



Maine Public Employees Retirement System

Retiree Group Life Insurance Program

State Sponsored Groups Actuarial Valuation and GASB Statement No. 74 Report as of June 30, 2020

**Presented by Cheiron
October 2020**

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October 15, 2020

Board of Trustees
Maine Public Employees Retirement System
PO Box 349
Augusta, Maine 04332-0349

Dear Members of the Board:

The purpose of this report is to provide accounting and financial reporting information under Governmental Accounting Standards Board (GASB) Statement No. 74 and present the estimated Postretirement Group Life Insurance obligations as of June 30, 2020 for the Maine Public Employees Retirement System (MainePERS or System) based on a full valuation of the obligations as of June 30, 2020.

This report covers the participants of the State Employee and Teacher Retirement Program, the Judicial Retirement Program, and the Legislative Retirement Program, which we collectively call the State Sponsored Groups. For Tables I-1, IV-1 to IV-4, V-2, and V-3, we separated out the Teachers group for informational purposes, with all others included in the State group.

This report includes:

- Determination of the discount rate,
- Calculation of the Total OPEB Liability (TOL) as of the valuation date,
- Calculation of the Net OPEB Liability (NOL) at the discount rate as well as discount rates one percentage higher and lower than the discount rate, and
- Changes in the Net OPEB Liability.

We have determined the costs and liabilities for the substantive plan using actuarial assumptions and methods that we consider reasonable. The information in this biennial full valuation is for both financial disclosure and to provide information that is used to adjust the Teacher funding contributions. The State contributions for the remaining members of the State Sponsored Plans are based on premiums set by the premium studies.

The current premium rates reflect rate changes adopted by the Board of Trustees based on a premium study conducted in 2020. The basic premiums were unchanged for the Teacher group. Teachers pay \$0.05 bi-weekly per \$1,000 of coverage for active coverage and the State contributes an amount equal to the calculated ADC for retired teacher coverage. However, as these are set two years in advance, the actual contribution may be higher or lower than that given year's ADC. The premiums for State group employees also were unchanged. State group employees pay \$0.38 bi-weekly per \$1,000 of coverage for fiscal year (FY) 2020. This includes \$0.09 for active coverage and \$0.29 for retiree coverage. Premiums for retiree coverage will increase to \$0.33 for FY 2022 and to \$0.36 for FY 2024. Any further increases would be determined by the next premium study in 2024.

In preparing our report, we relied on information (some oral and some written) supplied by the System. This information includes, but is not limited to, the plan provisions, employee data, and financial information. We performed an informal examination of the obvious characteristics of the data for reasonableness and consistency in accordance with Actuarial Standard of Practice No. 23

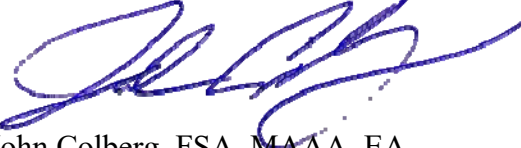
Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the assumptions; changes in assumptions; and changes in plan provisions or applicable law.

This report does not contain any adjustments for the potential impact of COVID-19. We anticipate the virus will impact both mortality and claims in the short term, as well as potentially other demographic experience. However, the net impact is not determinable at this time.


This report and its contents have been prepared in accordance with generally recognized and accepted actuarial principles and practices and our understanding of the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board as well as applicable laws and regulations. Furthermore, as credentialed actuaries, we meet the Qualification Standards of the American Academy of Actuaries to render the opinion contained in this report. This report does not address any contractual or legal issues. We are not attorneys, and our firm does not provide any legal services or advice.

This report was prepared for the Maine Public Employees Retirement System for the purposes described herein and for the use by the Plan Auditor in completing an audit related to the matters herein. Other users of this report are not intended users as defined in the Actuarial Standards of Practice, and Cheiron assumes no duty or liability to such other users.

Sincerely,
Cheiron



John Colberg, FSA, MAAA, EA
Principal Consulting Actuary



Ryan Benitez, ASA, MAAA
Associate Actuary

**MAINE PUBLIC EMPLOYEES RETIREMENT SYSTEM
RETIREE GROUP LIFE INSURANCE FOR STATE SPONSORED GROUPS
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SECTION I – SUMMARY OF KEY RESULTS

This report is the fourth report under the Governmental Accounting Standards Board (GASB) Statement No. 74. The reporting date for the Maine Public Employees Retirement System Retiree Group Life Insurance Program presented in this report is June 30, 2020. Measurements as of the reporting date are based on the fair value of assets as of June 30, 2020, and the Total OPEB Liability as of the valuation date, June 30, 2020. There was an update of census data since the prior valuation.

Beginning of year measurements presented in this report are based on the actuarial valuation as of June 30, 2019. Since this is a full valuation, liability gains or losses due to experience are reported due to the updated census information.

Table I-1 below provides a summary of the key results during this reporting period ending on June 30, 2020. TOL results are shown for the State Sponsored Groups excluding the Teachers, for the Teachers group separately, and then the TOL under all of the State Sponsored Groups combined.

Table I-1 Summary of Results		
	Measurement Date 06/30/2019	Measurement Date 06/30/2020
State Total OPEB Liability	\$ 102,240,873	\$ 106,398,135
State Plan Fiduciary Net Position	<u>36,961,097</u>	<u>38,587,121</u>
State Net OPEB Liability	\$ 65,279,776	\$ 67,811,014
Teacher Total OPEB Liability	\$ 102,191,125	\$ 106,910,772
Teacher Plan Fiduciary Net Position	<u>63,655,685</u>	<u>67,029,368</u>
Teacher Net OPEB Liability	\$ 38,535,440	\$ 39,881,404
Combined Total OPEB Liability	\$ 204,431,998	\$ 213,308,907
Combined Plan Fiduciary Net Position	<u>100,616,782</u>	<u>105,616,489</u>
Combined Net OPEB Liability	\$ 103,815,216	\$ 107,692,418

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SECTION II – DETERMINATION OF DISCOUNT RATE

MainePERS’s funding policy for retiree group life insurance is to contribute at least the Actuarially Determined Contribution (ADC) annually for Teachers retirees and contribute based on premium rates for all other participants. The State premium rates on behalf of retirees are assumed to be \$0.29 beginning fiscal year (FY) 2020, \$0.33 beginning FY 2022, and \$0.36 beginning FY 2024. The ADC is equal to the sum of the employer normal cost and the amortization of the unfunded liability. The amortization of the unfunded liability is calculated as a level-percent closed period with 18 years remaining as of FY 2020 for the State-Sponsored Groups. However, because the State sets contributions at least 2 years in advance, the contribution for the fiscal year ending June 30, 2020 was based on the valuation as of June 30, 2016, rolled forward to June 30, 2018.

The discount rate at June 30, 2020 is 6.75%, which is the assumed long-term expected rate of return on plan investments. The fiduciary net position was projected to be available to make all projected future benefit payments for current plan members. As such, the long-term expected rate of return on the Program’s investments was applied to all periods of projected benefit payments in determining the Total OPEB Liability. The projection of cash flows used to determine the discount rate assumed that the employer contributions will be made according to the funding policy described in the above paragraph.

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SECTION III – PROJECTION OF TOTAL OPEB LIABILITY

The TOL is measured as of a valuation date of June 30, 2020. This is a full valuation, which is completed at least every two years, and roll forward valuations are performed in the off years. The only significant event in calculating the TOL as of the valuation date was an update in census data. The table below shows the calculated TOL at discount rates equal to the rate used for disclosure purposes and plus and minus one percent from the rate used for disclosure purposes. The TOL has been determined using the entry age actuarial cost method as described in paragraph 54 of GASB Statement 74.

Table III-1 shows the Total OPEB Liability as of the valuation date for the assumed discount rate as well as for plus and minus one percent of this discount rate.

Table III-1			
Total OPEB Liability Sensitivity at 06/30/2020 Measurement Date			
Discount Rate	5.75%	6.75%	7.75%
Total OPEB Liability, 06/30/2020			
Actives	\$ 78,294,634	\$ 64,120,381	\$ 53,125,405
Deferred Vested	0	0	0
Retirees	<u>165,884,987</u>	<u>149,188,526</u>	<u>135,060,201</u>
Total	\$ 244,179,621	\$ 213,308,907	\$ 188,185,606

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SECTION IV – NOTE DISCLOSURES

The tables that follow show the changes in TOL, the plan fiduciary net position (i.e., fair value of Plan assets), and the Net OPEB Liability during the measurement year. Since this is a full valuation, there is a difference between expected and actual experience due to the updated census information.

We provide separate tables for State (IV-1), Teachers (IV-2), and the combined results of the State Sponsored Groups (IV-3) results.

Table IV-1			
Change in Net OPEB Liability - State			
	Increase (Decrease)		
	Total OPEB Liability (a)	Plan Fiduciary Net Position (b)	Net OPEB Liability (a) - (b)
Balances at 06/30/2019	\$ 102,240,873	\$ 36,961,097	\$ 65,279,776
Changes for the year:			
Service cost	943,909		943,909
Interest	7,093,321		7,093,321
Changes of benefits	0		0
Changes of assumptions	0		0
Differences between expected and actual experience	706,524		706,524
Contributions - employer		4,832,759	(4,832,759)
Contributions - member		0	0
Net investment income		1,754,057	(1,754,057)
Benefit payments	(4,586,492)	(4,586,492)	0
Administrative expense	0	(374,300)	374,300
Net changes	4,157,262	1,626,024	2,531,238
Balances at 06/30/2020	\$ 106,398,135	\$ 38,587,121	\$ 67,811,014

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SECTION IV – NOTE DISCLOSURES

**Table IV-2
 Change in Net OPEB Liability - Teacher**

	Increase (Decrease)		
	Total OPEB Liability	Plan Fiduciary Net Position	Net OPEB Liability
	(a)	(b)	(a) - (b)
Balances at 06/30/2019	\$ 102,191,125	\$ 63,655,685	\$ 38,535,440
Changes for the year:			
Service cost	1,246,562		1,246,562
Interest	7,181,393		7,181,393
Changes of benefits	0		0
Changes of assumptions	0		0
Differences between expected and actual experience	(117,046)		(117,046)
Contributions - employer		4,478,090	(4,478,090)
Contributions - member		0	0
Net investment income		3,131,487	(3,131,487)
Benefit payments	(3,591,262)	(3,591,262)	0
Administrative expense	0	(644,632)	644,632
Net changes	4,719,647	3,373,683	1,345,964
Balances at 06/30/2020	\$ 106,910,772	\$ 67,029,368	\$ 39,881,404

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SECTION IV – NOTE DISCLOSURES

**Table IV-3
 Change in Net OPEB Liability - Combined**

	Increase (Decrease)		
	Total OPEB Liability	Plan Fiduciary Net Position	Net OPEB Liability
	(a)	(b)	(a) - (b)
Balances at 06/30/2019	\$ 204,431,998	\$ 100,616,782	\$ 103,815,216
Changes for the year:			
Service cost	2,190,471		2,190,471
Interest	14,274,714		14,274,714
Changes of benefits	0		0
Changes of assumptions	0		0
Differences between expected and actual experience	589,478		589,478
Contributions - employer		9,310,849	(9,310,849)
Contributions - member		0	0
Net investment income		4,885,544	(4,885,544)
Benefit payments	(8,177,754)	(8,177,754)	0
Administrative expense	0	(1,018,932)	1,018,932
Net changes	8,876,909	4,999,707	3,877,202
Balances at 06/30/2020	\$ 213,308,907	\$ 105,616,489	\$ 107,692,418

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SECTION IV – NOTE DISCLOSURES

Changes in the discount rate would affect the measurement of the TOL. Lower discount rates produce a higher TOL and higher discount rates produce a lower TOL. Because the discount rate does not affect the measurement of assets, the percentage change in the NOL can be very significant for a relatively small change in the discount rate. Table IV-4 shows the sensitivity of the TOL and NOL to the discount rate.

**Table IV-4
Sensitivity of Total Net OPEB Liability to Changes in Discount Rate**

	1% Decrease 5.750%	Discount Rate 6.750%	1% Increase 7.750%
Teacher			
Total OPEB Liability	\$ 122,985,678	\$ 106,910,772	\$ 93,891,439
Plan Fiduciary Net Position	<u>67,029,368</u>	<u>67,029,368</u>	<u>67,029,368</u>
Collective Net OPEB Liability	<u>\$ 55,956,310</u>	<u>\$ 39,881,404</u>	<u>\$ 26,862,071</u>
Plan Fiduciary Net Position as a Percentage of the Total OPEB Liability	54.5%	62.7%	71.4%
State			
Total OPEB Liability	\$ 121,193,943	\$ 106,398,135	\$ 94,294,167
Plan Fiduciary Net Position	<u>38,587,121</u>	<u>38,587,121</u>	<u>38,587,121</u>
Collective Net OPEB Liability	<u>\$ 82,606,822</u>	<u>\$ 67,811,014</u>	<u>\$ 55,707,046</u>
Plan Fiduciary Net Position as a Percentage of the Total OPEB Liability	31.8%	36.3%	40.9%
Combined			
Total OPEB Liability	\$ 244,179,621	\$ 213,308,907	\$ 188,185,606
Plan Fiduciary Net Position	<u>105,616,489</u>	<u>105,616,489</u>	<u>105,616,489</u>
Collective Net OPEB Liability	<u>\$ 138,563,132</u>	<u>\$ 107,692,418</u>	<u>\$ 82,569,117</u>
Plan Fiduciary Net Position as a Percentage of the Total OPEB Liability	43.3%	49.5%	56.1%

For the combined State-Sponsored Groups a one percent decrease in the discount rate increases the TOL by approximately 14.5% and increases the NOL by approximately 28.7%. A one percent increase in the discount rate decreases the TOL by approximately 11.8% and decreases the NOL by approximately 23.3%.

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SECTION V – REQUIRED SUPPLEMENTARY INFORMATION

Table V-1 Schedule of Changes in Net OPEB Liability and Related Ratios	
	FY 2020
<u>Total OPEB Liability</u>	
Service cost (BOY)	\$ 2,190,471
Interest (includes interest on service cost)	14,274,714
Changes of benefit terms	0
Differences between expected and actual experience	589,478
Changes of assumptions	0
Benefit payments, including refunds of member contributions	<u>(8,177,754)</u>
Net change in total OPEB liability	8,876,909
Total OPEB liability - beginning	<u>204,431,998</u>
Total OPEB liability - ending	<u>\$ 213,308,907</u>
<u>Plan fiduciary net position</u>	
Contributions - employer	\$ 9,310,849
Contributions - member	0
Net investment income	4,885,544
Benefit payments, including refunds of member contributions	(8,177,754)
Administrative expense	<u>(1,018,932)</u>
Net change in plan fiduciary net position	\$ 4,999,707
Plan fiduciary net position - beginning	<u>100,616,782</u>
Plan fiduciary net position - ending	<u>\$ 105,616,489</u>
Net OPEB liability - ending	<u>\$ 107,692,418</u>
Plan fiduciary net position as a percentage of the total OPEB liability	49.51%
Covered employee payroll	\$ 1,484,372,700
Net OPEB liability as a percentage of covered employee payroll	7.26%

Notes to Schedule of Changes in Net OPEB Liability and Related Ratios

None

A ten-year schedule of changes in NOL and related ratios is to be included within the CAFR for MainePERS. However, based on GASB guidance, this ten-year history can be built one year at a time following implementation. We have shown only the current year of this *Schedule of Changes in Net OPEB Liability and Related Ratios* above and believe that you can accumulate these individual years in the MainePERS CAFR to build this schedule to show the full ten-year schedule over time. Notes to this schedule should be included for any factors significantly impacting the trends reported within the period shown in this schedule at that time. As of June 30, 2020, we have not included such a note in the *Notes to Schedule of Changes in Net OPEB Liability and Related Ratios* above. However, it is our expectation that the System staff will make the final determination regarding any notes needed for this schedule and are available to provide any information they may need for this purpose.

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SECTION V – REQUIRED SUPPLEMENTARY INFORMATION

If an Actuarially Determined Contribution is calculated, the following schedule is required. An Actuarially Determined Contribution is a contribution amount determined in accordance with Actuarial Standards of Practice.

Results are shown in Table V-2 for the State Sponsored Groups excluding the Teachers, then for the Teachers group separately, and then combined for the State Sponsored Groups.

Table V-2 Schedule of Employer Contributions During Fiscal Year 2020			
	State	Teacher	Combined
Actuarially Determined Contribution Contribution	\$ 6,193,357	\$ 4,478,086	\$ 10,671,443
	<u>4,832,759</u>	<u>4,478,090</u>	<u>9,310,849</u>
Contribution Deficiency/(Excess)	\$ 1,360,598	\$ (4)	\$ 1,360,594
Covered Payroll	\$ 685,047,700	\$ 799,325,000	\$ 1,484,372,700
Contributions as a Percentage of Covered Payroll	0.71%	0.56%	0.63%

Notes to Schedule

Valuation Date: June 30, 2016

Timing: The ADC is calculated in advance of the completion of the prior biennial valuation and thus rolled-forward from prior results. In this case, ADCs for 2020 and 2021 are based on the June 30, 2016 valuation rolled forward and adjusted for changes in assumptions.

Key Methods and Assumptions Used to Determine Contribution Rates for FY 2020

Actuarial Cost Method:	Entry Age Normal
Asset Valuation Method:	Market Value
Amortization Method:	Level percent closed with 18 years remaining for FY 2020
Discount Rate:	6.875%
Salary Inflation:	2.750%
Administrative Expense Loads:	State Employees, Judges, and Legislators: 9.52%
	Teachers: 13.07%

A complete description of the methods and assumptions used to determine contribution rates for the year ending June 30, 2020, can be found in the June 30, 2016 Actuarial Valuation report.

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SECTION V – REQUIRED SUPPLEMENTARY INFORMATION

Table V-3 that follows is provided in this report at the request of MainePERS staff, showing the development of the average remaining service life for the Program. GASB 75 requires some items be recognized by employers into OPEB expense over a period “equal to the average of the expected remaining service lives of all employees that are provided with OPEB through the OPEB plan (active employees and inactive employees) determined as of the beginning of the measurement period.” For the current measurement year ending on June 30, 2020, these values are thus developed based on the prior full biennial valuation data as of June 30, 2018. The development of this value is shown below, including reflection of the decision by MainePERS to round the resulting value to the nearest whole year.

Table V-3			
Average Expected Remaining Service Life			
For Measurement Year Ending June 30, 2020			
<u>State Program</u>			
	Total Expected		Average
Status	Future Service	Count	Remaining
			Service Life
Actives	129,677	11,362	11
Inactives	<u>0</u>	<u>8,768</u>	<u>0</u>
Total Membership	129,677	20,130	6
<u>Teacher Program</u>			
	Total Expected		Average
Status	Future Service	Count	Remaining
			Service Life
Actives	204,434	14,592	14
Inactives	<u>0</u>	<u>7,437</u>	<u>0</u>
Total Membership	204,434	22,029	9
<u>Combined Programs</u>			
	Total Expected		Average
Status	Future Service	Count	Remaining
			Service Life
Actives	334,111	25,954	13
Inactives	<u>0</u>	<u>16,205</u>	<u>0</u>
Total Membership	334,111	42,159	8

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APPENDIX A – PARTICIPANT DATA, ASSUMPTIONS, AND METHODS

Participant Data as of June 30, 2020

Table A-1					
Active Member Data					
Group	Count	Average Age	Average Service	Average Salary	
State	11,603	48.0	12.5	\$	58,373
Teachers	15,029	46.5	13.4		53,186
Judges	56	61.0	15.7		138,268
Legislators	39	61.4	4.8		13,000
TOTAL	26,727	47.2	13.0		55,557

Note that Legislators are subject to 8-year term limits for each house. Therefore, it is assumed that no active Legislators will reach the 10 years of service required to be eligible for retiree life benefits. However, they are included in the counts for the above exhibit because they are included in the expected remaining service life.

Table A-2				
Non-Active Member Data				
Group	Count	Average Age	Average Benefit¹	
State	8,681	72.6	\$	18,046
Teachers	7,534	73.8		20,580
Judges	45	75.9		43,470
Legislators	15	78.8		5,542
TOTAL	16,275	73.2		19,278

¹Ultimate benefit (40% of initial base benefit)

Note that all assumptions are based on the MainePERS Pension assumptions, which were updated after the experience study performed three years ago. All assumptions specific to this valuation are detailed in the following section.

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APPENDIX A – PARTICIPANT DATA, ASSUMPTIONS, AND METHODS

A. Actuarial Assumptions

1. Annual Rate of Investment Return

6.75% per year

2. Cost-of-Living Adjustment in Life Benefits

N/A. Unlike pension benefits, Life Benefits do not increase with the Cost of Living.

3. Annual Rate of Individual Salary Increase (% at Selected Years of Service)

Service	State Employees	Teachers	Judges	Legislators
0	8.75%	14.50%	2.75%	2.75%
5	5.00%	5.75%	2.75%	2.75%
10	3.75%	4.75%	2.75%	2.75%
15	3.20%	4.00%	2.75%	2.75%
20	2.95%	2.75%	2.75%	2.75%
25+	2.75%	2.75%	2.75%	2.75%

The above rates include a 2.75% across-the-board increase at each year of service.

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APPENDIX A – PARTICIPANT DATA, ASSUMPTIONS, AND METHODS

4. Sample Rates of Termination (% at Selected Years of Service)

Service	State Employees and Teachers
0	33.50%
5	10.50
10	5.95
15	4.25
20	4.00
25	4.00

Age	Judges
25	7%
30	6
35	5
40	4
45	3
50	2
55	1

Service	Legislators
0	0%
1	0
2	30
3	30
4	25
5	25
6	10
7	10
8	50
9	50
10	25
11	25
12	25
13	25
14	25
15	25
16+	50

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APPENDIX A – PARTICIPANT DATA, ASSUMPTIONS, AND METHODS

5. Sample Rates of Mortality for Healthy Annuitant Lives at Selected Ages (number of deaths per 10,000 members)

(Showing values in 2020)				
Age	<u>State Employees, Judges, and Legislators</u>		<u>Teachers</u>	
	Male	Female	Male	Female
50	40	31	38	26
55	57	42	54	35
60	77	61	73	50
65	109	94	104	77
70	169	150	161	124
75	275	247	262	204
80	463	417	441	344
85	808	741	769	611
90	1,440	1,339	1,371	1,105
95	2,298	2,227	2,188	1,838

Rates for State Employees, Judges, and Legislators are based on 104% and 120% of the RP-2014 Total Dataset Healthy Annuitant Mortality Table, respectively, for males and females, using the RP-2014 Total Dataset Employee Mortality Table for ages prior to the start of the Healthy Annuitant Mortality Table, both projected from the 2006 base rates using the RPEC_2015 model, with an ultimate rate of 0.85% for ages 20-85, grading down to an ultimate rate of 0.00% for ages 111-120, and convergence to the ultimate rate in the year 2020. Proposed rates for Teachers are based on 99% of the RP-2014 Total Dataset Healthy Annuitant Mortality Table for both males and females, using the RP-2014 Total Dataset Employee Mortality Table for ages prior to the start of the Healthy Annuitant Mortality Table, respectively, both projected using the RPEC_2015 model, with an ultimate rate of 0.85% for ages 20-85, grading down to an ultimate rate of 0.00% for ages 111-120, and convergence to the ultimate rate in the year 2020.

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APPENDIX A – PARTICIPANT DATA, ASSUMPTIONS, AND METHODS

6. Sample Rates of Mortality for Active Healthy Lives at Selected Ages (number of deaths per 10,000 members)

(Showing values in 2020)				
Age	<u>State Employees, Judges, and Legislators</u>		<u>Teachers</u>	
	Male	Female	Male	Female
20	4	2	3	1
25	4	2	4	2
30	4	2	4	2
35	5	3	5	3
40	6	5	6	4
45	9	7	9	6
50	17	12	16	10
55	28	19	26	16
60	46	29	44	24
65	82	43	78	35

Rates for State Employees, Judges, and Legislators are based on 104% and 120% of the RP-2014 Total Dataset Employee Mortality Table, respectively, for males and females, using the RP-2014 Total Dataset Healthy Annuitant Mortality Table rates after the end of the Total Employee Mortality Table, both projected from the 2006 base rates using the RPEC_2015 model, with an ultimate rate of 0.85% for ages 20-85, grading down to an ultimate rate of 0.00% for ages 111-120, and convergence to the ultimate rate in the year 2020. Proposed rates for Teachers are based on 99% of the RP-2014 Total Dataset Healthy Annuitant Mortality Table for both males and females, using the RP-2014 Total Dataset Healthy Annuitant Mortality Table rates after the end of the Total Employee Mortality Table, respectively, both projected using the RPEC_2015 model, with an ultimate rate of 0.85% for ages 20-85, grading down to an ultimate rate of 0.00% for ages 111-120, and convergence to the ultimate rate in the year 2020.

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APPENDIX A – PARTICIPANT DATA, ASSUMPTIONS, AND METHODS

7. Sample Rates of Mortality for Disabled Annuitant Lives at Selected Ages (number of deaths per 10,000 members)

(Showing values in 2020)				
Age	<u>State Employees, Judges, and Legislators</u>		<u>Teachers</u>	
	Male	Female	Male	Female
25	80	23	80	23
30	77	30	77	30
35	91	41	91	41
40	109	57	109	57
45	170	89	170	89
50	208	117	208	117
55	240	147	240	147
60	273	175	273	175
65	326	212	326	212
70	422	289	422	289

Rates are based on 108% and 105% of the RP-2014 Total Dataset Disabled Annuitant Mortality Table, respectively, for males and females, projected from the 2006 base rates using the RPEC_2015 model, with an ultimate rate of 0.85% for ages 20-85, grading down to an ultimate rate of 0.00% for ages 111-120, and convergence to the ultimate rate in the year 2020.

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8. Sample Rates of Retirement at Selected Ages (number retiring per 1,000 members)

State Employees and Teachers			
Age	Tier 1	Tier 2	Tier 3
45	13	NA	NA
50	29	NA	NA
55	40	40	40
59	150	40	40
60	250	75	40
61	200	175	40
62	200	250	40
63	200	150	75
64	250	200	225
65	350	250	300
70	200	200	300
75	1,000	1,000	1,000

In the case of State Regular and Teacher employees, Tier 1 refers to those who had accrued at least 10 years of service by July 1, 1993. Tier 2 refers to those who had not accrued at least 10 years of service by July 1, 1993 or were hired after that date but had five years of service by July 1, 2011. Tier 3 refers to those who did not have five years of service by July 1, 2011. Rates are only applied for early retirement when the member is at least age 57. Earlier rates are applicable for normal retirement.

Judges			
Age	Tier 1	Tier 2	Tier 3
60-61	1,000	NA	NA
62-64	1,000	500	NA
65-69	1,000	500	500
70-74	1,000	500	500
75+	1,000	1,000	1,000

In the case of Judicial employees, Tier 1 refers to those who had accrued at least 10 years of service by July 1, 1993. Tier 2 refers to those who had not accrued at least 10 years of service by July 1, 1993 or were hired after that date but had five years of service by July 1, 2011. Tier 3 refers to those who did not have five years of service by July 1, 2011.

Legislators		
Age	Fiscal Years Ending Even	Fiscal Years Ending Odd
57-69	0	250
70+	0	1,000

Note that all retirement rates are only applied once the member is eligible to retire, so those in with 62 or 65 normal retirement ages are not assumed to retire until eligible. No retirements are assumed prior to age 57, regardless of service amount.

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9. Sample Rates of Disability at Selected Ages (number becoming disabled per 10,000 members)

Age	State Employees	Teachers	Judges & Legislators
25	5.0	2.1	0
30	6.1	2.3	0
35	9.3	2.3	0
40	14.8	3.1	0
45	22.8	7.0	0
50	34.0	10.9	0
55	39.9	14.9	0
60	43.4	18.8	0

10. Premium Expense Assumption

To reflect administrative expenses associated with the distribution of benefits, the following loads, determined in the 2020 Premium Study, have been added to the liabilities, normal cost, and benefit payments.

State Employees, Judges, and Legislators: 9.84%
 Teachers: 16.51%

11. Technical and Miscellaneous Assumptions

Decrement Timing: Middle of the valuation year

Pay Increase Timing: Salary provided is treated as the rate of pay as of the valuation date. Annual increases are applied as of the beginning of each subsequent valuation.

Conversion Charges: Applies to the cost of active group life insurance, not retiree group life insurance.

Form of Benefit Payment: Lump Sum.

Participation Percent for Future Retirees: 100% of those currently enrolled

Retirement for Participants who are not members of MainePERS: Age 62

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APPENDIX A – PARTICIPANT DATA, ASSUMPTIONS, AND METHODS

12. Rationale for Assumptions

The assumptions were adopted by the Board of Trustees at their July 14, 2016 meeting. With the exception of the form of payment and participation assumptions, the demographic assumptions adopted are based on an experience study covering the period from June 30, 2012 through June 30, 2015 and the economic assumptions are based on this experience study along with the advice of the MainePERS investment consultants. The form of payment and participation assumptions are based on the life insurance benefit and contribution structure.

13. Changes since Last Valuation

None

14. Rationale for Change in Actuarial Assumptions

N/A

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B. Actuarial Methods

1. Funding Method

The individual entry age normal method is used to determine liabilities. Under this funding method, a normal cost rate is calculated for each member. This rate is determined by taking the value, as of age at entry into the Plan, of the member's projected future benefits, and dividing it by the value, also as of the member's entry age of his expected future salary. The normal cost for each member is the product of their annual salary at the valuation date and their normal cost rate. The normal cost amount for the group is then the sum of the normal costs for all members.

The Actuarial Liability is defined as the present value of future benefits, as of the valuation date, for all current members less the present value of future normal costs for all current members. For funding purposes, the Unfunded Actuarial Liability is then equal to the Actuarial Liability, less the actuarial value of the System's assets.

The discount rate used reflects the long-term funding policy to fully fund the benefits on an actuarial basis by FY 2038 for State and Teachers.

2. Asset Valuation Method

Figures were reported by MainePERS without audit or change.

3. Changes since Last Valuation

None

4. Rationale for Change

N/A

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APPENDIX B – SUMMARY OF KEY PLAN PROVISIONS

Membership

Service Retirement: A retiree must have participated in the group life insurance program for at least ten years and possess coverage just prior to retirement.

Disability Retirement: An employee must have participated in the group life insurance program immediately prior to disablement.

Basic Insurance

Average final compensation calculated for retirement purposes.

Amount of Insurance for a Retiree

Service Retirement: The Basic Insurance will be reduced by 15% per year until the amount equal to the greater of (a) 40% of the initial Basic Insurance, or (b) \$2,500.

Disability Retirement: The amount of basic life insurance in force prior to retirement will be continued until normal retirement age. At normal retirement age, the amount of insurance will be reduced as for service retirement.

Retiree Contribution

State Employees:	None
Teachers:	None
Judges:	None
Legislators:	None

Normal Retirement Age

The specified age, the years of service requirement, or any age and years of service combination at which a participant may become eligible for unreduced service retirement benefits.

Discontinued Coverages at Retirement

- Supplemental Life
- Accidental Death and Dismemberment
- Dependent Life

(Discontinued coverage may be ported to another group term product or converted to an individual policy.)

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APPENDIX C – GLOSSARY OF TERMS

1. Actuarially Determined Contribution

A target or recommended contribution for the reporting period, determined in conformity with Actuarial Standards of Practice based on the most recent measurement available when the contribution for the reporting period was adopted.

2. Actuarial Valuation Date

The date as of which an actuarial valuation is performed. This date may be up to 24 months prior to the measurement date and up to 30 months prior to the employer’s reporting date.

3. Entry Age Actuarial Cost Method

The actuarial cost method required for GASB 74 and 75 calculations. Under this method, the actuarial present value of the projected benefits of each individual, included in an actuarial valuation, is allocated on a level basis over the earnings of the individual between entry age and assumed exit ages. The portion of this actuarial present value allocated to a valuation year is called the Service Cost. The portion of this actuarial present value not provided for at a valuation date by the actuarial present value of future service costs is called the Total OPEB Liability.

4. Measurement Date

The date as of which the Total OPEB Liability and Plan Fiduciary Net Position are measured. The Total OPEB Liability may be projected from the Actuarial Valuation Date to the Measurement Date. The Measurement Date must be the same as the Reporting Date for the plan.

5. Net OPEB Liability

The liability of employers and non-employer contributing entities for employees for benefits provided through a defined benefit OPEB plan. It is calculated as the Total OPEB Liability less the Plan Fiduciary Net Position.

6. Plan Fiduciary Net Position

The fair or market value of assets.

7. Reporting Date

The last day of the Plan or employer’s fiscal year.

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APPENDIX C – GLOSSARY OF TERMS

8. Service Cost

The portion of the actuarial present value of projected benefit payments that is attributed to the current period of employee service in conformity with the requirements of GASB 74 and 75. The Service Cost is the normal cost calculated under the entry age actuarial cost method.

9. Total OPEB Liability

The portion of the actuarial present value of projected benefit payments that is attributed to past periods of employee service in conformity with the requirements of GASB 74 and 75. The Total OPEB Liability is the Actuarial Liability calculated under the entry age actuarial cost method.