



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

**Participating Local Districts (PLDs)
Actuarial Valuation and GASB
Statement No. 74 Report
as of June 30, 2017**

**Presented by Cheiron
October 2017**

TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
Letter of Transmittal	i
Summary of Key Results	1
Determination of Discount Rate	3
Projection of Total OPEB Liability	5
Note Disclosures	6
Required Supplementary Information.....	8
 <u>Appendices</u>	
Appendix A Participant Data	10
Appendix B Details on interest rate calculation.....	11
Appendix C Assumptions, and Methods.....	17
Appendix D Summary of Key Plan Provisions.....	21
Appendix E Glossary of Terms.....	22

Via Electronic Mail and UPS Delivery

October 31, 2017

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

Re: Maine Public Employees Retirement System Retiree Group Life Insurance Program Actuarial Valuation Report for the Participating Local Districts Plans.

Dear Members of the Board:

The purpose of this report is to provide accounting and financial reporting information under Governmental Accounting Standards Board (GASB) No. 74 and present the estimated Postretirement Group Life Insurance obligations as of June 30, 2017, for the Maine Public Employees Retirement System (MainePERS or System) based on a roll-forward of the obligations as of June 30, 2016.

This report covers the participants of the Participating Local Districts Plans (PLDs).

This report includes:

- Determination of the discount rate,
- Projection of the Total OPEB Liability (TOL) from the valuation date to the measurement 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 shown in this report is primarily for financial disclosure purposes, since the biennial full valuations are used to actually adjust funding strategies.

The current premium rates reflect rate changes adopted by the Board of Trustees based on a premium study conducted in 2016. The premiums were unchanged for PLD employees. PLD employees pay \$0.46 monthly per \$1,000 in coverage. Additional increases in future years will be determined by the next premium study in 2020.

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.

Board of Trustees
Maine Public Employees Retirement System
October 31, 2017
Page ii

Future actuarial measurements may differ significantly from the current measurements 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.

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.

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



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

**MAINE PUBLIC EMPLOYEES RETIREMENT SYSTEM
RETIREE GROUP LIFE INSURANCE
GASB 74 VALUATION REPORT AS OF JUNE 30, 2017**

SUMMARY OF KEY RESULTS

Section I – Funding Results

The tables below show results on a funding basis which reflect a discount rate of 6.875% and expected benefit payments and contributions during the fiscal year ending.

Table I-1		
Result Reflecting Funding Assumptions for PLDs		
	As of June 30, 2016	As of June 30, 2017
Actuarial Liability		
- Active Employees	\$ 8,821,256	\$ 9,593,519
- Retirees	<u>\$ 16,132,204</u>	<u>\$ 15,920,118</u>
Total	\$ 24,953,460	\$ 25,513,637
<i>Less: Assets at Valuation Date</i> ¹	<u>\$ 13,940,338</u>	<u>\$ 15,082,934</u>
Unfunded Actuarial Liability (UAL)	\$ 11,013,122	\$ 10,430,703

¹The assets shown as of June 30, 2016 valuation have been adjusted to reflect only assets dedicated to retiree benefits.

**MAINE PUBLIC EMPLOYEES RETIREMENT SYSTEM
RETIREE GROUP LIFE INSURANCE
GASB 74 VALUATION REPORT AS OF JUNE 30, 2017**

SUMMARY OF KEY RESULTS

Section II – Financial Reporting Results

This report is the first report under 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, 2017. Measurements as of the reporting date are based on the fair value of assets as of June 30, 2017 and the Total OPEB Liability as of the valuation date, June 30, 2016 using a blended discount rate of 4.43%, rolled forward to June 30, 2017 and adjusted to a blended discount rate of 5.41%. There were no significant events between the valuation date and the measurement date, so the update procedures only included the change in discount rate, the addition of service cost and interest cost offset by actual benefit payments as permitted under GASB No. 74.

Beginning of year measurements presented in this report are based on the actuarial valuation as of June 30, 2016 rolled forward to June 30, 2017. Because the beginning and ending values are based on the same actuarial valuation and there were no significant events, no liability gains or losses due to experience are reported in either year shown in this report. In future years, liability gains and losses will be reported reflecting the liability gains and losses between actuarial valuation dates as well as any significant events during the update period.

In determining the OPEB expense under GASB No. 75, the impact of experience gains or losses and assumption changes on the TOL are recognized over the average expected remaining service life of all active and inactive members of the Plan, determined as of the beginning of the measurement period. As of June 30, 2016, this average for PLDs was 6.24 years which would be rounded to 6.00 years for recognition purposes.

Table II-1 below provides a summary of the key results during this reporting period ending on June 30, 2017.

Table II - 1 Summary of Results		
	Valuation Date 06/30/2016	Measurement Date 06/30/2017
Total OPEB Liability	\$ 36,554,276	\$ 31,804,436
Plan Fiduciary Net Position	13,940,338	15,082,934
Net OPEB Liability	\$ 22,613,938	\$ 16,721,502

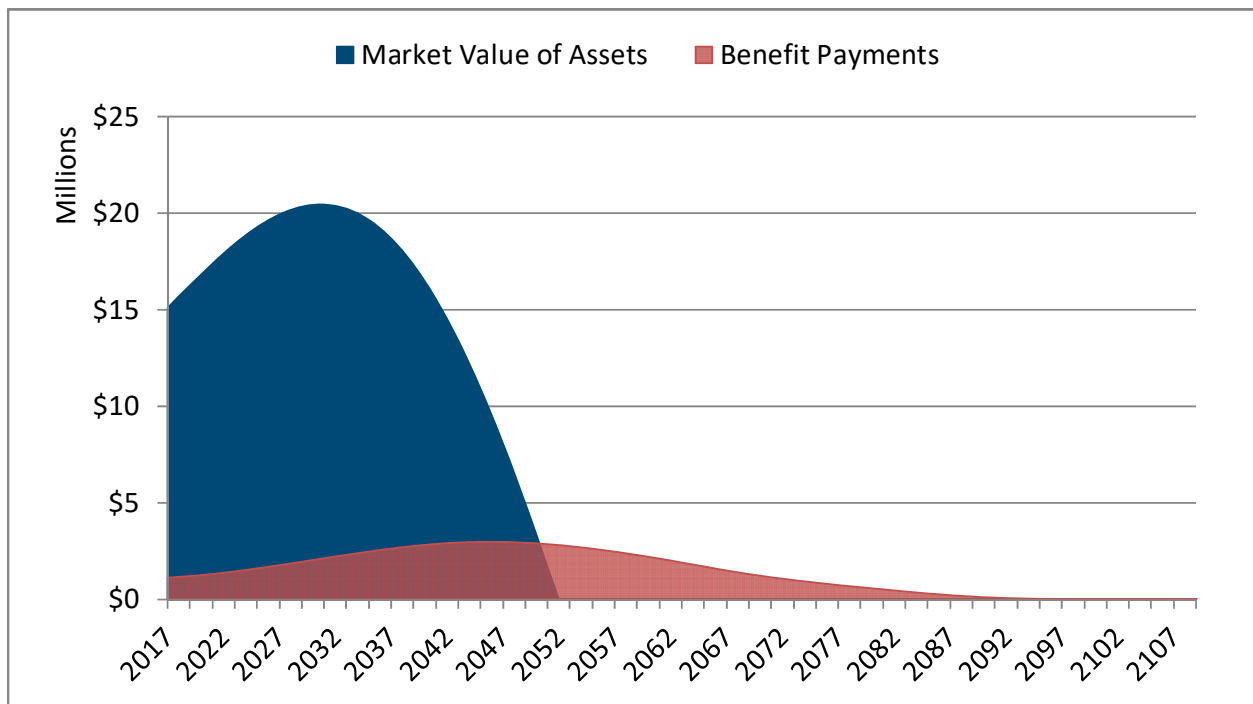
**MAINE PUBLIC EMPLOYEES RETIREMENT SYSTEM
RETIREE GROUP LIFE INSURANCE
GASB 74 VALUATION REPORT AS OF JUNE 30, 2017**

DETERMINATION OF DISCOUNT RATE

MainePERS's funding policy is for PLD employees to pay \$0.46 monthly per \$1,000 in coverage for all participants. Of the \$0.46 for actives, \$0.22 is allocated to fund retiree benefits.

The discount rate at June 30, 2017 is 6.875% for funding purposes, which is the assumed long-term expected rate of return on plan investments. We have performed a formal cash flow projection as described under Paragraphs 48-53 of GASB Statement 74.

The discount rate used to measure the Total OPEB Liability was 5.41% which is a blend of the assumed long-term expected rate of return of 6.875% on the Plan's investments and a municipal bond index rate of 3.58% based on the Bond Buyer GO 20-Year Municipal Bond Index as of June 30, 2017. Following the procedures described in paragraphs 43 - 53 of GASB Statement 74, projections of the System's fiduciary net position have indicated that it is not expected to be sufficient to make projected benefit payments for current plan members after 2052. Therefore the portion of future projected benefit payments after 2052 are discounted at the municipal bond index rate. The results of these projections are shown in the chart below.



This discount rate is intended to be used for accounting and financial reporting, but is not appropriate for estimating the price to settle the plan's liability.

A similar calculation was made as of June 30, 2016 using a blend of the assumed long-term expected rate of return of 6.875% on the System's investments and a municipal bond index rate of 2.85%. This calculation resulted in a blended discount rate of 4.43%.

**MAINE PUBLIC EMPLOYEES RETIREMENT SYSTEM
RETIREE GROUP LIFE INSURANCE
GASB 74 VALUATION REPORT AS OF JUNE 30, 2017**

DETERMINATION OF DISCOUNT RATE

The projection of cash flows used to determine the discount rate assumed that employer contributions continued to be made in accordance with the contribution policy in effect for the July 1, 2016 Actuarial Valuation.

Appendix B shows the details of this calculation as of June 30, 2017.

**MAINE PUBLIC EMPLOYEES RETIREMENT SYSTEM
RETIREE GROUP LIFE INSURANCE
GASB 74 VALUATION REPORT AS OF JUNE 30, 2017**

PROJECTION OF TOTAL OPEB LIABILITY

The Total OPEB Liability (TOL) at the beginning of the current measurement year is measured as of a valuation date of June 30, 2016. The TOL at the end of the measurement year, June 30, 2017, is measured as of a valuation date of June 30, 2016 and projected to June 30, 2017. In future years, full valuations will be completed at least every two years with roll forward valuations performed in the off years. There were no significant events during the current projection period of which we are aware. The table below shows the projection of the 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. TOL and Service Cost have been determined using the entry age actuarial cost method as described in paragraph 54 of GASB Statement 74.

Table 2 projects the Total OPEB Liability from the valuation date to the end of the fiscal year for the **discount rate** as well as for plus and minus one percent of this discount rate.

Table II - 2 Projection of Total OPEB Liability			
Discount Rate	4.41%	5.41%	6.41%
Total OPEB Liability, 6/30/2016			
Actives	\$ 15,074,864	\$ 12,017,094	\$ 9,702,390
Deferred Vested	-	-	-
Retirees	21,605,197	19,072,704	16,981,271
Total	\$ 36,680,061	\$ 31,089,798	\$ 26,683,661
Service Cost, Beginning of Year			
Service Cost at Valuation Date	\$ 624,112	\$ 440,653	\$ 313,331
Service Cost Rate	0.24%	0.17%	0.12%
Expected Payroll During Year	260,552,680	260,552,680	260,552,680
Service Cost	\$ 624,112	\$ 440,653	\$ 313,331
Benefit Payments	\$ (1,394,586)	\$ (1,394,586)	\$ (1,394,586)
Interest	\$ 1,614,695	\$ 1,668,571	\$ 1,686,505
Change in Benefits	0	0	0
Change in Assumptions	0	0	0
Other Significant Events	0	0	0
Total OPEB Liability, 6/30/2017	\$ 37,524,282	\$ 31,804,436	\$ 27,288,911

**MAINE PUBLIC EMPLOYEES RETIREMENT SYSTEM
RETIREE GROUP LIFE INSURANCE
GASB 74 VALUATION REPORT AS OF JUNE 30, 2017**

NOTE DISCLOSURES

Table 3 below shows the changes in Total OPEB Liability, the plan fiduciary net position (i.e., fair value of plan assets), and the Net OPEB Liability during the measurement year. There were no significant changes in benefits during the year. As previously noted we did not modify assumptions, except for the discount rate required under GASB 74, or adjust the participant data for this report. Therefore, no differences between expected and actual experience, i.e., experience adjustments, are included in this report.

Table II - 3 Change in Net OPEB Liability - PLD			
	Increase (Decrease)		
	Total OPEB Liability (a)	Plan Fiduciary Net Position (b)	Net OPEB Liability (a) - (b)
Total Asset Balance at 6/30/2016		\$ 15,634,064	
Allocation for Active Benefits		1,693,727	
Balances at 6/30/2016	\$ 36,554,276	\$ 13,940,338	\$ 22,613,938
Changes for the year:			
Service cost	619,735		619,735
Interest	1,616,253		1,616,253
Changes of benefits	0		0
Changes of assumptions	(5,591,242)		(5,591,242)
Differences between expected and actual experience	0		0
Contributions - employer		1,037,124	(1,037,124)
Contributions - member		-	-
Net investment income		1,738,914	(1,738,914)
Benefit payments	(1,394,586)	(1,394,586)	0
Administrative expense		(238,856)	238,856
Net changes	(4,749,840)	1,142,596	(5,892,436)
Balances at 6/30/2017	\$ 31,804,436	\$ 15,082,934	\$ 16,721,502

**MAINE PUBLIC EMPLOYEES RETIREMENT SYSTEM
RETIREE GROUP LIFE INSURANCE
GASB 74 VALUATION REPORT AS OF JUNE 30, 2017**

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 4 shows the sensitivity of the TOL and NOL to the discount rate.

Table II - 4 Sensitivity of Net OPEB Liability to Changes in Discount Rate			
	1% Decrease 4.41%	Discount Rate 5.41%	1% Increase 6.41%
Total OPEB Liability	\$ 37,524,282	\$ 31,804,436	\$ 27,288,911
Plan Fiduciary Net Position	<u>15,082,934</u>	<u>15,082,934</u>	<u>15,082,934</u>
Collective Net OPEB Liability	<u>\$ 22,441,348</u>	<u>\$ 16,721,502</u>	<u>\$ 12,205,977</u>
Plan Fiduciary Net Position as a Percentage of the Total OPEB Liability	40.2%	47.4%	55.3%

A one percent decrease in the discount rate increases the TOL by approximately 18.0% and increases the NOL by approximately 34.2%. A one percent increase in the discount rate decreases the TOL by approximately 14.2% and decreases the NOL by approximately 27.0%.

**MAINE PUBLIC EMPLOYEES RETIREMENT SYSTEM
RETIREE GROUP LIFE INSURANCE
GASB 74 VALUATION REPORT AS OF JUNE 30, 2017**

REQUIRED SUPPLEMENTARY INFORMATION

The schedules of Required Supplementary Information generally start with one year of information as of the implementation of GASB 74 but eventually will need to build up to 10 years of information. The schedule below shows the changes in NOL and related ratios required by GASB.

Table II - 5	
Schedule of Changes in Net OPEB Liability and Related Ratios	
	FY 2017
<u>Total OPEB Liability</u>	
Service cost (BOY)	\$ 619,735
Interest (includes interest on service cost)	1,616,253
Changes of benefit terms	0
Differences between expected and actual experience	0
Changes of assumptions	(5,591,242)
Benefit payments, including refunds of member contributions	<u>(1,394,586)</u>
Net change in total OPEB liability	(4,749,840)
Total OPEB liability - beginning	<u>36,554,276</u>
Total OPEB liability - ending	<u>\$ 31,804,436</u>
<u>Plan fiduciary net position</u>	
Contributions - employer	\$ 1,037,124
Contributions - member	-
Net investment income	1,738,914
Benefit payments, including refunds of member contributions	(1,394,586)
Administrative expense	<u>(238,856)</u>
Net change in plan fiduciary net position	\$ 1,142,596
Plan fiduciary net position - beginning	<u>13,940,338</u>
Plan fiduciary net position - ending	<u>\$ 15,082,934</u>
Net OPEB liability - ending	<u>\$ 16,721,502</u>
Plan fiduciary net position as a percentage of the total OPEB liability	47.42%
Covered employee payroll	\$ 260,552,680
Net OPEB liability as a percentage of covered employee payroll	6.42%

**MAINE PUBLIC EMPLOYEES RETIREMENT SYSTEM
RETIREE GROUP LIFE INSURANCE
GASB 74 VALUATION REPORT AS OF JUNE 30, 2017**

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.

Table II - 6 Schedule of Employer Contributions During Fiscal Year 2017	
	PLD
Actuarially Determined Contribution	\$ 1,146,324
Contributions in Relation to the Actuarially Determined Contribution	1,037,124
Contribution Deficiency/(Excess)	<u>\$ 109,200</u>
Covered Payroll	\$ 260,552,680
Contributions as a Percentage of Covered Payroll	0.40%

Notes to Schedule

Valuation Date: June 30, 2014

Timing: Actuarially determined contribution rates are calculated based on the actuarial valuation completed 12 months before the beginning of the fiscal year.

Key Methods and Assumptions Used to Determine Contribution Rates for FY 2017

Actuarial Cost Method: Entry Age Normal

Asset Valuation Method: Market Value

Amortization Method: Level percent of pay closed period with 14 years remaining for FY 2017

Discount Rate: 7.25%

Administrative Expense Load: 8.70%

A complete description of the methods and assumptions used to determine contribution rates for the year ending June 30, 2017 can be found in the June 30, 2014 actuarial valuation report.

**MAINE PUBLIC EMPLOYEES RETIREMENT SYSTEM
 RETIREE GROUP LIFE INSURANCE
 GASB 74 VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX A - PARTICIPANT DATA

Participant Data as of June 30, 2016

Actives					
Group	Count	Average Age	Average Service		Average Salary
PLDs	5,416	49.5	11.3	\$	48,108

Retirees				
Group	Count	Average Age		Average Benefit ¹
PLDs	2,671	71.5	\$	16,001

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 for this valuation year.

In determining the OPEB expense under GASB No. 75, the impact of experience gains or losses and assumption changes on the TOL are recognized over the average expected remaining service life of all active and inactive members of the Plan, determined as of the beginning of the measurement period. As of June 30, 2016, this average for PLDs was 6.24 years which would be rounded to 6.00 years for recognition purposes.

**MAINE PUBLIC EMPLOYEES RETIREMENT SYSTEM
RETIREE GROUP LIFE INSURANCE
GASB 74 VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX B - DETAILS OF INTEREST RATE CALCULATION

Table B-1 - Projection of Contributions

Projections Commence June 30, 2017

* Total covered-employee payroll increases 2.75% per year

Year	Payroll for	Payroll for Future	Total Employee	Premium	UAL	Employer	Contributions	Total
	Current					Employer	Related to	
	Employees	Employees	Payroll*	Rate	Rate	for Current	Future	Contributions
	(a)	(b)	(c) = (a) + (b)	(d)	(e)	(f) = (a) x (d)	(g) = (b) x (e)	(h) = (f) + (g)
1	\$ 267,717,879	\$ 0	\$ 267,717,879	0.26%	0.16%	\$ 696,066	\$ 0	\$ 696,066
2	231,785,241	43,294,879	275,080,120	0.26%	0.16%	602,642	68,045	670,687
3	213,141,506	69,503,317	282,644,824	0.26%	0.16%	554,168	109,236	663,404
4	196,033,618	94,383,938	290,417,556	0.26%	0.16%	509,687	148,341	658,028
5	181,784,999	116,619,040	298,404,039	0.26%	0.16%	472,641	183,287	655,928
6	167,965,043	138,645,107	306,610,150	0.26%	0.16%	436,709	217,905	654,614
7	155,192,186	159,849,743	315,041,929	0.26%	0.16%	403,500	251,231	654,731
8	143,575,109	180,130,474	323,705,582	0.26%	0.16%	373,295	283,106	656,401
9	132,266,728	200,340,757	332,607,486	0.26%	0.16%	343,893	314,870	658,763
10	121,827,642	219,926,550	341,754,192	0.26%	0.16%	316,752	345,652	662,404
11	112,178,657	238,973,775	351,152,432	0.26%	0.16%	291,665	375,588	667,253
12	103,499,320	257,309,804	360,809,124	0.26%	0.16%	269,098	404,406	673,505
13	94,759,983	275,971,392	370,731,375	0.26%	0.16%	246,376	433,736	680,112
14	87,050,303	293,876,184	380,926,488	0.26%	0.16%	226,331	461,877	688,208
15	79,942,809	311,459,157	391,401,966	0.26%	0.16%	207,851	489,511	697,363
16	72,788,440	329,377,080	402,165,520	0.26%	0.16%	189,250	517,672	706,922
17	65,927,245	347,297,827	413,225,072	0.26%	0.16%	171,411	545,838	717,249
18	58,874,608	365,714,153	424,588,761	0.26%	0.16%	153,074	574,782	727,856
19	53,128,004	383,136,948	436,264,952	0.26%	0.16%	138,133	602,165	740,298
20	47,316,841	400,945,397	448,262,239	0.26%	0.16%	123,024	630,154	753,178
21	42,539,008	418,050,442	460,589,450	0.26%	0.16%	110,601	657,038	767,639
22	37,451,455	435,804,205	473,255,660	0.26%	0.16%	97,374	684,941	782,315
23	33,016,092	453,254,098	486,270,191	0.26%	0.16%	85,842	712,366	798,208
24	28,860,474	470,782,146	499,642,621	0.26%	0.16%	75,037	739,915	814,952
25	25,160,885	488,221,908	513,382,793	0.26%	0.16%	65,418	767,324	832,743
26	21,883,642	505,617,178	527,500,820	0.26%	0.16%	56,897	794,664	851,561
27	18,778,229	523,228,863	542,007,092	0.26%	0.16%	48,823	822,344	871,167
28	16,253,750	540,658,537	556,912,287	0.26%	0.16%	42,260	849,737	891,997
29	13,670,130	558,557,245	572,227,375	0.26%	0.16%	35,542	877,868	913,411
30	11,826,393	576,137,235	587,963,628	0.26%	0.16%	30,749	905,498	936,247
31	10,132,201	594,000,427	604,132,628	0.26%	0.16%	26,344	933,573	959,917
32	8,133,217	612,613,058	620,746,275	0.26%	0.16%	21,146	962,826	983,973
33	7,145,910	630,670,888	637,816,798	0.26%	0.16%	18,579	991,207	1,009,787
34	5,897,888	649,458,872	655,356,760	0.26%	0.16%	15,335	1,020,736	1,036,070
35	5,003,477	668,375,593	673,379,070	0.26%	0.16%	13,009	1,050,467	1,063,476
36	3,790,283	688,106,712	691,896,995	0.26%	0.16%	9,855	1,081,478	1,091,332
37	3,105,042	707,819,120	710,924,162	0.26%	0.16%	8,073	1,112,459	1,120,532
38	2,367,815	728,106,762	730,474,577	0.26%	0.16%	6,156	1,144,344	1,150,501
39	1,853,785	748,708,843	750,562,628	0.26%	0.16%	4,820	1,176,724	1,181,544
40	1,280,573	769,922,527	771,203,100	0.26%	0.16%	3,329	1,210,065	1,213,395
41	944,098	791,467,087	792,411,185	0.26%	0.16%	2,455	1,243,926	1,246,381
42	749,038	813,453,454	814,202,493	0.26%	0.16%	1,947	1,278,481	1,280,429
43	580,401	836,012,660	836,593,061	0.26%	0.16%	1,509	1,313,937	1,315,446
44	375,992	859,223,378	859,599,370	0.26%	0.16%	978	1,350,417	1,351,394
45	268,975	882,969,378	883,238,353	0.26%	0.16%	699	1,387,738	1,388,437
46	190,307	907,337,100	907,527,408	0.26%	0.16%	495	1,426,036	1,426,530
47	118,479	932,365,933	932,484,411	0.26%	0.16%	308	1,465,373	1,465,681
48	75,165	958,052,568	958,127,733	0.26%	0.16%	195	1,505,744	1,505,939
49	40,408	984,435,837	984,476,245	0.26%	0.16%	105	1,547,209	1,547,315
50	16,334	1,011,533,008	1,011,549,342	0.26%	0.16%	42	1,589,797	1,589,840

**MAINE PUBLIC EMPLOYEES RETIREMENT SYSTEM
RETIREE GROUP LIFE INSURANCE
GASB 74 VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX B - DETAILS OF INTEREST RATE CALCULATION

Table B-1 - Projection of Contributions

Projections Commence June 30, 2017

* Total covered-employee payroll increases 2.75% per year

Year	Payroll for Current Employees (a)	Payroll for Future Employees (b)	Total Employee Payroll* (c) = (a) + (b)	ER Rate (e)	AL Rate (f)	Employer Contributions for Current Employees (h) = (a) x (e)	Contributions Related to Payroll of	Total Contributions (j) = (g) + (h) + (i)
							Future Employees (i) = (b) x (f)	
51	5,552	1,039,361,398	1,039,366,949	0.26%	0.16%	14	1,633,534	1,633,549
52	0	1,067,949,540	1,067,949,540	0.26%	0.16%	0	1,678,466	1,678,466
53	0	1,097,318,153	1,097,318,153	0.26%	0.16%	0	1,724,623	1,724,623
54	0	1,127,494,402	1,127,494,402	0.26%	0.16%	0	1,772,051	1,772,051
55	0	1,158,500,498	1,158,500,498	0.26%	0.16%	0	1,820,782	1,820,782
56	0	1,190,359,262	1,190,359,262	0.26%	0.16%	0	1,870,853	1,870,853
57	0	1,223,094,141	1,223,094,141	0.26%	0.16%	0	1,922,302	1,922,302
58	0	1,256,729,230	1,256,729,230	0.26%	0.16%	0	1,975,165	1,975,165
59	0	1,291,289,284	1,291,289,284	0.26%	0.16%	0	2,029,482	2,029,482
60	0	1,326,799,739	1,326,799,739	0.26%	0.16%	0	2,085,293	2,085,293
61	0	1,363,286,732	1,363,286,732	0.26%	0.16%	0	2,142,639	2,142,639
62	0	1,400,777,117	1,400,777,117	0.26%	0.16%	0	2,201,561	2,201,561
63	0	1,439,298,488	1,439,298,488	0.26%	0.16%	0	2,262,104	2,262,104
64	0	1,478,879,196	1,478,879,196	0.26%	0.16%	0	2,324,312	2,324,312
65	0	1,519,548,374	1,519,548,374	0.26%	0.16%	0	2,388,230	2,388,230
66	0	1,561,335,955	1,561,335,955	0.26%	0.16%	0	2,453,907	2,453,907
67	0	1,604,272,693	1,604,272,693	0.26%	0.16%	0	2,521,389	2,521,389
68	0	1,648,390,192	1,648,390,192	0.26%	0.16%	0	2,590,727	2,590,727
69	0	1,693,720,923	1,693,720,923	0.26%	0.16%	0	2,661,972	2,661,972
70	0	1,740,298,248	1,740,298,248	0.26%	0.16%	0	2,735,177	2,735,177
71	0	1,788,156,450	1,788,156,450	0.26%	0.16%	0	2,810,394	2,810,394
72	0	1,837,330,752	1,837,330,752	0.26%	0.16%	0	2,887,680	2,887,680
73	0	1,887,857,348	1,887,857,348	0.26%	0.16%	0	2,967,091	2,967,091
74	0	1,939,773,425	1,939,773,425	0.26%	0.16%	0	3,048,686	3,048,686
75	0	1,993,117,194	1,993,117,194	0.26%	0.16%	0	3,132,525	3,132,525
76	0	2,047,927,917	2,047,927,917	0.26%	0.16%	0	3,218,669	3,218,669
77	0	2,104,245,935	2,104,245,935	0.26%	0.16%	0	3,307,183	3,307,183
78	0	2,162,112,698	2,162,112,698	0.26%	0.16%	0	3,398,130	3,398,130
79	0	2,221,570,797	2,221,570,797	0.26%	0.16%	0	3,491,579	3,491,579
80	0	2,282,663,994	2,282,663,994	0.26%	0.16%	0	3,587,597	3,587,597
81	0	2,345,437,254	2,345,437,254	0.26%	0.16%	0	3,686,256	3,686,256
82	0	2,409,936,778	2,409,936,778	0.26%	0.16%	0	3,787,628	3,787,628
83	0	2,476,210,040	2,476,210,040	0.26%	0.16%	0	3,891,788	3,891,788
84	0	2,544,305,816	2,544,305,816	0.26%	0.16%	0	3,998,812	3,998,812
85	0	2,614,274,226	2,614,274,226	0.26%	0.16%	0	4,108,780	4,108,780
86	0	2,686,166,767	2,686,166,767	0.26%	0.16%	0	4,221,771	4,221,771
87	0	2,760,036,353	2,760,036,353	0.26%	0.16%	0	4,337,870	4,337,870
88	0	2,835,937,353	2,835,937,353	0.26%	0.16%	0	4,457,161	4,457,161
89	0	2,913,925,630	2,913,925,630	0.26%	0.16%	0	4,579,733	4,579,733
90	0	2,994,058,585	2,994,058,585	0.26%	0.16%	0	4,705,676	4,705,676
91	0	3,076,395,196	3,076,395,196	0.26%	0.16%	0	4,835,082	4,835,082
92	0	3,160,996,064	3,160,996,064	0.26%	0.16%	0	4,968,047	4,968,047
93	0	3,247,923,455	3,247,923,455	0.26%	0.16%	0	5,104,668	5,104,668
94	0	3,337,241,351	3,337,241,351	0.26%	0.16%	0	5,245,046	5,245,046
95	0	3,429,015,488	3,429,015,488	0.26%	0.16%	0	5,389,285	5,389,285
96	0	3,523,313,414	3,523,313,414	0.26%	0.16%	0	5,537,490	5,537,490
97	0	3,620,204,532	3,620,204,532	0.26%	0.16%	0	5,689,771	5,689,771
98	0	3,719,760,157	3,719,760,157	0.26%	0.16%	0	5,846,240	5,846,240
99	0	3,822,053,561	3,822,053,561	0.26%	0.16%	0	6,007,012	6,007,012

**MAINE PUBLIC EMPLOYEES RETIREMENT SYSTEM
RETIREE GROUP LIFE INSURANCE
GASB 74 VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX B - DETAILS OF INTEREST RATE CALCULATION

Table B-2 - Projection of the Pension Plan's Fiduciary Net Position
Projections Commence June 30, 2017
* From Table 1 - Projection of Contributions, column (h)

Year	Projected Beginning Fiduciary Net Position (a)	Projected Total Contributions* (b)	Projected Benefit Payments (c)	Projected Investment Earnings (d)	Projected Ending Fiduciary Net Position (e) = (a) + (b) - (c) + (d)
1	\$ 15,082,934	\$ 696,066	\$ 1,111,719	\$ 1,022,901	\$ 15,690,183
2	15,690,183	670,687	1,155,836	1,062,300	16,267,334
3	16,267,334	663,404	1,200,452	1,100,225	16,830,511
4	16,830,511	658,028	1,246,979	1,137,189	17,378,749
5	17,378,749	655,928	1,296,508	1,173,135	17,911,304
6	17,911,304	654,614	1,363,695	1,207,433	18,409,655
7	18,409,655	654,731	1,435,461	1,239,272	18,868,197
8	18,868,197	656,401	1,513,359	1,268,220	19,279,460
9	19,279,460	658,763	1,595,172	1,293,809	19,636,860
10	19,636,860	662,404	1,677,475	1,315,721	19,937,510
11	19,937,510	667,253	1,763,739	1,333,639	20,174,663
12	20,174,663	673,505	1,852,449	1,347,155	20,342,874
13	20,342,874	680,112	1,941,625	1,355,929	20,437,290
14	20,437,290	688,208	2,030,647	1,359,684	20,454,535
15	20,454,535	697,363	2,119,311	1,358,182	20,390,769
16	20,390,769	706,922	2,207,750	1,351,132	20,241,073
17	20,241,073	717,249	2,297,747	1,338,147	19,998,722
18	19,998,722	727,856	2,384,437	1,318,914	19,661,055
19	19,661,055	740,298	2,469,051	1,293,259	19,225,562
20	19,225,562	753,178	2,547,884	1,261,090	18,691,945
21	18,691,945	767,639	2,623,256	1,222,345	18,058,673
22	18,058,673	782,315	2,692,561	1,176,960	17,325,387
23	17,325,387	798,208	2,756,284	1,124,930	16,492,242
24	16,492,242	814,952	2,812,531	1,066,316	15,560,979
25	15,560,979	832,743	2,861,133	1,001,250	14,533,839
26	14,533,839	851,561	2,902,530	929,871	13,412,742
27	13,412,742	871,167	2,934,677	852,372	12,201,604
28	12,201,604	891,997	2,958,459	769,006	10,904,148
29	10,904,148	913,411	2,971,909	680,075	9,525,726
30	9,525,726	936,247	2,975,751	585,951	8,072,172
31	8,072,172	959,917	2,970,156	487,008	6,548,942
32	6,548,942	983,973	2,953,678	383,657	4,962,893
33	4,962,893	1,009,787	2,929,047	276,321	3,319,954
34	3,319,954	1,036,070	2,895,378	165,395	1,626,041
35	1,626,041	1,063,476	2,853,844	51,269	0
36	0	1,091,332	2,804,589	0	0
37	0	1,120,532	2,748,525	0	0
38	0	1,150,501	2,685,700	0	0
39	0	1,181,544	2,616,274	0	0
40	0	1,213,395	2,541,140	0	0
41	0	1,246,381	2,461,481	0	0
42	0	1,280,429	2,377,365	0	0
43	0	1,315,446	2,288,915	0	0
44	0	1,351,394	2,195,961	0	0
45	0	1,388,437	2,099,567	0	0
46	0	1,426,530	2,000,311	0	0
47	0	1,465,681	1,898,286	0	0
48	0	1,505,939	1,795,460	0	0
49	0	1,547,315	1,692,357	0	0
50	0	1,589,840	1,590,221	0	0

**MAINE PUBLIC EMPLOYEES RETIREMENT SYSTEM
RETIREE GROUP LIFE INSURANCE
GASB 74 VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX B - DETAILS OF INTEREST RATE CALCULATION

Table B-2 - Projection of the Pension Plan's Fiduciary Net Position

Projections Commence June 30, 2017

* From Table 1 - Projection of Contributions, column (j)

Year	Projected Beginning Fiduciary Net Position (a)	Projected Total Contributions* (b)	Projected Benefit Payments (c)	Projected Investment Earnings (e)	Projected Ending Fiduciary Net Position (f) = (a) + (b) - (c) - (d) + (e)
51	0	1,633,549	1,489,768	0	143,780
52	0	1,678,466	1,392,776	0	285,690
53	0	1,724,623	1,300,464	0	424,159
54	0	1,772,051	1,213,822	0	558,229
55	0	1,820,782	1,132,909	0	687,873
56	0	1,870,853	1,057,418	0	813,435
57	0	1,922,302	986,654	0	935,648
58	0	1,975,165	919,550	0	1,055,616
59	0	2,029,482	855,639	0	1,173,843
60	0	2,085,293	794,251	0	1,291,042
61	0	2,142,639	734,623	0	1,408,016
62	0	2,201,561	675,878	0	1,525,683
63	0	2,262,104	618,277	0	1,643,827
64	0	2,324,312	561,546	0	1,762,766
65	0	2,388,230	505,015	0	1,883,215
66	0	2,453,907	449,756	0	2,004,151
67	0	2,521,389	396,391	0	2,124,998
68	0	2,590,727	344,788	0	2,245,940
69	0	2,661,972	295,214	0	2,366,759
70	0	2,735,177	248,432	0	2,486,744
71	0	2,810,394	205,193	0	2,605,202
72	0	2,887,680	165,951	0	2,721,728
73	0	2,967,091	131,119	0	2,835,972
74	0	3,048,686	101,245	0	2,947,441
75	0	3,132,525	76,453	0	3,056,072
76	0	3,218,669	56,408	0	3,162,261
77	0	3,307,183	40,544	0	3,266,638
78	0	3,398,130	28,442	0	3,369,689
79	0	3,491,579	19,461	0	3,472,118
80	0	3,587,597	12,953	0	3,574,645
81	0	3,686,256	8,382	0	3,677,874
82	0	3,787,628	5,271	0	3,782,357
83	0	3,891,788	3,221	0	3,888,567
84	0	3,998,812	1,907	0	3,996,906
85	0	4,108,780	1,094	0	4,107,686
86	0	4,221,771	608	0	4,221,163
87	0	4,337,870	328	0	4,337,541
88	0	4,457,161	171	0	4,456,990
89	0	4,579,733	87	0	4,579,646
90	0	4,705,676	43	0	4,705,633
91	0	4,835,082	21	0	4,835,061
92	0	4,968,047	10	0	4,968,037
93	0	5,104,668	5	0	5,104,663
94	0	5,245,046	2	0	5,245,044
95	0	5,389,285	1	0	5,389,284
96	0	5,537,490	0	0	5,537,490
97	0	5,689,771	0	0	5,689,771
98	0	5,846,240	0	0	5,846,240
99	0	6,007,012	0	0	6,007,012

**MAINE PUBLIC EMPLOYEES RETIREMENT SYSTEM
RETIREE GROUP LIFE INSURANCE
GASB 74 VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX B - DETAILS OF INTEREST RATE CALCULATION

Table B-3 - Actuarial Present Values of Projected Benefit Payments

Projections Commence June 30, 2017

* From Table 2 - Projection of the Pension Plan's Fiduciary Net Position, column (a)

** From Table 2 - Projection of the Pension Plan's Fiduciary Net Position, column (c)

Year	Projected Beginning Fiduciary Net Position*	Projected Benefit Payments for current Plan participants**	"Funded" Portion of Benefit Payments (d) = (c) if (b) >= (c)	"Unfunded" Portion of Benefit Payments (e) = (c) - (d)	Present Value of "Funded" Benefit Payments (f) = (d) / (1+6.88%)^(a)	Present Value of "Unfunded" Benefit Payments (g) = (e) / (1+3.58%)^(a)	Present Value of Benefit Payments Using the Single Discount Rate (h) = (c) / (1+5.41%)^(a)
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
1	\$ 15,082,934	\$ 1,111,719	\$ 1,111,719	\$ 0	\$ 1,075,367	\$ 0	\$ 1,082,834
2	15,690,183	1,155,836	1,155,836	0	1,046,121	0	1,068,064
3	16,267,334	1,200,452	1,200,452	0	1,016,610	0	1,052,397
4	16,830,511	1,246,979	1,246,979	0	988,081	0	1,037,117
5	17,378,749	1,296,508	1,296,508	0	961,242	0	1,023,005
6	17,911,304	1,363,695	1,363,695	0	946,016	0	1,020,831
7	18,409,655	1,435,461	1,435,461	0	931,744	0	1,019,440
8	18,868,197	1,513,359	1,513,359	0	919,117	0	1,019,638
9	19,279,460	1,595,172	1,595,172	0	906,485	0	1,019,637
10	19,636,860	1,677,475	1,677,475	0	891,934	0	1,017,251
11	19,937,510	1,763,739	1,763,739	0	877,475	0	1,014,706
12	20,174,663	1,852,449	1,852,449	0	862,325	0	1,011,081
13	20,342,874	1,941,625	1,941,625	0	845,695	0	1,005,401
14	20,437,290	2,030,647	2,030,647	0	827,574	0	997,567
15	20,454,535	2,119,311	2,119,311	0	808,148	0	987,726
16	20,390,769	2,207,750	2,207,750	0	787,716	0	976,170
17	20,241,073	2,297,747	2,297,747	0	767,090	0	963,855
18	19,998,722	2,384,437	2,384,437	0	744,824	0	948,919
19	19,661,055	2,469,051	2,469,051	0	721,642	0	932,196
20	19,225,562	2,547,884	2,547,884	0	696,779	0	912,622
21	18,691,945	2,623,256	2,623,256	0	671,244	0	891,427
22	18,058,673	2,692,561	2,692,561	0	644,657	0	868,049
23	17,325,387	2,756,284	2,756,284	0	617,463	0	843,018
24	16,492,242	2,812,531	2,812,531	0	589,533	0	816,101
25	15,560,979	2,861,133	2,861,133	0	561,142	0	787,623
26	14,533,839	2,902,530	2,902,530	0	532,642	0	758,038
27	13,412,742	2,934,677	2,934,677	0	503,898	0	727,124
28	12,201,604	2,958,459	2,958,459	0	475,305	0	695,421
29	10,904,148	2,971,909	2,971,909	0	446,751	0	662,753
30	9,525,726	2,975,751	2,975,751	0	418,553	0	629,574
31	8,072,172	2,970,156	2,970,156	0	390,893	0	596,161
32	6,548,942	2,953,678	2,953,678	0	363,718	0	562,446
33	4,962,893	2,929,047	2,929,047	0	337,483	0	529,149
34	3,319,954	2,895,378	2,895,378	0	312,144	0	496,239
35	1,626,041	2,853,844	1,626,041	1,227,803	164,023	364,846	464,034
36	0	2,804,589	0	2,804,589	0	804,590	432,636
37	0	2,748,525	0	2,748,525	0	761,253	402,242
38	0	2,685,700	0	2,685,700	0	718,143	372,888
39	0	2,616,274	0	2,616,274	0	675,400	344,618
40	0	2,541,140	0	2,541,140	0	633,330	317,554
41	0	2,461,481	0	2,461,481	0	592,273	291,823
42	0	2,377,365	0	2,377,365	0	552,263	267,395
43	0	2,288,915	0	2,288,915	0	513,338	244,242
44	0	2,195,961	0	2,195,961	0	475,470	222,305
45	0	2,099,567	0	2,099,567	0	438,886	201,645
46	0	2,000,311	0	2,000,311	0	403,686	182,259
47	0	1,898,286	0	1,898,286	0	369,855	164,092
48	0	1,795,460	0	1,795,460	0	337,730	147,243
49	0	1,692,357	0	1,692,357	0	307,334	131,670
50	0	1,590,221	0	1,590,221	0	278,805	117,378

**MAINE PUBLIC EMPLOYEES RETIREMENT SYSTEM
RETIREE GROUP LIFE INSURANCE
GASB 74 VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX B - DETAILS OF INTEREST RATE CALCULATION

Table B-3 - Actuarial Present Values of Projected Benefit Payments

Projections Commence June 30, 2017

* From Table 2 - Projection of the Pension Plan's Fiduciary Net Position, column (a)

** From Table 2 - Projection of the Pension Plan's Fiduciary Net Position, column (c)

Year	Projected Beginning Fiduciary Net Position*	Projected Benefit Payments for current Plan participants**	"Funded" Portion of Benefit Payments (d) = (c) if (b) >= (c)	"Unfunded" Portion of Benefit Payments (e) = (c) - (d)	Present Value of "Funded" Benefit Payments (f) = (d) / (1+6.88%)^(a)	Present Value of "Unfunded" Benefit Payments (g) = (e) / (1+3.58%)^(a)	Present Value of Benefit Payments Using the Single Discount Rate (h) = (c) / (1+5.41%)^(a)
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
51	\$ 0	\$ 1,489,768	\$ 0	\$ 1,489,768	\$ 0	\$ 252,165	\$ 104,323
52	0	1,392,776	0	1,392,776	0	227,600	92,529
53	0	1,300,464	0	1,300,464	0	205,170	81,965
54	0	1,213,822	0	1,213,822	0	184,882	72,580
55	0	1,132,909	0	1,132,909	0	166,594	64,268
56	0	1,057,418	0	1,057,418	0	150,118	56,909
57	0	986,654	0	986,654	0	135,231	50,377
58	0	919,550	0	919,550	0	121,678	44,542
59	0	855,639	0	855,639	0	109,307	39,321
60	0	794,251	0	794,251	0	97,958	34,628
61	0	734,623	0	734,623	0	87,473	30,385
62	0	675,878	0	675,878	0	77,696	26,522
63	0	618,277	0	618,277	0	68,618	23,017
64	0	561,546	0	561,546	0	60,168	19,833
65	0	505,015	0	505,015	0	52,241	16,922
66	0	449,756	0	449,756	0	44,916	14,297
67	0	396,391	0	396,391	0	38,219	11,954
68	0	344,788	0	344,788	0	32,094	9,865
69	0	295,214	0	295,214	0	26,530	8,013
70	0	248,432	0	248,432	0	21,554	6,398
71	0	205,193	0	205,193	0	17,187	5,013
72	0	165,951	0	165,951	0	13,420	3,846
73	0	131,119	0	131,119	0	10,237	2,883
74	0	101,245	0	101,245	0	7,631	2,112
75	0	76,453	0	76,453	0	5,563	1,513
76	0	56,408	0	56,408	0	3,963	1,059
77	0	40,544	0	40,544	0	2,750	722
78	0	28,442	0	28,442	0	1,862	481
79	0	19,461	0	19,461	0	1,230	312
80	0	12,953	0	12,953	0	791	197
81	0	8,382	0	8,382	0	494	121
82	0	5,271	0	5,271	0	300	72
83	0	3,221	0	3,221	0	177	42
84	0	1,907	0	1,907	0	101	23
85	0	1,094	0	1,094	0	56	13
86	0	608	0	608	0	30	7
87	0	328	0	328	0	16	3
88	0	171	0	171	0	8	2
89	0	87	0	87	0	4	1
90	0	43	0	43	0	2	0
91	0	21	0	21	0	1	0
92	0	10	0	10	0	0	0
93	0	5	0	5	0	0	0
94	0	2	0	2	0	0	0
95	0	1	0	1	0	0	0
96	0	0	0	0	0	0	0
97	0	0	0	0	0	0	0
98	0	0	0	0	0	0	0
99	0	0	0	0	0	0	0
					\$ 24,651,436	+ \$ 10,453,239	= \$ 35,104,675

**MAINE PUBLIC EMPLOYEES RETIREMENT SYSTEM
RETIREE GROUP LIFE INSURANCE
GASB 74 VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX C - ASSUMPTIONS, AND METHODS

Economic Assumptions

Valuation Date: June 30, 2016

Funding Investment Return: 6.875% per year

GASB Beginning of Year Liability Return: 4.43% per year

GASB End of Year Liability Return: 5.41% per year

Cost-of-Living Increases in Life Benefits:

N/A. Unlike 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.

PLDs: 8.66% of claims

Rates of Salary Increase (Experience-based sample rates by service including both merit scale increase and yearly increase):

Service	PLD
0	9.00%
5	2.75%
10	2.75%
15	2.75%
20	2.75%
25+	2.75%

Demographic Assumptions

Rates of Termination (Experience-based sample rates by service):

Service	PLDs	
	PLDs	Special
0	25.00%	25.00%
5	9.00	4.00
10	6.00	2.50
15	4.00	2.50
20	2.50	2.50
25	2.50	2.50

**MAINE PUBLIC EMPLOYEES RETIREMENT SYSTEM
RETIREE GROUP LIFE INSURANCE
GASB 74 VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX C - ASSUMPTIONS, AND METHODS

Rates of Mortality

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.

**MAINE PUBLIC EMPLOYEES RETIREMENT SYSTEM
RETIREE GROUP LIFE INSURANCE
GASB 74 VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX C - ASSUMPTIONS, AND METHODS

Rates of Retirement (Experience-based sample retirements per 1,000 members by age):

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

PLD Special:

Age	Assumption
20	400
21-24	300
25	400
26-29	300
30	400
31-34	300
35+	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	PLDs
25	1.8
30	2.4
35	3.0
40	4.2
45	9.0
50	19.8
55	36.6
60	65.0

Participation Percent for Future Retirees:

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

**MAINE PUBLIC EMPLOYEES RETIREMENT SYSTEM
RETIREE GROUP LIFE INSURANCE
GASB 74 VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX C - 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 Program, 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 2031 for PLDs.

Asset Valuation Methods

Figures were reported by MainePERS without audit or change.

Changes Since Last Valuation

The Beginning of Year and End of Year Liabilities were updated to 4.43% and 5.41% respectively to reflect the blending of projections between the long term investment return assumption of 6.875% and the Bond Buyer GO 20-Year Municipal Bond Index: 2.85% as of June 30, 2016 and 3.58% as of June 30, 2017.

**MAINE PUBLIC EMPLOYEES RETIREMENT SYSTEM
RETIREE GROUP LIFE INSURANCE
GASB 74 VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX D - 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

- 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%.

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.)

**MAINE PUBLIC EMPLOYEES RETIREMENT SYSTEM
RETIREE GROUP LIFE INSURANCE
GASB 74 VALUATION REPORT AS OF JUNE 30, 2017**

APPENDIX E - 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.

MAINE PUBLIC EMPLOYEES RETIREMENT SYSTEM
RETIREE GROUP LIFE INSURANCE
GASB 74 VALUATION REPORT AS OF JUNE 30, 2017

APPENDIX E - 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.