employed. There have been no changes since the previous valuation.

6. Schedule C gives a summary of the benefit and contribution provisions of the plan. There have been no changes since the previous valuation.

7. The table on page 3 provides a ten-year history of some pertinent figures.

8. The funding policy for the System was changed in 2012. Under the prior funding policy, the amortization payment for the UAAL was calculated based on a fixed employer contribution rate using a floating amortization period no greater than 30 years. For continuity and informational purposes, we have provided this calculation in Section VII.

9. The funded ratio shown in the Summary of Principal Results, is the ratio of actuarial value of assets to the actuarial accrued liability. The funded status would be different based on the market value of assets. The funded ratio is an indication of progress in funding the promised benefits. Since the ratio is less than 100%, there is a need for additional contributions toward the payment of the unfunded accrued liability. In addition, this funded ratio does not have any relationship to measuring the sufficiency if the plan had to settle its liabilities.

Supplemental Legislative Retirement Plan of Mississippi

Comparative Schedule

Valuation Date June 30	Active Members				Retired Lives				Valuation Results ($ thousands)		
	Number	Payroll ($ thousands)	Average Salary	% increase from previous year	Number	Active/ Retired Ratio	Annual Benefits ($ thousands)	Benefits as % of Payroll	Accrued Liability	Valuation Assets	UAAL
2009	174	$6,803	$39,100	1.3%	141	1.2	$ 781.2	11.5%	$16,535	$13,386	$3,149
2010	175	6,605	37,743	(3.5)	142	1.2	792.7	12.0	17,081	13,241	3,840
2011	174	6,810	39,137	3.7	147	1.2	823.9	12.1	18,605	13,606	4,999
2012	175	6,872	39,267	0.3	173	1.0	1,046.7	15.2	19,537	13,268	6,269
2013	175	6,695	38,259	(2.6)	188	0.9	1,121.4	16.7	19,978	13,554	6,424
2014	175	6,918	39,531	3.3	187	0.9	1,139.5	16.5	20,240	14,899	5,341
2015	174	6,861	39,432	(0.3)	185	0.9	1,133.6	16.5	21,213	16,098	5,115
2016	171	6,862	40,130	1.8	207	0.8	1,277.8	18.6	21,259	16,447	4,812
2017	174	6,928	39,817	(0.8)	205	0.8	1,279.5	18.5	21,849	17,208	4,641
2018	174	6,833	39,270	(1.4)	207	0.8	1,304.5	19.1	22,319	17,945	4,374

SECTION II – MEMBERSHIP DATA

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

Active Members

				Group Averages		
Employers	Number of Employers	Number	Payroll	Salary	Age	Benefit Service*
State Agencies	5	174	$ 6,832,961	$39,270	56.1	11.3

* Eligibility service is 16.3 years.

Of the 174 active members, 113 are vested and 61 are non-vested.

Retired Lives

			Group Averages	
Type of Benefit Payment	No.	Annual Benefits	Benefit	Age
Retirement	168	$1,056,746	$6,290	72.4
Disability	1	7,984	7,984	63.5
Survivor	38	239,818	6,311	72.9
Total in SLRP	207	$1,304,548	$6,302	72.5

Deferred Vested/Inactive Lives

Type of Member	No.	Deferred Benefits	Outstanding Balance
Deferred Vested – Benefit Included	38	$136,845	N/A
Inactive	17	N/A	$78,007
Total in SLRP	55	$136,845	$78,007

For the liability in this valuation, deferred vested participants with benefits provided are valued assuming a retirement age of 60 and for inactive members, account balances are multiplied by two to estimate liabilities and interest in the future.

SECTION III – VALUATION BALANCE SHEET

The following valuation balance sheet shows the assets and liabilities of the retirement plan 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. The items shown in the balance sheet are present values actuarially determined as of the relevant valuation date. The development of the actuarial value of assets is presented in Schedule A.

VALUATION BALANCE SHEET
SHOWING THE ASSETS AND LIABILITIES OF THE
SUPPLEMENTAL LEGISLATIVE RETIREMENT PLAN OF MISSISSIPPI

	JUNE 30, 2018	JUNE 30, 2017
ASSETS		
Current actuarial value of assets:		
Annuity Savings Account	$ 2,693,296	$ 2,636,492
Annuity Reserve	2,924,477	2,789,276
Employers' Accumulation Account	12,327,227	11,782,232
Total current assets	$ 17,945,000	$ 17,208,000
Future member contributions to Annuity Savings Account	$ 1,457,783	$ 1,589,374
Prospective contributions to Employer's Accumulation Account		
Normal contributions	$ 1,243,975	$ 1,340,372
Unfunded actuarial accrued liability contributions	4,373,685	4,640,868
Total prospective contributions	$ 5,617,660	$ 5,981,240
Total assets	$ 25,020,443	$ 24,778,614
LIABILITIES		
Present value of benefits payable on account of present retired members and beneficiaries	$ 13,839,708	$ 13,798,639
Present value of benefits payable on account of inactive members for service rendered before the valuation date	1,242,544	1,158,950
Present value of benefits payable on account of active members	$ 9,938,191	$ 9,821,025
Total liabilities	$ 25,020,443	$ 24,778,614

BREAKDOWN OF TOTAL AND ACCRUED LIABILITIES
AS OF JUNE 30, 2018

	Total Liability	Accrued Liability
Active Members		
Retirement	$ 8,294,929	$ 6,580,386
Death	373,605	266,831
Disability	219,047	53,074
Termination	1,050,610	336,142
Total	$ 9,938,191	$ 7,236,433
Retirees		
Retirement	$ 11,548,508	$ 11,548,508
Survivor	2,216,542	2,216,542
Disability	74,658	74,658
Total	$ 13,839,708	$ 13,839,708
Deferred Vested Members	1,086,530	1,086,530
Inactive Members	156,014	156,014
Total Actuarial Values	$ 25,020,443	$ 22,318,685
Actuarial Value of Assets		17,945,000
Unfunded Actuarial Accrued Liability		$ 4,373,685

The total liability is the present value of future benefits for all current members as of the valuation date. The accrued liability is the present value of benefits that have been accrued as of the valuation date. Since all inactive members and retirees have accrued their full benefits, the total liability and accrued liability are the same. For actives, the difference between the total liability and the accrued liability is the present value of all future accruals.

SECTION IV – COMMENTS ON VALUATION

The valuation balance sheet gives the following information with respect to the funds of the Plan as of June 30, 2018.

Total Assets

The Annuity Savings Account is the fund to which are credited contributions made by members together with interest thereon. When a member retires, the amount of his or her accumulated contributions is transferred from the Annuity Savings Account to the Annuity Reserve. The Employer's Accumulation Account is the fund to which are credited employer contributions and investment income, and from which are paid all employer-provided benefits under the plan. The assets credited to the Annuity Savings Account as of the valuation date, which represent the accumulated contributions of members to that date, amounted to $2,693,296. The assets credited to the Annuity Reserve were $2,924,477 and the assets credited to the Employer's Accumulation Account totaled $12,327,227. Current actuarial assets as of the valuation date equaled the sum of these three funds, $17,945,000. Future member contributions to the Annuity Savings Account were valued to be $1,457,783. Prospective contributions to the Employer's Accumulation Account were calculated to be $5,617,660 of which $1,243,975 is attributable to service rendered after the valuation date (normal contributions) and $4,373,685 is attributable to service rendered before the valuation date (unfunded actuarial accrued liability contributions).

Therefore, the balance sheet shows the present value of current and future assets of the Plan to be $25,020,443 as of June 30, 2018.

Total Liabilities

The present value of benefits payable on account of presently retired members and beneficiaries totaled $13,839,708 as of the valuation date. The present value of future benefit payments on behalf of active members amounted to $9,938,191. In addition, the present value of benefits for inactive members, due to service rendered before the valuation date, was calculated to be $1,242,544.

Therefore, the balance sheet shows the present value for all prospective benefit payments under the Plan to be $25,020,443 as of June 30, 2018.

Section 25-11-307(1) of State law requires that active members contribute 3.00% of annual compensation to the Plan.

Section 25-11-307(2) requires that the State contribute a certain percentage of the annual compensation of members to cover the normal contributions and a certain percentage to cover the accrued liability contributions of the Plan. These individual contribution percentages are established in accordance with an actuarial valuation. Based on the funding policy adopted by the Board in October, 2012, the employer rate is set at 7.40% of annual compensation and the amortization period calculated on an open basis. Therefore, the amortization period for the June 30, 2018 valuation is 20.1 years, compared to 21.6 years for the last valuation.

The primary reason for the decrease in the amortization period is the investment gain on an actuarial value basis. There were also gains on mortality experience as well as salary increases less than expected. These gains were slightly offset by losses from 4 retirements, which was more than expected in a non-election year. See Schedule E for a complete analysis of the Financial Experience.

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 years ended June 30, 2018 and June 30, 2017 is shown below.

		2018 Valuation $ Thousands	2017 Valuation $ Thousands
(1)	UAAL* as of beginning of year	$ 4,640.9	$ 4,811.8
(2)	Total normal cost from last valuation	400.3	401.5
(3)	Total contributions	720.0	734.0
(4)	Interest accrual: [[(1) + (2)] x .0775] - [(3) x .03875]	362.8	375.6
(5)	Expected UAAL before changes: (1) + (2) – (3) + (4)	$ 4,684.0	$ 4,854.9
(6)	Change due to plan amendments	0.0	0.0
(7)	Change due to actuarial assumptions or methods	0.0	182.2
(8)	Expected UAAL after changes: (5) + (6) + (7)	$ 4,684.0	$ 5,037.1
(9)	Actual UAAL as of end of year	$ 4,373.7	$ 4,640.9
(10)	Gain/(loss): (8) – (9)	$ 310.3	$ 396.2
(11)	Gain/(loss) as percent of actuarial accrued liabilities at start of year.	1.4%	1.9%

*Unfunded actuarial accrued liability.

Valuation Date June 30	Actuarial Gain/(Loss) as a % of Beginning Accrued Liabilities
2013	(0.9)%
2014	6.3
2015	4.4
2016	1.7
2017	1.9
2018	1.4

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 Plan. The following table shows the rates of contribution payable by employers as determined from the present valuation for the 2019/2020 fiscal year and a comparison to the previous valuation results.

Contribution for	2019/2020 Fiscal Year	2018/2019 Fiscal Year
Normal Cost:		
Service retirement benefits	4.33%	4.33%
Disability benefits	0.29	0.27
Survivor benefits	0.20	0.20
Total	4.82%	4.80%
Member Contributions:	3.00%	3.00%
Less future refunds	(0.74)	(0.73)
Available for benefits	2.26%	2.27%
Employer Normal Cost	2.56%	2.53%
Administrative Expense Load	0.23%	0.23%
Unfunded Actuarial Accrued Liabilities (20.1 year level % of payroll amortization*)	4.61%	4.64%
Total Statutory Employer Contribution Rate	7.40%	7.40%

*Amortization period a year ago was 21.6 years.

The current funding policy has set the employer contribution rate to 7.40% of payroll and set the amortization period to open-ended. Thirty-year projections are completed after the valuation to determine if an increase or decrease in the employer contribution rate is warranted according to the triggers set forth in the funding policy. Please see Schedule F for the current funding policy.

The components of the change in the computed unfunded actuarial accrued liability amortization period from 21.6 years to 20.1 years are as follows:

Previously Reported Period	21.6 years
Change due to:	
Normal amortization	(1.0)
Actuarial experience	(0.5)
Assumption changes	0.0
Plan amendments	0.0
Contribution experience	0.0
Computed Period	20.1 years

SECTION VII – SUPPLEMENTAL DISCLOSURE INFORMATION

1. The following supplemental disclosure information is provided for informational purposes only. One such item is a distribution of the number of employees by type of membership, as follows:

NUMBER OF ACTIVE AND RETIRED PARTICIPANTS
AS OF JUNE 30, 2018

GROUP	NUMBER
Retired participants and beneficiaries currently receiving benefits	207
Terminated participants and beneficiaries entitled to benefits but not yet receiving benefits	55
Active Participants	174
Total	436

2. Another such item is the schedule of funding progress as shown below. As can be seen in column 3 of the table below, the funded ratio decreased over the first four of the last 10 years but the funded ratio has been increasing each year since June 30, 2013. In addition, the UAAL as a percentage of payroll, shown in column 6, has decreased for each of the last five valuations after increasing for valuations 2009 through 2013.

SCHEDULE OF FUNDING PROGRESS

Plan Year Ended	(1) Actuarial Value of Assets	(2) Actuarial Accrued Liability (AAL) Entry Age	(3) Percent Funded (1)/(2)	(4) Unfunded AAL (2) – (1)	(5) Annual Covered Payroll	(6) Unfunded AAL as a Percentage of Covered Payroll (4)/(5)
06/30/2009#	$13,386,000	$16,534,870	81.0%	$3,148,870	$6,803,339	46.3%
06/30/2010	13,241,000	17,081,278	77.5	3,840,278	6,605,037	58.1
06/30/2011#	13,606,000	18,605,301	73.1	4,999,301	6,809,770	73.4
06/30/2012	13,268,000	19,536,604	67.9	6,268,604	6,871,757	91.2
06/30/2013#	13,554,000	19,977,584	67.8	6,423,584	6,695,359	95.9
06/30/2014	14,899,000	20,239,757	73.6	5,340,757	6,917,939	77.2
06/30/2015#	16,098,000	21,213,446	75.9	5,115,446	6,861,166	74.6
06/30/2016	16,447,000	21,258,800	77.4	4,811,800	6,862,262	70.1
06/30/2017#	17,208,000	21,848,868	78.8	4,640,868	6,928,085	67.0
06/30/2018	17,945,000	22,318,685	80.4	4,373,685	6,832,961	64.0

After change in actuarial assumptions.

3. Under the prior funding policy, the amortization payment of the unfunded actuarial accrued liability rate was calculated based on a fixed employer contribution rate using a floating amortization period no greater than 30 years. The calculation of the contribution rate under the prior funding policy for the past two valuations is shown below:

Prior Funding Policy		
Valuation Date June 30	**2018**	**2017**
Employer contribution rate		
Normal Cost*	2.79%	2.76%
Accrued liability	3.68	3.87
Total	6.47%	6.63%
Anticipated accrued liability payment period	30 years	30 years

* Includes load for administrative expenses. See Section VI for more contribution rate detail.

Solvency Tests
($ in Thousands)

	Actuarial Accrued Liabilities for				Portions of Accrued Liabilities Covered by Assets		
Valuation Date	(1) Accumulated Employee Contributions Including Allocated Investment Earnings	(2) Retirees and Beneficiaries Currently Receiving Benefits	(3) Active and Inactive Members Employer Financed Portion	Net Assets Available for Benefits	(1)	(2)	(3)
6/30/2009	$2,327	$8,756	$5,452	$13,386	100%	100.0%	42.2%
6/30/2010	2,509	8,777	5,795	13,241	100	100.0	33.7
6/30/2011	2,642	8,734	7,229	13,606	100	100.0	30.8
6/30/2012	2,105	11,428	6,004	13,268	100	97.7	0.0
6/30/2013	2,416	11,909	5,652	13,554	100	93.5	0.0
6/30/2014	2,638	11,920	5,682	14,899	100	100.0	6.0
6/30/2015	2,862	12,329	6,023	16,098	100	100.0	15.1
6/30/2016	2,485	13,758	5,016	16,447	100	100.0	4.1
6/30/2017	2,636	13,799	5,414	17,208	100	100.0	14.3
6/30/2018	2,693	13,840	5,786	17,945	100	100.0	24.4

As can be seen from the table above, the SLRP plan assets currently covers 100% of the active member contribution account balances and covers 100% of the retiree liability as of the valuation date. However, the remaining assets only cover 24.4% of employer financed active liabilities.

Schedule of Active Member Valuation Data

		Active Members			
Valuation Date	Number of Employers	Number	Annual Payroll	Annual Average Pay	% Increase in Average Pay
2009	5	174	$6,803,339	$39,100	1.3%
2010	5	175	6,605,037	37,743	(3.5)
2011	5	174	6,809,770	39,137	3.7
2012	5	175	6,871,757	39,267	0.3
2013	5	175	6,695,359	38,259	(2.6)
2014	5	175	6,917,939	39,531	3.3
2015	5	174	6,861,166	39,432	(0.3)
2016	5	171	6,862,262	40,130	1.8
2017	5	174	6,928,085	39,817	(0.8)
2018	5	174	6,832,961	39,270	(1.4)

Schedule of Number of Retirants Added To and Removed From Rolls
Last Ten Fiscal Years

	Fiscal Year Ended June 30									
Item	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Beginning of Year	138	141	142	147	173	188	187	185	207	205
Added	7	6	7	33	20	6	8	28	6	6
Removed	(4)	(5)	(2)	(7)	(5)	(7)	(10)	(6)	(8)	(4)
End of Year	141	142	147	173	188	187	185	207	205	207

*See Schedule D for a breakdown by type of retirement.

Schedule of Benefit Payments Added To and Removed From Rolls
Last Seven Fiscal Years

Year Ending	2012	2013	2014	2015	2016	2017	2018
Beginning of Year	$823,936	$1,046,672	$1,121,404	$1,139,477	$1,133,588	$1,277,763	$1,279,471
Added	230,576	77,003	32,688	58,303	177,207	31,300	34,983
Removed	(31,217)	(26,497)	(44,780)	(95,910)	(57,546)	(64,321)	(42,480)
Benefit increase due to annual COLA	23,377	24,226	30,165	31,718	24,514	34,729	32,574
Benefit increase due to plan amendments	0	0	0	0	0	0	0
End of Year	$1,046,672	$1,121,404	$1,139,477	$1,133,588	$1,277,763	$1,279,471	$1,304,548

Schedule of Average Benefit Payments

	Years of Credited Service								
	0-9	10-15	16-20	21-24	25	26-29	30	31+	TOTAL
July 1, 2017 to June 30, 2018									
Average Monthly Benefit	$33.20			$521.29				$1,284.96	$485.87
Average Final Salary	$20,839.50			$27,699.52				$41,618.04	$27,732.60
Number of Active Retirants	2			3				1	6
July 1, 2016 to June 30, 2017									
Average Monthly Benefit	$180.95		$609.42	$452.29	$732.45				$434.72
Average Final Salary	$29,821.02		$37,791.24	$28,377.72	$40,932.00				$32,520.12
Number of Active Retirants	2		1	2	1				6
July 1, 2015 to June 30, 2016									
Average Monthly Benefit	$249.59	$349.70	$486.61	$654.27	$522.12			$1,200.33	$527.40
Average Final Salary	$36,599.58	$39,877.51	$35,210.67	$39,774.39	$41,482.12			$42,237.92	$38,850.14
Number of Active Retirants	6	6	4	7	2			3	28
July 1, 2014 to June 30, 2015									
Average Monthly Benefit	$163.64	$739.53	$720.77		$578.67			$1,032.05	$607.33
Average Final Salary	$18,636.25	$68,228.41	$37,911.50		$34,790.50			$42,949.00	$40,911.48
Number of Active Retirants	2	2	2		1			1	8
July 1, 2013 to June 30, 2014									
Average Monthly Benefit		$345.04	$490.81	$472.60		$579.73			$454.01
Average Final Salary		$34,404.37	$34,871.00	$39,300.75		$43,164.50			$36,836.00
Number of Active Retirants		2	2	1		1			6

Schedule of Average Benefit Payments

	Years of Credited Service								
	0-9	10-15	16-20	21-24	25	26-29	30	31+	TOTAL
July 1, 2012 to June 30, 2013									
Average Monthly Benefit	$168.36	$182.74	$462.84	$550.22		$730.99			$320.75
Average Final Salary	$27,924.79	$29,576.45	$36,139.50	$39,580.94		$38,727.25			$32,325.08
Number of Active Retirants	6	7	1	4		2			20
July 1, 2011 to June 30, 2012									
Average Monthly Benefit	$193.84	$404.90	$429.73	$675.67		$731.32		$1,237.30	$582.26
Average Final Salary	$33,827.49	$43,765.24	$36,045.25	$38,900.81		$38,644.58		$57,275.51	$41,862.66
Number of Active Retirants	10	6	3	4		3		7	33
July 1, 2010 to June 30, 2011									
Average Monthly Benefit	$182.16	$108.90		$305.17				$369.01	$260.23
Average Final Salary	$33,981.00	$19,188.49		$36,781.59				$27,287.00	$30,755.38
Number of Active Retirants	2	1		2				2	7
July 1, 2009 to June 30, 2010									
Average Monthly Benefit	$129.62	$516.63		$759.42				$1,295.33	$493.37
Average Final Salary	$29,883.00	$48,826.77		$45,504.00				$36,180.57	$36,693.39
Number of Active Retirants	3	1		1				1	6
July 1, 2008 to June 30, 2009									
Average Monthly Benefit	$194.61			$547.11		$833.23	$411.03	$338.62	$387.69
Average Final Salary	$29,237.33			$37,853.25		$39,683.00	$41,404.00	$34,997.00	$34,521.32
Number of Active Retirants	3			1		1	1	1	7

SCHEDULE A
Development of Actuarial Value of Assets
($ thousands)

	Valuation Date June 30:	2016	2017	2018	2019	2020	2021
A.	Actuarial Value Beginning of Year	$16,447	$17,208				
B.	Market Value End of Year	17,342	18,036				
C.	Market Value Beginning of Year	15,768	17,342				
D.	Cash Flow						
	D1. Contributions	734	720				
	D2. Other Revenue	0	0				
	D3. Benefit Payments	(1,397)	(1,410)				
	D4. Refunds	(17)	(18)				
	D5. Administrative Expenses	(10)	(10)				
	D6. Investment Expenses	(62)	(62)				
	D7. Net	(752)	(780)				
E.	Investment Income						
	E1. Market Total: B.-C.-D6.	2,326	1,474				
	E2. Assumed Rate	7.75%	7.75%				
	E3. Amount for Immediate Recognition	1,257	1,378				
	E4. Amount for Phased-In Recognition	1,069	96				
F.	Phased-In Recognition of Investment Income						
	F1. Current Year: 0.20*E4.	214	19				
	F2. First Prior Year	(232)	214	19			
	F3. Second Prior Year	(157)	(232)	214	19		
	F4. Third Prior Year	295	(157)	(232)	214	19	
	F5. Fourth Prior Year	136	295	(157)	(232)	214	19
	F6. Total Recognized Investment Gain	256	139	(156)	1	233	19
G.	Actuarial Value End of Year: A. + D7. + E3. + F6. + G.	$17,208	$17,945				
H.	Difference Between Market & Actuarial Values	$ 134	$ 91	$247	$246	$13	$(6)

The Actuarial Valuation of Assets recognizes assumed investment income (line E3) fully each year. Differences between actual and assumed investment income (line E4) are phased in over a closed 5 year period. During periods when investment performance exceeds the assumed rate, Actuarial Value of Assets will tend to be less than market value. During periods when investment performance is less than the assumed rate, Actuarial Value of Assets will tend to be greater than market value. If assumed rates are exactly realized for 4 consecutive years, actuarial value will become equal to market value.

Asset Summary June 30, 2018 ($ in Thousands)			
	Market Value	**Book Value**	**Actuarial Value**
1. Assets at June 30, 2017	$17,342	$13,854	$17,208
2. Contributions and Misc. Revenue	720	720	720
3. Investment Increment	1,474	1,675	1,517
4. Benefit Payments	(1,410)	(1,410)	(1,410)
5. Refunds	(18)	(18)	(18)
6. Expenses	(72)	(72)	(72)
7. Adjustment	0	0	0
8. Assets at June 30, 2018 (1)+(2)+(3)+(4)+(5)+(6)+(7)	$18,036	$14,749	$17,945
9. Investment Return	8.25%	11.87%	8.57%

SCHEDULE B

STATEMENT OF ACTUARIAL ASSUMPTIONS AND METHODS

INTEREST RATE: 7.75% per annum, compounded annually (net of investment expenses only). The expected return on assets consists of 3.00% price inflation and 4.75% real rate of return.

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

	Annual Rate of		
	Death		
Age	Male	Female	Disability*
20	0.03%	0.01%	0.04%
25	0.03	0.01	0.05
30	0.03	0.01	0.07
35	0.03	0.01	0.11
40	0.04	0.02	0.17
45	0.06	0.03	0.23
50	0.11	0.05	0.30
55	0.18	0.08	0.35
60	0.29	0.11	0.40
65	0.49	0.17	0.00
70	0.77	0.29	0.00
75	1.24	0.48	0.00

* 93% are presumed to be non-duty related, and 7% are assumed to be duty related.

WITHDRAWAL AND VESTING: 20% in an election year, none in a non-election year.

SERVICE RETIREMENT: 30% in an election year, none in a non-election year. All members are assumed to retire no later than age 80.

It is assumed that a member will be granted 2.5 years of service credit for unused leave at termination of employment.

SALARY INCREASES: 3.25% per annum, for all ages.

DEATH AFTER RETIREMENT: The mortality table, for post-retirement mortality, used in evaluating allowances to be paid was the RP-2014 Healthy Annuitant Blue Collar Mortality Table projected with Scale BB to 2022 with male rates set forward one year and adjusted by 106% for males at all ages and as follows for females: 90% for ages less the 76, 95% for age 76, 105% for age 78, and 110% for ages 79 and greater. The RP-2014 Disabled Retiree Mortality Table set forward 4 years for males and 3 years for females was used for the period after disability retirement. This assumption is used to measure the probabilities of each benefit payment being made after retirement. Mortality improvement is anticipated under this assumption as recent mortality experience shows actual deaths 11.2% greater than expected under the selected table for non-disability mortality and 10.5% greater than expected under the selected table for disability mortality.

PAYROLL GROWTH: 3.25% per annum, compounded annually.

ADMINISTRATIVE EXPENSES: 0.23% of payroll.

TIMING OF DECREMENTS AND PAY INCREASES: Middle of Year.

ASSUMED INTEREST RATE ON EMPLOYEE CONTRIBUTIONS: 2.00%

MARRIAGE ASSUMPTION: 85% married with the husband three years older than his wife.

ASSET VALUATION METHOD: Actuarial value, as developed in Schedule A. The actuarial value of assets recognizes a portion of the difference between the market value of assets and the expected market value of assets, based on the assumed valuation rate of return. The amount recognized each year is 20% of the difference between market value and expected market value.

MAXIMUM COVERED EARNINGS ASSUMPTION GROWTH: 3.25%

MODIFIED CASH REFUND: Benefits were valued with a six year certain period for retirees and a five year certain period for active members to estimate the value of the modified cash refund feature.

VALUATION METHOD: The valuation is prepared on the projected benefit basis, which is used to determine the present value of each member's expected benefit payable at retirement, disability or death. The calculations are based on the member's age, years of service, sex, compensation, expected future salary increases, and an assumed future interest earnings rate (currently 7.75%). The calculations consider the probability of a member's death or termination of employment prior to becoming eligible for a benefit and the probability of the member terminating with a service, disability, or survivor's benefit. The present value of the expected benefits payable to active members is added to the present value of the expected future payments to current benefit recipients to obtain the present value of all expected benefits payable to the present group of members and survivors.

The employer contributions required to support the benefits of SLRP are determined following a level funding approach, and consist of a normal contribution and an accrued liability contribution.

The normal contribution is determined using the "entry age normal" method. Under this method, a calculation is made for pension benefits to determine the uniform and constant percentage rate of employer contribution which, if applied to the compensation of the average new member during the entire period of his anticipated covered service, would be required in addition to the contributions of the member to meet the cost of all benefits payable on his behalf.

The unfunded actuarial accrued liability is determined by subtracting the current assets and the present value of prospective employer normal contributions and member contributions from the present value of expected benefits to be paid from the SLRP. The accrued liability contribution amortizes the balance of the unfunded actuarial accrued liability over a period of years from the valuation date.

SCHEDULE C

SUMMARY OF MAIN BENEFIT AND CONTRIBUTION PROVISIONS

The following summary presents the main benefit and contribution provisions of the Plan in effect June 30, 2018 as interpreted in preparing the actuarial valuation.

DEFINITIONS

Average Compensation

Average annual covered earnings of an employee during the four highest years of service. To determine your four highest years, PERS considers these scenarios:

- Four highest fiscal years of earned compensation;
- Four highest calendar years of earned compensation;
- Combination of four highest fiscal and calendar years of earned compensation that do not overlap; or
- Final 48 months of earned compensation prior to termination of employment.

Covered Earnings

Gross salary not in excess of the maximum amount on which contributions were required.

Fiscal Year

Year commencing on July 1 and ending June 30.

Eligibility Service

Service while a contributing member of PERS plus additional service as described below. (OLD: Eligibility service" is all service in PERS, including that credited for SLRP service.)

Credited Service

Service while a contributing member of SLRP plus additional service as described below. (OLD: "Creditable service" includes only SLRP service.)

Unused Sick and Vacation Leave

Service credit is provided at no charge to members for unused sick and vacation time that has accrued at the time of retirement. A payment of up to 240 hours of leave may be used the Average Compensation definition.

Additional Service	Additional service credit may be granted for service prior to July 1, 1989, including active duty military service.
Attribution	Attribution period for the normal cost is based on entry into PERS even for members who first participated in SLRP at a later age than PERS.

The maximum covered earnings for employers and employees over the years are as follows:

EMPLOYER AND EMPLOYEE RATES OF CONTRIBUTION
AND MAXIMUM COVERED EARNINGS

Fiscal Date From	Fiscal Date To	Employer Rate	Employee Rate	Maximum Covered Earnings
7/1/1989	6/30/1992	6.33%	3.00%	$75,600
7/1/1992	6/30/2002	6.33	3.00	$125,000
7/1/2002	6/30/2006	6.33	3.00	$150,000
7/1/2006	6/30/2008	6.65	3.00	$150,000
7/1/2008	6/30/2009	6.65	3.00	$230,000
7/1/2009	12/31/2011	6.65	3.00	$245,000
1/1/2012	6/30/2012	7.40	3.00	$245,000
7/1/2012	6/30/2013	7.40	3.00	$250,000
7/1/2013	6/30/2014	7.40	3.00	$255,000
7/1/2014	6/30/2015	7.40	3.00	$260,000
7/1/2015	6/30/2017	7.40	3.00	$265,000
7/1/2017	6/30/2018	7.40	3.00	$270,000
7/1/2018	6/30/2019	7.40	3.00	$275,000

BENEFITS

Superannuation Retirement

Condition for Retirement

(a) A retirement allowance is paid upon the request of any member who retires and has attained age 60 and completed at least eight years* of membership service under PERS. A retirement allowance may also be paid upon the completion of at least 25 years of creditable service under PERS for members hired prior to July 1, 2011, or upon the completion of 30 years of creditable service for members hired on or after July 1, 2011.

(b) Any member who withdraws from service prior to his or her attainment of age 60 and who has completed at least eight years* of ,membership service under PERS is entitled to receive, in lieu of a refund of his or her accumulated contributions, a retirement allowance commencing at age 60.

Amount of Allowance

The annual retirement allowance payable to a member who retires under condition (a) above is equal to:

1. A member's annuity which is the actuarial equivalent of the member's accumulated contributions at the time of his or her retirement, plus

2. An employer's annuity which, together with the member's annuity, is equal to 1% of his or her average compensation for each of the first 25 years of creditable service plus 1.25% for each year of creditable service over 25 years.

The minimum allowance is $60 per year of creditable service.

Disability Retirement

Condition for Retirement

A retirement allowance is paid to a member who is totally and permanently disabled, as determined by the Board of Trustees, and has accumulated eight or more years* of membership service under PERS.

* four years for those who entered PERS before July 1, 2007.

Amount of Allowance

For those who were active members prior to July 1, 1992, and did not elect the benefit structure outlined below, the annual disability retirement allowance payable is equal to a superannuation retirement allowance if the member has attained age 60, otherwise it is equal to a superannuation retirement allowance calculated as follows:

1. A member's annuity equal to the actuarial equivalent of his or her accumulated contributions at the time of retirement, plus

2. An employer's annuity equal to the amount that would have been payable had the member continued in service to age 60.

For those who become active members after June 30, 1992, and for those who were active members prior to July 1, 1992, who so elected, the following benefits are payable:

1. A temporary allowance equal to the greater of (a) 20% of average compensation plus 5% for each dependent child up to a maximum of 2, or (b) the member's accrued allowance. This temporary allowance is paid for a period of time based on the member's age at disability, as follows:

Age at Disability	Duration
60 and earlier	to age 65
61	to age 66
62	to age 66
63	to age 67
64	to age 67
65	to age 68
66	to age 68
67	to age 69
68	to age 70
69 and later	one year

The minimum allowance is $60 per year of service credit.

2. A deferred allowance commencing when the temporary allowance ceases equal to the greater of (a) the allowance the member would have received based on service to the termination age of the temporary allowance, but not more than 20% of average compensation, or (b) the member's accrued allowance.

The minimum allowance is $60 per year of service credit.

Effective July 1, 2004, a temporary benefit can be paid out of a member's accumulated contribution balance while the member is awaiting a determination for eligibility for disability benefits. Future disability payments, if any, would be offset by advanced payments made from the member's accumulated contributions.

Accidental Disability Retirement

Condition for Retirement

A retirement allowance is paid to a member who is totally and permanently disabled in the line of performance of duty.

Amount of Allowance

The annual accidental disability retirement allowance is equal to the allowance payable on disability retirement but not less than 25% of average compensation. There is no minimum benefit.

Accidental Death Benefit

Condition for Benefit

A retirement allowance is paid to a spouse and/or dependent children upon the death of an active member in the line of performance of duty.

Amount of Allowance

The annual retirement allowance is equal to 25% of average compensation payable to the spouse and 12-1/2% of average compensation payable to one dependent child or 25% to two or more children until age 19 (23 if a full time student). There is no minimum benefit.

Ordinary Death Benefit

Condition for Benefit

Upon the death of a member who has completed at least eight years* of membership service, a benefit is payable, in lieu of a refund of the member's accumulated contributions, to his or her spouse, if said spouse has been married to the member for not less than one year.

* four years for those who entered the system before July 1, 2007.

Amount of Allowance

The annual retirement allowance payable to the lawful spouse of a vested member who dies is equal to the greater of (i) the allowance that would have been payable had the member retired and elected Option 2, reduced by an actuarially determined factor based on the number of years the member lacked in qualifying for unreduced benefits, or (ii) a lifetime benefit equal to 20% of the deceased member's average compensation, but not less than $25 per month.

In addition, a benefit is payable to dependent children until age 19 (23 if a full time student). The benefit is equal to the greater of 5% of average compensation or $25 per month for each dependent child up to 3.

Return of Contributions

Upon the withdrawal of a member without a retirement benefit, his or her contributions are returned to him or her, together with accumulated regular interest thereon.

Upon the death of a member before retirement, his or her contributions, together with the full accumulated regular interest thereon, are paid to his or her designated beneficiary, if any, otherwise, to his or her estate provided no other survivor benefits are payable.

Effective July 1, 2016, the interest rate on employee contributions shall be calculated based on the money market rate as published by the Wall Street Journal on December 31 of each preceding year with a minimum rate of one percent and a maximum rate of five percent.

Normal Form of Benefit

The normal form of benefit is an allowance payable during the life of the member with the provision that upon his or her death the excess of his or her total contributions at the time of retirement over the total retirement annuity paid to him or her will be paid to his or her designated beneficiary.

Optional Benefits

A member upon retirement may elect to receive his or her allowance in one of the following forms which are computed to be actuarially equivalent to the applicable retirement allowance.

Option 1. Reduced allowance with the provision that if the pensioner dies before he receives the value of the member's annuity as it was at the time of retirement, the balance shall be paid to his or her beneficiary.

Option 2. Upon his or her death, his or her reduced retirement allowance shall be continued throughout the life of, and paid to, his or her beneficiary.

Option 3. Upon his or her death, 50% of his or her reduced retirement allowance shall be continued throughout the life of, and paid to, a designated beneficiary and the other 50% of his or her reduced retirement allowance to some other designated beneficiary.

Option 4. Upon his or her death, 75% of his of her reduced retirement allowance shall be continued throughout the life of, and paid to, a designated beneficiary.

Option 4A. Upon his or her death, 50% of his of her reduced retirement allowance shall be continued throughout the life of, and paid to, a designated beneficiary.

Option 4B. A reduced retirement allowance shall be continued throughout the life of the pensioner, but with the further guarantee of payment to the pensioner or his or her beneficiary for a specified number of years certain.

Option 4C. A member may elect any option with the added provision that the member shall receive, so far as possible, the same total amount annually (considering both SLRP and Social Security benefits) before and after the earliest age at which the member becomes eligible for a Social Security benefit. This option was only available to those who retired prior to July 1, 2004.

A member who elects Option 2, Option 4 or Option 4A at retirement may revert to the normal form of benefit if the designated beneficiary predeceases the retired member or if the member divorces the designated beneficiary.

A member who elects the normal form of benefit or Option 1 at retirement may select Option 2, Option 4 or Option 4A to provide beneficiary protection to a new spouse if married at retirement.

A member who has at least 28 years of creditable service* under PERS can select a partial lump-sum option at retirement. Under this option, the retiree has the option of taking a partial lump-sum distribution equal to either 12, 24, or 36 times the base maximum monthly benefit. With each lump-sum amount, the base maximum monthly benefit will be actuarially reduced. A member selecting the partial lump-sum option may also select any of the regular options except Option 1, the prorated single-life annuity, and Option 4-C, the Social Security leveling provision. The benefit is then calculated using the new reduced maximum benefit as a starting point in applying the appropriate option factors for the reduction.

*or at least age 63 with four years of membership service for those who entered PERS before July 1, 2007.

Post-Retirement Adjustments In Allowances

The allowances of retired members are adjusted annually by an amount equal to (a) 3% of the annual retirement allowance for each full fiscal year of retirement prior to the year in which the member reaches age 55, plus (b) 3% compounded for each year thereafter beginning with the fiscal year in which the member turns age 55.

A prorated portion of the annual adjustment will be paid to the member, beneficiary, or estate of any member or beneficiary who is receiving the annual adjustment in a lump sum, but whose benefits are terminated between July 1 and December 1.

CONTRIBUTIONS

Members currently contribute 3.00% of covered earnings. The employer contributes 7.40% of covered earnings.

SCHEDULE D

DETAILED TABULATIONS OF THE DATA

RECONCILIATION OF DATA RECEIVED FROM PERS

Reconciliation of Data received from PERS	Active File			Pensioner File			Total
	Active	Inactive NonVested	Inactive Vested	Retirees	Disableds	Survivors	
From PERS	175	19	45	172	1	41	453
Refunded		(3)					(3)
Deceased				(6)		(2)	(8)
Certain Period End						(1)	(1)
Inactive	(1)	1					
Duplicate*			(5)				(5)
Retired			(2)	2			
For Valuation	174	17	38	168	1	38	436

*Also included in Pensioner File

STATUS RECONCILIATION FROM 2017 TO 2018

	Actives	Retirees	Disableds	Survivors	Inactives		Total
					Vested	Non-Vested	
As of June 30, 2017	174	168	1	36	36	20	435
Retirement	(4)	6				(2)	
Disabled							
Death with Survivor		(4)		4			
Terminated Def Vest	(2)				2		
Terminated NonVest	(1)					1	
Rehired							
Refunded	(1)					(1)	(2)
Death No Survivor		(2)		(2)			(4)
Benefit Ended							
Removed/Cleanup						(1)	(1)
New	8						8
As of June 30, 2018	174	168	1	38	38	17	436

SCHEDULE D

Retirants & Beneficiaries as of June 30, 2018

Tabulated by Year of Retirement

Valuation Year of Retirement Ending June 30	No.	Total Annual Benefits, excluding COLA	COLA	Total Annual Benefits	Average Monthly Total Benefit
2018	6	$34,983	$0	$34,983	$486
2017	7	37,149	501	37,650	448
2016	23	151,323	4,540	155,863	565
2015	4	35,146	1,689	36,835	767
2014	5	21,980	2,452	24,432	407
2013	16	62,958	7,884	70,842	369
2012	28	185,464	29,734	215,198	640
2011	4	8,322	1,710	10,032	209
2010	5	19,979	4,614	24,593	410
2009	5	25,467	6,795	32,262	538
2008	16	77,967	24,738	102,705	535
2007	1	4,417	1,519	5,936	495
2006	6	21,944	8,666	30,610	425
2005	5	15,970	6,741	22,711	379
2004	20	102,882	46,708	149,590	623
2003	0	0	0	0	0
2002	3	8,492	4,833	13,325	370
2001	8	23,099	14,500	37,599	392
2000	13	59,581	37,696	97,277	624
1999	5	25,692	17,757	43,449	724
1998	2	4,590	3,253	7,843	327
1997	3	9,560	7,243	16,803	467
1996	4	8,061	6,934	14,995	312
1995	1	1,058	970	2,028	169
1994	1	1,939	1,887	3,826	319
1993	6	19,383	19,226	38,609	536
1992	9	33,601	36,058	69,659	645
1991	0	0	0	0	0
1990	1	2,203	2,690	4,893	408
TOTAL	207	$1,003,210	$301,338	$1,304,548	$525

SCHEDULE D

Schedule of Retired Members by Type of Retirement

Benefits Payable June 30, 2018

Amount of Monthly Benefit	Number of Rets.	Ret Type 1*	Ret Type 2*	Ret Type 3*
$1 – $100	14	13		1
101 – 200	35	28		7
201 – 300	35	31		4
301 – 400	45	35		10
401 – 500	25	15	1	9
501 – 600	11	7		4
601 – 700	16	15		1
701 – 800	5	5		
801 – 900	8	7		1
901 – 1,000	4	4		
Over 1,000	9	8		1
Totals	207	168	1	38

*Type of Retirement
1 – Retirement for Age & Service
2 – Disability Retirement
3 – Survivor Payment

SCHEDULE D

Schedule of Retired Members by Type of Option
Benefits Payable June 30, 2018

Amount of Monthly Benefit	Number of Rets.	Life	Option 1	Option 2	Option 3	Option 4	Option 4A	Option 4B	Option 4C*	Option 5	PLSO* 1 Year	PLSO* 2 Years	PLSO* 3 Years
$1 – $100	14	5		6				3	1				1
101 – 200	35	17	1	16				1					4
201 – 300	35	14		13	2	1	3	2			1		2
301 – 400	45	21	1	13			3	7			2		8
401 – 500	25	12	1	6	2		1	3			1	3	6
501 – 600	11	4		2	1		2	2			1	1	3
601 – 700	16	3		10			1	2					1
701 – 800	5	1		4									1
801 – 900	8	4		1			1	2					1
901 – 1,000	4	1		1				2				1	1
Over 1,000	9	4		2	1		1	1			2		4
Totals	207	86	3	74	6	1	12	25	1	0	7	5	32

Option Selected

Life	-	Return of Contributions
Opt. 1	-	Return of Member's Annuity
Opt. 2	-	100% Survivorship
Opt. 3	-	50%/50% Dual Survivorship
Opt. 4	-	75% Survivorship
Opt. 4A	-	50% Survivorship
Opt. 4B	-	Years Certain & Life
Opt. 4C	-	Social Security Leveling*
Opt. 5	-	Pop-Up
PLSO	-	Partial Lump Sum* (Reflects reduced monthly benefit)

*Included in other options

SCHEDULE D

Retirant and Beneficiary Information June 30, 2018

Attained Age	Service Retirement		Disability Retirement		Survivors and Beneficiaries		Total	
	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits
Under 20								
20 – 24								
25 – 29								
30 – 34								
35 – 39								
40 – 44								
45 – 49					1	$5,148	1	$5,148
50 – 54	3	$23,957			3	19,880	6	43,837
55 – 59	6	35,958			1	12,699	7	48,657
60 – 64	22	112,636	1	$7,984	3	24,900	26	145,520
65 – 69	36	196,059			7	40,357	43	236,416
70 – 74	43	260,369			4	28,147	47	288,516
75 – 79	27	186,462			7	34,475	34	220,937
80 – 84	18	152,367			6	37,186	24	189,553
85 – 89	12	81,346			6	37,026	18	118,372
90 – 94								
95								
96								
97	1	7,592					1	7,592
98								
99								
100 & Over								
Totals	168	$1,056,746	1	$7,984	38	$239,818	207	$1,304,548

Average Age: 72.5 years
Average Age at Retirement: 61.3 years

SCHEDULE D

Total Active Member Data as of June 30, 2018
Tabulated by Attained Ages and Years of Service

Attained Age	Completed Years of Service								
	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	>= 35	Total
24 & under									0
Total Pay									0
Avg. Pay									0
25 to 29	2								2
Total Pay	78,228								78,228
Avg. Pay	39,114								39,114
30 to 34	4	1							5
Total Pay	135,485	39,518							175,003
Avg. Pay	33,871	39,518							35,001
35 to 39	9	3							12
Total Pay	307,690	107,108							414,798
Avg. Pay	34,188	35,703							34,567
40 to 44	4	6	5						15
Total Pay	78,113	289,008	195,996						563,117
Avg. Pay	19,528	48,168	39,199						37,541
45 to 49	9	15	3	1					28
Total Pay	343,852	564,015	119,428	36,436					1,063,731
Avg. Pay	38,206	37,601	39,809	36,436					37,990
50 to 54	11	7	2	2	1				23
Total Pay	399,264	287,838	82,954	79,287	35,270				884,613
Avg. Pay	36,297	41,120	41,477	39,644	35,270				38,461
55 to 59	6	8	6	1	2	1			24
Total Pay	234,606	317,018	306,010	38,816	63,602	38,088			998,140
Avg. Pay	39,101	39,627	51,002	38,816	31,801	38,088			41,589
60 to 64	3	3	6	2		4	1	1	20
Total Pay	117,381	116,174	250,526	98,396		178,832	34,786	39,918	836,013
Avg. Pay	39,127	38,725	41,754	49,198		44,708	34,786	39,918	41,801
65 to 69	1	4	6	3	1	3	1	2	21
Total Pay	38,308	157,526	249,347	113,474	45,826	118,109	42,664	81,112	846,366
Avg. Pay	38,308	39,382	41,558	37,825	45,826	39,370	42,664	40,556	40,303
70 to 74		1	4		2	3		1	11
Total Pay		43,030	162,398		81,120	125,676		37,724	449,948
Avg. Pay		43,030	40,600		40,560	41,892		37,724	40,904
75 & Over			3	1	1	3	4	1	13
Total Pay			111,170	41,936	38,452	125,618	168,108	37,720	523,004
Avg. Pay			37,057	41,936	38,452	41,873	42,027	37,720	40,231
Total	49	48	35	10	7	14	6	5	174
Total Pay	1,732,927	1,921,235	1,477,829	408,345	264,270	586,323	245,558	196,474	6,832,961
Avg. Pay	35,366	40,026	42,224	40,835	37,753	41,880	40,926	39,295	39,270

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Age:	56.1 years
Benefit Service:	11.3 years
Eligibility Service:	16.3 years
Annual Pay:	$39,270

SCHEDULE E

ANALYSIS OF FINANCIAL EXPERIENCE

Gains & Losses in Accrued Liabilities
Resulting from Difference Between
Assumed Experience & Actual Experience
($ Thousands)

Type of Activity	$ Gain (or Loss) For Year Ending 6/30/2018	$ Gain (or Loss) For Year Ending 6/30/2017
Age & Service Retirements. If members retire at older ages, there is a gain. If younger ages, a loss.	$ (158.0)	$ 86.2
Disability Retirements. If disability claims are less than assumed, there is a gain. If more claims, a loss.	9.7	9.8
Death-in Service Benefits. If survivor claims are less than assumed, there is a gain. If more claims, there is a loss.	5.0	5.8
Withdrawal From Employment. If more liabilities are released by withdrawals than assumed, there is a gain. If smaller releases, a loss.	72.9	0.0
Pay Increases. If there are smaller pay increases than assumed, there is a gain. If greater increases, a loss.	241.5	126.3
New Members. Additional unfunded actuarial accrued liability will produce a loss.	(4.3)	(90.5)
Investment Income. If there is a greater investment income than assumed, there is a gain. If less income, a loss.	149.0	203.0
Death After Retirement. If retirants live longer than assumed, there is a loss. If not as long, a gain.	144.9	89.0
Other. Miscellaneous gains and losses resulting from data adjustments, timing of financial transactions, etc.	(150.4)	(33.4)
Gain (or Loss) During Year From Financial Experience	$ 310.3	$ 396.2
Non-Recurring Items. Adjustments for plan amendments, software changes, assumption changes, or method changes.	0.0	(182.2)
Composite Gain (or Loss) During Year	$ 310.3	$ 214.0

SCHEDULE F

FUNDING POLICY OF THE SLRP BOARD OF TRUSTEES

The purpose of the funding policy is to state the overall funding goals for the System, the benchmarks that will be used to measure progress in achieving those goals, and the methods and assumptions that will be employed to develop the benchmarks. The policy refers to pension benefits and does not address retiree healthcare benefits that may be provided under statute in the future. In addition to periodic reviews of this policy, the Board will amend the policy if retiree healthcare benefits become payable.

I. Funding Goals

The objective in requiring employer and member contributions to the System is to accumulate sufficient assets during a member's employment to fully finance the benefits the member receives throughout retirement. In meeting this objective, the System will strive to meet the following funding goals:

- To maintain an increasing ratio of system assets to accrued liabilities and reach an 80 percent minimum funded ratio in 2042;
- To maintain adequate asset levels to finance the benefits promised to members;
- To develop a pattern of stable contribution rates when expressed as a percentage of member payroll as measured by valuations prepared in accordance with the principles of practice prescribed by the Actuarial Standards Board, with a minimum employer contribution equal to the normal cost determined under the Entry Age Normal funding method;
- To provide intergenerational equity for taxpayers with respect to system costs; and
- To fund benefit improvements through increases in contribution rates in accordance with Article 14, § 272A, of the Mississippi Constitution.

II. Benchmarks

To track progress in achieving the previously outlined funding goals, the following benchmarks will be measured annually as of the actuarial valuation date (with due recognition that a single year's results may not be indicative of long-term trends):

- **Funded ratio** – The funded ratio, defined as the actuarial value of system assets divided by the System's actuarial accrued liability, should be increasing over time, before adjustments for changes in benefits, actuarial methods, and/or actuarial assumptions, with a target of at least 80 percent in 2042. If the projected funded ratio is less than 75 percent in 2042, a contribution rate increase will be determined that is sufficient to generate a funded ratio of 85 percent in 2042. If a funded ratio of 100 percent or more is attained, and is projected to remain above 100 percent for_the ensuing 30 years, a reduced contribution pattern will be established provided the projected funded ratio remains at or above 100 percent in every future year.
- **Contribution rate history** – Employer and member contribution rates should be level from year to year when expressed as a percent of active member payroll unless the projected funded ratio reaches a level that triggers a change in contribution rates. The initial employer contribution rates for the Public Employees' Retirement System of Mississippi (PERS) and the Supplemental Legislative Retirement Plan (SLRP) set under this policy as revised October 23, 2012, will be 15.75 percent and 7.40 percent, respectively, of active member payroll effective July 1, 2013.
- **Unfunded Actuarial Accrued Liability (UAAL) amortization period** – The amortization period for the System's UAAL should be declining over time.

SCHEDULE F

III. Methods and Assumptions

The actuarial funding method used to develop the benchmarks will be entry age normal. The method used to develop the actuarial value of assets will recognize the underlying market value of the assets by spreading each year's unanticipated investment income (gains and losses) over a five-year smoothing period (20 percent per year), as adopted by the Board.

The actuarial assumptions used will be those last adopted by the Board based upon the advice and recommendation of the System's actuary. The actuary shall conduct an investigation into the system's experience at least every two years on a rolling four year basis, and utilize the results of the investigation to form the basis for those recommendations.

The Board will have an audit of the System's actuarial valuation results conducted by an independent actuary at least every six years. The purpose of such a review is to provide a critique of the reasonableness of the actuarial methods and assumptions in use and the resulting actuarially computed liabilities and contribution rates.

IV. Funding Policy Review

The funding policy components and triggers will be reviewed annually following the annual actuarial valuation and in conjunction with the annual projection report and will be amended as necessary following each experience investigation conducted by the Board.

SCHEDULE G

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 on 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.

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.

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.

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.

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.