

# **Maine Public Employees Retirement System Retiree Group Life Insurance Program**

**Actuarial Valuation Report  
as of June 30, 2016**

**Presented by Cheiron**

**October 2016**

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*Via Electronic Mail and UPS Delivery*

October 28, 2016

Board of Trustees  
Maine Public Employees Retirement System  
P.O. Box 349  
Augusta, ME 04332-0349

**Re: *Maine Public Employees Retirement System Retiree Group Life Insurance Program Actuarial Valuation Report***

Dear Members of the Board:

The purpose of this report is to present the estimated Postretirement Group Life Insurance obligations as of June 30, 2016, for the Maine Public Employees Retirement System (MainePERS). The enclosed Sections contain the data the auditors need to prepare the disclosure section of the annual report.

**Section I** summarizes the change in asset information from June 30, 2015, to June 30, 2016.

**Sections II, III, and IV** contain the Liability and Asset information as of June 30, 2016. Per the System's direction, this is the information needed for the auditors. The assets represent the total group life insurance reserve, and adjustments may be necessary, if any reserves are not available to satisfy retiree liabilities. The liabilities are based on the biennial valuation as of June 30, 2016. The next full biennial valuation is scheduled to be performed as of June 30, 2018.

**Appendix A** describes the Participant Data, Assumptions, and Methods used in the calculation of the disclosure items contained in Sections I-III.

**Appendix B** contains the substantive Plan Provisions provided by the System.

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.

Actuarial computations provided in this report are for the purpose of fulfilling employee benefit plan financial accounting requirements. The calculations reported in the aforementioned sections have been made on a basis consistent with our understanding of the associated Actuarial Standards of Practice. Determinations for purposes other than meeting the employee benefit plan's financial accounting requirements (for example, establishing a long-term funding strategy) may be significantly different from the results in this report.

This report was prepared solely for MainePERS for the purposes described herein. However, the plan auditor may rely on this report solely for the purpose of completing an audit related to the matters herein. This report is not intended to benefit any third party, and Cheiron assumes no duty or liability to any such party.

To the best of our knowledge, this report and its contents have been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board. 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.

Sincerely,  
Cheiron



John Colberg, FSA, EA, MAAA  
Principal Consulting Actuary



Michael J. Noble, FSA, FCA, EA, MAAA  
Principal Consulting Actuary

**MAINE PUBLIC EMPLOYEES RETIREMENT SYSTEM  
RETIREE GROUP LIFE INSURANCE  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2016**

**INTRODUCTION**

Maine Public Employees Retirement System (MainePERS) engaged Cheiron to provide an analysis of the Postretirement Group Life Insurance liabilities as of June 30, 2016. The primary purposes of performing this actuarial valuation are to:

- Estimate the annual required contribution (ARC) for the Postretirement Group Life Insurance Program using GASB 43/45 methodology under the current funding strategy for information purposes;
- Provide disclosures for financial statements; and,
- Estimate revenue based on current premium rates in force to be used for budgeting purposes.

We have determined the costs and liabilities for the substantive Plan using actuarial assumptions and methods that we consider reasonable.

Below is a summary of the key results of our calculations:

- The ARC for fiscal year ending June 30, 2017, is \$10.4 million.
- The actuarial liability under the Entry Age Normal Actuarial Cost Method as of June 30, 2016, is \$ 200.5 million.

The fundamental principal underlying our analysis, as well as the GASB standard, is that the cost of benefits should be related to the period in which the benefits are earned, rather than in the period of benefit distribution. The *normal cost* (which is a component of the *ARC*) is the annual amount which would be sufficient to fund the substantive Plan benefits (net of retiree contributions) if it were paid from each employee's entry into the Plan until termination or retirement. The *actuarial liability* represents the portion of the value of the projected benefit at retirement that is allocated to service earned prior to the valuation date. The *unfunded actuarial liability* (UAL) represents the excess of the actuarial liability over Plan assets.

GASB's Statement 43 refers to the financial reporting for postemployment benefit plans other than pension plans and Statement 45 refers to the employer accounting for these plans. Statement 43 is generally applicable where an entity has a separate trust or fund for OPEB benefits. Statement 45 requires the plan sponsor to book the actuarial cost (net of employee, retiree, and their dependents' contributions) of the plan as an expense on its financial statements and then accrue a liability to the extent actual contributions were less than this expense. Additional disclosures include a description of the substantive plan, summary of significant accounting policies (not included in this report), contributions, and a statement of funding progress, along with the methods and assumptions used for those disclosures.

The current premium rates reflect rate changes adopted by the Board based on a premium study conducted in 2016. The premiums were unchanged for Teachers and PLD employees. Teachers pay \$.05 bi-weekly per \$1,000 of coverage for active coverage and the State contributes an amount equal to the calculated ARC for retired teacher coverage. PLD employees pay \$.46 monthly per \$1,000 in coverage. The premiums for State employees increased from \$.29 to \$.31 bi-weekly per \$1,000 of coverage for FY 2016. This includes \$.07 for active coverage and \$.24 for retiree coverage. The premiums for active coverage will increase to \$.09 and for retiree coverage will increase to \$.26 for FY 2018. It is anticipated the premiums for retiree coverage will increase again to \$.29 for FY 2020, with possible additional increases in future years past that, to be determined by the next premium study in 2020.

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**SECTION I - ASSET RECONCILIATION**

The following chart shows the assets as of the valuation date reconciled from the prior valuation date.

	State <sup>1</sup>	Teachers	PLDs	Judges <sup>1</sup>	Legislators <sup>1,2</sup>	Total
<b>Balance June 30, 2015 (in millions)</b>	\$ 31.8	\$ 48.0	\$ 15.3	\$ 0.5	\$ -	\$ 95.6
Claims and Expenses	\$ (6.1)	\$ (3.8)	\$ (2.2)	\$ (0.1)	\$ -	\$ (12.2)
Premium Revenue	5.5	5.1	2.4	0.1	-	13.1
Investment Income and Interest	0.3	0.5	0.1	-	-	0.9
<b>Net Change during Fiscal Year</b>	<b>(0.3)</b>	<b>1.8</b>	<b>0.3</b>	<b>-</b>	<b>-</b>	<b>1.8</b>
<b>Balance June 30, 2016</b>	<b>\$ 31.5</b>	<b>\$ 49.8</b>	<b>\$ 15.6</b>	<b>\$ 0.5</b>	<b>\$ -</b>	<b>\$ 97.4</b>

<sup>1</sup> Split of assets, expenses, investment income and premiums for State, Judges, and Legislators estimated based on ratio of liabilities as of the valuation date.

<sup>2</sup> Less than \$0.05 million

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**SECTION II – FINANCIAL STATEMENT INFORMATION**

The following chart shows Actuarial Liability, the assets as of the valuation date, and the Unfunded Actuarial Liability. The Actuarial Liability is calculated taking the Present Value of Future Benefits (shown in Section III) and subtracting the present value of future Normal Costs under the **Entry Age Normal** funding method.

As of June 30, 2016 (in millions)	State	Teachers	PLDs <sup>1</sup>	Judges	Legislators <sup>2</sup>	Total
<b>Actuarial Liability</b>						
- Active Employees	\$ 26.3	\$ 27.8	\$ 8.8	\$ 0.7	\$ -	\$ 63.6
- Retirees	62.1	57.9	16.1	0.8	-	136.9
<b>Total</b>	<b>88.4</b>	<b>85.7</b>	<b>24.9</b>	<b>1.5</b>	<b>-</b>	<b>200.5</b>
<i>Less:</i> Assets at Valuation Date	\$ 31.5	\$ 49.8	\$ 15.6	\$ 0.5	\$ -	\$ 97.4
<b>Unfunded Actuarial Liability (UAL)</b>	<b>\$ 56.9</b>	<b>\$ 35.9</b>	<b>\$ 9.3</b>	<b>\$ 1.0</b>	<b>\$ -</b>	<b>\$ 103.1</b>

The ARC consists of two parts: (1) the *normal cost*, which represents the annual cost attributable to service earned towards coverage in a given year, and (2) the amortization of the UAL. In the table below, we show the computed FYE 2017 ARC.

For Fiscal 2017 (in millions)	State	Teachers	PLDs <sup>1</sup>	Judges	Legislators <sup>2</sup>	Total
<b>Actuarial Required Contribution (ARC)</b>						
- Normal Cost	\$ 0.9	\$ 1.2	\$ 0.3	\$ -	\$ -	\$ 2.4
- UAL Amortization <sup>3</sup>	4.3	2.7	0.9	0.1	-	8.0
<b>Total</b>	<b>\$ 5.2</b>	<b>\$ 3.9</b>	<b>\$ 1.2</b>	<b>\$ 0.1</b>	<b>\$ -</b>	<b>\$ 10.4</b>

<sup>1</sup> Net of PLD premiums (\$0.46 per month per \$1000 of benefit)

<sup>2</sup> Less than \$0.05 million

<sup>3</sup> Amortized as a level percent of pay over 21 years (PLDs over 14 years)

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**SECTION II – FINANCIAL STATEMENT INFORMATION**

The following table reconciles the Actuarial Liability, Normal Cost, and Annual Required Contribution (ARC) from those presented in the last full valuation to current values.

<b>Reconciliation of Actuarial Liability, Normal Cost, and ARC</b>			
	<b>Actuarial Accrued Liability</b>	<b>Normal Cost</b>	<b>Annual Required Contribution</b>
<b>June 30, 2014 Valuation Results</b>	<b>\$186.7</b>	<b>\$2.2</b>	<b>\$8.9</b>
<b>Expected at June 30, 2016 based on 2014 AVR</b>	<b>\$201.3</b>	<b>\$2.3</b>	<b>\$9.5</b>
<u>Changes due to:</u>			
Demographic (Gain)/Loss	(\$0.4)	(\$0.1)	(\$0.2)
Change in Assumptions	(\$0.4)	\$0.2	\$0.1
Asset (Gain)/Loss	\$0.0	\$0.0	\$1.1
Other (Gain)/Loss	<u>\$0.0</u>	<u>\$0.0</u>	<u>(\$0.1)</u>
Total Changes	(\$0.8)	\$0.1	\$0.9
<b>June 30, 2016 Valuation Results</b>	<b>\$200.5</b>	<b>\$2.4</b>	<b>\$10.4</b>



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**SECTION III - BALANCE SHEET INFORMATION**

The following chart develops the Present Value of Future Benefits for the purpose of analyzing the overall financial obligations and the prospective funding source for Postretirement Life Insurance Benefits. The Present Value of Benefits represents the amount of money needed today to fully pay off all future benefits, assuming participants continue to earn salary increases and accrue benefits under the current program and plan provisions.

As of June 30, 2016 (in millions)	State	Teachers	PLDs <sup>1</sup>	Judges	Legislators <sup>2</sup>	Total
<b>Assets</b>						
- Current Value of Assets	\$ 31.5	\$ 49.8	\$ 15.6	\$ 0.5	\$ -	\$ 97.4
- Future Employer Contributions	62.4	44.2	11.0	1.1	-	118.7
<b>Total Present Value of Assets</b>	<b>93.9</b>	<b>94.0</b>	<b>26.6</b>	<b>1.6</b>	<b>-</b>	<b>216.1</b>
<b>Liabilities</b>						
- Active Accrued Benefits	\$ 19.0	\$ 20.5	\$ 7.0	\$ 0.6	\$ -	\$ 47.1
- Active Future Accruals	12.8	15.6	3.5	0.2	-	32.1
<b>- Active Present Value of Benefits</b>	<b>31.8</b>	<b>36.1</b>	<b>10.5</b>	<b>0.8</b>	<b>-</b>	<b>79.2</b>
- Inactive Present Value of Benefits	62.1	57.9	16.1	0.8	-	136.9
<b>Total Present Value of Benefits</b>	<b>\$ 93.9</b>	<b>\$ 94.0</b>	<b>\$ 26.6</b>	<b>\$ 1.6</b>	<b>\$ -</b>	<b>\$ 216.1</b>

<sup>1</sup> Net of PLD premiums (\$0.46 per month per \$1000 of benefit)

<sup>2</sup> Less than \$0.05 million

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**SECTION IV – ESTIMATED REVENUE**

The following chart develops estimated revenues generated by premiums paid on behalf of active participants.

As of June 30, 2016 (in millions)	State <sup>1</sup>	Teachers	PLDs <sup>2</sup>
<b>Active Data</b>			
- Total Payroll (in millions)	\$ 578.3	\$ 698.7	\$ 260.6
- Insurance in Force <sup>3</sup> (in millions)	15.0	18.2	6.8
<b>Current Total Premium<sup>3, 4</sup></b>	<b>\$ 0.31</b>	<b>\$ 0.05</b>	<b>\$ 0.21</b>
<b>Revenue from Premium Rates<sup>4, 5</sup></b>			
- FY 2018 (in millions)	\$ 5.4	\$ 0.9	\$ 1.5
- FY 2019 (in millions)	5.6	1.0	1.5

<sup>1</sup> Including Judge and Legislator amounts, as these are not developed separately.

<sup>2</sup> Net of PLD premiums (\$0.46 per month per \$1000 of benefit)

<sup>3</sup> Biweekly amounts per thousand

<sup>4</sup> The Current Total Premium funds the cost of death benefits during employment and for State and PLDs the cost of postretirement benefits.

For Teachers, the premium does not include retire costs, which are paid separately by the state.

<sup>5</sup> Based on updated premium rates for FY 2018. The State rates increase to \$0.09 for actives and \$0.26 for retirees for a total of \$0.35. Teacher and PLD rates remain unchanged.

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**SECTION IV – ESTIMATED REVENUE**

The following chart for teachers shows the development of retiree cost on an actuarial basis for use in State budgeting and the cost of Life Insurance for death during employment (Active Cost). For fiscal years 2018 and 2019 there will no longer be an Annual Required Contribution, but we have shown the Actuarial Determined Employer Contribution (ADEC) using the same methods previously used to determine ARC.

<b>Projected Costs</b>	<b>Teachers</b>	
	<b>FY 2018</b>	<b>FY 2019</b>
<b>Retiree Cost</b>		
- Normal Cost	\$ 1,210,499	\$ 1,243,788
- UAL Amortization <sup>6</sup>	<u>2,815,207</u>	<u>2,892,625</u>
- Total ADEC = Retiree Cost	\$ 4,025,706	\$ 4,136,413
<b>Active Cost</b>	<u>933,335</u>	<u>959,002</u>
<b>Total Cost</b>	\$ 4,959,041	\$ 5,095,415

<sup>6</sup> Amortized as a level percent of pay over 20 and 19 years, respectively.

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**APPENDIX A – PARTICIPANT DATA, ASSUMPTIONS, AND METHODS**

**Participant Data as of June 30, 2016**

Group	Count	Actives		
		Average Age	Average Service	Average Salary
State	11,702	48.2	13.0	\$ 48,788
Teachers	14,045	46.6	13.8	49,750
PLDs	5,416	49.5	11.3	48,108
Judges	61	59.9	17.6	120,689
Legislators	0	N/A	N/A	N/A
<b>TOTAL</b>	<b>31,224</b>	<b>47.7</b>	<b>13.0</b>	<b>49,243</b>

Group	Count	Retirees	
		Average Age	Average Benefit <sup>1</sup>
State	8,487	71.0	\$ 16,675
Teachers	7,003	72.0	19,149
PLDs	2,671	71.5	16,001
Judges	40	74.6	40,872
Legislators	11	75.9	4,823
<b>TOTAL</b>	<b>18,212</b>	<b>71.5</b>	<b>17,574</b>

<sup>1</sup> Ultimate 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 for this valuation year.

**Economic Assumptions**

*Valuation Date:* June 30, 2016

*Investment Return:* 6.875% per year

*Cost-of-Living Increases in Life Benefits:*

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

*Premium Expense Assumption:*

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

**State Employees, Judges and Legislators:** 9.52%

**Teachers:** 13.07%

**PLDs:** 8.66%

*Rates of Salary Increase*

*(Experience-based sample rates by service including both merit scale increase and yearly increase):*

Service	State	Teachers	PLD	Judges	Legislators
0	8.75%	14.50%	9.00%	2.75%	2.75%
5	5.00%	5.75%	2.75%	2.75%	2.75%
10	3.75%	4.75%	2.75%	2.75%	2.75%
15	3.20%	4.00%	2.75%	2.75%	2.75%
20	2.95%	2.75%	2.75%	2.75%	2.75%
25+	2.75%	2.75%	2.75%	2.75%	2.75%

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**APPENDIX A – PARTICIPANT DATA, ASSUMPTIONS, AND METHODS**

**Demographic Assumptions**

*Rates of Termination*

*(experience-based sample rates by service):*

Service	State	Teachers	PLDs	PLDs Special
0	33.5%	33.5%	25.0%	25.0%
5	10.50	10.50	9.00	4.00
10	5.95	5.95	6.00	2.50
15	4.25	4.25	4.00	2.50
20	4.00	4.00	2.50	2.50
25	4.00	4.00	2.50	2.50

*(experience-based sample rates by age):*

Age	Judges
25	7.00%
30	6.00%
35	5.00%
40	4.00%
45	3.00%
50	2.00%
55	1.00%

*(experience-based sample rates by service):*

Service	Legislators
0-1	0.0%
2-3	30.00
4-5	25.00
6-7	10.00
8-9	50.00
10-15	25.00
16+	50.00

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**APPENDIX A – PARTICIPANT DATA, ASSUMPTIONS, AND METHODS**

*Rates of Mortality*

*State Healthy Employees:*

Rates for Active State Employees 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.

Rates for Retiree State Employees 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 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.

Age	State	
	Male	Female
20	4	2
30	4	3
40	6	5
50	18	13
60	80	64
65	114	98
70	177	158
75	289	259
80	486	437
85	845	773
90	1,479	1,374
95	2,326	2,253

*Sample Rates – Number of deaths per 10,000 members, showing values in 2015. Ages 20-50 show sample rates for actives, ages 60+ show sample rates for retirees.*

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**APPENDIX A – PARTICIPANT DATA, ASSUMPTIONS, AND METHODS**

*Teacher Healthy Employees:*

Rates for Active 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.

Rates for Retiree 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.

Age	Teachers	
	Male	Female
20	4	2
30	4	2
40	6	4
50	17	27
60	76	52
65	108	81
70	169	130
75	275	214
80	462	361
85	804	638
90	1,408	1,134
95	2,215	1,859

*Sample Rates – Number of deaths per 10,000 members, showing values in 2015. Ages 20-50 show sample rates for actives, ages 60+ show sample rates for retirees.*

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**APPENDIX A – PARTICIPANT DATA, ASSUMPTIONS, AND METHODS**

*PLD Healthy Employees:*

Rates for Active PLD employees 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.

Rates for Retiree PLD employees 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 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.

Age	PLD	
	Male	Female
20	4	2
30	4	3
40	6	5
50	18	13
60	80	64
65	114	98
70	177	158
75	289	259
80	486	437
85	845	773
90	1,479	1,374
95	2,326	2,253

*Sample Rates – Number of deaths per 10,000 members, showing values in 2015. Ages 20-50 show sample rates for actives, ages 60+ show sample rates for retirees.*



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**APPENDIX A – PARTICIPANT DATA, ASSUMPTIONS, AND METHODS**

*Judges and Legislators Mortality:*

Judges and legislators follow the same mortality assumption as the state employees listed previously.

*Rates of Disabled Mortality*

*(Experience-based sample deaths per 10,000 members by age):*

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.

Age	Disabled Mortality	
	Male	Female
25	85	25
30	81	31
35	96	43
40	115	59
45	180	93
50	220	123
55	251	153
60	284	182
65	340	122
70	442	303

*Rates of Retirement*

*(experience-based sample retirements per 1,000 members by age):*

Age	State Employees and Teachers		
	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

*PLD Regular*

Age	Tier 1	Tier 2
45	50	50
50	50	50
55	50	50
60	200	50
65	250	200
70	1,000	1,000

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**APPENDIX A – PARTICIPANT DATA, ASSUMPTIONS, AND METHODS**

*PLD Special*

Age	Assumption
20	400
21-24	300
25	400
26-29	300
30	400
31-34	300
35+	1,000

*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

*Legislators*

Age	Assumption
60-69	250
75+	1,000

**Participants who are not members of MainePERS: Age 62.**

*Rates of Disability*

*(experience-based sample disablements per 10,000 members by service):*

Age	State	Teachers	PLDs	Judges & Legislators
25	5.0	2.1	1.8	0
30	6.1	2.3	2.4	0
35	9.3	2.3	3.0	0
40	14.8	3.1	4.2	0
45	22.8	7.0	9.0	0
50	34.0	10.9	19.8	0
55	39.9	14.9	36.6	0
60	43.4	18.8	65.0	0

*Participation Percent for Future Retirees:*

100% of those currently enrolled (unique to this valuation).

MAINE PUBLIC EMPLOYEES RETIREMENT SYSTEM  
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APPENDIX A – PARTICIPANT DATA, ASSUMPTIONS, AND METHODS

**Other Assumptions (Unique to this Valuation)**

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

*Form of Benefit*

*Payment:* Lump Sum.

**Actuarial Cost Method**

To be consistent with past analyses and with the Pension Plan funding, 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 annual salary and the normal cost rate. The normal cost for the group is the sum of the normal costs for all members.

The actuarial liability is defined as the present value of future benefits, less the present value of future normal costs. The unfunded actuarial liability is the total of the actuarial liability for all members, 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 and by FY 2031 for PLDs.

**Asset Valuation Methods**

Figures were reported by MainePERS without audit or change, except that State assets are allocated to State, Judges, and Legislators based on total actuarial liability.

**Changes Since Last Valuation**

The following assumptions have been updated for the current valuation:

- investment return,
- premium expense,
- rates of salary increase,
- mortality,
- retirement,
- disability, and
- termination.

These assumptions changes reflect the adoption by the Board of the pension experience study in 2016.

**MAINE PUBLIC EMPLOYEES RETIREMENT SYSTEM  
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**APPENDIX B - SUMMARY OF KEY PLAN PROVISIONS**

**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.

**PLD Employees:** PLD must pay \$0.46 per month per \$1,000 of base benefit, based on the coverage amounts declining from 100% to 40%.

**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. MainePERS is charged a fee for those active employees who convert to an individual policy upon termination from employment. Conversion charges are considered a cost of active, not retiree group life insurance. Therefore, it is not included in these liabilities.)