MainePERS
PUBLIC EMPLOYEES RETIREMENT SYSTEM

Board of Trustees

Meeting Packet

October 13, 2022

MainePERS Board of Trustees
October 13, 2022
139 Capitol Street, Augusta

AGENDA

9:00 a.m.[1]		CALL TO ORDER		Brian Noyes
9:00 – 9:05 a.m.	1.	CONSIDERATION OF CONSENT CALENDAR • Minutes of September 8, 2022 • Dismissal, John York Appeal • Consideration of Items Removed	ACTION	Brian Noyes
9:05 – 9:20 a.m.	2.	CEO REPORT • MainePERS 2022 Member Satisfaction Survey • Key Performance and Risk Measures		Dr. Rebecca M. Wyke
9:20 – 9:30 a.m.	3.	BOARD WORK PLAN	ACTION	Dr. Rebecca M. Wyke
9:30 – 10:00 a.m.	4.	ACTUARIAL VALUATIONS	ACTION	Gene Kalwarski, Ryan Benitez, Cheiron
10:00 – 10:30 a.m.	5.	AUDITED FINANCIAL STATEMENTS	ACTION	Mark LaPrade, Leah Clair, BerryDunn Sherry Vandrell
10:30 – 10:45 a.m.		*BREAK*		
10:45 – 11:00 a.m.	6.	PRIVATE MARKETS ACTION		
		• Executive Session pursuant to 1 M.R.S. §405(6)(F); 5 M.R.S. §17057(4)	ACTION	Brian Noyes
		Board moves out of executive session.		
		• Farallon Capital Management • Audax Senior Debt	ACTION ACTION	James Bennett, Zackery McGuire
11:00 – 11:10 a.m.	7.	PRIVATE MARKETS REVIEW • Private Markets Activity		James Bennett Zackery McGuire

[1] All times are estimated based upon the anticipated length of each presentation, hearing, discussion, and action. The presiding officer may take agenda items out of order for more efficient or effective conduct of the meeting.

11:10 – 11:40 a.m.	8.	INVESTMENT REVIEW • Proxy Voting Update • Quarterly Rebalancing Report • Investment Monthly Review	James Bennett Zackery McGuire Brian McDonnell, Stuart Cameron, Cambridge Assocs.
11:40 – 11:50 a.m.	9.	OPERATIONS AND MEMBER SERVICES REPORT	Michael Colleran Chip Gavin
11:50 – 12:10 p.m.	10.	FIDUCIARY DUTY EDUCATION	Michael Colleran Betsy Stivers
12:10 – 12:15 p.m.	11.	LITIGATION UPDATE	Betsy Stivers
12:15 p.m.		ADJOURNMENT	Brian Noyes

MAINE PUBLIC EMPLOYEES RETIREMENT SYSTEM

Minutes

Board of Trustees	MainePERS
Board Meeting	Augusta
September 8, 2022	9:00 a.m.

The Board of Trustees met at MainePERS, 139 Capitol Street, Augusta, ME 04332 at 9:00 a.m. on September 8, 2022. Brian Noyes, Chair, presided. Other Trustees participating were Dick Metivier, Vice Chair; Greg Olson, Deputy Treasurer; Shirrin Blaisdell; John Beliveau, Mark Brunton, John Kimball; and Ken Williams. Joining the Trustees were Dr. Rebecca M. Wyke, Chief Executive Officer; Michael Colleran, Chief Operating Officer and General Counsel; Chip Gavin, Chief Services Officer; Monica Gorman, Secretary to the Board of Trustees; and Betsy Stivers, Assistant Attorney General and Board Counsel. The Board also was joined for select portions of the meeting by Zackery McGuire, Deputy Chief Investment Officer; Douglas Porter, Deputy Managing Director; Stuart Cameron, Cambridge Associates; Tom Lynch and George Bumeder, Cliffwater; Ed Schwartz, ORG; and Amy McDuffee, Mosaic Governance Advisors.

Brian Noyes called the meeting to order at 9:00 a.m. Greg Olson and Mark Brunton participated through video remote access pursuant to 1 M.R.S. § 403-B, having been excused from in-person attendance by the Board Chair due to illness. All other Trustees were physically present. Brian welcomed Amy McDuffee to the Board meeting.

CONSIDERATION OF THE CONSENT CALENDAR

The Chair called for consideration of the Consent Calendar. The action items on the Consent Calendar were:

- Minutes of August 11, 2022

- Action. Dick Metivier made the motion, seconded by Shirrin Blaisdell, to approve the Consent Calendar. Voted unanimously by eight Trustees (Beliveau, Blaisdell, Brunton, Kimball, Metivier, Noyes, Olson, and Williams).

CEO REPORT

Dr. Rebecca Wyke shared that an agreement has been reached with the Maine Service Employees Association/SEIU for a one-time retention payment program for this year. She provided an update on legislative reports that are due early next year on ESG, divestment, long term disability insurance implementation, disability retirement experience, and operations.

Dr. Wyke shared her reflections on the past year with the Trustees, which included FY21 year-end information; the pandemic; legislative reports that were completed; organizational changes; divestment planning; adjustment to the asset allocation plan; ending the fiscal year 2021-22 under budget; receipt of the International Corporate Governance Network Global Stewardship Disclosure Award and, for the 18th consecutive year, the Certificate of Achievement for Excellence in Reporting from GFOA; and the adoption of the 5-Year Strategic Plan by the Trustees.

PRIVATE MARKETS REVIEW

Private Markets Activity

Zack McGuire reviewed the table of private market funds and co-investments that had closed during the past 12 months. Zack shared that the next manager meeting is scheduled for Tuesday, September 27, 2022, in Portland, with presentations by Farallon Capital Management at 9:45 a.m. and Blue Owl Capital/Owl Rock at 11:00 a.m.

INVESTMENT REVIEW

Investment Monthly Review

Zack McGuire reported that as of August 31st, the MainePERS fund had a preliminary market value of $18.4 billion, the preliminary fund return for the month was -1.3%, and the preliminary calendar year-to-date return was -3.4%.

QUARTERLY INVESTMENT EDUCATION

Doug Porter shared an overview of the alternative credit portfolio with the Trustees. Doug discussed with and answered questions from the Trustees regarding upcoming changes to the portfolio. The Investment Team anticipates making a recommendation regarding an SMA managed by Audax within the alternative credit portfolio at next month's meeting.

MAINESTART

MaineSTART Quarterly Review

Michael Colleran presented the MaineSTART report for the quarter ending June 30, 2022. Michael reviewed the various plans available to participants as well as investment options. He shared 17 of 18 employers audit findings on participation agreements have been resolved. Michael stated the transition from the 2015 target date fund is complete, and a review of the STAR Fund will begin this month.

Chip Gavin stated expansion of communication to school units offering MaineSTART to teachers is underway.

RETIREE HEALTH INSURANCE POST-EMPLOYMENT BENEFITS INVESTMENT TRUST

Agreement with Teacher Plan Trustee

Michael Colleran presented the Trustees with a proposed agreement between the Board members, as trustees of the Retiree Health Insurance Post-Employment Benefits Investment Trust Fund, and the trustee of the Irrevocable Trust Fund for Other Post-Employment Benefits for Teachers to govern the relationship between the two funds. Michael discussed and answered questions from the Trustees.

- Action. Motion made by Ken Williams, seconded by Shirrin Blaisdell, that the Board members, as trustees of the Retiree Health Insurance Post-Employment Benefits Investment Trust Fund, authorize the Board Chair to enter into and execute the proposed agreement with the Irrevocable Trust Fund for Other Post-Employment Benefits for Teachers on their behalf. Voted unanimously by eight Trustees (Beliveau, Blaisdell, Brunton, Kimball, Metivier, Noyes, Olson, and Williams).

RULEMAKING

Amendment to Rule Chapter 509

Michael Colleran provided the Trustees with a recommendation for amendments to Rule 509 (determining whether an applicant for disability retirement is unable to perform the duties of their employment position).

- Action: Motion made by Dick Metivier, seconded by Ken Williams, that the Board adopt amended Rule Chapter 509 and its Basis Statement. Voted unanimously by eight Trustees (Beliveau, Blaisdell, Brunton, Kimball, Metivier, Noyes, Olson, and Williams).

Amendment to Rule Chapter 702

Michael Colleran provided the Trustees with a recommendations for amendments to Rule 702 (process for appeals of decisions of the CEO).

- Action. Motion by Shirrin Blaisdell, seconded by Dick Metivier, that the Board adopt amended Rule Chapter 702 and its Basis Statement. Voted unanimously by eight Trustees (Beliveau, Blaisdell, Brunton, Kimball, Metivier, Noyes, Olson, and Williams).

OPERATIONS AND MEMBER SERVICES REPORT

Michael Colleran shared that we have received the Government Finance Officers Association (GFOA) Certificate of Achievement for Excellence in Financial Reporting for our FY21 Annual Comprehensive Financial Report. This was the 18th year in a row that we have received this award. Congratulations to Sherry Vandrell and the accounting, finance, and investment staff who worked on preparing the report. Michael stated that Wipfli has provided a five-year internal audit plan and is working on completing their final report. CliftonLarsonAllen will be performing their first audit under the plan, which concerns the disability retirement program. He reported that one of the two HVAC units suffered a fan motor failure. The contractor replaced the fan motor and the system was back to normal operation within two days. He shared that vacancies within the organization continue to be filled. He also stated that work with Vitech to provide a member self-service portal continues.

Chip Gavin reported that the retroactive COLA adjustment for eligible PLD participants was implemented with the August payroll. Various means of communication was used to notify recipients of the COLA prior to receipt. Chip shared that an electronic communication pilot project was done in August. Over 5,000 members and retirees were surveyed regarding electronic communications. Chip stated that MaineSTART eligibility for teachers is now available and teacher employers have been reaching out for possible participation.

LITIGATION UPDATE

Betsy Stivers reported that in the personnel matter, the discovery deadline has been extended to mid-November. Betsy shared a new motion was received to amend both FOA cases to add four new counts.

BOARD SELF-EVALUATION

- Action. Motion made by Dick Metivier, seconded by John Kimball, that the Board enter into executive session pursuant to 1 M.R.S. §405(6)(A) to discuss evaluation of a group of public officials. Voted unanimously by seven Trustees (Beliveau, Blaisdell, Brunton, Kimball, Metivier, Noyes, and Williams). With one Trustee not voting (Olson).

ADJOURNMENT

- Action. Mark Brunton made a motion, seconded by John Beliveau, to adjourn the September Board of Trustees meeting. Voted unanimously by eight Trustees (Beliveau, Blaisdell, Brunton, Kimball, Metivier, Noyes, Olson, and Williams).

The meeting adjourned at approximately 12:15 p.m.

10/13/22
Date Approved by the Board

Dr. Rebecca M. Wyke, Chief Executive Officer

Date Signed

Appeal #2022-003

STATE OF MAINE
MAINE PUBLIC EMPLOYEES RETIREMENT SYSTEM

JOHN YORK,	)	
	)	
Appellant.	)	**ORDER OF DISMISSAL**
	)	
Appeal of Executive Director's Decision	)	
Discontinuing Eligibility for Disability	)	
Retirement Benefits	)	

On May 18, 2022, the System determined that John York was no longer eligible for disability retirement benefits on the basis that he had not shown that he was unable to engage in substantially gainful activity. Mr. York filed a timely notice of appeal.

On September 1, 2022, a prehearing teleconference was convened. Mr. York was present and was represented by John Chapman, Esq. N. Quinn Collins, Esq., represented the System. During the conference, through counsel, Mr. York indicated that he wished to withdraw his appeal and confirmed his understanding that he would be precluded from refiling for disability retirement benefits based on the same conditions as of his last date in service.

In accordance with the recommendation of the Hearing Officer pursuant to MainePERS Rule Chapter 702(8)(3)(A)(3), the appeal is hereby dismissed with prejudice.

Board of Trustees
Maine Public Employees Retirement System

By________________________________
Brian H. Noyes
Chair, Board of Trustees

Dated: ____________________________

Submitted by:

R Smith
____
Rebekah J. Smith, Esq.
Hearing Officer

September 1, 2022
Date

MAINEPERS

BOARD OF TRUSTEES MEMORANDUM

TO: BOARD MEMBERS

FROM: DR. REBECCA M. WYKE, CEO

SUBJECT: MAINEPERS 2022 MEMBER SATISFACTION SURVEY

DATE: OCTOBER 5, 2022

POLICY REFERENCE

Board Policy 5.2 – Service to Members, Retirees, Employers and Stakeholders

MainePERS conducted a member satisfaction survey August 16 – 31, 2022. A random selection of 5000 members from the State Sponsored and Participating Local District Plans were identified to receive the survey. A copy of the active and retired members surveys are attached.

Active Members Survey

MainePERS has approximately 52,000 active members currently employed by a participating employer. In late June 2022, 2,500 active members were randomly selected to receive the survey. Those selected had a mailing and email address on file, received a pension contribution from their employer within the last 60 days, and had no disbursement of contributions. Two hundred and thirty-six (236) active members responded to the survey, an 11% response rate of those delivered.

Of those responding, 68.67% rate their overall satisfaction with MainePERS as “satisfied” or “very satisfied”, 26.61%% “neutral” or “no opinion”, and 4.72% “dissatisfied” or “very dissatisfied”. More than three quarters of respondents, 75.85%, stated they “agree” or “strongly agree” that MainePERS acts with integrity, 23.73% “neutral” or “no opinion”, and 0.42% “disagree” or “strongly disagree”. And, 65.81% “agree” or “strongly agree” that MainePERS staff are knowledgeable, 31.20% “neutral” or “no opinion”, and 2.99% “disagree” or “strongly disagree”.

Responses to the survey questions suggest some desire for more frequent communication, information that is easier to understand, and more timely responses to questions raised. Responses also indicated an interest in pre-retirement informational meetings and retirement security planning seminars. Additionally, 73.73% of respondents indicated they would use a secure online member portal to access account information.

In their comments, active members expressed a desire for on-demand estimates of retirement benefits.

Retired Members Survey

MainePERS has approximately 48,000 retired members. In late June 2022, 2,500 retired members were randomly selected to receive the survey. Those selected had a mailing and email address on file and were service retirees who had received a benefit payment within the last 60 days. Four hundred and fifteen (415) retired members responded to the survey, a 19% response rate of those delivered.

Of those responding, 91.78% rate their overall satisfaction with MainePERS as “satisfied” or “very satisfied”, 6.04% “neutral” or “no opinion”, and 2.17% “dissatisfied” or “very dissatisfied”. Over ninety percent, 91.08%, stated they “agree” or “strongly agree” that MainePERS acts with integrity, 8.67% “neutral”, and 0.24% “disagree” or “strongly disagree”. And, 83.34% “agree” or “strongly agree” that MainePERS staff are knowledgeable, 14.97% “neutral” or “no opinion”, and 1.69% “disagree” or “strongly disagree”.

Responses to the survey suggest retired members are generally satisfied with frequency of communication, clarity of information, and timeliness of responses to questions raised. Responses also indicated an interest in cybersecurity awareness and preventing identity fraud. Additionally, 67.47% of respondents indicated they would use a secure online member portal to access account information.

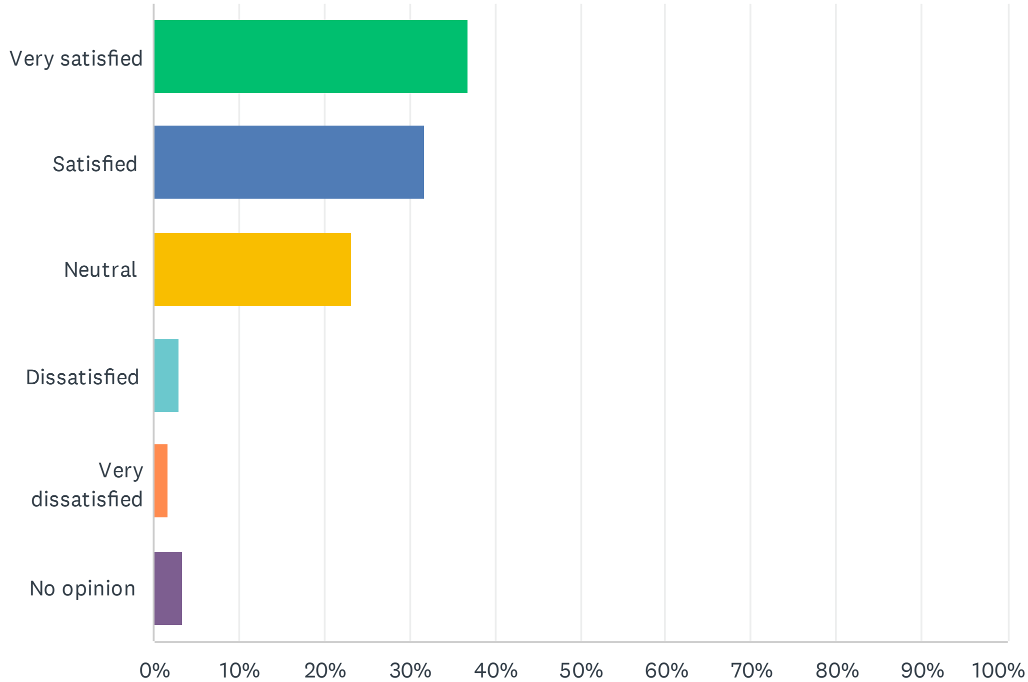
In their comments, retired members expressed concerns about the Social Security Windfall Elimination Provision and the Government Pension Offset, annual cost-of-living-adjustments not applied to the entire benefit, and retiree health insurance.

RECOMMENDATION

No Board action is recommended at this time.

Q1 Please rate your overall satisfaction with MainePERS

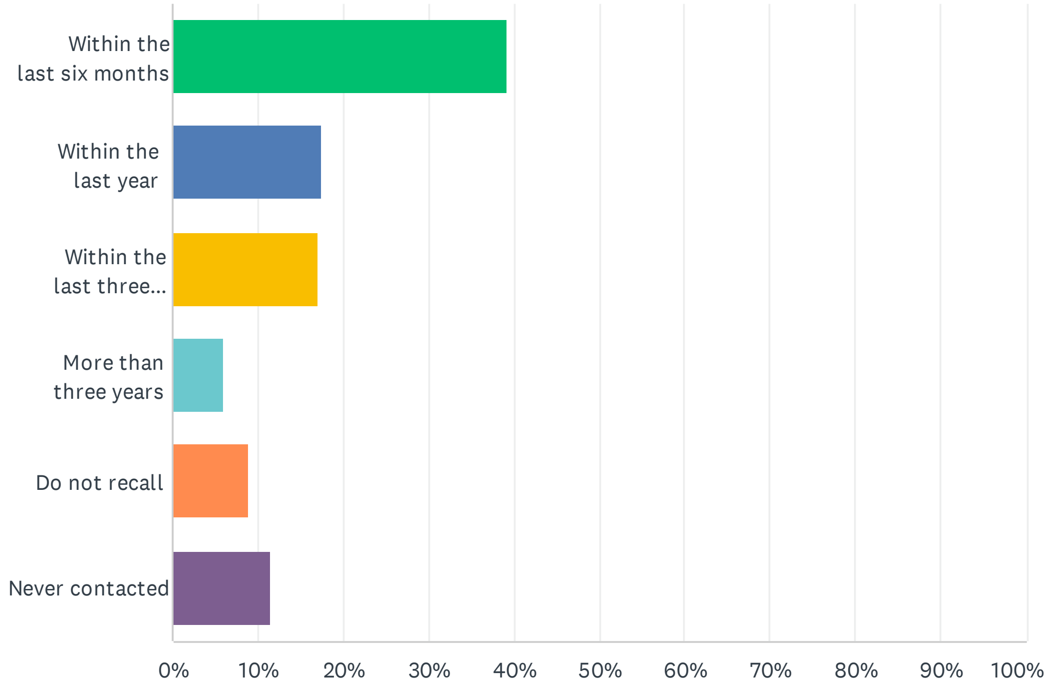
Answered: 233 Skipped: 3



ANSWER CHOICES	RESPONSES	
Very satisfied	36.91%	86
Satisfied	31.76%	74
Neutral	23.18%	54
Dissatisfied	3.00%	7
Very dissatisfied	1.72%	4
No opinion	3.43%	8
TOTAL		233

Q2 When was the last time you contacted MainePERS?

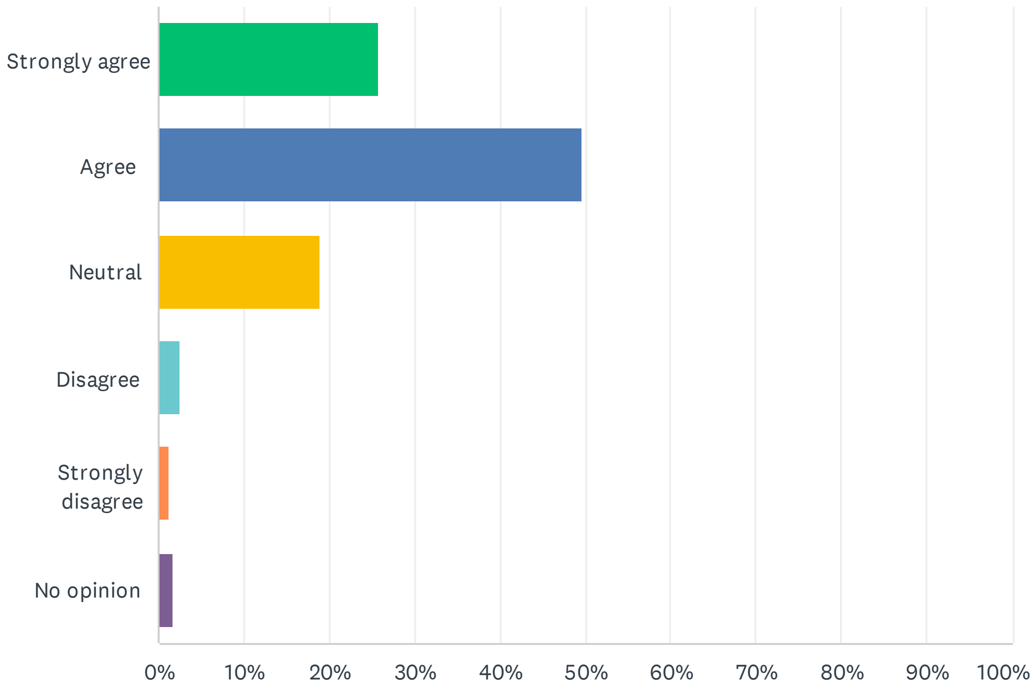
Answered: 235 Skipped: 1



ANSWER CHOICES	RESPONSES	
Within the last six months	39.15%	92
Within the last year	17.45%	41
Within the last three years	17.02%	40
More than three years	5.96%	14
Do not recall	8.94%	21
Never contacted	11.49%	27
TOTAL		235

Q3 I am confident my MainePERS retirement is secure and will be there for me

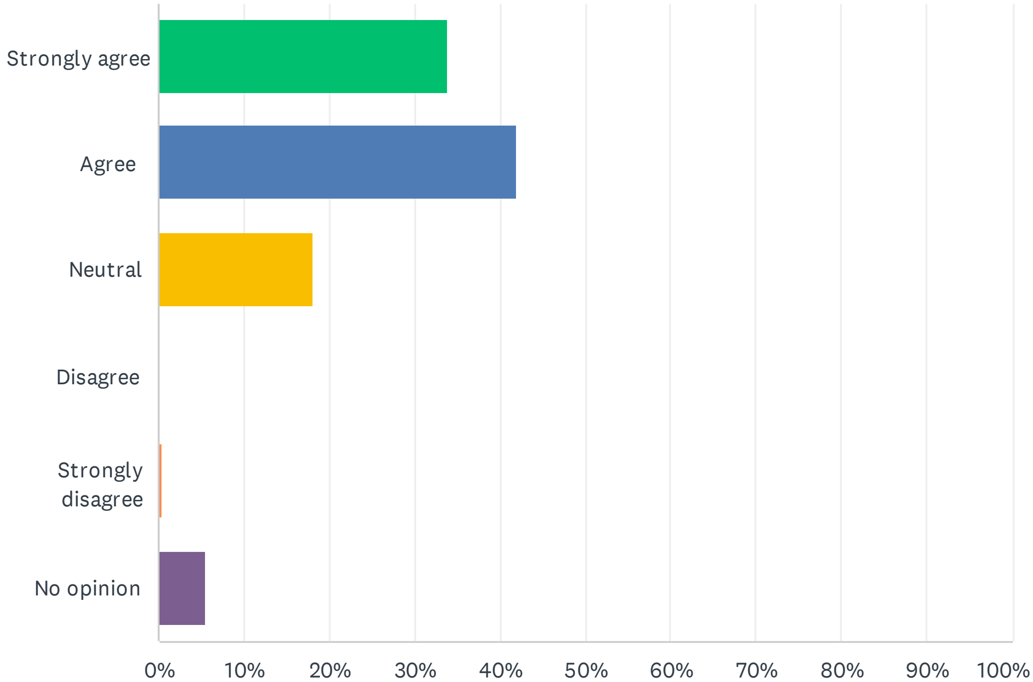
Answered: 236 Skipped: 0



ANSWER CHOICES	RESPONSES	
Strongly agree	25.85%	61
Agree	49.58%	117
Neutral	19.07%	45
Disagree	2.54%	6
Strongly disagree	1.27%	3
No opinion	1.69%	4
TOTAL		236

Q4 MainePERS acts with integrity

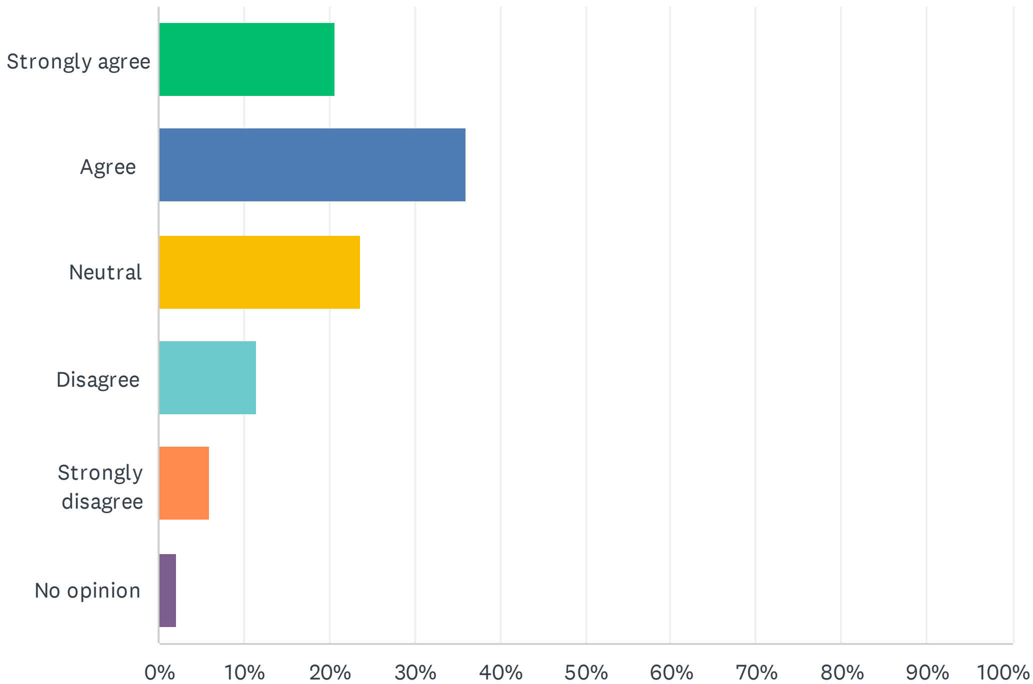
Answered: 236 Skipped: 0



ANSWER CHOICES	RESPONSES	
Strongly agree	33.90%	80
Agree	41.95%	99
Neutral	18.22%	43
Disagree	0.00%	0
Strongly disagree	0.42%	1
No opinion	5.51%	13
TOTAL		236

Q5 The frequency with which MainePERS communicates with me meets my expectations

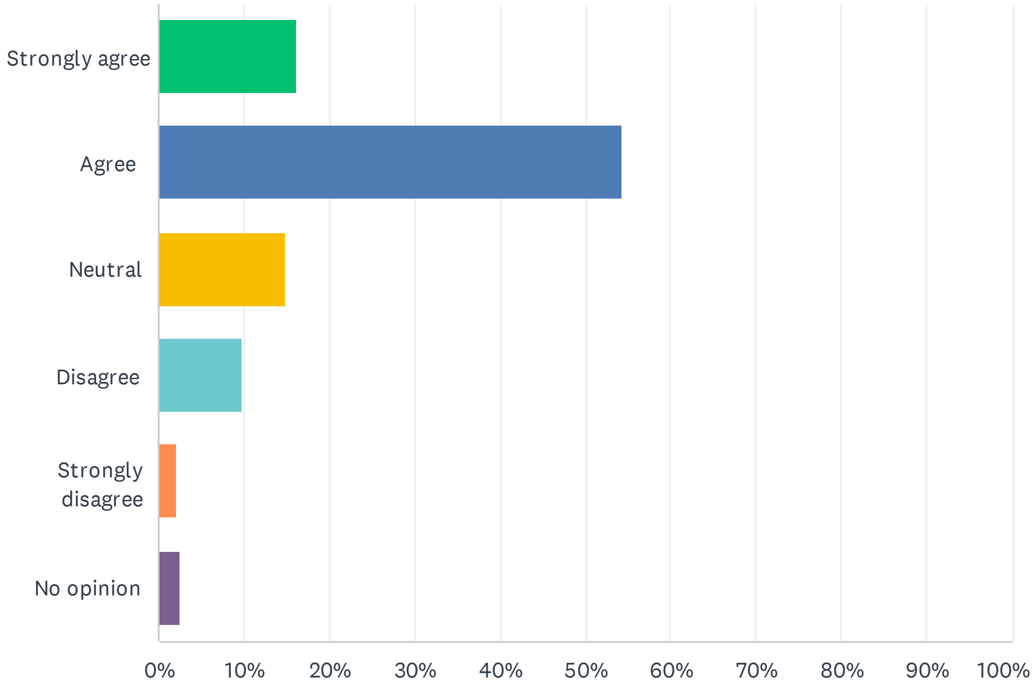
Answered: 236 Skipped: 0



ANSWER CHOICES	RESPONSES	
Strongly agree	20.76%	49
Agree	36.02%	85
Neutral	23.73%	56
Disagree	11.44%	27
Strongly disagree	5.93%	14
No opinion	2.12%	5
TOTAL		236

Q6 Information I receive from MainePERS is easy to understand

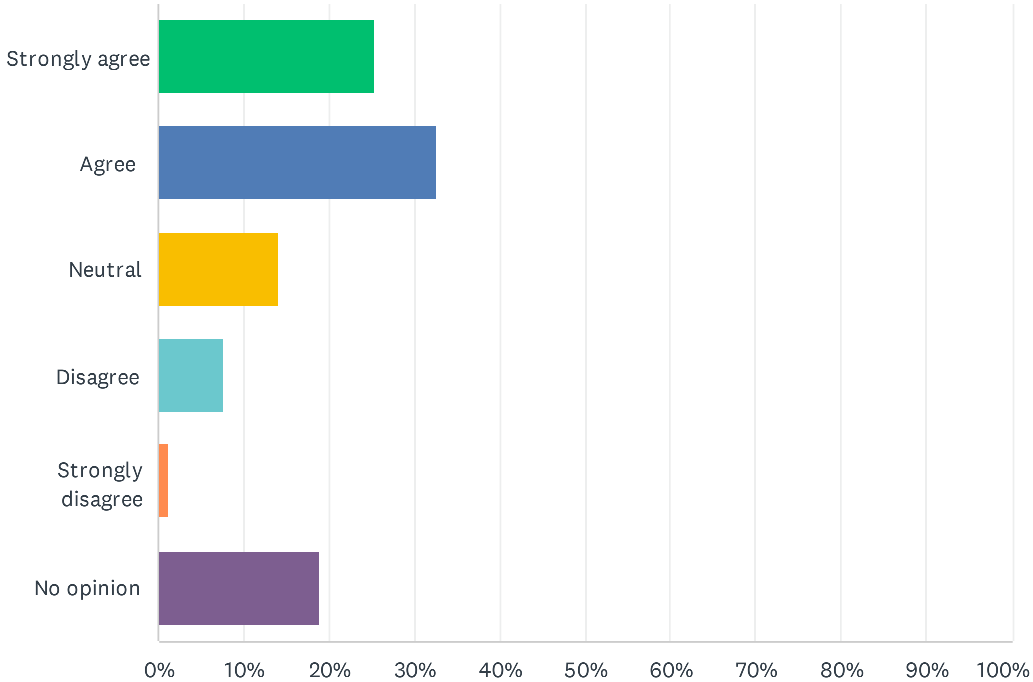
Answered: 235   Skipped: 1



ANSWER CHOICES	RESPONSES	
Strongly agree	16.17%	38
Agree	54.47%	128
Neutral	14.89%	35
Disagree	9.79%	23
Strongly disagree	2.13%	5
No opinion	2.55%	6
TOTAL		235

Q7 MainePERS responds to my questions in a timely manner

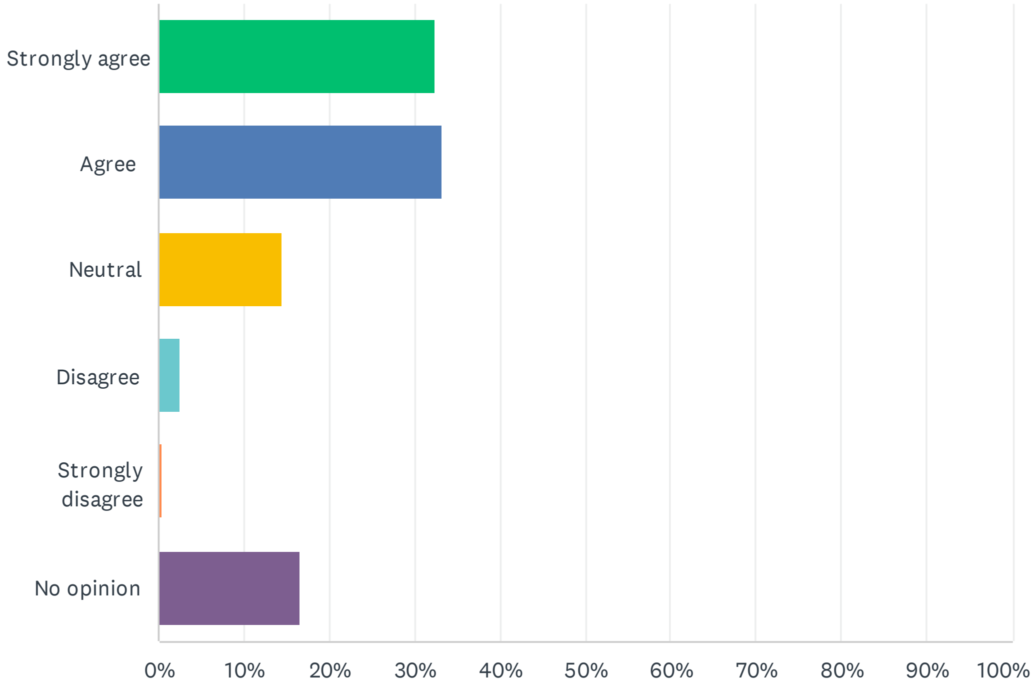
Answered: 236 Skipped: 0



ANSWER CHOICES	RESPONSES	
Strongly agree	25.42%	60
Agree	32.63%	77
Neutral	13.98%	33
Disagree	7.63%	18
Strongly disagree	1.27%	3
No opinion	19.07%	45
TOTAL		236

Q8 MainePERS Staff are knowledgeable

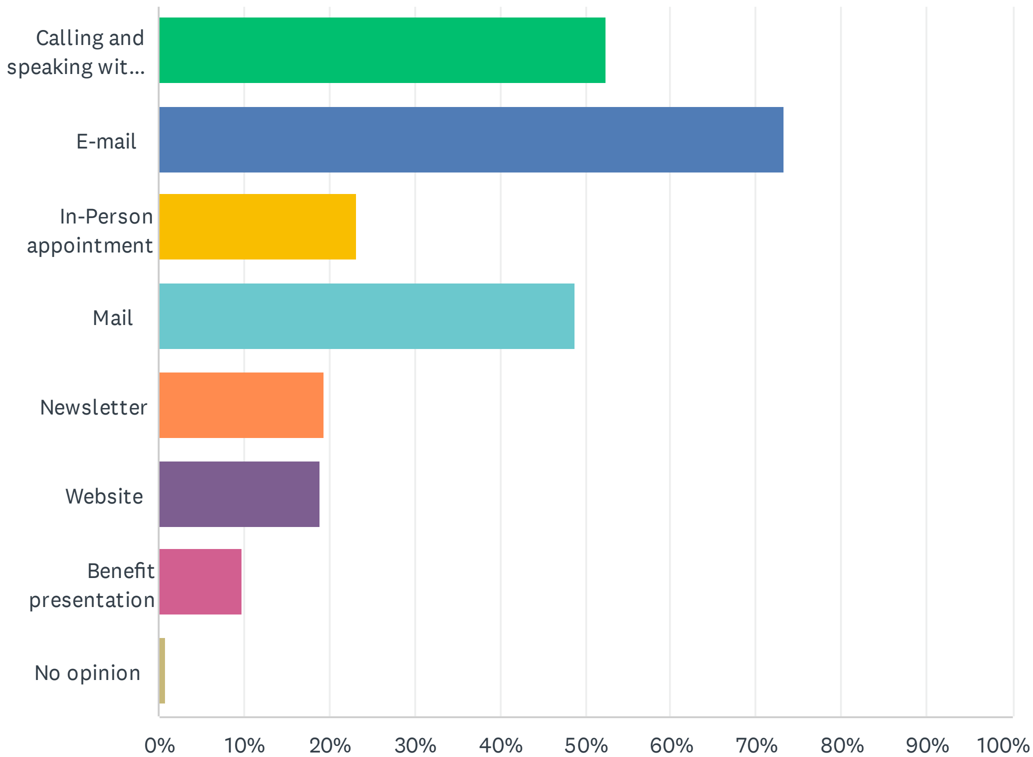
Answered: 234 Skipped: 2



ANSWER CHOICES	RESPONSES	
Strongly agree	32.48%	76
Agree	33.33%	78
Neutral	14.53%	34
Disagree	2.56%	6
Strongly disagree	0.43%	1
No opinion	16.67%	39
TOTAL		234

Q9 I prefer to receive information from MainePERS by this method: (Please select up to three options)

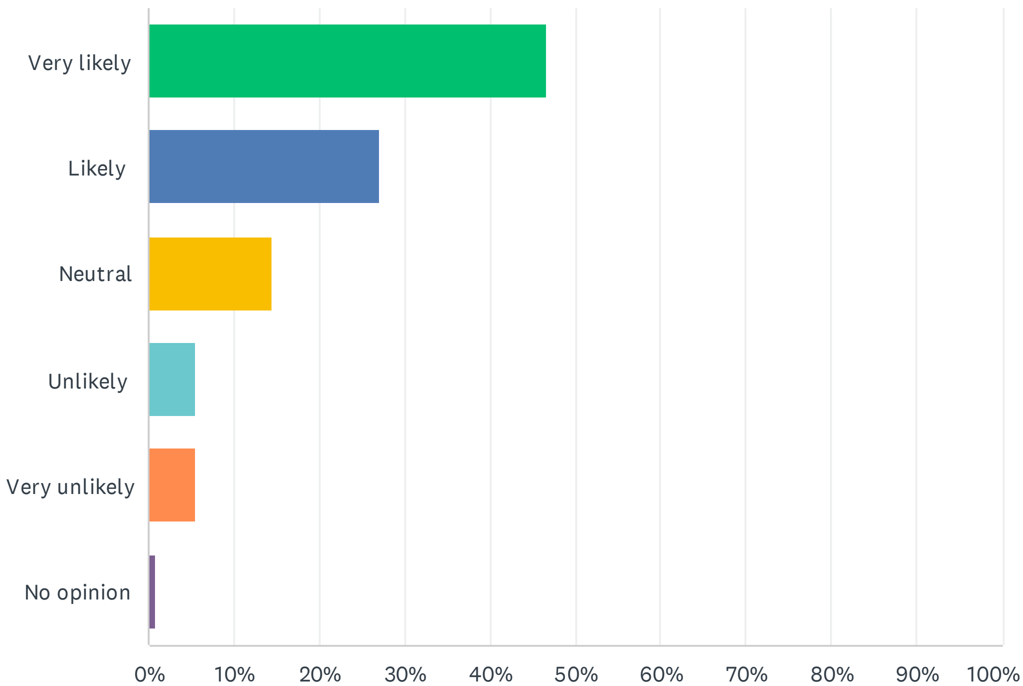
Answered: 236 Skipped: 0



ANSWER CHOICES	RESPONSES	
Calling and speaking with a Member Services Representative	52.54%	124
E-mail	73.31%	173
In-Person appointment	23.31%	55
Mail	48.73%	115
Newsletter	19.49%	46
Website	19.07%	45
Benefit presentation	9.75%	23
No opinion	0.85%	2
Total Respondents: 236		

Q10 MainePERS is exploring an initiative that would provide a secure Online Member Portal where members could obtain account information and potentially otherwise interact with MainePERS.How likely would you be to use a secure Online Member Portal?

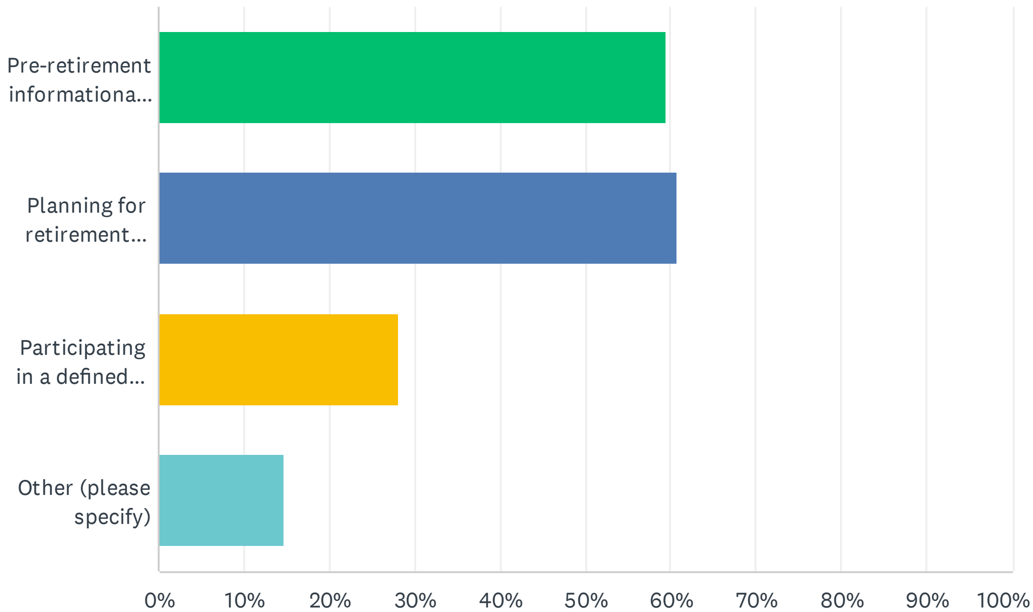
Answered: 236 Skipped: 0



ANSWER CHOICES	RESPONSES	
Very likely	46.61%	110
Likely	27.12%	64
Neutral	14.41%	34
Unlikely	5.51%	13
Very unlikely	5.51%	13
No opinion	0.85%	2
TOTAL		236

Q11 From the items below, please check items which you would be interested in (Please select all that apply):

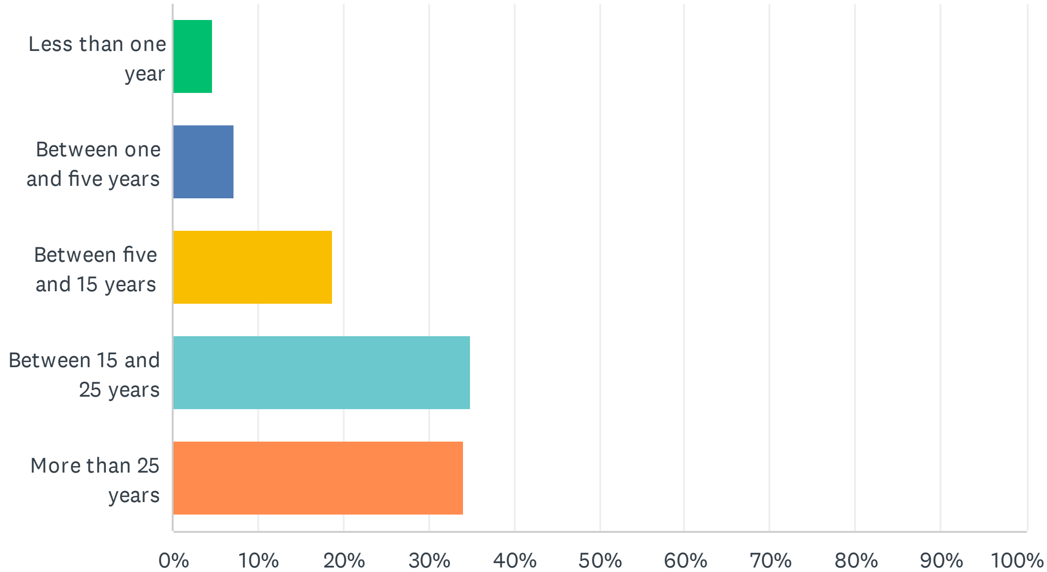
Answered: 178 Skipped: 58



ANSWER CHOICES	RESPONSES	
Pre-retirement informational meetings	59.55%	106
Planning for retirement security seminars/webinars	60.67%	108
Participating in a defined contribution plan (401 and 457 plans or Roth IRA)	28.09%	50
Other (please specify)	14.61%	26
Total Respondents: 178		

Q12 How long have you been a member of MainePERS?

Answered: 234 Skipped: 2



ANSWER CHOICES	RESPONSES	
Less than one year	4.70%	11
Between one and five years	7.26%	17
Between five and 15 years	18.80%	44
Between 15 and 25 years	35.04%	82
More than 25 years	34.19%	80
TOTAL		234

Q13 Please feel welcome to provide any additional feedback.

Answered: 63 Skipped: 173

End Date	From the items below, please check items which you would be interested in (Please select all that apply):	Please feel welcome to provide any additional feedback.
	Other (please specify)	Open-Ended Response
2022-08-31 08:23:03		
2022-08-30 19:00:45	N/A	No comment
2022-08-30 11:02:49	new information	
2022-08-29 18:59:25		
2022-08-28 19:42:32	disability rolling into full retirement	will my insurance company change now that Anthem is questionable?
2022-08-28 11:53:40		
2022-08-27 10:51:20		
2022-08-26 08:15:21		When you retire, they should tell you that you do not get cola until you turn 62. i have been retired for three years without one. I turned 62 in January so i will not get on until 2023 Thats not right
2022-08-25 12:40:54	estimates on benefits to be received	It would be great to get official estimates about what benefit amount we should expect to receive upon retirement - updated perhaps every few years or so - and upon leaving state service.
2022-08-25 07:46:10		very helpful
2022-08-24 20:26:33		
2022-08-24 10:52:00	none	
2022-08-23 19:46:51		
2022-08-23 19:02:23		
2022-08-23 17:38:02		
2022-08-23 14:44:58		
2022-08-23 12:32:14		
2022-08-23 08:10:29		
2022-08-23 03:40:09		
2022-08-22 17:40:48		
2022-08-22 14:25:18		
2022-08-22 11:30:06		
2022-08-22 06:23:49		When I changed my address with my employer, they never notified PERS. As a union rep, how can I prevent that from happening to others or should I just remind members to contact PERS on their own? Is there a link on your site to request approximate retirement benefits as we get closer to retirement?
2022-08-21 17:16:08		
2022-08-21 16:52:49		
2022-08-21 13:54:56		
2022-08-21 08:05:40		
2022-08-21 07:21:44		I wish you would give out retirement “projections” so we can start planning for retirement before we are actually eligible.
2022-08-21 06:54:17		
2022-08-20 15:13:45		
2022-08-20 13:33:11		
2022-08-20 10:33:01		
2022-08-20 09:00:30		
2022-08-19 16:05:10		
2022-08-19 13:13:17		
2022-08-19 12:01:35		
2022-08-19 09:49:03		
2022-08-19 08:24:08		
2022-08-18 22:17:50		
2022-08-18 20:31:23		I think there should be pre retirement informational meetings. I am 56 and want to retire as soon as I’m eligible. It would be nice to be able to plan now and get information about my benefits. I know it’s not exact but would be helpful. Waiting until the year of retirement to talk with us seems ridiculous
2022-08-18 16:53:28		
2022-08-18 15:28:42		
2022-08-18 14:47:04		
2022-08-18 13:31:36		Keep up the good work!
2022-08-18 12:00:24		My initial call appointment with a representative for retirement information didn't go well. I was seeking a review of the retirement process since pre-retirement meetings were on hold during the pandemic. The representative only would respond to specific questions and provided the barest of responses. This is the only negative experience I've had. All mailings and a couple other calls since then have been helpful.
2022-08-18 11:31:14		It is very frustrating to have to call and then wait to receive paperwork via regular mail. I have been receiving an estimated retirement for almost six months and have received no updates on when my final compensation will be calculated. I'm not entirely confident in the calculation either, as I found that when I did call I seemed to get a different answer to the same question each time I spoke to someone new. I think it is way past due to be able to log into an account for our information.

2022-08-18 10:45:15		I feel I would have made a different retirement date had I had better counseling re retirement benefits and best time for me to retire. None was offered.
2022-08-18 10:35:24		
2022-08-18 08:25:41		Thank you for your help and responsiveness while entering retirement.
2022-08-18 07:30:17		Periodic information on each individual's retirement status and expected monthly payment would be helpful.
2022-08-18 07:14:09		
2022-08-18 07:11:33		
2022-08-17 20:46:48		
2022-08-17 20:18:34		
2022-08-17 19:30:15	NA already retired	Everyone I spoke to was helpful, patient and knowledgeable.
2022-08-17 19:24:34	I'm retired !	
2022-08-17 17:31:47		
2022-08-17 17:22:33		
2022-08-17 17:22:23		
2022-08-17 16:29:10		The online portal idea is way past its due date. I expect you folks dont get many inquiries? Youre not very accessible compared to other organizations. This reach out to us is an indication you are going to refresh some long over due... Thank you so much!!! Embracing change is great.
2022-08-17 16:26:18		I contacted you, folks, by phone regarding the purchase service credit. Please check your own records for dates. I got a letter in response to my request dated June 21, 2022, way over six months later. You are now asking me how you did on a satisfaction survey. How about you tell me how you think you did? I took the time for your survey so I hope you take the time to respond. [...]
2022-08-17 15:48:09		
2022-08-17 14:31:00		
2022-08-17 13:08:20		
2022-08-17 12:45:30		
2022-08-17 12:32:05		
2022-08-17 12:13:54		
2022-08-17 11:39:35		
2022-08-17 11:36:05		
2022-08-17 10:47:42		
2022-08-17 10:27:50		
2022-08-17 09:55:05		
2022-08-17 09:32:16		I liked it when I received a check deposit confirmation each month in the US mail, rather than just seeing it on my bank account statement, but I realize that I am sour on the whole on line banking world.
2022-08-17 09:31:54		
2022-08-17 09:31:51	Panel to discuss retirement issues re: SS, GPOWEP, working and collecting pension	Would like to see changes to allow memebers to work and collect ful retirement without being penalized through Medicare, SS, IRS, etc.
2022-08-17 09:10:51		
2022-08-17 08:41:14		
2022-08-17 08:33:21		Would like a simple step by step outline of the retirement process and recommended best health benefit choices
2022-08-17 08:20:49		As I get closer to retirement, it would be nice to know exactly what I would need to do and how to maximize my final amount. And, what options I have.
2022-08-17 08:10:37		
2022-08-17 07:43:58		
2022-08-17 06:39:12		Love the idea of a portal where employees can check on their individualized accounts!
2022-08-17 06:06:48		
2022-08-17 05:57:26		
2022-08-17 04:32:56		
2022-08-16 21:56:09		
2022-08-16 21:51:13		should be able to request retirement numbers more than once a year. would like to have an estimate what retirement check would look like after taxes
2022-08-16 21:46:03		
2022-08-16 21:42:01		
2022-08-16 21:15:47		
2022-08-16 21:08:00		
2022-08-16 20:54:13		
2022-08-16 20:44:40		
2022-08-16 20:28:53		
2022-08-16 20:24:09		
2022-08-16 20:22:38		
2022-08-16 20:17:56		
2022-08-16 19:38:44		I'm retiring soon, it's been very easy to contact Maine Pers, the information has been presented and given to me timely
2022-08-16 19:28:59		
2022-08-16 19:12:16		I just wish I got a yearly statement - I have NO idea what is in my pers account!
2022-08-16 19:02:42		

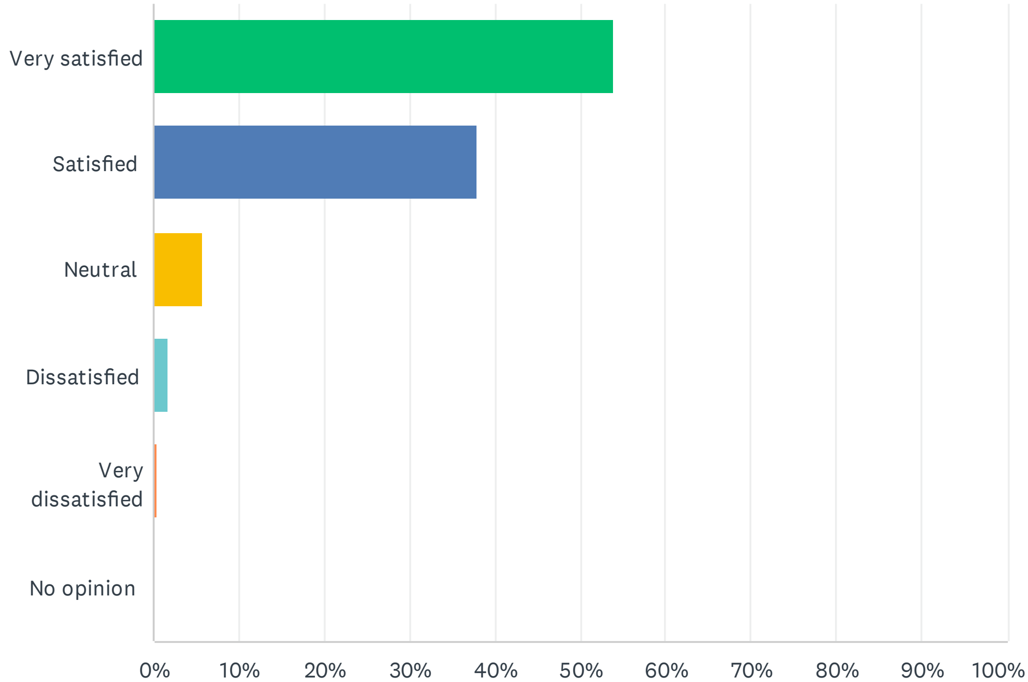
2022-08-16 19:02:26	Account status/amount currently in my account.	Being able to get updates on what is in an account on an immediate basis is useful for both long term planning for a MEPERS account, but for all retirement and financial planning.
2022-08-16 18:41:39		
2022-08-16 18:39:06		
2022-08-16 18:37:36		
2022-08-16 18:32:10		I'm close very anxious to retire and also to find out how my retirement is going to count out
2022-08-16 18:19:10		
2022-08-16 18:12:33	Purchase service time	
2022-08-16 18:02:27		
2022-08-16 17:59:30		
2022-08-16 17:50:32		
2022-08-16 17:32:41		
2022-08-16 17:25:33		
2022-08-16 17:15:59		
2022-08-16 17:10:22		
2022-08-16 17:01:29		
2022-08-16 17:00:04	To not make me feel like I am a liar about my medical issues.	I have been a disabled retiree for 10 years now. They seem to think I will recover from my disabilities as I get older. The older I get, the worse I get. I can't, and won't go back to work. My neuropathy is up to my knees, and now have it in both my hands.
2022-08-16 16:55:13		
2022-08-16 16:44:16		
2022-08-16 16:40:04		
2022-08-16 16:39:27		Thanks for reaching out to ask for my opinion.
2022-08-16 16:24:21		
2022-08-16 16:16:23		Thanks for the survey!
2022-08-16 16:15:19		
2022-08-16 15:56:02		
2022-08-16 15:54:05		
2022-08-16 15:53:24		
2022-08-16 15:53:13	I just retired two months ago and all of the above would have been beneficial.	
2022-08-16 15:51:22		
2022-08-16 15:50:45		
2022-08-16 15:45:16		
2022-08-16 15:42:26		
2022-08-16 15:33:08	monthly news letters are great	I am very happy with information made available to me!
2022-08-16 15:24:04		
2022-08-16 15:20:13		Our pension calculation is difficult to decipher and I don't see any good literature on it. I'm in the PLD special plan (firefighters). Information about "bad time" is hard to come by, bad time meaning absences from work ie. FML, layoffs.
2022-08-16 15:16:30		I is absolutely ABSURD that I was REQUIRED to sign up for this at a part time employee with Oxford County after leaving 28 years ago for federal employment. When I returned to work part time I was not allowed to opt out. This is the stupidest thing I can fathom as I have absolutely no intention of working for more than a few years and already have multiple retirement accounts. Purely a money grab for mainepers.
2022-08-16 14:44:33	Windfall Elimination Act	I appreciate all they do.
2022-08-16 14:40:59	I no longer have any funds in MainePERS	I no longer have any funds in my MainePERS account but my answers are based on past experience. Very pleased.
2022-08-16 14:18:43		
2022-08-16 14:11:27		
2022-08-16 14:10:22		
2022-08-16 13:52:53	I am already retired.	Any time I needed information or clarification MainePers reps were very helpful, easy to understand and pleasant. I appreciate the calendar so I can know when to expect the next direct deposit.
2022-08-16 13:44:20		
2022-08-16 13:44:17		
2022-08-16 13:33:24		Recently , a message was sent in regards to lessen postal mail, myself and others known, do not use the computer much ,so it should BE an option
2022-08-16 13:30:15		
2022-08-16 13:25:34		Having more information about insurance that is cut and dry. I had a difficult time trying to understand it
2022-08-16 13:06:01		
2022-08-16 13:02:15		Very comfortable on how MainePers is organized and keeping us informed. Thank you
2022-08-16 12:49:13		
2022-08-16 12:49:08		
2022-08-16 12:44:16	I am already retired.	
2022-08-16 12:39:07		
2022-08-16 12:29:39		☺
2022-08-16 12:27:25		

2022-08-16 12:18:52		Than you for your service
2022-08-16 12:13:05		
2022-08-16 12:11:03		
2022-08-16 12:09:20	For future retirees, better info on benefits of retaining life insurance with employers as it has benefits in retirement.	
2022-08-16 12:07:26	Keeping tabs on my pension	I appreciate this service. I believe a portal will be a helpful means of communicating
2022-08-16 11:58:39		
2022-08-16 11:56:31		Representatives are always very personable, patient, and helpful! Thank you for all you do
2022-08-16 11:52:04		
2022-08-16 11:46:40		
2022-08-16 11:44:47		
2022-08-16 11:37:45		
2022-08-16 11:34:39		
2022-08-16 11:26:40		
2022-08-16 11:24:52		
2022-08-16 11:18:41	Stop pers from stealing my pay and wrecking my social security	I started in the system at age 59 and am not likely to ever see much if any of the money I'm paying in. Being part of pers also fucks up my social security and no one a pers seems to understand any of this.
2022-08-16 11:17:53		
2022-08-16 11:17:35	More & specific info about my best options in face to face mtgs with knowledgeable staff person.	I retired in Feb, 2014 & wish I would have received better advice from a more knowledgeable staff about what would be my best options for my pension. For instance I chose to have my wife receive a diminishing benefit which I believe ended already after 7yrs. With the right advice I would have chosen to take my max monthly benefit instead. Because using the Life insurance industry standard, I have been projected to live into my 80's & beyond give my health & lifestyle. Please have someone at MEPERS call me. [...]
2022-08-16 11:14:02		
2022-08-16 11:12:27		They due a great job , the system works, please dont mess with it ! (-:
2022-08-16 11:00:56		
2022-08-16 11:00:28		I work for mainepers
2022-08-16 10:59:17		
2022-08-16 10:58:19		
2022-08-16 10:50:40		
2022-08-16 10:47:38		
2022-08-16 10:42:19		
2022-08-16 10:38:51	Pre-retirment information & advice via email, newsletter, or if I call.	When I transition into retirement I will need guidance from MainePers, and will be depending on them to provide all the options available to me, and answer any questions I might have.
2022-08-16 10:38:11		
2022-08-16 10:35:17		
2022-08-16 10:30:32		
2022-08-16 10:29:02		My only call I've made I was inquiring about what my retirement numbers would like based on my current time in, if nothing changed. The person I spoke with said She wasn't allowed to provide that information to me because I wasn't close enough to retirement. I feel this is unfair as I have no way of knowing if it's in my best interest to work more to drive to my retirement numbers.
2022-08-16 10:28:52		
2022-08-16 10:26:13		
2022-08-16 10:20:44		Thank you for alerting me to LD290 - property stabilization act for seniors. I've been able to help myself and my friends because of your announcing this legislation.
2022-08-16 10:20:23		
2022-08-16 10:18:33		
2022-08-16 10:01:59		
2022-08-16 10:00:17		
2022-08-16 09:59:42		I receive different information each time I contact MPERS about retirement as it pertains to my plan of 25/55. I plan to retired(if possible) in 2024. It is frustrating and confusing when I receive several different interpretations of what/when retirement plan.
2022-08-16 09:58:23		
2022-08-16 09:56:07	Any additional information regarding resources that may be available to retirees in the area in which they live.	The person I spoke with this morning was very polite, attentive and knowledgeable regarding my questions and needs. I found her to be extremely helpful.
2022-08-16 09:50:17		
2022-08-16 09:50:07	Informational "packets" available by subject in a powerpoint presentation format that would answer all questions related.	I LOVE the idea of an online member portal! My questions with retirement related things have to do with making sure my benefits are going where they should, knowing how many years of service I have, knowing how much I have contributed to retirement and how much I would be getting when I retire. Will all of that be available in this portal? Thanks!

2022-08-16 09:48:25		I do hope you make information more readily available online. It's been a source of significant frustration for me that I have to wait for a postal delivery of my MainePERS Information.
2022-08-16 09:48:02		
2022-08-16 09:46:45		
2022-08-16 09:40:23		
2022-08-16 09:38:05		
2022-08-16 09:37:49		
2022-08-16 09:37:45	Person to person meeting	
2022-08-16 09:32:08		
2022-08-16 09:30:22		Thank you for your help.
2022-08-16 09:28:07		
2022-08-16 09:28:02		
2022-08-16 09:26:17		My interaction with MainePERS has been very limited to this point. I am going to be retiring in approx. 3 years, so I will be doing more communication in the near future.
2022-08-16 09:24:11		I realize you are short-staffed. But it is impacting the timeliness of information needed.
2022-08-16 09:23:46		When I filed my paperwork I was extremely nervous about completing it correctly. I was invited to take my paperwork into the office and have it checked over before I submitted it. So appreciated❤
2022-08-16 09:20:30		
2022-08-16 09:20:11		Recently worked with[…]. She was amazing to deal with....helpful, knowledgeable and friendly.
2022-08-16 09:18:34		
2022-08-16 09:18:32		After a virtual meeting this spring, I had follow up questions about my pending retirement that I sent in an E-mail to the worker I spoke with. Several months later, still no response.
2022-08-16 09:18:23		I would love it if there was an option to opt out of mainepers because it doesn't help me. I have worked part time for years but I haven't gained any benefits from it and I would be more interested in a 401k plan or IRA. Also I have never had any contact with anyone from mainepers. I don't even know how much I have invested. There is a true lack of communication in my experience.
2022-08-16 09:17:01		I have asked when my retirement monthly check will be increased to reflect my final benefit. No one is able to tell me when this will take place. I have been collecting my monthly check since Feb 1st and have called three times. Can anyone provide me with an idea when the final adjustment will take place? Thank you.
2022-08-16 09:16:34		I only hope and pray you can fight off the depredations of a new LePage administration. Some of us remember still the McKernan fiasco n
2022-08-16 09:16:10		
2022-08-16 09:12:01		
2022-08-16 09:11:50		
2022-08-16 09:11:25		
2022-08-16 09:11:00		
2022-08-16 09:09:30		
2022-08-16 09:09:11		
2022-08-16 09:08:57		
2022-08-16 09:08:02		
2022-08-16 09:07:50		
2022-08-16 09:07:39		
2022-08-16 09:06:22		
2022-08-16 09:06:22		
2022-08-16 09:05:41	what is the Maine State retirement benefit, how do other plans effect it	
2022-08-16 09:04:48		
2022-08-16 09:04:14		
2022-08-16 09:04:14		

Q1 Please rate your overall satisfaction with MainePERS

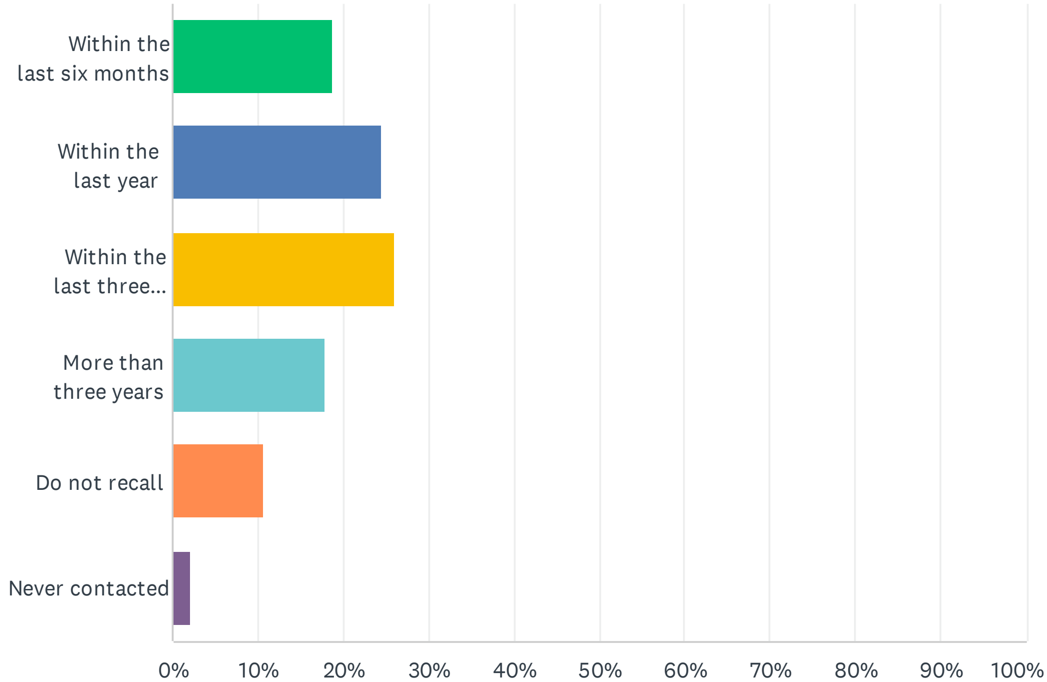
Answered: 414 Skipped: 2



ANSWER CHOICES	RESPONSES	
Very satisfied	53.86%	223
Satisfied	37.92%	157
Neutral	5.80%	24
Dissatisfied	1.69%	7
Very dissatisfied	0.48%	2
No opinion	0.24%	1
TOTAL		414

Q2 When was the last time you contacted MainePERS?

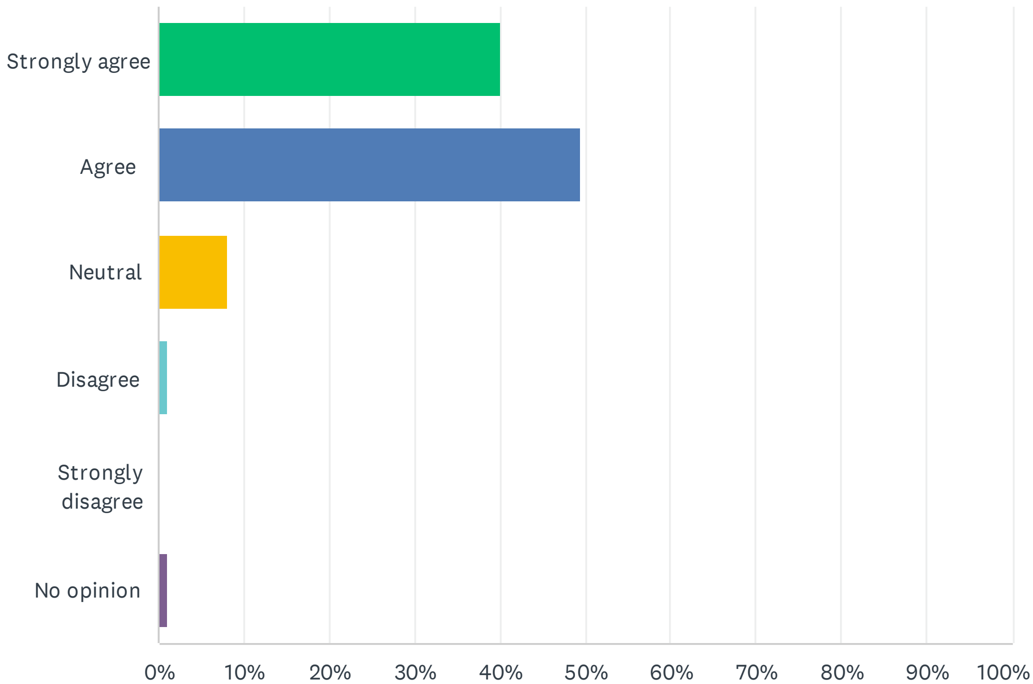
Answered: 415 Skipped: 1



ANSWER CHOICES	RESPONSES	
Within the last six months	18.80%	78
Within the last year	24.58%	102
Within the last three years	26.02%	108
More than three years	17.83%	74
Do not recall	10.60%	44
Never contacted	2.17%	9
TOTAL		415

Q3 I am confident my MainePERS retirement is secure and will be there for me

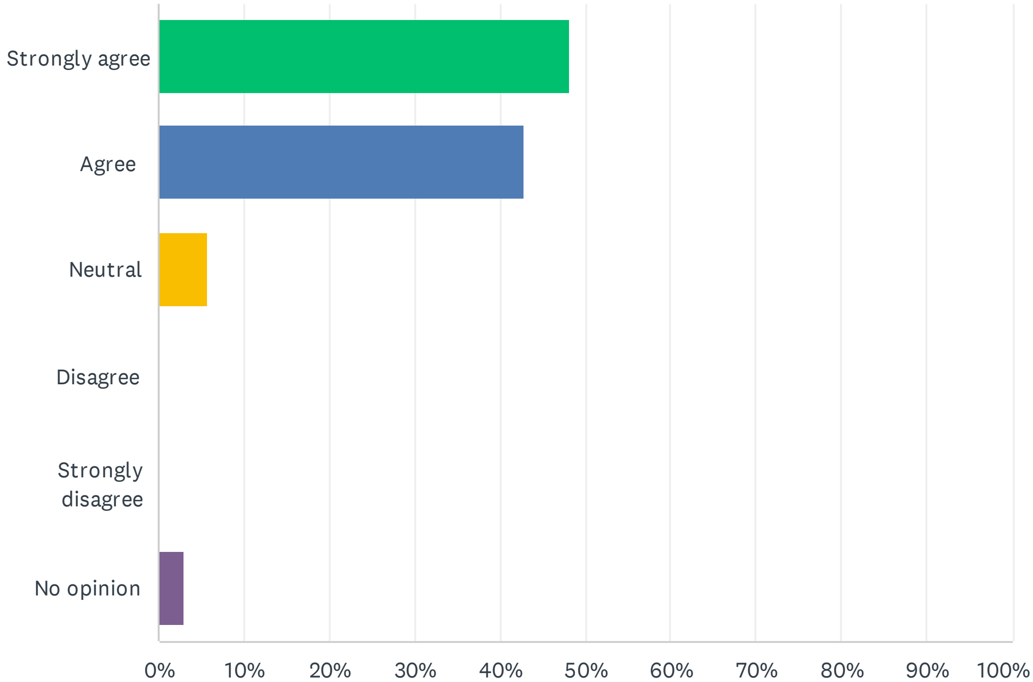
Answered: 416 Skipped: 0



ANSWER CHOICES	RESPONSES	
Strongly agree	40.14%	167
Agree	49.52%	206
Neutral	8.17%	34
Disagree	0.96%	4
Strongly disagree	0.24%	1
No opinion	0.96%	4
TOTAL		416

Q4 MainePERS acts with integrity

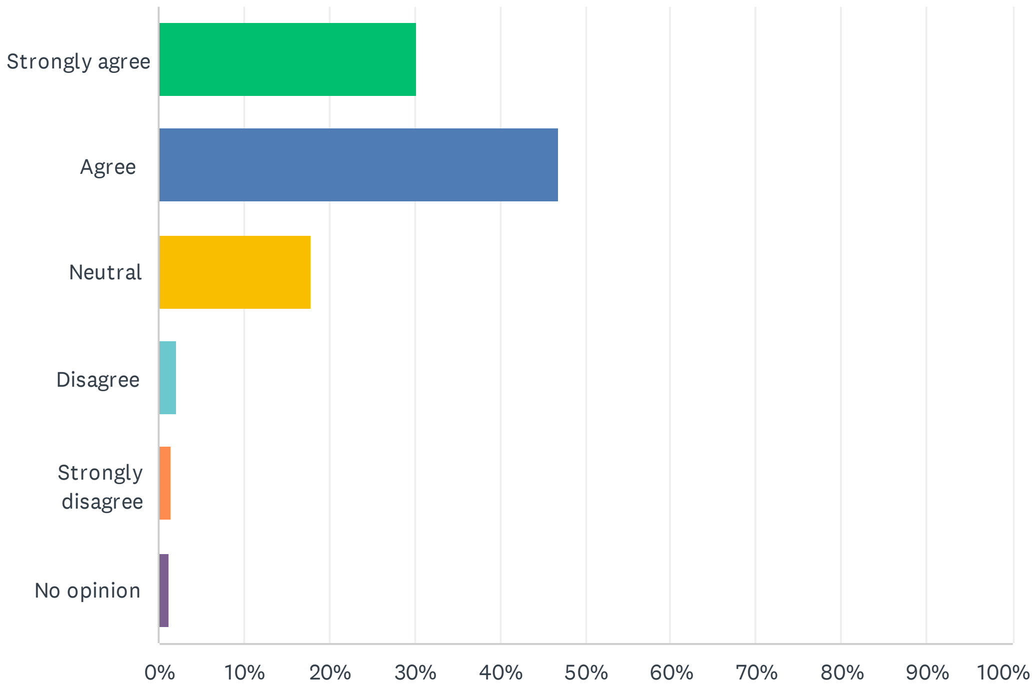
Answered: 415   Skipped: 1



ANSWER CHOICES	RESPONSES	
Strongly agree	48.19%	200
Agree	42.89%	178
Neutral	5.78%	24
Disagree	0.00%	0
Strongly disagree	0.24%	1
No opinion	2.89%	12
TOTAL		415

Q5 The frequency with which MainePERS communicates with me meets my expectations

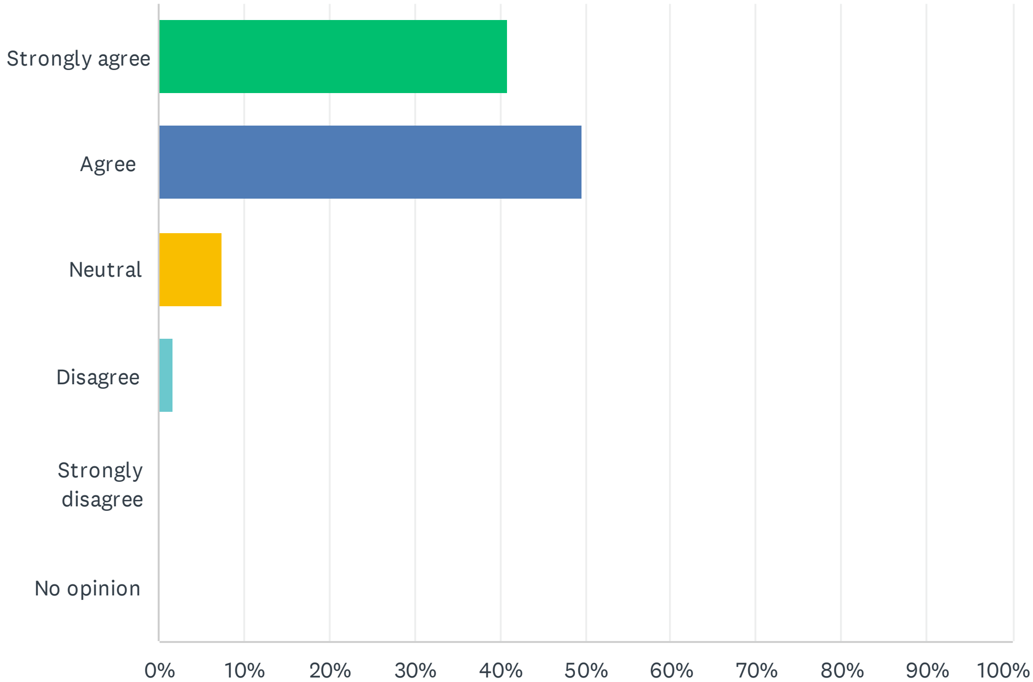
Answered: 415 Skipped: 1



ANSWER CHOICES	RESPONSES	
Strongly agree	30.36%	126
Agree	46.99%	195
Neutral	17.83%	74
Disagree	2.17%	9
Strongly disagree	1.45%	6
No opinion	1.20%	5
TOTAL		415

Q6 Information I receive from MainePERS is easy to understand

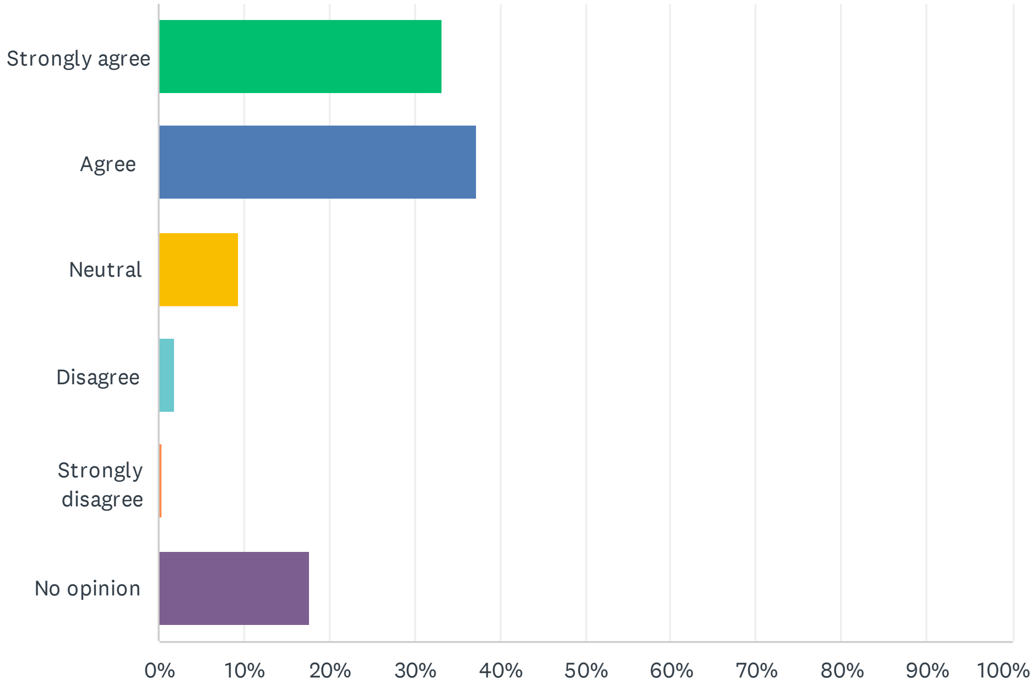
Answered: 413   Skipped: 3



ANSWER CHOICES	RESPONSES	
Strongly agree	40.92%	169
Agree	49.64%	205
Neutral	7.51%	31
Disagree	1.69%	7
Strongly disagree	0.24%	1
No opinion	0.00%	0
TOTAL		413

Q7 MainePERS responds to my questions in a timely manner

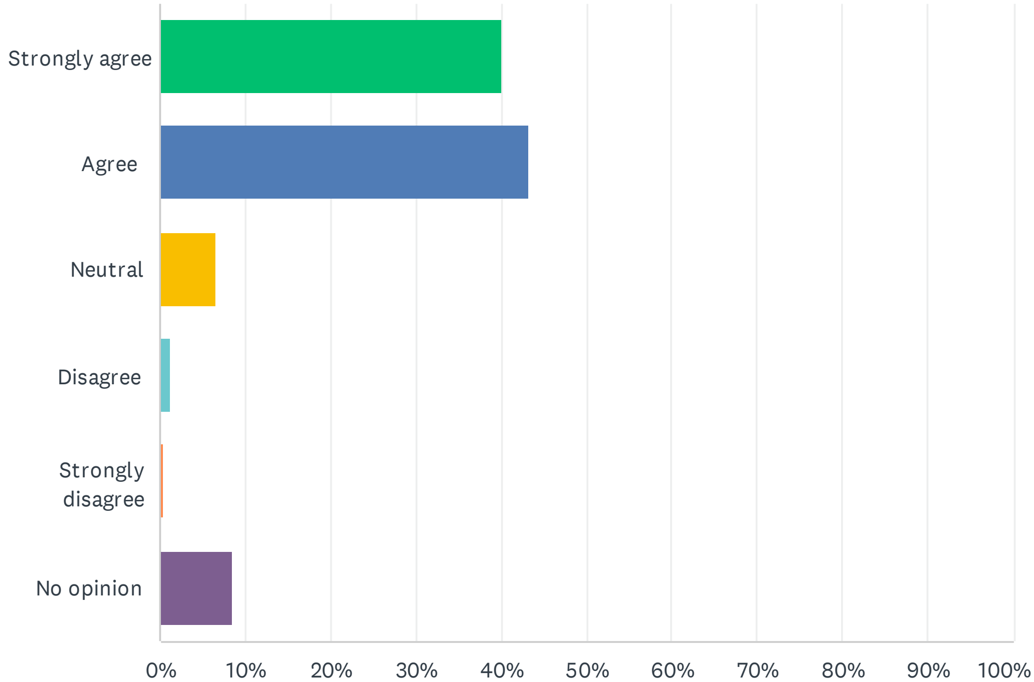
Answered: 413   Skipped: 3



ANSWER CHOICES	RESPONSES	
Strongly agree	33.17%	137
Agree	37.29%	154
Neutral	9.44%	39
Disagree	1.94%	8
Strongly disagree	0.48%	2
No opinion	17.68%	73
TOTAL		413

Q8 MainePERS Staff are knowledgeable

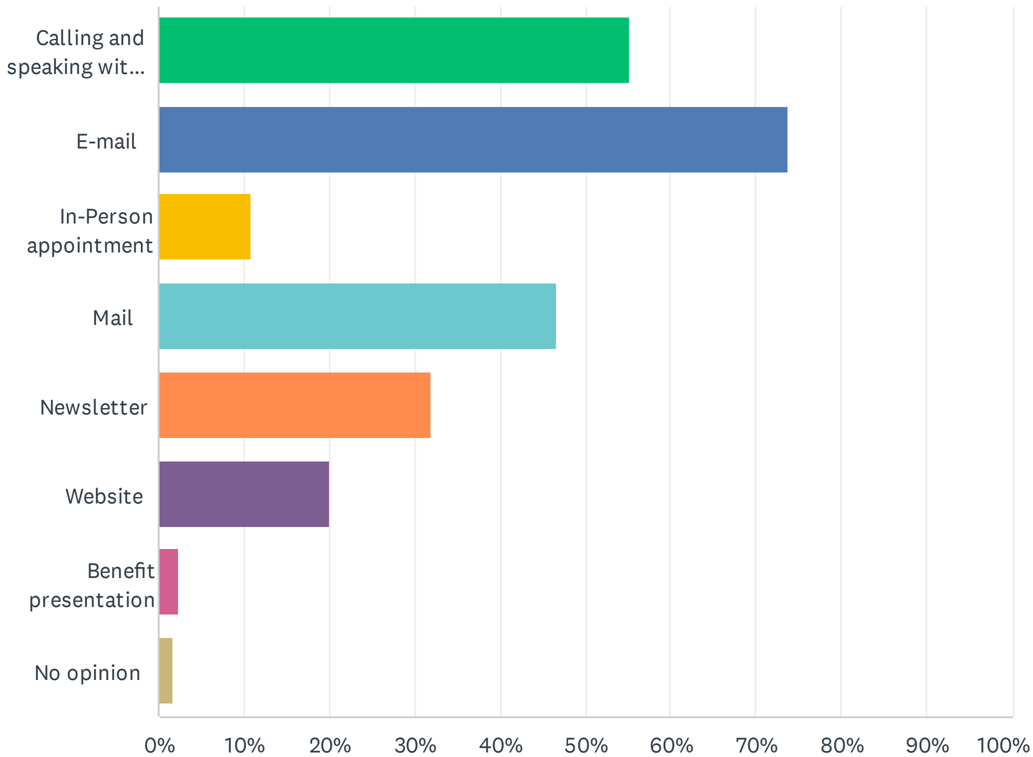
Answered: 414 Skipped: 2



ANSWER CHOICES	RESPONSES	
Strongly agree	40.10%	166
Agree	43.24%	179
Neutral	6.52%	27
Disagree	1.21%	5
Strongly disagree	0.48%	2
No opinion	8.45%	35
TOTAL		414

Q9 I prefer to receive information from MainePERS by this method: (Please select up to three options)

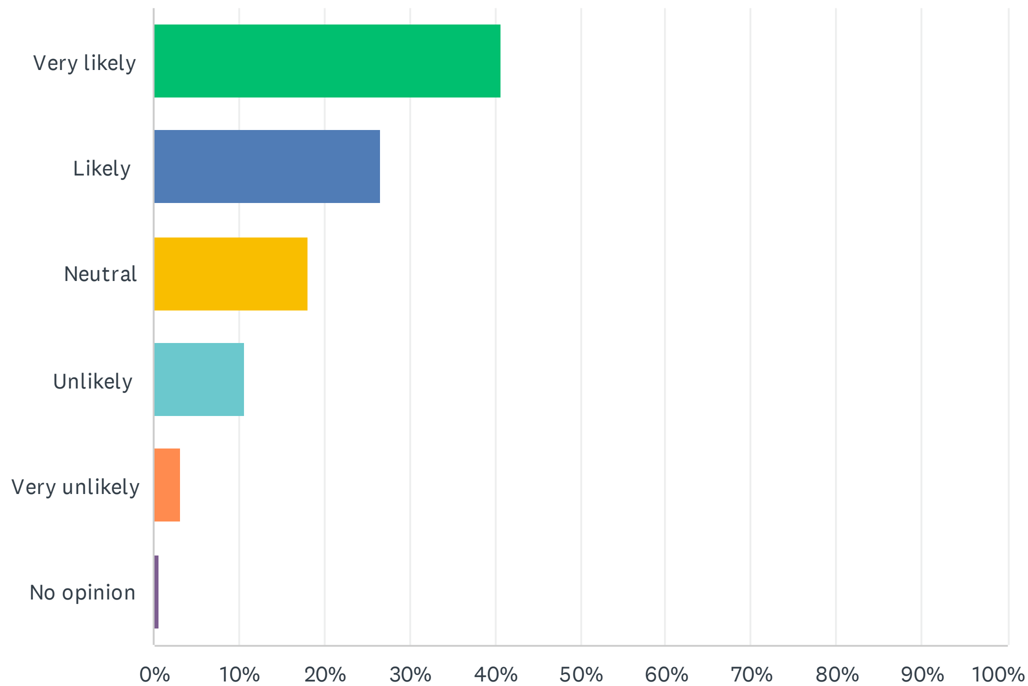
Answered: 416 Skipped: 0



ANSWER CHOICES	RESPONSES	
Calling and speaking with a Member Services Representative	55.29%	230
E-mail	73.80%	307
In-Person appointment	10.82%	45
Mail	46.63%	194
Newsletter	31.97%	133
Website	19.95%	83
Benefit presentation	2.40%	10
No opinion	1.68%	7
Total Respondents: 416		

Q10 MainePERS is exploring an initiative that would provide a secure Online Member Portal where members could obtain account information and potentially otherwise interact with MainePERS.How likely would you be to use a secure Online Member Portal?

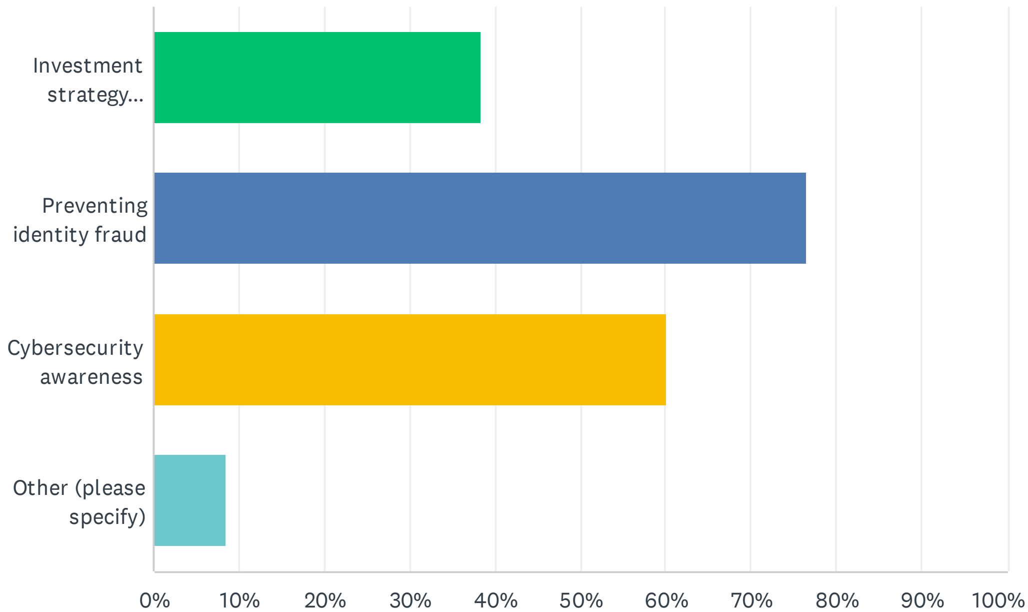
Answered: 415 Skipped: 1



ANSWER CHOICES	RESPONSES	
Very likely	40.72%	169
Likely	26.75%	111
Neutral	18.07%	75
Unlikely	10.60%	44
Very unlikely	3.13%	13
No opinion	0.72%	3
TOTAL		415

Q11 From the items below, please check items which you would be interested in (Please select all that apply):

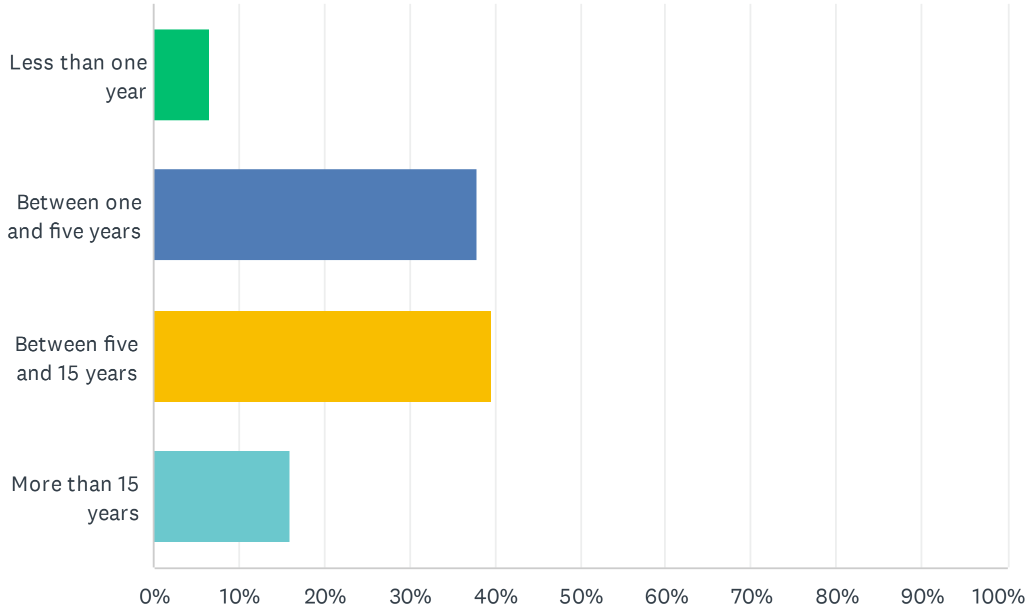
Answered: 359 Skipped: 57



ANSWER CHOICES	RESPONSES	
Investment strategy overviews	38.44%	138
Preventing identity fraud	76.60%	275
Cybersecurity awareness	60.17%	216
Other (please specify)	8.64%	31
Total Respondents: 359		

Q12 How long have you been receiving MainePERS retirement benefits?

Answered: 414 Skipped: 2



ANSWER CHOICES	RESPONSES	
Less than one year	6.52%	27
Between one and five years	37.92%	157
Between five and 15 years	39.61%	164
More than 15 years	15.94%	66
TOTAL		414

Q13 Please feel welcome to provide any additional feedback.

Answered: 106 Skipped: 310

End Date	From the items below, please check items which you would be interested in (Please select all that apply):	Please feel welcome to provide any additional feedback.
	Other (please specify)	Open-Ended Response
2022-08-31 16:46:28		
2022-08-31 08:50:11		
2022-08-28 12:04:01		
2022-08-26 15:37:45		
2022-08-26 14:21:40		
2022-08-26 07:33:53	Insurance issues with our program	
2022-08-25 11:00:58		
2022-08-24 22:46:13		
2022-08-24 10:11:57		
2022-08-23 20:29:42		
2022-08-23 17:36:01		
2022-08-23 17:07:17		
2022-08-23 14:12:29		Excellent service and follow through by your staff on my most recent call. I wish I could recall what their name was.
2022-08-23 12:58:48		My email: […]. not my husband's : […]
2022-08-23 12:20:58		New to retirement, I find the dates of payments to be difficult to track. It would be useful if it was the last day of each month or always on the 27th, something like that. Just a suggestion.
2022-08-23 06:00:56	Digital takeover of my retirement funds by WEF	
2022-08-23 05:29:13		Would be interested in having MainePERS advocate for removal of reduced social security payments. Also interested in MainePERS investing our funds in green initiatives and not in fossil fuel funds.
2022-08-22 15:29:09		
2022-08-22 11:12:52		
2022-08-22 10:01:20		
2022-08-22 06:21:50		
2022-08-22 06:13:45	Medicare health plan options/information	
2022-08-20 15:43:22		
2022-08-20 15:18:39		
2022-08-20 12:54:49		
2022-08-20 11:56:25		
2022-08-20 10:54:32		
2022-08-20 08:35:46		
2022-08-19 23:05:20		All staff has been very professional and helpful. Experience in doing what they do is valuable. Please take care of them for value retention.
2022-08-19 20:06:23		
2022-08-19 19:45:41		
2022-08-19 11:41:31		
2022-08-19 11:31:45		I have not received any monthly statements from MePERS since spring. I do not know if this is right or not.
2022-08-19 10:50:45	Retirement info / Maine State Pension - Social Security	
2022-08-19 10:05:50		
2022-08-19 10:01:36		
2022-08-19 09:43:05		
2022-08-19 09:10:09		
2022-08-19 08:56:31		
2022-08-19 08:05:18		
2022-08-19 07:41:26		
2022-08-19 07:15:39		
2022-08-19 06:44:39		
2022-08-19 06:26:34		
2022-08-18 20:17:45		
2022-08-18 19:35:07		
2022-08-18 19:22:05		
2022-08-18 19:12:52		
2022-08-18 17:45:20		
2022-08-18 17:44:53		
2022-08-18 14:58:10		
2022-08-18 14:03:24		
2022-08-18 13:25:46		
2022-08-18 12:28:10		Last time I checked, the ME PERS fund was very healthy. I hope with any regime changes.... this would continue.
2022-08-18 11:38:21		
2022-08-18 11:19:13		
2022-08-18 11:11:31		

2022-08-18 11:07:40		
2022-08-18 10:49:35		
2022-08-18 10:47:06		
2022-08-18 10:31:41		
2022-08-18 10:00:04		
2022-08-18 09:20:59		So far I am happy with the service I have received.
2022-08-18 08:41:27		
2022-08-18 08:36:44		
2022-08-18 08:14:57		
2022-08-18 07:39:17		
2022-08-17 22:45:31		Thank you for the opportunity to give my feedback.
2022-08-17 22:44:05		I retired March 31, 2022 and have received my first four checks. I was under the impression that MainePERS was expecting me to retire a few weeks earlier (I think two to three weeks earlier). So I thought I would get a final recalculation of retirement benefits from MainePERS. Social Security contacted me to have me send that final confirmation of benefits to them. I sent them the last letter I received from MainePERS in relation to that, however that letter indicated that I would receive a future letter with the final compensation amount, which I would send on to Social Security. I have not received that letter yet and Social Security is still waiting for me to mail it to them. While this is going on the WEP amount is not being taken out of my Social Security check each month. I believe Social Security is going to demand that WEP amount back immediately from my checking account. I just want to get this taken care of as soon as possible so my checking account will be accurate. I think I will have to return $2105.00 so far to Social Security. Please! Could someone help me get this taken care of. I think I only need a letter from MainePERS telling me what my final retirement benefit will be. This will help me be able to settle things up with Social Security and get the correct amount from them instead of getting over paid by them each month. [...]
2022-08-17 22:13:32		
2022-08-17 21:10:04		
2022-08-17 21:05:58		
2022-08-17 21:03:17		Thanks for all your hard work and for getting member for us input.
2022-08-17 19:26:30		
2022-08-17 19:08:53		
2022-08-17 19:08:34		I think that the secure online portal would be extremely useful.
2022-08-17 19:05:51		
2022-08-17 18:50:30		I feel MainePERS supported me really well through my retirement decision with info, webinars, and follow up and I think an online portal is brilliant.
2022-08-17 18:27:42		Need more timely updates on new benefits. The material on the vision program cam too late for me to sign up!!
2022-08-17 18:02:27		I would like to know why my retirement benefits from teaching are deducted from my soc. security benefits and what if anything MainePERS is doing about it.
2022-08-17 17:20:00		Having on online portal would be helpful for email changes. Mine has changed and the one used for letting me know about this survey is closing on 8/24/2022.
2022-08-17 17:18:51		I haven't had a need to contact MainePERS more than once so it was not possible to respond more positively to question #8
2022-08-17 17:10:23		
2022-08-17 16:28:02		
2022-08-17 16:02:18		
2022-08-17 15:58:22		I live in Spain and have not been able to use online member/patient portals, as they do not seem to work outside the US.
2022-08-17 15:57:47	Social Security Windfall changed	
2022-08-17 15:49:19		
2022-08-17 15:43:49		
2022-08-17 15:24:18		
2022-08-17 15:01:07		
2022-08-17 15:00:05		
2022-08-17 14:56:54		
2022-08-17 14:45:50		
2022-08-17 14:32:11		
2022-08-17 14:26:45		
2022-08-17 14:21:36		
2022-08-17 13:51:12		
2022-08-17 13:39:23		
2022-08-17 13:37:14		I feel very fortunate to have a retirement system that has faithfully paid my retirement benefits fully and on time for 20 years as of the end of this month of August. Thank you all.
2022-08-17 13:26:36		
2022-08-17 13:25:03		
2022-08-17 13:12:50		
2022-08-17 13:04:46	get COLA whole pension!	It seems that you work agains the retired when we are working to get our full benefits from the legis. you offer no help in figuring our a path forward
2022-08-17 12:43:31		
2022-08-17 12:43:00		
2022-08-17 12:31:37		
2022-08-17 12:26:33		

2022-08-17 12:24:36		
2022-08-17 12:10:59		Thank you for helping me over the years. I am not tech wise, so to meet with a staff to help would be better for me.
2022-08-17 11:40:46		
2022-08-17 11:29:37		
2022-08-17 11:22:50		
2022-08-17 11:07:39		
2022-08-17 11:05:38		
2022-08-17 10:41:58		
2022-08-17 10:25:21		I hope we are moving forward, I would like my paystub available monthly, via the portal would work for me. I haven’t had the need for a lot of contact but feel this the idea coming forth will be a huge improvement of what is going on. Thank you!
2022-08-17 10:09:50		
2022-08-17 09:53:08		
2022-08-17 09:39:46		
2022-08-17 09:35:59		
2022-08-17 09:33:59	Online contact questions	Stuck in my craw is that at my one year exit interview with Portland public schools in 2006, I was never advised to put my spouse on my medical insurance coverage in order to cover her after I retired. I applied to include her after I retired and was told she was not eligible since I had not included her one year before I retired. We went years without her medical coverage although she was not yet 65 and ineligible for Medicare. Still stuck on that....
2022-08-17 09:33:28		
2022-08-17 09:33:25		
2022-08-17 09:11:56		Appreciate any help in repealing WHIP
2022-08-17 08:46:26		
2022-08-17 08:46:21		
2022-08-17 08:38:31	Tax information 1099R	I’m frustrated that my mail from MEPERS will not be forwarded. I go south for the winter and have mailed forwarded to my sister (whom I trust completely) but it can’t be forwarded. I also can’t get my 1099 online. This means I have to change the address.
2022-08-17 08:28:10	WEP elimination updates	Thank you for adding regular email communication, and for your continued dedication to protecting Maine PERS.
2022-08-17 08:25:46		Always come away satisfied with info provided, and questions answered. Nice job!
2022-08-17 08:21:48		
2022-08-17 08:20:15		
2022-08-17 08:16:42		
2022-08-17 07:56:50		
2022-08-17 07:53:41		I had difficulty changing how much taxes should be taken from my monthly check. I ended up paying taxes. Didn't appreciate that
2022-08-17 06:53:05		As a part time resident of Maine and Florida. Please allow my change of address on line rather than the requirement to put the request in writing and mail it to PERS.
2022-08-17 06:47:38		
2022-08-17 06:34:19		
2022-08-17 06:25:14		
2022-08-17 06:10:34		
2022-08-17 06:07:36		
2022-08-17 05:40:58		
2022-08-17 01:10:52	In-Home Assisted Living for Maine Residents	Rank Maine Legislators for MSRS member support.
2022-08-17 00:47:56		I am completely satisfied with whomever I have ever spoken to . They have always been there for me.
2022-08-16 22:57:59		
2022-08-16 22:19:26		
2022-08-16 22:12:32		
2022-08-16 22:11:22		N/A
2022-08-16 22:10:09		
2022-08-16 21:24:16		
2022-08-16 21:23:10		
2022-08-16 21:21:45		My husband is also a Maine St Retiree he doesn't really do email. Can he take the survey too?
2022-08-16 21:06:50		
2022-08-16 20:57:23	job opportunities within retirement	
2022-08-16 20:55:38		
2022-08-16 20:54:12		
2022-08-16 20:52:02		In a current world where it's nearly impossible to call with a question and talk to an actual person, I've had 100% success with MainePERS.
2022-08-16 20:41:27		I like the idea of having an online portal. I know I connect with my doctors more often through the portal they offer; I feel like I might do the same with PERS if they had a portal.
2022-08-16 20:40:37		
2022-08-16 20:38:22		
2022-08-16 20:35:50		
2022-08-16 20:24:12		The personnel I get to speak to have always been friendly,knowledgeable and helpful
2022-08-16 20:22:10		
2022-08-16 20:21:34		
2022-08-16 20:20:36		
2022-08-16 20:14:42		
2022-08-16 19:58:56		
2022-08-16 19:55:46		

2022-08-16 19:45:09		I've received my sixth check and it is still not adjusted and based on an estimate over a year and a half ago. Many retired colleges said it took three months. After calling MEPERS I was told they were short staffed and quite busy and the adjustment could take up until a year.
2022-08-16 19:10:44	Info on available resources for Maine retirees.	I truly appreciate your conservative leanings to keep the retirement assets healthy. However, it has been frustrating to watch Social Security recipients have their entire incomes increase by the actual cost of living when Maine Pers recipients only receive 2.5% on the first $24,500 only. Our ability to keep up with the increasing cost of everything has put us at a huge disadvantage. I do agree with your policy of limiting any increases to the first $24,500, but the percentage should increase like Social Security does.
2022-08-16 19:10:32		The people at MPERS are always helpful.
2022-08-16 19:07:52		
2022-08-16 18:54:51		
2022-08-16 18:52:15		
2022-08-16 18:43:53		
2022-08-16 18:33:15		
2022-08-16 18:26:55	Assist members with creating online account for their state 457B VOYA retirement plan; monitoring and helping members with VOYA access problems/roadblocks (inability to access funds).	State 457 VOYA and similar deferred compensation retirement plans are becoming increasingly difficult to access online, with members subjected to unreasonable delays/inability to access funds (VOYA is unresponsive). Increased monitoring and assistance by MPERS on such issues and the state would be beneficial since members are otherwise at the mercy of the insurance company with no state representation.
2022-08-16 18:24:44		
2022-08-16 18:16:20	NA	
2022-08-16 18:01:16		
2022-08-16 17:41:33		
2022-08-16 17:35:10		Thank you for looking after retirees.
2022-08-16 17:28:53		
2022-08-16 17:21:41		
2022-08-16 17:03:27	none	
2022-08-16 16:58:11		
2022-08-16 16:50:01		
2022-08-16 16:49:19		
2022-08-16 16:48:58		
2022-08-16 16:48:57		
2022-08-16 16:47:27		
2022-08-16 16:35:22		
2022-08-16 16:29:25		
2022-08-16 16:25:52		Thank you!
2022-08-16 16:25:38		
2022-08-16 16:21:20		
2022-08-16 16:16:58		Thank you for the opportunity to take your survey.
2022-08-16 16:16:33		
2022-08-16 16:03:42		
2022-08-16 16:03:29		
2022-08-16 16:02:02	Get rid of off set please	
2022-08-16 15:58:25		
2022-08-16 15:57:53		
2022-08-16 15:50:29		
2022-08-16 15:49:08		
2022-08-16 15:48:21		
2022-08-16 15:47:37		
2022-08-16 15:43:41		
2022-08-16 15:41:37		
2022-08-16 15:39:35		
2022-08-16 15:38:44		It would be nice to have help with determining tax liability so the appropriate amount is deducted. It's like hit or miss now.
2022-08-16 15:38:20		Always appreciative of Maine PERS
2022-08-16 15:33:26		
2022-08-16 15:29:34		I would like to receive a paystub more often than just when something changes
2022-08-16 15:27:41		
2022-08-16 15:19:46		I feel MainePers should not penalized folks that retired early once they reach retirement age. We already paid our dues by taking a cut on our pension and being penalized and restricted to the number of hours we could work. I feel once we reach retirement age, we should get the same benefits as everyone else. Thank you.
2022-08-16 15:09:25		
2022-08-16 15:07:38		
2022-08-16 15:01:22		
2022-08-16 14:56:23		Since everything is computerized, it seems that notification changes in check amounts could be sent to arrive before deposit not 3 days after.
2022-08-16 14:53:00		Glad you are in Augusta.
2022-08-16 14:43:50		
2022-08-16 14:43:36		Whenever there are changes it would be very helpful if both the previous amounts and the new amounts were shown
2022-08-16 14:42:56		
2022-08-16 14:33:45		

2022-08-16 14:30:30		
2022-08-16 14:30:28		
2022-08-16 14:21:03		
2022-08-16 14:19:04		
2022-08-16 14:18:56	Updates on Anthem/Maine Health/Maine Medical Center discussions	
2022-08-16 14:04:47		
2022-08-16 13:52:56		
2022-08-16 13:51:10		
2022-08-16 13:41:54		
2022-08-16 13:39:56		During my planning for retirement, I've personally met with representatives as well as online zoom meeting and phone conversations on several occasions, and I can say that my experience was very informative and helpful in my decision process.[...] was mostly my contact person, and I can say she was superb in answering my questions and making me feel very comfortable throughout the process.
2022-08-16 13:37:49		Recently received a letter indicating that a stronger shift is being made for on line information ....myself and others who are not computer savvy or accessible would prefer Postal Mail info
2022-08-16 13:32:38		I feel MPers is trying to do a good job. I have only needed to call with issues very rarely, but when I did things got handled in a prompt and efficient manner. Thank you for that.
2022-08-16 13:31:47		
2022-08-16 13:23:40		
2022-08-16 13:23:33		
2022-08-16 13:21:34		
2022-08-16 13:21:26		None
2022-08-16 13:21:13		The Anthem supplement to Medicare (the Companion Plan), though more expensive, met my medical needs much better than the Anthem Medicare Advantage Plan.
2022-08-16 13:20:31		
2022-08-16 13:16:17		
2022-08-16 13:07:53		Every interaction I have had with MainePERS has been positive. People there are helpful, kind, and informative.
2022-08-16 13:05:29		
2022-08-16 13:04:02		
2022-08-16 13:02:09		
2022-08-16 12:52:50		
2022-08-16 12:52:20		
2022-08-16 12:50:35		Service has been phenomenal! I am very pleased with my interactions with staff and all communications. Thank you!
2022-08-16 12:42:06		
2022-08-16 12:39:21		
2022-08-16 12:36:45		
2022-08-16 12:31:48		
2022-08-16 12:28:26		Overall, pretty good experiences with Maine PERS. I am curious as to why a retiree has to wait 6-12 months to receive updated benefits (e.g. sick days, updated estimates after retirement). That seems like a long wait.
2022-08-16 12:28:15		I certainly hope my retirement is secure as it is my main source of income but I really don't know. . .
2022-08-16 12:28:04		No concerns
2022-08-16 12:23:49		
2022-08-16 12:19:50		I do not want my account information on line so hackers can steal my money and info. Not supportive for on line!!!!
2022-08-16 12:12:47		
2022-08-16 12:10:40		Always very helpful when I’m in need. Thank you
2022-08-16 12:09:13		
2022-08-16 12:05:36		
2022-08-16 12:02:36		
2022-08-16 12:01:26		
2022-08-16 12:01:15		Eliminate the Social Security Offset/Windfall Benefit.
2022-08-16 12:00:34		
2022-08-16 11:54:58		I have been especially grateful for the help I have received from […]. Her assistance has been very appreciated. I am a bit concerned with the Anthem issues and debating looking for a different supplemental insurance plan??
2022-08-16 11:54:45		
2022-08-16 11:54:16		
2022-08-16 11:54:06	details about benefits/coverage	would like updates on how solvent the retirement fund is
2022-08-16 11:47:54		
2022-08-16 11:46:08		I live in Colorado and so I am very dependent on online communication. The portal would be great.
2022-08-16 11:45:43	Updates on COLa	
2022-08-16 11:45:12	updates on legislature passed regarding retirees/seniors	The only thing is when my pension check changes for some reason and there is no explanation, therefore I have to make a phone call and bug someone to find out why there was a change.
2022-08-16 11:38:58		MainePERS definitely needs to come out of the stone age and set up a secure on-line member portal. This is long overdue.
2022-08-16 11:36:04		

2022-08-16 11:35:57	Online access to my retirement account.	I would like an online account where I can print off my income verification letter or check other acct info. I have other retirement accounts that I can access whenever I want . I have never had a problem. ME PERS should have a secure system where I don't have call or write when I want/need information.
2022-08-16 11:34:03		
2022-08-16 11:32:06		
2022-08-16 11:32:05		
2022-08-16 11:30:56		
2022-08-16 11:30:44		
2022-08-16 11:30:13		
2022-08-16 11:29:16		
2022-08-16 11:28:14		
2022-08-16 11:28:13		Continue to develop the depth of content in your newsletter and grow your paperless options
2022-08-16 11:24:01		Appreciate staff being friendly and very helpful whenever I have a question. Thank you!
2022-08-16 11:23:24		
2022-08-16 11:21:29		Social Security takes a big chunk of my retirement benefit. Any way to change the agreement that your organization has with Social Security?
2022-08-16 11:18:48		
2022-08-16 11:17:53		
2022-08-16 11:14:45		
2022-08-16 11:13:31		
2022-08-16 11:12:36		
2022-08-16 11:07:03		
2022-08-16 11:03:40		
2022-08-16 11:03:33		
2022-08-16 11:02:11	Status of Anthem and our providers	If Anthem and Maine health part ways it would be good for members to know if we have other ins options
2022-08-16 11:00:52		Very satisfied with MPERS. Glad to see that the organization continues to attract extremely capable leaders like [...].
2022-08-16 10:58:17		
2022-08-16 10:54:53		
2022-08-16 10:53:52		
2022-08-16 10:53:08		
2022-08-16 10:51:42		
2022-08-16 10:47:22		
2022-08-16 10:44:58		
2022-08-16 10:44:26		
2022-08-16 10:44:21		
2022-08-16 10:44:12		
2022-08-16 10:42:09		
2022-08-16 10:41:09		
2022-08-16 10:34:02	Updates on issues affecting my pension.	During the 18 month period one waits for a cola there is silence even where significant legislation is enacted that will impact ones benefit. Kinda disrespectful on a basic level. We are here!!
2022-08-16 10:32:55		
2022-08-16 10:32:36	Reform social security inequality!	Appreciate all you do!
2022-08-16 10:30:04		
2022-08-16 10:29:33		
2022-08-16 10:27:58	None	I would prefer to call I don't like doing stuff over the internet or email it's much to difficult for us retirees
2022-08-16 10:25:15		Thanks for the interest in our opinions...
2022-08-16 10:24:57		
2022-08-16 10:24:48		
2022-08-16 10:19:17		I don't even think about MainePERS - which to me means that I get all the info I need, regularly and efficiently, and can dismiss it from my list of concerns. It's a positive statement not to have to think about something and just know it is there.
2022-08-16 10:18:18		
2022-08-16 10:17:56		
2022-08-16 10:17:05		
2022-08-16 10:15:27		As a new retiree, it would b helpful to know more up to date info as to when my final monthly benefit amount will be assessed and dispersed.
2022-08-16 10:12:48		Very satisfied with MainePERS
2022-08-16 10:12:48		I woukd like to change my EMAIL [...]
2022-08-16 10:11:24		
2022-08-16 10:11:19		
2022-08-16 10:09:18		
2022-08-16 10:09:08		
2022-08-16 10:07:37		
2022-08-16 10:07:05		
2022-08-16 10:06:39		

2022-08-16 10:05:34		I am not sure if MEpers has had a staff turnover but my last phone contact was less than desirable (compared to previous interactions in the past). Suggestion: initial rep answering should always give at least a first name when answering the phone. When he couldn't answer my question, he connected me with a second rep who was very vague in her answer so I have no idea if what I requested for a change on my W4 is actually being processed correctly. Thank you!
2022-08-16 10:04:36		
2022-08-16 10:04:01		
2022-08-16 10:03:35		
2022-08-16 10:02:55		
2022-08-16 10:02:23		
2022-08-16 10:00:21		I went through the retirement process this spring. The cooperation between the State and MePERS seemed nonexistent. When I would ask MEPERS a benefit continuation question, the reply in some instances was simply: "We don't handle that, you'll have to contact the State." The reply was similar when asking the State benefits folks about continuing benefits. The paperwork that I was mailed, from both sides of the house, should include a better explanation of what form is required for what benefit. It was as if the State benefits office and MEPERS have no interaction and have no desire to get together and facilitate an easier transition for the newly retired, or about-to-be retired employee. I heard this same comment over and over again from many of my fellow state workers. I am confident that I asked a number of questions which I'm sure had been asked many times by other retirees, yet no one has apparently bother to write something up explaining why things work the way they do? How many times do retiring employees need to ask the same question before the light bulb goes on and someone says, "Gee, maybe we should include this in our information packet." I cannot believe that the two agencies can't get together and write up some protocol and help guides for those who are about to retire. a guide with a bunch of the most common FAQ's. I'll give you one example: After getting my first pension check, I noticed that there was no dependent health care coverage taken out. I had to call and find out why as I wanted to make sure that my family was covered. I was then told that because I retired at the end of the month, and because of the way that the biweekly payroll fell, it was too late for the retirement system to take out the health care deduction. How many times has this happened and yet nobody has ever thought to explain this in all the paperwork that is mailed out? I was very proud to work for an agency that put the "customer" first and believed in customer service. maybe I am expecting too much for other agencies to put that same priority on their radar.
2022-08-16 10:00:20		Since I also get social security, as I'm sure many MPERS retirees get, and we have to report whenever we get a COLA from you, it would be helpful if we got this information in the mail on a more timely manner. It comers in after we receive the first check with the raised amount and I'd prefer receiving prior to so I know what the extra amount is for and so I can report it to SSA. Thank you.
2022-08-16 09:59:26		
2022-08-16 09:58:58	Changes to MSR and social security benefits	I would like to receive my full social security benefits since I earned them while working in NY state and not Maine. I would like this changed.
2022-08-16 09:58:46		
2022-08-16 09:56:41		
2022-08-16 09:56:31		
2022-08-16 09:56:25		
2022-08-16 09:54:31		
2022-08-16 09:54:12		A more than a 2.9% increase should be looked at --esp in times when inflation is above this amount
2022-08-16 09:53:29		
2022-08-16 09:51:42		I just retired this summer, and the Maine PERS part was the easiest to navigate. Medicare and Anthem are another story!! Everyone with Maine PERS answered my questions and explained the information clearly. Thank you for that.
2022-08-16 09:51:29		
2022-08-16 09:50:43	Don’t know at this time	
2022-08-16 09:50:05		
2022-08-16 09:50:05		
2022-08-16 09:46:56		
2022-08-16 09:46:52		
2022-08-16 09:46:40		
2022-08-16 09:46:10		Keep up the good services!
2022-08-16 09:45:49		
2022-08-16 09:40:43		
2022-08-16 09:40:15		
2022-08-16 09:40:13		
2022-08-16 09:39:03		The reason for a partial negative review is back in the spring I wanted to change withholding . I called to make sure I had the right form, confirmed I did and was notified in writing after I submitted I had the wrong form . The form was one I printed on your website.. It was a 2022 form but was told later you were not using that form at the time in conflict what I was previously told. I then sent in the 2021 form, that was rejected if I recall because there was a second form I needed to fill out In addition.All this caused 2 to 3 months of delay. When I called to discuss I found the person who answered the phone, (female)to be defensive. Prior to that my experience with everyone has been great and hopefully will be again. Thank you.

2022-08-16 09:37:15		I have been retired for a year and went back to my original job. Nothing was said to me in a negative way about my doing this, although I know it affects MainePERS as I am no longer contributing. Everyone I have ever spoken with has been patient and knowledgable. It is scary to retire and they made it very easy. Keep up the great work.
2022-08-16 09:36:34		I do hope that MainePers will do the best they can with this year's COLA to help its members in these difficult economic times.
2022-08-16 09:35:17		I have my retirement through a municipality. I don't understand why I didn't get an additional increase last time. Only teachers and state retirees? It cost me as much to live as it does them!!!
2022-08-16 09:34:42		I'm happy with the service I get as is. Thank you!
2022-08-16 09:34:24		
2022-08-16 09:33:58		
2022-08-16 09:32:07		
2022-08-16 09:30:19		
2022-08-16 09:29:27		Keep up the good work!
2022-08-16 09:29:17		
2022-08-16 09:29:15	None of the above	I am not very well versed in technology and often find communication sites arduous to move through. Please make is clear and simple for people like me.
2022-08-16 09:27:32		Look forward to seeing your portal. Will 1099 tax forms still be mail or printable through the new system?
2022-08-16 09:26:12		
2022-08-16 09:25:48		
2022-08-16 09:25:03		
2022-08-16 09:23:15		Thank you!
2022-08-16 09:23:02		
2022-08-16 09:22:01		
2022-08-16 09:21:32		
2022-08-16 09:19:48		I am responding on behalf of […]. He lives in a facility and does not use email. I am his friend and daily contact, but his son, […], is legally in charge of his finances.
2022-08-16 09:19:33		
2022-08-16 09:19:21		
2022-08-16 09:18:51		Good survey!
2022-08-16 09:17:49		
2022-08-16 09:16:51		Keep up the great work!
2022-08-16 09:16:44		
2022-08-16 09:16:43		
2022-08-16 09:15:40		Appreciate the work and the quality of this dept. Thank you
2022-08-16 09:15:36		
2022-08-16 09:15:26	Status of SS pension offset.	
2022-08-16 09:15:15		
2022-08-16 09:14:49		
2022-08-16 09:14:15		
2022-08-16 09:14:11		Getting accurate information and phone numbers on how specifically to get in touch with the proper medical and dental organizations to make changes to coverage has always been hit or miss. The printed newsletter that is routinely mailed would be a nice way for members to have this information readily available.
2022-08-16 09:14:11	Year to date payments and deduc	
2022-08-16 09:12:08		
2022-08-16 09:12:04	Amount changes so I can adjust social security I receive.	
2022-08-16 09:11:41		
2022-08-16 09:11:35		Always appreciate the care for my retirement funds and the timely and coherent communications. Thank you!
2022-08-16 09:11:28		
2022-08-16 09:11:15		
2022-08-16 09:11:10		
2022-08-16 09:08:56		
2022-08-16 09:08:32		
2022-08-16 09:08:27		We will not even get cost of living increase to match cost of living because you allowed the legislature to rob us of our retirement.
2022-08-16 09:07:42		
2022-08-16 09:07:42		Do you email newsletters? This is the only email I have received. Thank You
2022-08-16 09:05:28		

MAINEPERS

BOARD OF TRUSTEES MEMORANDUM

TO: BOARD MEMBERS

FROM: MICHAEL COLLERAN, CHIEF OPERATING OFFICER AND GENERAL COUNSEL

SUBJECT: KEY PERFORMANCE AND RISK MEASURES

DATE: OCTOBER 5, 2022

MainePERS committed in the Strategic Plan to measuring the key performance and risk measures developed by the National Conference on Public Employee Retirement Systems in its publication Best Governance Practices for Public Retirement Systems (revised May 2019). A report of those measures follows this memo and will be discussed during the CEO Report. We will update this report periodically.

POLICY REFERENCE

Board Policy 4.5 – Board/Staff Relations

Board Policy 4.6 – Communication and Support to the Board

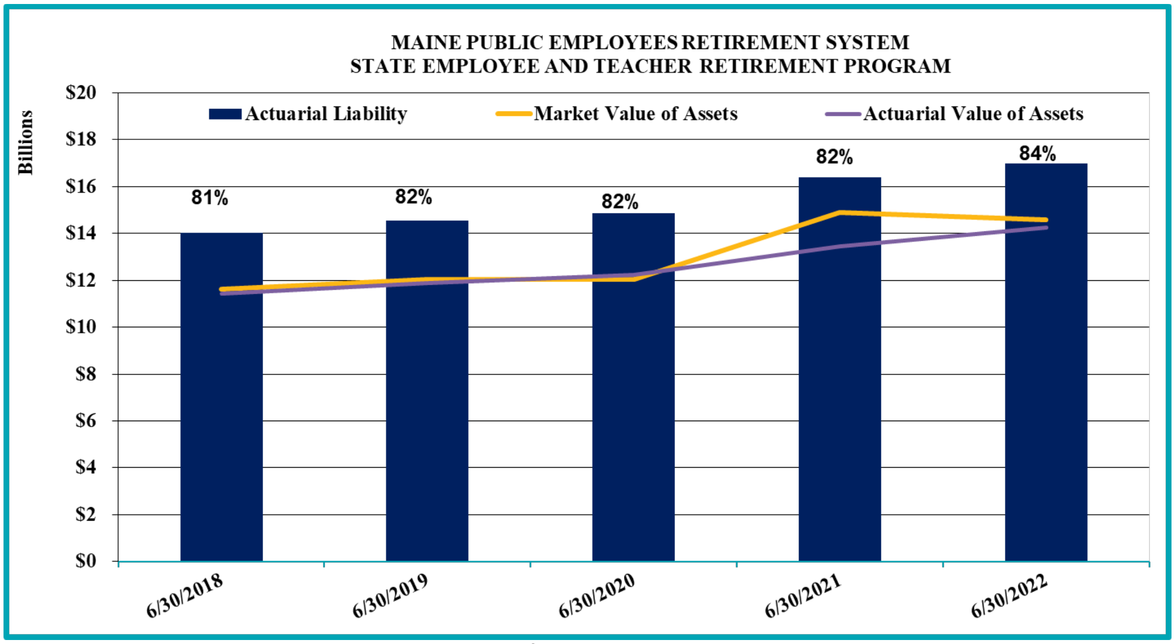
RECOMMENDATION

No Board action is required.

Key Performance and Risk Measures

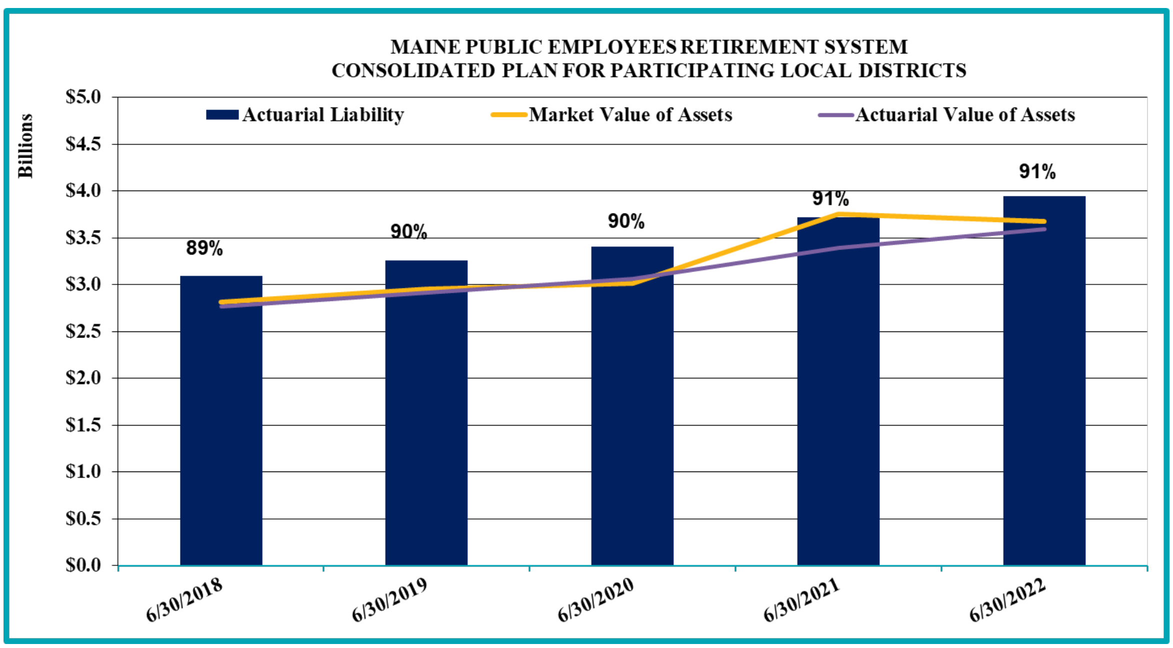
Funding Ratio, Actuarial Liability, and Market Value of Assets

State Employee and Teacher Plan



Fiduciary Net Position, reported here as market value of assets (total assets minus liabilities other than actuarial liabilities), on 6/30/2022 is $14.6 billion. The funded ratio is based on the actuarial value of assets.

PLD Consolidated Plan



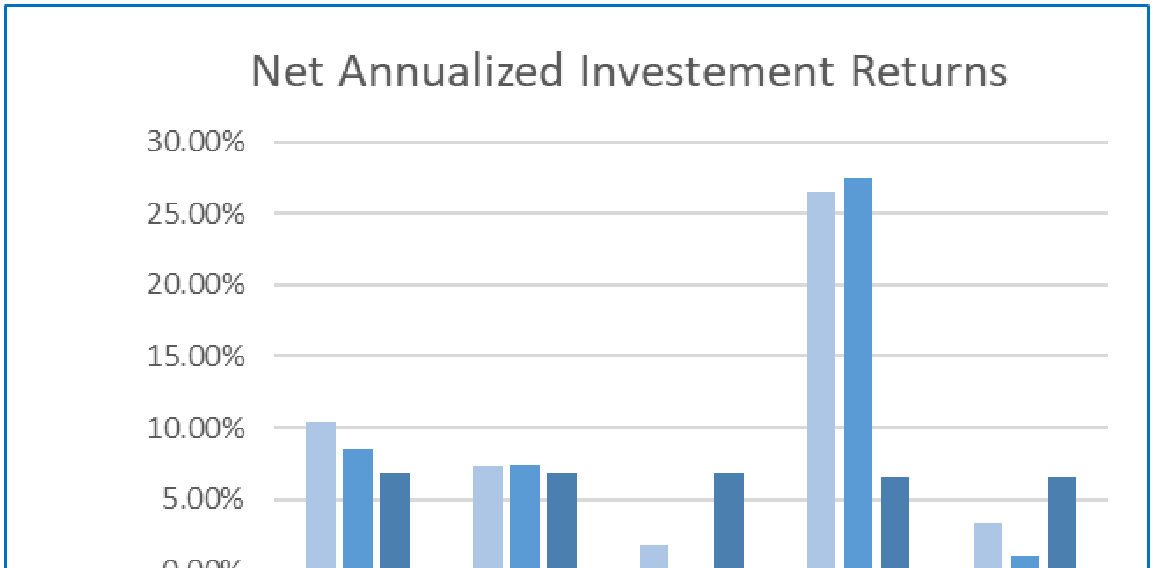
Fiduciary Net Position, reported here as market value of assets (total assets minus liabilities other than actuarial liabilities), on 6/30/22 is $3.68 billion. The funded ratio is based on the actuarial value of assets.

Legislative Plan*: funded status is 144% and Fiduciary Net Position is $16 million on 6/30/22.*
Judicial Plan*: funded status is 108% and Fiduciary Net Position is $86 million on 6/30/22.*

The two charts on this page cover key performance and risk measures I., V. and VI. under the Strategic Plan.

Key Performance and Risk Measures

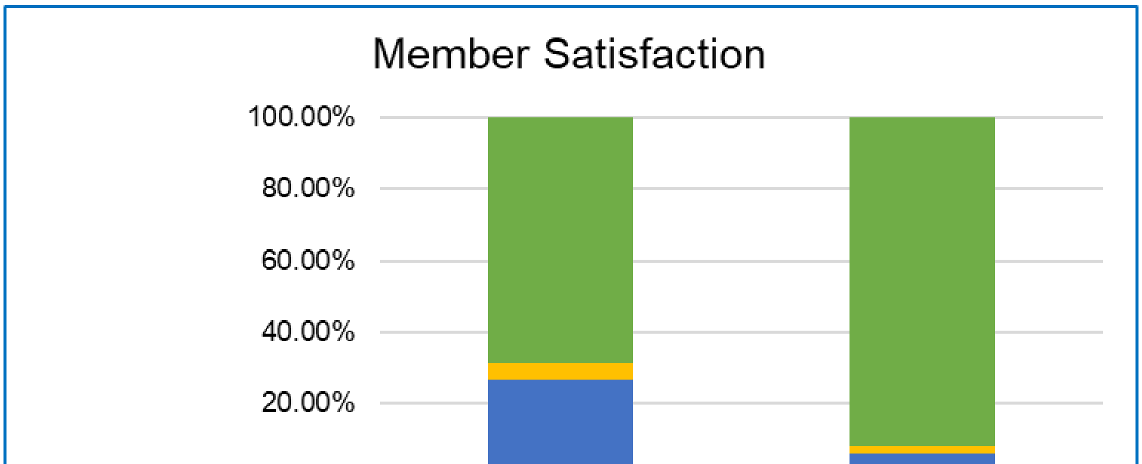
Net Annualized Investment Returns



	FYE18	FYE19	FYE20	FYE21	FYE22
MainePERS	10.32%	7.25%	1.78%	26.54%	3.32%
Policy Index	8.52%	7.46%	-0.05%	27.44%	0.98%
Assumption	6.75%	6.75%	6.75%	6.50%	6.50%

This chart covers key performance and risk measure II. under the Strategic Plan.

Overall Member Satisfaction

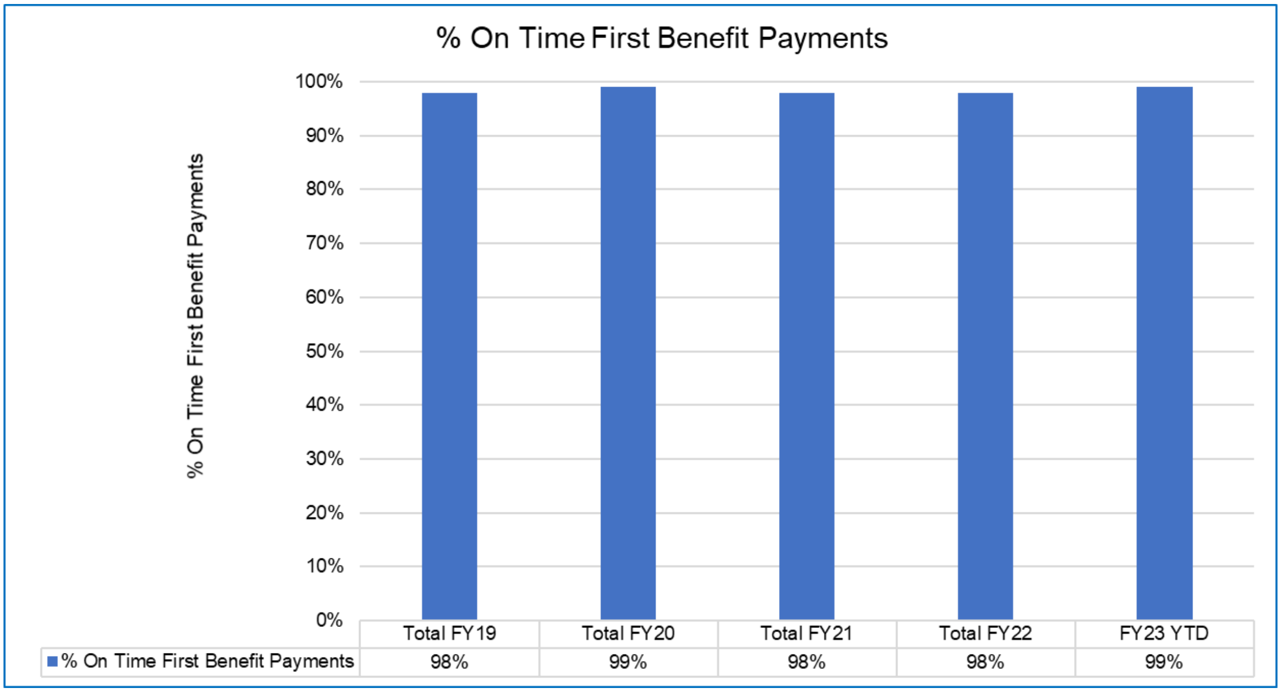


	Member FY22	Retiree FY22
Very Satisfied/Satisfied	68.67%	91.78%
Very Dissastisfied/ Dissatisfied	4.72%	2.17%
Neutral/No Opinion	26.61%	6.04%

This chart covers key performance and risk measure IV. under the Strategic Plan.

Key Performance and Risk Measures

Benefit Initiation



See Data Notes 1 & 2.

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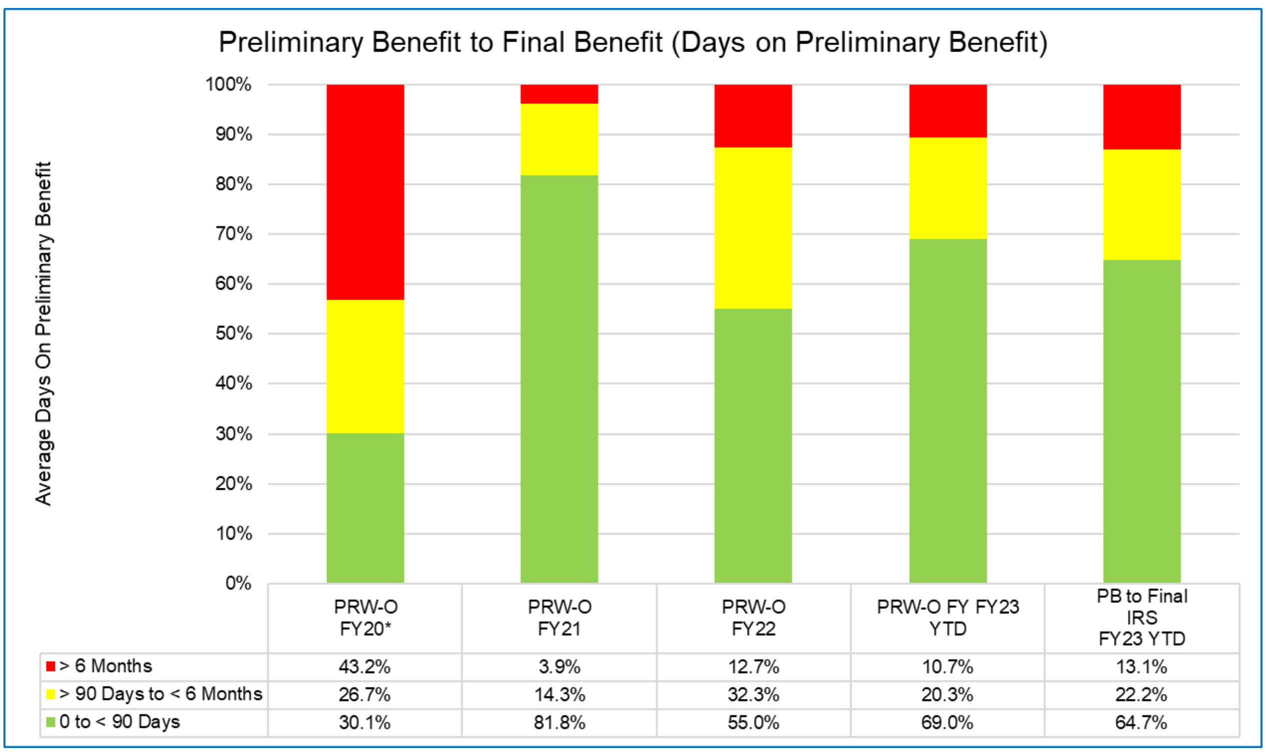
Preliminary Benefit to Final Benefit



**PRW-O FY20 is based on the last 6 months of the FY; back data not available. See Data Notes 3 & 4.*

These two charts on this page cover key performance and risk measure III. under the Strategic Plan

Key Performance and Risk Measures

Data Notes

Benefit Initiation

NOTE 1: MainePERS issues a first retirement benefit payment disbursement the payroll following the date a retirement application is found to be complete (if complete after the payroll cut-off that first disbursement is made the following month and deemed to be on time). This metric is manually calculated and still being refined and subject to change.

NOTE 2: The percent of late first benefits includes all first payments falling outside the on-time timeline. These include instances with extenuating circumstances including but not limited to: returned first payment (member changed banks or gave incorrect routing/account information); qualified domestic relations order where individual is not eligible for preliminary benefit; deceased prior to first payment; members first payment date is retroactive due to disability process; member applied to receive payment after they were eligible and collected a retroactive payment; or open applications where the application was withdrawn, member remained on the employer payroll so benefit could not begin, retirement date was deferred first payment date/changed, and/or the application was refiled after initial submission.

Preliminary Benefit to Final Benefit

NOTE 3: MainePERS members upon retirement are initially and rapidly paid a preliminary estimated benefit that is an estimate of the person's final benefit. The final benefit requires significant diligence to be completed under current MainePERS laws, rules, processes and tools. The graph above includes two measures of the timeliness of moving retirees from their Preliminary Benefit (PB) to their Final Benefit. Each metric essentially shows an annualized snapshot of how long individuals received preliminary benefits before beginning to receive their final benefit. The two measures are looking at essentially the same data but each metric has a slightly different starting point and/or a slightly different ending point for measuring the time period, depending on precisely what information is desired. In general, they paint the same overall picture. MainePERS seeks to have retirees on their final benefit by their 3rd benefit payment and seeks to avoid that transition from requiring longer than 6 months. In the future we expect to transition this graph to show only the "PB to FINAL IRS" metric but have also included the Pension Retirement Workflow-Open (PRW-O) metric at this time because of the availability of historic data.

NOTE 4: In detail, the metrics above are: 1) PRW-O measures from the point at which MainePERS opens a Pension Retirement Workflow to the point when it is closed (when the Final service retirement benefit amount was established); and, 2) the PB to Final IRS metric shows the number of days since the first preliminary benefit was paid and for which preliminary benefits still are being paid. That last metric is important for regulatory compliance purposes.

MAINEPERS

BOARD OF TRUSTEES MEMORANDUM

TO: BOARD MEMBERS

FROM: MICHAEL COLLERAN, CHIEF OPERATING OFFICER AND GENERAL COUNSEL

SUBJECT: BOARD WORK PLAN

DATE: OCTOBER 5, 2022

Following this memo is a proposed Annual Board Work Plan for calendar year 2023. It outlines regularly-occurring Board activities and certain one-time legislative reports.

POLICY REFERENCE

Board Policy 4.5 – Board/Staff Relations

Board Policy 4.6 – Communication and Support to the Board

RECOMMENDATION

That the Board approve the proposed MainePERS 2023 Annual Board Work Plan.

MainePERS 2023 Annual Board Work Plan

January
Disability Retirement Program (PL2021, c. 277)

- Experience Report
- LTDI Report
- Proxy Voting Report

February
Finance & Audit Committee

- Annual selection of Chair
- Quarterly Internal Audit Report

Investment Policy Review
Quarterly Investment Reports*

March
Quarterly Investment Education
MaineStart Quarterly Review

April
Finance & Audit Committee

- Annual Budget – Review

Fiduciary Education

May
Finance & Audit Committee

- Annual Budget – Vote
- Quarterly Internal Audit Report

Annual Budget
Quarterly Investment Reports*

June
Enterprise-wide Risk Assessment
Quarterly Investment Education
MaineStart Quarterly Review

July
Strategic Plan Update
Proxy Voting Report
Actuarial Economics Assumption Review

August
Finance & Audit Committee

- Quarterly Internal Audit Report

Annual COLA Approval
Quarterly Investment Reports*
Board Self-Evaluation Survey

September
Board Self-Assessment Survey Results/Discussion
Quarterly Investment Education
MaineStart Quarterly Review
CEO Annual Self-Assessment Due

October
Annual Actuarial Valuation
Annual Audited Financial Statements
Member Satisfaction Survey Results
Key Performance and Risk Measures
CEO Annual Review

November
Finance & Audit Committee
- Quarterly Internal Audit Report

Board Officer Elections
Board Policy Review
Quarterly Investment Reports*

December
Annual Board Calendar
Annual Board Work Plan
Finance & Audit Committee Appointments
ESG Report & Policy Review
Divestment Report
Quarterly Investment Education
MaineStart Quarterly Review
Annual Conflict of Interest Statement

Annual Board Work Plan - Frequency Schedule

Quarterly

Finance & Audit Committee Meetings (1.6)
- Internal Audit Reports (1.6)

Quarterly Investment Reports*:
- Rebalancing Report (2.1)
  - GLI Current Asset Allocation (2.1-A)
  - RHIT Current Asset Allocation (2.1-B)
- Investment Quarterly Review
- Risk Diversifiers Quarterly Review
- Cliffwater Quarterly Review
- Real Estate Quarterly Review

MaineStart Quarterly Report (2.1-C)
Proxy Voting Report (2.7) – semi-annually

Annually

Board Calendar (1.10)
Board Work Plan #
Board Policy Reviews (review 1/3 each year)
Board Self-Assessment (1.7) & Continuing Education Needs #
Fiduciary Education #
Conflict of Interest Statement (1.3)
Budget (1.6)
Audited Financial Statements (1.6)
Actuarial Economic Assumptions Review (2.2)
Actuarial Valuation (2.2)
Investment Policy Review #
ESG Report (2.6; PL2021, c. 277)
COLA Approval (5 M.R.S. sec. 17806; Rule 803)
Enterprise-wide Risk Assessment #
Strategic Plan Update #
Key Performance and Risk Measures #
Divestment Report (PL2021, c. 231)

Every 2 Years

Rate Setting (Biennial Budget; July of even-numbered years)
Finance and Audit Committee Appointments (1.6; November of even-numbered years)
Collective Bargaining Contract Approval (November of odd-numbered years)

Every 5 years

Custodian Review/RFP – April 2023 (2.1)
Proxy Advisor Review/RFP – April 2025 (2.1)
Actuarial Experience Study - June 2026 (2.2)
Actuarial Audit - Sep 2026 (2.2)
Actuarial Consultant Review/RFP - Jan 2027 (2.2)
Asset/Liability Study – Mar 2027 #
Strategic Plan - Jul/Aug 2027 #
Board Consultants Review/RFP - October 2027 (2.1)
External Auditor Bid Process (1.6) – March 2026

Governance Best Practices Assessment

MAINEPERS

BOARD OF TRUSTEES MEMORANDUM

TO: BOARD MEMBERS

FROM: KATHY MORIN, DIRECTOR, ACTUARIAL & LEGISLATIVE AFFAIRS

SUBJECT: FY 2022 ACTUARIAL VALUATION REPORTS

DATE: OCTOBER 5, 2022

POLICY REFERENCE

Board Policy 2.2 – Actuarial Soundness and Funding

Board Policy 4.5 – Board/Staff Relations

Board Policy 4.6 – Communication and Support to the Board

Cheiron is completing its annual valuation of the System's defined benefit plans and the Group Life Insurance Program. A draft of each of the reports, including the State Employee and Teacher Program, the Legislative Program, the Judicial Program, the PLD Consolidated Program, and the Group Life Insurance Program (separate for State-sponsored groups and PLDs) is included with this memo.

Gene Kalwarski and Ryan Benitez will present the draft valuation reports at the October 13, 2021 meeting and will answer any questions you may have at that time. A copy of their presentation will be provided in advance of the meeting. If the Board accepts the reports, they will be immediately finalized.

RECOMMENDATION

Accept the FY 2022 Actuarial Reports for the State Employee and Teacher Program, the Legislative Program, the Judicial Program, the PLD Consolidated Program, and the Group Life Insurance Program (State-sponsored and PLD) as presented.

Classic Values, Innovative Advice

Celebrating 20 years

DRAFT

Maine Public Employees Retirement System

State Employee and Teacher Retirement Program

Actuarial Valuation Report as of June 30, 2022

Produced by Cheiron
October 2022

TABLE OF CONTENTS

October 13, 2022

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

Dear Members of the Board:

We are pleased to submit the June 30, 2022 Actuarial Valuation Report for the State Employee and Teacher Retirement Program (Program) of the Maine Public Employees Retirement System (MainePERS or System).

The purpose of this report is to present the annual actuarial valuation of the State Employee and Teacher Retirement Program (Program) of the Maine Public Employees Retirement System. This report is for the sole use of the MainePERS Board and its auditors in preparing financial reports in accordance with applicable law and accounting requirements. This report contains information on assets, liabilities, and contributions of the Program, as well as required accounting statement disclosures under the Governmental Accounting Standards Board (GASB) Statement No. 67.

In preparing our report, we relied on information, some oral and some written, supplied by the System's staff. 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 results may differ significantly from the current results presented in this report due to such factors as the following: Program experience differing from that anticipated by the assumptions, changes in assumptions, and changes in plan provisions or applicable law.

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 actuarial report was prepared exclusively for MainePERS for the purposes described herein and for the use by the Program 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.

This report does not contain any adjustments for the potential impact of COVID-19 on either economic or demographic assumptions. We anticipate that the pandemic may have implications in both the short and long term, but the net impact of these is not determinable at this time.

Sincerely,
Cheiron

Gene Kalwarski, FSA, EA	Fiona E. Liston, FSA, EA	Elizabeth Wiley, FSA, EA
Principal Consulting Actuary	Principal Consulting Actuary	Consulting Actuary

FOREWORD

Cheiron has completed the Actuarial Valuation Report for the Maine Public Employees Retirement System (MainePERS or System) State Employee and Teacher Program (Program) of the as of June 30, 2022. The purpose of this report is to:

1) Measure and disclose, as of the valuation date, the financial condition of the Program,
2) Examine trends, both historical and prospective, in the condition of the Program,
3) Assess and disclose actuarial risks of the Program,
4) Report on the contribution rates developed in this valuation for informational purposes (Note: the actual contributions paid by the employers for fiscal year (FY) 2022 were developed in the budgeting process in July 2020, based on a roll-forward of the June 30, 2019 valuation), and
5) Provide specific information required for MainePERS's financial disclosures.

An actuarial valuation establishes and analyzes assets and liabilities on a consistent basis and tracks the progress of both from one year to the next. It includes measurement of investment performance as well as an analysis of actuarial liability gains and losses.

Section I presents a summary containing our key findings, disclosing important Program trends in recent years, and providing analysis relating to the future status of the Program.

Section II assesses and discloses various actuarial risk measures of the Program.

Section III contains details on various asset measures, together with pertinent performance measurements.

Section IV shows similar information on liability measures for various purposes, including analysis of key changes in the measures.

Section V develops informational employer contribution rates to be compared to those established during the ratemaking process.

Section VI includes financial disclosure information.

Finally, we present appendices containing the following summaries:

- Program membership information at the valuation date (Appendix A),
- Major benefit provisions of the Program (Appendix B),
- Actuarial assumptions and methods used in the current valuation (Appendix C), and
- Terminology used in the Governmental Accounting Standards Board (GASB) disclosures (Appendix D).

SECTION I – BOARD SUMMARY

General Comments

The annual employer contributions to this Program are determined on a biennial basis in even years. The contributions for fiscal year (FY) 2022 and FY 2023 were developed through this ratemaking process in 2020. The assets used in developing these rates were the preliminary June 30, 2020 assets. These were then combined with liability measures as of June 30, 2020, developed as an adjustment (i.e., roll-forward) of the liabilities of the June 30, 2019 actuarial valuation. This adjustment included updating to reflect anticipated growth in benefits, reductions due to benefit payouts, and any changes in assumptions or benefits between the June 30, 2019 valuation date and the June 30, 2020 measurement date. Similarly, the contributions for FY 2024 and FY 2025 were developed in 2022 and were based on estimated assets as of June 30, 2022 and liabilities based on the June 30, 2021 actuarial valuation liabilities adjusted to our best estimate of the June 30, 2022 liabilities.

The results of this June 30, 2022 valuation will be used primarily for accounting disclosures. Next year's June 30, 2023 valuation, adjusted to a June 30, 2024 measurement date and combined with preliminary assets as of June 30, 2024, will be used as the basis for the applicable FY 2026 and FY 2027 employer contributions.

Experience from July 1, 2021 through June 30, 2022 (FY 2022)

With respect to investment experience, measured on a market value of asset (MVA) basis, MainePERS experienced an investment return of negative 0.62% for the fiscal year ending June 30, 2022. However, given the three-year asset smoothing method in place, only one-third of that loss is recognized in this valuation on an actuarial value of assets (AVA) basis. Furthermore, asset smoothing also resulted in recognizing one-third of prior deferred assets gains of $1.44 billion during FY 2022 for this Program. As a result, the investment return measured on a smoothed, actuarial value of assets basis was 7.70%. This is greater than the 6.50% assumed rate of return in effect for FY 2022, resulting in a gain on investments for the year of $161 million in addition to the expected increase of $521 million had the assumed 6.50% been exactly achieved on an AVA basis.

With respect to liability experience, the Program's liabilities grew by $213 million more than the expected growth of $377 million (a 1.3% growth in total liabilities beyond expected growth). Of this increase, approximately $170 million was attributable to the payment of cost-of-living adjustments (COLA) exceeding the assumed COLA, with the $43 million balance of the liability loss primarily attributable to salaries being greater than expected and fewer terminations than expected. It is important to note that approximately $105 million of the $170 million liability growth attributable to COLA was due to Program changes in the COLA and was fully offset by additional employer contributions of the same amount.

Combining the investment and liability experience produced an informational total employer contribution of 20.65% of payroll as of June 30, 2022. This is a decrease of 1.07% compared to the June 30, 2021 informational valuation contribution rate of 21.72% of payroll.

Finally, as of the June 30, 2022 valuation, the Program has an unfunded actuarial liability (UAL) of $2.734 billion based on the AVA. This represents a decrease of $197 million from the $2.931 billion AVA UAL measured as of June 30, 2021. This compares to an expected decrease in the UAL of $144 million. The specific factors contributing to this change are presented in Table I-1 that follows. This table has separate columns showing the components of the changes in liabilities and investments during FY 2022 as well as their combined effect on the UAL.

Table I-1
(Amounts in Billions)

	Liabilities	Assets*	UAL
Value as of June 30, 2021	$ 16.392	$ 13.461	$ 2.931
Expected Change	0.377	0.521	(0.144)
Impact of Program Changes	0.105	0.105	0.000
Impact of Assumption Changes	0.000	0.000	0.000
Recognized Investment Gain	0.000	0.161	(0.161)
Recognized Liability Loss	0.108	0.000	0.108
Value as of June 30, 2022	$ 16.982	$ 14.248	$ 2.734

* This table uses actuarial value of assets. Results would be different if the market value were used.

The remainder of this Board Summary section summarizes the Program's historical trends, provides baseline projections of the Program's future status, and summarizes the principal results of the valuation. These principal results compare key results between this and last years' valuations for member counts, assets and liabilities, and contribution rates.

Trends

It is important to take a step back from the latest results and view them in the context of the Program's history. On the next few pages, we present a series of graphs that display key historical trends relating to the Program's condition. In addition to considering the past, examining future possible trajectories of the Program is also vital to understanding the current results. Baseline projections are provided in this Board Summary, and the potential variability of these results is explored further in the risk section of this report.

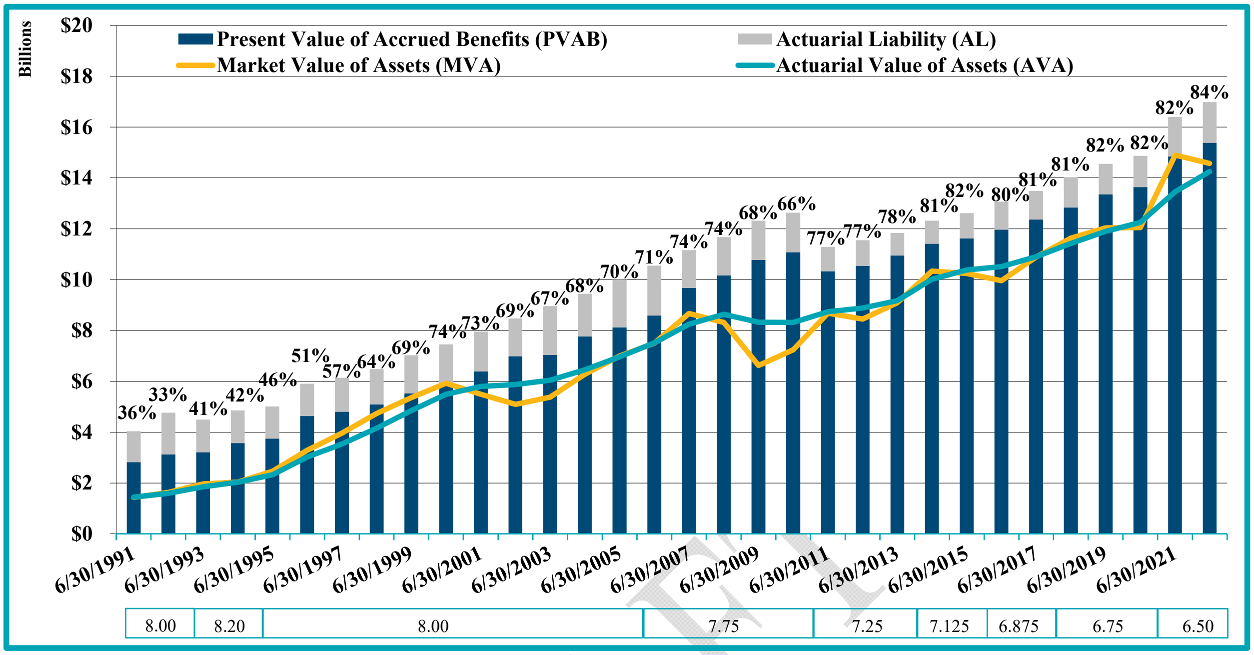
<u>Assets and Liabilities</u>

The following graph illustrates the progress of assets and liabilities for the Program since June 30, 1991 as well as the Program's funded ratio on an actuarial value of assets (AVA) basis.

Liability measures are shown as bars as of June 30 of the indicated years. The actuarial liability (AL), the liability measure used for the Program's funding purposes, is represented by the top of the grey bars. The blue bars represent the present value of accrued benefits (PVAB). These liability measures are discussed further in Section IV. Measures of the assets are shown as lines. The AVA is shown with a teal line, while the market value of assets (MVA) is shown as a yellow line. The AVA divided by the AL is the AVA funded ratio that is often used in evaluating the Program's funded status. The values of this metric as of each valuation date are shown as the

SECTION I – BOARD SUMMARY

percentages in the graph labels. The values shown below the dates are the discount rates in effect for each year and should be read as percentages, i.e., 8.00 represents an 8.00% discount rate.

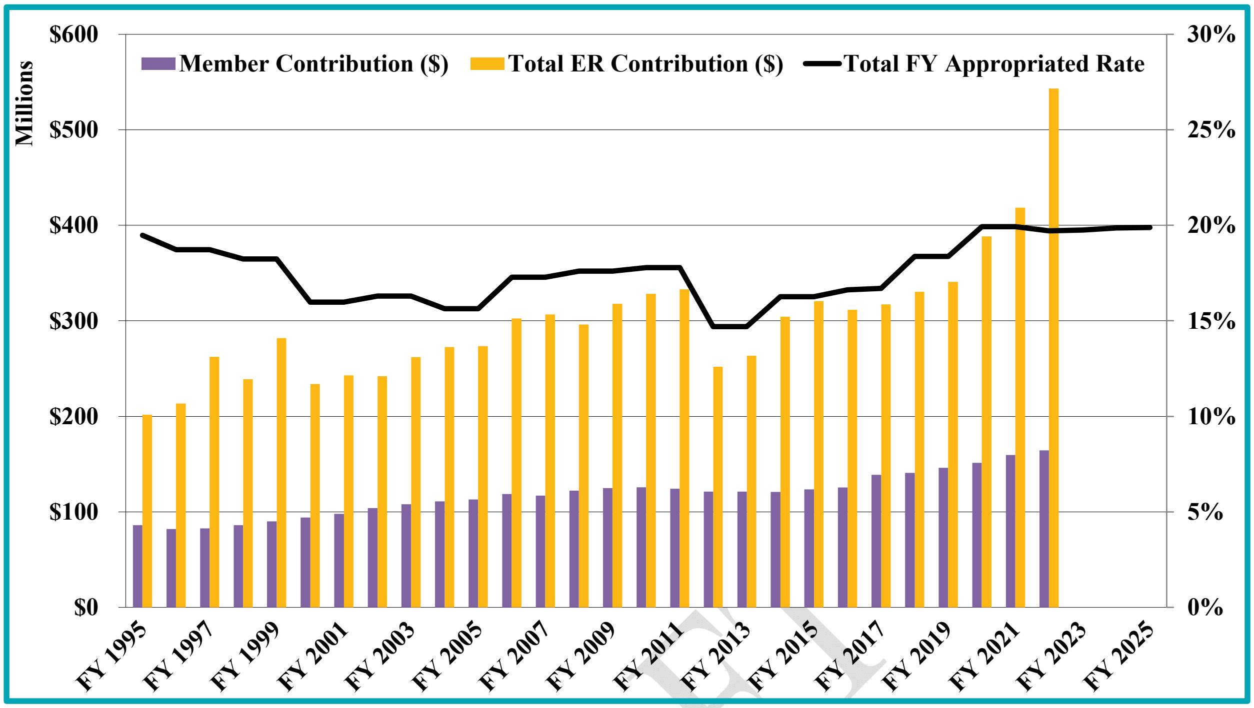


Plan changes were legislated during 2010 and first reflected in the 2011 valuation, resulting in the reduction in liability seen for that year. As of June 30, 2022, the Program is funded 83.9% based on the AVA funded ratio, which represents a slight increase from the 82.1% ratio reported in the prior valuation. Measured on an MVA basis, the funded ratio is 85.8% as of June 30, 2022, a significant decrease over last year's 90.9% MVA funded ratio.

Contributions

The next graph shows the history of contributions to the Program, both as dollar amounts and as percentages of payroll. The bars in this graph show the contributions made by both the employers and the members in dollar terms for each fiscal year (FY) as indicated by the horizontal axis since 1995. These bars are read using the left-hand axis. The black line shows the total appropriated employer contribution rate for the FY indicated as a percentage of payroll and references the right-hand axis. These rates are those determined by the ratemaking process rather than the informational rates determined in the annual valuations. The FY 2023 through FY 2025 contribution rates have already been determined based on the ratemaking process, so three additional years of the contribution rate are shown versus dollars received. The total employer contribution for FY 2022 includes the approximately $104.5 million extra payment to fund the COLA benefit change.

SECTION I – BOARD SUMMARY



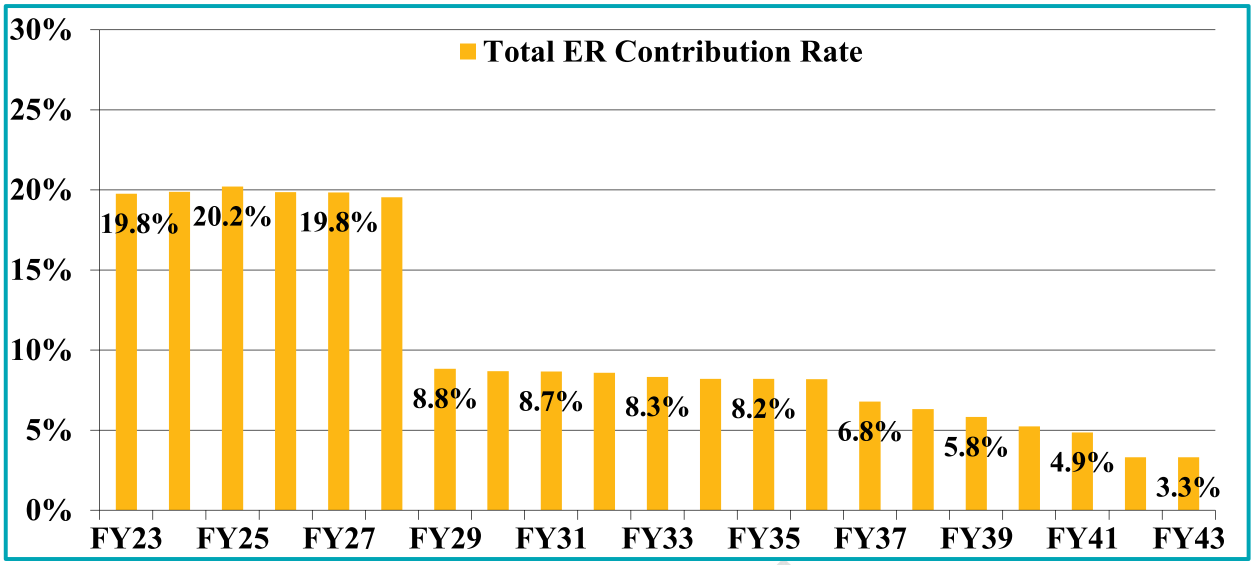
The member contribution rates are set by statute, based on the Plan within the Program in which each member participates. The total employer contribution rate is set by the ratemaking process on a biennial basis. The contribution rate for FY 2022 was based on a roll-forward of the June 30, 2019 valuation to June 30, 2020, as previously described in this Board Summary.

The most important information to be gleaned from this chart is that the Program, as evidenced in the prior chart, has successfully and significantly improved its funded status over the past 30 years, while maintaining a remarkably stable State contribution rate between approximately 15% and 20%.

Baseline Projections

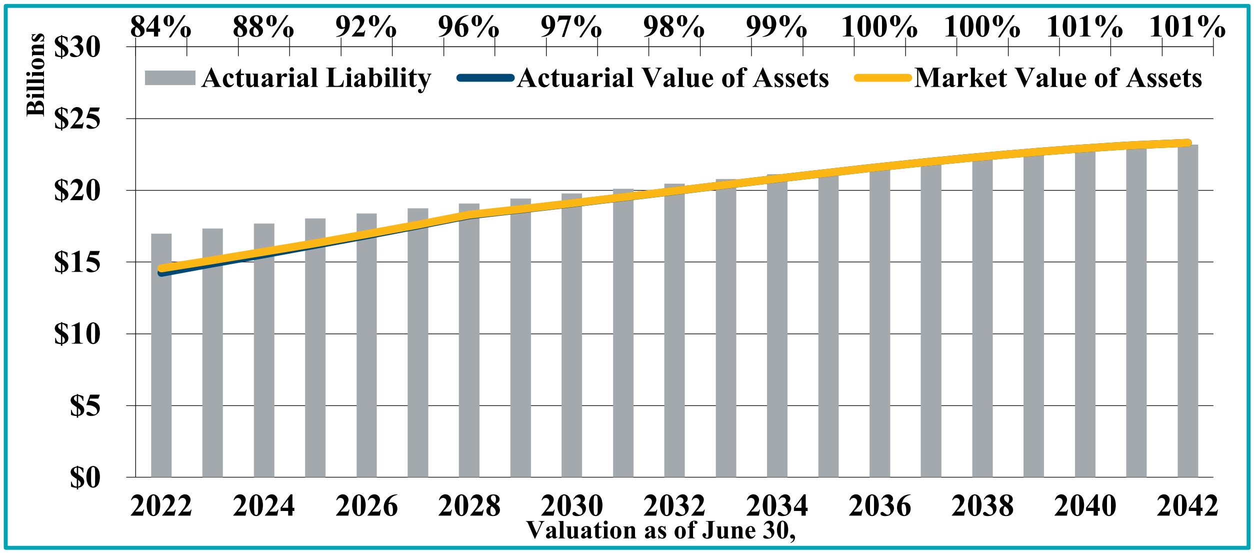
Our analysis of the projected financial trends for the Program is an important part of this valuation. In this section, we project future valuation results, focusing on the previously referenced AVA funded ratio (AVA over AL) and the expected employer contributions that will be developed through the ratemaking process in future biennia. Here we present a baseline projection of these metrics based on all actuarial assumptions being exactly met during the projection period, including the assumed 6.50% investment return being achieved each year. In the risk section of the report, we demonstrate the sensitivity of future valuation results to deviations in actual returns from the assumed investment returns by presenting similar projections based on investment returns averaging similar to the assumed returns but deviating from the assumed rate in the individual years of the 20-year projection period.

SECTION I – BOARD SUMMARY



This baseline projection shows that the overall composite employer contribution rate for the Program is projected to remain within 0.5% of the current rate of 19.75% applicable for FY 2023 through FY 2028, then dramatically drop off in FY 2029 once the 1996 UAL balance is fully paid off. At that point, the employer contribution rates under this baseline scenario drop substantially, initially to 8.8%, with small further changes thereafter as additional bases are recognized, with a general downward trend, dropping to 3.3% by the end of the projection period. Note that this baseline projection is based on all assumptions being met each and every year where the reality is that there will be gains and losses each and every year, resulting in new amortization layers, negative or positive, occurring every year. This concept is explored further in the risk section of this report.

SECTION I – BOARD SUMMARY



The graph above shows the projected AVA funded ratio (AVA divided by AL) over the next 20 years based on this baseline scenario. It shows that the Program's AVA funded ratio is projected to improve from the current 84% as of FY 2022 to over 100% starting in FY 2036. Under this baseline scenario where all underlying assumptions are exactly met, the AVA funded ratio increases to 101% by the end of the projection period. Note that the timing of contribution development and payment based on the biennial ratemaking process, as well as the combination of the amortization layers, results in the funded status being projected to exceed full funding during the projection period. Note that if the ratios used market value of assets (MVA), the funded ratios would be different.

Principal Results Summary

The last section of this Board Summary presents a summary of the principal results of the valuation, comparing key results between this and last years' valuations for member counts, assets and liabilities, and contribution rates. These summary results are shown for the total State Employee and Teacher Program, and then for each of these subgroups as well as the division of the State Employee Program into the Regular and Special Plans.

SECTION I – BOARD SUMMARY

Table I-2
Summary of Principal Results
Total State Employee and Teacher Program

	Valuation as of June 30, 2021	Valuation as of June 30, 2022	% Change
Member Counts			
Active Members	40,099	40,121	0.1%
Retired Members	29,301	30,036	2.5%
Beneficiaries of Retired Members	6,249	6,281	0.5%
Survivors of Deceased Members	580	584	0.7%
Disabled Members	1,560	1,507	(3.4)%
Terminated Vested Members	8,387	8,843	5.4%
Inactives Due Refunds	38,393	38,807	1.1%
Total Membership	124,569	126,179	1.3%
Annual Payroll of Active Members	$ 2,199,458,213	$ 2,265,365,936	3.0%
Annual Payments to Benefit Recipients	$ 884,049,653	$ 931,378,044	5.4%
Assets and Liabilities			
Actuarial Liability (AL)	$ 16,392,351,328	$ 16,981,792,082	3.6%
Actuarial Value of Assets (AVA)	13,460,870,272	14,248,105,921	5.8%
Unfunded AL (UAL)	$ 2,931,481,056	$ 2,733,686,161	(6.7)%
AVA Funded Ratio (AVA/AL)	82.1%	83.9%	
MVA Funded Ratio (MVA/AL)	90.9%	85.8%	
Accrued Benefit Liability (PVAB)	$ 14,840,603,750	$ 15,382,801,444	3.7%
Market Value of Assets (MVA)	14,900,644,020	14,568,691,334	(2.2)%
Unfunded PVAB	$ (60,040,270)	$ 814,110,110	N/A
MVA Accrued Benefit Funded Ratio	100.4%	94.7%	
Contributions as a Percentage of Payroll			
Employer Normal Cost Rate	4.64%	4.58%	
UAL Amortization Rate	17.08%	16.07%	
Total Employer Calculated Rate	21.72%	20.65%	

	2020 Ratemaking		2022 Ratemaking	
Total Employer Budgeted Rates	FY 2022	19.71%	FY 2024	19.87%
Total Employer Budgeted Rates	FY 2023	19.75%	FY 2025	19.89%

SECTION I – BOARD SUMMARY

Table I-3
Summary of Principal Results
Teacher Program

	Valuation as of June 30, 2021		Valuation as of June 30, 2022		% Change
Member Counts					
Active Members	27,444		27,718		1.0%
Retired Members	18,231		18,738		2.8%
Beneficiaries of Retired Members	2,970		2,997		0.9%
Survivors of Deceased Members	280		286		2.1%
Disabled Members	680		659		(3.1)%
Terminated Vested Members	5,368		5,693		6.1%
Inactives Due Refunds	29,934		29,784		(0.5)%
Total Membership	84,907		85,875		1.1%
Annual Payroll of Active Members	$ 1,414,446,640		$ 1,473,733,403		4.2%
Annual Payments to Benefit Recipients	$ 563,008,592		$ 592,819,578		5.3%
Assets and Liabilities					
Actuarial Liability (AL)	$ 10,736,439,623		$ 11,149,845,760		3.9%
Actuarial Value of Assets (AVA)	8,934,933,743		9,452,256,233		5.8%
Unfunded Actuarial Liability (UAL)	$ 1,801,505,880		$ 1,697,589,527		(5.8)%
AVA Funded Ratio (AVA/AL)	83.2%		84.8%		
MVA Funded Ratio (MVA/AL)	92.1%		86.7%		
Accrued Benefit Liability (PVAB)	$ 9,646,954,676		$10,012,727,541		3.8%
Market Value of Assets (MVA)	9,890,613,635		9,664,934,008		(2.3)%
Unfunded PVAB	$ (243,658,959)		$ 347,793,533		N/A
MVA Accrued Benefit Funded Ratio	102.5%		96.5%		
Contributions as a Percentage of Payroll					
Employer Normal Cost Rate	4.44%		4.41%		
UAL Rate	16.21%		15.05%		
Total Employer Rate	20.65%		19.46%		
	2020 Ratemaking		2022 Ratemaking		
Total Employer Budgeted Rates	FY 2022	18.13%	FY 2024	18.98%	
Total Employer Budgeted Rates	FY 2023	18.13%	FY 2025	18.98%	

SECTION I – BOARD SUMMARY

Table I-4
Summary of Principal Results
State Program (Regular and Special Plans)

	Valuation as of June 30, 2021		Valuation as of June 30, 2022		% Change
Member Counts					
Active Members	12,655		12,403		(2.0)%
Retired Members	11,070		11,298		2.1%
Beneficiaries of Retired Members	3,279		3,284		0.2%
Survivors of Deceased Members	300		298		(0.7)%
Disabled Members	880		848		(3.6)%
Terminated Vested Members	3,019		3,150		4.3%
Inactives Due Refunds	8,459		9,023		6.7%
Total Membership	39,662		40,304		1.6%
Annual Payroll of Active Members	$ 785,011,573		$ 791,632,533		0.8%
Annual Payments to Benefit Recipients	$ 321,041,061		$ 338,558,466		5.5%
Assets and Liabilities					
Actuarial Liability (AL)	$ 5,655,911,705		$ 5,831,946,322		3.1%
Actuarial Value of Assets (AVA)	4,525,936,529		4,795,849,688		6.0%
Unfunded Actuarial Liability (UAL)	$ 1,129,975,176		$ 1,036,096,634		(8.3)%
AVA Funded Ratio (AVA/AL)	80.0%		82.2%		
MVA Funded Ratio (MVA/AL)	88.6%		84.1%		
Accrued Benefit Liability (PVAB)	$ 5,193,649,074		$ 5,370,073,903		3.4%
Market Value of Assets (MVA)	5,010,030,385		4,903,757,326		(2.1)%
Unfunded PVAB	$ 183,618,689		$ 466,316,577		154.0%
MVA Accrued Benefit Funded Ratio	96.5%		91.3%		
Contributions as a Percentage of Payroll					
Employer Normal Cost Rate	5.01%		4.90%		
UAL Rate	18.67%		18.00%		
Total Employer Rate	23.68%		22.90%		
	2020 Ratemaking		2022 Ratemaking		
Total Employer Budgeted Rates	FY 2022	22.74%	FY 2024	21.51%	
Total Employer Budgeted Rates	FY 2023	22.88%	FY 2025	21.58%	

SECTION I – BOARD SUMMARY

Table I-5
Summary of Principal Results
State Program – Regular Plans Only

	Valuation as of June 30, 2021		Valuation as of June 30, 2022		% Change
Member Counts					
Active Members	10,968		10,787		(1.7)%
Retired Members	10,012		10,224		2.1%
Beneficiaries of Retired Members	2,880		2,899		0.7%
Survivors of Deceased Members	284		281		(1.1)%
Disabled Members	802		772		(3.7)%
Terminated Vested Members	2,662		2,759		3.6%
Inactives Due Refunds	7,404		7,837		5.8%
Total Membership	35,012		35,559		1.6%
Annual Payroll of Active Members	$ 659,392,341		$ 666,124,924		1.0%
Annual Payments to Benefit Recipients	$ 279,034,216		$ 294,619,012		5.6%
Assets and Liabilities					
Actuarial Liability (AL)	$ 4,760,482,177		$ 4,907,347,328		3.1%
Actuarial Value of Assets (AVA)	3,837,853,657		4,053,902,852		5.6%
Unfunded Actuarial Liability (UAL)	$ 922,628,520		$ 853,444,476		(7.5)%
AVA Funded Ratio (AVA/AL)	80.6%		82.6%		
MVA Funded Ratio (MVA/AL)	89.2%		84.5%		
Accrued Benefit Liability (PVAB)	$ 4,377,395,170		$ 4,529,855,680		3.5%
Market Value of Assets (MVA)	4,248,350,217		4,145,116,528		(2.4)%
Unfunded PVAB	$ 129,044,953		$ 384,739,152		198.1%
MVA Accrued Benefit Funded Ratio	97.1%		91.5%		
Contributions as a Percentage of Payroll					
Employer Normal Cost Rate	4.81%		4.79%		
UAL Rate	18.13%		17.59%		
Total Employer Rate	22.94%		22.38%		
	2020 Ratemaking		2022 Ratemaking		
Total Employer Budgeted Rates	FY 2022	22.11%	FY 2024	21.07%	
Total Employer Budgeted Rates	FY 2023	22.24%	FY 2025	21.14%	

SECTION I – BOARD SUMMARY

Table I-6
Summary of Principal Results
State Program – Special Plans Only

	Valuation as of June 30, 2021		Valuation as of June 30, 2022		% Change
Member Counts					
Active Members	1,687		1,616		(4.2)%
Retired Members	1,058		1,074		1.5%
Beneficiaries of Retired Members	399		385		(3.5)%
Survivors of Deceased Members	16		17		6.3%
Disabled Members	78		76		(2.6)%
Terminated Vested Members	357		391		9.5%
Inactives Due Refunds	1,055		1,186		12.4%
Total Membership	4,650		4,745		2.0%
Annual Payroll of Active Members	$ 125,619,232		$ 125,507,609		(0.1)%
Annual Payments to Benefit Recipients	$ 42,006,845		$ 43,939,454		4.6%
Assets and Liabilities					
Actuarial Liability (AL)	$ 895,429,528		$ 924,598,994		3.3%
Actuarial Value of Assets (AVA)	688,082,872		741,946,836		7.8%
Unfunded Actuarial Liability (UAL)	$ 207,346,656		$ 182,652,158		(11.9)%
AVA Funded Ratio (AVA/AL)	76.8%		80.2%		
MVA Funded Ratio (MVA/AL)	85.1%		82.1%		
Accrued Benefit Liability (PVAB)	$ 816,253,904		$ 840,218,223		2.9%
Market Value of Assets (MVA)	761,680,168		758,640,798		(0.4)%
Unfunded PVAB	$ 54,573,736		$ 81,577,425		49.5%
Accrued Benefit Funded Ratio	93.3%		90.3%		
Contributions as a Percentage of Payroll					
Employer Normal Cost Rate	6.05%		5.48%		
UAL Rate	21.41%		20.00%		
Total Employer Rate	27.46%		25.48%		
	2020 Ratemaking		2022 Ratemaking		
Total Employer Budgeted Rates	FY 2022	25.82%	FY 2024	23.83%	
Total Employer Budgeted Rates	FY 2023	25.98%	FY 2025	23.92%	

SECTION II – RISK ASSESSMENT AND DISCLOSURE

Introduction

The Program's actuarial valuation results are dependent on assumptions about future economic and demographic experience. Based on actuarial standards of practice, these assumptions represent a reasonable estimate for future experience. However, actual future experience will never conform exactly to these assumptions and may differ significantly from the assumptions. This deviation is a risk that pension plan sponsors bear in relying on a pension plan's actuarial valuation results.

This section of this report is intended to identify the primary drivers of these risks, provide background information and assessments about these identified risks, and communicate the significance of these risks to this Program.

Identification of Risks

For this Program, the three primary valuation results that can significantly differ from those expected are the assets, the liabilities, and the employer contributions. While there are several factors that could lead to these results being different, we believe the primary risks for this Program are:

- Investment risk,
- Longevity and other demographic risks,
- Plan change risk, and
- Assumption change risk

Other risks that we have not identified may also turn out to be significant.

SECTION II – RISK ASSESSMENT AND DISCLOSURE

Investment Risk is the potential for investment returns to deviate from what is expected. When actual investment returns are lower than the investment assumption used in the actuarial valuation, the unfunded liability will increase from what was expected and will require higher contributions than otherwise anticipated. But when actual returns exceed those assumed, the resulting unfunded liability measurements and actuarially determined contributions will be lower than anticipated. As seen in the historical section that follows, this has been a significant driver of deviations in the actual measurements for this Program from those expected by the prior valuations.

Longevity and Other Demographic Risk is the potential for mortality or other demographic experience to be different than expected. Generally, longevity and other demographic risks emerge slowly over time as the actual experience deviates from expectations. In addition, the extensive number of assumptions related to longevity and other demographic experience often result in offsetting deviations contributing to the Program's overall liability experience. As such, these risks are often dwarfed by other risks, particularly those due to the investment returns. The historical section that follows shows that this has been true for this Program in most individual years, with the magnitude of the gains and losses from investment experience often significantly larger than the gains and losses from liability experience. In addition, during the past 10 years, the offsetting effects of the longevity and other demographic risk gains and losses have been such that the cumulative effect of this longevity and other demographic risk as seen in the liability gains and losses has only been about a third of the investment gains and losses over this same period.

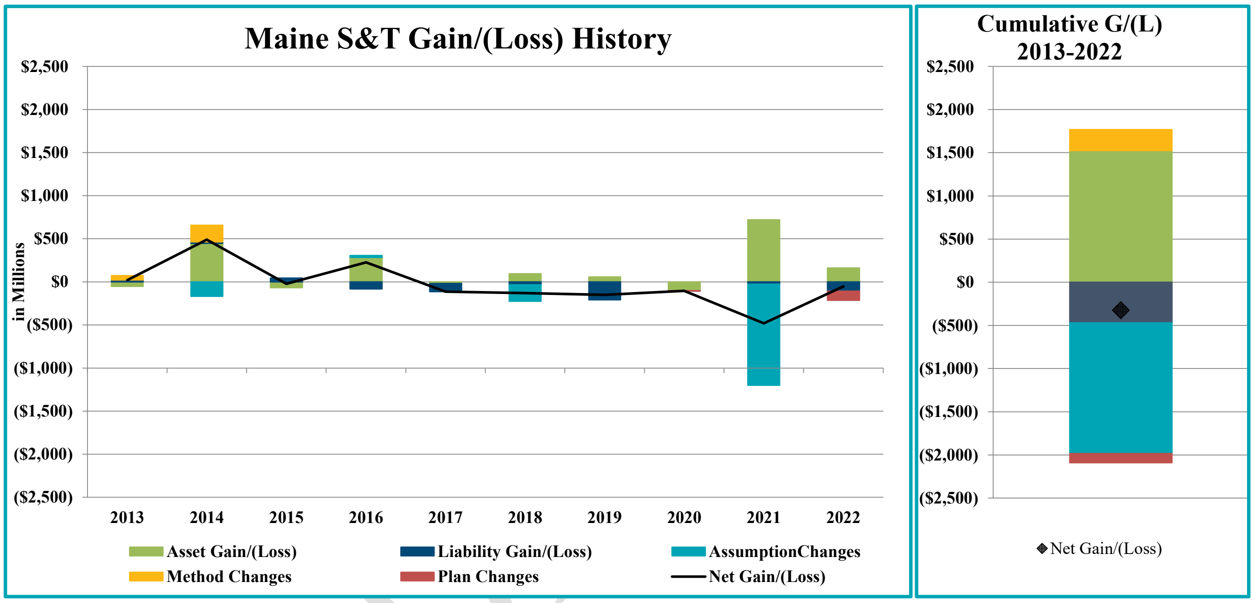
Plan Change Risk is the potential for the provisions of the Program to be changed such that the funding or benefits are changed materially. In addition to the actual payments to and from the Program being changed, future valuation measurements can also be impacted, with Program changes leading to deviations between actual future measurements and those expected by prior valuations. For this Program, this risk is partially mitigated by the constitutional requirement that any Program changes creating new actuarial liabilities must be fully funded. Over the period shown in the 10 years of the historical section, the only significant plan change for this Program was the additional COLA paid and increase in the COLA base related to the September 1, 2021 COLA. However, it is worth noting that there have been significant plan changes in other periods, in particular, changes in 2011, which produced a large gain.

Assumption Change Risk is the potential for the environment to change such that future valuation assumptions are adjusted to be different than the current assumptions. For example, declines in interest rates over time may result in a change in the assumed rates of return used in the valuation. A healthier workforce may result in changes in employee behavior such that retirement rates are adjusted to reflect employees working longer. Assumption change risk is an extension of the risks previously identified, but rather than capturing the risk as it is experienced, it captures the cost of recognizing a change in the environment resulting in the current assumption no longer being reasonable. The historical review section will show that assumption change risk has been the second most significant risk for this Program over the period. In addition to changes in individual assumptions, changes to the methods used in valuing the

Program can have a significant impact on the valuation results as can be seen based on the method change items in the Program's historical experience, where these changes have produced a gain for the Program over the period shown.

Historical Experience Deviations

In understanding the impact of some of these risks, it is useful to look at past experience deviations. These deviations are commonly referred to as actuarial gains and losses. The following chart shows the gains/(losses) at each valuation date between the actual and expected experience broken down by cause for the last 10 years.



As described previously and is evident in this chart, assumption changes and asset gains and losses have been the most significant risks for the Program over this 10-year period on a cumulative basis. The next two causes of experience deviations, the liability gains/(losses) and the method changes, were much less significant over this period. Over this period, plan changes were relatively insignificant.

Plan Maturity Measures

As pension plans become more mature, the primary risks of adverse investments, demographic deviations, plan changes, and assumption/method changes become of more significant concern as the resulting impacts on the Program's condition are more pronounced. As a result, it has become increasingly important to examine measures that indicate a pension plan's maturity level. With shrinking workforces, aging Baby Boomers, and retirees living longer, plans pay out more in benefits than they receive in contributions – leading to negative cash flows, excluding investment income, making it harder for a plan to recover from losses since contributions are generally made based on active payroll.

SECTION II – RISK ASSESSMENT AND DISCLOSURE

One of the main reasons risks are more amplified with a mature plan is that when plans with negative cash flows suffer investment losses, they need to liquidate enough assets to pay for benefits in excess of contributions. That means these plans will need to earn higher returns to rebuild their assets to the previous levels. Plans with negative cash flows exceeding five percent of assets are especially vulnerable to asset losses.

The balance of this section discloses and examines three maturity measures: the asset leverage ratio, the support ratio, and the net cash flow ratio.

Asset Leverage Ratio

One important plan maturity measure is the asset leverage ratio, the market value of assets divided by the plan's payroll, which represents the percentage of payroll that would need to be contributed to make up a given change in the plan's assets. As a plan matures, its assets increase, and a greater proportion of the assets are paid out in benefit payments to members. The greater the plan's assets are relative to payroll, the more vulnerable the plan is to investment volatility in terms of the resulting contribution requirement changes.

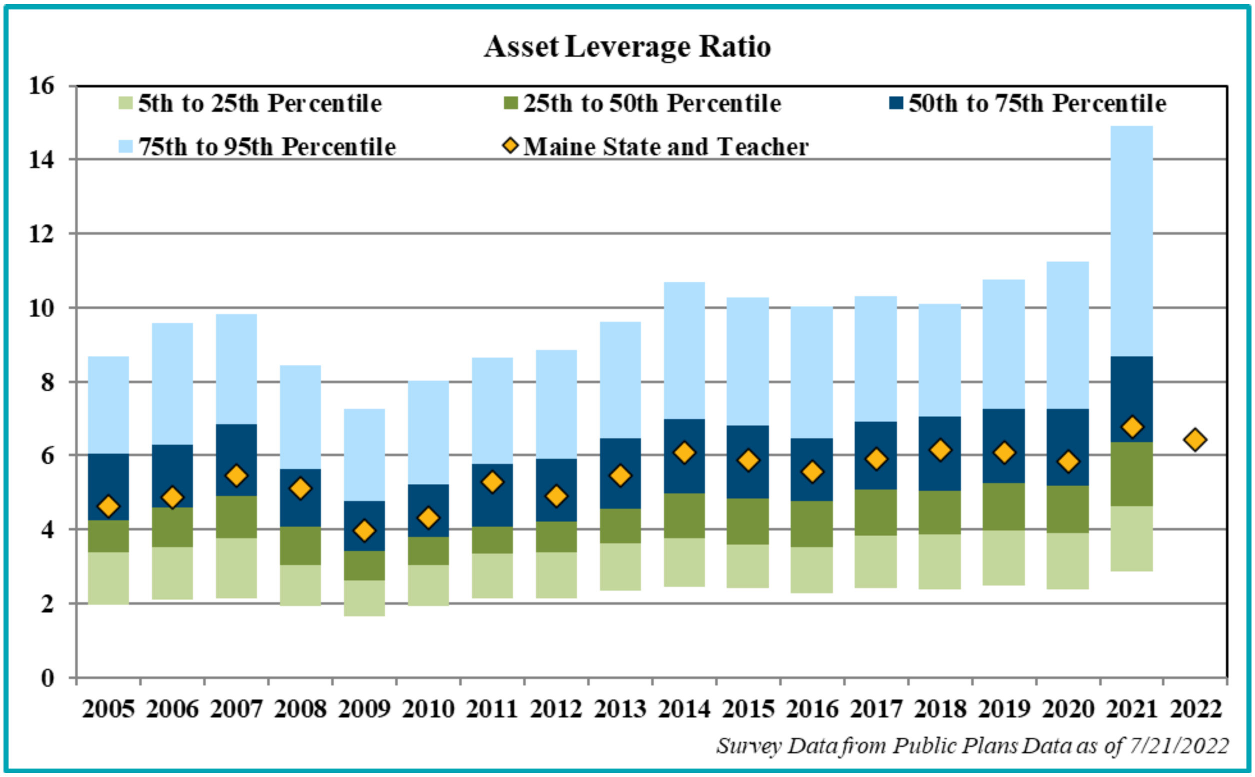
As an example, here are two plans that both experience a 10% investment loss equaling $500 million on their existing assets of five billion dollars. Plan A's asset leverage ratio is 10 and Plan B's ratio is five. This means that Plan A has to spread, or amortize, that loss over a payroll that is half as large as Plan B's. As seen in the chart below, this results in the percentage of payroll that Plan A would need to contribute to make up the loss being double what would be required for Plan B.

	($ in millions)	
	Plan A	**Plan B**
Plan Assets	**$ 5,000**	**$ 5,000**
Payroll	**$ 500**	**$ 1,000**
Asset Leverage Ratio	**10.0**	**5.0**
10% Loss	**$ 500**	**$ 500**
10% Loss as % of Payroll	**100%**	**50%**

The Government Finance Officers Association (GFOA), MissionSquare Research Institute, the National Association of State Retirement Administrators (NASRA), and the Center for Retirement Research at Boston maintain the Public Plans Data database that contains almost all state plans as well as many large municipal plans, covering over 95% of the membership in public plans as well as over 95% of the assets held by public pension plans.

The chart that follows shows the asset leverage ratios for the Program and the plans in this database since 2005. The colored bars represent the central 90% of the asset leverage ratios of the plans in the database for each year. The Maine State Employee and Teacher Program is represented by the gold diamonds. This chart shows that the Program's asset leverage ratio has generally increased over this period, both in absolute terms and relative to the universe of other systems, although it had remained steady, within approximately 50% of 600% of salary, for the eight years prior to 2021, when it increased to 677%, or 6.77 times salary. Due to the market loss in FY 2022, the rate is now back within the previous range, at 643%, or 6.43 times salary.

Note that the charts showing the Program versus this universe of public plans in this section show one more year for the Program than the universe as the 2022 numbers are not yet available for the database. When these numbers are available, we anticipate that the universe of public plans will also show a similar increase in this ratio given the significant decrease in the market value of assets that most of these plans experienced during 2022.

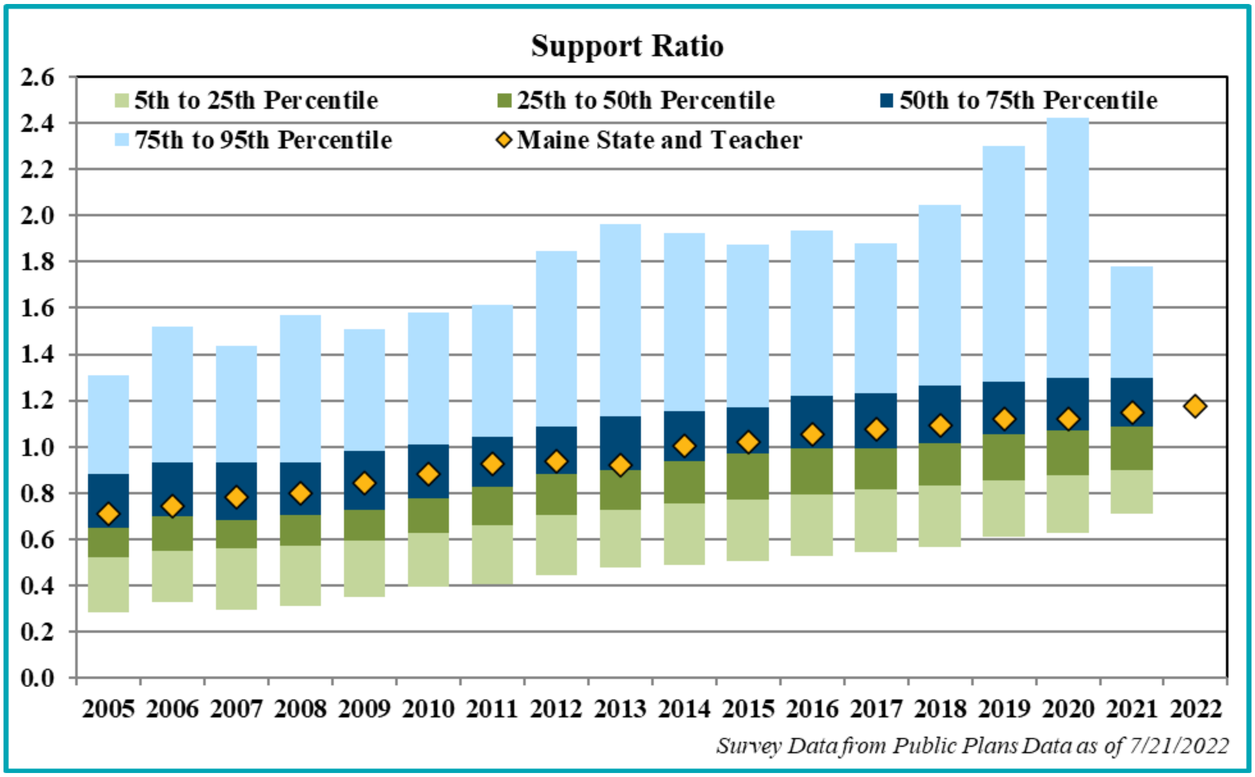


SECTION II – RISK ASSESSMENT AND DISCLOSURE

Support Ratios

Another commonly used measure of plan maturity is the support ratio, the ratio of in-pay and inactive members, or those receiving benefits or entitled to a deferred benefit, to the number of active members, or those currently accruing benefits in the plan. The greater this ratio, the more mature a plan is considered, with the proportion of the plan's liability represented by actives generally declining.

The chart that follows shows the support ratio over time for the Program compared to the Public Plans Data database.



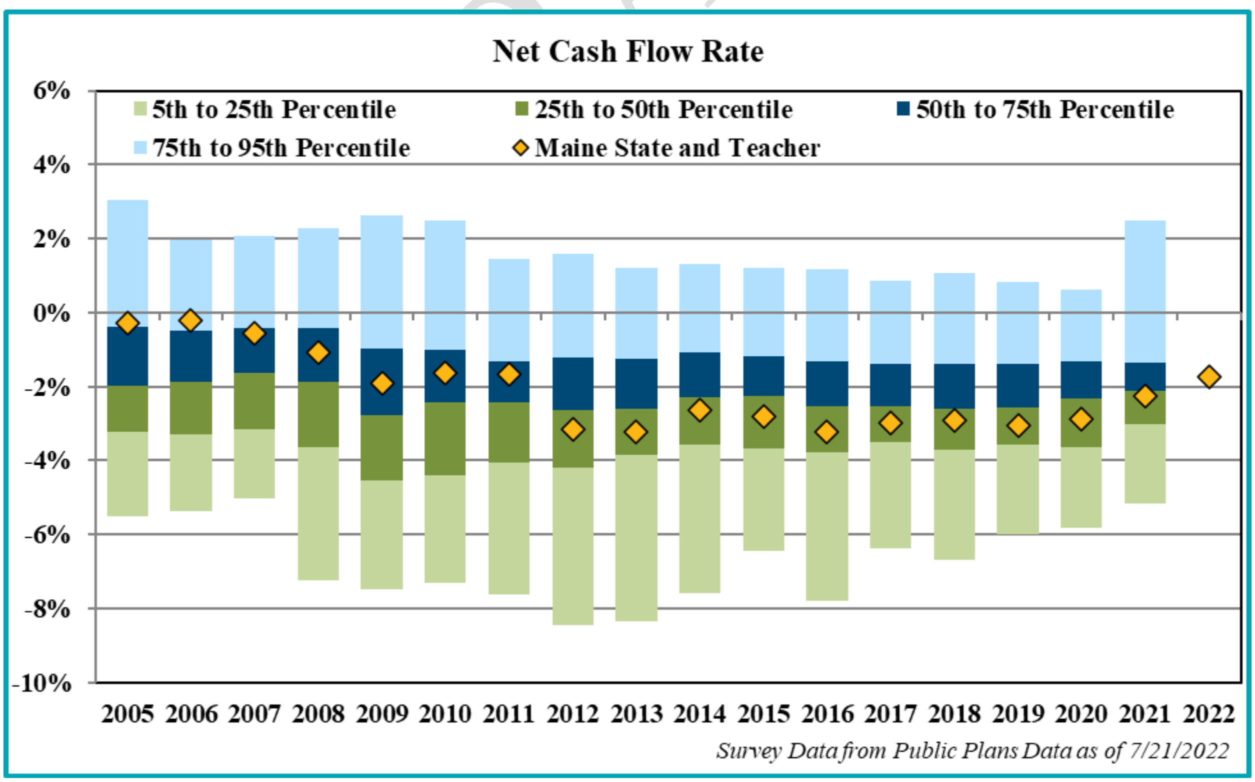
The gold diamonds in this chart show that the Program's support ratio for each year has generally increased over time in absolute terms while staying in relatively the same position relative to the universe of systems. This indicates that the Program is maturing, as have most plans in this database over the years and has done so at a rate similar to that of the universe of public plans as a whole.

SECTION II – RISK ASSESSMENT AND DISCLOSURE

Net Cash Flow Ratio

Another measure of plan maturity is the ratio of the net cash flow (excluding investment returns) for a plan – contributions less benefits and expenses – divided by the market value of plan assets. When this ratio is significantly negative, a plan is very vulnerable to market declines. This vulnerability increases as this ratio becomes more negative.

This chart shows that the Program's net cash flow ratio in 2005 was about negative 0.3% and generally trended towards more negative values through 2012. Since then, it has been relatively stable within 0.35% of negative 2.95% in all years except for the most recent two years where this ratio has significantly increased. In FY 2021, the Program's negative cash flow improved to negative 2.3%, largely due to the significant asset gains in FY 2021. And in FY 2022, the Program's negative cash flow again improved, to negative 1.7%, due largely to the extra contributions made to the Trust to fund the COLA benefit change enacted in FY 2022. Relative to the public plans universe, the Program had smaller negative cash flows than the median plan in the database at the beginning of this period, but in recent years has had net cash flows that have been generally trending closer to those of the median plan in this universe. Since the results for other systems as of 2022 are not yet available, we do not yet know how the improvement in the net cash flow ratio for this System in 2022 will compare relative to that of other systems. However, the overall pattern of this measure becoming more negative for the Program relative to the universe of public pensions does provide some indication that this Program may be maturing at a pace somewhat faster than the typical public plan.



Assessing Future Risk

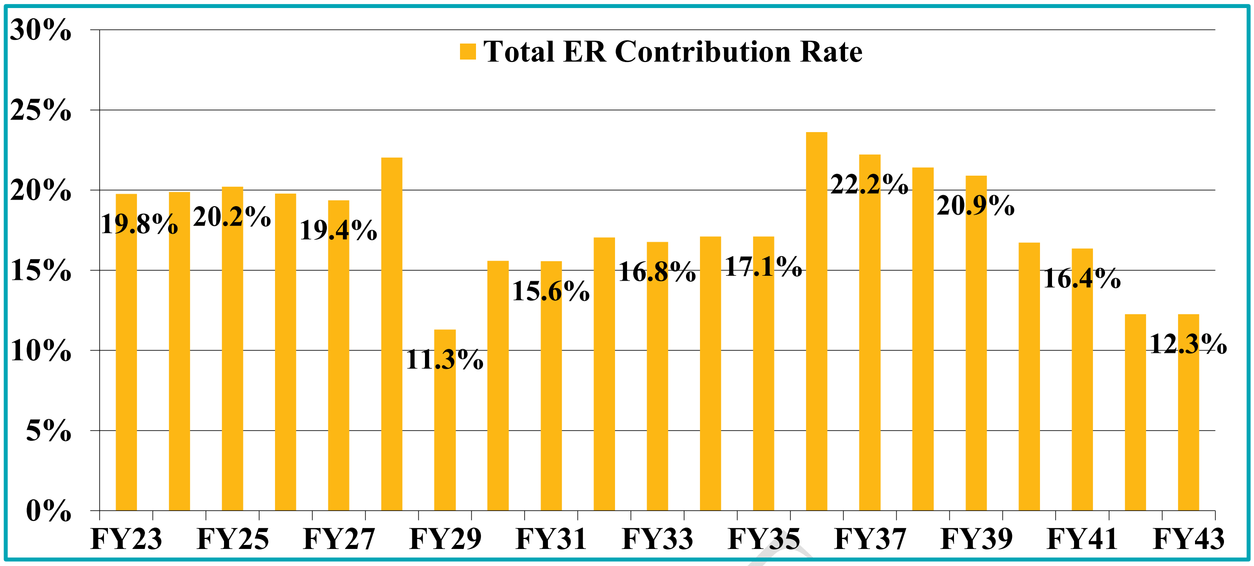
Assessing the future risk that the expected measurements produced by the actuarial valuations will deviate from the actual values over time is complex and can never be exactly known. However, to try to assist the Board in its utilization of this report, we have attempted to develop some basic assessments of this risk in the remainder of this section, focusing on risks related to investment returns.

Pages 4-6 have additional detail on the baseline projection produced from this valuation. It is important to note that baseline projections, while valid, **are not going to occur** as experience never conforms exactly to assumptions every year. As discussed in the plan maturity section, as plans become more mature, it typically becomes more difficult for them to recover from market declines even when the average investment return over an extended period is equal to the expected return. As a demonstration of this, on the following pages we show a scenario that is based on assuming varying returns in the future. We based this varying return scenario on assuming the returns for the next 20 years would equal what a portfolio invested 75% in the SP-500 index and 25% in the Lehman Brothers bond index would have earned for the 20-year period July 1, 1999 through June 30, 2019 as a rough proxy for the Program's asset allocation. This period produced an arithmetic average return of 6.90% for this hypothetical portfolio and a geometric average return of 6.32%. The arithmetic return under this scenario is thus slightly greater than the assumed 6.50% annual return reflected in the baseline scenario while the geometric return for this scenario is slightly less than this assumed rate. The rates assumed for this scenario are shown below.

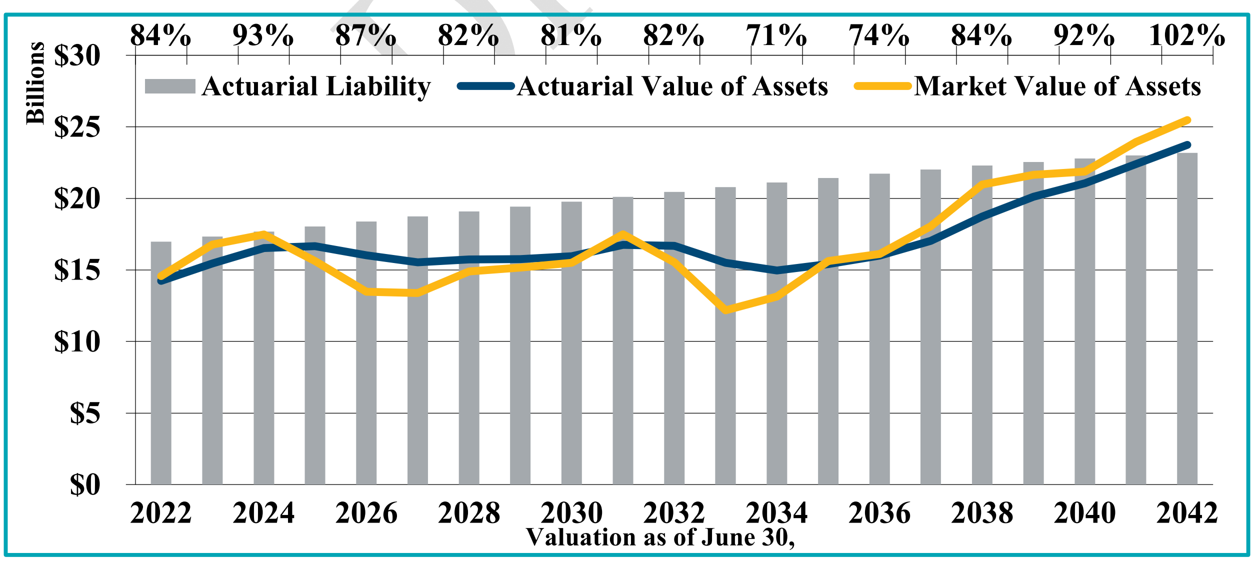
FY	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Return	17.9%	6.6%	-8.3%	-11.3%	2.8%	14.4%	6.4%	6.3%	17.0%	-8.1%
FY	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
Return	-18.1%	13.2%	24.0%	6.0%	15.3%	19.6%	6.0%	4.5%	13.3%	10.7%

With varying annual earnings, one can see the volatility in the employer contributions in the first chart. Where the near-term contributions in the baseline scenario were relatively stable, staying within approximately 0.5% of the current rate until the 1996 UAL is paid off, under this scenario with varying returns, the contributions during that period are much more volatile, increasing to a maximum of over 22% as well as a minimum of 11.3% during this period through FY 2028. Also note that in the period after the 1996 UAL is paid off, the contribution rates are much more volatile in this scenario, including ranging to rates of almost 24% and with all years remaining higher than those anticipated in the baseline scenario. Note that this chart reflects an illustrative scenario and is not intended to reflect future expectations as the volatility of the contributions will vary with the volatility of the returns. It is provided simply to demonstrate the magnitude of this potential volatility.

SECTION II – RISK ASSESSMENT AND DISCLOSURE



The actuarial value funded ratio of the Program is also more volatile with varied returns as seen in the following graph based on this illustrative varying returns scenario. These two scenarios end at approximately the same funded ratio, 101% in the baseline and 102% in the illustrative varying returns scenario. However, where the baseline projection has the funded ratio steadily increasing from the current 84% to 101% over the forecasted period, in this illustrative varying returns scenario, the funded ratio is much more volatile, reflecting the volatility of the assumed returns. Note also that the timing of contribution development and payment, as well as the combination of the amortization layers, results in the Plan being funded over 100% at times in both scenarios.



SECTION III – ASSETS

Pension plan assets play a key role in the financial operation of plans and in the decisions that Trustees make with respect to future deployment of those assets. The level of assets, the allocation of assets among asset classes, and the methodology used to measure assets will likely affect benefit levels, employer contribution rates, and the ultimate security of members' benefits.

The assets for all Defined Benefit (DB) Programs administered by MainePERS are invested together. These Programs are the State Employee and Teacher Retirement Program that is valued in this report, the Judicial Retirement Program, the Legislative Retirement Program, and the Participating Local District (PLD) Retirement Program, including both the Consolidated Plan and the several Nonconsolidated PLDs. The assets of these Programs are entirely commingled for investment purposes, so the actuarial value of assets (AVA) for each of these Programs is developed by first developing it for the entire asset pool and then subsequently allocating that total AVA to each of the specific Programs.

In this section, we present detailed information on the Program's assets including:

- Disclosure of total MainePERS DB assets at June 30, 2021 and June 30, 2022,
- Statement of changes in total MainePERS DB market values during the year,
- Development of the total MainePERS DB actuarial value of assets,
- Allocation of the total actuarial value to MainePERS DB Programs,
- Assessment of the total MainePERS DB investment performance, and
- Projection of expected cash flows for the Program for the next 10 years.

Disclosure

The market value of assets (MVA) represents a "snap-shot" or "cash-out" value, which provides the principal basis for measuring financial performance from one year to the next. However, market values can fluctuate widely with corresponding swings in the marketplace, resulting in volatility in the resulting contributions if the unadjusted market value is used in the valuation process that develops the contributions. Therefore, a smoothed actuarial value of assets is developed for use in the valuation process and for evaluating the Program's ongoing ability to meet its obligations. The actuarial value of the Program's assets is developed by allocating the actuarial value of the total MainePERS DB assets to each Program. This section discloses the market and actuarial values of the MainePERS DB assets both in total and for each Program.

SECTION III – ASSETS

Table III-1 that follows develops the change in the market value of assets for the total MainePERS DB assets during FY 2022.

Table III-1
Changes in Market Value of Total MainePERS Defined Benefit (DB) Assets

Market Value of Total MainePERS DB Assets – June 30, 2021		**$ 18,768,097,954**
Additions		
Contributions:		
Employer Contributions	$ 623,238,478	
Member Contributions	230,265,185	
Transfers	(227,555)	
Total Contributions	$ 853,276,108	
Investment Income:		
Net Appreciation (Depreciation) in Fair Value of Investments	$ 30,962,372	
Interest on Bank Balances	299,311	
Total Investment Income	$ 31,261,683	
Investment Activity Expenses:		
Management Fees	$ (125,930,618)	
Investment Related Expense	(5,177,112)	
Banking Fees	(34,677)	
Total Investment Activity Expenses	$ (131,142,407)	
Net Income from Investing Activities	$ (99,880,724)	
Total Additions		$ 753,395,384
Deductions		
Retirement Benefits	$(1,070,744,688)	
Disability Benefits	(27,833,411)	
Survivor Benefits	(26,237,094)	
Refunds	(24,312,164)	
Administrative Expenses	(15,067,128)	
Total Deductions		$ (1,164,194,485)
Total		
Net Increase (Decrease)		$ (410,799,101)
Market Value of Total MainePERS DB Assets – June 30, 2022		**$ 18,357,298,853**

SECTION III – ASSETS

Table III-2 that follows develops the actuarial value of assets for the total MainePERS DB assets as of June 30, 2022 using the adopted actuarial valuation methodology.

Table III-2
Development of Actuarial Value of Total MainePERS Defined Benefit (DB) Assets as of June 30, 2022

1.	Actuarial Value of Total MainePERS DB Assets at June 30, 2021	$ 16,954,631,725
2.	Amount in (1) with Interest to June 30, 2022	18,056,682,787
3.	Employer and Member Contributions for FY 2022	853,276,108
4.	Interest on Contributions in (3), Assuming Received Uniformly throughout FY 2022	27,294,914
5.	Total Disbursements without Administrative Expenses, for FY 2022	(1,149,127,357)
6.	Interest on Disbursements in (5), Assuming Payments made Uniformly throughout FY 2022	(36,758,713)
7.	Expected Value of Total MainePERS DB Assets at June 30, 2022 = (2) + (3) + (4) + (5) + (6)	$ 17,751,367,739
8.	Actual Market Value of Total MainePERS DB Assets at June 30, 2022	18,357,298,853
9.	Excess of (8) Over (7)	605,931,114
10.	Actuarial Value of Total MainePERS DB Assets at June 30, 2022 = (7) + [33⅓% of (9)]	$ 17,953,344,777

Actuarial Value of Total MainePERS DB Assets

As discussed in the disclosure portion of this section, the actuarial value of assets for the Program represents a “smoothed” value developed by the actuary to reduce, or eliminate, volatility in valuation results, particularly contribution rates, that could develop from short-term fluctuations in the market value of assets. Current actuarial methods employed in this Program use an allocated portion of the total actuarial value of assets for the total MainePERS DB assets based on the Program’s market value of assets to develop the actuarial value of assets for the Program. The methodology for the total MainePERS DB assets sets the actuarial value of assets equal to the expected value of the actuarial value of assets plus one-third of the difference between the actual market value of assets and the expected actuarial value of assets. The expected value of the actuarial value of assets takes the prior year’s actuarial value of assets and adjusts it for contributions, disbursements, and expected interest earnings at the investment return assumption that was in effect for the previous year, 6.50% for this valuation. The previous table, Table III-2, illustrates the calculation of the actuarial value of assets for the total MainePERS DB assets as of June 30, 2022.

SECTION III – ASSETS

Allocation of Actuarial Value of Assets to the Program

The assets for the defined benefit (DB) Programs administered by MainePERS are commingled for investment purposes with the actuarial value of assets for the total assets allocated to the individual Programs on the basis of the market value of the assets for each Program. An asset ratio (total MainePERS DB actuarial value of assets divided by total MainePERS DB market value of assets) is applied to the market value of assets attributable to each of the Programs to determine their actuarial value of assets as of the valuation date. The asset ratio derived in this June 30, 2022 valuation, as shown in Table III-2 above, is 0.977995 ($17,953,344,777 ÷ $18,357,298,853). The allocation of actuarial value of the total MainePERS DB assets to each of the MainePERS DB Programs based on this asset ratio is shown in the following chart.

Table III-3
Allocation of Actuarial Value of Total MainePERS DB Assets
as of June 30, 2022

Program	Market Value	Actuarial Value
Teacher	$ 9,664,934,008	$ 9,452,256,233
State (Regular & Special)	4,903,757,326	4,795,849,688
Judicial	85,821,158	83,932,655
Legislative	16,142,942	15,787,715
Participating Local Districts (Consolidated & Non-Consolidated)	3,686,643,419	3,605,518,486
Total	$ 18,357,298,853	$ 17,953,344,777

Investment Performance

The market value of assets for the total MainePERS DB assets returned a negative 0.62% during FY 2022. This is lower than the assumed return of 6.50% for FY 2022. The equivalent market value returns for the total MainePERS DB assets for FY 2021 and FY 2020 were positive 26.76% and positive 2.89%, respectively.

On an actuarial value of assets basis, the return for FY 2022 was a positive 7.70% for the total MainePERS DB assets. This return is greater than both the return on a market value basis and the 6.50% assumption in effect for FY 2022. Therefore, this return gave rise to an investment gain on the total MainePERS DB assets this year.

Cash Flow Projections

Table III-4
Projection of State Employee and Teacher Program Benefit Payments and Contributions

FY Ending June 30,	Expected Benefit Payments	Expected Employer Contributions	Expected Member Contributions	Total Expected Contributions
2023	$1,003,174,000	$ 453,520,000	$ 177,045,000	$ 630,565,000
2024	1,037,225,000	468,823,000	181,914,000	650,737,000
2025	1,071,047,000	482,201,000	186,916,000	669,117,000
2026	1,104,490,000	494,686,000	192,057,000	686,743,000
2027	1,136,995,000	507,963,000	197,338,000	705,301,000
2028	1,168,548,000	514,191,000	202,765,000	716,956,000
2029	1,199,924,000	238,518,000	208,341,000	446,859,000
2030	1,231,512,000	240,692,000	214,070,000	454,762,000
2031	1,261,904,000	247,037,000	219,957,000	466,994,000
2032	1,290,896,000	251,498,000	226,006,000	477,504,000

In Table III-4 above, we provide a projection of expected cash flows in and out of the Program for the next 10 years for informational purposes. The Board may share these projections with its investment advisor for consideration of the gap shown between the cash expected to come into the Program through employer and member contributions and the cash expected to be paid out of the Program to provide benefit payments.

The expected benefit payments in Table III-4 were developed using the data currently included in this valuation and on the assumption that the actuarial assumptions disclosed in Appendix C will be exactly met. Actual benefit payments will vary if members retire sooner or later than assumed, if salary increases and actual future post-retirement COLAs differ from those assumed, or if other assumptions differ from the actual experience seen. These benefit projections exclude any assumption about new Program participants, whose experience will eventually lead to increased benefit payments. However, we do not feel this exclusion will materially impact the projections for the period shown.

Expected employer contributions in this table use the budgeted contributions for FY 2023 through FY 2025. Future contributions beyond that point are developed based on the assumption that all actuarial assumptions will be exactly met in the projection period, including that the market value of assets will earn 6.50% per year, that payroll grows at 2.75% per year, and that these rates are based on following the biennial budgeting process. These future employer contributions are shown graphically in the baseline projection on page five.

The expected member contributions are similarly based on a 2.75% per year assumed increase in covered payroll multiplied by the current average aggregate member contribution rate of 7.71% for FY 2023.

SECTION IV – LIABILITIES

In this section, we present detailed information on Program liabilities including:

- Disclosure of the Program's liabilities as of June 30, 2021 and June 30, 2022,
- Statement of changes in these liabilities during the year, and
- An allocation of liabilities to the Teacher, State Regular, and State Special Plans.

Disclosure

Several types of liabilities are calculated and presented in this report. Each type is distinguished by the purpose for which the figures are ultimately used.

- Present Value of Future Benefits (PVB): Used for analyzing the overall financial obligations of the Program, this represents the amount of money needed today to fully fund all future benefits of the Program, assuming no new members, that active members continue to earn salary increases and accrue benefits under their current Program provisions, and that all actuarial assumptions are exactly met, including the 6.50% per year investment return.

- Actuarial Liability (AL): Used for funding calculations and GASB disclosures, this liability is calculated taking the PVB above and subtracting the value of accruals that are assigned to future years on a person-by-person basis. This offset is equal to the present value of future member contributions and future employer normal cost contributions under an acceptable actuarial cost method. For this Program and the other MainePERS DB Programs, the method used is referred to as the entry age normal (EAN) cost method, which is the only permitted actuarial cost method for GASB disclosures.

- Present Value of Accrued Benefits (PVAB): Used for communicating the liabilities for benefits accrued as of the valuation date. Note that last year, the amount of assets exceeded this liability basis, so there was a surplus of the MVA compared to the PVAB, but for the current year the MVA is once again less than this liability basis so there is a net unfunded amount of the PVAB compared to the MVA.

Table IV-1 that follows discloses each of these liabilities for the current and prior years' valuations. With respect to the actuarial liability and the present value of accrued benefits, a subtraction of the appropriate value of the Program's assets yields, for each respective type, a net surplus or an unfunded liability. For the PVB measure, it is compared to the market value of assets plus the expected future value of contributions to the Program. The future employer contributions are calculated as the expected rates for each year times the expected future payroll as of each date. The future member contributions are calculated assuming the current average rate of 7.71% will be continued for all future years and applied to the expected future payroll as of each date. The difference between the PVB and these anticipated resources indicates either an expected shortfall or an expected surplus representing either additional funding required or excess funding and indicates the size of the Program's stored gains or losses that remain outside of the valuation process currently.

SECTION IV – LIABILITIES

We note that none of the liabilities presented in this report is an appropriate measure of a settlement liability.

The liability measures are compared to appropriate measures of assets, along with the expected future value of member and employer contributions where appropriate. The difference between the liability measure and the anticipated resources indicates either an expected shortfall or an expected surplus related to that liability measure. The surplus or shortfall on the present value of benefits (PVB) measure indicates the size of the Program's stored gains or losses that remain outside of the valuation process.

Table IV-1
Disclosure of Liabilities

	June 30, 2021	June 30, 2022
Present Value of Benefits (PVB)		
Active Member Benefits	$ 8,232,539,040	$ 8,366,730,693
Retired, Disabled, Survivor, and Beneficiary Benefits	9,633,181,638	10,061,113,007
Terminated Vested Benefits	672,216,005	764,170,145
Terminated Nonvested Benefits	81,709,816	85,668,598
Total PVB	**$ 18,619,646,499**	**$ 19,277,682,443**
Market Value of Assets (MVA)	$ 14,900,644,020	$ 14,568,691,334
Future Member Contributions	1,465,479,203	1,517,909,749
Future Employer Contributions	3,814,725,520	3,636,826,533
Projected (Surplus)/Shortfall	(1,561,202,244)	(445,745,173)
Total Resources	**$ 18,619,646,499**	**$ 19,277,682,443**
Actuarial Liability (AL)		
Present Value of Benefits (PVB)	$ 18,619,646,499	$ 19,277,682,443
Present Value of Future Normal Costs (PVFNC)		
Employer Portion	761,815,968	777,980,612
Member Portion	1,465,479,203	1,517,909,749
Actuarial Liability (AL = PVB – PVFNC)	$ 16,392,351,328	$ 16,981,792,082
Actuarial Value of Assets (AVA)	13,460,870,272	14,248,105,921
Net (Surplus)/Unfunded (AL – AVA)	$ 2,931,481,056	$ 2,733,686,161
Present Value of Accrued Benefits		
Present Value of Future Benefits (PVB)	$ 18,619,646,499	$ 19,277,682,443
Present Value of Future Benefit Accruals (PVFBA)	3,779,042,749	3,894,880,999
Accrued Liability (PVAB = PVB – PVFBA)	$ 14,840,603,750	$ 15,382,801,444
Market Value of Assets (MVA)	14,900,644,020	14,568,691,334
Net (Surplus)/Unfunded (PVAB – MVA)	**$ (60,040,270)**	**$ 814,110,110**

SECTION IV – LIABILITIES

Changes in Liabilities

Each of the liabilities disclosed in the prior table is expected to change at each subsequent valuation. The components of these changes, depending upon which liability is analyzed, can include:

- New Program members since the last valuation
- Benefits accrued since the last valuation
- Program amendments changing benefits since the last valuation
- Passage of time, which adds interest to the prior liability
- Benefits paid to members since the last valuation
- Members retiring, terminating, or dying at rates different than expected since the last valuation
- Salaries changing at rates different than expected since the last valuation
- A change in actuarial assumptions since the last valuation
- A change in the actuarial cost method since the last valuation

Unfunded liability measurements will change because of all of the above, as well as due to changes in the Program's asset measurements resulting from:

- Contributions being different than expected
- Investment earnings being different than expected
- A change in the method used to measure the Program's assets in developing the unfunded liability measure since the last valuation

In each valuation, we report on those elements of change in the Program's liability measures that are of particular significance, potentially affecting the long-term financial outlook of the Program. In Table IV-2 that follows, we present key changes in the Program's liability measures since the last valuation.

Table IV-2

	Present Value of Future Benefits	Actuarial Liability	Present Value of Accrued Benefits
Liability Measurement – June 30, 2021	$ 18,619,646,499	$ 16,392,351,328	$ 14,840,603,750
Liability Measurement – June 30, 2022	19,277,682,443	16,981,792,082	15,382,801,444
Liability Measurement Increase/ (Decrease) Due to:	$ 658,035,944	$ 589,440,754	$ 542,197,694
Program Amendment	$ 108,666,200	$ 104,916,162	$ 90,520,043
Assumption Change	0	0	0
Actuarial (Gain)/Loss	N/C	107,921,791	N/C
Benefits Accumulated and Other Sources	$ 549,369,744	$ 376,602,801	$ 451,677,651

N/C = Not calculated

SECTION IV – LIABILITIES

Table IV-3 below presents the actuarial liability information for the Program in total as well as divided into the Teacher Program, the State Regular Plans, and the State Special Plans.

Table IV-3
Allocation of Actuarial Liability as of June 30, 2022

	Total Program	Teacher Program	State Regular Plans	State Special Plans
1. Actuarial Liabilities for:				
a. Active Members	$ 6,070,840,332	$4,121,167,637	$ 1,582,532,767	$ 367,139,928
b. Retired, Disabled, Survivor, and Beneficiary Members	10,061,113,007	6,433,639,301	3,091,511,253	535,962,453
c. Terminated (Vested & Nonvested) Members	849,838,743	595,038,822	233,303,308	21,496,613
2. Total Actuarial Liability [1(a) + 1(b) + 1(c)]	$ 16,981,792,082	$11,149,845,760	$ 4,907,347,328	$ 924,598,994
3. Actuarial Value of Assets	14,248,105,921	9,452,256,233	4,053,902,852	741,946,836
4. Unfunded Actuarial Liability (2 – 3)	$ 2,733,686,161	$1,697,589,527	$ 853,444,476	$ 182,652,158

SECTION V – CONTRIBUTIONS

In this section, we present detailed information on informational employer contribution rates as developed in this June 30, 2022 valuation for the Program, including:

- Development of the composite total employer contribution rate, including the composite employer normal cost rate (NC rate) and the composite unfunded actuarial liability (UAL) amortization rate (UAL amortization rate),
- Summary of the employer normal cost rate, the UAL rate, and the total employer rate by Plan,
- Derivation and division of the composite UAL rate into the two component Programs, Teacher and State, and
- Allocation of the UAL rate for the total State Program into each State Regular and Special Plan.

Note that these contribution rates are only informational, and the actual contribution rates are set by the budgeting process described in the Board Summary at the beginning of this report.

Description of Rate Components

For the Plans in this Program, the funding methodology employed to determine the employer contribution rates is the entry age normal (EAN) cost method. Under this method, there are two components to the total employer contribution rate: the NC rate and the UAL amortization rate. Both of these rates are developed separately for each Plan within the Program, consisting of the Teacher Plan, the State Regular Plan, and several State Special Plans.

An individual EAN cost rate is determined for each active member. The normal cost is determined by the following steps. First, an individual normal cost rate for each member is determined by taking the value of their projected future benefits, as of entry age into the Program. Second, this value is then divided by the value, also at entry age, of the member's expected future salary. Finally, the resulting total normal cost rate is reduced by the member contribution rate to produce the employer's normal cost rate for the member. These rates are then multiplied by each member's salary as of the valuation date and added together to get the total employer normal cost dollars as of the valuation date for the Program, which is then divided by the total payroll at the valuation date for the Program to get the employer normal cost rate for the Program. This process results in specific total and employer normal cost rates for each of the Plans in the Program.

The unfunded actuarial liability under the EAN cost method equals the present value, at the time of valuation, of the future benefit payments less the present value of future employer normal cost contributions, future member contributions, and current assets. The UAL amortization rate is the percentage that applied to member payroll, which is assumed to increase 2.75% per year, is expected to amortize the UAL according to the Program's amortization policy. Specifically, the remaining original UAL from 1996 has six years of its amortization period remaining, the UAL amount for the period from 1997 through 2011 has six years of its amortization period remaining, and all other gains, losses, and changes since then are amortized over individual twenty-year periods beginning on the date as of which they were first measured with the exception of the gain base related to FY 2014, for which the amortization was accelerated by six years beginning with the 2022 ratemaking. As such, we have similarly accelerated the amortization of this base in developing the informational rates contained in this report with a remaining period of six years as of June 30, 2022. This June 30, 2022 valuation is the first valuation reflecting the accelerated amortization of the FY 2014 base.

Contribution Calculations

Table V-1 below presents and compares the composite total employer contribution rate, as well as its two components, for all Plans in the Program in aggregate as developed in this valuation and the prior one.

Table V-1
Composite Total Employer Rate

Valuation Date	June 30, 2021	June 30, 2022
Composite Employer NC Rate	4.64%	4.58%
Composite UAL Amortization Rate	17.08%	16.07%
Composite Total Employer Rate	21.72%	20.65%

The rates developed in this section are for valuation purposes only. Actual budgeted rates are set based on the ratemaking process described in the Board Summary section.

Table V-2 that follows shows the employer NC rate, the UAL amortization rate, and the total employer rate for each Plan in the Program as well as the Program in total and divided into the Teacher and State Programs.

The liability and resulting necessary contributions associated with groups that no longer have any active participants as of the current valuation date are included with the State Regular Program. With this valuation, the Forest Ranger Plan no longer has any active participants and as such is no longer included within Table V-2.

SECTION V – CONTRIBUTIONS

Table V-2
Total Employer Contribution Rates by Plan

Valuation Date June 30, 2022	Total NC Rate	Employee Contribution Rate	Employer NC Rate	UAL Contribution Rate	Total Employer Contribution Rate
Total Program	12.29%	7.71%	4.58%	16.07%	20.65%
Teacher Program	12.06%	7.65%	4.41%	15.05%	19.46%
State Program	12.71%	7.81%	4.90%	18.00%	22.90%
State Regular	12.44%	7.65%	4.79%	17.59%	22.38%
25 & Out Plan	14.15%	8.65%	5.50%	20.03%	25.53%
1998 Special Plan	13.99%	8.65%	5.34%	19.80%	25.14%
Fire Marshals	20.56%	8.65%	11.91%	29.11%	41.02%
State Police*	19.87%	8.65%	11.22%	28.16%	39.38%
Inland F&W*	23.25%	8.65%	14.60%	32.92%	47.52%

* Closed plan

Table V-3 that follows provides the development of the 16.07% UAL amortization rate for the Program as a whole and divided between the Teacher and State Programs.

SECTION V – CONTRIBUTIONS

Table V-3
Derivation of Unfunded Actuarial Liability Rates

Valuation Date June 30, 2022	Teacher Program	State Program (Regular and Special Plans)	Total Program
1. Actuarial Liability (AL)	$ 11,149,845,760	$ 5,831,946,322	$ 16,981,792,082
2. Actuarial Value of Assets (AVA)	9,452,256,233	4,795,849,688	14,248,105,921
3. Unfunded Actuarial Liability (UAL)	$ 1,697,589,527	$ 1,036,096,634	$ 2,733,686,161
4. Remaining Balances of Prior Amortization Bases			
a. 1996 UAL Amount	$ 1,612,965,480	$ 928,788,952	$ 2,541,754,432
b. 1997-2011 UAL Base	(615,030,326)	(354,151,021)	(969,181,347)
c. 2012 (Gain)/Loss Base	25,118,978	22,378,587	47,497,565
d. 2013 (Gain)/Loss Base	(112,005,287)	125,893,422	13,888,135
e. 2014 (Gain)/Loss Base	(180,631,240)	(81,687,993)	(262,319,233)
f. 2015 (Gain)/Loss Base	3,458,907	(5,539,148)	(2,080,241)
g. 2016 (Gain)/Loss Base	164,315,059	184,109,613	348,424,672
h. 2017 (Gain)/Loss Base	100,533,683	18,280,150	118,813,833
i. 2018 (Gain)/Loss Base	108,607,708	28,434,618	137,042,326
j. 2019 (Gain)/Loss Base	143,450,290	23,948,338	167,398,628
k. 2020 (Gain)/Loss Base	26,608,732	84,285,633	110,894,365
l. 2021 (Gain)/Loss Base	404,522,537	77,451,169	481,973,706
m. 2022 (Gain)/Loss Base	15,675,006	(16,095,686)	(420,680)
n. Sum of the Bases	$ 1,697,589,527	$ 1,036,096,634	$ 2,733,686,161
5. UAL Amortizations			
a. 1996 UAL Amount 6 Years	$ 302,868,828	$ 174,400,026	$ 477,268,854
b. 1997-2011 UAL Base 6 Years	(115,485,121)	(66,499,442)	(181,984,563)
c. 2012 (Gain)/Loss Base 10 Years	3,029,928	2,699,374	5,729,302
d. 2013 (Gain)/Loss Base 11 Years	(12,490,302)	14,039,041	1,548,739
e. 2014 (Gain)/Loss Base 6 Years*	(33,917,385)	(15,338,671)	(49,256,056)
f. 2015 (Gain)/Loss Base 13 Years	337,425	(540,358)	(202,933)
g. 2016 (Gain)/Loss Base 14 Years	15,131,783	16,954,664	32,086,447
h. 2017 (Gain)/Loss Base 15 Years	8,783,623	1,597,136	10,380,759
i. 2018 (Gain)/Loss Base 16 Years	9,041,923	2,367,269	11,409,192
j. 2019 (Gain)/Loss Base 17 Years	11,423,355	1,907,074	13,330,429
k. 2020 (Gain)/Loss Base 18 Years	2,033,612	6,441,657	8,475,269
l. 2021 (Gain)/Loss Base 19 Years	29,760,174	5,697,977	35,458,151
m. 2022 (Gain)/Loss Base 20 Years	1,113,034	(1,142,905)	(29,871)
n. Sum of Amortization Payments	$ 221,630,877	$ 142,582,842	$ 364,213,719

* The amortization of the FY 2014 base was accelerated by six years beginning with the 2022 ratemaking.

SECTION V – CONTRIBUTIONS

Table V-3 (continued)
Derivation of Unfunded Actuarial Liability Rates

	Valuation Date June 30, 2022	Teacher Program	State Program (Regular and Special Plans)	Total Program
6.	Covered Payroll	$ 1,473,733,403	$ 791,632,533	$ 2,265,365,936
7.	UAL Amortization Rates			
	a. 1996 UAL Amount 6 Years	20.55%	22.03%	21.05%
	b. 1997-2011 UAL Base 6 Years	(7.84)%	(8.40)%	(8.03)%
	c. 2012 (Gain)/Loss Base 10 Years	0.21%	0.34%	0.25%
	d. 2013 (Gain)/Loss Base 11 Years	(0.85)%	1.77%	0.07%
	e. 2014 (Gain)/Loss Base 6 Years	(2.30)%	(1.94)%	(2.17)%
	f. 2015 (Gain)/Loss Base 13 Years	0.02%	(0.07)%	(0.01)%
	g. 2016 (Gain)/Loss Base 14 Years	1.03%	2.14%	1.42%
	h. 2017 (Gain)/Loss Base 15 Years	0.60%	0.20%	0.46%
	i. 2018 (Gain)/Loss Base 16 Years	0.61%	0.30%	0.50%
	j. 2019 (Gain)/Loss Base 17 Years	0.78%	0.24%	0.59%
	k. 2020 (Gain)/Loss Base 18 Years	0.14%	0.81%	0.37%
	l. 2021 (Gain)/Loss Base 19 Years	2.02%	0.72%	1.57%
	m. 2022 (Gain)/Loss Base 20 Years	0.08%	(0.14)%	0.00%
	n. Sum of UAL Amortization Rates	**15.05%**	**18.00%**	**16.07%**

SECTION V – CONTRIBUTIONS

Table V-4 below shows the development of the UAL amortization rate for each specific Plan within the State Program.

Table V-4
Allocation of Unfunded Actuarial Liability Amortization Rate within State Program (Regular & Special Plans)

Valuation Date June 30, 2022	Total State Program	State Regular Plan	25 & Out Plan	1998 Special Plan	Fire Marshals	State Police (Closed)	Inland F&W (Closed)
1. Employer NC Rate	4.90%	4.79%	5.50%	5.34%	11.91%	11.22%	14.60%
2. Member Contribution Rate	7.81%	7.65%	8.65%	8.65%	8.65%	8.65%	8.65%
3. Total NC Rate	12.71%	12.44%	14.15%	13.99%	20.56%	19.87%	23.25%
4. UAL Amortization Rates*							
a. 1996 UAL Amount	22.03%	21.56%	24.53%	24.25%	35.64%	34.44%	40.30%
b. 1997-2011 UAL Base	(8.40)%	(8.22)%	(9.35)%	(9.25)%	(13.59)%	(13.13)%	(15.37)%
c. 2012 Loss Base	0.34%	0.33%	0.38%	0.37%	0.55%	0.53%	0.62%
d. 2013 Loss Base	1.77%	1.73%	1.97%	1.95%	2.86%	2.77%	3.24%
e. 2014 Gain Base	(1.94)%	(1.90)%	(2.16)%	(2.14)%	(3.14)%	(3.03)%	(3.55)%
f. 2015 Gain Base	(0.07)%	(0.07)%	(0.08)%	(0.08)%	(0.11)%	(0.11)%	(0.13)%
g. 2016 Loss Base	2.14%	2.09%	2.38%	2.36%	3.46%	3.35%	3.91%
h. 2017 Loss Base	0.20%	0.20%	0.22%	0.22%	0.32%	0.31%	0.37%
i. 2018 Loss Base	0.30%	0.29%	0.33%	0.33%	0.49%	0.47%	0.55%
j. 2019 Loss Base	0.24%	0.23%	0.27%	0.26%	0.39%	0.38%	0.44%
k. 2020 Loss Base	0.81%	0.79%	0.90%	0.89%	1.31%	1.27%	1.48%
l. 2021 Gain Base	0.72%	0.70%	0.80%	0.79%	1.16%	1.13%	1.32%
m. 2022 Gain Base	(0.14)%	(0.14)%	(0.16)%	(0.15)%	(0.23)%	(0.22)%	(0.26)%
n. Sum of Amortization Rates	**18.00%**	**17.59%**	**20.03%**	**19.80%**	**29.11%**	**28.16%**	**32.92%**

* The UAL amortization rate for the State Program in total is allocated to each of the Plans within the Program based on the ratio of that Plan's total NC rate to the 12.71% total NC rate for the State Program in total.

SECTION V – CONTRIBUTIONS

The rates developed in this section are for informational purposes only. Actual budgeted rates are set based on the ratemaking process described in the Board Summary section.

Table V-5 shows the anticipated future amortization through FY 2028 of the UAL attributable to periods before FY 2012. This chart assumes that the current discount rate of 6.50% and the aggregate, or across-the-board, payroll increase of 2.75% applies to each year in the future.

Table V-5
Original UAL Amortization
Total Program

June 30,	UAL Balance	UAL Payment
2022	$1,572,573,085	$295,284,291
2023	1,370,060,380	303,404,607
2024	1,146,004,278	311,748,234
2025	898,774,004	320,321,311
2026	626,626,446	329,130,148
2027	327,698,679	338,181,226
2028	0	

SECTION VI – FINANCIAL DISCLOSURE INFORMATION

This section contains financial disclosure information regarding the Program developed under a number of accounting standards and guidance.

First, for informational purposes, we show the Program's funded status under the Financial Accounting Standards Board (FASB) ASC Topic 960, which discloses how the market value of assets would compare to accrued liabilities if contributions were to stop and accrued benefit claims had to be satisfied as of the valuation date. However, due to potential legal requirements and the possibility that alternative interest rates would have to be used to determine the liabilities, these values may not be a good indication of the amount of money it would take to buy the benefits for all members if all provisions of the Program were to terminate. We have prepared the following exhibit in this section based on FASB ASC Topic 960:

- Table VI-1: Accrued Benefits Information

The Governmental Accounting Standards Board (GASB) Statement Nos. 67 and 68 establish standards for disclosure of pension information by public employee retirement systems (PERS) and governmental employers in financial statements, notes to financial statements, and supplementary information. We have prepared the following exhibits reflecting provisions of GASB Statement Nos. 67 and 68:

- Table VI-2: Schedule of Changes in Net Pension Liability and Related Ratios
- Table VI-3: Sensitivity of Net Pension Liability to Changes in Discount Rate
- Table VI-4: Schedule of Employer Contributions
- Table VI-5: Average Expected Remaining Service Lives

A summary of the terminology used in GASB Statement Nos. 67 and 68 is provided in Appendix D of this report. Note that while much of the information provided in this report under GASB No. 67 is also utilized in GASB No. 68, Table VI-5 included in this section is only applicable to GASB No. 68.

Finally, we have also developed disclosure information in this section based on additional guidance relating to the Annual Comprehensive Financial Reports (ACFR) of PERS provided by the Government Finance Officers Association (GFOA) in their publication, *Governmental Accounting, Auditing, and Financial Reporting* (GAAFR). We have prepared the following exhibits reflecting guidance in the GAAFR:

- Table VI-6: Analysis of Financial Experience
- Table VI-7: Schedule of Funded Liabilities by Type

The present value of accrued benefits, the total pension liability (GASB 67/68), and the actuarial liability (GAAFR) disclosures in this section are all determined assuming that the Program is ongoing and participants continue to terminate employment, retire, etc., in accordance with the actuarial assumptions. Liabilities as of June 30, 2022 are discounted at the assumed valuation interest rate of 6.50% per annum in all of these disclosures.

SECTION VI – FINANCIAL DISCLOSURE INFORMATION

Table VI-1 below includes the relevant amounts as of June 30, 2021 and June 30, 2022 as well as a reconciliation between the two dates under FASB ASC Topic 960.

Table VI-1
Accrued Benefits Information

	June 30, 2021	June 30, 2022
FASB ASC Topic 960 Basis		
1. Present Value of Benefits Accrued to Date (PVAB)		
a. Members Currently Receiving Payments	$ 9,633,181,638	$ 10,061,113,007
b. Terminated Vested Members	672,216,005	764,170,145
c. Terminated Nonvested Members	81,709,816	85,668,598
d. Active Members	4,453,496,291	4,471,849,694
e. Total PVAB	$ 14,840,603,750	$ 15,382,801,444
2. Market Value of Assets (MVA)	14,900,644,020	14,568,691,334
3. Unfunded Present Value of Accrued Benefits, but not less than Zero	$ 0	$ 814,110,110
4. Ratio of MVA to PVAB (2)/(1)(e)	100.4%	94.7%
Change in Present Value of Benefits Accrued to Date during FY 2022		
Increase/(Decrease) during Year Attributable to:		
Passage of Time		$ 934,316,043
Benefits Paid		(947,944,497)
Assumption Changes		0
Program Changes		90,520,043
Benefits Accrued, Other Gains/Losses		465,306,105
Net Increase (Decrease)		$ 542,197,694

Table VI-2 that follows shows the changes in the total pension liability (TPL), the Program's fiduciary net position (FNP) (i.e., fair value of the Program's net assets), and the net pension liability (NPL) during the measurement year ending June 30, 2022 as well as related ratios calculated under the provisions of GASB Statement No. 67 for the Program.

As of the June 30, 2022 valuation, the fiduciary net position for this Program was projected to be available to make all projected future benefit payments for current Program 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 pension liability under GASB Nos. 67 and 68. The projection of cash flows used to determine the discount rate assumed that member contributions will be made at the current contribution rates, and the employer contributions will be made according to the actuarial calculations developed in the biennial ratemaking process.

SECTION VI – FINANCIAL DISCLOSURE INFORMATION

Table VI-2
Schedule of Changes in Net Pension Liability and Related Ratios
FY 2022

	Teacher Program	State Program	Total State and Teacher Program
Total Pension Liability (TPL)			
Service Cost (SC)	$ 171,069,104	$ 100,637,622	$ 271,706,726
Interest (includes Interest on SC)	689,646,382	363,194,190	1,052,840,572
Changes of Benefit Terms	67,065,824	37,850,338	104,916,162
Differences Between Actual and Expected Experience	90,272,203	17,649,588	107,921,791
Changes of Assumptions	0	0	0
Benefit Payments, including Refunds of Member Contributions	(604,647,376)	(343,297,121)	(947,944,497)
Net Change in TPL	**413,406,137**	**176,034,617**	**589,440,754**
Beginning of Year (BOY) TPL	**10,736,439,623**	**5,655,911,705**	**16,392,351,328**
End of Year (EOY) TPL	**$ 11,149,845,760**	**$ 5,831,946,322**	**$ 16,981,792,082**
Program Fiduciary Net Position (FNP)			
Employer Contributions	$ 330,099,527	$ 213,242,452	$ 543,341,979
Member Contributions	109,154,966	55,193,806	164,348,772
Transfers	(7)	(346,619)	(346,626)
Net Investment Income	(52,346,497)	(27,043,492)	(79,389,989)
Benefit Payments, including Refunds of Member Contributions	(604,647,376)	(343,297,121)	(947,944,497)
Administrative Expense	(7,940,239)	(4,022,085)	(11,962,324)
Net Change in FNP	(225,679,626)	(106,273,059)	(331,952,685)
BOY FNP	**9,890,613,634**	**5,010,030,385**	**14,900,644,019**
EOY FNP	**$ 9,664,934,008**	**$ 4,903,757,326**	**$ 14,568,691,334**
EOY Net Pension Liability (NPL)	**$ 1,484,911,752**	**$ 928,188,996**	**$ 2,413,100,748**
FNP as a Percentage of TPL	86.7%	84.1%	85.8%
Covered Payroll*	1,450,116,723	771,293,470	2,221,410,193
NPL as a Percentage of Covered Payroll	102.4%	120.3%	108.6%

* For FY 2022

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

None.

SECTION VI – FINANCIAL DISCLOSURE INFORMATION

A 10-year schedule of changes in NPL and related ratios is to be included within the ACFR for PERS. However, based on GASB guidance, this 10-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 Pension Liability and Related Ratios* above and believe that you can accumulate the individual years in the MainePERS ACFRs to build this schedule to show the full 10-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, 2022, we have not included suggested information for such a note in the *Notes to Schedule of Changes in Net Pension Liability and Related Ratios* above. However, it is our expectation that the System's staff will make the final determination regarding any notes needed for this schedule, and we are available to provide any information they may need for this purpose.

Table VI-3 below illustrates the sensitivity of the net pension liability (NPL) to the discount rate. Changes in the discount rate affect the measurement of the total pension liability (TPL) for the Program. Lower discount rates produce a higher TPL, and higher discount rates produce a lower TPL. Because the discount rate does not affect the measurement of assets, the percentage change in the Net Pension Liability (NPL) can be very significant for relatively small changes in the discount rate.

Table VI-3
Sensitivity of Net Pension Liability to Changes in Discount Rate
FY 2022

	1% Decrease 5.50%	Discount Rate 6.50%	1% Increase 7.50%
Teacher Program			
Total Pension Liability (TPL)	$ 12,572,744,940	$ 11,149,845,760	$ 9,965,134,876
Program Fiduciary Net Position (FNP)	9,664,934,008	9,664,934,008	9,664,934,008
Net Pension Liability (NPL)	$ 2,907,810,932	$ 1,484,911,752	$ 300,200,868
FNP as a Percentage of TPL	76.9%	86.7%	97.0%
State Program			
Total Pension Liability (TPL)	$ 6,535,806,225	$ 5,831,946,322	$ 5,271,836,606
Program Fiduciary Net Position (FNP)	4,903,757,326	4,903,757,326	4,903,757,326
Net Pension Liability (NPL)	$ 1,632,048,899	$ 928,188,996	$ 368,079,280
FNP as a Percentage of TPL	75.0%	84.1%	93.0%
Total State Employee and Teacher Program			
Total Pension Liability (TPL)	$ 19,108,551,165	$ 16,981,792,082	$ 15,236,971,482
Program Fiduciary Net Position (FNP)	14,568,691,334	14,568,691,334	14,568,691,334
Net Pension Liability (NPL)	$ 4,539,859,831	$ 2,413,100,748	$ 668,280,148
FNP as a Percentage of TPL	76.2%	85.8%	95.6%

A one percent decrease in the discount rate increases the TPL for the total Program by approximately 13% and increases the NPL by approximately 88%. A one percent increase in the discount rate decreases the TPL by approximately 10% and decreases the NPL by approximately 72%.

SECTION VI – FINANCIAL DISCLOSURE INFORMATION

Table VI-4 that follows provides information relating to the employer contributions for the Program. Under GASB Statement No. 67, if an actuarially determined contribution (ADC) or a contractually or statutorily required contribution (CRC) is developed for a single employer or cost-sharing plan, the following schedule is required. For purposes of this schedule, an ADC is a contribution amount determined in accordance with Actuarial Standards of Practice, and a CRC is based on statutory or contractual requirements. Both should exclude any amounts to finance specific liabilities of individual employers of the Program. If an ADC is available, the schedule of employer contributions should be developed on that basis. If there is no ADC, but there is a CRC, the schedule should be developed on that basis. Only if neither an ADC nor a CRC is developed can this schedule be omitted from the PERS's ACFR.

The Program's rates set in the ratemaking process meet the definition of an ADC, so for this Program, this schedule should be developed on that basis. Based on GASB guidance, a full 10 years of information should be shown in this schedule if it is available, but this 10-year history can be built one year at a time following implementation. We have shown only the current year of this *Schedule of Employer Contributions* below and believe that you can accumulate these in the MainePERS ACFR to build this schedule to show the full 10-year schedule over time.

Only the current year of the *Notes to Schedule of Employer Contributions* below needs to be included in the notes to this schedule. However, any factors that significantly affect trends in the *Schedule of Employer Contributions* at any point in the 10-year period should also be included in the notes to this schedule. As of June 30, 2022, we have not included such a note in the *Notes to Schedule of Employer Contributions* below. However, it is our expectation that the System's staff will make the final determination regarding any notes needed for this schedule and we are available to provide any additional information that they may need for this purpose.

Table VI-4
Schedule of Employer Contributions
FY 2022

	Teacher Program	State Program	Total State and Teacher Program
Actuarially Determined Contribution (ADC)	$ 262,906,162	$ 175,392,135	$ 438,298,297
Contributions in Relation to the ADC	262,906,162	175,392,135	438,298,297
Contribution Deficiency/(Excess)	$ 0	$ 0	$ 0
Covered Payroll (Payroll)*	$ 1,450,116,723	$ 771,293,470	$ 2,221,410,193
Contributions as a Percentage of Payroll	18.13%	22.74%	19.73%

* For FY 2022

SECTION VI – FINANCIAL DISCLOSURE INFORMATION

Notes to Schedule of Employer Contributions

Valuation Date:	June 30, 2019
Timing:	June 30, 2022 ADC rates are calculated based on 2020 liabilities developed as a roll-forward of the 2019 valuation liability, adjusted for expected experience and any assumption or methodology changes during FY 2020 using preliminary actual assets as of June 30, 2020.

Key Methods and Assumptions Used to Determine Contribution Rates

Actuarial Cost Method:	Entry age normal
Asset Valuation Method:	Three-year smoothed market
Amortization Method:	Level percentage of payroll, closed periods. Cumulative UAL from prior to 2012 amortized over a remaining seven years from July 1, 2021. Subsequent layers of UAL amortized over individual 20-year periods.
Discount Rate:	6.75%
Amortization Growth Rate:	2.75%
Price Inflation:	2.75%
Salary Increases:	2.75% plus merit component based on employee's years of service
Mortality:	State Employee Program: 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 MP_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. Teacher Program: 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.

SECTION VI – FINANCIAL DISCLOSURE INFORMATION

A complete description of the methods and assumptions used to determine contribution rates for the year ending June 30, 2022 can be found in the June 30, 2020 actuarial valuation report.

Other Information

None.

Table VI-5 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 No. 68 requires some items be recognized by employers into pension expense over a period "equal to the average of the expected remaining service lives of all employees that are provided with pensions through the pension plan (active employees and inactive employees) determined as of the beginning of the measurement period." For the current measurement year ending on June 30, 2022, these values are thus developed as of June 30, 2021. Note that the decision was made to apply GASB No. 68 separately to the Teacher Program and the State Program based upon paragraph 19 of that statement, so this value has been provided separately for these Programs. Also note that the decision was made to use these averages based on rounding to the nearest whole year, so the values are thus shown as such.

Table VI-5
Average Expected Remaining Service Lives
For Measurement Year Ending June 30, 2022

Teacher Program

Status	Total Expected Future Service	Count	Average Remaining Service Lives
Active Members	314,802	27,444	11
In-Pay Members	0	22,161	0
Terminated Vested Members	0	5,368	0
Inactives Due Refunds	0	29,934	0
Total Membership	314,802	84,907	4

State Program

Status	Total Expected Future Service	Count	Average Remaining Service Life
Actives	120,334	12,655	10
In-Pay Members	0	15,529	0
Terminated Vested Members	0	3,019	0
Inactives Due Refunds	0	8,459	0
Total Membership	120,334	39,662	3

SECTION VI – FINANCIAL DISCLOSURE INFORMATION

Table VI-6 below is a gain/loss analysis of the changes in the actuarial liability over the past six years, reflecting variances between actual experience and assumed experience for different kinds of risk as specified in the GFOA GAAFR.

Table VI-6
Analysis of Financial Experience
Gain and Loss in Actuarial Liability During Fiscal Years Ended June 30
Resulting from Differences Between Assumed Experience and Actual Experience

Type of Activity	Gain (or Loss) For Fiscal Year Ended June 30, 2017	Gain (or Loss) For Fiscal Year Ended June 30, 2018	Gain (or Loss) For Fiscal Year Ended June 30, 2019	Gain (or Loss) For Fiscal Year Ended June 30, 2020	Gain (or Loss) For Fiscal Year Ended June 30, 2021	Gain (or Loss) For Fiscal Year Ended June 30, 2022
Investment Income	$ (18,117,992)	$ 94,329,730	$ 57,985,155	$ (102,951,302)	$ 720,053,045	$ 160,575,868
Combined Liability Experience	(95,207,531)	(34,151,279)	(208,719,412)	(162,293)	(25,575,263)	(107,921,791)
Gain (or Loss) during Year from Financial Experience	$(113,325,523)	$ 60,178,451	$ (150,734,257)	$ (103,113,595)	$ 694,477,782	$ 52,654,077
Non-Recurring Items	0	(191,998,939)	0	(1,223,156)	(1,175,893,728)	(104,916,162)
Composite Gain (or Loss) During Year	**$(113,325,523)**	**$(131,820,488)**	**$ (150,734,257)**	**$ (104,336,751)**	**$ (481,415,946)**	**$ (52,262,085)**

SECTION VI – FINANCIAL DISCLOSURE INFORMATION

Table VI-7 below compares the Program's assets as of each valuation date shown to the Program's actuarial liability divided into three separate groups: liabilities for contributions on deposit for current active members, liabilities for future benefits for inactive members, and employer-financed liabilities for current active members. This Schedule of Funded Liabilities by Type is used to assess funding progress based on what percentage of the liabilities for each of these groups the Program's assets are sufficient to cover. Per GFOA guidance, this schedule is to include this assessment for the 10 most recent years, and notes to this schedule should be provided to explain any factors that affect the comparability of the data. We do not believe such a note is needed for the measurement year ending June 30, 2022, but it is our expectation that the System's staff will make the final determination regarding any notes needed for this schedule.

Table VI-7
Schedule of Funded Liabilities by Type

	Aggregate Actuarial Liabilities for:				Portion of Actuarial Liabilities Covered by Reported Assets		
Valuation Date June 30,	(1) Active Member Contributions	(2) Retirees, Vested Terms, Beneficiaries	(3) Active Members (Employer Financed Portion)	Reported Assets*	(1)	(2)	(3)
2022	$2,659,590,270	$10,910,951,750	$ 3,411,250,062	$ 14,248,105,921	100%	100%	20%
2021	2,588,064,433	10,387,107,459	3,417,179,436	13,460,870,272	100	100	14
2020	2,600,834,192	9,668,292,329	2,596,333,609	12,249,961,306	100	100	0
2019	2,499,498,544	9,460,680,994	2,587,043,375	11,894,672,150	100	99	0
2018	2,453,797,249	9,030,789,541	2,546,601,055	11,419,986,652	100	99	0
2017	2,402,112,525	8,727,549,999	2,355,223,988	10,904,082,221	100	97	0
2016	2,359,818,665	8,399,121,582	2,311,014,701	10,512,524,178	100	97	0
2015	2,339,138,044	7,831,348,903	2,445,800,107	10,375,552,497	100	100	8
2014	2,315,075,905	7,572,038,284	2,433,044,594	10,017,512,006	100	100	5
2013	2,290,505,939	7,181,259,077	2,358,884,866	9,177,749,627	100	96	0

* Reported assets are measured at actuarial value. Results would be different if the market value of assets were used. Despite the name of this exhibit, the liabilities presented in this schedule are not an appropriate measurement of the settlement liability of the Program.

APPENDIX A – MEMBERSHIP INFORMATION

Active Member Data as of June 30, 2022	
Teacher Plan	
Count	27,718
Average Current Age	45.8
Average Benefit Service	12.0
Average Vesting Service	12.2
Average Valuation Pay	$ 53,169
State Employee Regular Plan	
Count	10,787
Average Current Age	48.1
Average Benefit Service	11.5
Average Vesting Service	11.9
Average Valuation Pay	$ 61,753
Inland Fisheries & Wildlife Officers Special Plan (Closed Plan)	
Count	1
Average Current Age	66.9
Average Benefit Service	44.2
Average Vesting Service	44.2
Average Valuation Pay	$ 82,595
State Police Special Plan (Closed Plan)	
Count	1
Average Current Age	68.8
Average Benefit Service	45.0
Average Vesting Service	45.0
Average Valuation Pay	$162,998

APPENDIX A – MEMBERSHIP INFORMATION

Active Member Data as of June 30, 2022	
State Employee Special 25 & Out Plan	
Count	455
Average Current Age	40.7
Average Benefit Service	13.8
Average Vesting Service	14.3
Average Valuation Pay	$ 93,157
State Employee 1998 Special Plan	
Count	1,144
Average Current Age	43.4
Average Benefit Service	11.3
Average Vesting Service	11.7
Average Valuation Pay	$ 71,193
Fire Marshal Special Plan	
Count	15
Average Current Age	44.4
Average Benefit Service	9.6
Average Vesting Service	12.8
Average Valuation Pay	$ 95,372
State Employee Totals (Excludes Teachers)	
Count	12,403
Average Current Age	47.4
Average Benefit Service	11.5
Average Vesting Service	12.0
Average Valuation Pay	$ 63,826

Non-Active Member Data as of June 30, 2022
Teachers

	Count	Average Age	Total Annual Benefit	Average Annual Benefit
Retired	18,738	74.0	$ 531,312,129	$ 28,355
Retired – Concurrent Beneficiary	1,314	74.8	8,278,739	6,300
Disability – Section 1122	0		0	0
Disability – Section 3 and 3A	659	69.7	20,119,813	30,531
Beneficiary of Above	1,683	74.2	31,215,271	18,547
Pre-Retirement Death Beneficiary	286	62.7	1,893,626	6,621
Terminated Vested	5,693	52.5	54,672,403	9,603
Inactive Due Refund	29,784	NA	NA	NA

APPENDIX A – MEMBERSHIP INFORMATION

Non-Active Member Data as of June 30, 2022 State Regular				
	Count	**Average Age**	**Total Annual Benefit**	**Average Annual Benefit**
Retired	10,224	73.7	$ 236,957,176	$ 23,177
Retired – Concurrent Beneficiary	907	73.1	5,066,776	5,586
Disability – Section 1122	0		0	N/A
Disability – Section 3 and 3A	772	68.1	19,949,989	25,842
Beneficiary of Above	1,992	64.8	30,788,908	15,456
Pre-Retirement Death Beneficiary	281	68.1	1,856,163	6,606
Terminated Vested	2,759	52.9	23,172,023	8,399
Inactive Due Refund	7,837	NA	NA	NA

Non-Active Member Data as of June 30, 2022 State Special				
	Count	**Average Age**	**Total Annual Benefit**	**Average Annual Benefit**
Retired	1,074	68.5	$ 36,121,789	$ 33,633
Retired – Concurrent Beneficiary	148	67.1	1,054,751	7,127
Disability – Section 1122	1	91.6	21,299	21,299
Disability – Section 3 and 3A	75	61.4	2,297,942	30,639
Beneficiary of Above	237	72.9	4,337,475	18,302
Pre-Retirement Death Beneficiary	17	47.0	106,198	6,247
Terminated Vested	391	45.9	3,056,055	7,816
Inactive Due Refund	1,186	NA	NA	NA

In preparing this report, we relied on data provided by MainePERS as modified following the procedures outlined in the State of Maine Data Processing Notebook. Adjustments to the data are made based on this processing notebook. Accuracy of the results is dependent on the completeness of the underlying information. The plan sponsor is responsible for the validity and completeness of the information provided. We believe the data provided as modified as documented in the Processing Notebook is sufficient for the actuarial analysis performed.

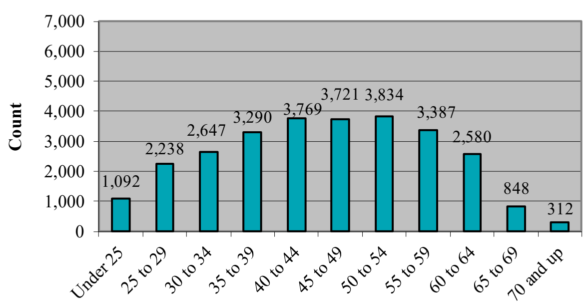
APPENDIX A – MEMBERSHIP INFORMATION

Distribution of Active Members
As of June 30, 2022

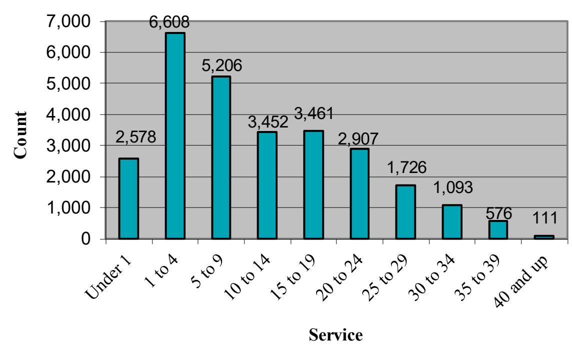
Teachers

	Years of Service										
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 and up	Totals
Under 25	607	484	1	0	0	0	0	0	0	0	1,092
25 to 29	373	1,373	492	0	0	0	0	0	0	0	2,238
30 to 34	282	944	1,106	315	0	0	0	0	0	0	2,647
35 to 39	292	899	855	858	386	0	0	0	0	0	3,290
40 to 44	306	862	737	564	984	316	0	0	0	0	3,769
45 to 49	228	657	682	493	572	852	237	0	0	0	3,721
50 to 54	173	520	572	496	579	567	723	203	1	0	3,834
55 to 59	120	416	355	369	488	508	370	568	191	2	3,387
60 to 64	94	289	276	256	327	489	274	230	315	30	2,580
65 to 69	59	110	90	77	104	141	90	65	60	52	848
70 and up	44	54	40	24	21	34	32	27	9	27	312
Total	2,578	6,608	5,206	3,452	3,461	2,907	1,726	1,093	576	111	27,718

Age Distribution



Service Distribution



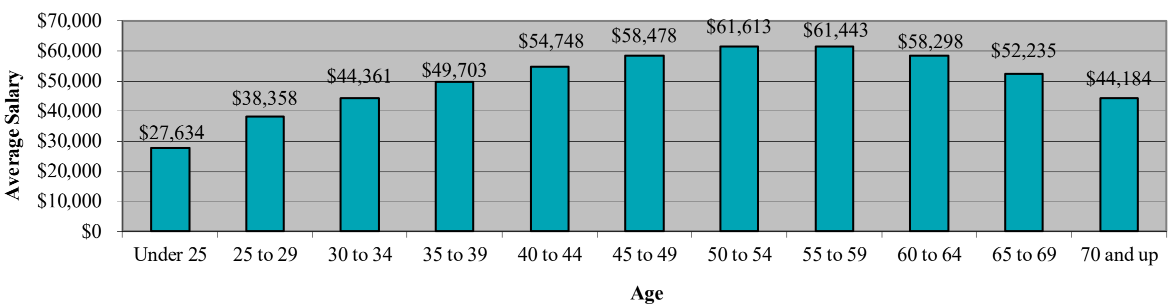
APPENDIX A – MEMBERSHIP INFORMATION

Distribution of Active Members
As of June 30, 2022

Teachers

	Average Salary										
	Years of Service										
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 and up	Average
Under 25	22,514	34,035	37,500	0	0	0	0	0	0	0	27,634
25 to 29	27,076	38,732	45,867	0	0	0	0	0	0	0	38,358
30 to 34	29,116	39,272	49,391	55,601	0	0	0	0	0	0	44,361
35 to 39	28,225	41,738	49,572	58,764	64,652	0	0	0	0	0	49,703
40 to 44	29,035	41,273	50,214	61,308	68,583	72,191	0	0	0	0	54,748
45 to 49	28,351	41,377	50,448	58,173	67,480	74,504	79,273	0	0	0	58,478
50 to 54	29,089	40,529	47,887	58,020	67,030	73,152	79,101	80,759	74,082	0	61,613
55 to 59	29,253	41,696	45,212	53,161	59,007	66,831	77,780	79,299	78,216	40,694	61,443
60 to 64	26,246	38,165	42,032	49,921	55,575	61,349	71,159	76,576	79,210	76,544	58,298
65 to 69	29,497	34,225	39,167	47,634	47,863	56,623	64,042	70,617	71,442	76,836	52,235
70 and up	22,253	26,386	31,234	36,458	57,790	54,703	55,015	67,547	62,918	75,300	44,184
Average	26,880	39,596	48,184	57,042	64,435	69,336	76,349	78,191	77,807	75,732	53,169

Average Salary Distribution



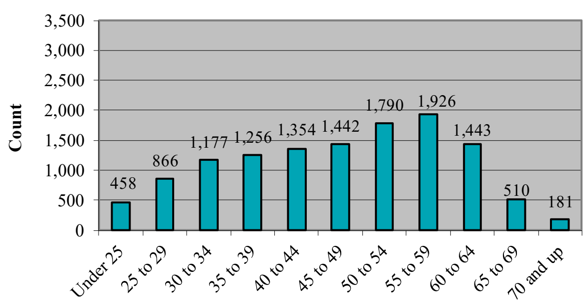
APPENDIX A – MEMBERSHIP INFORMATION

Distribution of Active Members
As of June 30, 2022

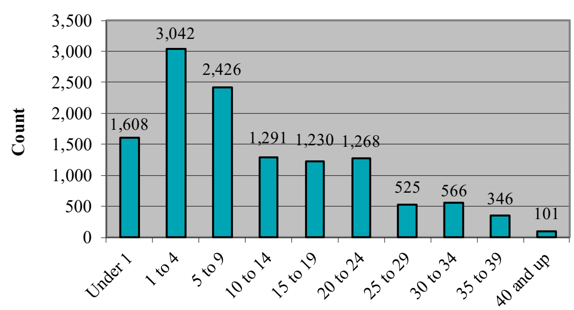
State

	Years of Service										
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 and up	Totals
Under 25	297	156	5	0	0	0	0	0	0	0	458
25 to 29	244	466	154	2	0	0	0	0	0	0	866
30 to 34	221	511	387	58	0	0	0	0	0	0	1,177
35 to 39	183	383	382	209	91	8	0	0	0	0	1,256
40 to 44	165	326	321	205	242	95	0	0	0	0	1,354
45 to 49	137	298	264	174	227	283	59	0	0	0	1,442
50 to 54	152	319	304	185	220	287	184	123	16	0	1,790
55 to 59	117	299	281	205	192	288	137	240	159	8	1,926
60 to 64	57	197	217	183	174	203	101	155	128	28	1,443
65 to 69	19	60	85	61	57	85	32	35	33	43	510
70 and up	16	27	26	9	27	19	12	13	10	22	181
Total	1,608	3,042	2,426	1,291	1,230	1,268	525	566	346	101	12,403

Age Distribution



Service Distribution



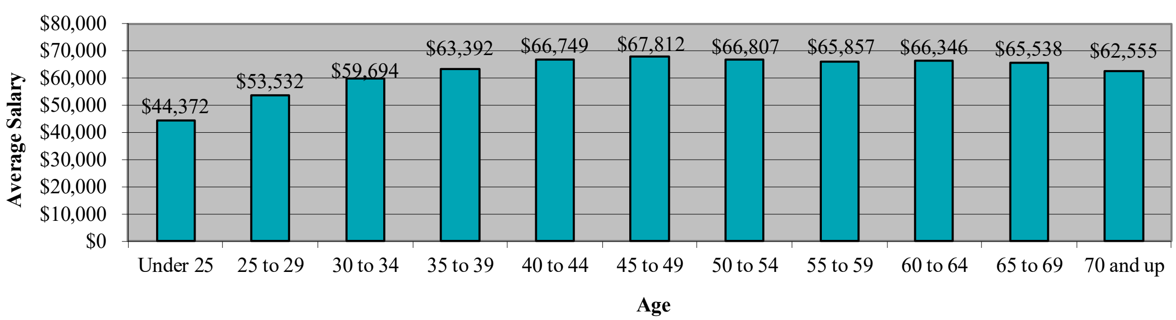
APPENDIX A – MEMBERSHIP INFORMATION

Distribution of Active Members
As of June 30, 2022

State

	Average Salary Years of Service										
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 and up	Average
Under 25	39,899	52,444	58,206	0	0	0	0	0	0	0	44,372
25 to 29	44,231	55,089	63,513	56,905	0	0	0	0	0	0	53,532
30 to 34	46,704	57,847	68,056	69,663	0	0	0	0	0	0	59,694
35 to 39	50,068	58,474	67,644	71,820	71,962	82,968	0	0	0	0	63,392
40 to 44	50,097	61,227	67,716	72,847	75,413	76,129	0	0	0	0	66,749
45 to 49	52,107	58,917	65,037	68,854	73,541	79,214	81,811	0	0	0	67,812
50 to 54	51,053	56,064	63,204	68,251	71,724	73,779	80,952	73,265	77,400	0	66,807
55 to 59	47,118	55,043	62,074	65,053	67,077	71,388	77,884	74,487	72,871	64,878	65,857
60 to 64	45,518	54,768	61,026	65,584	68,155	69,630	76,456	74,949	77,039	68,380	66,346
65 to 69	51,784	57,554	58,963	62,135	66,089	66,130	69,287	74,392	82,483	75,682	65,538
70 and up	41,503	51,343	69,984	66,392	63,674	54,163	63,182	87,471	75,495	66,202	62,555
Average	46,671	56,968	65,081	68,498	71,134	73,212	78,266	74,640	75,615	70,737	63,826

Average Salary Distribution

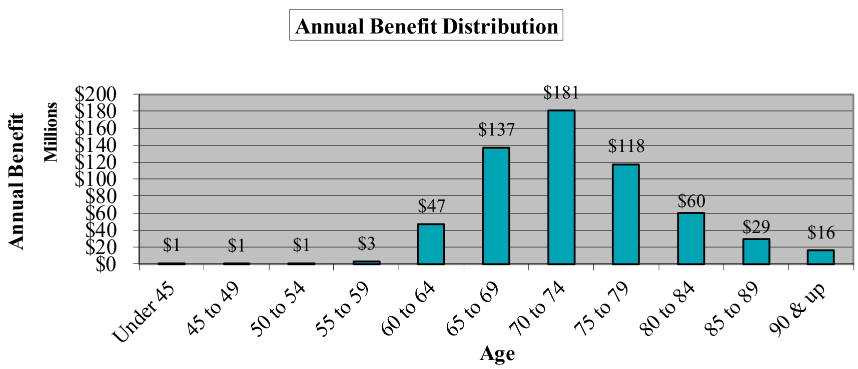


APPENDIX A – MEMBERSHIP INFORMATION

Distribution of Retirees, Disabled Members, Beneficiaries, and Survivors As of June 30, 2022

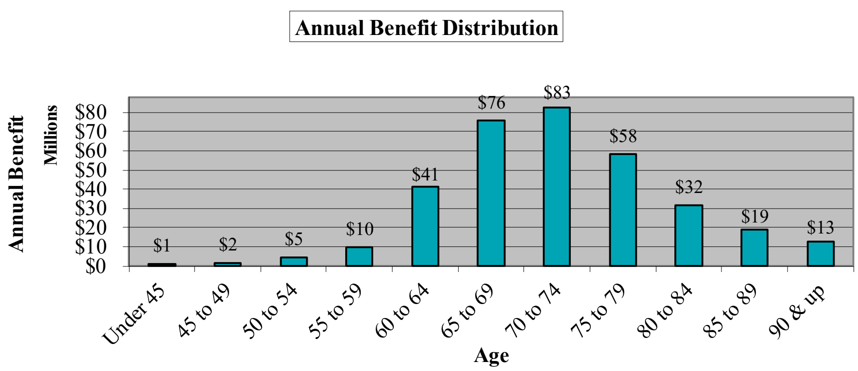
Teachers

Age	Count	Annual Benefit
Under 45	149	$ 987,714
45 to 49	53	530,826
50 to 54	92	1,174,845
55 to 59	174	2,999,185
60 to 64	1,598	47,188,625
65 to 69	4,907	136,983,143
70 to 74	6,691	180,984,818
75 to 79	4,612	117,692,631
80 to 84	2,398	59,685,064
85 to 89	1,254	28,961,943
90 & up	752	15,630,784
Total	22,680	$ 592,819,578



State

Age	Count	Annual Benefit
Under 45	129	$ 1,128,859
45 to 49	102	1,612,206
50 to 54	232	4,563,015
55 to 59	458	9,832,606
60 to 64	1,703	41,256,644
65 to 69	3,490	75,743,842
70 to 74	3,772	82,750,114
75 to 79	2,682	58,158,651
80 to 84	1,511	31,642,670
85 to 89	971	19,214,307
90 & up	678	12,655,552
Total	15,728	$ 338,558,466



APPENDIX A – MEMBERSHIP INFORMATION

Status Reconciliation - Teachers

	Active Members	Retired Members	Beneficiaries of Retired Members	Survivors of Deceased Members	Disabled Members[1]	Terminated Vested Members[2]
As of June 30, 2021	**27,444**	**18,231**	**2,970**	**280**	**680**	**5,368**
New hires	2,534					
Rehires	609				-	(243)
Movement between plans	(1)					(3)
New retirees	(468)	899				(430)
New beneficiaries due to retirements			49			
New disabled retirees	(9)				15	(6)
New deferred vested members	(1,064)					1,126
Non-vested terminations	(1,117)					
Refunds	(193)					(97)
Deaths, no future benefits	(4)	(307)	(107)	(7)	(24)	(14)
Deaths with a survivor or beneficiary	(11)	(91)	84	18	(11)	(6)
Benefits expired				(5)		
Data correction	(2)	6	1	-	(1)	(2)
As of June 30, 2022	**27,718**	**18,738**	**2,997**	**286**	**659**	**5,693**

1. Former disabled retirees who have changed to service retirement as mandated by the Plan are still included as disabled members.
2. Terminated vested members includes those indicated to us in the data who have terminated and are eligible for a future annuity.

Status Reconciliation - State Regular and Special Groups

	Active Members	Retired Members	Beneficiaries of Retired Members	Survivors of Deceased Members	Disabled Members[1]	Terminated Vested Members[2]
As of June 30, 2021	**12,655**	**11,070**	**3,279**	**300**	**880**	**3,019**
New hires	1,448					
Rehires	163					(58)
Movement between plans	(3)					(2)
New retirees	(472)	624				(152)
New beneficiaries due to retirements			51			
New disabled retirees	(17)				28	(9)
New deferred vested members	(358)					421
Non-vested terminations	(771)					
Refunds	(222)					(60)
Deaths, no future benefits	(7)	(291)	(146)	(15)	(35)	(2)
Deaths with a survivor or beneficiary	(10)	(107)	101	14	(20)	(9)
Benefits expired				(1)		
Data correction	(3)	2	(1)	-	(5)	2
As of June 30, 2022	**12,403**	**11,298**	**3,284**	**298**	**848**	**3,150**

1. Former disabled retirees who have changed to service retirement as mandated by the Plan are still included as disabled members.
2. Terminated vested members includes those indicated to us in the data who have terminated and are eligible for a future annuity.

APPENDIX B – SUMMARY OF PROGRAM PROVISIONS

1. Membership

Membership is a condition of employment for state employees and teachers, and optional for elected and appointed officials.

Membership ceases on the earlier of withdrawal of contributions, retirement, or death.

2. Member Contributions

Except as otherwise described below, members are required to contribute 7.65% of earnable compensation. Member contributions earn annual interest at the rate adopted by the Board of Trustees each February.

Contribution Requirements for Special State Employee Groups

State police and inland fisheries and wildlife officers employed before September 1, 1984: required to contribute 8.65% of earnable compensation for 20 years of service and 7.65% thereafter.

Forest rangers employed before September 1, 1984: required to contribute 8.65% of earnable compensation until eligible for retirement and 7.65% thereafter.

1998 Special Plan employees, which includes state prison employees, airplane pilots, forest rangers, defense, veterans and emergency management firefighters employed at Bangor International Airport, corrections employees, Baxter State Park Authority rangers, State Fire Marshal, assistant state fire marshal - inspections and state fire marshal inspectors, oil and hazardous materials emergency response workers, capitol security officers, attorney general detectives, emergency communications employees, motor vehicle detectives, crime laboratory and computer crimes unit employees: required to contribute 8.65% of earnable compensation for 25 years and 7.65% thereafter.

State police employed on or after September 16, 1984 and special agent investigators hired before June 21, 1982: required to contribute 8.65% of earnable compensation for 25 years and 7.65% thereafter.

Inland fisheries and wildlife officers and marine resources officers employed on or after September 1, 1984: required to contribute 8.65% of earnable compensation for 25 years and 7.65% thereafter.

APPENDIX B – SUMMARY OF PROGRAM PROVISIONS

Fire marshal investigators, fire marshal sergeants and assistant state fire marshal - investigations: required to contribute 8.65% of earnable compensation until eligible for retirement and 7.65% thereafter.

3. Average Final Compensation

For purposes of determining benefits payable, average final compensation is the average annual rate of earnable compensation for the three years of creditable service (not necessarily consecutive) that produce the highest such average.

For compensation paid on or after July 1, 1993, increases in earnable compensation of greater than 5% per year or greater than 10% over the highest three years are not included in calculating average final compensation unless the employer pays the cost of including such compensation. Earnable compensation does not include sick and vacation pay for those members who had less than 10 years of service on July 1, 1993. For members for whom sick and vacation pay is includable in earnable compensation, these payments are included in applying the caps described above.

4. Creditable Service

Creditable service includes service while a member, certain service prior to the establishment of the Program, purchased service credit of which there are several types, and service while receiving disability benefits under the Program.

5. Service Retirement Benefits

A. Regular Plan (State Employees and Teachers)

i. Provisions for Members with at Least 10 Years of Creditable Service on July 1, 1993

Normal Retirement Age: 60

Eligibility for Members in Active Service and Inactive Members: 25 years of creditable service.

Eligibility Alternative for Members in Active Service: At least one year of creditable service immediately before retirement and at least normal retirement age.

Eligibility for Members not in Active Service at Retirement and not in Active Service on or after October 1, 1999: At least 10 years of creditable service and at least normal retirement age.

APPENDIX B – SUMMARY OF PROGRAM PROVISIONS

Eligibility for Members not in Active Service at Retirement, but in Active Service on or after October 1, 1999: At least five years of creditable service and at least normal retirement age.

Benefit: 1/50 of average final compensation multiplied by years of creditable service and up to 25 years of prior service, reduced by the following approximate percentages for each year retirement age is less than age 60.

Age	Reduction	Age	Reduction
45	29.3%	53	16.6%
46	28.0	54	14.6
47	26.6	55	12.5
48	25.2	56	10.3
49	23.6	57	7.9
50	22.0	58	5.4
51	20.3	59	2.8
52	18.5	60	0.0

Form of Payment: Life annuity.

ii. Provisions for Members with Less Than 10 Years of Creditable Service on July 1, 1993

Normal Retirement Age: 62

Eligibility for Members in Active Service and Inactive Members: 25 years of creditable service.

Eligibility Alternative for Members in Active Service: At least one year of creditable service immediately before retirement age and at least normal retirement age.

Eligibility for Members not in Active Service at Retirement and not in Active Service on or after October 1, 1999: At least 10 years of creditable service and at least normal retirement age.

Eligibility for Members not in Active Service at Retirement, but in Active Service on or after October 1, 1999: At least five years of creditable service and at least normal retirement age.

APPENDIX B – SUMMARY OF PROGRAM PROVISIONS

Benefit: 1/50 of average final compensation multiplied by years of membership service and up to 25 years of prior service, reduced by 6% for each year retirement age is less than age 62.

Form of Payment: Life annuity.

iii. Provisions for Members with Less Than Five Years of Creditable Service on July 1, 2011

Normal Retirement Age: 65

Eligibility for Members in Active Service and Inactive Members: 25 years of creditable service.

Eligibility Alternative for Members in Active Service: At least one year of creditable service immediately before retirement age and at least normal retirement age.

Eligibility for Members not in Active Service at Retirement and not in Active Service on or after October 1, 1999: At least 10 years of creditable service and at least normal retirement age.

Eligibility for Members not in Active Service at Retirement, but in Active Service on or after October 1, 1999: At least five years of creditable service and at least normal retirement age.

Benefit: 1/50 of average final compensation multiplied by years of membership service and up to 25 years of prior service, reduced by 6% for each year retirement age is less than age 65.

Form of Payment: Life annuity.

B. Special Plans (State Employees)

i. State Police Employed Before September 16, 1984 and Inland Fisheries and Wildlife Officers Employed Before September 1, 1984

Eligibility: 20 years of creditable service in named positions.

APPENDIX B – SUMMARY OF PROGRAM PROVISIONS

Benefit: One-half of average final compensation plus 2% for each year of service in excess of 20. If greater, the pro-rated portion of the benefit for service before July 1, 1976, is based on annual pay instead of average final pay.

Form of Payment: 50% joint and survivor annuity or life annuity.

ii. Forest Rangers Employed Before September 1, 1984

Eligibility: Age 50 with 25 years of creditable service as a forest ranger.

Benefit: One-half of average final compensation plus 2% for each year of service earned after qualification for retirement. If greater, the pro-rated portion of the benefit for service before July 1, 1976, is based on annual pay instead of average final pay.

Form of Payment: Life annuity.

iii. 1998 Special Plan

1998 Entrants: State prison employees, airline pilots, forest rangers, and liquor inspectors, employed after August 31, 1984; defense, veterans, and emergency management firefighters employed on and after July 1, 1998.

2000 Entrants: Baxter State Park Authority rangers, correctional employees, and State Fire Marshal and state fire marshal inspectors employed on or after January 1, 2000.

2002 Entrants: Capitol Police and oil and hazardous materials emergency response workers.

2020 Entrants: Emergency communications employees, motor vehicle detectives and attorney general detectives.

2021 Entrants: Crime laboratory and computer crimes unit employees.

Eligibility: 10 years of creditable service under the 1998 Special Plan in one or a combination of the covered capacities and the attainment of age 55 – OR – 25 years of creditable service in one or a combination of the covered capacities.

Benefit: For service prior to coverage in the 1998 Special Plan, 1/50 of average final compensation multiplied by years of service reduced for retirement before age 60, 62, or 65 (as determined by the applicable Regular Plan provisions described in 5.A.),

APPENDIX B – SUMMARY OF PROGRAM PROVISIONS

except oil and hazardous materials emergency response workers, certain prison employees, Capitol Police, and certain Department of Corrections employees benefits are reduced for retirement before age 55.

-PLUS-

For service under the 1998 Special Plan, 1/50 of average final compensation multiplied by years of service reduced for retirement before age 55.

Form of Payment: Life annuity.

iv. 25 & Out Plan

1998 Entrants: State police employed on or after September 16, 1984 and special agent investigators hired before June 21, 1982.

2002 Entrants: Inland fisheries and wildlife officers and marine resources officers employed on and after August 31, 1984.

Eligibility: 25 years of creditable service in named positions.

Benefit: 1/50 of average final compensation multiplied by years of service.

Form of Payment: Life annuity.

Members in Special Plans who fail to qualify for Special Plan benefits can receive Regular Plan benefits when and as eligible and qualified.

v. Fire Marshals

Eligibility: 20 years of creditable service in named positions.

Benefit: One-half of average final compensation plus 2% for each year of service in excess of 20.

Form of Payment: Life annuity.

Members in Special Plans who fail to qualify for Special Plan benefits can receive Regular Plan benefits when and as eligible and qualified.

vi. Minimum Service Retirement Benefit

$100 per month.

APPENDIX B – SUMMARY OF PROGRAM PROVISIONS

6. Disability Retirement Benefits Other Than No-Age Benefits (See Item 7)

Eligibility: Disabled as defined in the MainePERS statutes prior to applicable normal retirement age, employed prior to October 16, 1992, and did not elect No-Age Disability Benefits, and either disabled in the line-of-duty or disabled with at least five years of creditable service.

Benefit: 66⅔% of average final compensation, reduced by employment earnings over the specified statutory limit, and to the extent that the benefit, in combination with Workers' Compensation and Social Security, exceeds 80% of average final compensation.

Form of Payment: Payment begins upon the termination of service and ceases on cessation of disability or after two years, unless the member is unable to engage in any substantially gainful activity, in which case payments cease on the earlier of 10 years following normal retirement age or the date that the service retirement benefit equals or exceeds the disability benefit.

Conversion to Service Retirement: During the period of disability, service is credited and average final compensation is increased at the same rate as any cost-of-living adjustments for which the member is eligible (not subject to the COLA Cap) (see item 12). On the date when service benefits reach a level of 66⅔% of average final compensation or 10 years after the normal retirement date if earlier, the disability converts to a service retirement benefit based on service and average final compensation at that time.

7. No-Age Disability Retirement Benefits

Eligibility: Disabled as defined in the MainePERS statutes, employed on or after October 16, 1992 or employed prior to October 16, 1992 and elected the provisions of No-Age Disability, and either disabled in the line-of-duty or disabled with at least five years of creditable service.

Benefit: 59% of average final compensation, reduced by employment earnings over the specified statutory limit, and to the extent that the benefit, in combination with Workers' Compensation and Social Security, exceeds 80% of average final compensation.

Form of Payment: Payment begins upon the termination of service and ceases on cessation of disability or after two years, unless the member is unable to engage in any substantially gainful activity, in which case payments cease on the date the service retirement benefit equals or exceeds the disability benefit.

Conversion to Service Retirement: During the period of disability, service is credited and average final compensation is increased at the same rate as any cost-of-living adjustments for which the member is eligible (not subject to the COLA Cap) (see item 12). On the date when service benefits reach a level of 59% of average final compensation, the disability benefit converts to a service retirement benefit based on service and average final compensation at that time.

8. Pre-Retirement Ordinary Death Benefits

Eligibility: Death while active, inactive eligible to retire, or disabled not resulting from an injury received in the line-of-duty.

Benefit: Designated beneficiary, spouse, children, or parents entitled to benefit calculated as if the deceased member had retired under Option 2 (see item 13); however, the beneficiary may elect survivor benefits payable to a surviving spouse, dependent children, parent, or other designated beneficiaries in monthly amounts varying by the status of beneficiary and number of eligible survivors. Otherwise, accumulated contributions with interest are payable to the designated beneficiary, spouse, children, older parents, or estate.

9. Pre-Retirement Accidental Death Benefits

Eligibility: Death while active or disabled resulting from an injury received in the line-of-duty.

Benefit:

- If the member leaves no dependent children, two-thirds of the member's average final compensation to the surviving spouse until death.

- If the member is survived by a spouse who has the care of dependent children of the member, the surviving spouse shall receive an annual sum equal to the member's average final compensation while having the care of dependent children. When there are no longer any dependent children, the surviving spouse shall receive two-thirds of the member's average final compensation until death.

- If the member is survived by a spouse who does not have the care of the member's dependent children, the surviving spouse and dependent children shall share equally an annual sum equal to the member's average final compensation. When there are no longer any dependent children, the surviving spouse shall receive two-thirds of the member's average final compensation until death.

- If the member leaves no spouse, the dependent children shall share an annual amount equal to the member's average final compensation. Benefits will cease when the last dependent child no longer meets the definition of "dependent child."

APPENDIX B – SUMMARY OF PROGRAM PROVISIONS

10. Termination Benefit

Eligibility: Termination of service other than by retirement or death with at least five years of creditable service.

Benefit: The member's choice of a refund of the accumulated contributions with interest or a retirement benefit using creditable service and average final compensation as of the date of termination, deferred to normal retirement age.

11. Refund of Contributions

Eligibility: Termination of service other than by retirement or death with less than five years of creditable service.

Benefit: Refund of member's accumulated contributions with interest.

12. Cost-of-Living Adjustments (COLA)

All service and disability retirement and survivor benefits are adjusted each year that there is a percentage change in the Consumer Price Index (CPI), based on the Index. If the percentage change is negative, then no adjustment is made in that year. In subsequent years, the adjustment that would have been made will be adjusted downward to the extent necessary to recoup the full actuarial value of not having made the previous year's negative adjustment. This process of adjustment may occur over a multi-year period if needed to recoup the full value of negative changes in the Index.

Cost-of-living adjustments (COLA) are effective September 1 of each year and are applied to that portion of the benefit that is not in excess of a COLA Base whose value grows annually with the same adjustment as the COLA (see values below) for all benefits that have been in payment for at least twelve months as of that date. The maximum annual increase, or COLA Cap, is three percent. Average final compensation used in determining disability benefits for disabled members is similarly adjusted for purposes of determining the recipient's service retirement benefit if and when the recipient moves to service retirement.

APPENDIX B – SUMMARY OF PROGRAM PROVISIONS

COLA Base History: (value as of September 1 of listed year when COLA effective):

2014 - $20,000.00
2015 - $20,420.00
2016 - $20,940.71
2017 - $21,474.70
2018 - $21,818.30
2019 - $22,451.03
2020 - $22,810.25
2021 - $22,947.11
2022 - $24,186.25*

* Special legislation was passed to pay an additional one percent COLA above the maximum COLA Cap of three percent. In addition, the COLA Base was increased by the full CPI change of 5.4%.

Members who did not have 10 years of service on July 1, 1993, will begin receiving cost-of-living adjustments at the later of 12 months after their normal retirement age and the first September 1 following a minimum of 12 months of being in receipt of their benefit.

13. Methods of Payment of Service Retirement Benefits

At retirement, a member who retires with a benefit must choose from the following methods of payment:

Full Benefit: Unadjusted benefit paid for the life of the member only.

Option 1: Cash refund equal to the remaining member contribution balance, if any, at the date of death (where the member contribution balance has been reduced each month by the portion of the monthly benefit deemed to be provided by member contributions).

Option 2: 100% joint and survivor annuity.

Option 3: 50% joint and survivor annuity.

Option 4: Joint and survivor annuity at any percentage other than those available under Option 2 and Option 3.

Option 5: Designated percentage of the benefit (not less than 51%) payable to the member, with the remaining percentage (the two to equal 100%) payable to a beneficiary (may only be a sole beneficiary) while both are alive. At the death of either, the higher of the two percentages is paid to the survivor for the survivor's life, and the lower-percentage benefit ceases to be paid.

Option 6: 100% joint and survivor annuity (Option 2) with pop-up*.

APPENDIX B – SUMMARY OF PROGRAM PROVISIONS

Option 7: 50% joint and survivor annuity (Option 3) with pop-up*.

Option 8: Option 4 with pop-up*.

* The "pop-up" feature attached to a given Option means that in the case of a beneficiary predeceasing the member, the member's benefit will be revised prospectively to the amount that the benefit would have been had the member selected Full Benefit payment upon retirement.

14. Program Changes since Prior Valuation

The Cost-of-Living Adjustment as of September 1, 2021 included an additional one percent in excess of the three percent maximum. In addition, the COLA Base for 2022 was increased by the full change in CPI of 5.4% instead of the maximum COLA Cap of three percent.

Retroactive coverage under the 1998 Special Plan was enacted for certain Department of Corrections employees.

Certain employees of the Maine State Police Crime Laboratory and Computer Crimes Unit were moved from the Regular Plan to the 1998 Special Plan on a prospective basis effective October 1, 2021. Impacted members who were employed on or before that date elected whether to participate in the 1998 Special Plan prospectively or remain in the Regular Plan.

This Appendix B is intended to be a brief summary of provisions. In the event of a dispute, applicable statutes and administrative policy supersede this report description.

APPENDIX C – ACTUARIAL ASSUMPTIONS AND METHODS

A. Actuarial Assumptions

1. Annual Rate of Investment Return

State Employees	6.50%
Teachers	6.50%

Rate is net of both administrative and investment expense.

2. Cost-of-Living Adjustment (COLA) Assumed Rate

State Employees	2.20%
Teachers	2.20%

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

Service	State Employees	Teachers
0	9.43%	13.03%
5	6.24	5.83
10	5.32	4.81
15	3.98	4.29
20	3.78	3.26
25 and over	3.26	2.80

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

APPENDIX C – ACTUARIAL ASSUMPTIONS AND METHODS

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

Service	State Employees	Teachers
0	32.5%	26.0%
5	10.0	9.0
10	6.0	5.5
15	4.0	3.5
20	3.0	3.0
25	2.5	3.0

Non-vested members are assumed to take a refund of contributions with interest. Once vested, the member is assumed to elect the greater of the deferred vested benefit or a refund of member contributions with interest based on present value at the time of termination.

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

	(Showing values in 2022)			
	State Employees		Teachers	
Age	Male	Female	Male	Female
50	31	25	10	6
55	47	35	21	17
60	71	48	36	26
65	103	69	59	37
70	159	112	97	60
75	269	200	179	114
80	485	370	342	320
85	894	703	715	629
90	1,556	1,314	1,335	1,191
95	2,428	2,146	2,246	2,119

Rates for State Employees are based on 112.1% and 118.5% of the 2010 Public Plan General Benefits-Weighted Healthy Retiree Mortality Table, respectively, for males and females.

APPENDIX C – ACTUARIAL ASSUMPTIONS AND METHODS

Rates for Teachers are based on the 2010 Public Plan Teacher Benefits-Weighted Healthy Retiree Mortality Table adjusted as follows:

- 98.1% and 87.5% respectively of the rates for males before age 85 and females before age 80
- 106.4% and 122.3% respectively of the rates for males on and after age 85 and females on and after age 80

The rates are projected generationally using the RPEC_2020 model, with an ultimate rate of 1.00% for ages 80 and under, grading down to 0.05% at age 95, and further grading down to 0.00% at age 115, along with convergence to the ultimate rates in the year 2027. All other parameters used in the RPEC_2020 model are those included in the published MP-2020 scale.

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

	(Showing values in 2022)			
	State Employees		Teachers	
Age	Male	Female	Male	Female
20	3	1	3	1
25	3	1	2	1
30	4	2	3	2
35	6	3	4	3
40	7	4	5	3
45	9	5	7	4
50	12	7	10	6
55	18	11	15	10
60	28	17	25	16
65	39	25	41	24

* For State Regular and Teachers, 5% of deaths assumed to arise out of and in the course of employment; for State Special, 20% of deaths are assumed to arise out of and in the course of employment.

Rates for State Employees are based on 83.5% and 88.6% of the 2010 Public Plan General Benefits-Weighted Employee Mortality Table, respectively, for males and females. Rates for Teachers are based on 93.1% and 91.9% of the 2010 Public Plan Teacher Benefits-Weighted Employee Mortality Table, respectively, for males and females. These rates are generationally projected using the same version of the RPEC_2020 model as described in the healthy annuitant mortality.

APPENDIX C – ACTUARIAL 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 2022)			
	State Employees		Teachers	
Age	Male	Female	Male	Female
25	36	21	32	25
30	54	37	47	42
35	73	57	64	69
40	90	76	79	91
45	113	99	99	119
50	161	143	141	172
55	219	184	192	221
60	278	213	244	255
65	330	222	289	267
70	389	262	341	314

Rates for State Employees are based on 107.3% and 103.2% of the 2010 Public Plan Non-Safety Benefits-Weighted Disabled Retiree Mortality Table, respectively, for males and females. Rates for Teachers are based on 94.2% and 123.8% of the 2010 Public Plan Non-Safety Benefits-Weighted Disabled Retiree Mortality Table, respectively, for males and females. These rates are generationally projected using the same version of the RPEC_2020 model described in the healthy annuitant mortality.

APPENDIX C – ACTUARIAL ASSUMPTIONS AND METHODS

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

Teachers and State Regular Plans

	State Regular Employees			Teachers		
Age	NRA 60	NRA 62	NRA 65	NRA 60	NRA 62	NRA 65
57	40	35	N/A	40	35	N/A
59	260	40	N/A	200	45	N/A
60	210	50	20	275	80	20
61	210	350	20	210	240	20
62	210	270	50	230	220	50
63	250	180	80	220	180	80
64	190	200	300	280	220	200
65	210	220	250	340	300	300
70	200	200	200	300	200	300
75	350	350	250	400	200	300
80	1,000	1,000	1,000	1,000	1,000	1,000

In the case of State Regular and Teacher employees, NRA 60 refers to those who had accrued at least 10 years of service by July 1, 1993. NRA 62 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. NRA 65 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.

State Special Plans

Members of the 1998 Special Plan are assumed to retire at rates that vary by age and whether service is less than 25 years or not. Sample rates are as follows:

	1998 Special Plan Retirement	
Age	Service < 25	Service >= 25
55	20.0%	25.0%
57	10.0	25.0
60	20.0	30.0
62	30.0	30.0
65	23.4	30.0
67	36.8	50.0
70	100.0	100.0

APPENDIX C – ACTUARIAL ASSUMPTIONS AND METHODS

Members of the 25 & Out Plan are assumed to retire at rates that vary by service. Sample rates are as follows:

25 & Out Plan	
Service	Assumption
<24	0.0%
25-29	25.0
30-31	25.0
32-34	40.0
35-37	40.0
38+	100.0

Members of State Special Plans other than the 25 & Out Plan and the 1998 Special Plan are all currently assumed to retire at a rate of 50% per year, beginning when they reach eligibility for unreduced benefits, with a 100% assumed rate at age 70. Rates are only applied when the member is at least age 50.

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

	State Employees		
Age	Regular	Special	Teachers
25	2.5	5.4	1.1
30	3.1	6.5	1.2
35	9.3	9.9	1.2
40	14.0	15.8	1.6
45	16.0	24.4	3.1
50	18.0	36.4	6.6
55	25.0	42.6	22.1
60	43.4	46.4	22.2

* 10% assumed to receive Workers Compensation benefits offsetting disability benefit; also, current rates for State Special groups are higher by 7 per 10,000 at all ages.

10. Family Composition Assumptions

80% of active members are assumed to be married and have two children born when the member is 24 and 28; children are assumed dependent until age 18; a female spouse is assumed to be three years younger than a male spouse; member is assumed to have no dependent parents; unmarried members are assumed to have beneficiaries entitled to benefits worth 80% as much as those of married members' beneficiaries.

APPENDIX C – ACTUARIAL ASSUMPTIONS AND METHODS

11. Vacation/Sick Leave Credits

Members can use up to 90 days of unused, unpaid vacation and sick leave at retirement to increase creditable service.

For members who had 10 years of service on July 1, 1993, payment for up to 30 days of unused vacation and sick leave may be used to increase final average compensation, subject to an earnings cap. To reflect this, projected retirement benefits are increased by 0.48% for state (regular) employees and 0.75% for teachers for impacted members.

12. 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.

Member Contribution Interest Rate: Reflect actual historical member contribution interest rates from 1970 through the valuation; future contribution interest assumed to equal the inflation assumption of 2.75%.

COLA Timing: September 1.

Special Plan Member Contribution Rates: For members of Special Plans where the contribution rate drops from 8.65% to 7.65% after a given number of years, 8.65% is used for all years for valuation purposes as a simplifying assumption reflecting data limitations.

13. Rationale for Assumptions

The demographic assumptions were adopted by the Board of Trustees at their March 11, 2021 meeting. The discount rate was adopted by the Board of Trustees at their August 12, 2021 meeting. The demographic assumptions adopted are based on an experience study covering the period from July 1, 2015 through June 30, 2020, and the economic assumptions are based on this experience study along with advice of the MainePERS investment consultants.

14. Changes since Last Valuation

None.

APPENDIX C – ACTUARIAL ASSUMPTIONS AND METHODS

15. Rationale for Change in Actuarial Assumptions

N/A

16. Disclosure of Models Used

ProVal: Cheiron utilizes ProVal, an actuarial valuation software leased from Winklevoss Technologies (WinTech) to calculate the liabilities, normal costs, and projected benefit payments. We have relied on WinTech as the developer of ProVal. We have reviewed ProVal and have a basic understanding of it and have used ProVal in accordance with its original intended purpose. We have not identified any material inconsistencies in assumptions or output of ProVal that would affect this actuarial valuation.

Projection Model: This report includes projections of future contributions, assets, liabilities, and funded status for the purpose of assisting the Board of Trustees with the management of the Fund. We have used Cheiron's P-Scan and R-Scan models to develop these projections. The model is also used to stress test the impact of volatile asset returns over the projection period.

The P-Scan projection uses projected benefit payments for current members but does not include projected benefit payments for new members. This limitation is not material for the next 20 years, but longer projection periods should be viewed with caution. The P-Scan projection uses standard roll-forward techniques that implicitly assume a stable active population. Changes in the demographic characteristics of the active population will lead to different results.

The stochastic projections of investment returns assume that each future year's investment return is independent from all other years and is identically distributed according to a lognormal distribution. This assumption may result in an unrealistically wide range of compound investment returns over longer periods of time. The standard deviation used in the stochastic projection of investment returns was provided by the investment consultant.

Mortality Improvement Model: Cheiron utilized the RPEC_2014_v2020 Model Implementation Tool for the purposes of developing the customized version of MP-2020 used in this report. This tool is updated and published annually by the Society of Actuaries and their Retirement Plans Experience Committee and allows actuaries to develop customized versions of mortality improvement scales based on the parameters and data underlying the published MP-2020 scale but allowing practitioners to vary parameters from those used in the published MP-2020 scale.

We have reviewed this model and believe it is appropriate to our intended use in developing a customized mortality improvement scale for the Programs. Further, we are aware of no material inconsistencies that would limit our ability to use this model for its intended purpose.

APPENDIX C – ACTUARIAL ASSUMPTIONS AND METHODS

B. Actuarial Methods

1. Cost Method

For the Plans in this Program, the funding methodology employed is the entry age normal cost method. Under this method, there are two components to the total contribution: the normal cost rate (NC rate), and the unfunded actuarial liability rate (UAL rate). Both of these rates are developed for each Plan within the Program, consisting of the Teacher Program, the State Regular Plan, and several State Special Plans.

For each Plan in the Program, an individual entry age normal cost rate is determined for each active member. The normal cost is determined by the following steps. First, an individual normal cost rate is determined by taking the value, as of entry age into a Plan, of each active member's projected future benefit. Second, this value is then divided by the value, also at entry age, of the member's expected future salary. Finally, the rate is reduced by the member contribution rate to produce the employer normal contribution rate. These rates are then multiplied by each member's salary as of the valuation date to get the total normal cost dollars as of the valuation date for that Plan and then divided by the total payroll at the valuation for the Plan to get the normal cost rate for that Plan. This process results in specific normal cost rates for each of the Plans in the Program.

The unfunded actuarial liability under the entry age normal cost method equals the present value, at the time of valuation, of the future benefit payments less the present value of future employer normal cost contributions, future member contributions, future UAL payments, and current assets. The UAL rate determined is the percentage that applied to member payroll is expected to amortize the UAL according to the Program's amortization policy. Specifically, the remaining original UAL has 6 years of its prescribed amortization period remaining and all other gains and losses, including assumption changes, are amortized over twenty-year periods beginning on the date as of which they occur. The UAL amortization uses a level percentage of pay method with payroll assumed to increase at 2.75% annually. Amortization payments are assumed to occur at each pay period. Benefit changes are funded immediately and are therefore not included in the amortization of the UAL. With the 2022 ratemaking, the 2014 gain base was accelerated by six years from the standard twenty-year schedule.

2. Asset Valuation Method

For purposes of determining the employer contributions to the Program and the Program's funded ratio, we use an actuarial value of assets. The asset adjustment method dampens the volatility in asset values that could occur because of fluctuations in market conditions. Use of an asset smoothing method is consistent with the long-term nature of the actuarial valuation process.

In determining the actuarial value of assets, we calculate an expected actuarial value based on the cash flows for the year and imputed returns at the actuarial assumption. This expected value is compared to the actual market value at the valuation date and one-third of the difference is added to the preliminary actuarial value to arrive at the final actuarial value.

3. Changes since Last Valuation

Consistent with the 2022 ratemaking, the amortization of the FY 2014 gain base was accelerated by six years resulting in a remaining amortization period of six years as of June 30, 2022.

4. Rationale for Change

The amortization of the 2014 gain base was changed to maintain rate stability and provide a more stable progression of costs before the exhaustion of the 1996 unfunded actuarial liability.

APPENDIX D – GLOSSARY OF GASB 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. **Deferred Inflow of Resources**

   An acquisition of net assets by a government employer that is applicable to a future reporting period. In the context of GASB 68, these are experience gains on the Total Pension Liability, assumption changes reducing the Total Pension Liability, or investment gains that are recognized in future reporting periods.

4. **Deferred Outflow of Resources**

   A consumption of net assets by a government employer that is applicable to a future reporting period. In the context of GASB 68, these are experience losses on the Total Pension Liability, assumption changes increasing the Total Pension Liability or investment losses that are recognized in future reporting periods.

5. **Entry Age Actuarial Cost Method**

   The actuarial cost method required for GASB Nos. 67 and 68 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 Pension Liability.

6. **Measurement Date**

   The date as of which the Total Pension Liability and Program Fiduciary Net Position are measured. The Total Pension 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 Program.

APPENDIX D – GLOSSARY OF GASB TERMS

7. Net Pension Liability

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

8. Program Fiduciary Net Position

The fair or market value of assets.

9. Reporting Date

The last day of the Program or employer's fiscal year.

10. 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 Nos. 67 and 68. The Service Cost is the normal cost calculated under the entry age actuarial cost method.

11. Total Pension 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 Nos. 67 and 68. The Total Pension Liability is the actuarial liability calculated under the entry age actuarial cost method.

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Maine Public Employees Retirement System

Legislative Retirement Program

Actuarial Valuation Report as of June 30, 2022

Produced by Cheiron
October 2022

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Appendices

October 13, 2022

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

Dear Members of the Board:

We are pleased to submit the June 30, 2022 Actuarial Valuation Report for the Maine Legislative Retirement Program (Program) of the Maine Public Employees Retirement System (MainePERS or System).

The purpose of this report is to present the annual actuarial valuation of the Legislative Retirement Program of the Maine Public Employees Retirement System. This report is for the sole use of the MainePERS Board and its auditors in preparing financial reports in accordance with applicable law and accounting requirements. This report contains information on assets, liabilities, and contributions of the Program, as well as required accounting statement disclosures under the Governmental Accounting Standards Board (GASB) Statement No. 67.

In preparing our report, we relied on information, some oral and some written, supplied by the System's staff. 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 results may differ significantly from the current results presented in this report due to such factors as the following: Program experience differing from that anticipated by the assumptions, changes in assumptions, and changes in plan provisions or applicable law.

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 actuarial report was prepared exclusively for MainePERS for the purposes described herein and for the use by the Program 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.

This report does not contain any adjustments for the potential impact of COVID-19 on either economic or demographic assumptions. We anticipate that the pandemic may have implications in both the short and long term, but the net impact of these is not determinable at this time.

Sincerely,
Cheiron

Gene Kalwarski, FSA, EA	Fiona E. Liston, FSA, EA	Elizabeth Wiley, FSA, EA
Principal Consulting Actuary	Principal Consulting Actuary	Consulting Actuary

FOREWORD

Cheiron has completed the Actuarial Valuation Report for the Maine Public Employees Retirement System (MainePERS or System) Legislative Retirement Program (Program) as of June 30, 2022. The purpose of this report is to:

1) Measure and disclose, as of the valuation date, the financial condition of the Program,
2) Examine historical Program trends,
3) Assess and disclose actuarial risks of the Program,
4) Report on the contribution rates developed in this valuation for informational purposes (Note: the actual contributions paid by the State for fiscal year (FY) 2022 were developed in the budgeting process in July 2020, based on a roll-forward of the June 30, 2019 valuation), and
5) Provide specific information required for MainePERS's financial disclosures.

An actuarial valuation establishes and analyzes assets and liabilities on a consistent basis and tracks the progress of both from one year to the next. It includes measurement of investment performance as well as an analysis of actuarial liability gains and losses.

Section I presents a summary containing our key findings, disclosing important Program trends in recent years, and providing analysis relating to the future status of the Program.

Section II assesses and discloses various actuarial risk measures of the Program.

Section III contains details on various asset measures, together with pertinent performance measurements.

Section IV shows similar information on liability measures for various purposes, including analysis of key changes in the measures.

Section V develops informational employer contribution rates to be compared to those established during the ratemaking process.

Section VI includes financial disclosure information.

Finally, we present appendices containing the following summaries:

- Program membership information at the valuation date (Appendix A),
- Major benefit provisions of the Program (Appendix B),
- Actuarial assumptions and methods used in the current valuation (Appendix C), and
- Terminology used in the Governmental Accounting Standards Board (GASB) disclosures (Appendix D).

SECTION I – BOARD SUMMARY

General Comments

The annual employer contributions to this Program are determined on a biennial basis in even years. The contributions for fiscal year (FY) 2022 and FY 2023 were developed through this ratemaking process in 2020. The assets used in developing these rates were the preliminary June 30, 2020 assets. These were then combined with liability measures as of June 30, 2020, developed as an adjustment (i.e., roll-forward) of the liabilities of the June 30, 2019 actuarial valuation. This adjustment included updating to reflect anticipated growth in benefits, reductions due to benefit payouts, and any changes in assumptions or benefits between the June 30, 2019 valuation date and the June 30, 2020 measurement date. Similarly, the contributions for FY 2024 and FY 2025 were developed in 2022 and were based on estimated assets as of June 30, 2022 and liabilities based on the June 30, 2021 actuarial valuation liabilities adjusted to our best estimate of the June 30, 2022 liabilities.

The results of this June 30, 2022 valuation will be used primarily for accounting disclosures. Next year's June 30, 2023 valuation, adjusted to a June 30, 2024 measurement date and combined with preliminary assets as of June 30, 2024, will be used as the basis for the applicable FY 2026 and FY 2027 employer contributions.

Experience from July 1, 2021 through June 30, 2022 (FY 2022)

With respect to investment experience, measured on a market value of asset (MVA) basis, MainePERS experienced an investment return of negative 0.62% for the fiscal year ending June 30, 2022. However, given the three-year asset smoothing method in place, only one-third of that loss is recognized in this valuation on an actuarial value of assets (AVA) basis. Furthermore, asset smoothing also resulted in recognizing one-third of prior deferred assets gains of $1.610 million during FY 2022 for this Program. As a result, the investment return measured on a smoothed, actuarial value of assets basis was 7.70%. This is greater than the 6.50% assumed rate of return in effect for FY 2022, resulting in a gain on investments for the year of $0.187 million in addition to the expected increase of $0.509 million had the assumed 6.50% been exactly achieved on an AVA basis.

With respect to liability experience, the Program's liabilities increased by $0.156 million less than the expected growth of $0.455 million (a 1.5% decline in total liabilities compared to expected growth). This decrease is net of an approximately $0.088 million increase attributable to the payment of cost-of-living adjustments (COLA) exceeding the assumed COLA. The balance of the liability experience was a $0.195 million gain primarily attributable to fewer retirements than expected. It's important to note that approximately $0.043 million of the $0.088 million liability growth attributable to COLA was due to Program changes in the COLA and was fully offset by additional employer contributions of the same amount.

Combining the investment and liability experience produced an informational total employer contribution of 0.00% of payroll as of June 30, 2022. This is the same as the June 30, 2021 informational valuation contribution rate of 0.00% of payroll.

SECTION I – BOARD SUMMARY

Finally, as of the June 30, 2022 valuation, the Program has an unfunded actuarial liability (UAL) of ($4.810) million (i.e., a surplus) based on the actuarial value of assets (AVA). This represents a decrease of $0.439 million from the ($4.371) million AVA UAL measured as of June 30, 2021, thus increasing the Program's surplus. This compares to an expected decrease in the UAL of $0.054 million. The specific factors contributing to this change are presented in Table I-1 that follows. This table has separate columns showing the components of the changes in liabilities and investments during FY 2022 as well as their combined effect on the UAL.

Table I-1
(Amounts in Millions)

	Liabilities	Assets*	UAL
Value as of June 30, 2021	$10.678	$ 15.049	$ (4.371)
Expected Change	0.455	0.509	(0.054)
Impact of Plan Changes	0.043	0.043	0.000
Impact of Assumption Changes	0.000	0.000	0.000
Recognized Investment Gain	0.000	0.187	(0.187)
Recognized Liability Gain	(0.199)	0.000	(0.199)
Value as of June 30, 2022	$10.977	$ 15.788	$ (4.811)

* This table uses the actuarial value of assets. Results would be different if the market value were used.

The remainder of this Board Summary section summarizes the Program's historical trends and summarizes the principal results of the valuation. These principal results compare key results between this and last years' valuations for member counts, assets and liabilities, and contribution rates.

Trends

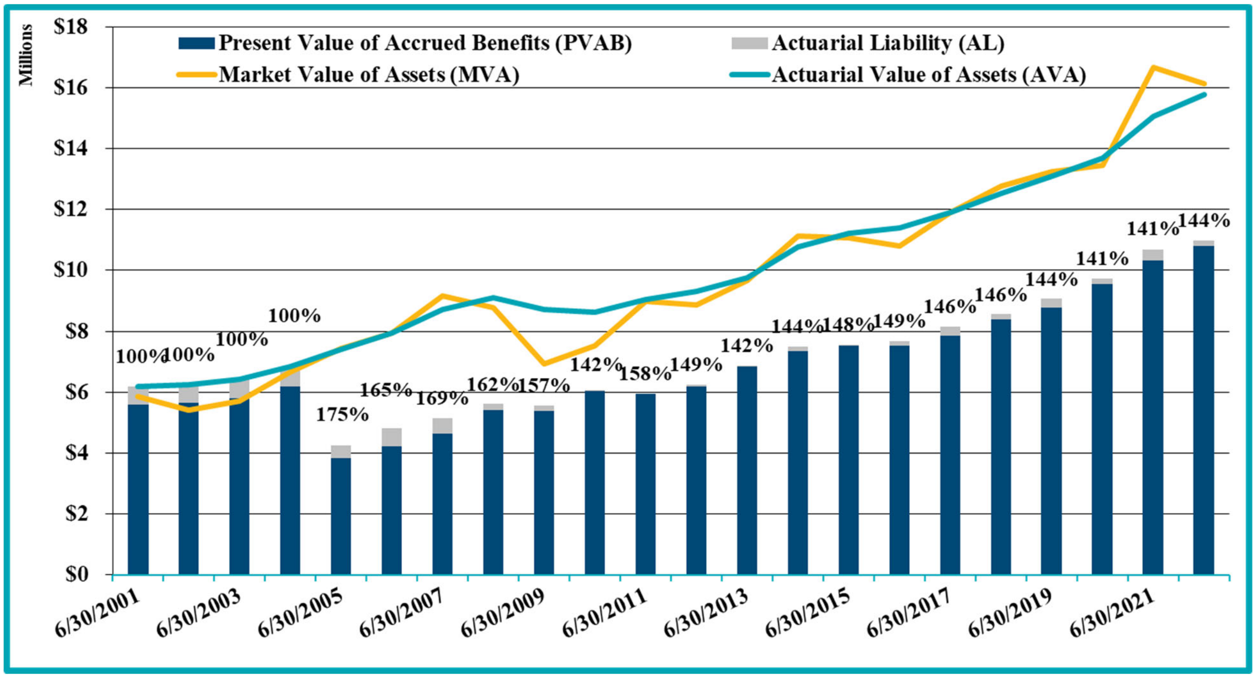
It is important to take a step back from the latest results and view them in the context of the Program's history. On the next few pages, we present a series of graphs that display key historical trends relating to the Program's condition.

SECTION I – BOARD SUMMARY

Assets and Liabilities

The following graph illustrates the progress of assets and liabilities for the Program since June 30, 2001 as well as the Program's funded ratio on an actuarial value of assets (AVA) basis.

Liability measures are shown as bars as of June 30 of the indicated years. The actuarial liability (AL), the liability measure used for the Program's funding purposes, is represented by the top of the grey bars. The blue bars represent the present value of accrued benefits (PVAB). These liability measures are discussed further in Section IV. Measures of the assets are shown as lines. The AVA is shown with a teal line, while the market value of assets (MVA) is shown as a yellow line. The AVA divided by the AL is the AVA funded ratio that is often used in evaluating the Program's funded status. The values of this metric as of each valuation date are shown as the percentages in the graph labels.

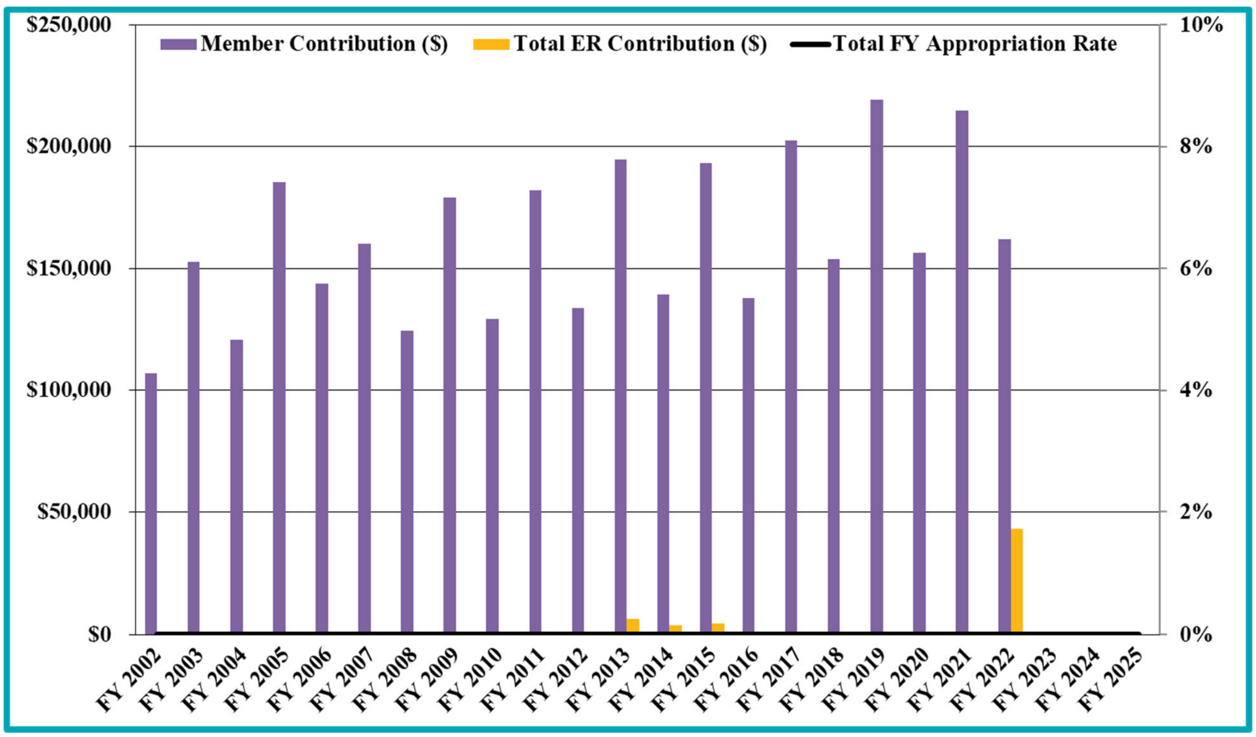


Between the 2004 and 2005 valuations, there was a change in cost method used for this Program that resulted in the large drop in stated liabilities between those dates. Plan changes were legislated during 2010 and first reflected in the 2011 valuation, resulting in the reduction in liability seen for that year. As of June 30, 2022, the Program is funded 143.8% based on the AVA funded ratio, which represents an increase from the 140.9% reported in the prior valuation. The 22-year history in the graphs shows that the Program has been fully funded at a 100% or greater funded ratio on an AVA basis over this entire period. Measured on a MVA basis, the funding ratio is 147.1%.

SECTION I – BOARD SUMMARY

Contributions

The next graph shows the history of contributions to the Program, both as dollar amounts and as percentages of payroll. The bars in this graph show the contributions made by both the employers and the members in dollar terms for each fiscal year (FY) as indicated by the horizontal axis since 2002. These bars are read using the left-hand axis. The black line shows the total appropriated employer contribution rate for the FY indicated as a percentage of payroll and references the right-hand axis. These rates are those determined by the ratemaking process rather than the informational rates determined in the annual valuations. The FY 2023 through FY 2025 contribution rates have already been determined based on the ratemaking process, so three additional years of the contribution rates are shown versus dollars received. The total employer contribution for FY 2022 includes the approximately $43 thousand extra payment to fund the COLA benefit change.



The member contribution rates are set by statute. The up and down nature of these member contribution amounts is due to the legislative calendar, which includes alternating long and short terms. The total employer contribution rate is set by the ratemaking process on a biennial basis. The contribution rate for FY 2022 was based on a roll-forward of the June 30, 2019 valuation to June 30, 2020, as previously described in this Board Summary.

For this Program, this employer contribution rate has been 0% of pay since before 2002, so the black line of the total appropriated employer contribution rate is shown as a constant at zero percent. The yellow bars showing employer contributions in dollars represent transfers or cost-of-living adjustment (COLA) payments made during the fiscal year indicated.

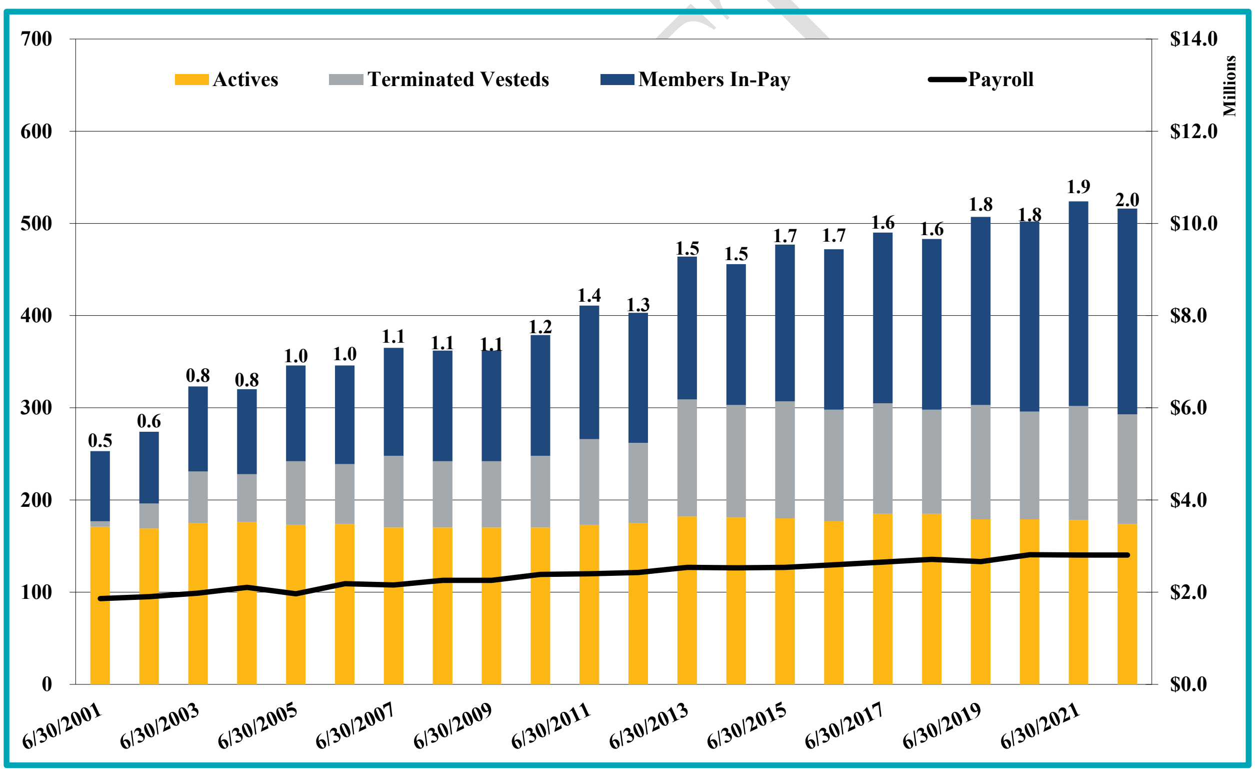
SECTION I – BOARD SUMMARY

Participant Trends

The stacked bars in the graph that follows show the number of active members, terminated vested members, and members in pay status covered by the Program as of June 30 of each year indicated and is read using the left-hand axis of the graph. As with many funds in this country, there has been a steady growth in the number of retired members as the Program has matured.

The labels above each bar show the "support ratio," which is the ratio of inactive members (members in pay status plus terminated vested members) to active members. This ratio has been generally increasing since 2001 for the Program. As this ratio grows, the cash flows (contributions less benefits and expenses) of a pension plan tend to become more negative. The more negative a plan's cash flows, the more sensitive, in terms of contribution volatility, the plan is to volatile investment markets.

The black line in the graph indicates the total active member covered payroll in the Program and is read using the right-hand axis of the graph. Generally, it has been gradually increasing or steady since 2001.



SECTION I – BOARD SUMMARY

Principal Results Summary

The last section of this Board Summary section of this Actuarial Valuation Report presents a summary of the principal results of the valuation, comparing key results between this and last years' valuations for member counts, assets and liabilities, and contribution rates.

Table I-2
Summary of Principal Results
Legislative Retirement Program

	Valuation as of June 30, 2021	Valuation as of June 30, 2022	% Change
Member Counts			
Active Members	178	174	(2.2)%
Retired Members	184	184	0.0%
Beneficiaries of Retired Members	29	28	(3.4)%
Survivors of Deceased Members	7	9	28.6%
Disabled Members	2	2	0.0%
Terminated Vested Members	124	119	(4.0)%
Inactives Due Refunds	101	95	(5.9)%
Total Membership	625	611	(2.2)%
Annual Payroll of Active Members	$ 2,802,145	$ 2,801,166	(0.0)%
Annual Payments to Benefit Recipients	$ 502,011	$ 529,008	5.4%
Assets and Liabilities			
Actuarial Liability (AL)	$ 10,678,471	$ 10,977,282	2.8%
Actuarial Value of Assets (AVA)	15,049,435	15,787,715	4.9%
Unfunded AL (UAL)	$ (4,370,964)	$ (4,810,433)	(10.1)%
AVA Funded Ratio (AVA/AL)	140.9%	143.8%	
MVA Funded Ratio (MVA/AL)	156.0%	147.1%	
Accrued Benefit Liability (PVAB)	$ 10,309,073	$ 10,791,193	4.7%
Market Value of Assets (MVA)	16,659,121	16,142,942	(3.1)%
Unfunded PVAB	$ (6,350,048)	$ (5,351,749)	15.7%
MVA Accrued Benefit Funded Ratio	161.6%	149.6%	
Contributions as a Percentage of Payroll			
Employer Normal Cost Rate	5.74%	3.46%	
UAL Amortization Rate	(18.82)%	(20.71)%	
Total Employer Rate, Not Less Than Zero	0.00%	0.00%	

	2020 Ratemaking		2022 Ratemaking	
Total Employer Budgeted Rates	FY 2022	0.00%	FY 2024	0.00%
Total Employer Budgeted Rates	FY 2023	0.00%	FY 2025	0.00%

SECTION II – RISK ASSESSMENT AND DISCLOSURE

Introduction

The Program's actuarial valuation results are dependent on assumptions about future economic and demographic experience. Based on actuarial standards of practice, these assumptions represent a reasonable estimate for future experience. However, the actual future experience will never conform exactly to these assumptions and may differ significantly from the assumptions. This deviation is a risk that pension plan sponsors bear in relying on a pension plan's actuarial valuation results.

This section of this report is intended to identify the primary drivers of these risks, provide background information and assessments about these identified risks, and communicate the significance of these risks to this Program. This section for this Program, as well as the Judicial Program, is limited in comparison to the risk sections for the two larger Programs, the State Employee and Teacher Retirement Program and the Participating Local District Retirement Program. This limitation reflects the relatively smaller nature of these two Programs as well as their robust funded statuses. It is thus our belief that the additional information that is included in the reports for the larger Programs would not be significantly beneficial in improving the Board's understanding of the identified risks for these two smaller Programs.

Identification of Risks

For this Program, the three primary valuation results that can significantly differ from those expected are the assets, the liabilities, and the employer contributions. While there are several factors that could lead to these results being different, we believe the primary risks for this Program are:

- Investment risk,
- Longevity and other demographic risks,
- Plan change risk, and
- Assumption change risk

Other risks that we have not identified may also turn out to be significant.

SECTION II – RISK ASSESSMENT AND DISCLOSURE

Investment Risk is the potential for investment returns to deviate from what is expected. When actual investment returns are lower than the investment assumption used in the actuarial valuation, the unfunded liability will increase from what was expected and will require higher contributions than otherwise anticipated. But, when actual returns exceed those assumed, the resulting unfunded liability measurements and actuarially determined contributions will be lower than anticipated. As seen in the historical section that follows, this has been a significant driver of deviations in the actual measurements for this Program from those expected by the prior valuations. However, the cumulative magnitude of these deviations over the period shown has been muted as a result of offsetting deviations.

Longevity and Other Demographic Risk is the potential for mortality or other demographic experience to be different than expected. Generally, longevity and other demographic risks emerge slowly over time as the actual experience deviates from expectations. In addition, the extensive number of assumptions related to longevity and other demographic experience often result in offsetting deviations contributing to the Program's overall liability experience. As such, these risks are often dwarfed by other risks, particularly those due to the investment returns. However, for small plans like this, there are relatively few members and so the behavior of individual members can have a significant impact on the liabilities. The following historical section shows that this is true for this Program, with the magnitude of the cumulative gains and losses from liability experience for the period shown being about 50% larger than those from investment experience.

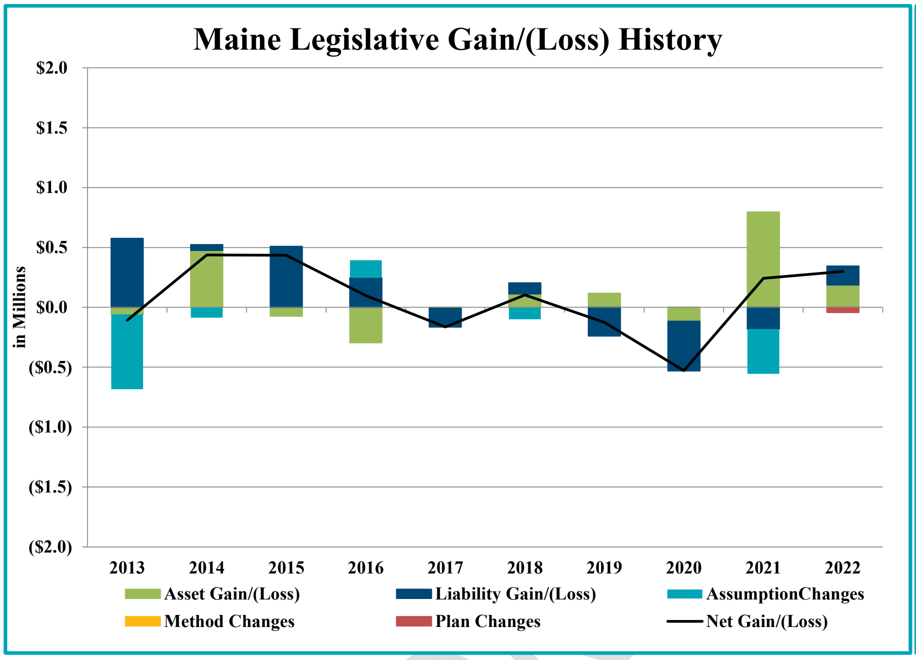
Plan Change Risk is the potential for the provisions of the Program to be changed such that the funding or benefits are changed materially. In addition to the actual payments to and from the Program being changed, future valuation measurements can also be impacted, with Program changes leading to deviations between actual future measurements and those expected by prior valuations. Over the period shown in the following historical section, this Program has experienced only relatively insignificant plan changes.

Assumption Change Risk is the potential for the environment to change such that future valuation assumptions are adjusted to be different than the current assumptions. For example, declines in interest rates over time may result in a change in the assumed rates of return used in the valuation. A healthier workforce may result in changes in employee behavior such that retirement rates are adjusted to reflect employees working longer. Assumption change risk is an extension of the risks previously identified, but rather than capturing the risk as it is experienced, it captures the cost of recognizing a change in the environment resulting in the current assumption no longer being reasonable. The historical review section will show that assumption change risk has been a significant risk for this Program.

SECTION II – RISK ASSESSMENT AND DISCLOSURE

Historical Experience Deviations

In understanding the impact of some of these risks, it is useful to look at past experience deviations. These deviations are commonly referred to as actuarial gains and losses. The following graph shows the gains/(losses) at each valuation date between the actual and expected experience broken down by cause for the last 10 years.



As described previously and is evident in this graph, assumption changes and asset gains and losses have been the most significant risks for the Program. Liability gains and losses have also been sources of significant risks in individual years.

Plan Maturity Measures

As pension plans become more mature, the primary risks of adverse investments, demographic deviations, plan changes, and assumption/method changes become of more significant concern as the resulting impacts on the Program's condition are more pronounced. As a result, it has become increasingly important to examine measures that indicate a pension plan's maturity level. With shrinking workforces, aging Baby Boomers, and retirees living longer, plans pay out more in benefits than they receive in contributions – leading to negative cash flows, excluding investment income, making it harder for a plan to recover from losses since contributions are generally made based on active payroll.

One of the main reasons risks are more amplified with a mature plan is that when plans with negative cash flows suffer investment losses, they need to liquidate enough assets to pay for benefits in excess of contributions. That means these plans will need to earn higher returns to

SECTION II – RISK ASSESSMENT AND DISCLOSURE

rebuild their assets to the previous levels. Plans with negative cash flows exceeding five percent of assets are especially vulnerable to asset losses.

The balance of this section discloses and examines three maturity measures: the asset leverage ratio, the liability leverage ratio, and the support ratio.

<u>Asset Leverage Ratio</u>

One important plan maturity measure is the asset leverage ratio, the market value of assets divided by the plan's payroll, which represents the percentage of payroll that would need to be contributed to make up a given change in the plan's assets. As a plan matures, its assets increase, and a greater proportion of the assets are paid out in benefit payments to members. The greater the plan's assets are relative to payroll, the more vulnerable the plan is to investment volatility in terms of the resulting contribution requirement changes.

As an example, here are two plans that both experience a 10% investment loss equaling $500 million on their existing assets of five billion dollars. Plan A's asset leverage ratio is 10, and Plan B's ratio is five. This means that Plan A has to spread, or amortize, that loss over a payroll that is half as large as Plan B's. As seen in the chart below, this results in the percentage of payroll that Plan A would need to contribute to make up the loss being double what would be required for Plan B.

	($ in millions)	
	Plan A	**Plan B**
Plan Assets	**$ 5,000**	**$ 5,000**
Payroll	**$ 500**	**$ 1,000**
Asset Leverage Ratio	**10.0**	**5.0**
10% Loss	**$ 500**	**$ 500**
10% Loss as % of Payroll	**100%**	**50%**

This Program's asset leverage ratio has been generally increasing over the last decade except for this past year due to the investment loss and is currently just less than 5.8. As a result of the increasing trend of this ratio, investment losses are equivalent to a greater proportion of payroll.

<u>Liability Leverage Ratio</u>

Another leverage ratio that can be examined is the liability leverage ratio, the ratio of actuarial liabilities to payroll. The greater the plan's liabilities are relative to payroll, the more vulnerable the plan is to experience volatility. As previously discussed, the small nature of this Program means that the magnitude of liability gains and losses are often greater relative to the liabilities compared to what larger plans experience, so it is valuable to be aware of this ratio. For this Program, this metric has also been generally increasing over the last decade and is currently at approximately 3.9.

SECTION II – RISK ASSESSMENT AND DISCLOSURE

Support Ratios

Another commonly used measure of plan maturity is the support ratio, the ratio of in-pay and inactive members, or those receiving benefits or entitled to a deferred benefit, to the number of active members, or those currently accruing benefits in the plan. The greater this ratio, the more mature a plan is considered, with the proportion of the plan's liability represented by actives generally declining.

A graph of this ratio was shown in the prior section, which showed that this ratio has been generally increasing for this Program in recent years and is currently approximately 2.0 participants either in-pay or with a deferred benefit for each active member.

SECTION III – ASSETS

Pension plan assets play a key role in the financial operation of plans and in the decisions that Trustees make with respect to future deployment of those assets. The level of assets, the allocation of assets among asset classes, and the methodology used to measure assets will likely affect benefit levels, employer contribution rates, and the ultimate security of members' benefits.

The assets for all Defined Benefit (DB) Programs administered by MainePERS are invested together. These Programs are the State Employee and Teacher Retirement Program, the Judicial Retirement Program, the Legislative Retirement Program that is valued in this report, and the Participating Local District (PLD) Retirement Program, including both the Consolidated Plan and the several Nonconsolidated PLDs. The assets of these Programs are entirely commingled for investment purposes, so the actuarial value of assets (AVA) for each of these Programs is developed by first developing it for the entire asset pool and then subsequently allocating that total AVA to each of the specific Programs.

In this section, we present detailed information on the Program's assets including:

- Disclosure of total MainePERS DB assets at June 30, 2021 and June 30, 2022,
- Statement of changes in total MainePERS DB market values during the year,
- Development of the total MainePERS DB actuarial value of assets,
- Allocation of the total actuarial value to MainePERS DB Programs,
- Assessment of the total MainePERS DB investment performance, and
- Projection of expected cash flows for the Program for the next 10 years.

Disclosure

The market value of assets (MVA) represents a "snap-shot" or "cash-out" value, which provides the principal basis for measuring financial performance from one year to the next. However, market values can fluctuate widely with corresponding swings in the marketplace, resulting in volatility in the resulting contributions if the unadjusted market value is used in the valuation process that develops the contributions. Therefore, a smoothed actuarial value of assets is developed for use in the valuation process and for evaluating the Program's ongoing ability to meet its obligations. The actuarial value of the Program's assets is developed by allocating the actuarial value of the total MainePERS DB assets to each Program. This section discloses the market and actuarial values of the MainePERS DB assets both in total and for each Program.

SECTION III – ASSETS

Table III-1 that follows develops the change in the market value of assets for the total MainePERS DB assets during FY 2022.

Table III-1
Changes in Market Value of Total MainePERS Defined Benefit (DB) Assets

Market Value of Total MainePERS DB Assets – June 30, 2021		**$ 18,768,097,954**
Additions		
Contributions:		
Employer Contributions	$ 623,238,478	
Member Contributions	230,265,185	
Transfers	(227,555)	
Total Contributions	$ 853,276,108	
Investment Income:		
Net Appreciation (Depreciation) in Fair Value of Investments	$ 30,962,372	
Interest on Bank Balances	299,311	
Total Investment Income	$ 31,261,683	
Investment Activity Expenses:		
Management Fees	$ (125,930,618)	
Investment Related Expense	(5,177,112)	
Banking Fees	(34,677)	
Total Investment Activity Expenses	$ (131,142,407)	
Net Income from Investing Activities	$ (99,880,724)	
Total Additions		$ 753,395,384
Deductions		
Retirement Benefits	$(1,070,744,688)	
Disability Benefits	(27,833,411)	
Survivor Benefits	(26,237,094)	
Refunds	(24,312,164)	
Administrative Expenses	(15,067,128)	
Total Deductions		$ (1,164,194,485)
Total		
Net Increase (Decrease)		$ (410,799,101)
Market Value of Total MainePERS DB Assets – June 30, 2022		**$ 18,357,298,853**

SECTION III – ASSETS

Table III-2 that follows develops the actuarial value of assets for the total MainePERS DB assets as of June 30, 2022 using the adopted actuarial valuation methodology.

Table III-2
Development of Actuarial Value of Total MainePERS Defined Benefit (DB) Assets as of June 30, 2022

1.	Actuarial Value of Total MainePERS DB Assets at June 30, 2021	$ 16,954,631,725
2.	Amount in (1) with Interest to June 30, 2022	18,056,682,787
3.	Employer and Member Contributions for FY 2022	853,276,108
4.	Interest on Contributions in (3), Assuming Received Uniformly throughout FY 2022	27,294,914
5.	Total Disbursements without Administrative Expenses for FY 2022	(1,149,127,357)
6.	Interest on Disbursements in (5), Assuming Payments made Uniformly throughout FY 2022	(36,758,713)
7.	Expected Value of Total MainePERS DB Assets at June 30, 2022 = (2) + (3) + (4) + (5) + (6)	$ 17,751,367,739
8.	Actual Market Value of Total MainePERS DB Assets at June 30, 2022	18,357,298,853
9.	Excess of (8) Over (7)	605,931,114
10.	Actuarial Value of Total MainePERS DB Assets at June 30, 2022 = (7) + [33⅓% of (9)]	$ 17,953,344,777

Actuarial Value of Total MainePERS DB Assets

As discussed in the disclosure portion of this section, the actuarial value of assets for the Program represents a "smoothed" value developed by the actuary to reduce, or eliminate, volatility in valuation results, particularly contribution rates that could develop from short-term fluctuations in the market value of assets. Current actuarial methods employed in this Program use an allocated portion of the total actuarial value of assets for the total MainePERS DB assets based on the Program's market value of assets to develop the actuarial value of assets for the Program. The methodology for the total MainePERS DB assets sets the actuarial value of assets equal to the expected value of the actuarial value of assets plus one-third of the difference between the actual market value of assets and the expected actuarial value of assets. The expected value of the actuarial value of assets takes the prior year's actuarial value of assets and adjusts it for contributions, disbursements, and expected interest earnings at the investment return assumption that was in effect for the previous year, 6.50% for this valuation. The previous table, Table III-2, illustrates the calculation of the actuarial value of assets for the total MainePERS DB assets as of June 30, 2022.

Allocation of Actuarial Value of Assets to the Program

The assets for the defined benefit (DB) Programs administered by MainePERS are commingled for investment purposes with the actuarial value of assets for the total assets allocated to the individual Programs on the basis of the market value of the assets for each Program. An asset ratio (total MainePERS DB actuarial value of assets divided by total MainePERS DB market value of assets) is applied to the market value of assets attributable to each of the Programs to determine their actuarial value of assets as of the valuation date. The asset ratio derived in this June 30, 2022 valuation as shown in Table III-2 above is 0.977995 (17,953,344,777 ÷ 18,357,298,853). The allocation of actuarial value of the total MainePERS DB assets to each of the MainePERS DB Programs based on this asset ratio is shown in the following chart.

Table III-3
Allocation of Actuarial Value of Total MainePERS DB Assets
as of June 30, 2022

Program	Market Value	Actuarial Value
Teachers	$ 9,664,934,008	$ 9,452,256,233
State (Regular & Special)	4,903,757,326	4,795,849,688
Judicial	85,821,158	83,932,655
Legislative	16,142,942	15,787,715
Participating Local Districts (Consolidated & Non-Consolidated)	3,686,643,419	3,605,518,486
Total	$ 18,357,298,853	$ 17,953,344,777

Investment Performance

The market value of assets for the total MainePERS DB assets returned a negative 0.62% during FY 2022. This is less than the assumed return of 6.50% for FY 2022. The equivalent market value returns for the total MainePERS DB assets for FY 2021 and FY 2020 were positive 26.76% and positive 2.89%, respectively.

On an actuarial value of assets basis, the return for FY 2022 was a positive 7.70% for the total MainePERS DB assets. This return is greater than both the return on a market value basis and the 6.50% assumption in effect for FY 2022. Therefore, this return gave rise to an investment gain on the total MainePERS DB assets this year.

Cash Flow Projections

Table III-4
Projection of Legislative Program
Benefit Payments and Contributions

FY Ending June 30,	Expected Benefit Payments	Expected Employer Contributions	Expected Member Contributions	Total Expected Contributions
2023	$ 779,700	$ 0	$ 214,300	$ 214,300
2024	731,700	0	154,100	154,100
2025	811,600	0	226,200	226,200
2026	772,500	0	162,800	162,800
2027	815,000	0	238,900	238,900
2028	802,300	0	171,800	171,800
2029	845,100	0	252,200	252,200
2030	836,100	0	181,400	181,400
2031	851,200	0	266,200	266,200
2032	841,200	0	191,500	191,500

In Table III-4 above, we provide a projection of expected cash flows in and out of the Program for the next 10 years for informational purposes. The Board may share these projections with its investment advisor for consideration of the gap shown between the cash expected to come into the Program through employer and member contributions and the cash expected to be paid out of the Program to provide benefit payments.

The expected benefit payments in Table III-4 were developed using the data currently included in this valuation and on the assumption that the actuarial assumptions disclosed in Appendix C will be exactly met. Actual benefit payments will vary if members retire sooner or later than assumed, if salary increases and actual future post-retirement COLAs differ from those assumed, or if other assumptions differ from the actual experience seen. These benefit projections exclude any assumption about new Program participants, whose experience will eventually lead to increased benefit payments. However, we do not feel this exclusion will materially impact the projections for the period shown.

Expected employer contributions in this table use the budgeted contributions for FY 2023 through FY 2025. Future contributions beyond that point are assumed to continue at the FY 2025 rate and include an assumption that payroll grows at 2.75% per year. However, since that FY 2025 rate is zero percent, the payroll assumption is moot for the employer contributions.

The expected member contributions are similarly based on a 2.75% per year assumed increase in covered payroll multiplied by the current average aggregate member contribution rate of 7.65% for FY 2023.

SECTION IV – LIABILITIES

In this section, we present detailed information on Program liabilities including:

- Disclosure of the Program's liabilities as of June 30, 2021 and June 30, 2022, and
- Statement of changes in these liabilities during the year.

Disclosure

Several types of liabilities are calculated and presented in this report. Each type is distinguished by the purpose for which the figures are ultimately used.

- Present Value of Future Benefits (PVB): Used for analyzing the overall financial obligations of the Program, this represents the amount of money needed today to fully fund all future benefits of the Program, assuming no new members, that active members continue to earn salary increases and accrue benefits under their current Program provisions, and that all actuarial assumptions are exactly met, including the 6.50% per year investment return.

- Actuarial Liability (AL): Used for funding calculations and GASB disclosures, this liability is calculated taking the PVB above and subtracting the value of accruals that are assigned to future years on a person-by-person basis. This offset is equal to the present value of future member contributions and future employer normal cost contributions under an acceptable actuarial cost method. For this Program and the other MainePERS DB Programs, the method used is referred to as the entry age normal (EAN) cost method, which is the only permitted actuarial cost method for GASB disclosures.

- Present Value of Accrued Benefits (PVAB): Used for communicating the liabilities for benefits accrued as of the valuation date.

Table IV-1 that follows discloses each of these liabilities for the current and prior years' valuations. With respect to the actuarial liability and the present value of accrued benefits, a subtraction of the appropriate value of the Program's assets yields, for each respective type, a net surplus or an unfunded liability. For the PVB measure, it is compared to the market value of assets plus the expected future value of contributions to the Program. The future contributions are calculated assuming the current employer and member rates will be continued for all future years along with the expected future payroll as of each date. The difference between the PVB and these anticipated resources indicates either an expected shortfall or an expected surplus representing either additional funding required or excess funding and indicates the size of the Program's stored gains or losses that remain outside of the valuation process currently.

We note that none of the liabilities presented in this report is an appropriate measure of a settlement liability.

SECTION IV – LIABILITIES

The liability measures are compared to appropriate measures of assets, along with the expected future value of member and employer contributions where appropriate. The difference between the liability measure and the anticipated resources indicates either an expected shortfall or an expected surplus related to that liability measure. The surplus or shortfall on the present value of benefits (PVB) measure indicates the size of the Program's stored gains or losses that remain outside of the valuation process.

Table IV-1
Disclosure of Liabilities

	June 30, 2021	June 30, 2022
Present Value of Benefits (PVB)		
Active Member Benefits	$ 4,108,832	$ 3,884,993
Retired, Disabled, Survivor, and Beneficiary Benefits	4,861,945	5,045,709
Terminated Vested Benefits	2,529,813	2,456,411
Terminated Nonvested Benefits	444,432	421,254
Total PVB	**$ 11,945,022**	**$ 11,808,367**
Market Value of Assets (MVA)	$ 16,659,121	$ 16,142,942
Future Member Contributions	731,662	578,635
Future Employer Contributions	0	0
Projected (Surplus)/Shortfall	(5,445,761)	(4,913,210)
Total Resources	**$ 11,945,022**	**$ 11,808,367**
Actuarial Liability (AL)		
Present Value of Benefits (PVB)	$ 11,945,022	$ 11,808,367
Present Value of Future Normal Costs (PVFNC)		
Employer Portion	534,889	252,450
Member Portion	731,662	578,635
Actuarial Liability (AL = PVB – PVFNC)	**$ 10,678,471**	**$ 10,977,282**
Actuarial Value of Assets (AVA)	15,049,435	15,787,715
Net (Surplus)/Unfunded (AL – AVA)	**$ (4,370,964)**	**$ (4,810,433)**
Present Value of Accrued Benefits		
Present Value of Future Benefits (PVB)	$ 11,945,022	$ 11,808,367
Present Value of Future Benefit Accruals (PVFBA)	1,635,949	1,017,174
Accrued Liability (PVAB = PVB – PVFBA)	**$ 10,309,073**	**$ 10,791,193**
Market Value of Assets (MVA)	16,659,121	16,142,942
Net (Surplus)/Unfunded (PVAB – MVA)	**$ (6,350,048)**	**$ (5,351,749)**

SECTION IV – LIABILITIES

Changes in Liabilities

Each of the liabilities disclosed in the prior table is expected to change at each subsequent valuation. The components of these changes, depending upon which liability is analyzed, can include:

- New Program members since the last valuation
- Benefits accrued since the last valuation
- Program amendments changing benefits since the last valuation
- Passage of time, which adds interest to the prior liability
- Benefits paid to members since the last valuation
- Members retiring, terminating, or dying at rates different than expected since the last valuation
- Salaries changing at rates different than expected since the last valuation
- A change in actuarial assumptions since the last valuation
- A change in the actuarial cost method since the last valuation

Unfunded liability measurements will change because of all of the above, as well as due to changes in the Program's asset measurements resulting from:

- Contributions being different than expected
- Investment earnings being different than expected
- A change in the method used to measure the Program's assets in developing the unfunded liability measure since the last valuation

In each valuation, we report on those elements of change in the Program's liability measures that are of particular significance, potentially affecting the long-term financial outlook of the Program. In Table IV-2 that follows, we present key changes in the Program's liability measures since the last valuation.

Table IV-2

	Present Value of Future Benefits	Actuarial Liability	Present Value of Accrued Benefits
Liability Measurement – June 30, 2021	$ 11,945,022	$ 10,678,471	$10,309,073
Liability Measurement – June 30, 2022	11,808,367	10,977,282	10,791,193
Liability Measurement Increase/ (Decrease) Due to:	$ (136,655)	$ 298,811	$ 482,120
Program Amendment	$ 43,111	$ 43,111	$ 42,090
Assumption Change	0	0	0
Actuarial (Gain)/Loss	N/C	(199,354)	N/C
Benefits Accumulated and Other Sources	$ (179,766)	$ 455,054	$ 440,030

N/C = Not calculated

SECTION V – CONTRIBUTIONS

In this section, we present detailed information on informational employer contribution rates as developed in this June 30, 2022 valuation for the Program, including the development of the employer contribution rate, comprised of the employer normal cost rate and the unfunded actuarial liability (UAL) amortization rate (UAL amortization rate).

Note that these contribution rates are only informational, and the actual contribution rates are set by the budgeting process described in the Board Summary at the beginning of this report.

Description of Rate Components

For this Program, the funding methodology employed to determine the employer contribution rates is the entry age normal (EAN) cost method. Under this method, there are two components to the total employer contribution rate: the employer's normal cost rate (NC rate) and the UAL amortization rate (UAL amortization rate).

An individual EAN cost rate is determined for each active member. The normal cost is determined by the following steps. First, an individual normal cost rate for each member is determined by taking the value of their projected future benefits, as of entry age into the Program. Second, this value is then divided by the value, also at entry age, of the member's expected future salary. Finally, the resulting total normal cost rate is reduced by the member contribution rate to produce the employer's normal cost rate for the member. These rates are then multiplied by each member's salary as of the valuation date and added together to get the total employer normal cost dollars as of the valuation date for the Program, which is then divided by the total payroll at the valuation date for the Program to get the employer normal cost rate for the Program.

The unfunded actuarial liability under the EAN cost method equals the present value, at the time of valuation, of the future benefit payments less the present value of future employer normal cost contributions, future member contributions, and current assets. The UAL amortization rate is the percentage that applied to member payroll, which is assumed to increase 2.75% per year, is expected to amortize the UAL according to the Program's amortization policy, which is an open 10-year period for the Program.

Contribution Calculations

Table V-1 below presents and compares the total employer contribution rate, as well as its two components, for the Program as developed in this valuation and the prior one.

Table V-1
Legislative Total Employer Rate

Valuation Date	June 30, 2021	June 30, 2022
Employer NC Rate	5.74%	3.46%
UAL Amortization Rate	(18.82)%	(20.71)%
Total Employer Rate*	(13.08)%	(17.25)%

* Limited to 0% for actual contributions

The rates developed in this section are for valuation purposes only. Actual budgeted rates are set based on the ratemaking process described in the Board Summary section.

SECTION VI – FINANCIAL DISCLOSURE INFORMATION

This section contains financial disclosure information regarding the Program developed under a number of accounting standards and guidance.

First, for informational purposes, we show the Program's funded status under the Financial Accounting Standards Board (FASB) ASC Topic 960, which discloses how the market value of assets would compare to accrued liabilities if contributions were to stop and accrued benefit claims had to be satisfied as of the valuation date. However, due to potential legal requirements and the possibility that alternative interest rates would have to be used to determine the liabilities, these values may not be a good indication of the amount of money it would take to buy the benefits for all members if all provisions of the Program were to terminate. We have prepared the following exhibit in this section based on FASB ASC Topic 960:

- Table VI-1: Accrued Benefits Information

The Governmental Accounting Standards Board (GASB) Statement Nos. 67 and 68 establish standards for disclosure of pension information by public employee retirement systems (PERS) and governmental employers in financial statements, notes to financial statements, and supplementary information. We have prepared the following exhibits reflecting provisions of GASB Statement Nos. 67 and 68:

- Table VI-2: Schedule of Changes in Net Pension Liability and Related Ratios
- Table VI-3: Sensitivity of Net Pension Liability to Changes in Discount Rate
- Table VI-4: Schedule of Employer Contributions
- Table VI-5: Average Expected Remaining Service Lives

A summary of the terminology used in GASB Statement Nos. 67 and 68 is provided in Appendix D of this report. Note that while much of the information provided in this report under GASB No. 67 is also utilized in GASB No. 68, Table VI-5 included in this section is only applicable to GASB No. 68.

Finally, we have also developed disclosure information in this section based on additional guidance relating to the Annual Comprehensive Financial Reports (ACFR) of PERS provided by the Government Finance Officers Association (GFOA) in their publication, *Governmental Accounting, Auditing, and Financial Reporting* (GAAFR). We have prepared the following exhibits reflecting guidance in the GAAFR:

- Table VI-6: Analysis of Financial Experience
- Table VI-7: Schedule of Funded Liabilities by Type

The present value of accrued benefits, the total pension liability (GASB 67/68), and the actuarial liability (GAAFR) disclosures in this section are all determined assuming that the Program is ongoing and participants continue to terminate employment, retire, etc., in accordance with the actuarial assumptions. Liabilities as of June 30, 2022 are discounted at the assumed valuation interest rate of 6.50% per annum in all of these disclosures.

SECTION VI – FINANCIAL DISCLOSURE INFORMATION

Table VI-1 below includes the relevant amounts as of June 30, 2021 and June 30, 2022 as well as reconciliation between the two dates under FASB ASC Topic 960.

Table VI-1
Accrued Benefits Information

	June 30, 2021	June 30, 2022
FASB ASC Topic 960 Basis		
1. Present Value of Benefits Accrued to Date (PVAB)		
a. Members Currently Receiving Payments	$ 4,861,945	$ 5,045,709
b. Terminated Vested Members	2,529,813	2,456,411
c. Terminated Nonvested Members	444,432	421,254
d. Active Members	2,472,883	2,867,819
e. Total PVAB	$ 10,309,073	$ 10,791,193
2. Market Value of Assets (MVA)	16,659,121	16,142,942
3. Unfunded Present Value of Accrued Benefits, but not less than Zero	$ 0	$ 0
4. Ratio of MVA to PVAB (2)/(1)(e)	161.6%	149.6%
Change in Present Value of Benefits Accrued to Date during FY 2022		
Increase/(Decrease) during Year Attributable to:		
Passage of Time		$ 650,294
Benefits Paid		(618,847)
Assumption Changes		0
Program Changes		42,090
Benefits Accrued, Other Gains/Losses		408,583
Net Increase (Decrease)		$ 482,120

Table VI-2 that follows shows the changes in the total pension liability (TPL), the Program's fiduciary net position (FNP) (i.e., fair value of the Program's net assets), and the net pension liability (NPL) during the measurement year ending June 30, 2022, as well as related ratios calculated under the provisions of GASB Statement No. 67 for the Program.

As of the June 30, 2022 valuation, the fiduciary net position for this Program was projected to be available to make all projected future benefit payments for current Program 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 pension liability under GASB Nos. 67 and 68. The projection of cash flows used to determine the discount rate assumed that member contributions will be made at the current contribution rate, and the employer contributions will be made according to the actuarial calculations developed in the biennial ratemaking process.

SECTION VI – FINANCIAL DISCLOSURE INFORMATION

Table VI-2
Schedule of Changes in Net Pension Liability and Related Ratios
FY 2022

Total Pension Liability (TPL)		
Service Cost (SC)	$	375,207
Interest (includes Interest on SC)		698,694
Changes of Benefit Terms		43,111
Differences Between Actual and Expected Experience		(199,354)
Changes of Assumptions		0
Benefit Payments, including Refunds of Member Contributions		(618,847)
Net Change in TPL		**298,811**
Beginning of Year (BOY) TPL		**10,678,471**
End of Year (EOY) TPL	**$**	**10,977,282**
Program Fiduciary Net Position (FNP)		
Employer Contributions	$	43,111
Member Contributions		161,937
Transfers		0
Net Investment Income		(89,006)
Benefit Payments, including Refunds of Member Contributions		(618,847)
Administrative Expense		(13,374)
Net Change in FNP	$	(516,179)
BOY FNP		**16,659,121**
EOY FNP	**$**	**16,142,942**
EOY Net Pension Liability (NPL)	**$**	**(5,165,660)**
FNP as a Percentage of TPL		147.1%
Covered Payroll*	$	2,801,166
NPL as a Percentage of Covered Payroll		(184.4)%

* For FY 2022

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

None.

SECTION VI – FINANCIAL DISCLOSURE INFORMATION

A 10-year schedule of changes in NPL and related ratios is to be included within the ACFRs for PERS. However, based on GASB guidance, this 10-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 Pension Liability and Related Ratios* above and believe that you can accumulate the individual years in the MainePERS ACFRs to build this schedule to show the full 10-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, 2022, we have not included suggested information for such a note in the *Notes to Schedule of Changes in Net Pension Liability and Related Ratios* above. However, it is our expectation that the System's staff will make the final determination regarding any notes needed for this schedule, and we are available to provide any information they may need for this purpose.

Table VI-3 below illustrates the sensitivity of the net pension liability (NPL) to the discount rate. Changes in the discount rate affect the measurement of the total pension liability (TPL) for the Program. Lower discount rates produce a higher TPL, and higher discount rates produce a lower TPL. Because the discount rate does not affect the measurement of assets, the percentage change in the Net Pension Liability (NPL) can be very significant for relatively small changes in the discount rate.

Table VI-3
Sensitivity of Net Pension Liability to Changes in Discount Rate
FY 2022

	1% Decrease 5.50%	Discount Rate 6.50%	1% Increase 7.50%
Total Pension Liability (TPL)	$11,756,029	$ 10,977,282	$ 9,706,216
Program Fiduciary Net Position (FNP)	16,142,942	16,142,942	16,142,942
Net Pension Liability (NPL)	$ (4,386,913)	$ (5,165,660)	$ (6,436,726)
FNP as a Percentage of TPL	137.3%	147.1%	166.3%

A one percent decrease in the discount rate increases the TPL by approximately 7% and increases the NPL by approximately 15%. A one percent increase in the discount rate decreases the TPL by approximately 12% and decreases the NPL by approximately 25%.

Table VI-4 that follows provides information relating to the employer contributions for the Program. Under GASB Statement No. 67, if an actuarially determined contribution (ADC) or a contractually or statutorily required contribution (CRC) is developed for a single employer or cost-sharing plan, the following schedule is required. For purposes of this schedule, an ADC is a contribution amount determined in accordance with Actuarial Standards of Practice, and a CRC is based on statutory or contractual requirements. Both should exclude any amounts to finance specific liabilities of individual employers of the Program. If an ADC is available, the schedule of employer contributions should be developed on that basis. If there is no ADC, but there is a CRC, the schedule should be developed on that basis. Only if neither an ADC nor a CRC is developed can this schedule be omitted from the PERS's ACFR.

SECTION VI – FINANCIAL DISCLOSURE INFORMATION

The Program's rates set in the ratemaking process meet the definition of an ADC, so for this Program, this schedule should be developed on that basis. Based on GASB guidance, a full 10 years of information should be shown in this schedule if it is available, but this 10-year history can be built one year at a time following implementation. We have shown only the current year of this *Schedule of Employer Contributions* below and believe that you can accumulate these in the MainePERS ACFR to build this schedule to show the full 10-year schedule over time.

Only the current year of the *Notes to Schedule of Employer Contributions* below needs to be included in the notes to this schedule. However, any factors that significantly affect trends in the *Schedule of Employer Contributions* at any point in the 10-year period should also be included in the notes to this schedule. As of June 30, 2022, we have not included such a note in the *Notes to Schedule of Employer Contributions* below. However, it is our expectation that the System's staff will make the final determination regarding any notes needed for this schedule and we are available to provide any additional information that they may need for this purpose.

Table VI-4
Schedule of Employer Contributions
FY 2022

Actuarially Determined Contribution (ADC)	$ 0
Contributions in Relation to the ADC	0
Contribution Deficiency/(Excess)	$ 0
Covered Payroll (Payroll)*	$ 2,801,166
Contributions as a Percentage of Payroll	0.00%

*For FY 2022

Notes to Schedule of Employer Contributions

Valuation Date: June 30, 2019

Timing: June 30, 2022 ADC rates are calculated based on 2020 liabilities developed as a roll-forward of the 2019 valuation liability, adjusted for expected experience and any assumption or methodology changes during FY 2020 using preliminary actual assets as of June 30, 2020.

Key Methods and Assumptions Used to Determine Contribution Rates

Actuarial Cost Method: Entry age normal

Asset Valuation Method: Three-year smoothed market

Amortization Method: Level percentage of payroll, open 10-year amortization

Discount Rate: 6.75%

SECTION VI – FINANCIAL DISCLOSURE INFORMATION

Amortization Growth Rate:	2.75%
Price Inflation:	2.75%
Salary Increases:	2.75%
Mortality:	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 MP_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.

A complete description of the methods and assumptions used to determine contribution rates for the year ending June 30, 2022 can be found in the June 30, 2020 Actuarial Valuation Report.

<u>Other Information</u>

None.

Table VI-5 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 Statement No. 68 requires some items be recognized by employers into pension expense over a period “equal to the average of the expected remaining service lives of all employees that are provided with pensions through the pension plan (active employees and inactive employees) determined as of the beginning of the measurement period.” For the current measurement year ending on June 30, 2022, these values are thus developed as of June 30, 2021. Note that the decision was made to use these averages based on rounding to the nearest whole year, so the values are thus shown as such.

Table VI-5
Average Expected Remaining Service Lives
For Measurement Year Ending June 30, 2022

Status	Total Expected Future Service	Count	Average Remaining Service Lives
Actives	680	178	4
In-Pay Members	0	222	0
Terminated Vested Members	0	124	0
Inactives Due Refunds	0	101	0
Total Membership	680	625	1

SECTION VI – FINANCIAL DISCLOSURE INFORMATION

Table VI-6 below is a gain/loss analysis of the changes in the actuarial liability over the past six years, reflecting variances between actual experience and assumed experience for different kinds of risk as specified in the GFOA GAAFR.

Table VI-6
Analysis of Financial Experience
Gain and Loss in Actuarial Liability During Fiscal Years Ended June 30
Resulting from Differences Between Assumed Experience and Actual Experience

Type of Activity	Gain (or Loss) For Fiscal Year Ended June 30, 2017	Gain (or Loss) For Fiscal Year Ended June 30, 2018	Gain (or Loss) For Fiscal Year Ended June 30, 2019	Gain (or Loss) For Fiscal Year Ended June 30, 2020	Gain (or Loss) For Fiscal Year Ended June 30, 2021	Gain (or Loss) For Fiscal Year Ended June 30, 2022
Investment Income	$ (6,238)	$ 112,650	$ 115,981	$ (116,186)	$ 796,071	$ 187,103
Combined Liability Experience	(157,775)	90,816	(238,611)	(413,313)	(180,989)	199,354
Gain (or Loss) during Year from Financial Experience	(164,013)	203,466	(122,630)	(529,499)	615,082	386,457
Non-Recurring Items	0	(99,915)	0	0	(374,000)	(43,111)
Composite Gain (or Loss) During Year	**$ (164,013)**	**$ 103,551**	**$ (122,630)**	**$ (529,499)**	**$ 241,082**	**$ 343,346**

SECTION VI – FINANCIAL DISCLOSURE INFORMATION

Table VI-7 below compares the Program's assets as of each valuation date shown to the Program's actuarial liability divided into three separate groups: liabilities for contributions on deposit for current active members, liabilities for future benefits for inactive members, and employer-financed liabilities for current active members. This Schedule of Funded Liabilities by Type is used to assess funding progress based on what percentage of the liabilities for each of these groups the Program's assets are sufficient to cover. Per GFOA guidance, this schedule is to include this assessment for the 10 most recent years, and notes to this schedule should be provided to explain any factors that affect the comparability of the data. We do not believe such a note is needed for the measurement year ending June 30, 2022, but it is our expectation that the System's staff will make the final determination regarding any notes needed for this schedule

Table VI-7
Schedule of Funded Liabilities by Type

Valuation Date June 30,	Aggregate Actuarial Liabilities for: (1) Active Member Contributions	(2) Retirees, Vested Terms, Beneficiaries	(3) Active Members (Employer Financed Portion)	Reported Assets*	Portion of Actuarial Liabilities Covered by Reported Assets (1)	(2)	(3)
2022	$ 3,140,712	$ 7,923,374	$ (86,804)	$ 15,787,715	100%	100%	100%
2021	3,039,312	7,836,190	(197,031)	15,049,435	100	100	100
2020	3,039,660	6,844,699	(155,670)	13,679,070	100	100	100
2019	2,667,308	6,903,616	(504,160)	13,092,938	100	100	100
2018	2,591,378	6,277,075	(308,503)	12,523,131	100	100	100
2017	2,516,620	6,172,223	(525,533)	11,908,009	100	100	100
2016	2,505,647	5,795,917	(622,106)	11,405,769	100	100	100
2015	2,444,638	5,581,571	(467,916)	11,219,880	100	100	100
2014	2,464,847	5,073,388	(33,042)	10,775,701	100	100	100
2013	2,363,217	4,965,686	(456,289)	9,771,955	100	100	100

* Reported assets are measured at actuarial value. Results would be different if the market value of assets were used. Despite the name of this exhibit, the liabilities presented in this schedule are not an appropriate measurement of the settlement liability of the Program.

APPENDIX A – MEMBERSHIP INFORMATION

Active Member Data as of June 30, 2022	
Count	174
Average Current Age	57.9
Average Benefit Service	6.1
Average Vesting Service	7.1
Average Valuation Pay	$16,099

Non-Active Member Data as of June 30, 2022	Count	Average Age	Total Annual Benefit	Average Annual Benefit
Retired	184	77.6	$ 412,389	$ 2,241
Retired – Concurrent Beneficiary	6	74.2	2,868	478
Disability	2	67.4	16,044	8,022
Beneficiary of Above	22	82.1	34,287	1,559
Pre-Retirement Death Beneficiary	9	74.2	63,420	7,047
Terminated Vested	119	56.8	255,285	2,145
Inactive Due Refund	95	NA	NA	NA

	Active Members	Retired Members	Beneficiaries of Retired Members	Survivors of Deceased Members	Disabled Members[1]	Deferred Vested Members[2]
As of June 30, 2021	**178**	**184**	**29**	**7**	**2**	**124**
New hires	1					
Rehires	1	0				0
Movement between plans	0					
New retirees	0	5				(5)
New beneficiaries due to retirements			1			
New deferred vested members	(2)					3
Non-vested terminations	(1)					
Refunds	0					(2)
Deaths, no future benefits	(1)	(5)	(2)	0		(1)
Deaths with a survivor or beneficiary	(2)	0	0	2		
Benefits expired						
Data correction		0		0		0
As of June 30, 2022	**174**	**184**	**28**	**9**	**2**	**119**

1. Former disabled retirees who have changed to service retirement as mandated by the Plan are still included as disabled members.
2. Deferred vested members includes those indicated to us in the data who have terminated and are eligible for a future annuity.

In preparing this report, we relied on data provided by MainePERS as modified following the procedures outlined in the State of Maine Data Processing Notebook. Adjustments to the data are made based on this processing notebook. Accuracy of the results is dependent on the completeness of the underlying information. The plan sponsor is responsible for the validity and completeness of the information provided. We believe the data provided as modified as documented in the Processing Notebook is sufficient for the actuarial analysis performed.

APPENDIX B – SUMMARY OF PROGRAM PROVISIONS

1. Membership

Except as provided by statute, membership is mandatory for every legislator in service in the Legislature on or after December 3, 1986, and optional for those who were members of the Retirement System on December 2, 1986.

Membership ceases on the earlier of withdrawal of contributions, retirement, or death.

2. Member Contributions

Members are required to contribute 7.65% of earnable compensation. Member contributions earn annual interest at the rate adopted by the Board of Trustees each February.

3. Average Final Compensation

For purposes of determining benefits payable, average final compensation is the average annual rate of earnable compensation for the three years of creditable service (not necessarily consecutive) that produce the highest such average.

4. Creditable Service

Creditable service includes the following:

A. All legislative service as a member after December 2, 1986,

B. All legislative service before December 3, 1986, for which contributions have been made to the Retirement System at the applicable rate, including appropriate interest,

C. Service credited while receiving disability benefits under the Program, and

D. All service creditable under the Retirement System as a State Employee provided the member elects to have the member's and the employer's contributions on behalf of such service transferred to the Legislative Program.

5. Service Retirement Benefits

Eligibility:

A. Eligibility for Members with at Least 10 Years of Creditable Service on July 1, 1993

i. Eligibility for members in active service and inactive members:

25 years of creditable service.

APPENDIX B – SUMMARY OF PROGRAM PROVISIONS

ii. Eligibility alternative for members in active service:

Attainment of age 60.

iii. Eligibility for members not in active service at retirement, and not in active service on or after October 1, 1999:

Attainment of age 60 and 10 years of creditable service.

iv. Eligibility for members not in active service at retirement, but in active service on or after October 1, 1999:

Attainment of age 60 and five years of creditable service.

B. Eligibility for Members with Less Than 10 Years of Creditable Service on July 1, 1993

i. Eligibility for members in active service and inactive members:

25 years of creditable service.

ii. Eligibility alternative for members in active service:

Attainment of age 62.

iii. Eligibility for members not in active service at retirement, and not in active service on or after October 1, 1999:

Attainment of age 62 with 10 years of creditable service.

iv. Eligibility for members not in active service at retirement, but in active service on or after October 1, 1999:

Attainment of age 62 and five years of creditable service.

C. Eligibility for Members with Less Than Five Years of Creditable Service on July 1, 2011

i. Eligibility for members in active service and inactive members:

25 years of creditable service.

ii. Eligibility alternative for members in active service:

Attainment of age 65.

APPENDIX B – SUMMARY OF PROGRAM PROVISIONS

iii. Eligibility for members not in active service at retirement, and not in active service on or after October 1, 1999:

Attainment of age 65 with 10 years of creditable service.

iv. Eligibility for members not in active service at retirement, but in active service on or after October 1, 1999:

Attainment of age 65 and five years of creditable service.

Benefit: 1/50 of average final compensation multiplied by years of creditable service.

The benefit is reduced for retirement before age 60 at the approximate rates listed in the table below, for members with at least 10 years of creditable service on July 1, 1993.

Age	Reduction	Age	Reduction
45	29.3%	53	16.6%
46	28.0	54	14.6
47	26.6	55	12.5
48	25.2	56	10.3
49	23.6	57	7.9
50	22.0	58	5.4
51	20.3	59	2.8
52	18.5	60	0.0

The benefit is reduced for retirement before age 62 by 6% for each year the member's age is less than age 62, if less than 10 years creditable service on July 1, 1993, but at least five years creditable service on July 1, 2011.

The benefit is reduced for retirement before age 65 by 6% for each year the member's age is less than age 65, if less than five years of creditable service on July 1, 2011.

Minimum benefit $100 per month if at least 10 years of creditable service.

Form of Payment: Life annuity.

6. Disability Retirement Benefits Other Than No-Age Benefits (See Item 7)

Eligibility: Disabled as defined in the Legislative Retirement Program statutes prior to normal retirement age, employed prior to October 16, 1992 and did not elect the No-Age Disability Benefits, and either disabled in the line-of-duty or disabled with at least five years of creditable service.

APPENDIX B – SUMMARY OF PROGRAM PROVISIONS

Benefit: 66⅔% of average final compensation, reduced by employment earnings over the specified statutory limit, and to the extent that the benefit, in combination with Workers' Compensation and Social Security, exceeds 80% of average final compensation.

Form of Payment: Payment begins upon the termination of service and ceases on cessation of disability or after two years unless the member is unable to engage in any substantially gainful activity, in which case payments cease on the earlier of 10 years following normal retirement age or the date that the service retirement benefit equals or exceeds the disability benefit.

Conversion to Service Retirement: During the period of disability, service is credited, and average final compensation is increased at the same rate as any cost-of-living adjustments for which the member is eligible (not subject to the COLA Cap) (see item 12). On the date when service benefits reach a level of 66⅔% of average final compensation or 10 years after the normal retirement date if earlier, the disability converts to a service retirement benefit based on service and average final compensation at that time.

7. No-Age Disability Retirement Benefits

Eligibility: Disabled as defined in the Legislative Retirement Program statutes, employed on or after October 16, 1992 or employed prior to October 16, 1992 and elected the provisions of No-Age Disability, and either disabled in the line-of-duty or disabled with at least five years of creditable service.

Benefit: 59% of average final compensation, reduced by employment earnings over the specified statutory limit, and to the extent that the benefit, in combination with Workers' Compensation and Social Security, exceeds 80% of average final compensation.

Form of Payment: Payment begins upon the termination of service and ceases on cessation of disability or after two years unless the member is unable to engage in any substantially gainful activity, in which case payments cease on the date the service retirement benefit equals or exceeds the disability benefit.

Conversion to Service Retirement: During the period of disability, service is credited, and average final compensation is increased at the same rate as any cost-of-living adjustments for which the member is eligible (not subject to the COLA Cap) (see item 12). On the date when service benefits reach a level of 59% of average final compensation, the disability benefit converts to a service retirement benefit based on service and average final compensation at that time.

8. Pre-Retirement Ordinary Death Benefits

Eligibility: Death while active, inactive eligible to retire, or disabled not resulting from an injury received in the line-of-duty.

APPENDIX B – SUMMARY OF PROGRAM PROVISIONS

Benefit: Designated beneficiary, spouse, children, or parents entitled to benefit calculated as if the deceased member had retired under Option 2 (see item 13); however, the beneficiary may elect survivor benefits payable to a surviving spouse, dependent children, parent, or other designated beneficiaries in monthly amounts varying by the status of beneficiary and number of eligible survivors. Otherwise, accumulated contributions with interest are payable to the designated beneficiary, spouse, children, older parents, or estate.

9. Pre-Retirement Accidental Death Benefits

Eligibility: Death while active or disabled resulting from an injury received in the line-of-duty.

Benefit:

- If the member leaves no dependent children, two-thirds of the member's average final compensation to the surviving spouse until death.
- If the member is survived by a spouse who has the care of dependent children of the member, the surviving spouse shall receive an annual sum equal to the member's average final compensation while having the care of dependent children. When there are no longer any dependent children, the surviving spouse shall receive two-thirds of the member's average final compensation until death.
- If the member is survived by a spouse who does not have the care of the member's dependent children, the surviving spouse and dependent children shall share equally an annual sum equal to the member's average final compensation. When there are no longer any dependent children, the surviving spouse shall receive two-thirds of the member's average final compensation until death.
- If the member leaves no spouse, the dependent children shall share an annual amount equal to the member's average final compensation. Benefits will cease when the last dependent child no longer meets the definition of "dependent child."

10. Termination Benefit

Eligibility: Termination of service other than by retirement or death with at least five years of creditable service.

Benefit: The member's choice of a refund of the accumulated contributions with interest or a retirement benefit using creditable service and average final compensation as of the date of termination, deferred to normal retirement age.

APPENDIX B – SUMMARY OF PROGRAM PROVISIONS

11. Refund of Contributions

Eligibility: Termination of service other than by retirement or death with less than five years of creditable service.

Benefit: Refund of member's accumulated contributions with interest.

12. Cost-of-Living Adjustments (COLA)

All service and disability retirement and survivor benefits are adjusted each year that there is a percentage change in the Consumer Price Index (CPI), based on the Index. If the percentage change is negative, then no adjustment is made in that year. In subsequent years, the adjustment that would have been made will be adjusted downward to the extent necessary to recoup the full actuarial value of not having made the previous year's negative adjustment. This process of adjustment may occur over a multi-year period if needed to recoup the full value of negative changes in the Index.

Cost-of-living adjustments (COLA) are effective September 1 of each year and are applied to that portion of the benefit that is not in excess of a COLA Base whose value grows annually with the same adjustment as the COLA (see values below) for all benefits that have been in payment for at least 12 months as of that date. The maximum annual increase, or COLA Cap, is three percent. Average final compensation used in determining disability benefits for disabled members is similarly adjusted for purposes of determining the recipient's service retirement benefit if and when the recipient moves to service retirement.

COLA Base History: (value as of September 1 of listed year when COLA effective):

2014 - $20,000.00
2015 - $20,420.00
2016 - $20,940.71
2017 - $21,474.70
2018 - $21,818.30
2019 - $22,451.03
2020 - $22,810.25
2021 – $22,947.11
2022 – $24,186.25*

* Special legislation was passed to pay an additional one percent COLA above the maximum COLA Cap of three percent. In addition, the COLA Base was increased by the full CPI change of 5.4%.

Members who did not have 10 years of service on July 1, 1993 will begin receiving the cost-of-living adjustments at the later of 12 months after their normal retirement age and the first September 1 following a minimum of 12 months of being in receipt of their benefit.

APPENDIX B – SUMMARY OF PROGRAM PROVISIONS

13. Methods of Payment of Service Retirement Benefits

At retirement, a member who retires with a benefit must choose from the following methods of payment:

Full Benefit: Unadjusted benefit paid for the life of the member only.

Option 1: Cash refund equal to the remaining member contribution balance, if any, at the date of death (where the member contribution balance has been reduced each month by the portion of the monthly benefit deemed to be provided by member contributions).

Option 2: 100% joint and survivor annuity.

Option 3: 50% joint and survivor annuity.

Option 4: Joint and survivor annuity at any percentage other than those available under Option 2 and Option 3.

Option 5: Designated percentage of the benefit (not less than 51%) payable to the member, with the remaining percentage (the two to equal 100%) payable to a beneficiary (may only be a sole beneficiary) while both are alive. At the death of either, the higher of the two percentages is paid to the survivor for the survivor's life, and the lower-percentage benefit ceases to be paid.

Option 6: 100% joint and survivor annuity (Option 2) with pop-up*.

Option 7: 50% joint and survivor annuity (Option 3) with pop-up*.

Option 8: Option 4 with pop-up*.

* The "pop-up" feature attached to a given Option means that in the case of a beneficiary predeceasing the member, the member's benefit will be revised prospectively to the amount that the benefit would have been had the member selected Full Benefit payment upon retirement.

14. Program Changes since Last Valuation

The Cost-of-Living Adjustment as of September 1, 2021 included an additional one percent in excess of the three percent maximum. In addition, the COLA Base for 2022 was increased by the full change in CPI of 5.4% instead of the maximum COLA Cap of three percent.

This Appendix B is intended to be a brief summary of provisions. In the event of a dispute, applicable statutes and administrative policy supersede this report description.

APPENDIX C – ACTUARIAL ASSUMPTIONS AND METHODS

A. Actuarial Assumptions

1. Annual Rate of Investment Return

Legislative	6.50%

Rate is net of both administrative and investment expense.

2. Cost-of-Living Adjustment (COLA) Assumed Rate

Legislative	2.20%

3. Annual Rate of Individual Salary Increase

Legislative	2.75%

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

Service	Assumption
0	0%
1	5
2	10
3	15
4	20
5	25
6	30
7	40
8	50
9	50
10	50
11	50
12	50
13	50
14	50
15	50
16+	50

The rates shown are only applicable in the fiscal years ending in odd years, while zero terminations are assumed in the fiscal years ending in even years.

Non-vested members are assumed to take a refund of contributions with interest. Once vested, the member is assumed to elect the greater of the deferred vested benefit or a refund of member contributions with interest based on present value at the time of termination.

APPENDIX C – ACTUARIAL 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 2022	
Age	Male	Female
50	31	25
55	47	35
60	71	48
65	103	69
70	159	112
75	269	200
80	485	370
85	894	703
90	1,556	1,314
95	2,428	2,146

Rates are based on 112.1% and 118.5% of the 2010 Public Plan General Benefits-Weighted Healthy Retiree Mortality Table, respectively, for males and females. The rates are projected generationally using the RPEC_2020 model, with an ultimate rate of 1.00% for ages 80 and under, grading down to 0.05% at age 95, and further grading down to 0.00% at age 115, along with convergence to the ultimate rates in the year 2027. All other parameters used in the RPEC_2020 model are those included in the published MP-2020 scale.

APPENDIX C – ACTUARIAL ASSUMPTIONS AND METHODS

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

	Showing values in 2022	
Age	**Male**	**Female**
20	3	1
25	3	1
30	4	2
35	6	3
40	7	4
45	9	5
50	12	7
55	18	11
60	28	17
65	39	25

* 5% of deaths assumed to arise out of and in the course of employment.

Rates are based on 83.5% and 88.6% of the 2010 Public Plan General Benefits-Weighted Employee Mortality Table, respectively, for males and females. These rates are generationally projected using the same version of the RPEC_2020 model as described in the healthy annuitant mortality.

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

	Showing values in 2022	
Age	**Male**	**Female**
25	36	21
30	54	37
35	73	57
40	90	76
45	113	99
50	161	143
55	219	184
60	278	213
65	330	222
70	389	262

Rates are based on 107.3% and 103.2% of the 2010 Public Plan Non-Safety Benefits-Weighted Disabled Retiree Mortality Table, respectively, for males and females. These rates are generationally projected using the same version of the RPEC_2020 model described in the healthy annuitant mortality.

APPENDIX C – ACTUARIAL ASSUMPTIONS AND METHODS

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

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.

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

No disability assumed.

10. Family Composition Assumptions

80% of active members are assumed to be married and have two children born when the member is 24 and 28; children are assumed dependent until age 18; a female spouse is assumed to be three years younger than a male spouse; member is assumed to have no dependent parents; unmarried members are assumed to have beneficiaries entitled to benefits worth 80% as much as those of married members' beneficiaries.

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.

Member Contribution Interest Rate: Reflect actual historical member contribution interest rates from 1970 through the valuation; future contribution interest assumed to equal the inflation assumption of 2.75%.

COLA Timing: September 1.

APPENDIX C – ACTUARIAL ASSUMPTIONS AND METHODS

12. Rationale for Assumptions

The demographic assumptions were adopted by the Board of Trustees at their March 11, 2021 meeting. The discount rate was adopted by the Board of Trustees at their August 12, 2021 meeting. The demographic assumptions adopted are based on an experience study covering the period from July 1, 2015 through June 30, 2020, and the economic assumptions are based on this experience study along with advice of the MainePERS investment consultants.

13. Changes since Prior Valuation

None.

14. Rationale for Change in Actuarial Assumptions

N/A

15. Disclosure of Models Used

ProVal: Cheiron utilizes ProVal, an actuarial valuation software leased from Winklevoss Technologies (WinTech) to calculate the liabilities, normal costs, and projected benefit payments. We have relied on WinTech as the developer of ProVal. We have reviewed ProVal and have a basic understanding of it and have used ProVal in accordance with its original intended purpose. We have not identified any material inconsistencies in assumptions or output of ProVal that would affect this actuarial valuation.

Mortality Improvement Model: Cheiron utilized the RPEC_2014_v2020 Model Implementation Tool for the purposes of developing the customized version of MP-2020 used in this report. This tool is updated and published annually by the Society of Actuaries and their Retirement Plans Experience Committee and allows actuaries to develop customized versions of mortality improvement scales based on the parameters and data underlying the published MP-2020 scale but allowing practitioners to vary parameters from those used in the published MP-2020 scale.

We have reviewed this model and believe it is appropriate to our intended use in developing a customized mortality improvement scale for the Programs. Further, we are aware of no material inconsistencies that would limit our ability to use this model for its intended purpose.

APPENDIX C – ACTUARIAL ASSUMPTIONS AND METHODS

B. Actuarial Methods

1. Cost Method

The entry age normal actuarial cost method is used to determine costs. Under this cost method, the total employer contribution rate consists of two elements: the employer normal cost rate and the unfunded actuarial liability (UAL) rate.

Under this method, the actuarial present value of the projected benefits of each active included in the valuation is allocated on a level basis over the earnings of the individual between entry age and assumed exit age(s). The portion of this actuarial present value allocated to the year beginning on the valuation date is called the normal cost. For each active, the normal cost is determined by taking the value, as of entry age into the Program, of the member's projected benefits, reduced by the value of future member contributions, and then dividing it by the value, also as of the member's entry age, of the member's expected future salary. This rate is then multiplied by the member's salary at the valuation date to produce the normal cost for each member, which are then aggregated across all members to get the total normal cost for the Program. This total normal cost is then divided by the total salary for the Program at the valuation date to get the normal cost rate for the Program.

The portion of the actuarial present value not provided for at the valuation date by the actuarial present value of the future normal costs is called the actuarial liability. The unfunded actuarial liability is defined as the total actuarial liability at the valuation date less the actuarial value of the Program's assets at the valuation date. Contributions are made to fund this unfunded actuarial liability (UAL). The UAL amortization rate for this Program is developed by amortizing the unfunded liability over an open 10-year period, assuming these amortization payments increase over the previous year at a rate of 2.75% per year. The resulting amortization for the year beginning on the valuation date is then divided by the total payroll for the Program to develop the UAL amortization rate. Amortization payments are assumed to be made in each pay period. All assumption changes and gain/losses are included in the UAL amortization except for Program changes that are fully funded at the time of implementation.

The total rate for the Program is produced by adding the normal cost rate and the UAL amortization rate, subject to the requirement that the total rate cannot be less than 0%.

By using an open amortization period, this cost method results in the expectation that any unfunded liability in the Program as of a valuation date will never be fully reduced to zero if all of the valuation assumptions are exactly met.

APPENDIX C – ACTUARIAL ASSUMPTIONS AND METHODS

2. Asset Valuation Method

For purposes of determining the State contributions to the Program and the Program's funded ratio, we use an actuarial value of assets. The asset adjustment method dampens the volatility in asset values that could occur because of fluctuations in market conditions. Use of an asset smoothing method is consistent with the long-term nature of the actuarial valuation process.

In determining the actuarial value of assets, we calculate an expected actuarial value based on the cash flows for the year and imputed returns at the actuarial assumption. This expected value is compared to the actual market value at the valuation date and one-third of the difference is added to the preliminary actuarial value to arrive at the final actuarial value.

3. Changes since Last Valuation

None.

4. Rationale for Change

N/A

APPENDIX D – GLOSSARY OF GASB 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. Deferred Inflow of Resources

An acquisition of net assets by a government employer that is applicable to a future reporting period. In the context of GASB 68, these are experience gains on the Total Pension Liability, assumption changes reducing the Total Pension Liability, or investment gains that are recognized in future reporting periods.

4. Deferred Outflow of Resources

A consumption of net assets by a government employer that is applicable to a future reporting period. In the context of GASB 68, these are experience losses on the Total Pension Liability, assumption changes increasing the Total Pension Liability, or investment losses that are recognized in future reporting periods.

5. Entry Age Actuarial Cost Method

The actuarial cost method required for GASB Nos. 67 and 68 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 Pension Liability.

6. Measurement Date

The date as of which the Total Pension Liability and Program Fiduciary Net Position are measured. The Total Pension 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 Program.

APPENDIX D – GLOSSARY OF GASB TERMS

7. Net Pension Liability

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

8. Program Fiduciary Net Position

The fair or market value of assets.

9. Reporting Date

The last day of the Program or employer's fiscal year.

10. 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 Nos. 67 and 68. The Service Cost is the normal cost calculated under the entry age actuarial cost method.

11. Total Pension 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 Nos. 67 and 68. The Total Pension Liability is the actuarial liability calculated under the entry age actuarial cost method.

Classic Values, Innovative Advice

Celebrating 20 years

Maine Public Employees Retirement System

Judicial Retirement Program

Actuarial Valuation Report as of June 30, 2022

Produced by Cheiron

October 2022

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October 13, 2022

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

Dear Members of the Board:

We are pleased to submit the June 30, 2022 Actuarial Valuation Report for the Judicial Retirement Program (Program) of the Maine Public Employees Retirement System (MainePERS or System).

The purpose of this report is to present the annual actuarial valuation of the Judicial Retirement Program of the Maine Public Employees Retirement System. This report is for the sole use of the MainePERS Board and its auditors in preparing financial reports in accordance with applicable law and accounting requirements. This report contains information on assets, liabilities, and contributions of the Program, as well as required accounting statement disclosures under the Governmental Accounting Standards Board (GASB) Statement No. 67.

In preparing our report, we relied on information, some oral and some written, supplied by the System's staff. 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 results may differ significantly from the current results presented in this report due to such factors as the following: Program experience differing from that anticipated by the assumptions, changes in assumptions, and changes in plan provisions or applicable law.

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 actuarial report was prepared exclusively for MainePERS for the purposes described herein and for the use by the Program 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.

This report does not contain any adjustments for the potential impact of COVID-19 on either economic or demographic assumptions. We anticipate that the pandemic may have implications in both the short and long term, but the net impact of these is not determinable at this time.

Sincerely,
Cheiron

Gene Kalwarski, FSA, EA	Fiona E. Liston, FSA, EA	Elizabeth Wiley, FSA, EA
Principal Consulting Actuary	Principal Consulting Actuary	Consulting Actuary

FOREWORD

Cheiron has completed the Actuarial Valuation Report for the Maine Public Employees Retirement System (MainePERS or System) Judicial Retirement Program (Program) as of June 30, 2022. The purpose of this report is to:

1) Measure and disclose, as of the valuation date, the financial condition of the Program,
2) Examine historical Program trends,
3) Assess and disclose actuarial risks of the Program,
4) Report on the contribution rates developed in this valuation for informational purposes (Note: the actual contributions paid by the State for fiscal year (FY) 2022 were developed in the budgeting process in July 2020, based on a roll-forward of the June 30, 2019 valuation), and
5) Provide specific information required for MainePERS's financial disclosures.

An actuarial valuation establishes and analyzes assets and liabilities on a consistent basis and tracks the progress of both from one year to the next. It includes measurement of investment performance as well as an analysis of actuarial liability gains and losses.

Section I presents a summary containing our key findings, disclosing important Program trends in recent years, and providing analysis relating to the future status of the Program.

Section II assesses and discloses various actuarial risk measures of the Program.

Section III contains details on various asset measures, together with pertinent performance measurements.

Section IV shows similar information on liability measures for various purposes, including analysis of key changes in the measures.

Section V develops informational employer contribution rates to be compared to those established during the ratemaking process.

Section VI includes financial disclosure information.

Finally, we present appendices containing the following summaries:

- Program membership information at the valuation date (Appendix A),
- Major benefit provisions of the Program (Appendix B),
- Actuarial assumptions and methods used in the current valuation (Appendix C), and
- Terminology used in the Governmental Accounting Standards Board (GASB) disclosures (Appendix D).

SECTION I – BOARD SUMMARY

General Comments

The annual employer contributions to this Program are determined on a biennial basis in even years. The contributions for fiscal year (FY) 2022 and FY 2023 were developed through this ratemaking process in 2020. The assets used in developing these rates were the preliminary June 30, 2020 assets. These were then combined with liability measures as of June 30, 2020, developed as an adjustment (i.e., roll-forward) of the liabilities of the June 30, 2019 actuarial valuation. This adjustment included updating to reflect anticipated growth in benefits, reductions due to benefit payouts, and any changes in assumptions or benefits between the June 30, 2019 valuation date and the June 30, 2020 measurement date. Similarly, the contributions for FY 2024 and FY 2025 were developed in 2022 and were based on estimated assets as of June 30, 2022 and liabilities based on the June 30, 2021 actuarial valuation liabilities adjusted to our best estimate of the June 30, 2022 liabilities.

The results of this June 30, 2022 valuation will be used primarily for accounting disclosures. Next year's June 30, 2023 valuation, adjusted to a June 30, 2024 measurement date and combined with preliminary assets as of June 30, 2024, will be used as the basis for the applicable FY 2026 and FY 2027 employer contributions.

Experience from July 1, 2021 through June 30, 2022 (FY 2022)

With respect to investment experience, measured on a market value of asset (MVA) basis, MainePERS experienced an investment return of negative 0.62% for the fiscal year ending June 30, 2022. However, given the three-year asset smoothing method in place, only one-third of that loss is recognized in this valuation on an actuarial value of assets (AVA) basis. Furthermore, asset smoothing also resulted in recognizing one-third of prior deferred assets gains of $8.686 million during FY 2022 for this Program. As a result, the investment return measured on a smoothed, actuarial value of assets basis was 7.70%. This is greater than the 6.50% assumed rate of return in effect for FY 2022, resulting in a gain on investments for the year of $1.107 million in addition to the expected increase of $1.344 million had the assumed 6.50% been exactly achieved on an AVA basis.

With respect to liability experience, the Program's liabilities grew by $0.124 million more than the expected growth of $1.514 million (a 0.2% growth in total liabilities beyond expected growth). Of this increase, approximately $0.427 million was attributable to the payment of cost-of-living adjustments (COLA) exceeding the assumed COLA, partially offset by a liability gain of $0.303 million primarily attributable to fewer retirements than expected. It's important to note that approximately $0.274 million of the $0.427 million liability growth attributable to COLA was due to Program changes in the COLA and was fully offset by additional employer contributions of the same amount.

Combining the investment and liability experience produced an informational total employer contribution of 4.69% of payroll as of June 30, 2022. This is an increase of 1.01% compared to the June 30, 2021 informational valuation contribution rate of 3.68% of payroll.

SECTION I – BOARD SUMMARY

Finally, as of the June 30, 2022 valuation, the Program has an unfunded actuarial liability (UAL) of ($6.507) million (i.e., a surplus) based on the actuarial value of assets (AVA). This represents a decrease of $1.087 million from the ($5.420) million AVA UAL measured as of June 30, 2021, thus increasing the Program's surplus. This compares to an expected increase of $0.170 million. The specific factors contributing to this change are presented in Table I-1 that follows. This table has separate columns showing the components of the changes in liabilities and investments during FY 2022 as well as their combined effect on the UAL.

Table I-1
(Amounts in Millions)

	Liabilities	Assets*	UAL
Value as of June 30, 2021	$ 75.788	$ 81.208	$ (5.420)
Expected Change	1.514	1.344	0.170
Impact of Plan Changes	0.274	0.274	0.000
Impact of Assumption Changes	0.000	0.000	0.000
Recognized Investment Gain	0.000	1.107	(1.107)
Recognized Liability Gain	(0.150)	0.000	(0.150)
Value as of June 30, 2022	$ 77.426	$ 83.933	$ (6.507)

* This table uses the actuarial value of assets. Results would be different if the market value were used.

The remainder of this Board Summary section summarizes the Program's historical trends and summarizes the principal results of the valuation. These principal results compare key results between this and last years' valuations for member counts, assets and liabilities, and contribution rates.

Trends

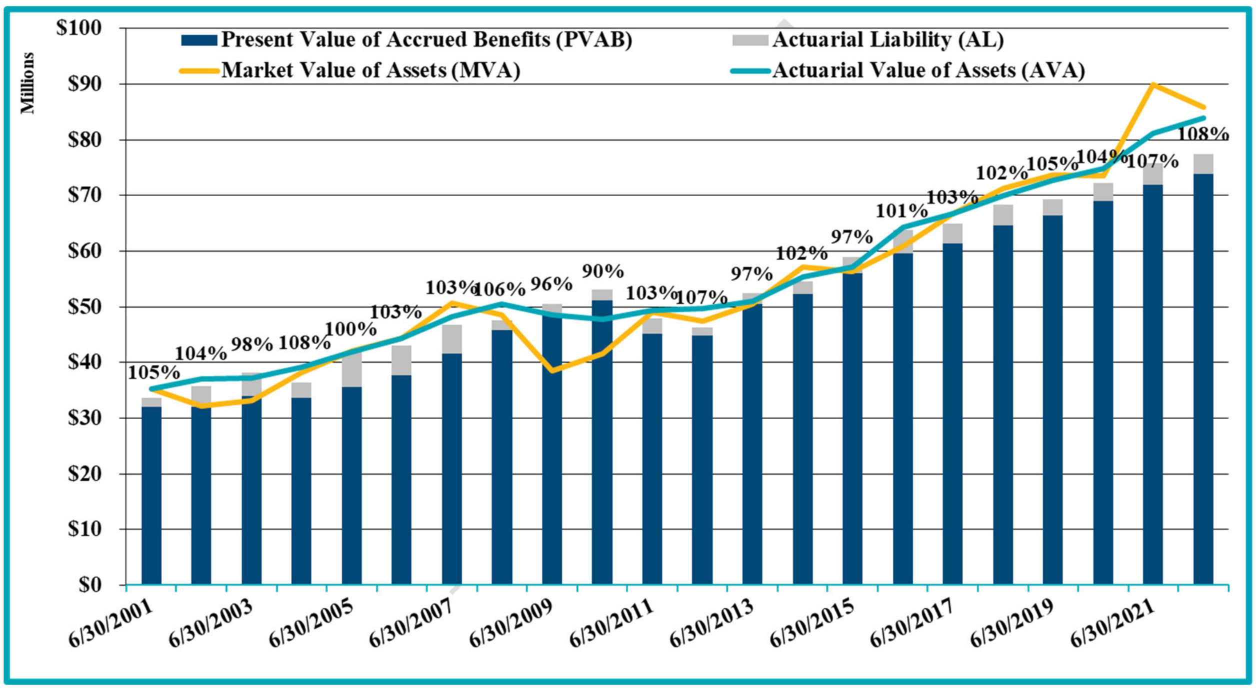
It is important to take a step back from the latest results and view them in the context of the Program's history. On the next few pages, we present a series of graphs that display key historical trends relating to the Program's condition.

SECTION I – BOARD SUMMARY

<u>Assets and Liabilities</u>

The following graph illustrates the progress of assets and liabilities for the Program since June 30, 2001 as well as the Program's funded ratio on an actuarial value of assets (AVA) basis.

Liability measures are shown as bars as of June 30 of the indicated years. The actuarial liability (AL), the liability measure used for the Program's funding purposes, is represented by the top of the grey bars. The blue bars represent the present value of accrued benefits (PVAB). These liability measures are discussed further in Section IV. Measures of the assets are shown as lines. The AVA is shown with a teal line, while the market value of assets (MVA) is shown as a yellow line. The AVA divided by the AL is the AVA funded ratio that is often used in evaluating the Program's funded status. The values of this metric as of each valuation date are shown as the percentages in the graph labels.

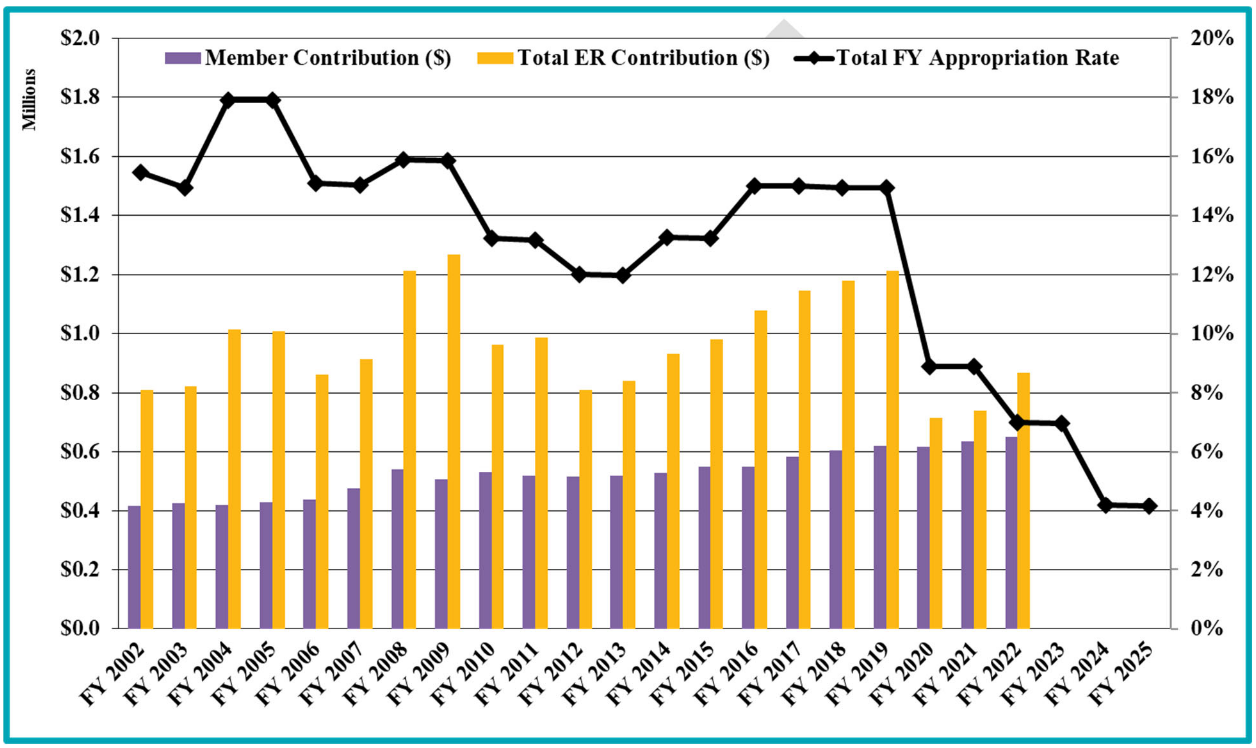


Plan changes were legislated during 2010 and first reflected in the 2011 valuation, resulting in the reduction in liability seen for that year. As of June 30, 2022, the Program is funded 108.4% based on the AVA funded ratio, which represents an increase from the 107.2% ratio reported in the prior valuation. The 22-year history in the graph shows that over this period the Program has generally been within a few percentage points, either over or under, being fully funded at a 100% funded ratio on an AVA basis. Measured on a MVA basis, the funding ratio is 110.8% as of June 30, 2022.

SECTION I – BOARD SUMMARY

Contributions

The next graph shows the history of contributions to the Program, both as dollar amounts and as percentages of payroll. The bars in this graph show the contributions made by both the employers and the members in dollar terms for each fiscal year (FY) as indicated by the horizontal axis since 2002. These bars are read using the left-hand axis. The black line shows the total appropriated employer contribution rate for the FY indicated as a percentage of payroll and references the right-hand axis. These rates are those determined by the ratemaking process rather than the informational rates determined in the annual valuations. The FY 2023 through FY 2025 contribution rates have already been determined based on the ratemaking process, so three additional years of the contribution rates are shown versus dollars received. The total employer contribution for FY 2022 includes the approximately $274 thousand extra payment to fund the COLA benefit change.



The member contribution rates are set by statute. The total employer contribution rate is set by the ratemaking process on a biennial basis. The contribution rate for FY 2022 was based on a roll-forward of the June 30, 2019 valuation to June 30, 2020, as previously described in this Board Summary.

The data has reflected purchased service amounts for a number of years, but it was not until the 2017 valuation that assets were transferred to cover those purchases. The impact of this transfer can be seen in the large decline in employer contribution rates between FY 2019 and FY 2020.

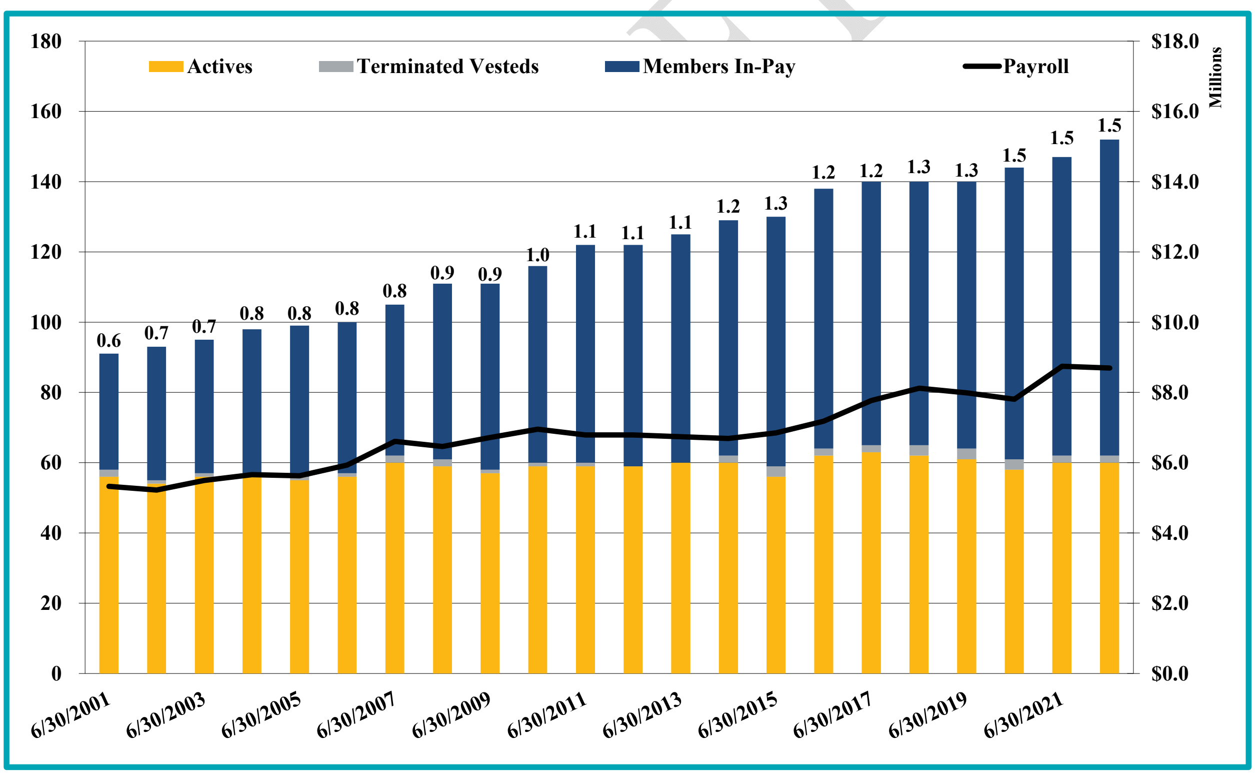
SECTION I – BOARD SUMMARY

<u>Participant Trends</u>

The stacked bars in the graph that follows show the number of active members, terminated vested members, and members in pay status covered by the Program as of June 30 of each year indicated and is read using the left-hand axis of the graph. As with many funds in this country, there has been a steady growth in the number of retired members as the Program has matured.

The labels above each bar show the "support ratio," which is the ratio of inactive members (members in pay status plus terminated vested members) to active members. This ratio has been generally increasing since 2001 for the Program. As this ratio grows, the cash flows (contributions less benefits and expenses) of a pension plan tend to become more negative. The more negative a plan's cash flows, the more sensitive, in terms of contribution volatility, the plan is to volatile investment markets.

The black line in the graph indicates the total active member covered payroll in the Program and is read using the right-hand axis of the graph. Generally, it has been gradually increasing or steady since 2001.



SECTION I – BOARD SUMMARY

Principal Results Summary

The last section of this Board Summary section of this Actuarial Valuation Report presents a summary of the principal results of the valuation, comparing key results between this and last years' valuations for member counts, assets and liabilities, and contribution rates.

Table I-2
Summary of Principal Results
Judicial Retirement Program

	Valuation as of June 30, 2021	Valuation as of June 30, 2022	% Change
Member Counts			
Active Members	60	60	0.0%
Retired Members	63	70	11.1%
Beneficiaries of Retired Members	21	19	(9.5%)
Survivors of Deceased Members	0	0	0.0%
Disabled Members	1	1	0.0%
Terminated Vested Members	2	2	0.0%
Inactives Due Refunds	1	1	0.0%
Total Membership	148	153	3.4%
Annual Payroll of Active Members	$ 8,745,108	$ 8,693,820	(0.6%)
Annual Payments to Benefit Recipients	$ 4,730,030	$ 5,350,392	13.1%
Assets and Liabilities			
Actuarial Liability (AL)	$ 75,787,564	$ 77,425,685	2.2%
Actuarial Value of Assets (AVA)	81,207,552	83,932,655	3.4%
Unfunded AL (UAL)	$ (5,419,988)	$ (6,506,970)	20.1%
AVA Funded Ratio (AVA/AL)	107.2%	108.4%	
MVA Funded Ratio (MVA/AL)	118.6%	110.8%	
Accrued Benefit Liability (PVAB)	$ 71,860,384	$ 73,878,079	2.8%
Market Value of Assets (MVA)	89,893,506	85,821,158	(4.5%)
Unfunded PVAB	$ (18,033,122)	$ (11,943,079)	(33.8%)
MVA Accrued Benefit Funded Ratio	125.1%	116.2%	
Contributions as a Percentage of Payroll			
Employer Normal Cost Rate	12.17%	12.71%	
UAL Amortization Rate	(7.48)%	(9.03)%	
Total Employer Rate	4.69%	3.68%	

	2020 Ratemaking		2022 Ratemaking	
Total Employer Budgeted Rates	FY 2022	6.99%	FY 2024	4.19%
Total Employer Budgeted Rates	FY 2023	6.95%	FY 2025	4.15%

SECTION II – RISK ASSESSMENT AND DISCLOSURE

Introduction

The Program's actuarial valuation results are dependent on assumptions about future economic and demographic experience. Based on actuarial standards of practice, these assumptions represent a reasonable estimate for future experience. However, the actual future experience will never conform exactly to these assumptions and may differ significantly from the assumptions. This deviation is a risk that pension plan sponsors bear in relying on a pension plan's actuarial valuation results.

This section of this report is intended to identify the primary drivers of these risks, provide background information and assessments about these identified risks, and communicate the significance of these risks to this Program. This section for this Program, as well as the Legislative Program, is limited in comparison to the risk sections for the two larger Programs, the State Employee and Teacher Retirement Program and the Participating Local District Retirement Program. This limitation reflects the relatively smaller nature of these two Programs as well as their robust funded statuses. It is thus our belief that the additional information that is included in the reports for the larger Programs would not be significantly beneficial in improving the Board's understanding of the identified risks for these two smaller Programs.

Identification of Risks

For this Program, the three primary valuation results that can significantly differ from those expected are the assets, the liabilities, and the employer contributions. While there are several factors that could lead to these results being different, we believe the primary risks for this Program are:

- Investment risk,
- Longevity and other demographic risks,
- Plan change risk, and
- Assumption change risk.

Other risks that we have not identified may also turn out to be significant.

SECTION II – RISK ASSESSMENT AND DISCLOSURE

Investment Risk is the potential for investment returns to deviate from what is expected. When actual investment returns are lower than the investment assumption used in the actuarial valuation, the unfunded liability will increase from what was expected and will require higher contributions than otherwise anticipated. But, when actual returns exceed those assumed, the resulting unfunded liability measurements and actuarially determined contributions will be lower than anticipated. As seen in the historical section that follows, this has been a significant driver of deviations in the actual measurements for this Program from those expected by the prior valuations.

Longevity and Other Demographic Risk is the potential for mortality or other demographic experience to be different than expected. Generally, longevity and other demographic risks emerge slowly over time as the actual experience deviates from expectations. In addition, the extensive number of assumptions related to longevity and other demographic experience often result in offsetting deviations contributing to the Program's overall liability experience. As such, these risks are often dwarfed by other risks, particularly those due to the investment returns. However, for small plans like this, there are relatively few members and so the behavior of individual members can have a significant impact on the liabilities. The following historical section shows that this is true for this Program in individual years, but these deviations have been offsetting such that the cumulative magnitude for the period shown is relatively minor.

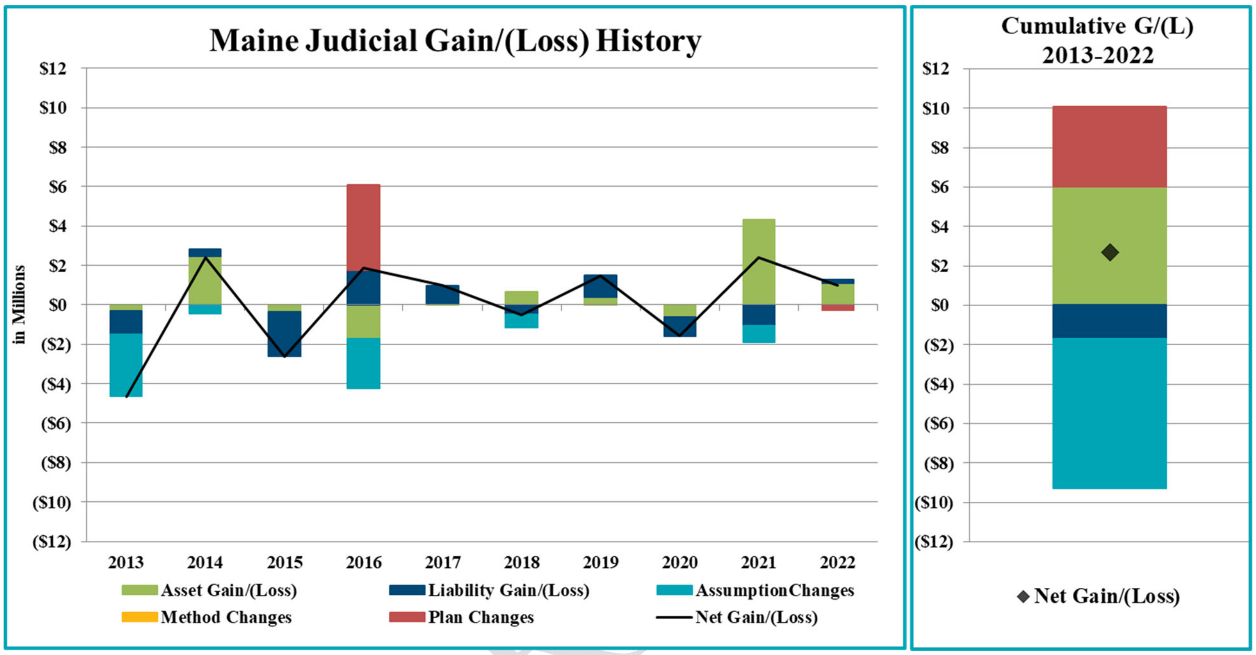
Plan Change Risk is the potential for the provisions of the Program to be changed such that the funding or benefits are changed materially. In addition to the actual payments to and from the Program being changed, future valuation measurements can also be impacted, with Program changes leading to deviations between actual future measurements and those expected by prior valuations. The historical review section will show that plan change risk has been a significant driver of deviations in the actual measurements for this Program from those expected by the valuations.

Assumption Change Risk is the potential for the environment to change such that future valuation assumptions are adjusted to be different than the current assumptions. For example, declines in interest rates over time may result in a change in the assumed rates of return used in the valuation. A healthier workforce may result in changes in employee behavior such that retirement rates are adjusted to reflect employees working longer. Assumption change risk is an extension of the risks previously identified, but rather than capturing the risk as it is experienced, it captures the cost of recognizing a change in the environment resulting in the current assumption no longer being reasonable. The historical review section will show that assumption change risk has been a significant risk for this Program.

SECTION II – RISK ASSESSMENT AND DISCLOSURE

Historical Experience Deviations

In understanding the impact of some of these risks, it is useful to look at past experience deviations. These deviations are commonly referred to as actuarial gains and losses. The following graph shows the gains/(losses) at each valuation date between the actual and expected experience broken down by cause for the last 10 years.



As described previously and is evident in this graph, assumption changes, plan changes, and asset gains and losses have been the greatest sources of deviations for the Program cumulatively. While liability gains and losses have not been a significant source cumulatively for this period, they have been sources of significant risk in individual years.

Plan Maturity Measures

As pension plans become more mature, the primary risks of adverse investments, demographic deviations, plan changes, and assumption/method changes become of more significant concern as the resulting impacts on the Program's condition are more pronounced. As a result, it has become increasingly important to examine measures that indicate a pension plan's maturity level. With shrinking workforces, aging Baby Boomers, and retirees living longer, plans pay out more in benefits than they receive in contributions – leading to negative cash flows, excluding investment income, making it harder for a plan to recover from losses since contributions are generally made based on active payroll.

SECTION II – RISK ASSESSMENT AND DISCLOSURE

One of the main reasons risks are more amplified with a mature plan is that when plans with negative cash flows suffer investment losses, they need to liquidate enough assets to pay for benefits in excess of contributions. That means these plans will need to earn higher returns to rebuild their assets to the previous levels. Plans with negative cash flows exceeding five percent of assets are especially vulnerable to asset losses.

The balance of this section discloses and examines three maturity measures: the asset leverage ratio, the liability leverage ratio, and the support ratio.

Asset Leverage Ratio

One important plan maturity measure is the asset leverage ratio, the market value of assets divided by the plan's payroll, which represents the percentage of payroll that would need to be contributed to make up a given change in the plan's assets. As a plan matures, its assets increase, and a greater proportion of the assets are paid out in benefit payments to members. The greater the plan's assets are relative to payroll, the more vulnerable the plan is to investment volatility in terms of the resulting contribution requirement changes.

As an example, here are two plans that both experience a 10% investment loss equaling $500 million on their existing assets of five billion dollars. Plan A's asset leverage ratio is 10, and Plan B's ratio is five. This means that Plan A has to spread, or amortize, that loss over a payroll that is half as large as Plan B's. As seen in the chart below, this results in the percentage of payroll that Plan A would need to contribute to make up the loss being double what would be required for Plan B.

	($ in millions)	
	Plan A	**Plan B**
Plan Assets	**$ 5,000**	**$ 5,000**
Payroll	**$ 500**	**$ 1,000**
Asset Leverage Ratio	**10.0**	**5.0**
10% Loss	**$ 500**	**$ 500**
10% Loss as % of Payroll	**100%**	**50%**

This Program's asset leverage ratio has been generally increasing over the last decade except for this past year due to the investment loss and is currently just less than 10.0. As a result of the increasing trend of this ratio, investment losses are equivalent to a greater proportion of payroll.

Liability Leverage Ratio

Another leverage ratio that can be examined is the liability leverage ratio, the ratio of actuarial liabilities to payroll. The greater the plan's liabilities are relative to payroll, the more vulnerable the plan is to experience volatility. As previously discussed, the small nature of this Program means that the magnitude of liability gains and losses are often greater relative to the liabilities compared

SECTION II – RISK ASSESSMENT AND DISCLOSURE

to what larger plans experience, so it is valuable to be aware of this ratio. For this Program, this metric has also been generally increasing over the last decade and is currently at approximately 8.9.

Support Ratios

Another commonly used measure of plan maturity is the support ratio, the ratio of in-pay and inactive members, or those receiving benefits or entitled to a deferred benefit, to the number of active members, or those currently accruing benefits in the plan. The greater this ratio, the more mature a plan is considered, with the proportion of the plan's liability represented by actives generally declining.

A graph of this ratio was shown in the prior section, which showed that this ratio has been generally increasing for this Program in recent years and is currently approximately 1.5 participants either in-pay or with a deferred benefit for each active member.

SECTION III – ASSETS

Pension plan assets play a key role in the financial operation of plans and in the decisions that Trustees make with respect to future deployment of those assets. The level of assets, the allocation of assets among asset classes, and the methodology used to measure assets will likely affect benefit levels, employer contribution rates, and the ultimate security of members' benefits.

The assets for all Defined Benefit (DB) Programs administered by MainePERS are invested together. These Programs are the State Employee and Teacher Retirement Program, the Judicial Retirement Program that is valued in this report, the Legislative Retirement Program, and the Participating Local District (PLD) Retirement Program, including both the Consolidated Plan and the several Nonconsolidated PLDs. The assets of these Programs are entirely commingled for investment purposes, so the actuarial value of assets (AVA) for each of these Programs is developed by first developing it for the entire asset pool and then subsequently allocating that total AVA to each of the specific Programs.

In this section, we present detailed information on the Program's assets including:

- Disclosure of total MainePERS DB assets at June 30, 2021 and June 30, 2022,
- Statement of changes in total MainePERS DB market values during the year,
- Development of the total MainePERS DB actuarial value of assets,
- Allocation of the total actuarial value to MainePERS DB Programs,
- Assessment of the total MainePERS DB investment performance, and
- Projection of expected cash flows for the Program for the next 10 years.

Disclosure

The market value of assets (MVA) represents a "snap-shot" or "cash-out" value, which provides the principal basis for measuring financial performance from one year to the next. However, market values can fluctuate widely with corresponding swings in the marketplace, resulting in volatility in the resulting contributions if the unadjusted market value is used in the valuation process that develops the contributions. Therefore, a smoothed actuarial value of assets is developed for use in the valuation process and for evaluating the Program's ongoing ability to meet its obligations. The actuarial value of the Program's assets is developed by allocating the actuarial value of the total MainePERS DB assets to each Program. This section discloses the market and actuarial values of the MainePERS DB assets both in total and for each Program.

SECTION III – ASSETS

Table III-1 that follows develops the change in the market value of assets for the total MainePERS DB assets during FY 2022.

Table III-1
Changes in Market Value of Total MainePERS Defined Benefit (DB) Assets

Market Value of Total MainePERS DB Assets – June 30, 2021		**$ 18,768,097,954**
Additions		
Contributions:		
Employer Contributions	$ 623,238,478	
Member Contributions	230,265,185	
Transfers	(227,555)	
Total Contributions	$ 853,276,108	
Investment Income:		
Net Appreciation (Depreciation) in Fair Value of Investments	$ 30,962,372	
Interest on Bank Balances	299,311	
Total Investment Income	$ 31,261,683	
Investment Activity Expenses:		
Management Fees	$ (125,930,618)	
Investment Related Expense	(5,177,112)	
Banking Fees	(34,677)	
Total Investment Activity Expenses	$ (131,142,407)	
Net Income from Investing Activities	$ (99,880,724)	
Total Additions		$ 753,395,384
Deductions		
Retirement Benefits	$(1,070,744,688)	
Disability Benefits	(27,833,411)	
Survivor Benefits	(26,237,094)	
Refunds	(24,312,164)	
Administrative Expenses	(15,067,128)	
Total Deductions		$ (1,164,194,485)
Total		
Net Increase (Decrease)		$ (410,799,101)
Market Value of Total MainePERS DB Assets – June 30, 2022		**$ 18,357,298,853**

SECTION III – ASSETS

Table III-2 that follows develops the actuarial value of assets for the total MainePERS DB assets as of June 30, 2022 using the adopted actuarial valuation methodology.

Table III-2
Development of Actuarial Value of Total MainePERS Defined Benefit (DB) Assets as of June 30, 2022

1.	Actuarial Value of Total MainePERS DB Assets at June 30, 2021	$ 16,954,631,725
2.	Amount in (1) with Interest to June 30, 2022	18,056,682,787
3.	Employer and Member Contributions for FY 2022	853,276,108
4.	Interest on Contributions in (3), Assuming Received Uniformly throughout FY 2022	27,294,914
5.	Total Disbursements without Administrative Expenses for FY 2022	(1,149,127,357)
6.	Interest on Disbursements in (5), Assuming Payments made Uniformly throughout FY 2022	(36,758,713)
7.	Expected Value of Total MainePERS DB Assets at June 30, 2022 = (2) + (3) + (4) + (5) + (6)	$ 17,751,367,739
8.	Actual Market Value of Total MainePERS DB Assets at June 30, 2022	18,357,298,853
9.	Excess of (8) Over (7)	605,931,114
10.	Actuarial Value of Total MainePERS DB Assets at June 30, 2022 = (7) + [33⅓% of (9)]	$ 17,953,344,777

Actuarial Value of Total MainePERS DB Assets

As discussed in the disclosure portion of this section, the actuarial value of assets for the Program represents a "smoothed" value developed by the actuary to reduce, or eliminate, volatility in valuation results, particularly contribution rates that could develop from short-term fluctuations in the market value of assets. Current actuarial methods employed in this Program use an allocated portion of the total actuarial value of assets for the total MainePERS DB assets based on the Program's market value of assets to develop the actuarial value of assets for the Program. The methodology for the total MainePERS DB assets sets the actuarial value of assets equal to the expected value of the actuarial value of assets plus one-third of the difference between the actual market value of assets and the expected actuarial value of assets. The expected value of the actuarial value of assets takes the prior year's actuarial value of assets and adjusts it for contributions, disbursements, and expected interest earnings at the investment return assumption that was in effect for the previous year, 6.50% for this valuation. The previous table, Table III-2, illustrates the calculation of the actuarial value of assets for the total MainePERS DB assets as of June 30, 2022.

SECTION III – ASSETS

Allocation of Actuarial Value of Assets to the Program

The assets for the defined benefit (DB) Programs administered by MainePERS are commingled for investment purposes with the actuarial value of assets for the total assets allocated to the individual Programs on the basis of the market value of the assets for each Program. An asset ratio (total MainePERS DB actuarial value of assets divided by total MainePERS DB market value of assets) is applied to the market value of assets attributable to each of the Programs to determine their actuarial value of assets as of the valuation date. The asset ratio derived in this June 30, 2022 valuation as shown in Table II-2 above is 0.977995 ($17,953,344,777 ÷ $18,357,298,853). The allocation of actuarial value of the total MainePERS DB assets to each of the MainePERS DB Programs based on this asset ratio is shown in the following chart.

Table III-3
Allocation of Actuarial Value of Total MainePERS DB Assets
as of June 30, 2022

Program	Market Value	Actuarial Value
Teachers	$ 9,664,934,008	$ 9,452,256,233
State (Regular & Special)	4,903,757,326	4,795,849,688
Judicial	85,821,158	83,932,655
Legislative	16,142,942	15,787,715
Participating Local Districts (Consolidated & Non-Consolidated)	3,686,643,419	3,605,518,486
Total	$ 18,357,298,853	$17,953,344,777

Investment Performance

The market value of assets for the total MainePERS DB assets returned a negative 0.62% during FY 2022. This is lower than the assumed return of 6.50% for FY 2022. The equivalent market value returns for the total MainePERS DB assets for FY 2021 and FY 2020 were positive 26.76% and positive 2.89%, respectively.

On an actuarial value of assets basis, the return for FY 2022 was a positive 7.70% for the total MainePERS DB assets. This return is greater than both the return on a market value basis and the 6.50% assumption in effect for FY 2022. Therefore, this return gave rise to an investment gain on the total MainePERS DB assets this year.

Cash Flow Projections

Table III-4
Projection of Judicial Program
Benefit Payments and Contributions

FY Ending June 30,	Expected Benefit Payments	Expected Employer Contributions	Expected Member Contributions	Total Expected Contributions
2023	$ 5,827,600	$ 604,200	$ 665,100	$ 1,269,300
2024	6,195,000	374,300	683,400	1,057,700
2025	6,464,300	380,900	702,200	1,083,100
2026	6,655,700	391,400	721,500	1,112,900
2027	6,792,600	402,100	741,300	1,143,400
2028	6,865,600	413,200	761,700	1,174,900
2029	6,899,400	424,600	782,600	1,207,200
2030	6,921,400	436,200	804,200	1,240,400
2031	6,939,200	448,200	826,300	1,274,500
2032	6,932,800	460,600	849,000	1,309,600

In Table III-4 above, we provide a projection of expected cash flows in and out of the Program for the next 10 years for informational purposes. The Board may share these projections with its investment advisor for consideration of the gap shown between the cash expected to come into the Program through employer and member contributions and the cash expected to be paid out of the Program to provide benefit payments.

The expected benefit payments in Table III-4 were developed using the data currently included in this valuation and on the assumption that the actuarial assumptions disclosed in Appendix C will be exactly met. Actual benefit payments will vary if members retire sooner or later than assumed, if salary increases and actual future post-retirement COLAs differ from those assumed, or if other assumptions differ from the actual experience seen. These benefit projections exclude any assumption about new Program participants, whose experience will eventually lead to increased benefit payments. However, we do not feel this exclusion will materially impact the projections for the period shown.

Expected employer contributions in this table use the budgeted contributions for FY 2023 through FY 2025. Future contributions beyond that point are assumed to continue at the FY 2025 rate and include an assumption that payroll grows at 2.75% per year.

The expected member contributions are similarly based on a 2.75% per year assumed increase in covered payroll multiplied by the current average aggregate member contribution rate of 7.65% for FY 2023.

SECTION IV – LIABILITIES

In this section, we present detailed information on Program liabilities including:

- Disclosure of the Program's liabilities as of June 30, 2021 and June 30, 2022, and
- Statement of changes in these liabilities during the year.

Disclosure

Several types of liabilities are calculated and presented in this report. Each type is distinguished by the purpose for which the figures are ultimately used.

- Present Value of Future Benefits (PVB): Used for analyzing the overall financial obligations of the Program, this represents the amount of money needed today to fully fund all future benefits of the Program, assuming no new members, that active members continue to earn salary increases and accrue benefits under their current Program provisions, and that all actuarial assumptions are exactly met, including the 6.50% per year investment return.

- Actuarial Liability (AL): Used for funding calculations and GASB disclosures, this liability is calculated taking the PVB above and subtracting the value of accruals that are assigned to future years on a person-by-person basis. This offset is equal to the present value of future member contributions and future employer normal cost contributions under an acceptable actuarial cost method. For this Program and the other MainePERS DB Programs, the method used is referred to as the entry age normal (EAN) cost method, which is the only permitted actuarial cost method for GASB disclosures.

- Present Value of Accrued Benefits (PVAB): Used for communicating the liabilities for benefits accrued as of the valuation date.

Table IV-1 that follows discloses each of these liabilities for the current and prior years' valuations. With respect to the actuarial liability and the present value of accrued benefits, a subtraction of the appropriate value of the Program's assets yields, for each respective type, a net surplus or an unfunded liability. For the PVB measure, it is compared to the market value of assets plus the expected future value of contributions to the Program. The future contributions are calculated assuming the current employer and member rates will be continued for all future years along with the expected future payroll as of each date. The difference between the PVB and these anticipated resources indicates either an expected shortfall or an expected surplus representing either additional funding required or excess funding and indicates the size of the Program's stored gains or losses that remain outside of the valuation process currently.

We note that none of the liabilities presented in this report is an appropriate measure of a settlement liability.

SECTION IV – LIABILITIES

The liability measures are compared to appropriate measures of assets, along with the expected future value of member and employer contributions where appropriate. The difference between the liability measure and the anticipated resources indicates either an expected shortfall or an expected surplus related to that liability measure. The surplus or shortfall on the present value of benefits (PVB) measure indicates the size of the Program's stored gains or losses that remain outside of the valuation process.

Table IV-1
Disclosure of Liabilities

	June 30, 2021	June 30, 2022
Present Value of Benefits (PVB)		
Active Member Benefits	$ 39,354,098	$ 35,990,484
Retired, Disabled, Survivor, and Beneficiary Benefits	43,872,080	49,804,907
Terminated Vested Benefits	1,010,778	995,126
Terminated Nonvested Benefits	11,463	10,711
Total PVB	**$ 84,248,419**	**$ 86,801,228**
Market Value of Assets (MVA)	$ 89,893,506	$ 85,821,158
Future Member Contributions	3,488,639	3,828,998
Future Employer Contributions	1,124,570	1,212,674
Projected (Surplus)/Shortfall	(10,258,296)	(4,061,602)
Total Resources	**$ 84,248,419**	**$ 86,801,228**
Actuarial Liability (AL)		
Present Value of Benefits (PVB)	$ 84,248,419	$ 86,801,228
Present Value of Future Normal Costs (PVFNC)		
Employer Portion	4,972,216	5,546,545
Member Portion	3,488,639	3,828,998
Actuarial Liability (AL = PVB – PVFNC)	**$ 75,787,564**	**$ 77,425,685**
Actuarial Value of Assets (AVA)	81,207,552	83,932,655
Net (Surplus)/Unfunded (AL – AVA)	**$ (5,419,988)**	**$ (6,506,970)**
Present Value of Accrued Benefits		
Present Value of Future Benefits (PVB)	$ 84,248,419	$ 86,801,228
Present Value of Future Benefit Accruals (PVFBA)	12,388,035	12,923,149
Accrued Liability (PVAB = PVB – PVFBA)	**$ 71,860,384**	**$ 73,878,079**
Market Value of Assets (MVA)	89,893,506	85,821,158
Net (Surplus)/Unfunded (PVAB – MVA)	**$ (18,033,122)**	**$ (11,943,079)**

SECTION IV – LIABILITIES

Changes in Liabilities

Each of the liabilities disclosed in the prior table is expected to change at each subsequent valuation. The components of these changes, depending upon which liability is analyzed, can include:

- New Program members since the last valuation
- Benefits accrued since the last valuation
- Program amendments changing benefits since the last valuation
- Passage of time, which adds interest to the prior liability
- Benefits paid to members since the last valuation
- Members retiring, terminating, or dying at rates different than expected since the last valuation
- Salaries changing at rates different than expected since the last valuation
- A change in actuarial assumptions since the last valuation
- A change in the actuarial cost method since the last valuation

Unfunded liability measurements will change because of all of the above, as well as due to changes in the Program's asset measurements resulting from:

- Contributions being different than expected
- Investment earnings being different than expected
- A change in the method used to measure the Program's assets in developing the unfunded liability measure since the last valuation

In each valuation, we report on those elements of change in the Program's liability measures that are of particular significance, potentially affecting the long-term financial outlook of the Program. In Table IV-2 that follows, we present key changes in the Program's liability measures since the last valuation.

Table IV-2

	Present Value of Future Benefits	Actuarial Liability	Present Value of Accrued Benefits
Liability Measurement – June 30, 2021	$ 84,248,419	$ 75,787,564	$ 71,860,384
Liability Measurement – June 30, 2022	86,801,228	77,425,685	73,878,079
Liability Measurement Increase/ (Decrease) Due to:	$ 2,552,809	$ 1,638,121	$ 2,017,695
Program Amendment	$ 285,264	$ 273,590	$ 235,563
Assumption Change	0	0	0
Actuarial (Gain)/Loss	N/C	(150,154)	N/C
Benefits Accumulated and Other Sources	$ 2,267,545	$ 1,514,685	$ 1,782,132

N/C = Not calculated

SECTION V – CONTRIBUTIONS

In this section, we present detailed information on informational employer contribution rates as developed in this June 30, 2022 valuation for the Program, including the development of the employer contribution rate, comprised of the employer normal cost rate and the unfunded actuarial liability (UAL) amortization rate (UAL amortization rate).

Note that these contribution rates are only informational, and the actual contribution rates are set by the budgeting process described in the Board Summary at the beginning of this report.

Description of Rate Components

For this Program, the funding methodology employed to determine the employer contribution rates is the entry age normal (EAN) cost method. Under this method, there are two components to the total employer contribution rate: the employer's normal cost rate (NC rate) and the UAL amortization rate (UAL amortization rate).

An individual EAN cost rate is determined for each active member. The normal cost is determined by the following steps. First, an individual normal cost rate for each member is determined by taking the value of their projected future benefits, as of entry age into the Program. Second, this value is then divided by the value, also at entry age, of the member's expected future salary. Finally, the resulting total normal cost rate is reduced by the member contribution rate to produce the employer's normal cost rate for the member. These rates are then multiplied by each member's salary as of the valuation date and added together to get the total employer normal cost dollars as of the valuation date for the Program, which is then divided by the total payroll at the valuation date for the Program to get the employer normal cost rate for the Program.

The unfunded actuarial liability under the EAN cost method equals the present value, at the time of valuation, of the future benefit payments less the present value of future employer normal cost contributions, future member contributions, and current assets. The UAL amortization rate is the percentage that applied to member payroll, which is assumed to increase 2.75% per year, is expected to amortize the UAL according to the Program's amortization policy, which is an open 10-year period for this Program.

Contribution Calculations

Table V-1 below presents and compares the total employer contribution rate, as well as its two components, for the Program as developed in this valuation and the prior one.

Table V-1
Judicial Total Employer Rate

Valuation Date	June 30, 2021	June 30, 2022
Employer NC Rate	12.17%	12.71%
UAL Amortization Rate	(7.48)%	(9.03)%
Total Employer Rate	4.69%	3.68%

The rates developed in this section are for valuation purposes only. Actual budgeted rates are set based on the ratemaking process described in the Board Summary section.

SECTION VI – FINANCIAL DISCLOSURE INFORMATION

This section contains financial disclosure information regarding the Program developed under a number of accounting standards and guidance.

First, for informational purposes, we show the Program's funded status under the Financial Accounting Standards Board (FASB) ASC Topic 960, which discloses how the market value of assets would compare to accrued liabilities if contributions were to stop and accrued benefit claims had to be satisfied as of the valuation date. However, due to potential legal requirements and the possibility that alternative interest rates would have to be used to determine the liabilities, these values may not be a good indication of the amount of money it would take to buy the benefits for all members if all provisions of the Program were to terminate. We have prepared the following exhibit in this section based on FASB ASC Topic 960:

- Table VI-1: Accrued Benefits Information

The Governmental Accounting Standards Board (GASB) Statement Nos. 67 and 68 establish standards for disclosure of pension information by public employee retirement systems (PERS) and governmental employers in financial statements, notes to financial statements, and supplementary information. We have prepared the following exhibits reflecting provisions of GASB Statement Nos. 67 and 68:

- Table VI-2: Schedule of Changes in Net Pension Liability and Related Ratios
- Table VI-3: Sensitivity of Net Pension Liability to Changes in Discount Rate
- Table VI-4: Schedule of Employer Contributions
- Table VI-5: Average Expected Remaining Service Lives

A summary of the terminology used in GASB Statement Nos. 67 and 68 is provided in Appendix D of this report. Note that while much of the information provided in this report under GASB No. 67 is also utilized in GASB No. 68, Table VI-5 included in this section is only applicable to GASB No. 68.

Finally, we have also developed disclosure information in this section based on additional guidance relating to the Annual Comprehensive Financial Reports (ACFR) of PERS provided by the Government Finance Officers Association (GFOA) in their publication, *Governmental Accounting, Auditing, and Financial Reporting* (GAAFR). We have prepared the following exhibits reflecting guidance in the GAAFR:

- Table VI-6: Analysis of Financial Experience
- Table VI-7: Schedule of Funded Liabilities by Type

The present value of accrued benefits, the total pension liability (GASB 67/68), and the actuarial liability (GAAFR) disclosures in this section are all determined assuming that the Program is ongoing and participants continue to terminate employment, retire, etc., in accordance with the actuarial assumptions. Liabilities as of June 30, 2022 are discounted at the assumed valuation interest rate of 6.50% per annum in all of these disclosures.

SECTION VI – FINANCIAL DISCLOSURE INFORMATION

Table VI-1 below includes the relevant amounts as of June 30, 2021 and June 30, 2022 as well as a reconciliation between the two dates under FASB ASC Topic 960.

Table VI-1
Accrued Benefits Information

	June 30, 2021	June 30, 2022
FASB ASC Topic 960 Basis		
1. Present Value of Benefits Accrued to Date (PVAB)		
a. Members Currently Receiving Payments	$ 43,872,080	$ 49,804,907
b. Terminated Vested Members	1,010,778	995,126
c. Terminated Nonvested Members	11,463	10,711
d. Active Members	26,966,063	23,067,335
e. Total PVAB	$ 71,860,384	$ 73,878,079
2. Market Value of Assets (MVA)	89,893,506	85,821,158
3. Unfunded Present Value of Accrued Benefits, but not less than Zero	$ 0	$ 0
4. Ratio of MVA to PVAB (2)/(1)I	125.1%	116.2%
Change in Present Value of Benefits Accrued to Date during FY 2022		
Increase/(Decrease) during Year Attributable to:		
Passage of Time		$ 4,507,961
Benefits Paid		(5,094,485)
Assumption Changes		0
Program Changes		235,563
Benefits Accrued, Other Gains/Losses		2,368,656
Net Increase (Decrease)		$ 2,017,695

Table VI-2 that follows shows the changes in the total pension liability (TPL), the Program's fiduciary net position (FNP) (i.e., fair value of the Program's net assets), and the net pension liability (NPL) during the measurement year ending June 30, 2022, as well as related ratios calculated under the provisions of GASB Statement No. 67 for the Program.

As of the June 30, 2022 valuation, the fiduciary net position for this Program was projected to be available to make all projected future benefit payments for current Program 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 pension liability under GASB Nos. 67 and 68. The projection of cash flows used to determine the discount rate assumed that member contributions will be made at the current contribution rate, and the employer contributions will be made according to the actuarial calculations developed in the biennial ratemaking process.

SECTION VI – FINANCIAL DISCLOSURE INFORMATION

Table VI-2 Schedule of Changes in Net Pension Liability and Related Ratios FY 2022	
Total Pension Liability (TPL)	
Service Cost (SC)	$ 1,733,281
Interest (includes Interest on SC)	4,875,889
Changes of Benefit Terms	273,590
Differences Between Actual and Expected Experience	(150,154)
Changes of Assumptions	0
Benefit Payments, including Refunds of Member Contributions	(5,094,485)
Net Change in TPL	**1,638,121**
Beginning of Year (BOY) TPL	**75,787,564**
End of Year (EOY) TPL	**$ 77,425,685**
Program Fiduciary Net Position (FNP)	
Employer Contributions	$ 867,895
Member Contributions	650,172
Transfers	29,746
Net Investment Income	(453,509)
Benefit Payments, including Refunds of Member Contributions	(5,094,485)
Administrative Expense	(72,167)
Net Change in FNP	$ (4,072,348)
BOY FNP	**89,893,506**
EOY FNP	**$ 85,821,158**
EOY Net Pension Liability (NPL)	**$ (8,395,473)**
FNP as a Percentage of TPL	110.8%
Covered Payroll*	$ 8,502,222
NPL as a Percentage of Covered Payroll	(98.7)%

* For FY 2022

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

None.

SECTION VI – FINANCIAL DISCLOSURE INFORMATION

A 10-year schedule of changes in NPL and related ratios is to be included within the ACFR for PERS. However, based on GASB guidance, this 10-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 Pension Liability and Related Ratios* above and believe that you can accumulate the individual years in the MainePERS ACFRs to build this schedule to show the full 10-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, 2022, we have not included suggested information for such a note in the *Notes to Schedule of Changes in Net Pension Liability and Related Ratios* above. However, it is our expectation that the System's staff will make the final determination regarding any notes needed for this schedule, and we are available to provide any information they may need for this purpose.

Table VI-3 below illustrates the sensitivity of the net pension liability (NPL) to the discount rate. Changes in the discount rate affect the measurement of the total pension liability (TPL) for the Program. Lower discount rates produce a higher TPL, and higher discount rates produce a lower TPL. Because the discount rate does not affect the measurement of assets, the percentage change in the Net Pension Liability (NPL) can be very significant for relatively small changes in the discount rate.

Table VI-3
Sensitivity of Net Pension Liability to Changes in Discount Rate
FY 2022

	1% Decrease 5.50%	Discount Rate 6.50%	1% Increase 7.50%
Total Pension Liability (TPL)	$ 84,268,035	$ 77,425,685	$ 71,456,831
Program Fiduciary Net Position (FNP)	85,821,158	85,821,158	85,821,158
Net Pension Liability (NPL)	$ (1,553,123)	$ (8,395,473)	$ (14,364,327)
FNP as a Percentage of TPL	101.8%	110.8%	120.1%

A one percent decrease in the discount rate increases the TPL by approximately 9% and increases the NPL by approximately 82%. A one percent increase in the discount rate decreases the TPL by approximately 8% and decreases the NPL by approximately 71%.

Table VI-4 that follows provides information relating to the employer contributions for the Program. Under GASB Statement No. 67, if an actuarially determined contribution (ADC) or a contractually or statutorily required contribution (CRC) is developed for a single employer or cost-sharing plan, the following schedule is required. For purposes of this schedule, an ADC is a contribution amount determined in accordance with Actuarial Standards of Practice, and a CRC is based on statutory or contractual requirements. Both should exclude any amounts to finance specific liabilities of individual employers of the Program. If an ADC is available, the schedule of employer contributions should be developed on that basis. If there is no ADC, but there is a CRC, the schedule should be developed on that basis. Only if neither an ADC nor a CRC is developed can this schedule be omitted from the PERS's ACFR.

SECTION VI – FINANCIAL DISCLOSURE INFORMATION

The Program's rates set in the ratemaking process meet the definition of an ADC, so for this Program, this schedule should be developed on that basis. Based on GASB guidance, a full 10 years of information should be shown in this schedule if it is available, but this 10-year history can be built one year at a time following implementation. We have shown only the current year of this *Schedule of Employer Contributions* below and believe that you can accumulate these in the MainePERS ACFR to build this schedule to show the full 10-year schedule over time.

Only the current year of the *Notes to Schedule of Employer Contributions* below needs to be included in the notes to this schedule. However, any factors that significantly affect trends in the *Schedule of Employer Contributions* at any point in the 10-year period should also be included in the notes to this schedule. As of June 30, 2022, we have not included such a note in the *Notes to Schedule of Employer Contributions* below. However, it is our expectation that the System's staff will make the final determination regarding any notes needed for this schedule and we are available to provide any additional information that they may need for this purpose.

Table VI-4
Schedule of Employer Contributions
FY 2022

Actuarially Determined Contribution (ADC)	$ 594,305
Contributions in Relation to the ADC	594,305
Contribution Deficiency/(Excess)	$ 0
Covered Payroll (Payroll)*	$ 8,502,222
Contributions as a Percentage of Payroll	6.99%

*For FY 2022

Notes to Schedule of Employer Contributions

Valuation Date: June 30, 2019

Timing: June 30, 2022 ADC rates are calculated based on 2020 liabilities developed as a roll-forward of the 2019 valuation liability, adjusted for expected experience, and any assumption or methodology changes during FY 2020 using preliminary actual assets as of June 30, 2020.

Key Methods and Assumptions Used to Determine Contribution Rates

Actuarial Cost Method: Entry age normal

Asset Valuation Method: Three-year smoothed market

Amortization Method: Level percentage of payroll, open 10-year amortization

Discount Rate: 6.75%

SECTION VI – FINANCIAL DISCLOSURE INFORMATION

Amortization Growth Rate:	2.75%
Price Inflation:	2.75%
Salary Increases:	2.75%
Mortality:	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 MP_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.

A complete description of the methods and assumptions used to determine contribution rates for the year ending June 30, 2022 can be found in the June 30, 2020 Actuarial Valuation Report.

Other Information

None.

Table VI-5 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 Statement No. 68 requires some items be recognized by employers into pension expense over a period "equal to the average of the expected remaining service lives of all employees that are provided with pensions through the pension plan (active employees and inactive employees) determined as of the beginning of the measurement period." For the current measurement year ending on June 30, 2022, these values are thus developed as of June 30, 2021. Note that the decision was made to use these averages based on rounding to the nearest whole year, so the values are thus shown as such.

Table VI-5
Average Expected Remaining Service Lives
For Measurement Year Ending June 30, 2022

Status	Total Expected Future Service	Count	Average Remaining Service Lives
Active Members	388	60	6
In-Pay Members	0	85	0
Terminated Vested Members	0	2	0
Inactives Due Refunds	0	1	0
Total Membership	388	148	3

SECTION VI – FINANCIAL DISCLOSURE INFORMATION

Table VI-6 below is a gain/loss analysis of the changes in the actuarial liability over the past six years, reflecting variances between actual experience and assumed experience for different kinds of risk as specified in the GFOA GAAFR.

Table VI-6
Analysis of Financial Experience
Gain and Loss in Actuarial Liability During Fiscal Years Ended June 30
Resulting from Differences Between Assumed Experience and Actual Experience

Type of Activity	Gain (or Loss) For Fiscal Year Ended June 30, 2017	Gain (or Loss) For Fiscal Year Ended June 30, 2018	Gain (or Loss) For Fiscal Year Ended June 30, 2019	Gain (or Loss) For Fiscal Year Ended June 30, 2020	Gain (or Loss) For Fiscal Year Ended June 30, 2021	Gain (or Loss) For Fiscal Year Ended June 30, 2022
Investment Income	$ 80,211	$ 657,144	$ 408,141	$ (630,358)	$ 4,321,879	$ 1,106,736
Combined Liability Experience	893,352	(468,895)	1,087,164	(942,561)	(1,066,613)	150,154
Gain (or Loss) during Year from Financial Experience	973,563	188,249	1,495,305	(1,572,919)	3,255,266	1,256,890
Non-Recurring Items	0	(697,807)	0	0	(836,266)	(273,590)
Composite Gain (or Loss) During Year	**$ 973,563**	**$ (509,558)**	**$ 1,495,305**	**$(1,572,919)**	**$ 2,419,000**	**$ 983,300**

SECTION VI – FINANCIAL DISCLOSURE INFORMATION

Table VI-7 below compares the Program's assets as of each valuation date shown to the Program's actuarial liability divided into three separate groups: liabilities for contributions on deposit for current active members, liabilities for future benefits for inactive members, and employer-financed liabilities for current active members. This Schedule of Funded Liabilities by Type is used to assess funding progress based on what percentage of the liabilities for each of these groups the Program's assets are sufficient to cover. Per GFOA guidance, this schedule is to include this assessment for the 10 most recent years, and notes to this schedule should be provided to explain any factors that affect the comparability of the data. We do not believe such a note is needed for the measurement year ending June 30, 2022, but it is our expectation that the System's staff will make the final determination regarding any notes needed for this schedule.

Table VI-7
Schedule of Funded Liabilities by Type

	Aggregate Actuarial Liabilities for:				Portion of Actuarial Liabilities Covered by Reported Assets		
Valuation Date June 30,	(1) Active Member Contributions	(2) Retirees, Vested Terms, Beneficiaries	(3) Active Members (Employer Financed Portion)	Reported Assets*	(1)	(2)	(3)
2022	$ 12,044,397	$ 50,810,744	$ 14,570,544	$ 83,932,655	100%	100%	100%
2021	11,813,509	44,894,321	19,079,734	81,207,552	100	100	100
2020	12,368,756	43,098,408	16,729,946	74,766,188	100	100	100
2019	11,255,316	37,884,418	20,176,806	72,775,425	100	100	100
2018	11,180,063	36,854,246	20,257,615	69,934,400	100	100	100
2017	10,933,820	33,422,798	20,643,526	66,776,230	100	100	100
2016	10,592,002	33,418,288	19,710,981	64,265,782	100	100	100
2015	9,717,368	30,422,680	18,771,569	57,074,951	100	100	90
2014	9,466,378	28,785,537	16,308,727	55,419,017	100	100	100
2013	9,464,604	26,605,274	16,304,907	51,055,251	100	100	92

* Reported assets are measured at actuarial value. Results would be different if the market value of assets were used. Despite the name of this exhibit, the liabilities presented in this schedule are not an appropriate measurement of the settlement liability of the Program.

APPENDIX A – MEMBERSHIP INFORMATION

Active Member Data as of June 30, 2022	
Count	60
Average Current Age	60.0
Average Benefit Service	13.8
Average Vesting Service	14.4
Average Valuation Pay	$ 144,897

Non-Active Member Data as of June 30, 2022	Count	Average Age	Total Annual Benefit	Average Annual Benefit
Retired	70	75.5	$ 4,612,284	$ 65,890
Retired – Concurrent Beneficiary	4	70.9	47,813	11,953
Disability	1	76.6	40,753	40,753
Beneficiary of Above	15	84.3	649,542	43,303
Pre-Retirement Death Beneficiary	0	0.0	0	0
Terminated Vested	2	64.3	80,732	40,366
Inactive Due Refund	1	NA	NA	NA

	Active Members	Retired Members	Beneficiaries of Retired Members	Survivors of Deceased Members	Disabled Members[1]	Deferred Vested Members[2]
As of June 30, 2021	**60**	**63**	**21**	**0**	**1**	**2**
New hires	6					
Rehires						
Movement between plans	1					
New retirees	(7)	7				0
New beneficiaries due to retirements			0			
New deferred vested members	0					0
Non-vested terminations						
Refunds	0					
Deaths, no future benefits		0	(2)			
Deaths with a survivor or beneficiary		0	0			
Benefits expired						
Data correction						
As of June 30, 2022	**60**	**70**	**19**	**0**	**1**	**2**

1. Former disabled retirees who have changed to service retirement as mandated by the Plan are still included as disabled members.
2. Deferred vested members includes those indicated to us in the data who have terminated and are eligible for a future annuity.

In preparing this report, we relied on data provided by MainePERS as modified following the procedures outlined in the State of Maine Data Processing Notebook. Adjustments to the data are made based on this processing notebook. Accuracy of the results is dependent on the completeness of the underlying information. The plan sponsor is responsible for the validity and completeness of the information provided. We believe the data provided as modified as documented in the Processing Notebook is sufficient for the actuarial analysis performed.

APPENDIX B – SUMMARY OF PROGRAM PROVISIONS

1. Membership

Membership is a condition of employment for all judges serving on or after December 1, 1984.

Membership ceases on the earlier of withdrawal of contributions, retirement, or death.

Judges who retired prior to December 1, 1984 are covered under a different program.

2. Member Contributions

Members are required to contribute 7.65% of earnable compensation. Member contributions earn annual interest at the rate adopted by the Board of Trustees each February.

3. Average Final Compensation

For purposes of determining benefits payable, average final compensation is the average annual rate of earnable compensation for the three years of creditable service (not necessarily consecutive) that produce the highest such average.

For active judges as of July 1, 2003, July 1, 2004, and July 1, 2010, average final compensation shall be increased to reflect missed salary increases.

4. Creditable Service

Creditable service includes the following:

A. All judicial service as a member after November 30, 1984,

B. All judicial service before December 1, 1984,

C. Service credited while receiving disability benefits under the Program, and

D. All service creditable under the State Employee and Teacher Program provided the member elects to have the member's and the employer's contributions on behalf of such service transferred to the Judicial Program.

APPENDIX B – SUMMARY OF PROGRAM PROVISIONS

5. Service Retirement Benefits

Eligibility:

A. Eligibility for Members with at Least 10 Years of Creditable Service on July 1, 1993

i. Eligibility for members in active service and inactive members:

25 years of creditable service.

ii. Eligibility alternative for members in active service:

Attainment of age 70 with at least one year of service immediately before retirement.

iii. Eligibility for members not in active service at retirement and not in active service on or after October 1, 1999:

Attainment of age 60 and 10 years of creditable service.

iv. Eligibility for members not in active service at retirement, but in active service on or after October 1, 1999:

Attainment of age 60 and five years of creditable service.

B. Eligibility for Members with Less Than 10 Years of Creditable Service on July 1, 1993

i. Eligibility for members in active service and inactive members:

25 years of creditable service.

ii. Eligibility alternative for members in active service:

Attainment of age 70 with at least one year of service immediately before retirement.

iii. Eligibility for members not in active service at retirement and not in active service on or after October 1, 1999:

Attainment of age 62 with 10 years of creditable service.

iv. Eligibility for members in active service on or after October 1, 1999:

Attainment of age 62 and five years of creditable service.

APPENDIX B – SUMMARY OF PROGRAM PROVISIONS

C. Eligibility for Members with Less Than Five Years of Creditable Service on July 1, 2011

i. Eligibility for members in active service and inactive members:

   25 years of creditable service.

ii. Eligibility alternative for members in active service:

   Attainment of age 70 with at least one year of service immediately before retirement.

iii. Eligibility for members not in active service at retirement and not in active service on or after October 1, 1999:

   Attainment of age 65 with 10 years of creditable service.

iv. Eligibility for members in active service on or after October 1, 1999:

   Attainment of age 65 and five years of creditable service.

Benefit Sum of:

(1) for service after November 30, 1984 and before July 1, 1998 and creditable service allowed under Section 1302(3), 2% of average final compensation multiplied by years of service,
(2) for service on or after July 1, 1998, 3% of average final compensation multiplied by years of service, and
(3) for judicial service prior to December 1, 1984, 75% of November 30, 1984 salary for the position held at retirement, pro-rated for prior service less than 10 years.

The benefit is reduced for retirement before age 60 at the approximate rates listed in the table below, for members with at least 10 years of creditable service on July 1, 1993.

Age	Reduction	Age	Reduction
45	29.3%	53	16.6%
46	28.0	54	14.6
47	26.6	55	12.5
48	25.2	56	10.3
49	23.6	57	7.9
50	22.0	58	5.4
51	20.3	59	2.8
52	18.5	60	0.0

APPENDIX B – SUMMARY OF PROGRAM PROVISIONS

The benefit is reduced for retirement before age 62 by 6% for each year the member's age is less than age 62, if less than 10 years creditable service on July 1, 1993, but at least five years creditable service on July 1, 2011.

The benefit is reduced for retirement before age 65 by 6% for each year the member's age is less than age 65, if less than five years of creditable service on July 1, 2011.

Maximum Benefit: Total benefit cannot exceed 70% of average final compensation except as provided under the minimum benefit provision.

Minimum Benefit: For a judge in service and age 50 or older on December 1, 1984, 75% of salary on June 30, 1984 for the position held at retirement, increased by 6% per year from June 30, 1984 to June 30, 1989 or retirement date if earlier, and increased beyond June 30, 1989 by the cost-of-living increase granted the previous September.

Form of Payment: Life annuity, except for a judge in service and age 50 before December 1, 1984, 50% joint and survivor annuity to surviving spouse.

6. Disability Retirement Benefits Other Than No-Age Benefits (See Item 7)

Eligibility: Disabled as defined in the Judicial Retirement Program statutes prior to normal retirement age, employed prior to October 16, 1992 and did not elect the No-Age Disability Benefits, and either disabled in the line-of-duty or disabled with at least five years of creditable service.

Benefit: 66⅔% of average final compensation, reduced by employment earnings over the specified statutory limit, and to the extent that the benefit, in combination with Workers' Compensation and Social Security, exceeds 80% of average final compensation.

Form of Payment: Payment begins upon the termination of service and ceases on cessation of disability or after two years, unless the member is unable to engage in any substantially gainful activity, in which case payments cease on the earlier of age 70 or the date that the service retirement benefit equals or exceeds the disability benefit.

Conversion to Service Retirement: During the period of disability, service is credited, and average final compensation is increased at the same rate as any cost-of-living adjustments for which the member is eligible (not subject to the COLA Cap) (see item 12). On the date when service benefits reach a level of 66⅔% of average final compensation or at age 70, if earlier, the disability converts to a service retirement benefit based on service and average final compensation at that time.

APPENDIX B – SUMMARY OF PROGRAM PROVISIONS

7. No-Age Disability Retirement Benefits

Eligibility: Disabled as defined in the Judicial Retirement Program statutes, employed on or after October 16, 1992 or employed prior to October 16, 1992 and elected the provisions of No-Age Disability, and either disabled in the line-of-duty or disabled with at least five years of creditable service.

Benefit: 59% of average final compensation, reduced by employment earnings over the specified statutory limit, and to the extent that the benefit, in combination with Workers' Compensation and Social Security, exceeds 80% of average final compensation. A member in service on November 30, 1984 may elect benefits applicable for retirement before December 1, 1984.

Form of Payment: Payment begins upon the termination of service and ceases on cessation of disability or after two years, unless the member is unable to engage in any substantially gainful activity, in which case payments cease on the date the service retirement benefit equals or exceeds the disability benefit.

Conversion to Service Retirement: During the period of disability, service is credited, and average final compensation is increased at the same rate as any cost-of-living adjustments for which the member is eligible (not subject to the COLA Cap) (see item 12). On the date when service benefits reach a level of 59% of average final compensation, the disability benefit converts to a service retirement benefit based on service and average final compensation at that time.

8. Pre-Retirement Ordinary Death Benefits

Eligibility: Death while active, inactive eligible to retire, or disabled not resulting from an injury received in the line-of-duty.

Benefit: Designated beneficiary, spouse, children, or parents entitled to benefit calculated as if the deceased member had retired under Option 2 (see item 13); however, the beneficiary may elect survivor benefits payable to a surviving spouse, dependent children, parent, or other designated beneficiaries in monthly amounts varying by the status of beneficiary and number of eligible survivors. Otherwise, accumulated contributions with interest are payable to the designated beneficiary, spouse, children, older parents, or estate.

Minimum Benefit: For a judge in service prior to December 1, 1984, one-half of the judge's retirement benefit determined on date of death, payable to the spouse and/or dependent children.

APPENDIX B – SUMMARY OF PROGRAM PROVISIONS

9. Pre-Retirement Accidental Death Benefits

Eligibility: Death while active or disabled resulting from an injury received in the line-of-duty.
Benefit:

- If the member leaves no dependent children, two-thirds of the member's average final compensation to the surviving spouse until death.

- If the member is survived by a spouse who has the care of dependent children of the member, the surviving spouse shall receive an annual sum equal to the member's average final compensation while having the care of dependent children. When there are no longer any dependent children, the surviving spouse shall receive two-thirds of the member's average final compensation until death.

- If the member is survived by a spouse who does not have the care of the member's dependent children, the surviving spouse and dependent children shall share equally an annual sum equal to the member's average final compensation. When there are no longer any dependent children, the surviving spouse shall receive two-thirds of the member's average final compensation until death.

- If the member leaves no spouse, the dependent children shall share an annual amount equal to the member's average final compensation. Benefits will cease when the last dependent child no longer meets the definition of "dependent child."

10. Termination Benefit

Eligibility: Termination of service other than by retirement or death with at least five years of creditable service.

Benefit: The member's choice of a refund of the accumulated contributions with interest or a retirement benefit using creditable service and average final compensation as of the date of termination, deferred to normal retirement age.

11. Refund of Contributions

Eligibility: Termination of service other than by retirement or death with less than five years of creditable service.

Benefit: Refund of member's accumulated contributions with interest.

APPENDIX B – SUMMARY OF PROGRAM PROVISIONS

12. Cost-of-Living Adjustments (COLA)

All service and disability retirement and survivor benefits are adjusted each year that there is a percentage change in the Consumer Price Index (CPI), based on the Index. If the percentage change is negative, then no adjustment is made in that year. In subsequent years, the adjustment that would have been made will be adjusted downward to the extent necessary to recoup the full actuarial value of not having made the previous year's negative adjustment. This process of adjustment may occur over a multi-year period if needed to recoup the full value of negative changes in the Index.

Cost-of-living adjustments (COLA) are effective September 1 of each year and are applied to that portion of the benefit that is not in excess of a COLA Base whose value grows annually with the same adjustment as the COLA (see values below) for all benefits that have been in payment for at least 12 months as of that date. The maximum annual increase, or COLA Cap, is three percent. Average final compensation used in determining disability benefits for disabled members is similarly adjusted for purposes of determining the recipient's service retirement benefit if and when the recipient moves to service retirement.

COLA Base History: (value as of September 1 of listed year when COLA effective):

2014 - $20,000.00
2015 - $20,420.00
2016 - $20,940.71
2017 - $21,474.70
2018 - $21,818.30
2019 – $22,451.03
2020 – $22,810.25
2021 – $22,947.11
2022 – $24,186.25*

* Special legislation was passed to pay an additional one percent COLA above the maximum COLA Cap of three percent. In addition, the COLA Base was increased by the full CPI change of 5.4%.

Members who did not have 10 years of service on July 1, 1993 will begin receiving the cost-of-living adjustments at the later of 12 months after their normal retirement age and the first September 1 following a minimum of 12 months of being in receipt of their benefit.

Minimum benefits are increased 6% per year from July 1985 through June 1989 and as described above thereafter.

APPENDIX B – SUMMARY OF PROGRAM PROVISIONS

13. Methods of Payment of Service Retirement Benefits

At retirement, a member who retires with a benefit must choose from the following methods of payment:

Full Benefit: Unadjusted benefit paid for the life of the member only.

Option 1: Cash refund equal to the remaining member contribution balance, if any, at the date of death (where the member contribution balance has been reduced each month by the portion of the monthly benefit deemed to be provided by member contributions).

Option 2: 100% joint and survivor annuity.

Option 3: 50% joint and survivor annuity.

Option 4: Joint and survivor annuity at any percentage other than those available under Option 2 and Option 3.

Option 5: Designated percentage of the benefit (not less than 51%) payable to the member, with the remaining percentage (the two to equal 100%) payable to a beneficiary (may only be a sole beneficiary) while both are alive. At the death of either, the higher of the two percentages is paid to the survivor for the survivor's life, and the lower-percentage benefit ceases to be paid.

Option 6: 100% joint and survivor annuity (Option 2) with pop-up*.

Option 7: 50% joint and survivor annuity (Option 3) with pop-up*.

Option 8: Option 4 with pop-up*.

* The "pop-up" feature attached to a given Option means that in the case of a beneficiary predeceasing the member, the member's benefit will be revised prospectively to the amount that the benefit would have been had the member selected Full Benefit payment upon retirement.

14. Program Changes since Prior Valuation

The Cost-of-Living Adjustment as of September 1, 2021 included an additional one percent in excess of the three percent maximum. In addition, the COLA Base for 2022 was increased by the full change in CPI of 5.4% instead of the maximum COLA Cap of three percent.

This Appendix B is intended to be a brief summary of provisions. In the event of a dispute, applicable statutes and administrative policy supersede this report description.

APPENDIX C – ACTUARIAL ASSUMPTIONS AND METHODS

A. Actuarial Assumptions

1. Annual Rate of Investment Return

Judicial	6.50%

Rate is net of both administrative and investment expense.

2. Cost-of-Living Adjustment (COLA) Assumed Rate

Judicial	2.20%

3. Annual Rate of Individual Salary Increase:

Judicial	2.75%

4. Sample Rates of Termination (% at Selected Ages)

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

Non-vested members are assumed to take a refund of contributions with interest. Once vested, the member is assumed to elect the greater of the deferred vested benefit or a refund of member contributions with interest based on present value at the time of termination.

APPENDIX C – ACTUARIAL 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 2022	
Age	Male	Female
50	31	25
55	47	35
60	71	48
65	103	69
70	159	112
75	269	200
80	485	370
85	894	703
90	1,556	1,314
95	2,428	2,146

Rates are based on 112.1% and 118.5% of the 2010 Public Plan General Benefits-Weighted Healthy Retiree Mortality Table, respectively, for males and females. The rates are projected generationally using the RPEC_2020 model, with an ultimate rate of 1.00% for ages 80 and under, grading down to 0.05% at age 95, and further grading down to 0.00% at age 115, along with convergence to the ultimate rates in the year 2027. All other parameters used in the RPEC_2020 model are those included in the published MP-2020 scale.

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

	Showing values in 2022	
Age	Male	Female
20	3	1
25	3	1
30	4	2
35	6	3
40	7	4
45	9	5
50	12	7
55	18	11
60	28	17
65	39	25

* 5% of deaths assumed to arise out of and in the course of employment.

APPENDIX C – ACTUARIAL ASSUMPTIONS AND METHODS

Rates are based on 83.5% and 88.6% of the 2010 Public Plan General Benefits-Weighted Employee Mortality Table, respectively, for males and females. These rates are generationally projected using the same version of the RPEC_2020 model as described in the healthy annuitant mortality.

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

	Showing values in 2022	
Age	Male	Female
25	36	21
30	54	37
35	73	57
40	90	76
45	113	99
50	161	143
55	219	184
60	278	213
65	330	222
70	389	262

Rates are based on 107.3% and 103.2% of the 2010 Public Plan Non-Safety Benefits-Weighted Disabled Retiree Mortality Table, respectively, for males and females. These rates are generationally projected using the same version of the RPEC_2020 model described in the healthy annuitant mortality.

APPENDIX C – ACTUARIAL ASSUMPTIONS AND METHODS

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

Age	NRA 60	NRA 62	NRA 65
60-61	1,000	NA	NA
62	1,000	200	NA
63	1,000	275	NA
64	1,000	350	NA
65	1,000	425	400
66	1,000	500	500
67	1,000	450	450
68	1,000	400	400
69	1,000	350	350
70	1,000	300	300
71-75	1,000	250	250
76-79	1,000	500	500
80+	1,000	1,000	1,000

In the case of Judicial employees, NRA 60 refers to those who had accrued at least 10 years of service by July 1, 1993. NRA 62 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. NRA 65 refers to those who did not have five years of service by July 1, 2011.

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

No disability incidents are assumed.

10. Family Composition Assumptions

80% of active members are assumed to be married and have two children born when the member is 24 and 28; children are assumed dependent until age 18; a female spouse is assumed to be three years younger than a male spouse; member is assumed to have no dependent parents; unmarried members are assumed to have beneficiaries entitled to benefits worth 80% as much as those of married members' beneficiaries.

APPENDIX C – ACTUARIAL ASSUMPTIONS AND METHODS

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.

Member Contribution Interest Rate: Reflect actual historical member contribution interest rates from 1970 through the valuation; future contribution interest assumed to equal the inflation assumption of 2.75%.

COLA Timing: September 1.

12. Rationale for Assumptions

The demographic assumptions were adopted by the Board of Trustees at their March 11, 2021 meeting. The discount rate was adopted by the Board of Trustees at their August 12, 2021 meeting. The demographic assumptions adopted are based on an experience study covering the period from July 1, 2015 through June 30, 2020, and the economic assumptions are based on this experience study along with advice of the MainePERS investment consultants.

13. Changes since Last Valuation

None.

14. Rationale for Change in Actuarial Assumptions

N/A

15. Disclosure of Models Used

ProVal: Cheiron utilizes ProVal, an actuarial valuation software leased from Winklevoss Technologies (WinTech) to calculate the liabilities, normal costs, and projected benefit payments. We have relied on WinTech as the developer of ProVal. We have reviewed ProVal and have a basic understanding of it and have used ProVal in accordance with its original intended purpose. We have not identified any material inconsistencies in assumptions or output of ProVal that would affect this actuarial valuation.

Mortality Improvement Model: Cheiron utilized the RPEC_2014_v2020 Model Implementation Tool for the purposes of developing the customized version of MP-2020 used in this report. This tool is updated and published annually by the Society of Actuaries and their Retirement Plans Experience Committee and allows actuaries to develop customized versions of mortality improvement scales based on the parameters and data

APPENDIX C – ACTUARIAL ASSUMPTIONS AND METHODS

underlying the published MP-2020 scale but allowing practitioners to vary parameters from those used in the published MP-2020 scale.

We have reviewed this model and believe it is appropriate to our intended use in developing a customized mortality improvement scale for the Programs. Further, we are aware of no material inconsistencies that would limit our ability to use this model for its intended purpose.

APPENDIX C – ACTUARIAL ASSUMPTIONS AND METHODS

B. Actuarial Methods

1. Cost Method

The entry age normal actuarial cost method is used to determine costs. Under this cost method, the total employer contribution rate consists of two elements: the employer normal cost rate and the unfunded actuarial liability (UAL) rate.

Under this method, the actuarial present value of the projected benefits of each active included in the valuation is allocated on a level basis over the earnings of the individual between entry age and assumed exit age(s). The portion of this actuarial present value allocated to the year beginning on the valuation date is called the normal cost. For each active, the normal cost is determined by taking the value, as of entry age into the Program, of the member's projected benefits, reduced by the value of future member contributions, and then dividing it by the value, also as of the member's entry age, of the member's expected future salary. This rate is then multiplied by the member's salary at the valuation date to produce the normal cost for each member, which are then aggregated across all members to get the total normal cost for the Program. This total normal cost is then divided by the total salary for the Program at the valuation date to get the normal cost rate for the Program.

The portion of the actuarial present value not provided for at the valuation date by the actuarial present value of the future normal costs is called the actuarial liability. The unfunded actuarial liability is defined as the total actuarial liability at the valuation date less the actuarial value of the Program's assets at the valuation date. Contributions are made to fund this unfunded actuarial liability (UAL). The UAL amortization rate for this Program is developed by amortizing the unfunded liability over an open 10-year period, assuming these amortization payments increase over the previous year at a rate of 2.75% per year. The resulting amortization for the year beginning on the valuation date is then divided by the total payroll for the Program to develop the UAL amortization rate. Amortization payments are assumed to be made in each pay period. All assumption changes and gain/losses are included in the UAL amortization except for Program changes that are fully funded at the time of implementation.

The total rate for the Program is produced by adding the normal cost rate and the UAL amortization rate, subject to the requirement that the total rate cannot be less than 0%.

By using an open amortization period, this cost method results in the expectation that any unfunded liability in the Program as of a valuation date will never be fully reduced to zero if all of the valuation assumptions are exactly met.

APPENDIX C – ACTUARIAL ASSUMPTIONS AND METHODS

2. Asset Valuation Method

For purposes of determining the State contributions to the Program and the Program's funded ratio, we use an actuarial value of assets. The asset adjustment method dampens the volatility in asset values that could occur because of fluctuations in market conditions. Use of an asset smoothing method is consistent with the long-term nature of the actuarial valuation process.

In determining the actuarial value of assets, we calculate an expected actuarial value based on the cash flows for the year and imputed returns at the actuarial assumption. This expected value is compared to the actual market value at the valuation date and one-third of the difference is added to the preliminary actuarial value to arrive at the final actuarial value.

3. Changes since Last Valuation

None.

4. Rationale for Change

N/A

APPENDIX D – GLOSSARY OF GASB 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. **Deferred Inflow of Resources**

   An acquisition of net assets by a government employer that is applicable to a future reporting period. In the context of GASB 68, these are experience gains on the Total Pension Liability, assumption changes reducing the Total Pension Liability, or investment gains that are recognized in future reporting periods.

4. **Deferred Outflow of Resources**

   A consumption of net assets by a government employer that is applicable to a future reporting period. In the context of GASB 68, these are experience losses on the Total Pension Liability, assumption changes increasing the Total Pension Liability, or investment losses that are recognized in future reporting periods.

5. **Entry Age Actuarial Cost Method**

   The actuarial cost method required for GASB Nos. 67 and 68 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 Pension Liability.

6. **Measurement Date**

   The date as of which the Total Pension Liability and Program Fiduciary Net Position are measured. The Total Pension 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 Program.

APPENDIX D – GLOSSARY OF GASB TERMS

7. Net Pension Liability

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

8. Program Fiduciary Net Position

The fair or market value of assets.

9. Reporting Date

The last day of the Program or employer's fiscal year.

10. 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 Nos. 67 and 68. The Service Cost is the normal cost calculated under the entry age actuarial cost method.

11. Total Pension 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 Nos. 67 and 68. The Total Pension Liability is the actuarial liability calculated under the entry age actuarial cost method.

Classic Values, Innovative Advice

Celebrating 20 years

Maine Public Employees Retirement System

Consolidated Plan for Participating Local Districts

Actuarial Valuation Report as of June 30, 2022

Produced by Cheiron
October 2022

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October 13, 2022

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

Dear Members of the Board:

We are pleased to submit the June 30, 2022 Actuarial Valuation Report for the Consolidated Plan for Participating Local Districts (Plan) of the Maine Public Employees Retirement System (MainePERS or System).

The purpose of this report is to present the annual actuarial valuation of the Participating Local Districts (Plan) of the Maine Public Employees Retirement System. This report is for the sole use of the MainePERS Board and its auditors in preparing financial reports in accordance with applicable law and accounting requirements. This report contains information on assets, liabilities, and contributions of the Plan, as well as required accounting statement disclosures under the Governmental Accounting Standards Board (GASB) Statement No. 67.

In preparing our report, we relied on information, some oral and some written, supplied by the System's staff. 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 results may differ significantly from the current results presented in this report due to such factors as the following: Plan experience differing from that anticipated by the assumptions, changes in assumptions, and changes in Plan provisions or applicable law.

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 actuarial report was prepared exclusively for MainePERS 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.

This report does not contain any adjustments for potential impact of COVID-19 on either economic or demographic assumptions. We anticipate that the pandemic may have implications in both the short and long term, but the net impact of these is not determinable at this time.

Sincerely,
Cheiron

Gene Kalwarski, FSA, EA	Fiona E. Liston, FSA, EA	Elizabeth Wiley, FSA, EA
Principal Consulting Actuary	Principal Consulting Actuary	Consulting Actuary

FOREWORD

Cheiron has completed the Actuarial Valuation Report for the Consolidated Plan for Participating Local Districts (Plan) of the Maine Public Employees Retirement System (MainePERS or System) as of June 30, 2022. The purpose of this report is to:

1) Measure and disclose, as of the valuation date, the financial condition of the Plan,
2) Examine trends, both historical and prospective, in the condition of the Plan,
3) Assess and disclose actuarial risks of the Plan,
4) Report on the contribution rates developed in this valuation for informational purposes for the Participating Local Districts (PLDs) and members for fiscal year (FY) 2024 in aggregate (Note: the actual contributions to be paid by PLDs and members specific to each Regular and Special Plan within the Plan for FY 2024 will be developed consistent with the ratemaking policy of the MainePERS Board of Trustees and provided under separate cover), and
5) Provide specific information required for MainePERS's financial disclosures.

An actuarial valuation establishes and analyzes assets and liabilities on a consistent basis and tracks the progress of both from one year to the next. It includes measurement of investment performance as well as an analysis of actuarial liability gains and losses.

Section I presents a summary containing our key findings, disclosing important Plan trends in recent years, and providing analysis relating to the future status of the Plan.

Section II assesses and discloses various actuarial risk measures of the Plan.

Section III contains details on various asset measures, together with pertinent performance measurements.

Section IV shows similar information on liability measures for various purposes, including analysis of key changes in the measures.

Section V develops informational PLD and member contribution rates for the Plan in aggregate for FY 2024. (The actual rates paid for each specific Regular and Special Plan within the Plan are developed consistent with the risk-sharing framework of the MainePERS Board of Trustees and provided under separate cover.)

Section VI includes financial disclosure information.

Finally, we present appendices containing the following summaries:

- Plan elections that have been made by the participating local districts (PLDs) at the valuation date (Appendix A),
- Plan membership information at the valuation date (Appendix B),
- Major benefit provisions of the Plan and the various Regular and Special Plans included in the Plan (Appendix C),
- Actuarial assumptions and methods used in the current valuation (Appendix D), and
- Terminology used in the Governmental Accounting Standards Board (GASB) disclosures (Appendix E).

General Comments

Most of the participating local districts in the State of Maine participate in this Consolidated Plan for the Participating Local Districts (Plan). The Plan offers a number of Plan options from which each Participating Local District (PLD) can choose, with each option having its own specific contribution rates to be paid by both the member and their associated PLD. Both the member contributions and the PLD contributions are paid as distinct rates that are set by the risk-sharing framework adopted by the MainePERS Board of Trustees and are applicable to payroll. Prior to the 2018 valuation, the member rates were static and set by the Board, while the PLD rates were established using the previous corridor method.

The results of this June 30, 2022 valuation will be used to develop the specific rates for both PLDs and members of each Regular and Special Plan within the Plan for FY 2024. This report develops the Actuarially Determined Plan Total Rate and the Plan-Specific Normal Cost Rates that are the basis of this process to develop the specific rates. The results of this June 30, 2022 valuation will also be used for accounting disclosures.

Experience from July 1, 2021 through June 30, 2022 (FY 2022)

With respect to investment experience, measured on a market value of asset (MVA) basis, MainePERS experienced an investment return of negative 0.62% for the fiscal year ending June 30, 2022. However, given the three-year asset smoothing method in place, only one-third of that loss is recognized in this valuation on an actuarial value of assets (AVA) basis. Furthermore, asset smoothing also resulted in recognizing one-third of prior deferred assets gains of \$0.36 billion during FY 2022 for this Plan. As a result, the investment return measured on a smoothed, actuarial valuation of assets basis was 7.70%. This is greater than the 6.50% assumed rate of return in effect for FY 2022, resulting in a gain on investments for the year of \$40.0 million in addition to the expected increase of \$168.1 million had the assumed 6.50% been exactly achieved on an AVA basis.

With respect to liability experience, the Plan's liabilities grew by \$83.7 million more than the expected growth of \$140.9 million (a 2.3% growth in total liabilities beyond expected growth). Of this increase, approximately \$25.8 million was attributable to the payment of cost-of-living adjustments (COLA) exceeding the assumed COLA, with the \$57.9 million balance of the liability loss primarily attributable to salaries being greater than expected.

Combining the investment and liability experience, the Actuarially Determined Plan Total Rate produced by the June 30, 2021 valuation reflecting all Plans within the Consolidated Plan for Participating Local Districts was 18.7%. The equivalent rate produced in this June 30, 2022 valuation is 18.7%. The Plan-Specific rates for each PLD and members of each Regular and Special Plan within the Plan for each fiscal year are developed annually in letters provided under separate cover. The rates for the year ending on the current valuation date, FY 2022, were developed in a letter dated November 30, 2020 and the rates for the upcoming year, FY 2023, were developed in a letter dated December 13, 2021. The Plan-Specific Rates for both the PLD and members for each Regular and Special Plan within the Plan for FY 2024 based on this June 30, 2022 valuation will be provided under similar separate cover.

Note that this Total Rate differs from that tracked for the other MainePERS Programs as it reflects contributions from both members and the employers, the PLDs in the case of this Plan. In the other Programs, the employer-only portion of the contribution is reported in the equivalent experience sections. The reason for this difference is that in this Plan, the contributions from members change with experience similar to the contributions from employers, so it makes sense to track the progress of the Total Rate.

Finally, as of the June 30, 2022 valuation, the Plan has an unfunded actuarial liability (UAL) of $346.8 million based on the actuarial value of assets (AVA). This represents an increase of $16.5 million from the $330.3 million AVA UAL measured as of June 30, 2021. This compares to an expected decrease in the UAL of $27.2 million. The specific factors contributing to this change are presented in Table I-1 that follows. This table has separate columns showing the components of the changes in liabilities and investments during FY 2022 as well as their combined effect on the UAL.

Table I-1
(Amounts in Millions)

	Liabilities	Assets*	UAL
Value as of June 30, 2021	$3,719.0	$ 3,388.7	$330.3
Expected Change	140.9	168.1	(27.2)
Impact of Plan Changes	16.2	0.0	16.2
Impact of Assumption Changes	0.0	0.0	0.0
Recognized Investment Gain	0.0	40.0	(40.0)
Recognized Liability Loss	67.5	0.0	67.5
Value as of June 30, 2022	$3,943.6	$ 3,596.8	$346.8

* This table uses actuarial value of assets. Results would be different if the market value were used.

The remainder of this Board Summary section summarizes the Plan's historical trends, provides baseline projections of the Plan's future status, and summarizes the principal results of the valuation. These principal results compare key results between this and last years' valuations for member counts, assets and liabilities, and total contribution rates.

Trends

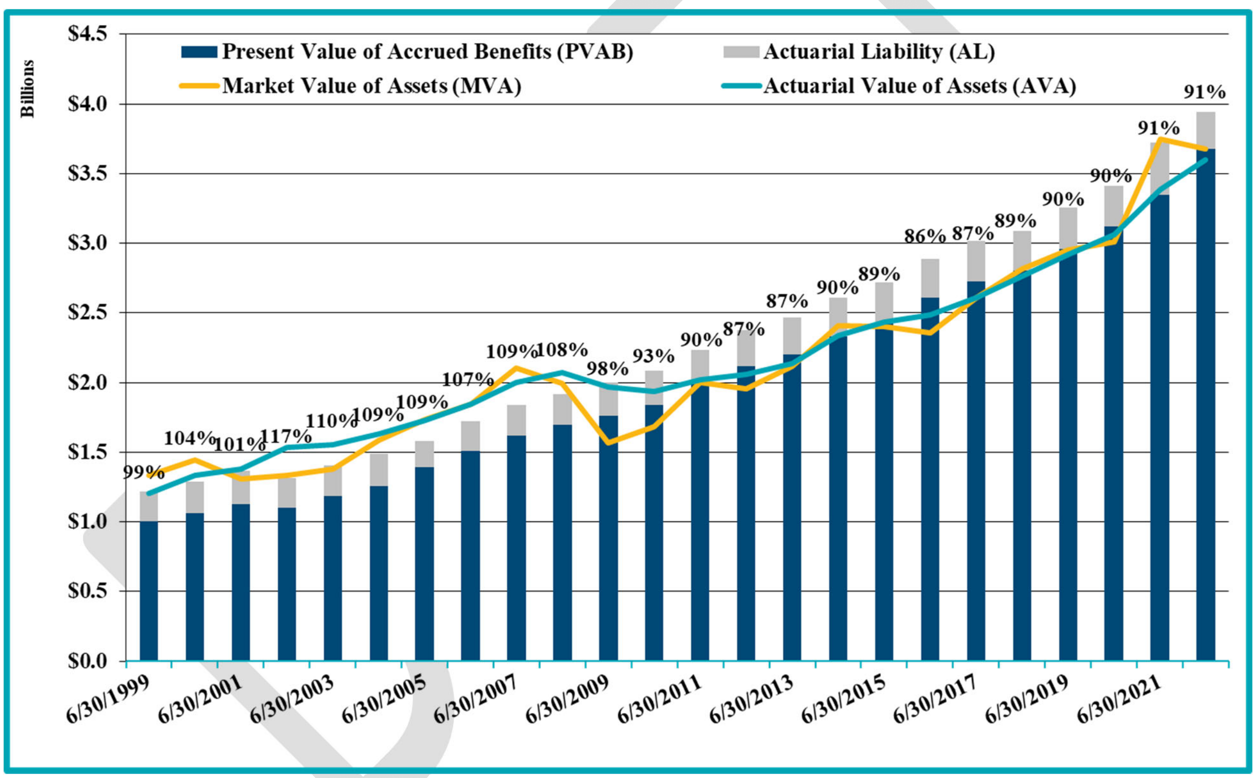
It is important to take a step back from the latest results and view them in the context of the Plan's history. On the next few pages, we present a series of graphs that display key historical trends relating to the Plan's condition. In addition to considering the past, examining future possible trajectories of the Plan is also vital to understanding the current results. Baseline projections are provided in this Board Summary, and the potential variability of these results is explored further in the risk section of this report.

SECTION I – BOARD SUMMARY

Assets and Liabilities

The following graph illustrates the progress of assets and liabilities for the Plan as well as the Plan's funded ratio since June 30, 1999 on an actuarial value of assets (AVA) basis.

Liability measures are shown as bars as of June 30 of the indicated years. The actuarial liability (AL), the liability measure used for the Plan's funding purposes, is represented by the top of the grey bars. The blue bars represent the present value of accrued benefits (PVAB). These liability measures are discussed further in Section IV. Measures of the assets are shown as lines. The AVA is shown with a teal line, while the market value of assets (MVA) is shown as a yellow line. The AVA divided by the AL is the AVA funded ratio that is often used in evaluating the Plan's funded status. The values of this metric as of each valuation date are shown as the percentages in the graph labels.

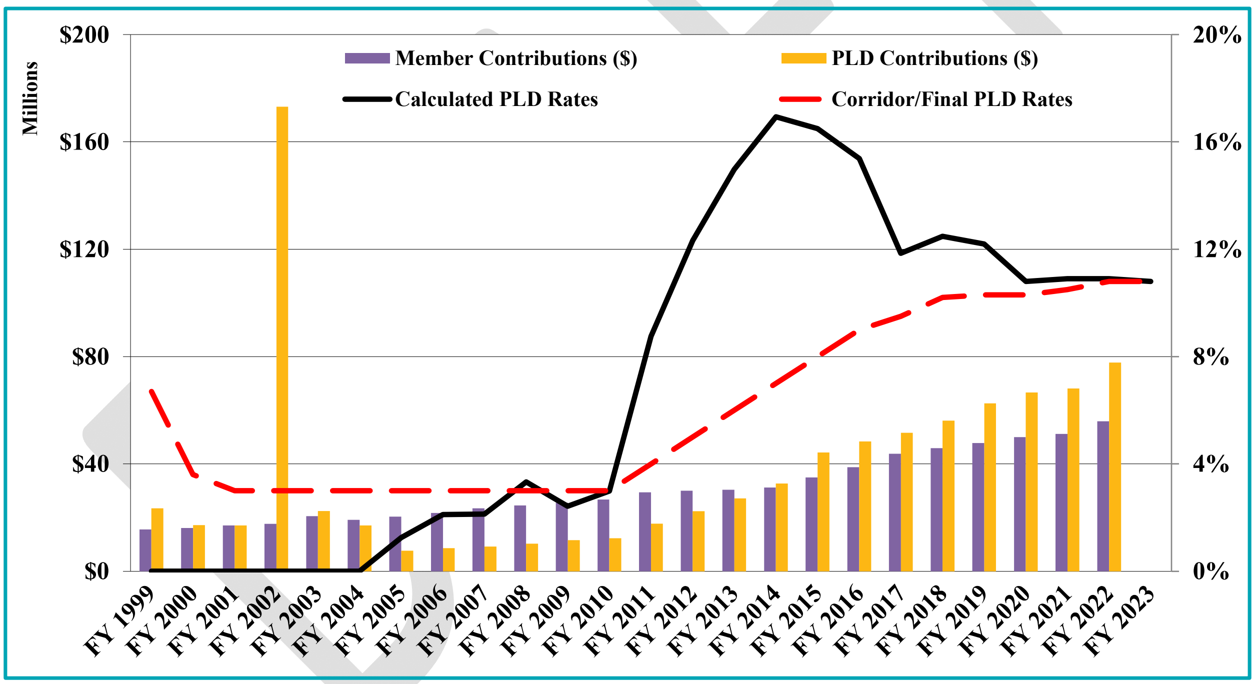


This graph shows that the Plan had its highest AVA funded ratio (117%) over the period shown as of June 30, 2002, which was just after several PLDs paid off their Initial Unpooled Unfunded Actuarial Liabilities (IUUALs). After that, the funded ratio was relatively stable around 107-110% until the financial market events of 2008-2009 resulted in the ratio dropping below 100%. Following that drop, the ratio stabilized again beginning June 30, 2011 and has stayed in the range of 86-91% since that time. Measured on an MVA basis, the funded ratio is 93.3%, a significant decrease over last year's 100.9% MVA funded ratio.

SECTION I – BOARD SUMMARY

Contributions

The next graph shows the history of contributions to the Plan, both as dollar amounts and as percentages of payroll. The bars in this graph show the contributions made by both the PLDs and the members in dollar terms for each fiscal year (FY) as indicated by the horizontal axis since 1999. These bars are read using the left-hand axis. Through FY 2019, the black line shows the actuarially calculated total pooled PLD contribution rate as a percentage of payroll for the fiscal year indicated. Beginning with FY 2020, the amount shown by the black line is the Actuarially Determined Plan PLD Rate under the risk-sharing framework. Similarly, the red dotted line in this graph shows the aggregate corridor contribution rate actually in effect for each year through FY 2019 and then shows the Aggregate Final PLD Rate, which reflects all adjustments from the risk-sharing framework, beginning with FY 2020. For both of these rates, which are read using the right-hand axis, we are showing the rates through FY 2023, the latest year for which the Aggregate Final PLD rate, which corresponds with the rates that will actually be paid, has been developed. Note that both the red and black lines represent the rates that apply to the PLDs and do not include the member rate.



The significant increase in the total calculated rate from FY 2010 to FY 2014 was due primarily to investment losses sustained in the 2008-09 market events. The increases in the aggregate corridor rate during this period combined with benefit changes made progress to close the gap between these two rates through FY 2019, the last year that the method used to determine the actual contributions paid by the PLDs was the corridor method. Beginning with FY 2020, the calculated rate has been determined with the risk-sharing framework. Initially, this calculated rate, the Actuarially Determined Plan PLD Rate shown by the black line, was slightly above the actual final rates being paid, the Aggregate Final PLD Rate shown as the red line, as the risk-sharing framework was phased in, but beginning with the Final Rates developed based on the June 30, 2021 valuation, these two rates have converged. Note, however, that while the total rates have converged, the allocation of the rate between PLDs and members is still being phased in, but we anticipate these will also converge as the risk-sharing framework is fully phased in.

The majority of the actual PLD contribution dollars shown are based on the rates determined by the funding methodology in effect for the period, but some PLDs also pay an additional IUUAL contribution to amortize the liability specific to their members as well as contributions related to purchases of service by members. Note that the large dollar amount contributed in FY 2002 by the PLDs in the previous graph was due to several PLDs paying off their IUUAL amounts as IUUAL contributions are included in the PLD contributions shown in the yellow bars.

Through FY 2019, the member contribution rates were fixed values, ranging from 4.5% to 9.5%, as set by statute and the Board, specific to the Regular or Special Plan in which each member participates. Beginning with FY 2020, the member contribution rates are determined under the risk-sharing framework adopted by the Board as described in the General Comments section of this Board Summary. The Aggregate Final PLD Member Rate in effect for FY 2023 is 7.8%.

Note that in addition to the member contribution rates varying by the specific Plan each member is in, for those participating in Regular Plans, members with an Age 65 normal retirement age (NRA) contribute at a lower rate than those in the NRA 60 plans. See the description of these items in Section V for additional information. The specific rates by Plan for FY 2023, the most recent year currently developed, range from a low of 3.35% for the Age 65 Plan Member Rate under Plan BC to a high of 9.7% for all members in both Plans 1C and 3C.

Baseline Projections

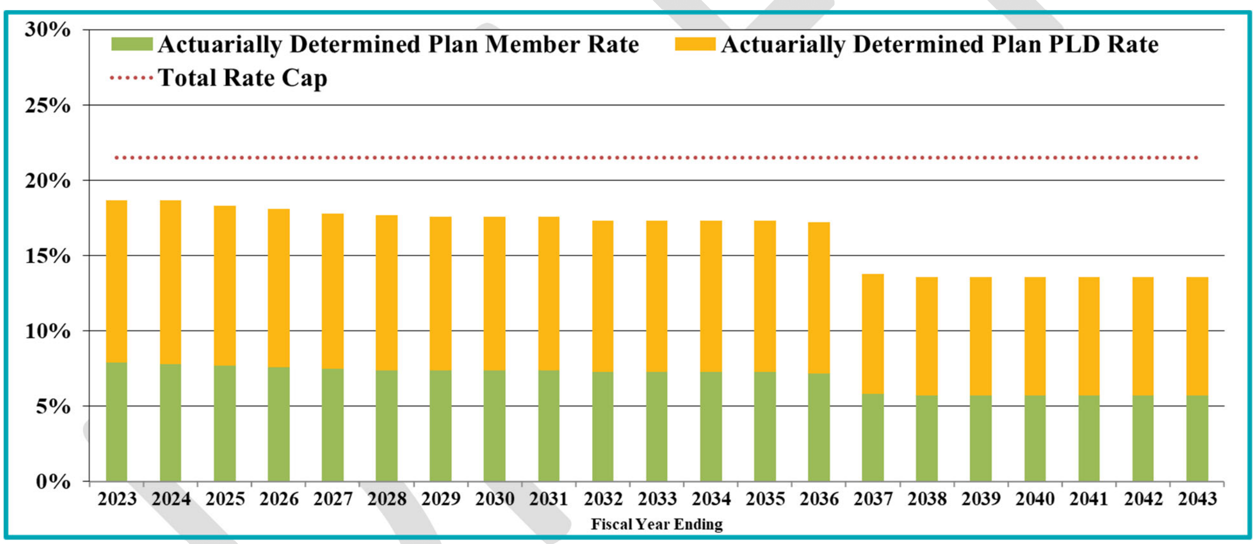
Our analysis of the projected financial trends for the Plan is an important part of this valuation. In this section, we project future valuation results, focusing on the previously referenced AVA funded ratio (AVA over AL), the expected Actuarially Determined Plan PLD Rate, and the expected Actuarially Determined Plan Member Rate. Here we present a baseline projection of these metrics based on all actuarial assumptions being exactly met during the projection period, including the assumed 6.50% investment return being achieved each year. In the risk section of the report, we demonstrate the sensitivity of future valuation results to deviations in actual returns from the assumed investment returns by presenting similar projections based on investment returns averaging similar to the assumed returns but deviating from the assumed rate in the individual years of the 20-year projection period.

Note that in these projections, we have assumed that the PLD and member contributions received by the Plan are the actuarially determined amounts developed as of the valuation date one year prior to the beginning of each fiscal year rather than the Plan-Specific contributions developed under the risk-sharing framework. If the actual contributions received are different from this assumption, the results will vary. However, as the risk-sharing framework has been largely phased in at this point, with the actuarially determined and final aggregate rates having fully

SECTION I – BOARD SUMMARY

converged and the only differences between the actual and calculated contributions being in the allocations between the PLDs and the members, no significant variation is anticipated as a result of this assumption.

In addition, in these baseline projections, as well as the varying return projection scenarios in the next section, we have assumed that the Aggregate Final Total Rate is subject to a minimum equal to 100% of the total normal cost at that time, allocated 58% to the PLDs and 42% to the members. For example, based on the 14.2% total normal cost produced in this June 30, 2022 valuation, this currently results in a minimum contribution of 8.2% for the PLDs and 6.0% for the members. In developing these projections, we have also reflected the anticipated decline in the total normal cost over time as members under the newer tier, which has a lower normal cost, replace current members in the older tier. Actual minimums under the risk-sharing framework have not yet been adopted by the Board, but it is our understanding that the Board's intent is to have a minimum similar to this. If the actual rules differ at such time that the otherwise determined contributions would go below this assumed minimum contribution level, the resulting projections would vary.



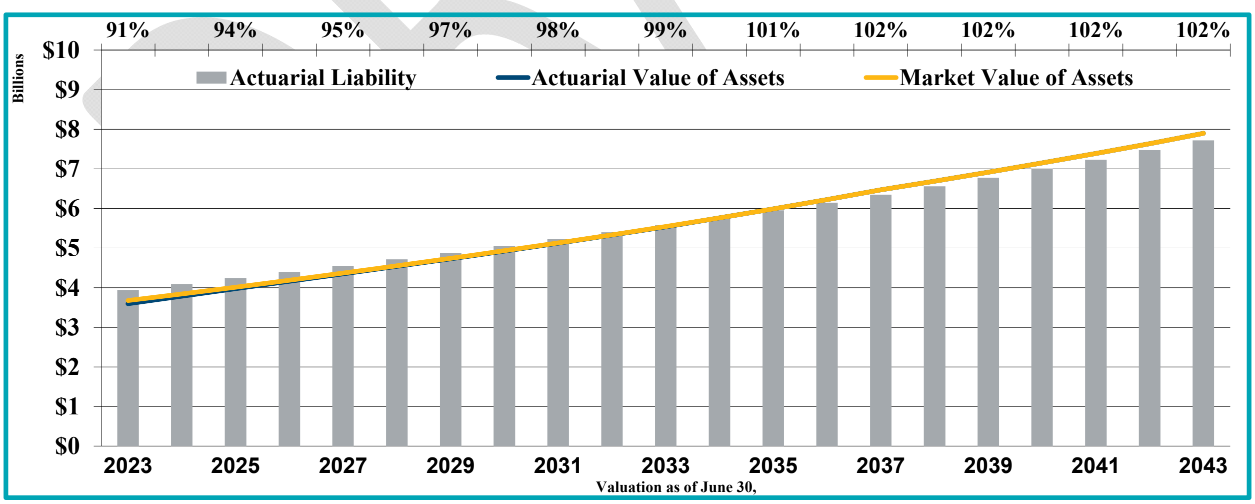
The graph above shows the expected progress of the Actuarially Determined Plan Member Rate and Actuarially Determined Plan PLD Rate over the next 20 years assuming that the Plan's assets earn 6.50% on their *market value* as well as all other current assumptions being exactly met in each year of the 20-year projection period. In addition, these projected contribution rates also reflect any prior years' actual investment gains or losses that have not been fully recognized in this valuation. The green bars represent the Actuarially Determined Plan Member Rate, while the yellow bars represent the Actuarially Determined Plan PLD Rate. The combined bars thus represent the Actuarially Determined Plan Total Rate. Note that these rates represent the rates expected to be calculated for the Plan, as a whole, as opposed to the Plan-Specific rates developed under the risk-sharing framework. However, as previously noted, these rates have now converged when considered in total with only the allocation between the members and PLDs continuing to be phased in.

SECTION I – BOARD SUMMARY

Assuming all assumptions are exactly met, it is projected that the contributions will generally decline through FY 2036 when the existing UAL will be paid off and then generally hover around the Plan's total normal cost rate. However, in reality, there will be gains and losses each and every year versus expectations, resulting in new amortization layers (negative or positive) occurring every year as well as possible additional layers reflecting changes such as assumption or benefit changes. This concept is explored further in the risk section of this report.

This graph also includes a dashed red line showing the 21.5% Total Rate Cap for the Program, which is composed of a 12% PLD Contribution Rate Cap and a 9.5% Member Contribution Rate Cap. In this baseline projection, this Total Rate Cap is not hit in any of the years of the projection. In years that the contributions are limited by these caps, temporary reductions in the COLA are implemented under the provisions of this Plan to make up the difference in the actuarially determined contributions and the actual contributions limited by these caps. Since the Total Rate Cap is not hit in any of the years of this baseline projection, no temporary COLA reductions are required and thus the percentage of the COLA to be paid each year of the projection is 100%.

The graph below shows the projected AVA funded ratio (AVA divided by AL) over the next 20 years in this baseline scenario. It shows that the Plan's AVA funded ratio is projected to improve from the starting level of 91% as of FY 2023 to 102% funding in FY 2043. The amounts shown are as of June 30 of the year identified in the horizontal axis. The Plan's funding exceeds 100% due to the lag in the development of contributions and when they are paid as well as the assumed minimum contributions to the Plan. Note that if these ratios used market value of assets (MVA), the funded ratios would be different.



Principal Results Summary

The last section of this Board Summary presents a summary of the principal results of the valuation, comparing key results between this and last years' valuations for member counts, assets and liabilities, and contribution rates. These summary results are shown for the total Consolidated Plan as well as the division into the Regular Plans subgroup and the Special Plans subgroup.

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Table I-2
Summary of Principal Results
PLD Consolidated Retirement Plan
Total

	Valuation as of June 30, 2021	Valuation as of June 30, 2022	% Change
Member Counts			
Active Members	11,704	12,362	5.6%
Retired Members	7,434	7,711	3.7%
Beneficiaries of Retired Members	2,096	2,113	0.8%
Survivors of Deceased Members	162	178	9.9%
Disabled Members	401	398	(0.7%)
Terminated Vested Members	2,563	2,724	6.3%
Inactives Due Refunds	9,479	10,080	6.3%
Total Membership	33,839	35,566	5.1%
Annual Payroll of Active Members	$ 663,770,560	$ 738,066,809	11.2%
Annual Payments to Benefit Recipients	$ 177,787,099	$ 189,527,729	6.6%
Assets and Liabilities			
Actuarial Liability (AL)	$ 3,719,016,414	$ 3,943,572,890	6.0%
Actuarial Value of Assets (AVA)	3,388,697,748	3,596,808,593	6.1%
Unfunded Actuarial Liability (UAL)	$ 330,318,666	$ 346,764,297	5.0%
Individual Portion (IUUAL)	NA	NA	
Pooled Portion (PUAL)	$ 330,318,666	$ 346,764,297	5.0%
AVA Funded Ratio (AVA/AL)	91.1%	91.2%	
MVA Funded Ratio (MVA/AL)	100.9%	93.3%	
Accrued Benefit Liability (PVAB)	$ 3,347,379,580	$ 3,674,431,892	9.8%
Market Value of Assets (MVA)	3,751,152,623	3,677,737,551	(2.0%)
Unfunded PVAB	$ (403,773,043)	$ (3,305,659)	99.2%
MVA Accrued Benefit Funded Ratio	112.1%	100.1%	
Plan Total Contribution Rates*	**FY 2023**	**FY 2024**	
Actuarially Determined Plan Normal Cost Rate	14.1%	14.2%	
Actuarially Determined Plan UAL Amortization Rate	4.6%	4.5%	
Actuarially Determined Plan Total Rate	18.7%	18.7%	

* These are actuarially determined amounts from which the Plan-Specific member and PLD rates are determined based on the risk-sharing framework. As such, these values are informational rates developed based on the entire Plan rather than applied to any specific Plan.

SECTION I – BOARD SUMMARY

Table I-3
Summary of Principal Results
PLD Consolidated Retirement Plan
Regular Plans: AC, AN & BC

	Valuation as of June 30, 2021	Valuation as of June 30, 2022	% Change
Member Counts			
Active Members	8,392	8,799	4.8%
Retired Members	5,827	6,062	4.0%
Beneficiaries of Retired Members	1,420	1,441	1.5%
Survivors of Deceased Members	141	157	11.3%
Disabled Members	292	288	(1.4%)
Terminated Vested Members	2,200	2,296	4.4%
Inactives Due Refunds	8,904	9,383	5.4%
Total Membership	27,176	28,426	4.6%
Annual Payroll of Active Members	$ 434,898,072	$ 483,624,129	11.2%
Annual Payments to Benefit Recipients	$ 109,631,991	$ 117,118,144	6.8%
Assets and Liabilities			
Actuarial Liability (AL)	$ 2,159,391,347	$ 2,289,737,706	6.0%
Actuarial Value of Assets (AVA)	1,959,246,027	2,080,497,529	6.2%
Unfunded Actuarial Liability (UAL)	$ 200,145,320	$ 209,240,177	4.5%
Individual Portion (IUUAL)	NA	NA	
Pooled Portion (PUAL)	$ 200,145,320	$ 209,240,177	4.5%
AVA Funded Ratio (AVA/AL)	90.7%	90.9%	
MVA Funded Ratio (MVA/AL)	100.4%	92.9%	
Accrued Benefit Liability (PVAB)	$ 1,962,483,864	$ 2,082,210,795	6.1%
Market Value of Assets (MVA)	2,168,806,846	2,127,309,167	(1.9%)
Unfunded PVAB	$ (206,322,982)	$ (45,098,372)	78.1%
MVA Accrued Benefit Funded Ratio	110.5%	102.2%	
Regular Plan Total Contribution Rates*	**FY 2023**	**FY 2024**	
Actuarially Determined Regular Plans Normal Cost Rate	13.1%	13.1%	
Actuarially Determined Regular Plans UAL Amortization Rate	4.3%	4.2%	
Actuarially Determined Regular Plans Total Rate	17.4%	17.3%	

* These are actuarially determined amounts that are solely for informational purposes. They are developed based on all the Regular Plans in the Plan rather than applied to any specific Plan.

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Table I-4
Summary of Principal Results
PLD Consolidated Retirement Plan
Special Plans: 1C-4C & 1N-4N

	Valuation as of June 30, 2021	Valuation as of June 30, 2022	% Change
Member Counts			
Active Members	3,312	3,563	7.6%
Retired Members	1,607	1,649	2.6%
Beneficiaries of Retired Members	676	672	(0.6%)
Survivors of Deceased Members	21	21	0.0%
Disabled Members	109	110	0.9%
Terminated Vested Members	363	428	17.9%
Inactives Due Refunds	575	697	21.2%
Total Membership	6,663	7,140	7.2%
Annual Payroll of Active Members	$ 228,872,488	$ 254,442,680	11.2%
Annual Payments to Benefit Recipients	$ 68,155,108	$ 72,409,585	6.2%
Assets and Liabilities			
Actuarial Liability (AL)	$ 1,559,625,067	$ 1,653,835,184	6.0%
Actuarial Value of Assets (AVA)	1,429,451,721	1,516,311,064	6.1%
Unfunded Actuarial Liability (UAL)	$ 130,173,346	$ 137,524,120	5.6%
Individual Portion (IUUAL)	NA	NA	
Pooled Portion (PUAL)	$ 130,173,346	$ 137,524,120	5.6%
AVA Funded Ratio (AVA/AL)	91.7%	91.7%	
MVA Funded Ratio (MVA/AL)	101.5%	93.7%	
Accrued Benefit Liability (PVAB)	$ 1,384,895,716	$ 1,592,221,097	15.0%
MVA Market Value of Assets (MVA)	1,582,345,777	1,550,428,384	(2.0%)
Unfunded PVAB	$ (197,450,061)	$ 41,792,713	N/A
Accrued Benefit Funded Ratio	114.3%	97.4%	
Special Plan Total Contribution Rates*	**FY 2023**	**FY 2024**	
Actuarially Determined Special Plans Normal Cost Rate	16.1%	16.3%	
Actuarially Determined Special Plans UAL Amortization Rate	5.2%	5.1%	
Actuarially Determined Special Plans Total Rate	21.3%	21.4%	

* These are actuarially determined amounts that are solely for informational purposes. They are developed based on all the Special Plans in the Plan rather than applied to any specific Plan.

SECTION II – RISK ASSESSMENT AND DISCLOSURE

Introduction

The Plan's actuarial valuation results are dependent on assumptions about future economic and demographic experience. Based on actuarial standards of practice, these assumptions represent a reasonable estimate for future experience. However, actual future experience will never conform exactly to these assumptions and may differ significantly from the assumptions. This deviation is a risk that pension plan sponsors bear in relying on a pension plan's actuarial valuation results.

This section of this report is intended to identify the primary drivers of these risks, provide background information and assessments about these identified risks, and communicate the significance of these risks to this Plan.

Identification of Risks

For this Plan, the three primary valuation results that can significantly differ from those expected are the assets, the liabilities, and the annually determined PLD and member contributions. While there are several factors that could lead to these results being different, we believe the primary risks for this Plan are:

- Investment risk,
- Longevity and other demographic risks,
- Plan change risk, and
- Assumption change risk

Other risks that we have not identified may also turn out to be significant.

SECTION II – RISK ASSESSMENT AND DISCLOSURE

Investment Risk is the potential for investment returns to deviate from what is expected. When actual investment returns are lower than the investment assumption used in the actuarial valuation, the unfunded liability will increase from what was expected and will require higher contributions than otherwise anticipated. But when actual returns exceed those assumed, the resulting unfunded liability measurements and actuarially determined contributions will be lower than anticipated. As seen in the historical section that follows, this has been a significant driver of deviations in the actual measurements for this Plan from those expected by the prior valuations.

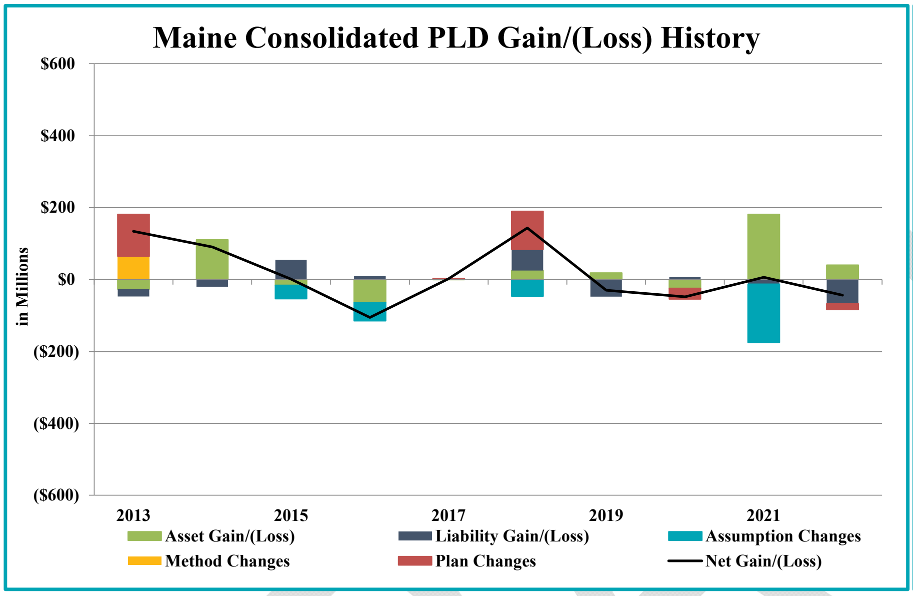
Longevity and Other Demographic Risk is the potential for mortality or other demographic experience to be different than expected. Generally, longevity and other demographic risks emerge slowly over time as the actual experience deviates from expectations. In addition, the extensive number of assumptions related to longevity and other demographic experience often result in offsetting deviations contributing to the Plan's overall liability experience. As such, these risks are often dwarfed by other risks, particularly those due to the investment returns. The historical section that follows shows that this has been true for this Plan in many individual years, with the magnitude of the gains and losses from investment experience often significantly larger than the gains and losses from liability experience. In addition, during the past 10 years, the offsetting effects of the longevity and other demographic risk gains and losses have been such that the cumulative effect of this longevity and other demographic risk as seen in the liability gains and losses has only been about 40% of the investment gains and losses and an even smaller percentage of assumption change deviations over this same period.

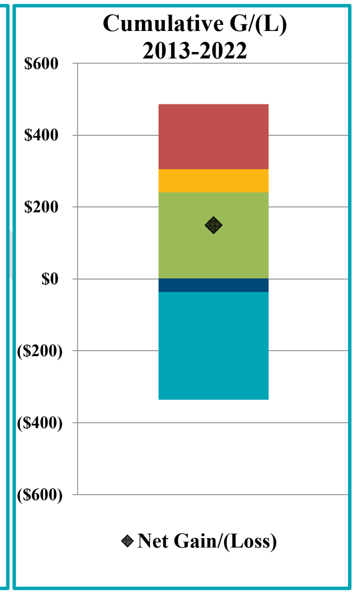
Plan Change Risk is the potential for the provisions of the Plan to be changed such that the funding or benefits are changed materially. In addition to the actual payments to and from the Plan being changed, future valuation measurements can also be impacted, with Plan changes leading to deviations between actual future measurements and those expected by prior valuations. The historical review section will show that plan change risk has been a relatively significant driver of deviations in the actual measurements for this Plan from those expected by the valuations over the 10-year period shown.

Assumption Change Risk is the potential for the environment to change such that future valuation assumptions are adjusted to be different than the current assumptions. For example, declines in interest rates over time may result in a change in the assumed rates of return used in the valuation. A healthier workforce may result in changes in employee behavior such that retirement rates are adjusted to reflect employees working longer. Assumption change risk is an extension of the risks previously identified, but rather than capturing the risk as it is experienced, it captures the cost of recognizing a change in the environment resulting in the current assumption no longer being reasonable. The historical review section will show that assumption change risk has been a very significant risk for this Plan. In addition to changes in individual assumptions, changes to the methods used in valuing the Plan can have a significant impact on the valuation results as can be seen based on the method change items in the Plan's historical experience. Over the period shown, method changes have also been a contributor to deviations in the Plan's actual status from that expected by prior valuations.

Historical Experience Deviations

In understanding the impact of some of these risks, it is useful to look at past experience deviations. These deviations are commonly referred to as actuarial gains and losses. The following graph shows the gains/(losses) at each valuation date between the actual and expected experience broken down by cause for the last 10 years.





As described previously and is evident in this graph, assumption changes and asset gains/(losses) have been the most significant risks for the Plan over this 10-year period. In order of significance to experience deviations over this period, the remaining causes are: plan changes, liability gains/(losses), and method changes. Finally, we note again that while the cumulative effect of the liability gains and losses have been largely offsetting for the last 10 years, they have been significant in individual years, which we expect to remain true for future years.

Plan Maturity Measures

As pension plans become more mature, the primary risks of adverse investments, demographic deviations, plan changes, and assumption/method changes become of more significant concern as the resulting impacts on the Plan's condition are more pronounced. As a result, it has become increasingly important to examine measures that indicate a pension plan's maturity level. With shrinking workforces, aging Baby Boomers, and retirees living longer, plans pay out more in benefits than they receive in contributions – leading to negative cash flows, excluding investment income, making it harder for a plan to recover from losses since contributions are generally made based on active payroll.

SECTION II – RISK ASSESSMENT AND DISCLOSURE

One of the main reasons risks are more amplified with a mature plan is that when plans with negative cash flows suffer investment losses, they need to liquidate enough assets to pay for benefits in excess of contributions. That means these plans will need to earn higher returns to rebuild their assets to the previous levels. Plans with negative cash flows exceeding five percent of assets are especially vulnerable to asset losses.

The balance of this section discloses and examines three maturity measures: the asset leverage ratio, the support ratio, and the net cash flow ratio.

Asset Leverage Ratio

One important plan maturity measure is the asset leverage ratio, the market value of assets divided by the plan's payroll, which represents the percentage of payroll that would need to be contributed to make up a given change in the plan's assets. As a plan matures, its assets increase, and a greater proportion of the assets are paid out in benefit payments to members. The greater the plan's assets are relative to payroll, the more vulnerable the plan is to investment volatility in terms of the resulting contribution requirement changes.

As an example, here are two plans that both experience a 10% investment loss equaling $500 million on their existing assets of five billion dollars. Plan A's asset leverage ratio is 10 and Plan B's ratio is five. This means that Plan A has to spread, or amortize, that loss over a payroll that is half as large as Plan B's. As seen in the chart below, this results in the percentage of payroll that Plan A would need to contribute to make up the loss being double what would be required for Plan B.

	($ in millions) Plan A	Plan B
Plan Assets	**$ 5,000**	**$ 5,000**
Payroll	**$ 500**	**$ 1,000**
Asset Leverage Ratio	**10.0**	**5.0**
10% Loss	**$ 500**	**$ 500**
10% Loss as % of Payroll	**100%**	**50%**

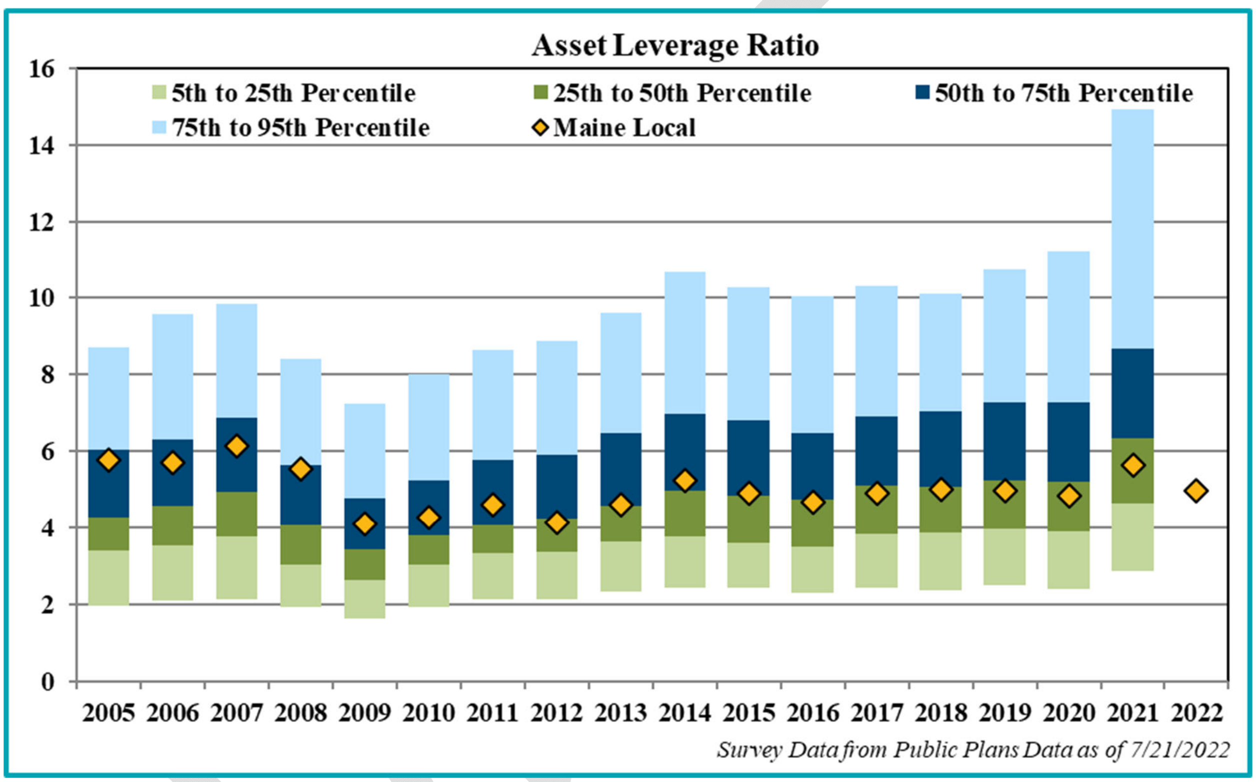
The Government Finance Officers Association (GFOA), MissionSquare Research Institute, the National Association of State Retirement Administrators (NASRA), and the Center for Retirement Research at Boston maintain the Public Plans Data database that contains almost all state plans as well as many large municipal plans, covering over 95% of the membership in public plans as well as over 95% of the assets held by public pension plans.

The chart that follows shows the asset leverage ratios for the Plan and the plans in this database since 2005. The colored bars represent the central 90% of the asset leverage ratios of the plans in the database for each year. The Maine Consolidated Plan for Participating Local Districts is represented by the gold diamonds. This chart shows that the Plan's asset leverage ratio has varied over this period but had remained steady at or just under five times salary from 2013 to 2020

SECTION II – RISK ASSESSMENT AND DISCLOSURE

before increasing to 565%, or 5.65 times salary, in FY 2021 with the significant increase in market values that year. Due to the market loss in FY 2022, the rate is now back within the previous range at 498%, or 4.98 times salary.

Note that the charts showing the Plan versus this universe of public plans in this section show one more year for the Plan than the universe as the 2022 numbers are not yet available for the database. When these numbers are available, we anticipate that the universe of public plans will also show a similar decrease in this ratio given the significant decrease in the market value of assets that most of these plans experienced during 2022.



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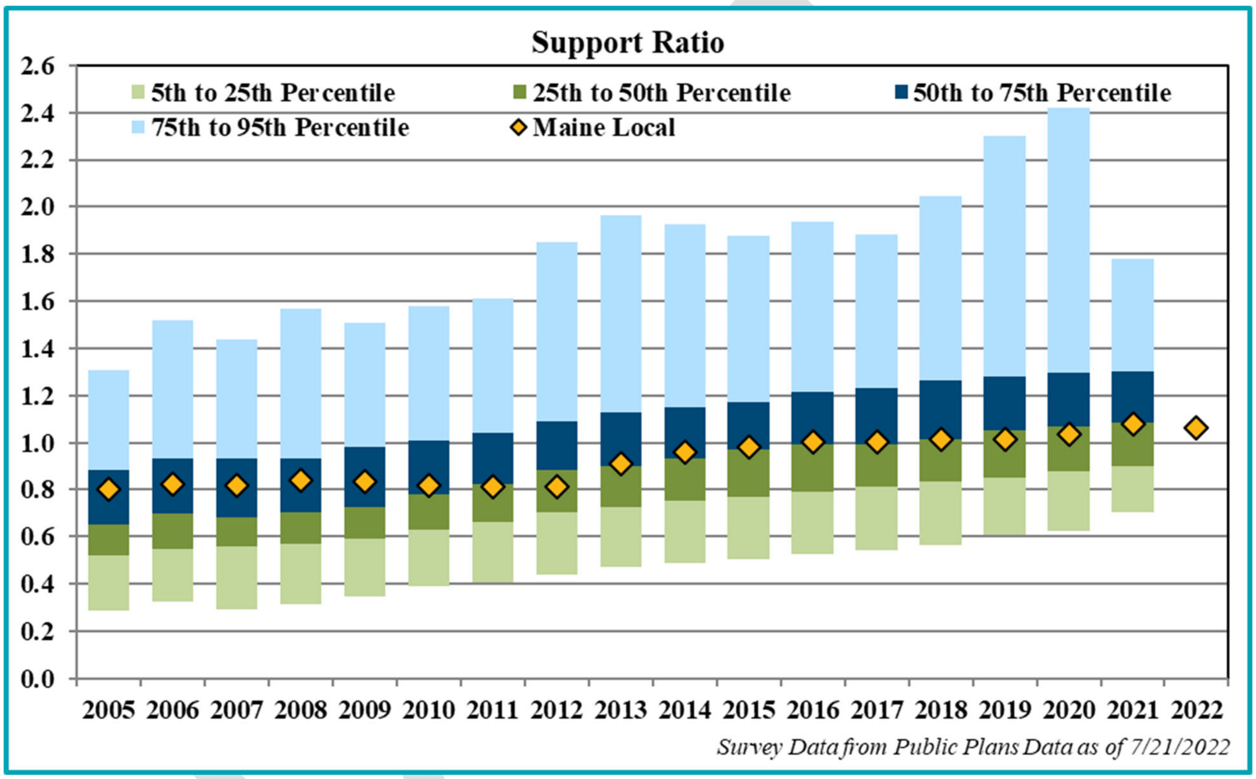
Support Ratios

Another commonly used measure of plan maturity is the support ratio, the ratio of in-pay and inactive members, or those receiving benefits or entitled to a deferred benefit, to the number of active members, or those currently accruing benefits in the plan. The greater this ratio, the more mature a plan is considered, with the proportion of the plan's liability represented by actives generally declining.

The chart that follows shows the support ratio over time for the Plan compared to the Public Plans Data database.



The gold diamonds in this chart show that the Plan's support ratio was relatively stable from 2003 through 2012 at just over 0.80 and has since been generally increasing, with the current ratio as of FY 2022 being approximately 1.06. However, relative to the universe of public plans, the Plan's support ratio has dropped from around the 65th percentile in 2005 to approximately the 50th percentile, or median, in 2021. Given that this Plan has been close to the median of the universe in recent years, this metric indicates that both the Plan's maturity and its rate of maturing based on this metric are similar to the universe of public plans as a whole.

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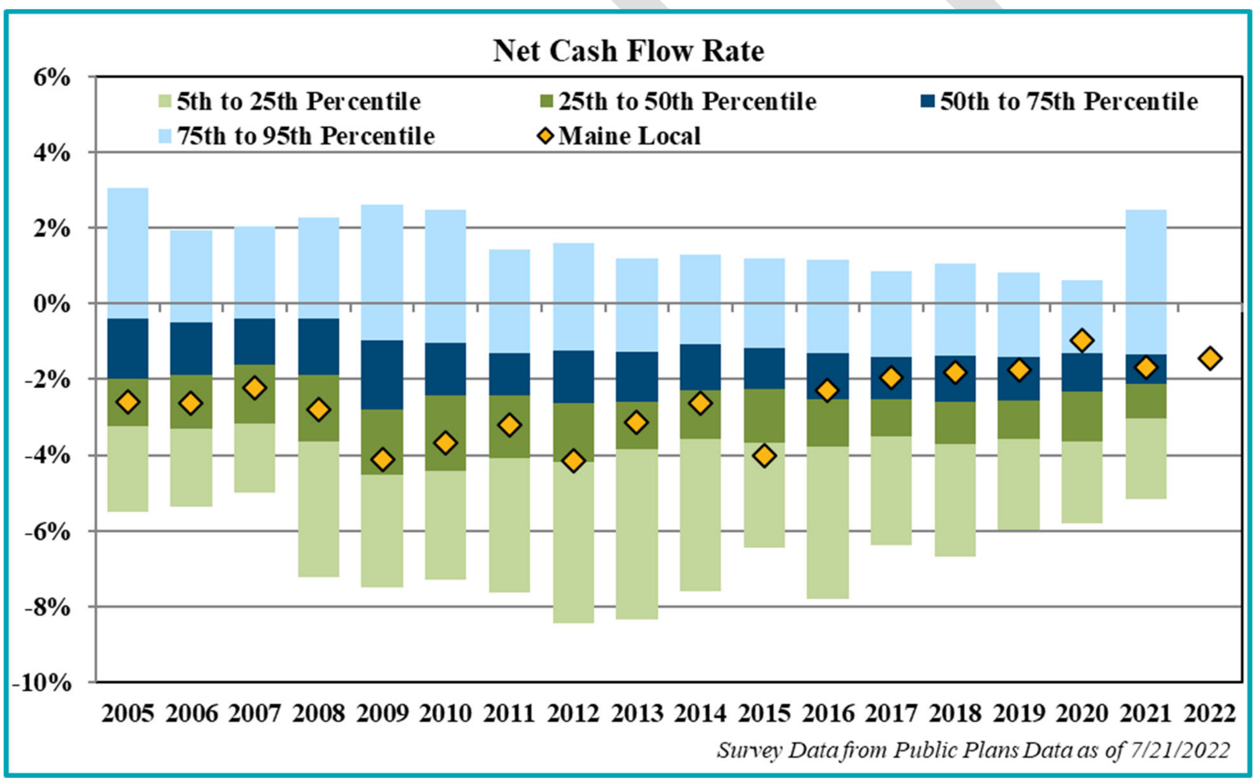
Net Cash Flow Ratio

Another measure of plan maturity is the ratio of the net cash flow (excluding investment returns) for a plan – contributions less benefits and expenses – divided by the market value of plan assets. When this ratio is significantly negative, a plan is very vulnerable to market declines. This vulnerability increases as this ratio becomes more negative.

The chart that follows shows that the Plan's net cash flow ratio has varied over this period but has generally trended gradually towards less negative rates in recent years, with the exception of a one-year jump in 2020. However, note that 2020 was an unusual year for contributions to the Plan with a number of PLDs entering the Consolidated Plan paying additional contributions resulting in the unusually low value for that year on this metric. In the latter half of this period, the Plan's net cash flow has transitioned from being more negative than the median plan in this universe of public plans to less negative than the median plan. This measure thus provides some indication that this Plan may be maturing at a pace slower than the typical public plan.



Assessing Future Risk

Assessing the future risk that the expected measurements produced by the actuarial valuations will deviate from the actual values over time is complex and can never be exactly known. However, to try to assist the Board in its utilization of this report, we have attempted to develop some basic assessments of this risk in the remainder of this section focusing on risks related to investment returns.

Pages 5-7 have additional detail on the baseline projection produced from this valuation. It is important to note that baseline projections, while valid, **are not going to occur** as experience never conforms exactly to assumptions every year. As discussed in the plan maturity section, as plans become more mature, it typically becomes more difficult for them to recover from market declines even when the average investment return over an extended period is equal to the expected return. As a demonstration of this, on the following pages we show two scenarios that are based on assuming varying returns in the future. For both of these scenarios, we based these varying return scenarios on assuming the returns for the next 20 years would equal what a portfolio invested 75% in the SP-500 index and 25% in the Lehman Brothers bond index would have earned for these historical 20-year periods as a rough proxy for the Plan's asset allocation.

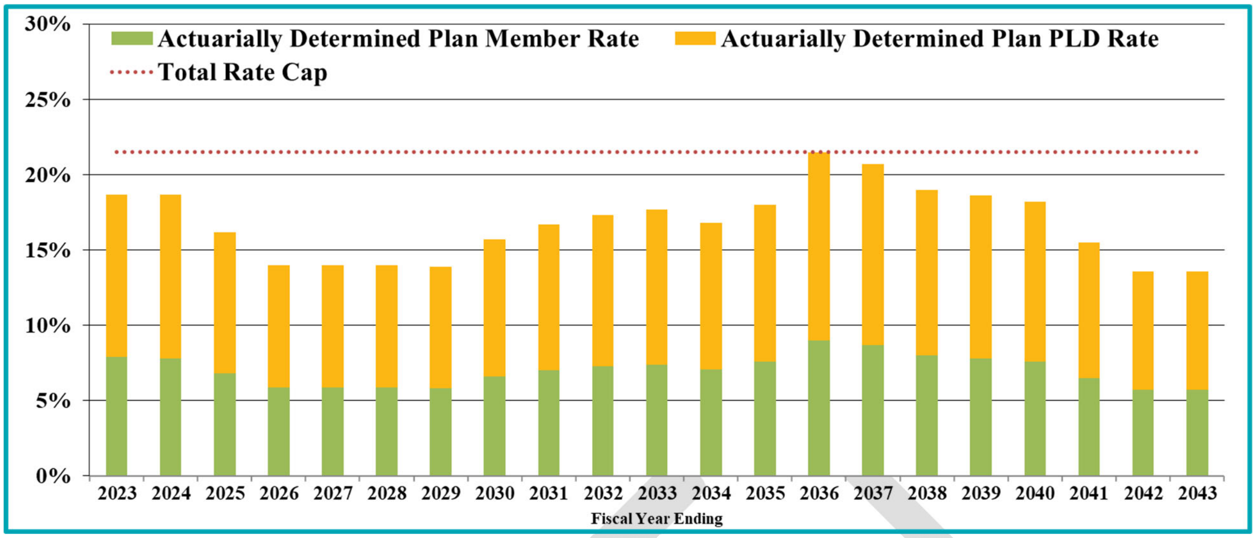
Note that these scenarios reflect illustrative examples and are not intended to reflect future expectations regarding the volatility of the returns. They are instead provided to demonstrate the magnitude and range of possible volatility in returns and funded ratios as a result of volatility in investment returns.

The first of these two scenarios is based on the 20-year period July 1, 1998 through June 30, 2018. This period produces an arithmetic average return of 7.63% for this hypothetical portfolio and a geometric average return of 6.98%. Both of these averages are slightly higher than the assumed 6.50% annually reflected in the baseline scenario. The rates assumed for each year of this scenario are shown below.

FY	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Return	25.3%	17.9%	6.6%	-8.3%	-11.3%	2.8%	14.4%	6.4%	6.3%	17.0%
FY	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
Return	-8.1%	-18.1%	13.2%	24.0%	6.0%	15.3%	19.6%	6.0%	4.5%	13.3%

With varying annual earnings, it can be seen in the following chart that the volatility in the contributions is greater than in the baseline scenario. Additionally, in this scenario there is one year where the projected contributions equal the Total Rate Cap as seen by the combined PLD and Member Rates represented by the stacked bars touching the red dashed line representing the 21.5% Total Rate Cap.

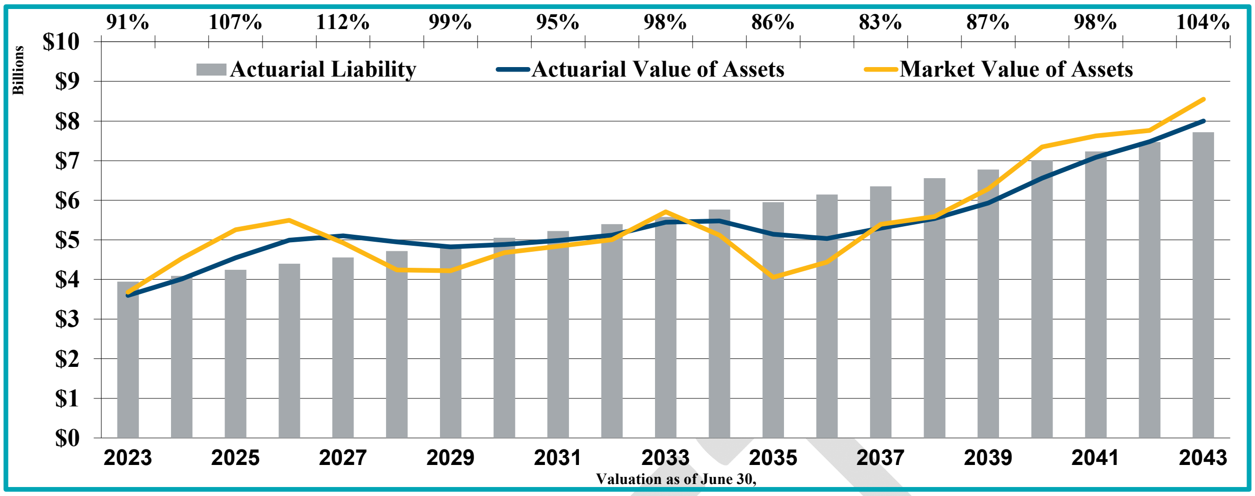
SECTION II – RISK ASSESSMENT AND DISCLOSURE



While the total contributions are projected to equal the Total Rate Cap in 2036, this cap only limits the contributions for one year and so no temporary COLA reduction is required. As such, in this scenario it is projected that 100% of the full COLA will be paid each year, the same as in the baseline scenario. Note that in this scenario, the assumed minimum contributions based on 100% of the normal cost result in higher contributions for FY 2026 through FY 2029 as well as the last two years of the projection whereas in the baseline projection these minimums only came into effect during the last six years of the projection.

The funded ratio of the Plan is also more volatile in this scenario than in the baseline, as seen in the following graph based on this first illustrative varying returns scenario. Also note that while the average returns and the average contributions in this scenario are slightly greater than in the baseline, on average the Plan has a slightly lower funded ratio over the projection period under this scenario than in the baseline. This is due to the negative cash flows of the Plan previously discussed in this section. Note also that timing of contribution development and payment, as well as the combination of the amortization layers and the assumed minimum contributions, result in the Plan being funded over 100% at times, similar to what is seen in the baseline projection. These funded ratios are based on the actuarial values of assets and would vary were they based on market values of assets.

SECTION II – RISK ASSESSMENT AND DISCLOSURE

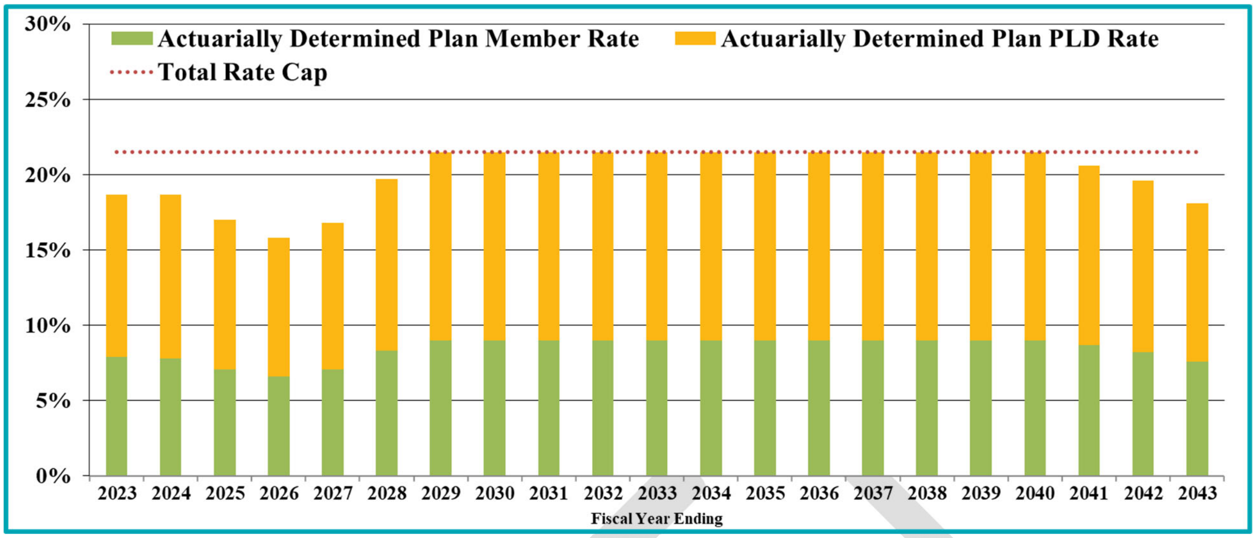


The second of these two scenarios is based on the 20-year period July 1, 1999 through June 30, 2019. This period produces an arithmetic average return of 6.90% for this hypothetical portfolio and a geometric average return of 6.32%. The arithmetic return under this scenario is thus slightly greater than the assumed 6.50% annual return reflected in the baseline scenario while the geometric return for this scenario is slightly less than this assumed rate. The rates assumed for each year of this scenario are shown below.

FY	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Return	17.9%	6.6%	-8.3%	-11.3%	2.8%	14.4%	6.4%	6.3%	17.0%	-8.1%
FY	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
Return	-18.1%	13.2%	24.0%	6.0%	15.3%	19.6%	6.0%	4.5%	13.3%	10.7%

This second varying returns scenario produces a significantly higher average total contribution for the projection period than the other two scenarios, with an average total rate of 20.1% compared to an average 16.8% rate of the last scenario and 16.4% in the baseline scenario. In addition, this scenario results in 12 years in this forecast in which the projected final total contribution equals the Total Rate Cap. This is in contrast to no years in the baseline scenario and only one year in the prior scenario. Also, in this scenario the assumed minimum contributions based on the total normal cost are below the otherwise calculated contributions in all years of the projection.

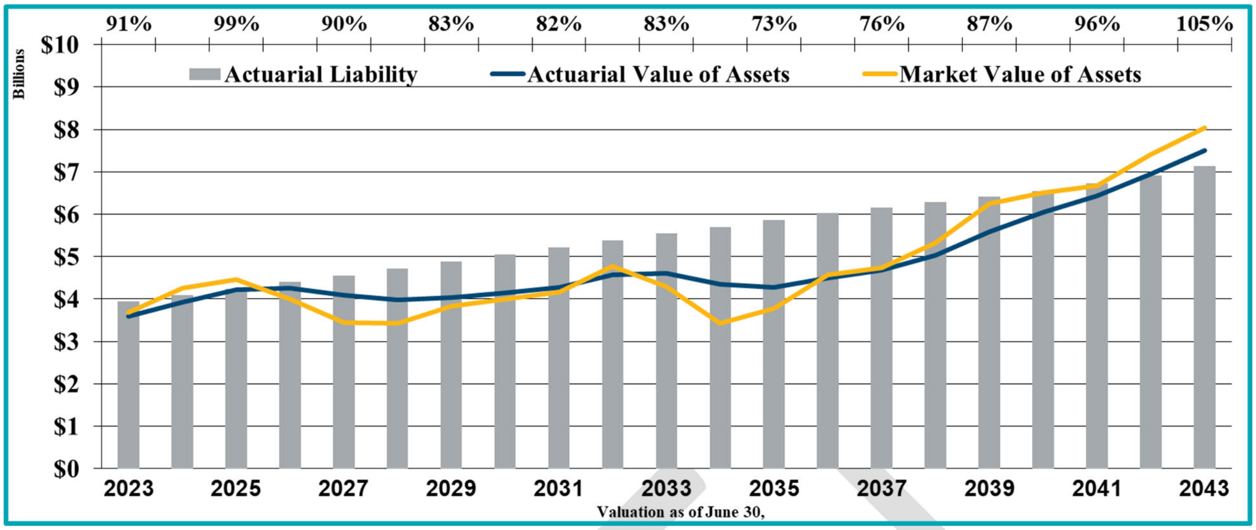
SECTION II – RISK ASSESSMENT AND DISCLOSURE



This scenario also differs from the prior two as it projects that under the provisions of this Plan, temporary reductions in the COLA will be required to ensure the adequate funding of the Plan. Under this scenario, there are 11 years in the projection period where the COLA would be reduced or eliminated under the provisions of this Plan, including three years in which no COLA would be paid at all. The average percentage of the full COLA projected to be paid in this scenario is 69% in contrast to 100% in both of the prior projections. However, under this scenario it is projected that COLAs would resume again at the end of the projection period, demonstrating the success of the risk-sharing provisions of this Plan in ensuring its financial soundness.

The funded ratio of the Plan is also more volatile in this second scenario than in the baseline, as seen in the following graph based on this second illustrative varying returns scenario. Similar to what is seen in the previous two projections, this scenario results in the Plan being funded over 100% at times due to the timing of contribution development and payment as well as the combination of the amortization layers and the COLA cuts that are projected to occur. These funded ratios are based on the actuarial values of assets and would vary were they based on market values of assets.

SECTION II – RISK ASSESSMENT AND DISCLOSURE



In addition to demonstrating the volatility of these key valuation results of actuarially determined contributions and funded ratios, these varying return scenarios also illustrate that the magnitude of these results can also vary depending on the pattern of returns.

SECTION III – ASSETS

Pension plan assets play a key role in the financial operation of plans and in the decisions that Trustees make with respect to future deployment of those assets. The level of assets, the allocation of assets among asset classes, and the methodology used to measure assets will likely affect benefit levels, PLD and member contribution rates, and the ultimate security of members' benefits.

The assets for all Defined Benefit (DB) Programs administered by MainePERS are invested together. These Programs are the State Employee and Teacher Retirement Program, the Judicial Retirement Program, the Legislative Retirement Program, and the Participating Local District (PLD) Retirement Program, including both the Consolidated Plan that is the subject of this valuation and the several Nonconsolidated PLDs. The assets of these Programs are entirely commingled for investment purposes, so the actuarial value of assets (AVA) for each of these Programs is developed by first developing it for the entire asset pool and then subsequently allocating that total AVA to each of the specific Programs.

In this section, we present detailed information on the Plan's assets including:

- Disclosure of total MainePERS DB assets at June 30, 2021 and June 30, 2022,
- Statement of changes in total MainePERS DB market values during the year,
- Development of the total MainePERS DB actuarial value of assets,
- Allocation of the total actuarial value to MainePERS DB Programs,
- Assessment of the total MainePERS DB investment performance, and
- Projection of expected cash flows for the Plan for the next 10 years.

Disclosure

The market value of assets (MVA) represents a "snap-shot" or "cash-out" value, which provides the principal basis for measuring financial performance from one year to the next. However, market values can fluctuate widely with corresponding swings in the marketplace, resulting in volatility in the resulting contributions if the unadjusted market value is used in the valuation process that develops the contributions. Therefore, a smoothed actuarial value of assets is developed for use in the valuation process and for evaluating the Plan's ongoing ability to meet its obligations. The actuarial value of the Plan's assets is developed by allocating the actuarial value of the total MainePERS DB assets to each Program. This section discloses the market and actuarial values of the MainePERS DB assets both in total and for each Program.

SECTION III – ASSETS

Table III-1 that follows develops the change in the market value of assets for the total MainePERS DB assets during FY 2022.

Table III-1
Changes in Market Value of Total MainePERS Defined Benefit (DB) Assets

Market Value of Total MainePERS DB Assets – June 30, 2021		**$ 18,768,097,954**
Additions		
Contributions:		
Employer Contributions	$ 623,238,478	
Member Contributions	230,265,185	
Transfers	(227,555)	
Total Contributions	$ 853,276,108	
Investment Income:		
Net Appreciation (Depreciation) in Fair Value of Investments	$ 30,962,372	
Interest on Bank Balances	299,311	
Total Investment Income	$ 31,261,683	
Investment Activity Expenses:		
Management Fees	$ (125,930,618)	
Investment Related Expense	(5,177,112)	
Banking Fees	(34,677)	
Total Investment Activity Expenses	$ (131,142,407)	
Net Income from Investing Activities	$ (99,880,724)	
Total Additions		$ 753,395,384
Deductions		
Retirement Benefits	$(1,070,744,688)	
Disability Benefits	(27,833,411)	
Survivor Benefits	(26,237,094)	
Refunds	(24,312,164)	
Administrative Expenses	(15,067,128)	
Total Deductions		$ (1,164,194,485)
Total		
Net Increase (Decrease)		$ (410,799,101)
Market Value of Total MainePERS DB Assets – June 30, 2022		**$ 18,357,298,853**

SECTION III – ASSETS

Table III-2 that follows develops the actuarial value of assets for the total MainePERS DB assets as of June 30, 2022 using the adopted actuarial valuation methodology.

Table III-2
Development of Actuarial Value of Total MainePERS Defined Benefit (DB) Assets as of June 30, 2022

1.	Actuarial Value of Total MainePERS DB Assets at June 30, 2021	$ 16,954,631,725
2.	Amount in (1) with Interest to June 30, 2022	18,056,682,787
3.	Employer and Member Contributions for FY 2022	853,276,108
4.	Interest on Contributions in (3), Assuming Received Uniformly throughout FY 2022	27,294,914
5.	Total Disbursements without Administrative Expenses for FY 2022	(1,149,127,357)
6.	Interest on Disbursements in (5), Assuming Payments made Uniformly throughout FY 2022	(36,758,713)
7.	Expected Value of Total MainePERS DB Assets at June 30, 2022 = (2) + (3) + (4) + (5) + (6)	$ 17,751,367,739
8.	Actual Market Value of Total MainePERS DB Assets at June 30, 2022	18,357,298,853
9.	Excess of (8) Over (7)	605,931,114
10.	Actuarial Value of Total MainePERS DB Assets at June 30, 2022 = (7) + [33⅓% of (9)]	$ 17,953,344,777

Actuarial Value of Total MainePERS DB Assets

As discussed in the disclosure portion of this section, the actuarial value of assets for the Plan represents a "smoothed" value developed by the actuary to reduce, or eliminate, volatility in valuation results, particularly contribution rates, that could develop from short-term fluctuations in the market value of assets. Current actuarial methods employed in this Plan use an allocated portion of the total actuarial value of assets for the total MainePERS DB assets based on the Plan's market value of assets to develop the actuarial value of assets for the Plan. The methodology for the total MainePERS DB assets sets the actuarial value of assets equal to the expected value of the actuarial value of assets plus one-third of the difference between the actual market value of assets and the expected actuarial value of assets. The expected value of the actuarial value of assets takes the prior year's actuarial value of assets and adjusts it for contributions, disbursements, and expected interest earnings at the investment return assumption that was in effect for the previous year, 6.50% for this valuation. The previous table, Table III-2, illustrates the calculation of the actuarial value of assets for the total MainePERS DB assets as of June 30, 2022.

SECTION III – ASSETS

Allocation of Actuarial Value of Assets to the Plan

The assets for the defined benefit (DB) Programs administered by MainePERS are commingled for investment purposes with the actuarial value of assets for the total assets allocated to the individual Programs on the basis of the market value of assets for each Program. An asset ratio (total MainePERS DB actuarial value of assets divided by total MainePERS DB market value of assets) is applied to the market value of assets attributable to each of the Programs to determine their actuarial value of assets as of the valuation date. The asset ratio derived in this June 30, 2022 valuation, as shown in Table III-2 above, is 0.977995 ($17,953,344,777 ÷ $18,357,298,853). The allocation of actuarial value of the total MainePERS DB assets to each of the MainePERS DB Programs based on this asset ratio is shown in the following chart.

Table III-3
Allocation of Actuarial Value of Total MainePERS DB Assets
as of June 30, 2022

Program	Market Value	Actuarial Value
Teachers	$ 9,664,934,008	$ 9,452,256,233
State (Regular & Special)	4,903,757,326	4,795,849,688
Judicial	85,821,158	83,932,655
Legislative	16,142,942	15,787,715
Participating Local Districts (Consolidated & Non-Consolidated)	3,686,643,419	3,605,518,486
Total	$ 18,357,298,853	$ 17,953,344,777

Investment Performance

The market value of assets for the total MainePERS DB assets returned a negative 0.62% during FY 2022. This is lower than the assumed return of 6.50% for FY 2022. The equivalent market value returns for the total MainePERS DB assets for FY 2021 and FY 2020 were positive 26.76% and positive 2.89%, respectively.

On an actuarial value of assets basis, the return for FY 2022 was a positive 7.70% for the total MainePERS DB assets. This return is greater than both the return on a market value basis and the 6.50% assumption in effect for FY 2022. Therefore, this return gave rise to an investment gain on the total MainePERS DB assets this year.

Cash Flow Projections

Table III-4
Projection of Consolidated Plan
Benefit Payments and Contributions

FY Ending June 30,	Expected Benefit Payments	Total Expected Contributions
2023	$ 210,555,000	$ 139,904,000
2024	219,400,000	143,751,000
2025	228,587,000	144,544,000
2026	237,586,000	146,896,000
2027	246,509,000	148,434,000
2028	256,323,000	151,660,000
2029	267,282,000	154,949,000
2030	277,761,000	159,211,000
2031	288,434,000	163,589,000
2032	298,839,000	165,222,000

In Table III-4 above, we provide a projection of expected cash flows in and out of the Plan for the next 10 years for informational purposes. The Board may share these projections with its investment advisor for consideration of the gap shown between the cash expected to come into the Plan through PLD and member contributions and the cash expected to be paid out of the Plan to provide benefit payments.

The expected benefit payments in Table III-4 were developed using the data currently included in this valuation and on the assumption that the actuarial assumptions disclosed in Appendix D will be exactly met. Actual benefit payments will vary if members retire sooner or later than assumed, if salary increases and actual future post-retirement COLAs differ from those assumed, or if other assumptions differ from the actual experience seen. These benefit projections exclude any assumption about new Plan participants, whose experience will eventually lead to increased benefit payments. However, we do not feel this exclusion will materially impact the projections for the period shown.

For the purposes of this table of cash flows, as well as for all other liability calculations within this report, we have assumed that the member contribution rates for each Regular and Special Plan within the Plan will be developed and paid at the actuarially determined rates. In addition, these cash flows, with the exception of the FY 2023 rates, where we have assumed the rates adopted through the risk-sharing framework will be paid, again along with all other liability calculations within this report, are based on the assumption that the contributions made to the Plan will be the actuarially determined rates. In addition to these additional assumptions regarding the contributions that the Plan will receive, these cash flows are also developed based on the assumption that all valuation assumptions are exactly met, including an assumed 2.75% per year increase in covered payroll.

SECTION III – ASSETS

Note that we expect the contribution rates that will actually be paid for FY 2024 and beyond will be those developed under the risk-sharing contribution methodology, which are modified versions of the actuarially determined rates rather than the actuarially determined rates themselves. We will continue to reflect the known adopted rates as they are developed, but at this time the unmodified actuarially determined contribution rates that are the basis of the risk-sharing contribution rates are the most reasonable to assume will be paid.

SECTION IV – LIABILITIES

In this section, we present detailed information on Plan liabilities including:

- Disclosure of the Plan's liabilities as of June 30, 2021 and June 30, 2022, and
- Statement of changes in these liabilities during the year.

Disclosure

Several types of liabilities are calculated and presented in this report. Each type is distinguished by the purpose for which the figures are ultimately used.

- Present Value of Future Benefits (PVB): Used for analyzing the overall financial obligations of the Plan, this represents the amount of money needed today to fully fund all future benefits of the Plan, assuming no new members, that active members continue to earn salary increases and accrue benefits under their current Plan provisions, and that all actuarial assumptions are exactly met, including the 6.50% per year investment return.

- Actuarial Liability (AL): Used for funding calculations and GASB disclosures, this liability is calculated taking PVB above and subtracting the value of accruals that are assigned to future years on a person-by-person basis. This offset is equal to the present value of future member contributions and future PLD normal cost contributions under an acceptable actuarial cost method. For this Plan and the other MainePERS DB Programs, the method used is referred to as the entry age normal (EAN) cost method, which is the only permitted actuarial cost method for GASB disclosures.

- Present Value of Accrued Benefits (PVAB): Used for communicating the liabilities for benefits accrued as of the valuation date.

Table IV-1 that follows discloses each of these liabilities for the current and prior years' valuations. With respect to the actuarial liability and the present value of accrued benefits, a subtraction of the appropriate value of the Plan's assets yields, for each respective type, a net surplus or an unfunded liability. For the PVB measure, it is compared to the market value of assets plus the expected future value of contributions to the Plan. The future member and PLD contributions are calculated as the expected rates for each year times the expected future payroll as of that date. The difference between the PVB and these anticipated resources indicates either an expected shortfall or an expected surplus representing either additional funding required or excess funding and indicates the size of the Plan's stored gains or losses that remain outside of the valuation process currently.

Note that beginning with the June 30, 2021 valuation, we updated the assumption for the future member contribution rates to assume the most recently adopted member contribution rates will remain in effect for all future years for purposes of developing the Plan's liabilities. As such, for this current June 30, 2022 valuation, we have assumed the member rates for FY 2023 will be in effect for all years after FY 2023. We will continue to monitor this assumption and make additional adjustments as warranted. This assumption is important in developing liabilities

SECTION IV – LIABILITIES

related to refunds of contributions. In aggregate, we expect that the total liabilities for the Plan will not be materially impacted by this assumption.

We note that none of the liabilities presented in this report is an appropriate measure of a settlement liability.

The liability measures are compared to appropriate measures of assets, along with the expected future value of member and PLD contributions where appropriate. The difference between the liability measure and the anticipated resources indicates either an expected shortfall or an expected surplus related to that liability measure. The surplus or shortfall on the present value of benefits (PVB) measure indicates the size of the Plan's stored gains or losses that remain outside of the valuation process.

Table IV-1
Disclosure of Liabilities

	June 30, 2021	June 30, 2022
Present Value of Benefits (PVB)		
Active Member Benefits	$ 2,175,896,100	$ 2,308,604,215
Retired, Disabled, Survivor, and Beneficiary Benefits	2,057,835,136	2,214,696,636
Terminated Vested Benefits	147,239,959	161,041,206
Terminated Nonvested Benefits	25,622,333	28,468,573
Total PVB	**$ 4,406,593,528**	**$ 4,712,810,630**
Market Value of Assets (MVA)	$ 3,751,152,623	$ 3,677,737,551
Future Member and PLD Contributions*	655,440,905	1,035,073,079
Projected (Surplus)/Shortfall	0	0
Total Resources	**$ 4,406,593,528**	**$ 4,712,810,630**
Actuarial Liability (AL)		
Present Value of Benefits (PVB)	$ 4,406,593,528	$ 4,712,810,630
Present Value of Future Normal Costs (PVFNC)	687,577,114	769,237,740
Actuarial Liability (AL = PVB – PVFNC)	**$ 3,719,016,414**	**$ 3,943,572,890**
Actuarial Value of Assets (AVA)	3,388,697,748	3,596,808,593
Net (Surplus)/Unfunded (AL – AVA)	**$ 330,318,666**	**$ 346,764,297**
Present Value of Accrued Benefits		
Present Value of Benefits (PVB)	$ 4,406,593,528	$ 4,712,810,630
Present Value of Future Benefit Accruals (PVFBA)	1,059,213,948	1,038,378,738
Accrued Liability (PVAB = PVB – PVFBA)	**$ 3,347,379,580**	**$ 3,674,431,892**
Market Value of Assets (MVA)	3,751,152,623	3,677,737,551
Net (Surplus)/Unfunded (PVAB – MVA)	**$ (403,773,043)**	**$ (3,305,659)**

* Future contributions assumed at the FY 2023 Final rates.

SECTION IV – LIABILITIES

Changes in Liabilities

Each of the liabilities disclosed in the prior table is expected to change at each subsequent valuation. The components of these changes, depending upon which liability is analyzed, can include:

- New Plan members since the last valuation
- Benefits accrued since the last valuation
- Plan amendments changing benefits since the last valuation
- Passage of time, which adds interest to the prior liability
- Benefits paid to members since the last valuation
- Members retiring, terminating, or dying at rates different than expected since the last valuation
- Salaries changing at rates different than expected since the last valuation
- A change in actuarial assumptions since the last valuation
- A change in the actuarial cost method since the last valuation

Unfunded liability measurements will change because of all of the above, as well as due to changes in the Plan's asset measurements resulting from:

- PLD or member contributions being different than expected (including actual contributions developed under the risk-sharing framework deviating in aggregate from the actuarially determined contributions)
- Investment earnings being different than expected
- A change in the method used to measure the Plan's assets in developing the unfunded liability measure since the last valuation

In each valuation, we report on those elements of change in the Plan's liability measures that are of particular significance, potentially affecting the long-term financial outlook of the Plan. In Table IV-2 that follows, we present key changes in the Plan's liability measures since the last valuation.

Table IV-2

	Present Value of Future Benefits	Actuarial Liability	Present Value of Accrued Benefits
Liability Measurement – June 30, 2021	$ 4,406,593,528	$ 3,719,016,414	$ 3,347,379,580
Liability Measurement – June 30, 2022	4,712,810,630	3,943,572,890	3,674,431,892
Liability Measurement Increase/ (Decrease) Due to:	$ 306,217,102	$ 224,556,476	$ 327,052,312
Plan Amendment	$ 16,214,107	$ 16,214,107	$ 16,214,107
Assumption Change	0	0	0
Actuarial (Gain)/Loss	N/C	$ 67,455,268	N/C
Benefits Accumulated and Other Sources	$ 290,002,995	$ 140,887,101	$ 310,838,205

N/C = Not calculated

SECTION V – CONTRIBUTIONS

In this section, we present detailed information on PLD and member contribution rates as developed in this June 30, 2022 valuation for the Plan, including:

- Development of Actuarially Determined Plan Total Rate for the Plan as a whole, including the Actuarially Determined Plan Normal Cost Rate and the Actuarially Determined Plan UAL Amortization Rate,
- Summary of the Plan-Specific Normal Cost Rates by each Regular and Special Plan, and
- Description of risk-sharing framework and how resulting contribution rates are developed.

Note that the actual rates that will be paid in FY 2024 based on this June 30, 2022 valuation are specific to each Regular and Special Plan and include a PLD rate for each Plan as well as a single member rate for each Special Plan and two member rates for each Regular Plan, where the Regular Plan member rates vary based on the applicable normal retirement age. These actual rates are developed in the risk-sharing framework process and are not contained within this report, but a general outline of this process is included as the last element of this section of this report for informational purposes.

In addition, any PLDs that have Initial Unpooled Unfunded Actuarial Liability (IUUAL) balances also make additional contributions to repay these balances in addition to their PLD contribution rates.

Description of Rate Components

The rate components described here are the Actuarially Determined Plan Rates, based on the aggregation of all of the Regular and Special Plans in the Plan, and the Plan-Specific Normal Cost Rates that are anticipated to be the basis from which the risk-sharing contribution rates that will actually be paid by the PLDs and members in FY 2024 will be determined.

Actuarially Determined Plan Total Rate

The Actuarially Determined Plan Total Rate is developed based on the entirety of the Consolidated Plan and consists of two elements: the Actuarially Determined Plan Normal Cost Rate and the Actuarially Determined Plan UAL Amortization Rate.

For each of the Regular and Special Plans in the Consolidated Plan, an individual entry age normal cost rate is determined for each active member. The normal cost is determined by the following steps. First, an individual normal cost rate is determined by taking the value, as of entry age into a Plan, of each active member's projected future benefits. Second, this value is then divided by the value, also at entry age, of the member's expected future salary. These rates are then multiplied by each member's salary as of the valuation date to get the total normal cost dollars as of the valuation date for that Plan. These individual amounts for each Regular and Special Plan are then added to get the total normal cost dollars for the Plan and then divided by the total payroll for the Plan to get the Actuarially Determined Plan Normal Cost Rate.

SECTION V – CONTRIBUTIONS

The pooled UAL under the entry age normal cost method equals the present value, at the time of valuation, of the future benefit payments less the present value of future contributions plus current assets. Under the Consolidated Plan, the Actuarially Determined Plan UAL Amortization Rate is calculated for the Consolidated Plan in total based on the pooled UAL being amortized over a 20-year period commencing with the June 30, 2015 valuation date and any layers of pooled UAL arising after that date being amortized over individual 20-year periods. These amortizations use a level percentage of pay method with payroll assumed to increase at 2.75% per year. The amortization payment thus derived for the valuation year is then divided by the total payroll to develop the Actuarially Determined Plan UAL Amortization Rate.

As a reminder, these rates are not paid by any PLD or member and instead determine the level of the contributions in aggregate that needs to be paid into the Plan. The risk-sharing framework allocates this cost level, with some adjustments, based on the relative rates of the Plan-Specific Normal Cost Rates and determines the rates that will be paid by every PLD and member in the Consolidated Plan based on each member's specific Plan.

Plan-Specific Normal Cost Rates

Following the procedure outlined above to develop the total normal cost dollars for each specific Regular and Special Plan, these Plan-Specific values are then divided by the total payroll for each specific Plan to get the Plan-Specific Normal Cost Rate for that Plan. This procedure is followed for each Regular and Special Plan in the Consolidated Plan.

IUUAL Payments

PLDs that either enter the Consolidated Plan with liabilities in excess of their assets or make Plan changes resulting in individual liability amounts are required to make additional contributions. They make payments on their Individual Unpooled Unfunded Actuarial Liability (IUUAL) until their IUUAL is fully paid off. IUUAL payments are made as specific dollar amounts on a schedule rather than as a rate applied to payroll. The System now treats future IUUAL payments as receivable contributions that are already included in the asset values provided and so are not separately identified in the Section I summary tables.

Contribution Calculations

Table V-1 below presents and compares the Actuarially Determined Plan Total Rate for the Plan in aggregate, as well as its two components, as developed in this and last years' valuations.

Table V-1
Actuarially Determined Plan Total Rates

Valuation Date	June 30, 2021	June 30, 2022
Actuarially Determined Plan Normal Cost Rate	14.1%	14.2%
Actuarially Determined Plan UAL Amortization Rate	4.6%	4.5%
Actuarially Determined Plan Total Rate	18.7%	18.7%

SECTION V – CONTRIBUTIONS

The remainder of this section details the calculation of the above rates, including developing the Actuarially Determined Plan UAL Amortization Rate from its components and developing the Plan-Specific Normal Cost Rates for each Regular and Special Plan in the Consolidated Plan as well as the Actuarially Determined Plan Normal Cost Rate for the Plan in aggregate.

Table V-2 shows the development of the Plan-Specific Normal Cost Rates for each Regular and Special Plan as well as the Actuarially Determined Plan Normal Cost Rate.

Table V-2
Development of Plan-Specific Normal Cost Rates and Actuarially Determined Plan Normal Cost Rate

	Plan-Specific				
Specific Plan	Initial Normal Cost Dollars	Valuation Salary	Normal Cost Rate	Total Salary	Total Normal Cost Dollars
Regular AC	$53,829,112	$407,880,321	**13.2%**	$444,676,577	$58,697,308
Regular AN	3,935,938	33,533,014	**11.7%**	36,194,731	4,234,784
Regular BC	174,282	2,515,820	**6.9%**	2,752,821	189,945
Special 1C	3,340,774	17,215,835	**19.4%**	18,356,897	3,561,238
Special 2C	12,066,480	79,360,135	**15.2%**	84,413,933	12,830,918
Special 3C	20,709,228	123,413,082	**16.8%**	130,613,904	21,943,136
Special 4C	1,203,067	7,528,112	**16.0%**	7,994,415	1,279,106
Special 1N	103,831	639,984	**16.2%**	677,735	109,793
Special 2N	228,831	1,680,191	**13.6%**	1,774,244	241,297
Special 3N	1,332,050	9,127,217	**14.6%**	9,592,630	1,400,524
Special 4N	114,682	967,428	**11.9%**	1,018,922	121,252
Total for Plan in Aggregate				$738,066,809	$104,609,301
Actuarially Determined Plan Normal Cost Rate					**14.2%**

SECTION V – CONTRIBUTIONS

Table V-3 below provides the development of the 4.5% UAL Amortization Rate as of June 30, 2022 that was shown in Table V-1 for the Consolidated Plan in aggregate.

Table V-3
Derivation of Actuarially Determined Plan UAL Amortization Rate

1. Actuarial Liability (AL)	$	3,943,572,890
2. Actuarial Value of Assets (AVA)		3,596,808,593
3. Unfunded Actuarial Liability (UAL)	$	346,764,297
4. Remaining Balances of Prior Amortization Bases		
a. Original UAL Amount	$	252,792,152
b. 2016 (Gain)/Loss Base		106,508,984
c. 2017 (Gain)/Loss Base		9,330,271
d. 2018 (Gain)/Loss Base		(73,284,203)
e. 2019 (Gain)/Loss Base		20,216,647
f. 2020 (Gain)/Loss Base		12,373,632
g. 2021 (Gain)/Loss Base		(7,473,143)
h. 2022 (Gain)/Loss Base		26,299,957
i. Sum of the Bases	$	346,764,297
5. UAL Amortizations		
a. Original UAL Amount 13 Years	$	24,660,534
b. 2016 (Gain)/Loss Base 14 Years		9,808,418
c. 2017 (Gain)/Loss Base 15 Years		815,185
d. 2018 (Gain)/Loss Base 16 Years		(6,101,133)
e. 2019 (Gain)/Loss Base 17 Years		1,609,909
f. 2020 (Gain)/Loss Base 18 Years		945,673
g. 2021 (Gain)/Loss Base 19 Years		(549,789)
h. 2022 (Gain)/Loss Base 20 Years		1,867,479
i. Sum of Amortization Payments	$	33,056,276
6. Covered Payroll	$	738,066,809
7. UAL Amortization Rate		
a. Original UAL Amount 13 Years		3.4%
b. 2016 (Gain)/Loss Base 14 Years		1.3%
c. 2017 (Gain)/Loss Base 15 Years		0.1%
d. 2018 (Gain)/Loss Base 16 Years		(0.8%)
e. 2019 (Gain)/Loss Base 17 Years		0.2%
f. 2020 (Gain)/Loss Base 18 Years		0.1%
f. 2021 (Gain)/Loss Base 19 Years		(0.1%)
g. 2022 (Gain)/Loss Base 20 Years		0.3%
h. Sum of UAL Amortization Rates		**4.5%**

SECTION V – CONTRIBUTIONS

The Actuarially Determined Plan Normal Cost Rate developed in Table V-2 is combined with the Actuarially Determined Plan UAL Amortization Rate developed in Table V-3 to determine the Actuarially Determined Plan Total Rate. This Actuarially Determined Plan Total Rate, along with the Plan-Specific Normal Cost Rates, will be used in the risk-sharing framework to develop the risk-sharing contribution rates that will actually be paid by the PLDs and members in FY 2024. Since they are developed in that process outside of the actuarial valuations, these actual rates are not included in this report, but for informational purposes, this section is concluded with a general outline of this methodology.

Risk-Sharing Contribution Methodology

As mentioned previously, the actual FY 2024 rates will be developed based on the results of this June 30, 2022 valuation, reflecting application of the risk-sharing contribution methodology. Details of the application of this methodology are determined by the Board, but we have provided a general description of this methodology to communicate how it operates. This basic information is thus useful for informational purposes as it can be provided in advance of the full rates that will be developed and provided under separate cover after the specifics of the methodology for this year are finalized and adopted by the Board.

Note that while this section provides a summary of the principles of the risk-sharing contribution methodology adopted by the Board, the specific details of the methodology to be used in developing the FY 2024 rates from the results of this June 30, 2022 actuarial valuation have not yet been finalized, and thus, any or all details of the methodology as outlined here may change prior to finalization and adoption.

Most of the participating local districts in the State of Maine participate in this Consolidated Plan for PLDs. The Plan offers a number of specific Plan options from which each PLD can choose, with each option having its own specific contributions associated with it to be paid by both the member and the PLD. Under the risk-sharing contribution methodology, both the member contributions and the PLD contributions will be paid as rates that are set annually based on the actuarial valuation process. The June 30, 2018 valuation setting the Fiscal Year 2020 contribution rates was the first valuation used to develop member and PLD contribution rates based on this risk-sharing methodology, as prior to the 2018 valuation, the member rates were static and set by the Board, while the PLD rates were established using the corridor funding methodology. This June 30, 2022 valuation will be used as the basis to determine the Fiscal Year 2024 contribution rates for members and PLDs that will be paid.

Under the Plan's risk-sharing contribution methodology, PLD and member rates are developed for each Regular and Special Plan within the Plan. First, Plan-Specific Normal Cost Rates are developed for each Plan and then combined to develop the Actuarially Determined Plan Normal Cost Rate, which is the aggregate normal cost rate for the Plan as a whole. These rates represent the cost of providing the next year's benefits. The Actuarially Determined Plan UAL Amortization Rate is also developed based on the amortization of the aggregated UAL. The Actuarially Determined Plan Total Rate is then determined as the sum of the Actuarially

SECTION V – CONTRIBUTIONS

Determined Plan Normal Cost Rate and the Actuarially Determined Plan UAL Amortization Rate. This Actuarially Determined Plan Total Rate is then allocated to each Regular and Special Plan relative to their Plan-Specific Normal Cost Rates. The resulting rate for each individual Regular and Special Plan is then allocated between the rate to be paid by the PLD and the rate to be paid by the members. In the case of the three Regular Plans, the process further develops distinct Plan-Specific member rates based on whether a member is covered by the provisions with an age 60 normal retirement age or an age 65 normal retirement age.

The implementation of the risk-sharing framework to develop the contribution rates to be paid based on each valuation includes further refinements based on details adopted by the Board for implementation in that specific year, which include maximum rates and phasing-in of change in rates from prior years. The Board considers factors specific to the Plan in aggregate as well as the resulting Plan-Specific rates in determining the refinements of the implementation for each year.

SECTION VI – FINANCIAL DISCLOSURE INFORMATION

This section contains financial disclosure information regarding the Plan developed under a number of accounting standards and guidance.

First, for informational purposes, we show the Plan's funded status under the Financial Accounting Standards Board (FASB) ASC Topic 960, which discloses how the market value of assets would compare to accrued liabilities if contributions were to stop and accrued benefit claims had to be satisfied as of the valuation date. However, due to potential legal requirements and the possibility that alternative interest rates would have to be used to determine the liabilities, these values may not be a good indication of the amount of money it would take to buy the benefits for all members if all provisions of the Consolidated Plan were to terminate. We have prepared the following exhibit in this section based on FASB ASC Topic 960:

- Table VI-1: Accrued Benefits information

The Governmental Accounting Standards Board (GASB) Statement Nos. 67 and 68 establish standards for disclosure of pension information by public employee retirement systems (PERS) and governmental employers in financial statements, notes to financial statements, and supplementary information. We have prepared the following exhibits reflecting provisions of GASB Statement Nos. 67 and 68:

- Table VI-2: Schedule of Changes in Net Pension Liability and Related Ratios
- Table VI-3: Sensitivity of Net Pension Liability to Changes in Discount Rate
- Table VI-4: Schedule of Employer Contributions
- Table VI-5: Average Expected Remaining Service Lives

A summary of the terminology used in GASB Statement Nos. 67 and 68 is provided in Appendix E of this report. Note that while much of the information provided in this report under GASB No. 67 is also utilized in GASB No. 68, Table VI-5 included in this section is only applicable to GASB No. 68.

Finally, we have also developed disclosure information in this section based on additional guidance relating to the Annual Comprehensive Financial Reports (ACFR) of PERS provided by the Government Finance Officers Association (GFOA) in their publication, *Governmental Accounting, Auditing, and Financial Reporting* (GAAFR). We have prepared the following exhibits reflecting guidance in the GAAFR:

- Table VI-6: Analysis of Financial Experience
- Table VI-7: Schedule of Funded Liabilities by Type

The present value of accrued benefits, the total pension liability (GASB 67/68), and the actuarial liability (GAAFR) disclosures in this section are all determined assuming that the Plan is ongoing and participants continue to terminate employment, retire, etc., in accordance with the actuarial assumptions. Liabilities as of June 30, 2022 are discounted at the assumed valuation interest rate of 6.50% per annum in all of these disclosures.

SECTION VI – FINANCIAL DISCLOSURE INFORMATION

Table VI-1 below includes the relevant amounts as of June 30, 2021 and June 30, 2022 as well as a reconciliation between the two dates under FASB ASC Topic 960.

Table VI-1
Accrued Benefits Information

	June 30, 2021	June 30, 2022
FASB ASC Topic 960 Basis		
1. Present Value of Benefits Accrued to Date (PVAB)		
a. Members Currently Receiving Payments	$ 2,057,835,136	$ 2,214,696,636
b. Terminated Vested Members	147,239,959	161,041,206
c. Terminated Nonvested Members	25,622,333	28,468,573
d. Active Members	1,116,682,152	1,270,225,477
e. Total PVAB	$ 3,347,379,580	$ 3,674,431,892
2. Assets at Market Value (MVA)	3,751,152,623	3,677,737,551
3. Unfunded Present Value of Accrued Benefits, But Not Less Than Zero	$ 0	$ 0
4. Ratio of MVA to PVAB (2)/(1)(d)	112.1%	100.1%
Change in Present Value of Benefits Accrued to Date during FY 2022		
Increase/(Decrease) during Year Attributable to:		
Passage of Time		$ 211,355,491
Benefits Paid		(194,576,381)
Assumption Changes		0
Plan Changes		16,214,107
Benefits Accrued, Other Gains/Losses		294,059,095
Net Increase/(Decrease)		$ 327,052,312

Table VI-2 that follows shows the changes in the total pension liability (TPL), the Plan's fiduciary net position (FNP) (i.e., fair value of the Plan's net assets), and the net pension liability (NPL) during the measurement year ending June 30, 2022, as well as related ratios calculated under the provisions of GASB Statement No. 67 for the Plan.

As of the June 30, 2022 valuation, the fiduciary net position for this Plan 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 Plan's investments was applied to all periods of projected benefit payments in determining the total pension liability under GASB Nos. 67 and 68. The projection of cash flows used to determine the discount rate assumed that the member and PLD contribution rates will be at the actuarially determined rates in aggregate.

SECTION VI – FINANCIAL DISCLOSURE INFORMATION

Table VI-2
Schedule of Changes in Net Pension Liability and Related Ratios
FY 2022

Total Pension Liability (TPL)	
Service Cost (SC)	$ 93,851,265
Interest (includes Interest on SC)	241,612,217
Changes of Benefit Terms	16,214,107
Differences Between Actual and Expected Experience	67,455,268
Changes of Assumptions	0
Benefit Payments, including Refunds of Member Contributions	(194,576,381)
Net Change in TPL	**224,556,476**
Beginning of Year (BOY) TPL	**3,719,016,414**
End of Year (EOY) TPL	**$ 3,943,572,890**
Plan Fiduciary Net Position (FNP)	
PLD (Employer) Contributions	$ 78,887,165
Member Contributions	65,104,305
Transfers	89,325
Net Investment Income	(19,908,035)
Benefit Payments, including Refunds of Member Contributions	(194,576,381)
Administrative Expenses	(3,011,451)
Net Change in FNP	$ (73,415,072)
BOY FNP	**3,751,152,623**
EOY FNP	**$ 3,677,737,551**
EOY Net Pension Liability (NPL)	**$ 265,835,339**
FNP as a Percentage of TPL	93.3%
Covered Payroll (Payroll)*	$ 744,218,538
NPL as a Percentage of Payroll	35.7%

* For FY 2022

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

None.

SECTION VI – FINANCIAL DISCLOSURE INFORMATION

A 10-year schedule of changes in NPL and related ratios is to be included within the ACFR for PERS. However, based on GASB guidance, this 10-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 Pension Liability and Related Ratios* above and believe that you can accumulate the individual years in the MainePERS ACFRs to build this schedule to show the full 10-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, 2022, we have not included suggested information for such a note in the *Notes to Schedule of Changes in Net Pension Liability and Related Ratios* above. However, it is our expectation that the System's staff will make the final determination regarding any notes needed for this schedule, and we are available to provide any information they may need for this purpose.

Table VI-3 below illustrates the sensitivity of the net pension liability (NPL) to the discount rate. Changes in the discount rate affect the measurement of the total pension liability (TPL) for the Plan. Lower discount rates produce a higher TPL, and higher discount rates produce a lower TPL. Because the discount rate does not affect the measurement of assets, the percentage change in the Net Pension Liability (NPL) can be very significant for relatively small changes in the discount rate.

Table VI-3
Sensitivity of Net Pension Liability to Changes in Discount Rate
FY 2022

	1% Decrease 5.50%	Discount Rate 6.50%	1% Increase 7.50%
Total Pension Liability (TPL)	$ 4,463,090,828	$ 3,943,572,890	$ 3,514,172,829
Plan Fiduciary Net Position (FNP)	3,677,737,551	3,677,737,551	3,677,737,551
Net Pension Liability (NPL)	$ 785,353,277	$ 265,835,339	$ (163,564,722)
FNP as a Percentage of TPL	82.4%	93.3%	104.7%

A one percent decrease in the discount rate increases the TPL by approximately 13% and increases the NPL by approximately 195%. A one percent increase in the discount rate decreases the TPL by approximately 11% and decreases the NPL by approximately 162%.

Table VI-4 that follows provides information relating to the employer contributions for the Plan. Under GASB Statement No. 67, if an actuarially determined contribution (ADC) or a contractually or statutorily required contribution (CRC) is developed for a single employer or cost-sharing plan, the following schedule is required. For purposes of this schedule, an ADC is a contribution amount determined in accordance with Actuarial Standards of Practice, and a CRC is based on statutory or contractual requirements. Both should exclude any amounts to finance specific liabilities of individual employers of the Plan. If an ADC is available, the schedule of employer contributions should be developed on that basis. If there is no ADC, but there is a CRC, the schedule should be developed on that basis. Only if neither an ADC nor a CRC is developed can this schedule be omitted from the PERS's ACFR.

SECTION VI – FINANCIAL DISCLOSURE INFORMATION

The Consolidated Plan's risk-sharing contribution rates, which are the basis on which the FY 2022 contribution rates were determined, meet the definition of an ADC, so for this Plan, an additional year should be added to the schedule reflecting FY 2022 on that risk-sharing rate basis. Based on GASB guidance, a full 10 years of information should be shown in this schedule if it is available, but this 10-year history can be built one year at a time following implementation. We have shown only the current year of this *Schedule of Employer Contributions* below and believe that you can accumulate these in the MainePERS ACFR to build this schedule to show the full 10-year schedule over time.

Only the current year of the *Notes to Schedule of Employer Contributions* below needs to be included in the notes to this schedule. However, any factors that significantly affect trends in the *Schedule of Employer Contributions* at any point in the 10-year period should also be included in the notes to this schedule. As of June 30, 2022, we have not included such a note in the *Notes to Schedule of Employer Contributions* below. However, it is our expectation that the System's staff will make the final determination regarding any notes needed for this schedule and we are available to provide any additional information that they may need for this purpose.

Table VI-4
Schedule of Employer Contributions
FY 2022

Actuarially Determined Contribution (ADC)	$ 78,887,165
Contributions in Relation to the ADC	78,887,165
Contribution Deficiency/(Excess)	$ 0
Covered Payroll (Payroll)	$ 744,218,538
Contributions as a Percentage of Payroll	10.6%

* For FY 2022

<u>Notes to Schedule of Employer Contributions</u>

Valuation Date: June 30, 2020

Timing: June 30, 2022 rates based on the risk-sharing methodology calculated based on the 2020 actuarial valuation.

<u>Key Methods and Assumptions Used to Determine Contribution Rates</u>

Actuarial Cost Method: Entry age normal

Asset Valuation Method: Three-year smoothed market

Amortization Method: Level percentage of payroll, closed periods. Cumulative UAL from prior to 2016 amortized over a 20-year period commencing with the June 30, 2015 valuation date. Subsequent layers of pooled UAL amortized over individual 20-year periods.

SECTION VI – FINANCIAL DISCLOSURE INFORMATION

Discount Rate:	6.75%
Amortization Growth Rate:	2.75%
Price Inflation:	2.75%
Salary Increases:	2.75% plus merit component based on employee's years of service
Mortality:	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 MP_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.

A complete description of the methods and assumptions used to determine contribution rates for the year ending June 30, 2022 can be found in the June 30, 2020 Actuarial Valuation Report.

Other Information

None.

SECTION VI – FINANCIAL DISCLOSURE INFORMATION

Table VI-5 that follows is provided in this report at the request of MainePERS staff, showing the development of the average remaining service life for the Plan. GASB No. 68 requires some items be recognized by employers into pension expense over a period "equal to the average of the expected remaining service lives of all employees that are provided with pensions through the pension plan (active employees and inactive employees) determined as of the beginning of the measurement period." For the current measurement year ending on June 30, 2022, these values are thus developed as of June 30, 2021. Note that the decision was made to use these averages based on rounding to the nearest whole year, so the values are thus shown as such.

Table VI-5
Average Expected Remaining Service Lives
For Measurement Year Ending June 30, 2022

Status	Total Expected Future Service	Count	Average Remaining Service Lives
Active Members	116,335	11,704	10
In-Pay Members	0	10,093	0
Terminated Vested Members	0	2,563	0
Inactives Due Refunds	0	9,479	0
Total Membership	116,335	33,839	3

SECTION VI – FINANCIAL DISCLOSURE INFORMATION

Table VI-6 below is a gain/loss analysis of the changes in the actuarial liability over the past six years, reflecting variances between actual experience and assumed experience for different kinds of risk as specified in the GFOA GAAFR.

Table VI-6
Analysis of Financial Experience
Gain and Loss in Actuarial Liability During Fiscal Years Ended June 30
Resulting from Differences Between Assumed Experience and Actual Experience

Type of Activity	Gain (or Loss) For Fiscal Year Ended June 30, 2017	Gain (or Loss) For Fiscal Year Ended June 30, 2018	Gain (or Loss) For Fiscal Year Ended June 30, 2019	Gain (or Loss) For Fiscal Year Ended June 30, 2020	Gain (or Loss) For Fiscal Year Ended June 30, 2021	Gain (or Loss) For Fiscal Year Ended June 30, 2022
Investment Income	$ (76,616)	$ 25,142,719	$ 17,765,627	$ (24,747,551)	$ 181,079,340	$ 39,956,349
Combined Liability Experience	2,160,603	(1,285,304)	(47,684,163)	6,552,650	(13,300,796)	(67,455,268)
Gain (or Loss) during Year from Financial Experience	$ 2,083,987	$ 23,857,415	$ (29,918,536)	$ (18,194,901)	$ 167,778,544	$ (27,498,919)
Non-Recurring Items	0	59,683,826	0	(2,936,139)	(161,866,111)	(16,214,107)
Composite Gain (or Loss) During Year	**$ 2,083,987**	**$ 83,541,241**	**$ (29,918,536)**	**$ (21,131,040)**	**$ 5,912,433**	**$ (43,713,026)**

SECTION VI – FINANCIAL DISCLOSURE INFORMATION

Table VI-7 below compares the Plan's assets as of each valuation date shown to the Plan's actuarial liability divided into three separate groups: liabilities for contributions on deposit for current active members, liabilities for future benefits for inactive members, and employer-financed liabilities for current active members. This Schedule of Funded Liabilities by Type is used to assess funding progress based on what percentage of the liabilities for each of these groups the Plan's assets are sufficient to cover. Per GFOA guidance, this schedule is to include this assessment for the 10 most recent years, and notes to this schedule should be provided to explain any factors that affect the comparability of the data. We do not believe such a note is needed for the measurement year ending June 30, 2022, but it is our expectation that the System's staff will make the final determination regarding any notes needed for this schedule.

Table VI-7
Schedule of Funded Liabilities by Type

	Aggregate Actuarial Liabilities for:				Portion of Actuarial Liabilities Covered by Reported Assets		
Valuation Date June 30,	(1) Active Member Contributions	(2) Retirees Vested Terms, Beneficiaries	(3) Active Members (Employer Financed Portion)	Reported Assets*	(1)	(2)	(3)
2022	$ 599,258,078	$ 2,404,206,415	$ 940,108,397	$3,596,808,593	100%	100%	63%
2021	561,690,222	2,230,697,428	926,628,764	3,388,697,748	100	100	64
2020	556,727,111	2,036,858,811	816,155,445	3,063,710,040	100	100	58
2019	521,610,261	1,927,683,260	809,526,084	2,918,585,814	100	100	58
2018	494,411,535	1,818,566,082	776,879,603	2,764,807,391	100	100	58
2017	472,362,260	1,721,058,286	823,240,175	2,609,806,231	100	100	51
2016	452,446,198	1,654,981,662	782,312,774	2,489,157,281	100	100	49
2015	438,925,747	1,543,532,803	738,477,459	2,433,186,149	100	100	61
2014	423,097,001	1,462,031,828	724,529,016	2,379,733,634	100	100	68
2013	412,347,408	1,378,065,748	675,521,588	2,179,961,872	100	100	58

* Reported assets are measured at actuarial value. Results would be different if the market value of assets were used. Despite the name of this exhibit, the liabilities presented in this schedule are not an appropriate measurement of the settlement liability of the Plan.

APPENDIX A – PARTICIPATING LOCAL DISTRICT PLAN ELECTIONS

Notes to Appendix A:

PLD Name: Name of the Participating Local District

PLD #: MainePERS Participating Local District Number

Regular Plan: Identifies the Regular Plan currently adopted by the PLD

Special Plans: Identifies the Special Plans, if any, currently adopted by the PLD

COLA: Current COLA adopted by the PLD:
- No = No COLA adopted for any current members
- Yes = COLA adopted for all service of all current members
- FO = COLA adopted for Future Service only for all current members, that is, the COLA is applicable only to the benefits attributable to service rendered after the Future Service COLA Date
- FO-Limited = COLA adopted for Future Service only for only a subset of the PLD's current members

Entry Date: Date the PLD entered the Consolidated Plan for Participating Local Districts

FO COLA Date: The Future Service COLA Date, the date as of which COLA is applicable for members of the PLD covered by the FO COLA
Varied = There are multiple Future Service COLA Dates applicable to different groups of the PLD's current members

APPENDIX A – PARTICIPATING LOCAL DISTRICT PLAN ELECTIONS

PLD Name	PLD #	Regular Plan	Special Plans	COLA	Entry Date	FO COLA Date
Acton, Town of	0361	A	2	No	7/1/2016	
Alfred, Town of	0369	A		Yes	1/1/2019	
Androscoggin County	0067	A	1,2	Yes	7/1/1994	
Androscoggin Valley Council of Governments	0231	A		Yes	7/1/1996	
Anson-Madison Sanitary District	0365	A		Yes	7/1/2017	
Aroostook County	0106	A	3	Yes	7/1/1994	
Aroostook Waste Solutions	0267	A		Yes	7/1/1996	
Ashland, Town of	0418	A		No	7/1/2022	
Auburn Housing Authority	0145	A		Yes	7/1/1994	
Auburn Lewiston Airport	0256	A		Yes	7/1/1996	
Auburn Public Library	0043	A		FO	7/1/1996	7/1/2001
Auburn Water and Sewer District	0052	A		Yes	7/1/1994	
Auburn, City of	0027	A	2,3	Yes	7/1/1994	
Augusta Housing Authority	0351	A		Yes	4/1/2014	
Augusta, City of	0023	A	2,3	Yes	7/1/1994	
Baileyville, Town of	0069	A	3	Yes	7/1/1996	
Bangor Housing Authority	0288	A		Yes	7/1/1994	
Bangor Public Library	0022	A		Yes	7/1/1996	
Bangor Water District	0059	B		Yes	7/1/1996	
Bangor, City of	0020	A	2,3	Yes	7/1/1996	
Bar Harbor, Town of	0015	A	4	Yes	7/1/1995	
Bath Water District	0019	A		Yes	7/1/1994	
Bath, City of	0073	A	2,3	Yes	7/1/1996	
Baxter Academy of Technology And Sciences	0348	A		Yes	7/1/2013	
Belfast Water District	0132	A		Yes	7/1/1995	

APPENDIX A – PARTICIPATING LOCAL DISTRICT PLAN ELECTIONS

PLD Name	PLD #	Regular Plan	Special Plans	COLA	Entry Date	FO COLA Date
Belfast, City of	0035	A	3	Yes	7/1/1996	
Belgrade, Town of	0383	A	3	Yes	7/1/2022	
Berwick Sewer District	0207	A		Yes	7/1/1994	
Berwick, Town of	0108	A	1	FO	7/1/1996	7/1/2008
Bethel, Town of	0246	A		Yes	7/1/1996	
Biddeford Housing Authority	0310	A		Yes	7/1/2007	
Biddeford, City of	0158	A	3	FO	7/1/2010	7/1/2010
Boothbay Harbor Sewer District	0363	A		Yes	1/1/2017	
Boothbay Harbor, Town of	0146	A	2	Yes	7/1/1996	
Boothbay Region Water District	0298	A	2	Yes	1/1/2002	
Bowdoinham Water District	0319	A		Yes	1/1/2009	
Brewer Housing Authority	0248	A		Yes	7/1/1994	
Brewer, City of	0063	A	2,3	Yes	7/1/1996	
Bridgton, Town of	0176	A	3	Yes	1/1/2020	
Brownville, Town of	0177	A		No	7/1/2010	
Brunswick Fire & Police	0292	A	1,3	FO	7/1/1997	7/1/1997
Brunswick Public Library Association	0273	A		FO	7/1/1995	7/1/1995
Brunswick Sewer District	0072	A		Yes	7/1/1996	
Brunswick, Town of	0042	A		FO	7/1/1995	7/1/2000
Bucksport, Town of	0130	A	4	No	7/1/1995	
Buxton, Town of	0370	A	2	Yes	9/1/2020	
Calais, City of	0036	A		FO	7/1/1996	7/1/1996
Camden, Town of	0008	A	2	Yes	7/1/1994	
Cape Elizabeth Police	0317	A	3	Yes	7/1/2008	
Caribou Fire & Police	0208	A	2,3	FO-Limited	7/1/1996	4/1/2022

APPENDIX A – PARTICIPATING LOCAL DISTRICT PLAN ELECTIONS

PLD Name	PLD #	Regular Plan	Special Plans	COLA	Entry Date	FO COLA Date
Carrabassett Valley, Town of	0277	A		FO	7/1/1994	7/1/1994
China, Town of	0235	A		FO	7/1/1996	7/1/2008
Clinton, Town of	0385	A	3	Yes	7/1/2022	
Coastal Counties Workforce	0301	A		Yes	7/1/2003	
Community School Dist. #912	0252	A		Yes	7/1/1996	
Corinth, Town of	0377	A		Yes	1/1/2022	
Cornville Regional Charter School	0345	A		Yes	7/1/2013	
Cumberland County	0005	A	2	Yes	7/1/1996	
Cumberland, Town of	0216	A	2,3	Yes	7/1/1995	
Damariscotta, Town of	0191	A		Yes	7/1/2011	
Danforth, Town of	0367	A		Yes	7/1/2017	
Dayton, Town of	0355	A	2	Yes	7/1/2014	
Dedham, Town of	0378	A	3	Yes	4/1/2022	
Dexter, Town of	0097	A		Yes	7/1/1996	
Dover-Foxcroft Water District	0137	A		Yes	7/1/1994	
Dover-Foxcroft, Town of	0167	A		No	7/1/1995	
Durham, Town of	0234	A		No	7/1/1996	
Eagle Lake Water & Sewer District	0274	A		Yes	7/1/1996	
East Millinocket, Town of	0054	A	2	Yes	7/1/1996	
Easton, Town of	0240	A		Yes	7/1/1994	
Eastport, City of	0007	A		Yes	7/1/2020	
Ecology Learning Center	0025	A		Yes	7/1/2020	
Eddington, Town of	0372	A	3	Yes	10/1/2020	
Eliot, Town of	0180	A	1	Yes	7/1/1994	
Ellsworth, City of	0013	A	4	Yes	7/1/1995	

APPENDIX A – PARTICIPATING LOCAL DISTRICT PLAN ELECTIONS

PLD Name	PLD #	Regular Plan	Special Plans	COLA	Entry Date	FO COLA Date
Enfield, Town of	0001	A		Yes	1/1/2020	
Erskine Academy	0249	A		No	7/1/1994	
Fairfield, Town of	0260	A	3	Yes	7/1/1995	
Falmouth Memorial Library	0058	A		Yes	7/1/1996	
Falmouth, Town of	0087	A	3	Yes	7/1/1996	
Farmington Village Corporation	0118	A		No	7/1/1994	
Farmington, Town of	0100	A	1	Yes	7/1/1995	
Fort Fairfield Housing Authority	0275	A		FO	7/1/2002	7/1/1994
Fort Fairfield Utilities District	0131	A		Yes	7/1/1996	
Fort Fairfield, Town of	0017	A	3	Yes	7/1/2000	
Fort Kent, Town of	0091	A	1,2	FO	7/1/2019	7/1/2021
Franklin County	0102	A	2,3	Yes	7/1/2006	
Freeport, Town of	0142	A	2,3	FO	7/1/2003	7/1/2003
Frenchville, Town of	0098	A		No	7/1/1996	
Fryeburg, Town of	0149	A	1	No	1/1/2011	
Gardiner Water District	0221	A		No	7/1/1994	
Gardiner, City of	0024	A	3	FO	7/1/1996	7/1/2009
Glenburn, Town of	0174	A		Yes	7/1/1994	
Good Will Home Association	0347	A		Yes	7/1/2013	
Gorham Fire and Police	0334	A	3	Yes	7/1/2009	
Gorham, Town of	0133	A		Yes	7/1/1996	
Gould Academy	0205	A		No	7/1/1996	
Grand Isle, Town of	0312	B		Yes	7/1/2008	
Greater Augusta Utility District	0311	A		Yes	1/1/2008	
Greenville, Town of	0112	A		Yes	7/1/1996	

APPENDIX A – PARTICIPATING LOCAL DISTRICT PLAN ELECTIONS

PLD Name	PLD #	Regular Plan	Special Plans	COLA	Entry Date	FO COLA Date
Hallowell, City of	0160	A	2	Yes	7/1/1996	
Hampden Water District	0183	A		Yes	7/1/1996	
Hampden, Town of	0151	A	1,3	FO	7/1/1996	7/1/2009
Hancock County	0056	A	2	Yes	7/1/1994	
Hancock, Town of	0353	A		Yes	7/1/2014	
Harpswell Coastal Academy	0350	A		Yes	1/1/2022	
Harpswell, Town of	0270	A		Yes	7/1/1994	
Harrison, Town of	0280	B		Yes	7/1/1994	
Hartland, Town of	0360	A		Yes	1/1/2016	
Hermon, Town of	0150	A		No	7/1/1996	
Hodgdon, Town of	0215	A		FO	7/1/1996	7/1/2007
Holden, Town of	0338	A	3,4	Yes	7/1/2011	
Houlton Water Company	0026	A		Yes	7/1/1995	
Houlton, Town of	0010	A	2,4	Yes	7/1/1996	
Jackman Utility District	0294	A		Yes	7/1/1996	
Jay, Town of	0045	A	2	Yes	7/1/1994	
Kennebec County	0047	A	2	Yes	7/1/1995	
Kennebec Sanitary Treatment District	0220	A		FO	7/1/1995	7/1/1995
Kennebec Water District	0031	A		Yes	7/1/1996	
Kennebunk Light & Power District	0062	A		Yes	7/1/1994	
Kennebunk Sewer District	0201	A		FO	7/1/1994	7/1/2000
Kennebunk, Kennebunkport & Wells Water District	0255	A		FO	7/1/1996	7/1/1999
Kennebunk, Town of	0084	A	2	Yes	7/1/1996	
Kennebunkport, Town of	0188	A	1	FO	7/1/1996	7/1/2006
Kittery Water District	0012	A		Yes	7/1/1994	

APPENDIX A – PARTICIPATING LOCAL DISTRICT PLAN ELECTIONS

PLD Name	PLD #	Regular Plan	Special Plans	COLA	Entry Date	FO COLA Date
Kittery, Town of	0014	A	1	Yes	7/1/1995	
Knox County Sheriffs and Corrections	0359	A	3	No	1/1/2016	
Lebanon, Town of	0181	A		Yes	7/1/1996	
Levant, Town of	0339	A		Yes	7/1/2011	
Lewiston Housing Authority	0154	A		Yes	7/1/1994	
Lewiston, City of	0048	A	2,3	Yes	7/1/1996	
Lewiston/Auburn 9-1-1	0291	A		Yes	7/1/1994	
Lewiston-Auburn Water Pollution Control Authority	0163	A		FO	7/1/1996	7/1/1996
Limerick, Town of	0375	A	3	No	10/1/2021	
Limestone Water & Sewer District	0029	A		Yes	7/1/2022	
Limestone, Town of	0245	A		Yes	7/1/2006	
Lincoln & Sagadahoc Multi-County Jail Authority	0304	A	2	Yes	7/1/2004	
Lincoln Academy	0134	A		Yes	7/1/1994	
Lincoln County	0095	A		Yes	7/1/2004	
Lincoln County Sheriff's Office	0302	A	3	Yes	7/1/2003	
Lincoln Sanitary District	0219	A		Yes	7/1/1994	
Lincoln Water District	0092	A		Yes	7/1/1994	
Lincoln, Town of	0076	A	3	No	7/1/1996	
Linneus, Town of	0214	A		No	7/1/1996	
Lisbon Water Department	0243	A		FO	7/1/1996	7/1/2007
Lisbon, Town of	0103	A	3	Yes	7/1/1996	
Livermore Falls Water District	0032	A		Yes	7/1/1994	
Livermore Falls, Town of	0109	A	2	FO-Limited	7/1/1996	7/1/2021
Lovell, Town of	0276	A		Yes	7/1/1996	
Lubec Water District	0088	A		Yes	7/1/1996	

APPENDIX A – PARTICIPATING LOCAL DISTRICT PLAN ELECTIONS

PLD Name	PLD #	Regular Plan	Special Plans	COLA	Entry Date	FO COLA Date
Lubec, Town of	0228	A		No	7/1/1996	
Lyman, Town of	0373	A		Yes	12/1/2020	
M.A.D.S.E.C.	0297	A		Yes	7/1/1999	
Madawaska Water District	0236	A		Yes	7/1/1994	
Madawaska, Town of	0082	A	3	Yes	7/1/1996	
Maine Academy of Natural Sciences	0346	A		Yes	7/1/2013	
Maine County Commissioners Association	0225	A		No	7/1/1996	
Maine Maritime Academy	0038	A		Yes	7/1/1996	
Maine Municipal Association	0055	A		Yes	7/1/2009	
Maine Municipal Bond Bank	0093	A		Yes	7/1/1995	
Maine Principals' Association	0105	A		Yes	7/1/1994	
Maine Public Employees Retirement System	0290	A		Yes	7/1/1994	
Maine School Management Association	0239	A		Yes	7/1/1994	
Maine School of Science and Mathematics	0352	A		Yes	7/1/2014	
Maine State Housing Authority	0169	A		Yes	7/1/2005	
Maine Turnpike Authority	0049	A		Yes	7/1/1994	
Maine Veterans' Home	0271	A		Yes	7/1/1994	
Maine Virtual Academy	0357	A		Yes	7/1/2015	
Mapleton, Castle Hill, & Chapman, Town of	0265	A		Yes	7/1/1996	
Mars Hill Utility District	0283	A		Yes	7/1/1994	
Mars Hill, Town of	0227	A		Yes	7/1/1996	
Mechanic Falls Sanitary District	0282	A		FO	7/1/1994	7/1/2002
Mechanic Falls, Town of	0114	A	2	Yes	7/1/1994	
Medway, Town of	0194	A		Yes	7/1/1996	
Mexico, Town of	0074	A	2	Yes	7/1/1996	

APPENDIX A – PARTICIPATING LOCAL DISTRICT PLAN ELECTIONS

PLD Name	PLD #	Regular Plan	Special Plans	COLA	Entry Date	FO COLA Date
Midcoast Council of Governments	0343	A		Yes	7/1/2012	
Milford, Town of	0186	A		No	7/1/1996	
Millinocket, Town of	0003	A	3,4	Yes	7/1/1996	
Milo Water District	0238	A		No	7/1/1996	
Monmouth, Town of	0316	A	3	Yes	7/1/2008	
Monson, Town of	0184	A		No	7/1/1996	
Mount Desert Island Regional School District	0120	A		Yes	7/1/1996	
Mount Desert Water District	0300	A		Yes	7/1/2003	
Mount Desert, Town of	0016	A	2	Yes	7/1/1996	
New Gloucester, Town of	0210	A		FO	7/1/1995	7/1/2007
Newport Water District	0313	A		Yes	7/1/2008	
Newport, Town of	0314	A	2	Yes	7/1/2008	
Newry, Town of	0387	A		Yes	7/1/2022	
North Berwick Water District	0308	A		Yes	7/1/2006	
North Berwick, Town of	0254	A	3	No	7/1/1996	
Northern Aroostook Regional Airport Authority	0374	A	2	Yes	7/1/2021	
Northern Oxford Regional Solid Waste Board	0354	A		Yes	7/1/2014	
Norway Water District	0136	A		FO	7/1/1995	7/1/2000
Norway, Town of	0125	A	2	FO	7/1/1996	7/1/2000
Oakland, Town of	0376	A	3	Yes	10/1/2021	
Ogunquit, Town of	0303	A	1	Yes	7/1/2004	
Old Orchard Beach, Town of	0140	A	1,2,3	Yes	7/1/2003	
Old Town Housing Authority	0262	A		FO	7/1/1994	7/1/1994
Old Town Water District	0079	A		FO	7/1/1994	1/1/2022
Old Town, City of	0111	A	2,3	No	7/1/1995	

APPENDIX A – PARTICIPATING LOCAL DISTRICT PLAN ELECTIONS

PLD Name	PLD #	Regular Plan	Special Plans	COLA	Entry Date	FO COLA Date
Orland, Town of	0166	A		No	7/1/1996	
Orono, Town of	0061	A	2	FO	7/1/1996	7/1/2002
Orrington, Town of	0209	A	3	No	7/1/1995	
Otis, Town of	0364	A		Yes	7/1/2017	
Otisfield, Town of	0193	A		FO	7/1/1996	7/1/1996
Oxford County	0057	A	2,4	Yes	7/1/1994	
Oxford, Town of	0200	A	1	No	7/1/1996	
Paris Utility District	0159	A		Yes	7/1/1995	
Paris, Town of	0127	A	2	Yes	7/1/1996	
Penobscot County	0011	A	2	Yes	7/1/1994	
Penquis	0237	A		No	7/1/1995	
Phippsburg, Town of	0202	A	3	Yes	7/1/1996	
Piscataquis County	0121	A	4	Yes	7/1/1994	
Pittsfield, Town of	0110	A		No	7/1/1996	
Pleasant Point Passamaquoddy Reservation Housing Authority	0165	A		Yes	7/1/1996	
Poland, Town of	0336	A	1	FO	7/1/2010	Varied
Portland Housing Authority	0185	A		Yes	7/1/1994	
Portland Public Library	0041	A		Yes	7/1/1995	
Portland, City of	0002	A	2,3	Yes	7/1/1995	
Presque Isle, City of	0004	A	3	Yes	1/1/2020	
Princeton, Town of	0258	A		No	7/1/1996	
Rangeley, Town of	0382	A	2	Yes	7/1/2022	
Regional School Unit #01	0315	A	2	Yes	7/1/2008	
Regional School Unit #02	0323	A		FO	7/1/2009	7/1/2009

APPENDIX A – PARTICIPATING LOCAL DISTRICT PLAN ELECTIONS

PLD Name	PLD #	Regular Plan	Special Plans	COLA	Entry Date	FO COLA Date
Regional School Unit #04	0324	A		Yes	7/1/2009	
Regional School Unit #05	0325	A		Yes	7/1/2009	
Regional School Unit #09	0119	A		Yes	7/1/1995	
Regional School Unit #10	0326	A		Yes	7/1/2009	
Regional School Unit #20	0328	A		Yes	7/1/2009	
Regional School Unit #21	0322	A		FO	7/1/2009	7/1/2009
Regional School Unit #23	0329	A		Yes	7/1/2009	
Regional School Unit #25	0321	A		No	7/1/2009	
Regional School Unit #26	0330	A		Yes	7/1/2009	
Regional School Unit #29	0168	A		Yes	7/1/1996	
Regional School Unit #34	0331	A		No	7/1/2009	
Regional School Unit #49	0189	A		No	7/1/1995	
Regional School Unit #51	0198	A		No	7/1/1996	
Regional School Unit #52	0461	A		Yes	11/1/2021	
Regional School Unit #54	0115	A		Yes	7/1/1996	
Regional School Unit #56	0366	A		Yes	7/1/2017	
Regional School Unit #60	0187	A		No	7/1/1994	
Regional School Unit #67	0126	A		Yes	7/1/2016	
Regional School Unit #73	0340	A		Yes	7/1/2011	
Regional School Unit #75	0380	A		Yes	5/1/2022	
Richmond Utilities District	0242	A		No	7/1/1994	
Richmond, Town of	0213	A		Yes	7/1/2007	
Rockland, City of	0018	A	3	Yes	7/1/1995	
Rockport, Town of	0161	A	2	FO-Limited	7/1/1996	1/1/2021
Rumford Fire & Police	0060	A	2,4	Yes	7/1/1995	

APPENDIX A – PARTICIPATING LOCAL DISTRICT PLAN ELECTIONS

PLD Name	PLD #	Regular Plan	Special Plans	COLA	Entry Date	FO COLA Date
Rumford Mexico Sewerage District	0247	A		Yes	7/1/1996	
Rumford Water District	0065	A		Yes	7/1/1995	
Rumford, Town of	0090	A		Yes	7/1/1995	
Sabattus, Town of	0175	A	3	FO	7/1/1996	7/1/2006
Saco, City of	0192	A	2,3	FO-Limited	7/1/1995	Varied
Sagadahoc County	0096	A	2,3	Yes	7/1/2002	
Sanford Housing Authority	0152	A		Yes	7/1/1996	
Sanford Sewerage District	0089	A		No	7/1/1994	
Sanford Water District	0170	A		FO	7/1/1996	7/1/2009
Sanford, City of	0083	A	1,3	FO	7/1/1995	7/1/2002
Scarborough, Town of	0147	A	1,3	Yes	7/1/1996	
School Administrative District No. 13 Bingham	0223	A		Yes	7/1/1996	
School Administrative District No. 31 Howland	0050	A		FO	7/1/1994	7/1/1994
School Administrative District No. 41 Milo	0143	A		Yes	7/1/1996	
School Administrative District No. 53 Pittsfield	0129	A		No	7/1/1996	
Searsport Water District	0124	A		No	7/1/1996	
Searsport, Town of	0117	A	3	No	7/1/1996	
Shapleigh, Town of	0381	A		No	7/1/2022	
Skowhegan, Town of	0080	A	3	Yes	7/1/1996	
Somerset County	0101	A	2,3	Yes	7/1/2005	
South Berwick Sewer District	0299	A		Yes	7/1/2003	
South Berwick Water District	0171	A	2	Yes	7/1/1996	
South Berwick, Town of	0141	A	1	FO	7/1/1996	7/1/1996
South Portland Housing Authority	0206	A		Yes	7/1/1996	
South Portland, City of	0009	A	3	Yes	7/1/1995	

APPENDIX A – PARTICIPATING LOCAL DISTRICT PLAN ELECTIONS

PLD Name	PLD #	Regular Plan	Special Plans	COLA	Entry Date	FO COLA Date
Southwest Harbor, Town of	0368	A	2	Yes	7/1/2018	
St. Agatha, Town of	0030	A		Yes	7/1/1996	
Standish, Town of	0371	A	2	No	1/1/2021	
Thomaston, Town of	0164	A	3	Yes	1/1/2010	
Thompson Free Library	0318	A		Yes	1/1/2009	
Topsham Sewer District	0307	A		Yes	7/1/2005	
Topsham, Town of	0081	A	2,3	Yes	7/1/1996	
Trenton, Town of	0341	A		Yes	7/1/2011	
Union, Town of	0342	A		No	7/1/2012	
United Technologies Center, Region 4, S Penobscot	0269	A		FO	7/1/1996	7/1/2009
University of Maine System	0379	A	2	Yes	7/1/2022	
Van Buren Housing Authority	0229	A		Yes	7/1/1994	
Van Buren, Town of	0182	A	3	Yes	7/1/1995	
Vassalboro, Town of	0153	A		Yes	7/1/1996	
Veazie Fire & Police	0305	A	3	Yes	7/1/2004	
Waldo County	0046	A	2,3	Yes	7/1/1994	
Waldo County Technical Center	0224	A		No	7/1/1996	
Waldoboro, Town of	0195	A	3	Yes	7/1/1995	
Washburn Water and Sewer District	0335	A		No	7/1/2009	
Washburn, Town of	0230	A		No	7/1/1994	
Washington County	0040	A	3,4	Yes	7/1/1996	
Waterboro, Town of	0356	A	3	No	1/1/2015	
Waterville Fire & Police	0066	A	3	FO	7/1/1996	Varied
Waterville Sewerage District	0222	A		Yes	7/1/1994	
Wells Fire and Police	0349	A	2	Yes	7/1/2013	

APPENDIX A – PARTICIPATING LOCAL DISTRICT PLAN ELECTIONS

PLD Name	PLD #	Regular Plan	Special Plans	COLA	Entry Date	FO COLA Date
Wells Ogunquit Community School District #918	0266	A		FO	7/1/1995	7/1/1995
Wells, Town of	0107	A	2	FO-Limited	1/1/2018	7/1/2020
West Bath, Town of	0333	A	3	Yes	7/1/2009	
Westbrook Fire & Police	0070	A	1,3	Yes	7/1/2006	
Westbrook, City of	0122	A	3	Yes	7/1/2006	
Wilton, Town of	0086	A	2,3	FO	1/1/2009	1/1/2009
Windham, Town of	0309	A	3	Yes	7/1/2006	
Winslow, Town of	0362	A	2,3	Yes	1/1/2017	
Winter Harbor Utility District	0250	A		Yes	7/1/1994	
Winthrop Utilities District	0337	A		Yes	1/1/2011	
Winthrop, Town of	0179	A	2	FO	7/1/1994	7/1/2003
Wiscasset, Town of	0417	A	2	FO-Limited	1/1/2012	7/1/2020
Yarmouth Water District	0278	A		Yes	7/1/1994	
Yarmouth, Town of	0116	A	1	Yes	7/1/1996	
York County	0037	A	1,2	Yes	7/1/1996	
York Sewer District	0139	A		FO	7/1/1994	7/1/2006
York Water District	0039	A		Yes	7/1/1996	
York, Town of	0028	A	2,3	Yes	7/1/1994	

APPENDIX B – MEMBERSHIP INFORMATION

Active Member Data as of June 30, 2022	
Regular Plan Members	
Count	8,799
Average Current Age	47.6
Average Benefit Service	8.0
Average Vesting Service	8.3
Average Valuation Pay	$ 54,964
Special Plan Members	
Count	3,563
Average Current Age	39.6
Average Benefit Service	9.5
Average Vesting Service	10.1
Average Valuation Pay	$ 71,412
All Plan Members	
Count	12,362
Average Current Age	45.3
Average Benefit Service	8.4
Average Vesting Service	8.8
Average Valuation Pay	$ 59,704

Participating Local Districts of the Maine Public Employees Retirement System
Inactive Member Data as of June 30, 2022
Regular Plans

	Count	Average Age	Total Annual Benefit	Average Annual Benefit
Retired	6,062	73.3	$ 96,503,253	$ 15,919
Retired - Concurrent Beneficiary	375	72.4	1,500,484	4,001
Disability - Section 1122	21	77.9	288,895	13,757
Disability – Sections 3 and 3A	267	67.3	6,109,656	22,883
Beneficiary of Above	1,066	73.5	11,679,773	10,957
Pre-Retirement Death Beneficiary	157	68.3	1,036,083	6,599
Terminated Vested	2,296	52.6	13,426,161	5,848
Inactive Due Refund	9,383	NA	NA	NA

APPENDIX B – MEMBERSHIP INFORMATION

Participating Local Districts of the Maine Public Employees Retirement System Inactive Member Data as of June 30, 2022 Special Plans				
	Count	**Average Age**	**Total Annual Benefit**	**Average Annual Benefit**
Retired	1,649	68.1	$ 60,155,338	$ 36,480
Retired - Concurrent Beneficiary	368	68.1	2,567,068	6,976
Disability - Section 1122	15	75.3	352,420	23,495
Disability – Sections 3 and 3A	95	62.2	3,056,505	32,174
Beneficiary of Above	304	73.6	6,123,296	20,142
Pre-Retirement Death Beneficiary	21	61.6	154,958	7,379
Terminated Vested	428	47.1	4,735,960	11,065
Inactive Due Refund	697	NA	NA	NA

In preparing this report, we relied on data provided by MainePERS as modified following the procedures outlined in the State of Maine Data Processing Notebook. Adjustments to the data are made based on this processing notebook. Accuracy of the results is dependent on the completeness of the underlying information. The plan sponsor is responsible for the validity and completeness of the information provided. We believe the data provided as modified as documented in the Processing Notebook is sufficient for the actuarial analysis performed.

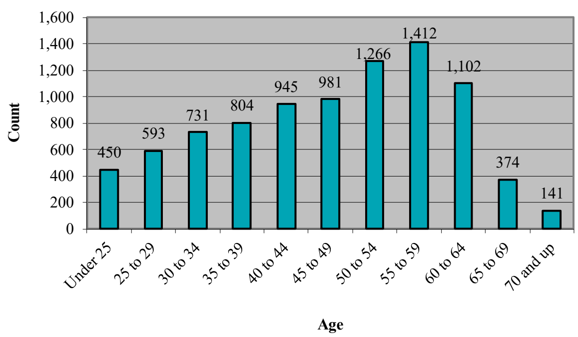
APPENDIX B – MEMBERSHIP INFORMATION

Distribution of Active Members
As of June 30, 2022

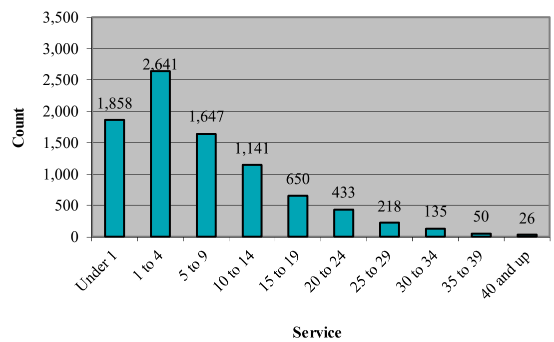
Regular Plan Participants

	Years of Service										
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 and up	Totals
Under 25	278	169	3	0	0	0	0	0	0	0	450
25 to 29	216	302	74	1	0	0	0	0	0	0	593
30 to 34	213	321	154	42	1	0	0	0	0	0	731
35 to 39	200	295	192	91	25	1	0	0	0	0	804
40 to 44	192	313	203	151	63	22	1	0	0	0	945
45 to 49	185	323	206	124	74	60	9	0	0	0	981
50 to 54	223	327	251	194	130	83	40	17	1	0	1,266
55 to 59	183	298	281	229	160	122	73	51	13	2	1,412
60 to 64	106	210	194	213	140	98	58	50	24	9	1,102
65 to 69	31	64	71	62	47	34	27	15	12	11	374
70 and up	31	19	18	34	10	13	10	2	0	4	141
Total	1,858	2,641	1,647	1,141	650	433	218	135	50	26	8,799

Age Distribution



Service Distribution



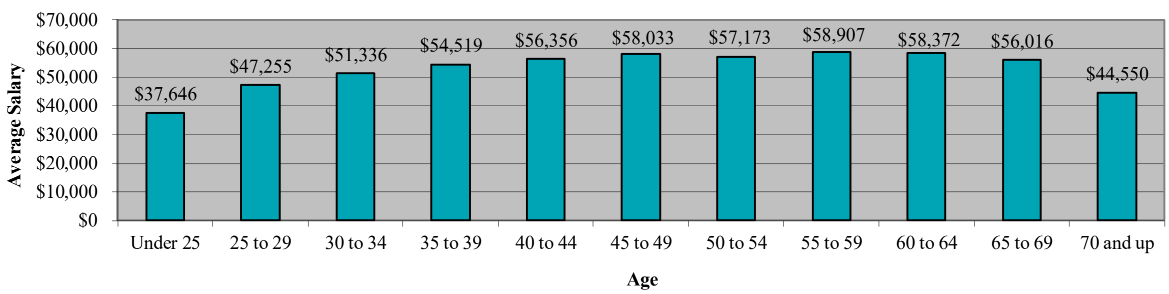
APPENDIX B – MEMBERSHIP INFORMATION

Distribution of Active Members
As of June 30, 2022

Regular Plan Participants

	verage Salary										
	Years of Service										
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 and up	Average
Under 25	$ 34,296	$ 43,085	$ 41,714	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 37,646
25 to 29	42,521	47,869	58,450	55,793	0	0	0	0	0	0	47,255
30 to 34	46,344	50,117	57,632	62,830	53,590	0	0	0	0	0	51,336
35 to 39	47,391	51,425	60,363	65,682	62,176	63,356	0	0	0	0	54,519
40 to 44	45,929	51,700	59,972	68,224	68,398	63,893	65,238	0	0	0	56,356
45 to 49	47,911	53,148	60,008	69,903	68,042	69,409	74,466	0	0	0	58,033
50 to 54	47,490	50,783	56,091	64,232	67,120	69,473	69,556	75,657	84,028	0	57,173
55 to 59	48,968	51,226	60,073	61,558	62,066	63,117	76,605	71,324	76,475	58,876	58,907
60 to 64	48,247	49,411	55,837	64,907	60,703	62,920	61,966	71,679	68,627	76,532	58,372
65 to 69	38,411	47,212	53,554	59,849	59,925	56,654	66,272	79,151	66,036	64,804	56,016
70 and up	31,219	39,989	37,225	57,533	48,146	51,040	46,853	50,354	0	53,405	44,550
Average	$ 44,443	$ 50,123	$ 58,115	$ 64,585	$ 63,700	$ 64,332	$ 68,632	$ 72,560	$ 70,354	$ 66,654	$ 54,964

Average Salary Distribution



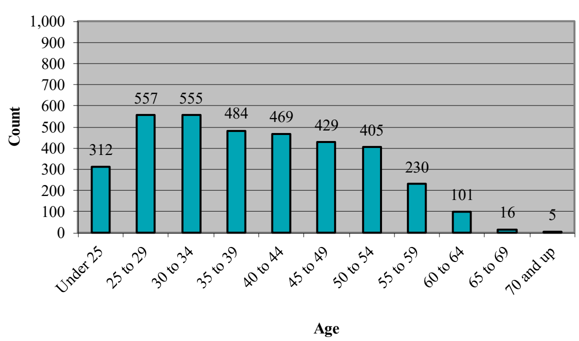
APPENDIX B – MEMBERSHIP INFORMATION

Distribution of Active Members
As of June 30, 2022

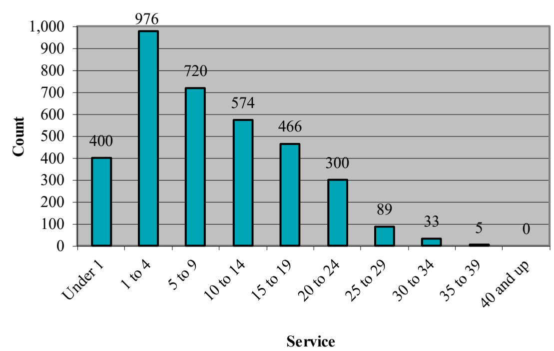
Special Plan Participants

	Years of Service										
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 and up	Totals
Under 25	133	178	1	0	0	0	0	0	0	0	312
25 to 29	87	328	142	0	0	0	0	0	0	0	557
30 to 34	57	185	236	77	0	0	0	0	0	0	555
35 to 39	35	106	132	148	62	1	0	0	0	0	484
40 to 44	21	72	75	131	126	44	0	0	0	0	469
45 to 49	30	36	54	80	101	106	21	1	0	0	429
50 to 54	23	41	35	73	96	91	38	7	1	0	405
55 to 59	8	21	19	42	61	47	17	14	1	0	230
60 to 64	4	9	17	21	18	10	11	8	3	0	101
65 to 69	2	0	6	2	2	1	1	2	0	0	16
70 and up	0	0	3	0	0	0	1	1	0	0	5
Total	400	976	720	574	466	300	89	33	5	0	3,563

Age Distribution



Service Distribution



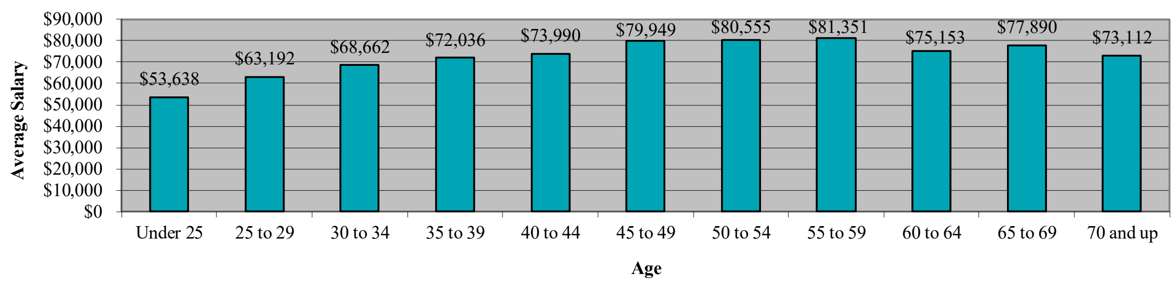
APPENDIX B – MEMBERSHIP INFORMATION

Distribution of Active Members
As of June 30, 2022

Special Plan Participants

	Average Salary Years of Service										
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 and up	Average
Under 25	$ 45,665	$ 59,552	$ 61,315	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 53,638
25 to 29	45,613	63,830	72,489	0	0	0	0	0	0	0	63,192
30 to 34	48,523	64,084	72,813	81,846	0	0	0	0	0	0	68,662
35 to 39	45,779	64,632	70,273	79,494	84,980	102,048	0	0	0	0	72,036
40 to 44	47,806	63,020	67,757	75,889	81,156	88,888	0	0	0	0	73,990
45 to 49	52,437	63,033	79,412	81,764	82,417	87,547	93,532	57,919	0	0	79,949
50 to 54	55,803	65,824	72,449	84,372	82,382	86,280	89,620	99,758	83,488	0	80,555
55 to 59	58,164	62,319	66,703	84,488	87,092	86,195	86,036	86,224	87,320	0	81,351
60 to 64	57,235	59,870	69,519	70,768	88,135	69,637	79,818	93,650	81,587	0	75,153
65 to 69	63,099	0	64,908	104,982	92,506	68,425	76,744	95,221	0	0	77,890
70 and up	0	0	55,329	0	0	0	126,911	72,662	0	0	73,112
Average	$ 47,727	$ 63,111	$ 71,840	$ 80,058	$ 83,286	$ 86,535	$ 88,922	$ 90,172	$ 83,114	$ -	$ 71,412

Average Salary Distribution

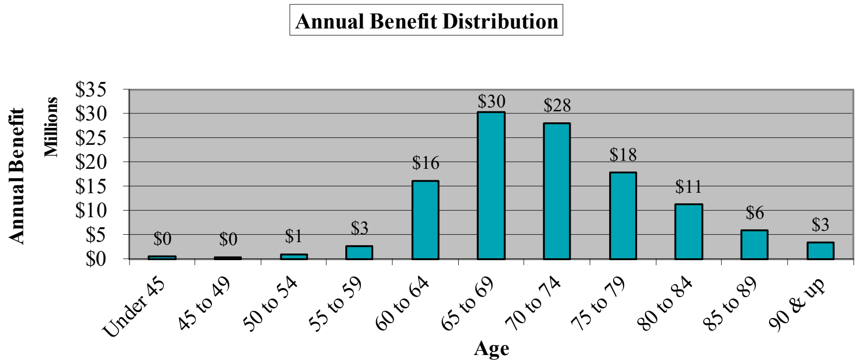


APPENDIX B – MEMBERSHIP INFORMATION

Distribution of Retirees, Disabled Members, Beneficiaries, and Survivors As of June 30, 2022

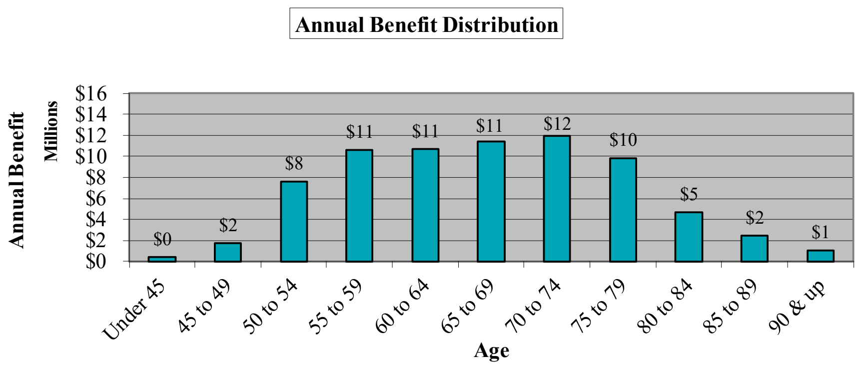
Regular Plan Participants

Age	Count	Annual Benefit
Under 45	72	$ 459,488
45 to 49	37	365,288
50 to 54	70	925,699
55 to 59	155	2,645,428
60 to 64	892	16,145,502
65 to 69	1,911	30,371,770
70 to 74	1,836	28,007,440
75 to 79	1,270	17,798,334
80 to 84	866	11,208,906
85 to 89	499	5,821,661
90 & up	340	3,368,628
Total	7,948	$ 117,118,144



Special Plan Participants

Age	Count	Annual Benefit
Under 45	18	$ 377,905
45 to 49	53	1,724,577
50 to 54	222	7,639,433
55 to 59	315	10,629,079
60 to 64	341	10,683,136
65 to 69	364	11,396,214
70 to 74	420	11,933,965
75 to 79	357	9,841,715
80 to 84	194	4,669,632
85 to 89	114	2,455,924
90 & up	54	1,058,005
Total	2,452	$ 72,409,585



APPENDIX B – MEMBERSHIP INFORMATION

	Active Members	Retired Members	Beneficiaries of Retired Members	Survivors of Deceased Members	Disabled Members[1]	Terminated Vested Members[2]
As of June 30, 2021	**11,704**	**7,434**	**2,096**	**162**	**401**	**2,563**
New hires	2,185					
Rehires	220					(74)
New PLDs	63					
Movement between plans	(1)	-	-			-
New retirees	(343)	521				(178)
New disabled retirees	(12)				20	(8)
New beneficiaries due to retirements			36			
New deferred vested members	(452)					502
Non-vested terminations	(783)					
Refunds	(198)					(49)
Deaths, no future benefits	(3)	(188)	(91)	(5)	(14)	(10)
Deaths with a survivor or beneficiary	(15)	(60)	73	22	(12)	(11)
Benefits expired				(1)		
Benefits restarted				-		
Records combined / split						
Data correction	(3)	4	(1)	-	3	(11)
As of June 30, 2022	**12,362**	**7,711**	**2,113**	**178**	**398**	**2,724**

1. Former disabled retirees who have changed to service retirement as mandated by the Plan are still included as disabled members.
2. Deferred vested members includes those indicated to us in the data who have terminated and are eligible for a future annuity.

APPENDIX C – SUMMARY OF PLAN PROVISIONS

1. Member Contributions

Beginning with FY 2020, the contribution rates for members are determined annually based on the risk-sharing framework adopted by the Board of Trustees. The rates for members of Regular Plans (AC, AN, and BC) also vary based on whether the member joined the Plan prior to July 1, 2014 and thus has a normal retirement age of 60 or joined on or after this date and has a normal retirement age of 65. See the Annual PLD Contribution Rate letter for further details.

Member contributions earn annual interest at the rate adopted by the Board of Trustees each February.

2. Average Final Compensation

For purposes of determining benefits payable, average final compensation is the average annual rate of earnable compensation for the three years of creditable service (not necessarily consecutive) that produce the highest such average.

3. Creditable Service

Creditable service includes service while a member, certain service prior to the establishment of the Plan, purchased service credit of which there are several types, and service while receiving disability benefits under the Plan.

Effective August 1, 2019, the ability to use accrued, unused vacation and sick leave towards retirement benefits is available only to those who have 20 or more years of creditable service under the Plan at retirement.

4. Service Retirement Benefits

Regular Plan AC

Normal Retirement Age:

Plan members prior to July 1, 2014: 60
New members to the Plan on or after July 1, 2014: 65

Eligibility for Members in Active Service and Inactive Members: 25 years of creditable service.

Eligibility Alternative for Members in Active Service: At least one year of creditable service immediately before retirement and at least normal retirement age.

APPENDIX C – SUMMARY OF PLAN PROVISIONS

Eligibility for Members not in Active Service at Retirement and not in Active Service on or after October 1, 1999: At least 10 years of creditable service and at least normal retirement age.

Eligibility for Members not in Active Service at Retirement but in Active Service on or after October 1, 1999: At least five years of creditable service and at least normal retirement age.

Benefit: 1/50 of average final compensation multiplied by years of membership service under Consolidated Plan AC reduced by:

Plan members prior to July 1, 2014:	approximately 2¼% for each year that a member is younger than age 60 at retirement.
New members to the Plan on or after July 1, 2014:	6% for each year that a member is younger than age 65 at retirement.

Beginning July 1, 2019, the age reduction factors are a set of approximately actuarially equivalent rates rather than the above rates for members with less than 20 years of creditable service under the PLD Consolidated Plan on July 1, 2019. The above 2¼% and 6% rates remain in effect for those members with 20 or more years of creditable service under the PLD Consolidated Plan on July 1, 2019.

Form of Payment: Life annuity ("full benefit") unless an optional method of payment is selected.

Cost-of-Living Adjustment: See item 11.

Regular Plan AN

This benefit plan is the same as Regular Benefit Plan AC, except that there is no provision for cost-of-living adjustments.

Regular Plan BC

Normal Retirement Age:

Plan members prior to July 1, 2014: 60
New members to the Plan on or after July 1, 2014: 65

Eligibility for Members in Active Service and Inactive Members: 25 years of creditable service.

APPENDIX C – SUMMARY OF PLAN PROVISIONS

Eligibility Alternative for Members in Active Service: At least one year of creditable service immediately before retirement and at least normal retirement age.
Eligibility for Members not in Active Service at Retirement and not in Active Service on or after October 1, 1999: At least 10 years of creditable service and at least normal retirement age.

Eligibility for Members not in Active Service at Retirement but in Active Service on or after October 1, 1999: At least five years of creditable service and at least normal retirement age.

Benefit: 1/100 of average final compensation multiplied by years of membership service under Consolidated Plan BC reduced by:

Plan members prior to July 1, 2014:	approximately 2¼% for each year that a member is younger than age 60 at retirement.
New members to the Plan on or after July 1, 2014:	6% for each year that a member is younger than age 65 at retirement.

Beginning July 1, 2019, the age reduction factors are a set of approximately actuarially equivalent rates rather than the above rates for members with less than 20 years of creditable service under the PLD Consolidated Plan on July 1, 2019. The above 2¼% and 6% rates remain in effect for those members with 20 or more years of creditable service under the PLD Consolidated Plan on July 1, 2019.

Form of Payment: Life annuity ("full benefit") unless an optional method of payment is selected.

Cost-of-Living Adjustment: See item 11.

Regular Plan Notes

1. Under certain circumstances, Regular Plan service can count on a pro-rata basis specific to the applicable Special Plan toward meeting Special Plan benefit eligibility requirements.

2. The actual benefit for service earned prior to coverage under the Consolidated Plan may be based on a variable percentage of average final compensation multiplied by years of service under any previous plan(s) (the percentage depends on the previous plan(s)).

Special Plan 1C

Eligibility: 20 years of creditable service in named positions.

APPENDIX C – SUMMARY OF PLAN PROVISIONS

Benefit: One-half of average final compensation plus 2% for each year of service in excess of 20 years of service.

Form of Payment: Life annuity ("full benefit") unless an optional method of payment is selected.

Cost-of-Living Adjustment: See item 11.

Special Plan 1N

This benefit plan is identical to Special Benefit Plan 1C, except that there is no provision for cost-of-living adjustments.

Special Plan 2C

Eligibility: 25 years of creditable service in named positions.

Benefit: One-half average final compensation plus 2% for each year of service in excess of 25 years of service.

Form of Payment: Life annuity ("full benefit") unless an optional method of payment is selected.

Cost-of-Living Adjustment: See item 11.

Special Plan 2N

This benefit plan is identical to Special Benefit Plan 2C, except that there is no provision for cost-of-living adjustments.

Special Plan 3C

Eligibility: 25 years of creditable service in named positions.

Benefit: Two-thirds of average final compensation plus 2% for each year of service in excess of 25 years of service.

Form of Payment: Life annuity ("full benefit") unless an optional method of payment is selected.

Cost-of-Living Adjustment: See item 11.

APPENDIX C – SUMMARY OF PLAN PROVISIONS

Special Plan 3N

This benefit is identical to Regular Benefit Plan 3C, except that there is no provision for cost-of-living adjustments.

Special Plan 4C

Eligibility: Age 55 with 25 years of creditable service in named positions.

Benefit: 1/50 of average final compensation multiplied by years of membership service under Consolidated Plan 4C reduced by:

Plan members prior to July 1, 2014:	approximately 2¼% for each year that a member is younger than age 55 at retirement.
New members to the Plan on or after July 1, 2014:	6% for each year that a member is younger than age 55 at retirement.

Beginning July 1, 2019, the age reduction factors are a set of approximately actuarially equivalent rates rather than the above rates for members with less than 20 years of creditable service under the PLD Consolidated Plan on July 1, 2019. The above 2¼% and 6% rates remain in effect for those members with 20 or more years of creditable service under the PLD Consolidated Plan on July 1, 2019.

Form of Payment: Life annuity ("full benefit") unless an optional method of payment is selected.

Cost-of-Living Adjustment: See item 11.

Special Plan 4N

This benefit plan is identical to Special Benefit Plan 4C, except that there is no provision for cost-of-living adjustments.

Special Plan Notes

1. If a Special Plan member fails to meet the Special Plan eligibility criteria, their service retirement benefit is that provided by the applicable underlying Regular Plan; Special Plan service credits are used toward Regular Plan eligibility requirements.

2. Service in all Special Plans counts, on a percentage basis, toward meeting the benefit eligibility requirements of any Special Plan.

APPENDIX C – SUMMARY OF PLAN PROVISIONS

3. The actual benefit for service earned prior to coverage under the Consolidated Plan may be based on a variable percentage of average final compensation multiplied by years of service under any previous Plan(s) (the percentage depends on the previous Plan(s)).

5. Disability Retirement Benefits Other Than No-Age Benefits (See Item 6)

Eligibility: Disabled as defined in the MainePERS statutes prior to applicable normal retirement age, employed prior to October 16, 1992, and did not elect the No-Age Disability Benefits, and either disabled in the line-of-duty or disabled with at least five years of creditable service.

Benefit: 66⅔% of average final compensation, reduced by employment earnings over the specified statutory limit, and to the extent that the benefit in combination with Workers' Compensation and Social Security, exceeds 80% of average final compensation.

Form of Payment: Payment begins upon the termination of service and ceases on cessation of disability or after five years unless the member is unable to engage in any substantially gainful activity, in which case payments cease on the earlier of 10 years following normal retirement age or the date that the service retirement benefit equals or exceeds the disability benefit.

Conversion to Service Retirement: During the period of disability, service is credited and average final compensation is increased at the same rate as any cost-of-living adjustments for which the member is eligible (see item 11). On the date when service benefits reach a level of 66⅔% of average final compensation or 10 years after the normal retirement date if earlier, the disability converts to a service retirement benefit based on service and average final compensation at that time.

6. No-Age Disability Retirement Benefits

Eligibility: Disabled as defined in the MainePERS statutes, employed on or after October 16, 1992 or employed prior to October 16, 1992 and elected the provisions of No-Age Disability, and either disabled in the line-of-duty or disabled with at least five years of creditable service.

Benefit: 59% of average final compensation, reduced by employment earnings over the specified statutory limit, and to the extent that the benefit, in combination with Workers' Compensation and Social Security, exceeds 80% of average final compensation.

Form of Payment: Payment begins upon the termination of service and ceases on cessation of disability or after five years, unless the member is unable to engage in any substantially gainful activity, in which case payments cease on the date the service retirement benefit equals or exceeds the disability benefit.

APPENDIX C – SUMMARY OF PLAN PROVISIONS

Conversion to Service Retirement: During the period of disability, service is credited and average final compensation is increased at the same rate as any cost-of-living adjustments for which the member is eligible (see item 11). On the date when service benefits reach a level of 59% of average final compensation, the disability benefit converts to a service retirement benefit based on service and average final compensation at that time.

7. Pre-Retirement Ordinary Death Benefits

Eligibility: Death while active, inactive eligible to retire, or disabled not resulting from an injury received in the line-of-duty.

Benefit: Designated beneficiary, spouse, children, or parents entitled to benefit calculated as if the deceased member had retired under Option 2 (see item 12); however, the beneficiary may elect survivor benefits payable to a surviving spouse, dependent children, parent, or other designated beneficiaries in monthly amounts varying by the status of beneficiary and number of eligible survivors. Otherwise, accumulated contributions with interest are payable to the designated beneficiary, spouse, children, older parents, or estate.

8. Pre-Retirement Accidental Death Benefits

Eligibility: Death while active or disabled resulting from an injury received in the line of duty.

Benefit:

- If the member leaves no dependent children, two-thirds of the member's average final compensation to the surviving spouse until death.

- If the member is survived by a spouse who has the care of dependent children of the member, the surviving spouse shall receive an annual sum equal to the member's average final compensation while having the care of dependent children. When there are no longer any dependent children, the surviving spouse shall receive two-thirds of the member's average final compensation until death.

- If the member is survived by a spouse who does not have the care of the member's dependent children, the surviving spouse and dependent children shall share equally an annual sum equal to the member's average final compensation. When there are no longer any dependent children, the surviving spouse shall receive two-thirds of the member's average final compensation until death.

- If the member leaves no spouse, the dependent children shall share an annual amount equal to the member's average final compensation. Benefits will cease when the last dependent child no longer meets the definition of "dependent child."

APPENDIX C – SUMMARY OF PLAN PROVISIONS

9. Termination Benefit

Eligibility: Termination of service other than by retirement or death with at least five years of creditable service.

Benefit: The member's choice of a refund of the accumulated contributions with interest or a retirement benefit using creditable service and average final compensation as of the date of termination, deferred to normal retirement age.

10. Refund of Contributions

Eligibility: Termination of service other than by retirement or death with less than five years of creditable service.

Benefit: Refund of member's accumulated contributions with interest.

11. Cost-of-Living Adjustments (COLA)

All service and disability retirement and survivor benefits payable to (or in relation to) benefit recipients who were employed by a PLD that elected a Plan that provides for a COLA are adjusted each year that there is a percentage change in the Consumer Price Index, based on the Index. If the percentage change is negative, then no adjustment is made in that year. In subsequent years, the adjustment that would have been made will be adjusted downward to the extent necessary to recoup the full actuarial value of not having made the previous year's negative adjustment. This process of adjustment may occur over a multi-year period if needed to recoup the full value of negative changes in the Index.

Cost-of-living adjustments (COLA) are effective September 1 of each year and are applied to all benefits in a Plan that provides for a COLA that have been in payment for six months for retirees who retire prior to September 1, 2015, 12 months for retirees who retired on or after September 1, 2015, and 24 months for those who retire on or after September 1, 2019.

The maximum annual increase is 2.5%, applicable to COLAs issued in September 2018 and later (prior to this, 3% for the 2014 through 2017 COLAs and 4% prior to the 2014 COLA).

Possible downward adjustments to future COLAs may occur if severe market losses result in contribution rates under the risk-sharing contribution methodology that exceed the contribution caps for PLD and member rates under this methodology. In this eventuality, a reduced COLA may be paid to retirees.

APPENDIX C – SUMMARY OF PLAN PROVISIONS

12. Methods of Payment of Service Retirement Benefits

At retirement, a member who retires with a benefit must choose from the following methods of payment:

Full Benefit: Unadjusted benefit paid for the life of the member-only.

Option 1: Cash refund equal to the remaining member contribution balance, if any, at the date of death (where the member contribution balance has been reduced each month by the portion of the monthly benefit deemed to be provided by member contributions).

Option 2: 100% joint and survivor annuity.

Option 3: 50% joint and survivor annuity.

Option 4: Joint and survivor annuity at any percentage other than those available under Option 2 and Option 3.

Option 5: Designated percentage of the benefit (not less than 51%) payable to the member, with the remaining percentage (the two to equal 100%) payable to a beneficiary (may only be a sole beneficiary) while both are alive. At the death of either, the higher of the two percentages is paid to the survivor for the survivor's life, and the lower-percentage benefit ceases to be paid.

Option 6: 100% joint and survivor annuity (Option 2) with pop-up*.

Option 7: 50% joint and survivor annuity (Option 3) with pop-up*.

Option 8: Option 4 with pop-up*.

* The "pop-up" feature attached to a given Option means that in the case of a beneficiary predeceasing the member, the member's benefit will be revised prospectively to the amount that the benefit would have been had the member selected Full Benefit payment upon retirement.

13. Plan Changes since Prior Valuation

The Cost-of-Living Adjustment as of September 1, 2021 included an additional one percent in excess of the 2.5% maximum.

This Appendix C is intended to be a brief summary of provisions. In the event of a dispute, applicable statutes and administrative policy supersede this report description.

APPENDIX D – ACTUARIAL ASSUMPTIONS AND METHODS

A. Actuarial Assumptions

1. Annual Rate of Investment Return

PLDs	6.50%

Rate is net of both administrative and investment expense.

2. Cost-of-Living Adjustment (COLA) Assumed Rate

PLDs	1.91%

3. Sample Rates of Individual Salary Increases (% at Selected Years of Service)

Years of Service	PLD
0	11.48%
1	8.66
2	4.81
3	4.29
4	4.03
5	3.78
10	3.26
15	3.26
20	3.01
25	2.75
30	2.75

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

APPENDIX D – ACTUARIAL ASSUMPTIONS AND METHODS

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

Service	Regular	Special
0	28.0%	17.90%
1	21.0	14.4
2	15.0	10.5
3	12.0	9.5
4	10.0	7.8
5	9.0	7.9
10	5.0	4.5
15	3.5	2.9
20	3.5	2.7
25	3.0	0.0

Non-vested members are assumed to take a refund of contributions with interest. Once vested, the member is assumed to elect the greater of the deferred vested benefit or a refund of member contributions with interest based on present value at the time of termination.

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

	(Showing values in 2022)	
Age	Male	Female
50	31	25
55	47	35
60	71	48
65	103	69
70	159	112
75	269	200
80	485	370
85	894	703
90	1,556	1,314
95	2,428	2,146

Rates are based on 112.1% and 118.5% of the 2010 Public Plan General Benefits-Weighted Healthy Retiree Mortality Table, respectively, for males and females. The rates are projected generationally using the RPEC_2020 model, with an ultimate rate of 1.00% for ages 80 and under, grading down to 0.05% at age 95, and further grading down to 0.00% at age 115, along with convergence to the ultimate rates in the year 2027. All other parameters used in the RPEC_2020 model are those included in the published MP-2020 scale.

APPENDIX D – ACTUARIAL ASSUMPTIONS AND METHODS

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

	(Showing values in 2022)	
Age	Male	Female
20	3	1
25	3	1
30	4	2
35	6	3
40	7	4
45	9	5
50	12	7
55	18	11
60	28	17
65	39	25

* For Regular Plans, 5% of deaths assumed to arise out of and in the course of employment, while for Special Plans, 20% of deaths are assumed to arise out of and in the course of employment.

Rates are based on 83.5% and 88.6% of the 2010 Public Plan General Benefits-Weighted Employee Mortality Table, respectively, for males and females. These rates are generationally projected using the same version of the RPEC_2020 model as described in the healthy annuitant mortality.

APPENDIX D – ACTUARIAL 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 2022)	
Age	**Male**	**Female**
25	36	21
30	54	37
35	73	57
40	90	76
45	113	99
50	161	143
55	219	184
60	278	213
65	330	222
70	389	262

Rates for are based on 107.3% and 103.2% of the 2010 Public Plan Non-Safety Benefits-Weighted Disabled Retiree Mortality Table, respectively, for males and females. These rates are generationally projected using the same version of the RPEC_2020 model described in the healthy annuitant mortality.

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

Regular Plans

	Regular Plans	
Age	**NRA 60**	**NRA 65**
45	N/A	N/A
50	N/A	N/A
55	N/A	N/A
60	120	60
65	250	200
70	1,000	250
75	1,000	1,000

In the case of PLD employees, NRA 60 refers to those who were members prior to July 1, 2014, and NRA 65 refers to those who became members on or after July 1, 2014.

APPENDIX D – ACTUARIAL ASSUMPTIONS AND METHODS

Special Plans

Special Plans	
Service	**Assumption**
20	350
21	300
22	280
23	250
24	200
25	350
26	250
27	230
28	250
29	400
30	250
31-33	250
34	330
35+	1,000

Note that all retirement rates are only applied once the member is eligible to retire, so those in 25-year Plans are not assumed to retire at 20 years of service. For Special Plan retirements with less than 20 years of service, we assume 250 retirements per 1,000 members.

APPENDIX D – ACTUARIAL ASSUMPTIONS AND METHODS

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

Age	Regular	Special
25	0.9	2.3
30	1.2	3.0
35	1.8	4.5
40	4.2	10.5
45	8.7	21.8
50	16.5	41.3
55	28.5	70.0
60	30.0	70.0

* 10% assumed to receive Workers Compensation benefits offsetting disability benefit.

10. Family Composition Assumptions

80% of active members are assumed to be married and have two children born when the member is 24 and 28; children are assumed dependent until age 18; a female spouse is assumed to be three years younger than a male spouse; member is assumed to have no dependent parents; unmarried members are assumed to have beneficiaries entitled to benefits worth 80% as much as those of married members' beneficiaries.

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.

Member Contribution Interest Rate: Reflect actual historical member contribution interest rates from 1970 through the valuation; future contribution interest assumed to equal the inflation assumption of 2.75%.

COLA Timing: September 1.

Member Contribution Rates: For purposes of developing liability amounts, the member contribution rates developed based on the prior year's valuation are assumed to continue for all periods in the future.

APPENDIX D – ACTUARIAL ASSUMPTIONS AND METHODS

12. Rationale for Assumptions

The demographic assumptions were adopted by the Board of Trustees at their May 13, 2021 meeting. The discount rate was adopted by the Board of Trustees at their August 12, 2021 meeting. The demographic assumptions adopted are based on an experience study covering the period from July 1, 2015 through June 30, 2020, and the economic assumptions are based on this experience study along with advice of the MainePERS investment consultants.

13. Changes since Last Valuation

None.

14. Rationale for Change in Actuarial Assumptions

N/A

15. Disclosure of Models Used

ProVal: Cheiron utilizes ProVal, an actuarial valuation software leased from Winklevoss Technologies (WinTech) to calculate the liabilities, normal costs, and projected benefit payments. We have relied on WinTech as the developer of ProVal. We have reviewed ProVal and have a basic understanding of it and have used ProVal in accordance with its original intended purpose. We have not identified any material inconsistencies in assumptions or output of ProVal that would affect this actuarial valuation.

Projection Model: This report includes projections of future contributions, assets, liabilities, and funded status for the purpose of assisting the Board of Trustees with the management of the Fund. We have used Cheiron's P-Scan and R-Scan models to develop these projections. The model is also used to stress test the impact of volatile asset returns over the projection period.
The P-Scan projection uses projected benefit payments for current members but does not include projected benefit payments for new members. This limitation is not material for the next 20 years, but longer projection periods should be viewed with caution. The P-Scan projection uses standard roll-forward techniques that implicitly assume a stable active population. Changes in the demographic characteristics of the active population will lead to different results.

The stochastic projections of investment returns assume that each future year's investment return is independent from all other years and is identically distributed according to a lognormal distribution. This assumption may result in an unrealistically wide range of compound investment returns over longer periods of time. The standard deviation used in the stochastic projection of investment returns was provided by the investment consultant.

APPENDIX D – ACTUARIAL ASSUMPTIONS AND METHODS

Mortality Improvement Model: Cheiron utilized the RPEC_2014_v2020 Model Implementation Tool for the purposes of developing the customized version of MP-2020 used in this report. This tool is updated and published annually by the Society of Actuaries and their Retirement Plans Experience Committee and allows actuaries to develop customized versions of mortality improvement scales based on the parameters and data underlying the published MP-2020 scale but allowing practitioners to vary parameters from those used in the published MP-2020 scale.

We have reviewed this model and believe it is appropriate to our intended use in developing a customized mortality improvement scale for the Programs. Further, we are aware of no material inconsistencies that would limit our ability to use this model for its intended purpose.

B. Actuarial Methods

1. Cost Method

The entry age normal actuarial cost method is used to determine costs and the actuarially determined contributions needed to fund the Plan. The actuarially determined contributions are then used to develop the specific rates for both members and PLDs for each specific Regular and Special Plan within the Plan. Under this cost method, the Actuarially Determined Plan Total Rate consists of two elements: the Actuarially Determined Plan Normal Cost Rate and the Actuarially Determined Plan UAL Amortization Rate.

For each of the Regular and Special Plans in the Consolidated Plan, an individual entry age normal cost rate is determined for each active member. The normal cost is determined by the following steps. First, an individual normal cost rate is determined by taking the value, as of entry age into a Plan, of each active member's projected future benefits. Second, this value is then divided by the value, also at entry age, of the member's expected future salary. These rates are then multiplied by each member's salary as of the valuation date to get the total normal cost dollars as of the valuation date for that Plan. These individual amounts for each Regular and Special Plan are then added to get the total normal cost dollars for the Plan and then divided by the total payroll for the Plan to get the Actuarially Determined Plan Normal Cost Rate.

The unfunded actuarial liability under the entry age normal cost method equals the present value, at the time of valuation, of the future benefit payments less the present value of future normal costs, future member contributions, future IUUAL payments, and current assets. Under the Consolidated Plan, the Actuarially Determined Plan UAL Amortization Rate is calculated for the Consolidated Plan in total based on the pooled UAL being amortized over a 20-year period commencing with the June 30, 2015 valuation date and any layers of pooled UAL arising after that date amortized over

APPENDIX D – ACTUARIAL ASSUMPTIONS AND METHODS

individual 20-year periods. This amortization uses a level percentage of pay method with payroll assumed to increase at 2.75% per year. The amortization payment thus derived for the valuation year is then divided by the total payroll to develop the Actuarially Determined Plan UAL Amortization Rate. Amortization payments are assumed to be made each pay period.

The risk-sharing framework adopted by the Board of Trustees is then used to develop individual PLD and member rates for each Regular and Special Plan within the Plan based on the Actuarially Determined Plan Total Rate. The allocation to each specific Plan from the Total Rate is based on the normal cost rate for each specific Plan relative to the Plan in total. For the three Regular Plans, member rates are developed separately for members under the provisions with an age 60 normal retirement age and members under the provisions with an age 65 normal retirement age.

In addition to the development of rates for each Plan, the actual contribution for a given PLD will include an Individual Unpooled Unfunded Actuarial Liability (IUUAL) payment as well, unless the PLD came into the Plan without an IUUAL or has paid off its IUUAL. The Initial Unpooled Unfunded Actuarial Liability (IUUAL) was calculated at entry into the Consolidated Plan for each PLD that entered with liabilities in excess of their assets and is paid off through payment of a specific dollar amount until paid off.

2. Asset Valuation Method

For purposes of determining member and PLD contributions to the Plan and the Plan's funding status, we use an actuarial value of assets. The asset adjustment method dampens the volatility in asset values that could occur because of fluctuations in market conditions. Use of an asset smoothing method is consistent with the long-term nature of the actuarial valuation process.

In determining the actuarial value of assets, we calculate an expected actuarial value based on the cash flows for the year and imputed returns at the actuarial assumption. This expected value is compared to the actual market value at the valuation date and one-third of the difference is added to the preliminary actuarial value to arrive at the final actuarial value.

3. Changes since Last Valuation

None.

4. Rationale for Change

N/A

APPENDIX E – GLOSSARY OF GASB 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. **Deferred Inflow of Resources**

   An acquisition of net assets by a government employer that is applicable to a future reporting period. In the context of GASB 68, these are experience gains on the Total Pension Liability, assumption changes reducing the Total Pension Liability, or investment gains that are recognized in future reporting periods.

4. **Deferred Outflow of Resources**

   A consumption of net assets by a government employer that is applicable to a future reporting period. In the context of GASB 68, these are experience losses on the Total Pension Liability, assumption changes increasing the Total Pension Liability, or investment losses that are recognized in future reporting periods.

5. **Entry Age Actuarial Cost Method**

   The actuarial cost method required for GASB Nos. 67 and 68 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 Pension Liability.

6. **Measurement Date**

   The date as of which the Total Pension Liability and Plan Fiduciary Net Position are measured. The Total Pension 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.

APPENDIX E – GLOSSARY OF GASB TERMS

7. Net Pension Liability

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

8. Plan Fiduciary Net Position

The fair or market value of assets.

9. Reporting Date

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

10. 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 Nos. 67 and 68. The Service Cost is the normal cost calculated under the entry age actuarial cost method.

11. Total Pension 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 Nos. 67 and 68. The Total Pension Liability is the actuarial liability calculated under the entry age actuarial cost method.

Classic Values, Innovative Advice

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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, 2022

Presented by Cheiron
October 2022

DRAFT

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October 13, 2022

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, 2022 for the Maine Public Employees Retirement System (MainePERS or System) based on a full valuation of the obligations as of June 30, 2022.

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 have increased to $0.42 bi-weekly per $1,000 of coverage for Fiscal Year (FY) 2022. This includes $0.09 for active coverage and $0.33 for retiree coverage. Premiums for retiree coverage will increase 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 explicit adjustments for the potential impact of COVID-19. We note that benefit payments over the past fiscal year were below the long-term assumptions for State and close to the assumptions for Teachers, so we did not observe a short-term increase in mortality experience over the past year. The long-term net impact is not determinable at this time and will be reviewed as part of the next premium study.

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
Consulting Actuary

SECTION I – SUMMARY OF KEY RESULTS

The reporting date for the Maine Public Employees Retirement System Retiree Group Life Insurance Program presented in this report is June 30, 2022. Measurements as of the reporting date are based on the fair value of assets as of June 30, 2022, and the Total OPEB Liability (TOL) as of the valuation date, June 30, 2022. 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, 2021. 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, 2022. 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 06/30/2021	Measurement Date 06/30/2022
State Total OPEB Liability	$ 115,123,392	$ 119,403,083
State Plan Fiduciary Net Position	51,849,291	46,031,286
State Net OPEB Liability	$ 63,274,101	$ 73,371,797
Teacher Total OPEB Liability	$ 108,392,510	$ 115,657,004
Teacher Plan Fiduciary Net Position	88,750,303	77,123,482
Teacher Net OPEB Liability	$ 19,642,207	$ 38,533,522
Combined Total OPEB Liability	$ 223,515,902	$ 235,060,087
Combined Plan Fiduciary Net Position	140,599,594	123,154,768
Combined Net OPEB Liability	$ 82,916,308	$ 111,905,319

SECTION II – DETERMINATION OF DISOUNT 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 $0.33 beginning fiscal year (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 16 years remaining as of FY 2022 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, 2022 was based on the valuation as of June 30, 2018, rolled forward to June 30, 2020.

The discount rate at June 30, 2022 is 6.50%, 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.

SECTION III – PROJECTION OF TOTAL OPEB LIABILITY

The TOL is measured as of a valuation date of June 30, 2022. 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
Projection of Total OPEB Liability

Discount Rate	5.50%	6.50%	7.50%
Total OPEB Liability, 06/30/2022			
Actives	$ 84,625,006	$ 68,090,687	$ 55,411,016
Deferred Vested	0	0	0
Retirees	186,409,917	166,969,400	150,539,283
Total	**$ 271,034,923**	**$ 235,060,087**	**$ 205,950,299**

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 06/30/2021	$ 115,123,392	$ 51,849,291	$ 63,274,101
Changes for the year:			
Service cost	1,348,897		1,348,897
Interest	7,722,676		7,722,676
Changes of benefits	0		0
Changes of assumptions	0		0
Differences between expected and actual experience	(846,651)		(846,651)
Contributions - employer		5,991,899	(5,991,899)
Contributions - member		0	0
Net investment income		(7,560,609)	7,560,609
Benefit payments	(3,945,231)	(3,945,231)	0
Administrative expense	0	(304,064)	304,064
Net changes	**4,279,691**	**(5,818,005)**	**10,097,696**
Balances at 06/30/2022	$ 119,403,083	$ 46,031,286	$ 73,371,797

SECTION IV – NOTE DISCLOSURES

Table IV-2
Change in Net OPEB Liability - Teacher

	Increase (Decrease)		
	Total OPEB Liability (a)	Plan Fiduciary Net Position (b)	Net OPEB Liability (a) - (b)
Balances at 06/30/2021	$ 108,392,510	$ 88,750,303	$ 19,642,207
Changes for the year:			
Service cost	1,407,913		1,407,913
Interest	7,517,336		7,517,336
Changes of benefits	0		0
Changes of assumptions	0		0
Differences between expected and actual experience	1,211,695		1,211,695
Contributions - employer		4,592,852	(4,592,852)
Contributions - member		0	0
Net investment income		(12,826,760)	12,826,760
Benefit payments	(2,872,450)	(2,872,450)	0
Administrative expense	0	(520,463)	520,463
Net changes	**7,264,494**	**(11,626,821)**	**18,891,315**
Balances at 06/30/2022	$ 115,657,004	$ 77,123,482	$ 38,533,522

Table IV-3
Change in Net OPEB Liability - Combined

	Increase (Decrease)		
	Total OPEB Liability (a)	Plan Fiduciary Net Position (b)	Net OPEB Liability (a) - (b)
Balances at 06/30/2021	$ 223,515,902	$ 140,599,594	$ 82,916,308
Changes for the year:			
Service cost	2,756,810		2,756,810
Interest	15,240,012		15,240,012
Changes of benefits	0		0
Changes of assumptions	0		0
Differences between expected and actual experience	365,044		365,044
Contributions - employer		10,584,751	(10,584,751)
Contributions - member		0	0
Net investment income		(20,387,369)	20,387,369
Benefit payments	(6,817,681)	(6,817,681)	0
Administrative expense	0	(824,527)	824,527
Net changes	**11,544,185**	**(17,444,826)**	**28,989,011**
Balances at 06/30/2022	$ 235,060,087	$ 123,154,768	$ 111,905,319

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 5.50%	Discount Rate 6.50%	1% Increase 7.50%
Teacher			
Total OPEB Liability	$ 134,585,128	$ 115,657,004	$ 100,458,011
Plan Fiduciary Net Position	77,123,482	77,123,482	77,123,482
Collective Net OPEB Liability	$ 57,461,646	$ 38,533,522	$ 23,334,529
Plan Fiduciary Net Position as a Percentage of the Total OPEB Liability	57.3%	66.7%	76.8%
State			
Total OPEB Liability	$ 136,449,795	$ 119,403,083	$ 105,492,288
Plan Fiduciary Net Position	46,031,286	46,031,286	46,031,286
Collective Net OPEB Liability	$ 90,418,509	$ 73,371,797	$ 59,461,002
Plan Fiduciary Net Position as a Percentage of the Total OPEB Liability	33.7%	38.6%	43.6%
Combined			
Total OPEB Liability	$ 271,034,923	$ 235,060,087	$ 205,950,299
Plan Fiduciary Net Position	123,154,768	123,154,768	123,154,768
Collective Net OPEB Liability	$ 147,880,155	$ 111,905,319	$ 82,795,531
Plan Fiduciary Net Position as a Percentage of the Total OPEB Liability	45.4%	52.4%	59.8%

For the combined State-Sponsored Groups a one percent decrease in the discount rate increases the TOL by approximately 15.3% and increases the NOL by approximately 32.1%. A one percent increase in the discount rate decreases the TOL by approximately 12.4% and decreases the NOL by approximately 26.0%.

SECTION V – REQUIRED SUPPLEMENTARY INFORMATION

Table V-1
Schedule of Changes in Net OPEB Liability and Related Ratios

		FY 2022
Total OPEB Liability		
Service cost (BOY)	$	2,756,810
Interest (includes interest on service cost)		15,240,012
Changes of benefit terms		0
Differences between expected and actual experience		365,044
Changes of assumptions		0
Benefit payments		(6,817,681)
Net change in total OPEB liability		**11,544,185**
Total OPEB liability - beginning		**223,515,902**
Total OPEB liability - ending	**$**	**235,060,087**
Plan fiduciary net position		
Contributions - employer	$	10,584,751
Contributions - member		0
Net investment income		(20,387,369)
Benefit payments		(6,817,681)
Administrative expense		(824,527)
Net change in plan fiduciary net position	**$**	**(17,444,826)**
Plan fiduciary net position - beginning		**140,599,594**
Plan fiduciary net position - ending	**$**	**123,154,768**
Net OPEB liability - ending	**$**	**111,905,319**
Plan fiduciary net position as a percentage of the total OPEB liability		52.39%
Covered employee payroll	$	1,600,464,673
Net OPEB liability as a percentage of covered employee payroll		6.99%

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 Annual Comprehensive Financial Report (ACFR) 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 ACFR 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, 2022, 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 we are available to provide any information they may need for this purpose.

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 2022

	State	Teacher	Combined
Actuarially Determined Contribution	$ 6,649,156	$ 4,592,850	$ 11,242,006
Contributions in Relation to the Actuarially Determined Contribution	5,991,899	4,592,852	10,584,751
Contribution Deficiency/(Excess)	$ 657,257	$ (2)	$ 657,255
Covered Payroll	$ 729,982,000	$ 870,482,673	$ 1,600,464,673
Contributions as a Percentage of Covered Payroll	0.82%	0.53%	0.66%

<u>Notes to Schedule</u>

Valuation Date: June 30, 2018

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 2022 and 2023 are based on the June 30, 2018 valuation rolled forward and adjusted for changes in assumptions.

<u>Key Methods and Assumptions Used to Determine Contribution Rates for FY 2022</u>

Actuarial Cost Method:	Entry Age Normal
Asset Valuation Method:	Market Value
Amortization Method:	Level percent closed with 16 years remaining for FY 2022
Discount Rate:	6.750%
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, 2022, can be found in the June 30, 2018 Actuarial Valuation report.

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, 2022, these values are thus developed based on the prior full biennial valuation data as of June 30, 2020. 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, 2022

State Program

Status	Total Expected Future Service	Count	Average Remaining Service Life
Actives	146,575	11,698	13
Inactives	0	8,741	0
Total Membership	146,575	20,439	7

Teacher Program

Status	Total Expected Future Service	Count	Average Remaining Service Life
Actives	232,499	15,029	15
Inactives	0	7,534	0
Total Membership	232,499	22,563	10

Combined Programs

Status	Total Expected Future Service	Count	Average Remaining Service Life
Actives	379,074	26,727	14
Inactives	0	16,275	0
Total Membership	379,074	43,002	9

APPENDIX A – PARTICIPANT DATA, ASSUMPTIONS, AND METHODS

Participant Data as of June 30, 2022

Table A-1
Active Member Data

Group	Count	Average Age	Average Service	Average Salary
State	11,286	47.9	12.3	$ 63,945
Teachers	15,374	46.4	13.3	56,620
Judges	59	60.0	14.5	140,627
Legislators	54	63.2	6.1	14,000
TOTAL	26,773	47.1	12.8	59,807

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 Benefit[1]
State	8,909	73.2	$ 19,066
Teachers	8,039	74.3	21,496
Judges	55	76.0	46,642
Legislators	13	81.2	5,622
TOTAL	17,016	73.7	20,293

[1] 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 two years ago. All assumptions specific to this valuation are detailed in the following section.

APPENDIX A – PARTICIPANT DATA, ASSUMPTIONS, AND METHODS

A. Actuarial Assumptions

1. Annual Rate of Investment Return

State Employees	6.50%
Teachers	6.50%
Judges	6.50%
Legislative	6.50%

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	9.43%	13.03%	2.75%	2.75%
5	6.24	5.83	2.75	2.75
10	5.32	4.81	2.75	2.75
15	3.98	4.29	2.75	2.75
20	3.78	3.26	2.75	2.75
25 and over	3.26	2.80	2.75	2.75

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

APPENDIX A – PARTICIPANT DATA, ASSUMPTIONS, AND METHODS

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

Service	State Employees	Teachers
0	32.5%	26.0%
5	10.0	9.0
10	6.0	5.5
15	4.0	3.5
20	3.0	3.0
25	2.5	3.0

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

Service	Legislators
0	0%
1	5
2	10
3	15
4	20
5	25
6	30
7	40
8	50
9	50
10	50
11	50
12	50
13	50
14	50
15	50
16+	50

The rates shown for legislators are only applicable in the fiscal years ending in odd years while zero terminations are assumed in the fiscal years ending in even years.

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 2022)				
	State Employees		Teachers	
Age	Male	Female	Male	Female
50	31	25	10	6
55	47	35	21	17
60	71	48	36	26
65	103	69	59	37
70	159	112	97	60
75	269	200	179	114
80	485	370	342	320
85	894	703	715	629
90	1,556	1,314	1,335	1,191
95	2,428	2,146	2,246	2,119

Rates for the State Group are based on 112.1% and 118.5% of the 2010 Public Plan General Benefits-Weighted Healthy Retiree Mortality Table, respectively, for males and females.

Rates for Teachers are based on the 2010 Public Plan Teacher Benefits-Weighted Healthy Retiree Mortality Table adjusted as follows:

- 98.1% and 87.5% respectively of the rates for males before age 85 and females before age 80
- 106.4% and 122.3% respectively of the rates for males on and after age 85 and females on and after age 80

Rates are projected generationally using the RPEC_2020 model, with an ultimate rate of 1.00% for ages 80 and under, grading down to 0.05% at age 95, and further grading down to 0.00% at age 115, along with convergence to the ultimate rates in the year 2027. All other parameters used in the RPEC_2020 model are those included in the published MP-2020 scale.

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 2022)				
	State Employees		Teachers	
Age	Male	Female	Male	Female
20	3	1	3	1
25	3	1	2	1
30	4	2	3	2
35	6	3	4	3
40	7	4	5	3
45	9	5	7	4
50	12	7	10	6
55	18	11	15	10
60	28	17	25	16
65	39	25	41	24

Rates for the State Group are based on 83.5% and 88.6% of the 2010 Public Plan General Benefits-Weighted Employee Mortality Table, respectively, for males and females. Rates for Teachers are based on 93.1% and 91.9% of the 2010 Public Plan Teacher Benefits-Weighted Employee Mortality Table, respectively, for males and females. These rates are generationally projected using the same version of the RPEC_2020 model as described in the healthy annuitant mortality.

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 2022)				
	State Employees		Teachers	
Age	Male	Female	Male	Female
25	36	21	32	25
30	54	37	47	42
35	73	57	64	69
40	90	76	79	91
45	113	99	99	119
50	161	143	141	172
55	219	184	192	221
60	278	213	244	255
65	330	222	289	267
70	389	262	341	314

Rates for the State Group are based on 107.3% and 103.2% of the 2010 Public Plan Non-Safety Benefits-Weighted Disabled Retiree Mortality Table, respectively, for males and females. Rates for Teachers are based on 94.2% and 123.8% of the 2010 Public Plan Non-Safety Benefits-Weighted Disabled Retiree Mortality Table, respectively, for males and females. These rates are generationally projected using the same version of the RPEC_2020 model described in the healthy annuitant mortality.

APPENDIX A – PARTICIPANT DATA, ASSUMPTIONS, AND METHODS

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

Teachers and State Regular Plans

	State Regular Employees			Teachers		
Age	NRA 60	NRA 62	NRA 65	NRA 60	NRA 62	NRA 65
57	40	35	N/A	40	35	N/A
59	260	40	N/A	200	45	N/A
60	210	50	20	275	80	20
61	210	350	20	210	240	20
62	210	270	50	230	220	50
63	250	180	80	220	180	80
64	190	200	300	280	220	200
65	210	220	250	340	300	300
70	200	200	200	300	200	300
75	350	350	250	400	200	300
80	1,000	1,000	1,000	1,000	1,000	1,000

In the case of State Regular and Teacher employees, NRA 60 refers to those who had accrued at least 10 years of service by July 1, 1993. NRA 62 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. NRA 65 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.

State Special Plans

Members of the 1998 Special Plan are assumed to retire at rates that vary by age and whether service is less than 25 years or not. Sample rates are as follows:

	1998 Special Plan Retirement	
Age	Service < 25	Service >= 25
55	20.0%	25.0%
57	10.0	25.0
60	20.0	30.0
62	30.0	30.0
65	23.4	30.0
67	36.8	50.0
70	100.0	100.0

APPENDIX A – PARTICIPANT DATA, ASSUMPTIONS, AND METHODS

Members of the 25 & Out Plan are assumed to retire at rates that vary by service. Sample rates are as follows:

Service	Rate
<24	0.0%
25-29	25.0
30-31	25.0
32-34	40.0
35-37	40.0
38+	100.0

Members of State Special Plans other than the 25 & Out Plan and the 1998 Special Plan are all currently assumed to retire at a rate of 50% per year, beginning when they reach eligibility for unreduced benefits, with a 100% assumed rate at age 70. Rates are only applied when the member is at least age 50.

Judges

Age	NRA 60	NRA 62	NRA 65
60-61	1,000	NA	NA
62	1,000	200	NA
63	1,000	275	NA
64	1,000	350	NA
65	1,000	425	400
66	1,000	500	500
67	1,000	450	450
68	1,000	400	400
69	1,000	350	350
70	1,000	300	300
71-75	1,000	250	250
76-79	1,000	500	500
80+	1,000	1,000	1,000

In the case of judicial employees, NRA 60 refers to those who had accrued at least ten years of service by July 1, 1993. NRA 62 refers to those who had not accrued at least ten years of service by July 1, 1993, or were hired after that date but had five years of service by July 1, 2011. NRA 65 refers to those who did not have five years of service by July 1, 2011.

APPENDIX A – PARTICIPANT DATA, ASSUMPTIONS, AND METHODS

Legislators

	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.

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

	Regular	Special	Teachers
25	2.5	5.4	1.1
30	3.1	6.5	1.2
35	9.3	9.9	1.2
40	14.0	15.8	1.6
45	16.0	24.4	3.1
50	18.0	36.4	6.6
55	25.0	42.6	22.1
60	43.4	46.4	22.2

Judges and Legislators: No disability assumed.

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%

APPENDIX A – PARTICIPANT DATA, ASSUMPTIONS, AND METHODS

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.

APPENDIX A – PARTICIPANT DATA, ASSUMPTIONS, AND METHODS

12. Rationale for Assumptions

The revised demographic assumptions were adopted by the Board of Trustees at their March 11, 2021 meeting. The revised discount rate was adopted by the Board of Trustees at their August 12, 2021 meeting. The demographic assumptions adopted are based on an experience study covering the period from July 1, 2015 through June 30, 2020, and the economic assumptions are based on this experience study along with advice of the MainePERS investment consultants.

13. Changes since Last Valuation

None

14. Rationale for Change in Actuarial Assumptions

N/A

15. Additional Disclosures regarding Models Used:

ProVal: Cheiron utilizes ProVal, an actuarial valuation software leased from Winklevoss Technologies (WinTech) to calculate the liabilities, normal costs, and projected benefit payments. We have relied on WinTech as the developer of ProVal. We have reviewed ProVal and have a basic understanding of it and have used ProVal in accordance with its original intended purpose. We have not identified any material inconsistencies in assumptions or output of ProVal that would affect this actuarial valuation.

Mortality Improvement Model: Cheiron utilized the RPEC_2014_v2020 Model Implementation Tool for the purposes of developing the customized version of MP-2020 used in this report. This tool is updated and published annually by the Society of Actuaries and their Retirement Plans Experience Committee and allows actuaries to develop customized versions of mortality improvement scales based on the parameters and data underlying the published MP-2020 scale but allowing practitioners to vary parameters from those used in the published MP-2020 scale.

We have reviewed this model and believe it is appropriate to our intended use in developing a customized mortality improvement scale for the Programs. Further, we are aware of no material inconsistencies that would limit our ability to use this model for its intended purpose.

APPENDIX A – PARTICIPANT DATA, ASSUMPTIONS, AND METHODS

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

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.)

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.

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.

Celebrating 20 years

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, 2022

Presented by Cheiron
October 2022

DRAFT

TABLE OF CONTENTS

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CHEIRON

October 13, 2022

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, 2022, for the Maine Public Employees' Retirement System (MainePERS or System) based on a full valuation of the obligations as of June 30, 2022.

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

- Determination of the discount rate,
- Calculation 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 contributions for the participants of the PLDs 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 increased to $0.22 bi-weekly per $1,000 of coverage for fiscal year (FY) 2022 for both active and retired PLD participants. Basic premiums will increase to $0.23 for FY 2024 and $0.24 for FY 2026. For active participants, $0.11 is allocated to fund active benefits in all years, while the difference is allocated to fund future retiree benefits. 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 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 explicit adjustments for the potential impact of COVID-19. We note that benefit payments over the past fiscal year were close to the long-term assumptions for PLDs, so we did not observe a material short-term increase in mortality experience over the past year. The long-term net impact is not determinable at this time and will be reviewed as part of the next premium study.

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 any such other users.

Sincerely,
Cheiron

John Colberg, FSA, EA, MAAA
Principal Consulting Actuary

Ryan Benitez, ASA, MAAA
Consulting Actuary

SECTION I – SUMMARY OF KEY RESULTS

The reporting date for the Maine Public Employees Retirement System Retiree Group Life Insurance Program presented in this report is June 30, 2022, Measurements as of the reporting date are based on the fair value of assets as of June 30, 2022 and the Total OPEB Liability (TOL) as of the valuation date June 30, 2022. 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, 2021. 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, 2022.

Table I-1
Summary of Results

	Measurement Date 06/30/2021	Measurement Date 06/30/2022
Total OPEB Liability	$ 31,531,361	$ 32,823,884
Plan Fiduciary Net Position	21,207,382	18,340,729
Net OPEB Liability	$ 10,323,979	$ 14,483,155

SECTION II – DETERMINATION OF DISCOUNT RATE

MainePERS's funding policy is for PLD employees to pay $0.22 biweekly per $1,000 in coverage for all participants. Of the $0.22 for actives, $0.11 is allocated to the Retiree Fund for retiree benefits.

As recommended in Option 3 of the 2020 Premium Study, the following increases are assumed:

- FYE 2024: $0.23 for retirees with $0.12 of active premiums allocated to the Retiree Fund
- FYE 2026: $0.24 for retirees with $0.13 of active premiums allocated to the Retiree Fund

The discount rate at June 30, 2022 is 6.50%, 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.

SECTION III – PROJECTION OF TOTAL OPEB LIABILITY

The TOL is measured as of the valuation date June 30, 2022. 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 TOL 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
Projection of Total OPEB Liability

Discount Rate	5.50%	6.50%	7.50%
Total OPEB Liability, 6/30/2022			
Actives	$ 11,860,631	$ 9,471,040	$ 7,651,621
Deferred Vested	0	0	0
Retirees	26,137,141	23,352,844	21,018,128
Total	**$ 37,997,772**	**$ 32,823,884**	**$ 28,669,749**

SECTION IV – NOTE DISCLOSURES

Table IV-1 below shows 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. There were no significant changes in benefits or assumptions during the year.

Table IV-1
Change in Net OPEB Liability - PLD

	Increase (Decrease)		
	Total OPEB Liability (a)	**Plan Fiduciary Net Position (b)**	**Net OPEB Liability (a) - (b)**
Balances at 06/30/2021	$ 31,531,361	$ 21,207,382	$ 10,323,979
Changes for the year:			
Service cost	308,456		308,456
Interest	2,121,985		2,121,985
Changes of benefits	0		0
Changes of assumptions	0		0
Differences between expected and actual experience	(149,516)		(149,516)
Contributions - employer		1,277,664	(1,277,664)
Contributions - member		0	0
Net investment income		(3,031,547)	3,031,547
Benefit payments	(988,402)	(988,402)	0
Administrative expense	0	(124,368)	124,368
Net changes	**1,292,523**	**(2,866,653)**	**4,159,176**
Balances at 6/30/2022	$ 32,823,884	$ 18,340,729	$ 14,483,155

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-2 shows the sensitivity of the TOL and NOL to the discount rate.

Table IV-2
Sensitivity of Net OPEB Liability to Changes in Discount Rate

	1% Decrease 5.50%	Discount Rate 6.50%	1% Increase 7.50%
Total OPEB Liability	$ 37,997,772	$ 32,823,884	$ 28,669,749
Plan Fiduciary Net Position	18,340,729	18,340,729	18,340,729
Collective Net OPEB Liability	$ 19,657,043	$ 14,483,155	$ 10,329,020
Plan Fiduciary Net Position as a Percentage of the Total OPEB Liability	48.3%	55.9%	64.0%

A one percent decrease in the discount rate increases the TOL by approximately 15.8% and increases the NOL by approximately 35.7%. A one percent increase in the discount rate decreases the TOL by approximately 12.7% and decreases the NOL by approximately 28.7%.

SECTION V – REQUIRED SUPPLEMENTARY INFORMATION

Table V-1
Schedule of Changes in Net OPEB Liability and Related Ratios

	FY 2022
Total OPEB Liability	
Service cost (BOY)	$ 308,456
Interest (includes interest on service cost)	2,121,985
Changes of benefit terms	0
Differences between expected and actual experience	(149,516)
Changes of assumptions	0
Benefit payments	(988,402)
Net change in total OPEB liability	**1,292,523**
Total OPEB liability - beginning	**31,531,361**
Total OPEB liability - ending	**$ 32,823,884**
Plan fiduciary net position	
Contributions - employer	$ 1,277,664
Contributions - member	0
Net investment income	(3,031,547)
Benefit payments	(988,402)
Administrative expense	(124,368)
Net change in plan fiduciary net position	**$ (2,866,653)**
Plan fiduciary net position - beginning	**21,207,382**
Plan fiduciary net position - ending	**$ 18,340,729**
Net OPEB liability - ending	**$ 14,483,155**
Plan fiduciary net position as a percentage of the total OPEB liability	55.88%
Covered employee payroll	$ 301,040,000
Net OPEB liability as a percentage of covered employee payroll	4.81%

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 Annual Comprehensive Financial Report (ACFR) 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 ACFR 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, 2022, 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 we are available to provide any information they may need for this purpose.

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.

Table V-2
Schedule of Employer Contributions
During Fiscal Year 2022

		PLD
Actuarially Determined Contribution	$	1,942,791
Contributions in Relation to the Actuarially Determined Contribution		1,277,664
Contribution Deficiency/(Excess)	$	665,127
Covered Payroll	$	301,040,000
Contributions as a Percentage of Covered Payroll		0.42%

Notes to Schedule

Valuation Date: June 30, 2018

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 2022 and 2023 are based on the June 30, 2018 valuation rolled forward and adjusted for changes in assumptions.

Key Methods and Assumptions Used to Determine Contribution Rates for FY 2022

Actuarial Cost Method:	Entry Age Normal
Asset Valuation Method:	Market Value
Amortization Method:	Level percent closed with 14 years remaining for FY 2022
Discount Rate:	6.750%
Salary Inflation:	2.750%
Administrative Expense Load:	8.66%

A complete description of the methods and assumptions used to determine contribution rates for the year ending June 30, 2022 can be found in the June 30, 2018 Actuarial Valuation report.

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, 2022, these values are thus developed based on the prior full biennial valuation data as of June 30, 2020. 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, 2022

Status	Total Expected Future Service	Count	Average Remaining Service Life
Actives	54,870	5,498	10
Inactives	0	2,879	0
Total Membership	54,870	8,377	7

APPENDIX A – PARTICIPANT DATA, ASSUMPTIONS, AND METHODS

Participant Data as of June 30, 2022

Table A-1
Active Member Data

Group	Count	Average Age	Average Service	Average Salary
PLDs	5,248	48.8	10.5	$ 57,363

Table A-2
Non-Active Member Data

Group	Count	Average Age	Average Benefit[1]
PLDs	3,015	72.7	$ 19,266

[1] 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 two years ago. All assumptions specific to this valuation are detailed in the following section.

APPENDIX A – PARTICIPANT DATA, ASSUMPTIONS, AND METHODS

A. Actuarial Assumptions

1. Annual Rate of Investment Return

PLDs	6.50%

Rate is net of investment expense.

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)

Years of Service	Rate of Increase
0	11.48%
1	8.66
2	4.81
3	4.29
4	4.03
5	3.78
10	3.26
15	3.26
20	3.01
25	2.75
30	2.75

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

APPENDIX A – PARTICIPANT DATA, ASSUMPTIONS, AND METHODS

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

Service	Regular	Special
0	28.0%	17.9%
1	21.0	14.4
2	15.0	10.5
3	12.0	9.5
4	10.0	7.8
5	9.0	7.9
10	5.0	4.5
15	3.5	2.9
20	3.5	2.7
25	3.0	0.0

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

	Showing values in 2022	
Age	Male	Female
50	31	25
55	47	35
60	71	48
65	103	69
70	159	112
75	269	200
80	485	370
85	894	703
90	1,556	1,314
95	2,428	2,146

Rates are based on 112.1% and 118.5% of the 2010 Public Plan General Benefits-Weighted Healthy Retiree Mortality Table, respectively, for males and females. Proposed rates are projected generationally using the RPEC_2020 model, with an ultimate rate of 1.00% for ages 80 and under, grading down to 0.05% at age 95, and further grading down to 0.00% at age 115, with convergence to the ultimate rates in 2027. All other parameters used in the RPEC_2020 model are those included in the published MP-2020 scale.

APPENDIX A – PARTICIPANT DATA, ASSUMPTIONS, AND METHODS

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

	(showing values in 2022)	
Age	Male	Female
20	3	1
25	3	1
30	4	2
35	6	3
40	7	4
45	9	5
50	12	7
55	18	11
60	28	17
65	39	25

Rates are based on 83.5% and 88.6% of the 2010 Public Plan General Benefits- Weighted Employee Mortality Table, respectively, for males and females. These rates are generationally projected using the same version of the RPEC_2020 model as described in the healthy annuitant mortality.

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

	(showing values in 2022)	
Age	Male	Female
25	36	21
30	54	37
35	73	57
40	90	76
45	113	99
50	161	143
55	219	184
60	278	213
65	330	222
70	389	262

Rates are based on 107.3% and 103.2% of the 2010 Public Plan Non-Safety Benefits-Weighted Disabled Retiree Mortality Table, respectively, for males and females. These rates are generationally projected using the same version of the RPEC_2020 model described in the healthy annuitant mortality.

APPENDIX A – PARTICIPANT DATA, ASSUMPTIONS, AND METHODS

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

Regular Plans

	Regular Plans	
Age	NRA 60	NRA 65
45	N/A	N/A
50	N/A	N/A
55	N/A	N/A
60	120	60
65	250	200
70	1,000	250
75	1,000	1,000

In the case of PLD employees, NRA 60 refers to those who were hired prior to July 1, 2014, and NRA 65 refers to those who were hired on or after July 1, 2014.

APPENDIX A – PARTICIPANT DATA, ASSUMPTIONS, AND METHODS

Special Plans

Years of Service	Special Plans
20	350
21	300
22	280
23	250
24	200
25	350
26	250
27	230
28	250
29	400
30	250
31-33	250
34	330
35+	1,000

Note that all retirement rates are only applied once the member is eligible to retire, so those in 25-year plans are not assumed to retire at 20 years of service. For Special Plan retirements with less than 20 years of service, we assume 250 retirements per 1,000 members.

APPENDIX A – PARTICIPANT DATA, ASSUMPTIONS, AND METHODS

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

	Regular	Special
25	0.9	2.3
30	1.2	3.0
35	1.8	4.5
40	4.2	10.5
45	8.7	21.8
50	16.5	41.3
55	28.5	70.0
60	30.0	70.0

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.

PLDs: 9.36%

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.

12. Rationale for Assumptions

The revised demographic assumptions were adopted by the Board of Trustees at their March 11, 2021 meeting. The revised discount rate was adopted by the Board of Trustees at their August 12, 2021 meeting. The demographic assumptions adopted are based on an

APPENDIX A – PARTICIPANT DATA, ASSUMPTIONS, AND METHODS

experience study covering the period from July 1, 2015 through June 30, 2020, and the economic assumptions are based on this experience study along with advice of the MainePERS investment consultants.

13. Changes since Last Valuation

None

14. Rationale for Change in Actuarial Assumptions

N/A

15. Disclosure of Models used

Proval: Cheiron utilizes ProVal, an actuarial valuation software leased from Winklevoss Technologies (WinTech) to calculate the liabilities, normal costs, and projected benefit payments. We have relied on WinTech as the developer of ProVal. We have reviewed ProVal and have a basic understanding of it and have used ProVal in accordance with its original intended purpose. We have not identified any material inconsistencies in assumptions or output of ProVal that would affect this actuarial valuation.

Mortality Improvement Model: Cheiron utilized the RPEC_2014_v2020 Model Implementation Tool for the purposes of developing the customized version of MP-2020 used in this report. This tool is updated and published annually by the Society of Actuaries and their Retirement Plans Experience Committee and allows actuaries to develop customized versions of mortality improvement scales based on the parameters and data underlying the published MP-2020 scale but allowing practitioners to vary parameters from those used in the published MP-2020 scale.

We have reviewed this model and believe it is appropriate to our intended use in developing a customized mortality improvement scale for the Programs. Further, we are aware of no material inconsistencies that would limit our ability to use this model for its intended purpose.

APPENDIX A – PARTICIPANT DATA, ASSUMPTIONS, AND METHODS

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 2036 for PLDs.

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

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 is 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 $0.22 biweekly per $1,000 of base benefit, based on the coverage amounts declining from 100% to 40%. Biweekly rates increase to $0.23 in FYE 2024 and $0.24 in FYE 2026.

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.)

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 is 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.

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.

MAINEPERS

BOARD OF TRUSTEES MEMORANDUM

TO: BOARD MEMBERS

FROM: SHERRY VANDRELL, DIRECTOR OF FINANCE

SUBJECT: FY22 AUDITED FINANCIAL STATEMENTS

DATE: OCTOBER 5, 2022

POLICY REFERENCE

Board Policy 1.6 – Finance and Audit Committee of the Board

Board Policy 4.5 – Board/Staff Relations

Board Policy 4.6 – Communication and Support to the Board

BerryDunn is completing its audit of the System's FY22 Financial Statements and Required Supplemental information, pending Board acceptance of the annual valuation reports. A draft of the financial statements follows this memo. The auditor's report will be provided as soon as it is available prior to your meeting.

Mark LaPrade, Principal, and Leah Claire, Audit Manager, will present the draft financial statements at the October 13, 2022 meeting and will answer any questions you may have at that time. If the Board accepts the audited financial statements, they will be finalized following the meeting.

RECOMMENDATION

Accept the FY22 Audited Financial Statements as presented.

Maine Public Employees Retirement System

(A Component Unit of the State of Maine)

Financial Statements,
Required Supplementary Information
and Additional Supplementary Information

Year Ended June 30, 2022
With Independent Auditor's Report

MAINE PUBLIC EMPLOYEES RETIREMENT SYSTEM

FINANCIAL STATEMENTS,
REQUIRED SUPPLEMENTARY INFORMATION
AND ADDITIONAL SUPPLEMENTARY INFORMATION

Year Ended June 30, 2022
With Summarized Information for June 30, 2021

TABLE OF CONTENTS

MAINE PUBLIC EMPLOYEES RETIREMENT SYSTEM
(A Component Unit of the State of Maine)

MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED)

June 30, 2022

Introduction

This Management's Discussion and Analysis (MD&A) is prepared by the management staff of the Maine Public Employees Retirement System (MainePERS or the System) for the purpose of providing an overview of the System's financial statements.

Financial Reporting Structure

The System's financial statements are prepared on an accrual basis of accounting in accordance with Governmental Accounting Standards Board (GASB) pronouncements. The accrual basis of accounting requires the recognition and recording of financial transactions and other related events when they occur and not just in conjunction with the inflows and outflows of cash and other resources.

The funds managed by the System are held in trust and consistent with state and federal law can only be used for the payment of pension and related benefits to its members or, in the case of the Retiree Health Insurance Trust Fund, for the payment of retiree health insurance premiums for eligible retirees of the State of Maine. The System's Board of Trustees (the Board), as fiduciary, establishes the System's investment policies and oversees their overall implementation.

The System reports five defined benefit retirement plans consisting of the State Employee and Teacher Plan, a multiple-employer cost sharing plan with a special funding situation; the Judicial Plan, a single employer plan; the Legislative Plan, a single employer plan; the PLD Consolidated Plan, a multiple-employer cost sharing plan; and the PLD Agent Plan, an agent multiple-employer plan. The System also reports a Group Life Insurance Plan covering active state employees (including judges and legislators), teachers, and participating employees of the PLD Plan as well as two multiple-employer cost sharing other post-employment benefit (OPEB) plans providing life insurance coverage in retirement for retired state employees, including judges and legislators, and teachers and eligible retirees of the PLD Plans. In addition, the System reports certain defined contribution plans, the MainePERS OPEB Trust, and the Retiree Health Insurance Trust Fund.

Basic Financial Statements

The Statement of Fiduciary Net Position reports the balance of Fiduciary Net Position restricted for future benefits as of the fiscal year end, with summarized values reported as of the previous fiscal year end. The Statement of Changes in Fiduciary Net Position reports the net change in Fiduciary Net Position for the fiscal year, with summarized values reported for the previous fiscal year. The System reports each as separate funds and in separate columns in the financial statements. Condensed versions of both statements are included in the following section.

The Schedules of Changes in the Plan's Net Pension Liability and Related Ratios (Required Supplementary Information) present the total pension liability and information indicating the source of changes in the liability for each defined benefit retirement plan administered by the System. In addition, they show summary information regarding each Plan's net position for the years presented. They also present each Plan's net pension liability as a percentage of the covered payroll.

The Schedules of Employer Contributions (Required Supplementary Information) present the actuarially determined contributions for each defined benefit plan and compare them to actual employer contributions for the period presented. They also provide the actual contributions as a percentage of covered payroll for each year.

The Schedule of Investment Returns (Required Supplementary Information) presents the annual money-weighted rate of return, net of investment expenses, for all of the defined benefit plans for each year presented.

The Schedules of Changes in the Plan's Net OPEB Liability and Related Ratios for the Group Life Insurance Plans (Required Supplementary Information) present the total OPEB liability and information indicating the source of changes in the liability for each OPEB plan administered by the System. In addition, they show summary information regarding each Plan's net position for the years presented. They also present each Plan's net OPEB liability as a percentage of the covered payroll.

The Schedules of Employer Contributions for the Group Life Insurance Plans (Required Supplementary Information) present the actuarially determined contributions for each OPEB plan and compare them to actual employer contributions for the periods presented. They also provide the actual contributions as a percentage of covered payroll for each year.

The Schedule of Investment Returns (Required Supplementary Information) presents the annual money-weighted rate of return, net of investment expenses, for all of the OPEB plans for each year presented.

Financial Highlights and Analysis

The following are the Condensed Comparative Statements of Fiduciary Net Position and Condensed Comparative Statements of Changes in Fiduciary Net Position for the System for the fiscal years ended June 30, 2022, 2021, and 2020:

Condensed Comparative Statements of Fiduciary Net Position
(Dollar Values Expressed in Millions)

	June 30, 2022	June 30, 2021	June 30, 2020
Cash and Receivables	$ 153.2	$ 71.9	$ 71.5
Investments at Fair Value	18,814.7	19,365.3	15,593.5
Collateral on Loaned Securities	10.3	80.3	206.3
Other Assets	13.2	15.0	17.5
Total Assets	**$ 18,991.4**	**$ 19,532.5**	**$ 15,888.8**
Investment Management Fees Payable	$ 19.5	$ 17.9	$ 19.2
Obligations Under Securities Lending Activities	10.3	80.3	206.3
Other Liabilities	50.0	24.8	22.8
Total Liabilities	**$ 79.8**	**$ 123.0**	**$ 248.3**
Fiduciary Net Position - Restricted for Benefits	**$ 18,911.6**	**$ 19,409.5**	**$ 15,640.5**

Condensed Comparative Statements of Changes in Fiduciary Net Position
(Dollar Values Expressed in Millions)

	June 30, 2022	June 30, 2021	June 30, 2020
ADDITIONS:			
Member Contributions	$ 239.9	$ 222.9	$ 214.6
Employer Contributions	440.5	319.7	301.5
Non-Employer Contributing Entities Contributions	199.3	183.9	179.0
Total Investment Income / (Loss)	(190.2)	4,167.8	468.5
Transfers from Other Plans	0.3	0.7	29.2
Total Additions	**$ 689.8**	**$ 4,895.0**	**$ 1,192.8**
DEDUCTIONS:			
Benefits Paid	$ 1,141.3	$ 1,085.1	$ 1,052.9
Other	46.4	40.9	75.1
Total Deductions	**$ 1,187.7**	**$ 1,126.0**	**$ 1,128.0**
Net Increase	**$ (497.9)**	**$ 3,769.0**	**$ 64.8**
Fiduciary Net Position - Restricted for Benefits, Beginning of Year	**$ 19,409.5**	**$ 15,640.5**	**$ 15,575.7**
Fiduciary Net Position - Restricted for Benefits, End of Year	**$ 18,911.6**	**$ 19,409.5**	**$ 15,640.5**

Fiduciary Net Position

The Fiduciary Net Position of the System decreased in fiscal year 2022 by $497.9 million (2.6%) from the prior year Fiduciary Net Position. This was due, in part, to investment losses of $190.2 million combined with benefit payments that exceeded contributions in the amount of $262 million. Investment income in fiscal year 2021 was $4,167.8 million as compared to investment losses of $190.2 million in fiscal year 2022.

Comparatively, Fiduciary Net Position of the System increased in fiscal year 2021 by $3,769 million (24.1%) from the prior year Fiduciary Net Position. Investment returns were strong and drove the increase. Investment income was $4,167.8 million in fiscal year 2021 compared to $468.5 million in fiscal year 2020.

Assets

Investments at Fair Value decreased by $550.6 million (2.8%) in fiscal year 2022. This decrease in Investments at Fair Value combined with a decrease in collateral on loaned securities of $70 million contributed to a decrease in total assets of $541.1 million during the fiscal year. The System records the collateral on loaned securities due to its securities lending activity as an asset and corresponding liability. The decrease of $70 million in collateral on loaned securities arose due to changes in the amount and type of securities on loan. Non-cash collateral is not recorded in total assets on the System's financial statements.

Comparatively, Investments at Fair Value increased by $3,771.8 million (24.2%) in fiscal year 2021. This increase in Investments at Fair Value combined with a decrease in collateral on loaned securities of $126.0 million contributed to an increase in total assets of $3,643.7 million during the fiscal year. The System records the collateral on loaned securities due to its securities lending activity as an asset and corresponding liability. The decrease of $126.0 million in collateral on loaned securities arose due to changes in the amount and type of securities on loan. Non-cash collateral is not recorded in total assets on the System's financial statements.

There were $33.4 thousand in pending sales at June 30, 2022. There were $770.9 thousand in pending sales at June 30, 2021 and there were $275.9 million in pending sales at June 30, 2020.

Liabilities

On June 30, 2022, total loans outstanding in the securities lending program were $10.3 million. On June 30, 2021 and 2020, the total loans outstanding in the securities lending program were $80.3 million and $206.3 million, respectively.

Additions to Fiduciary Net Position

Additions to Fiduciary Net Position during fiscal year 2022 totaled $689.8 million compared to additions of $4,895 million to Fiduciary Net Position in fiscal year 2021. Contributions from all sources increased by $153.2 million. Investment income, net of fees and other deductions, decreased by $4,358 million. The decrease in investment income in fiscal year 2022 is due to lower returns across the majority of asset classes.

Additions to Fiduciary Net Position during fiscal year 2021 totaled $4,895.0 million compared to additions of $1,192.8 million to Fiduciary Net Position in fiscal year 2020. Contributions from all sources increased by $31.4 million. Investment income, net of fees and other deductions, increased by $3,699.3 million. The increase in investment income in fiscal year 2021 is due to higher returns across the majority of asset classes.

The State's contributions on behalf of State employees totaled $243.1 million, $172.2 million, and $163.7 million for fiscal years 2022, 2021, and 2020, respectively. The State's contributions on behalf of teachers totaled $232.1 million, $179.3 million, and $174.5 million, for fiscal years 2022, 2021, and 2020, respectively. The State's contribution on behalf of judges totaled $868 thousand, $739 thousand, and $716 thousand for fiscal years 2022, 2021, and 2020, respectively. The State contribution on behalf of legislative employees in the amount of $43 thousand was made in fiscal year 2022. Based on the funding methodology used and considering the funded status of the Legislative Plan, no employer contribution was required in fiscal years 2021 or 2020.

The balance of employer contributions reported is from local school district employers and Participating Local District (PLD) employers. Local school district employers pay the normal cost contribution on behalf of public school teachers. The normal cost rate as a percentage of earnable compensation for fiscal year 2022 was 4.08%. For fiscal years 2021 and 2020 the normal cost rate was 4.16%. The range of employer contributions in the PLD Consolidated Plan as a percent of earnable compensation in fiscal year 2022 was 5.5% to 15.2%; for fiscal year 2021 the range was 5.2% to 16%; and for fiscal year 2020 the range was 4.5% to 16.2%.

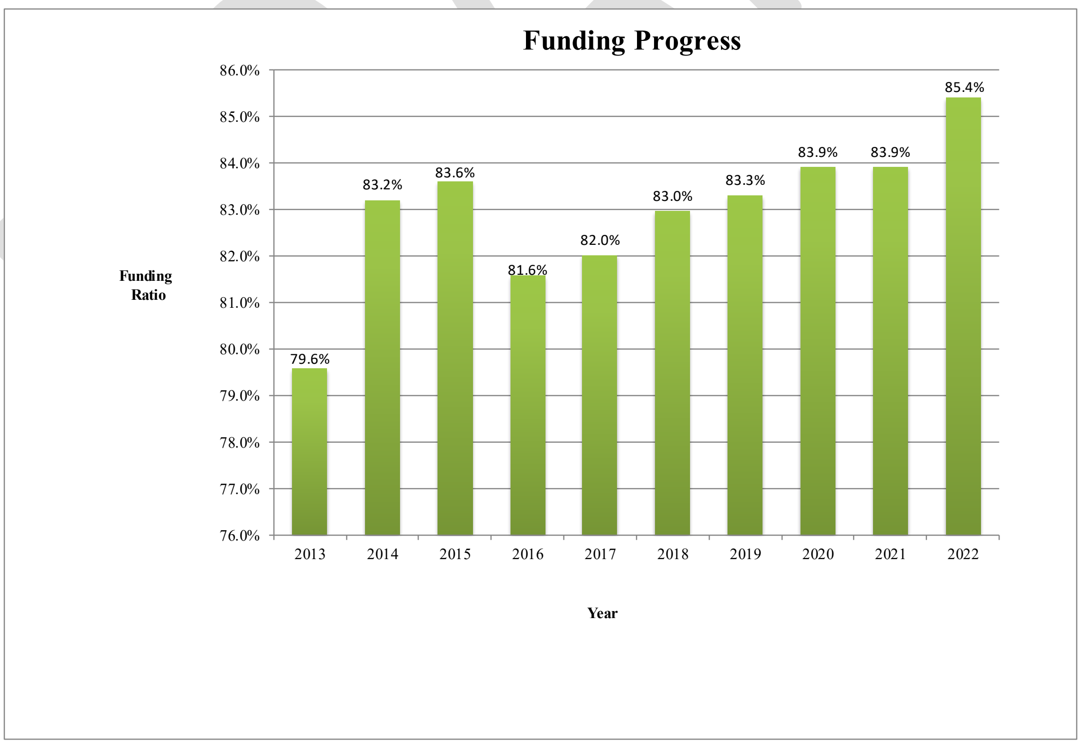
Member and employer data, contribution and benefit data for the 5 non-consolidated PLDs are specific to each PLD and are obtainable from the System.

Deductions from Fiduciary Net Position

Total deductions from Fiduciary Net Position restricted for benefits during fiscal year 2022 increased by $56.2 million (5.2%). There was an increase in the number of recipients receiving benefits, as well as the increased cost of benefits paid in 2022 combined with an increase in refunds and withdrawals of contributions and other deductions. Benefit payments in fiscal year 2022 exceeded contributions by $261.6 million. Contributions totaled $879.7 million, and benefit payments totaled $1,141.3 million.

Comparatively, deductions from Fiduciary Net Position restricted for benefits during fiscal year 2021 decreased by $.2 million (.2%). There was an increase in the number of recipients receiving benefits, as well as the increased cost of benefits paid in 2021 offset by a reduction in refunds and withdrawals of contributions and other deductions. Benefit payments in fiscal year 2021 exceeded contributions by $358.6 million. Contributions totaled $726.5 million, and benefit payments totaled $1,085.1 million.

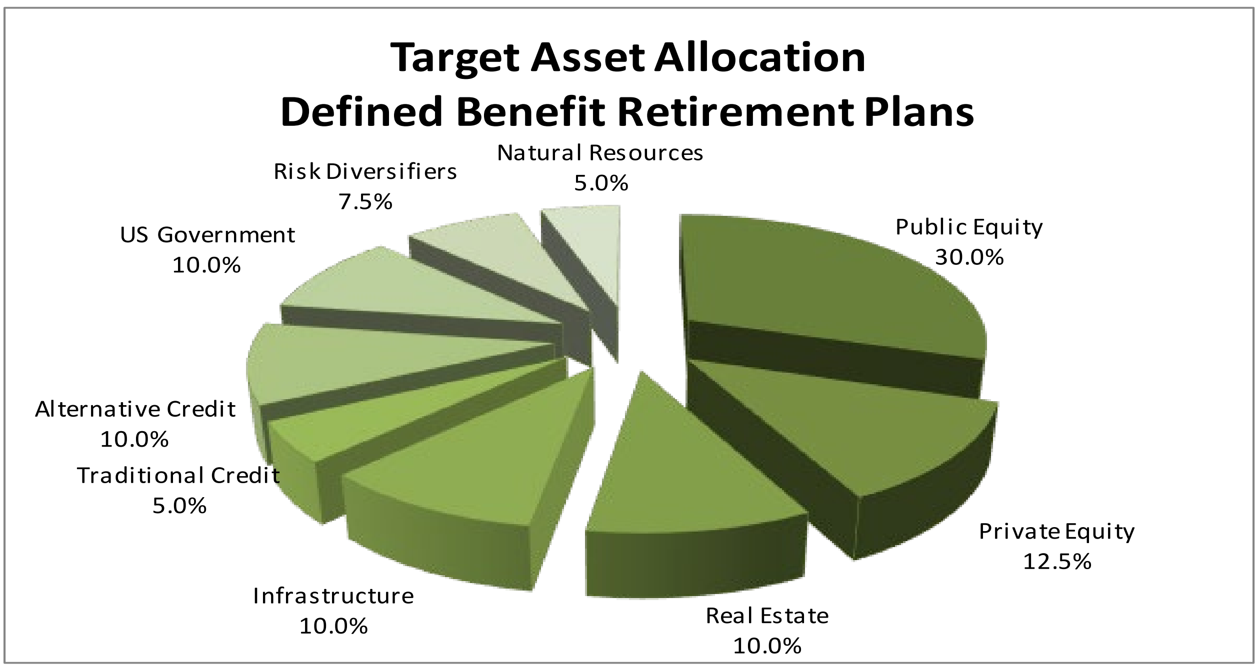
System Funding Status – Aggregate



At June 30, 2022, the State Employee and Teacher, Judicial, Legislative and PLD defined benefit plans were actuarially funded at 85.4%, up from 83.9% at June 30, 2021. As illustrated in the chart, the actuarial funded ratio of the System was 79.9% at June 30, 2013. The increase in the funded ratio for 2014 is attributable in part to strong investment returns during those years, in addition to changes in plan provisions and increased contribution rates. Lower investment returns combined with increased contribution rates in 2015 contributed to keeping the funding ratio level. The decrease in funding level in 2016 is attributable, in large part, to low investment returns due to the low return environment, combined with an increase in the overall liabilities of the plans resulting from changes in assumptions adopted following the completion of an experience study in 2016. The modest increases from 2017 through 2021 are attributable, in large part, to investment returns during those years. While investment returns were slightly negative in 2022, the actuarial funding ratio increased due to asset smoothing, which recognizes a portion of the current year losses as well as a portion of prior year gains into the actuarial value of assets.

Investments

The assets of all the defined benefit retirement plans that the System administers are commingled for investment purposes.



The System's investment portfolio for the defined benefit retirement plans is invested across nine asset classes: public equity, private equity, traditional credit, alternative credit, real estate, infrastructure, natural resources, US Government, and risk diversifiers. Publicly traded derivative securities are used in some portfolios to obtain exposures to one or more of the asset classes in a cost effective manner. The investment policy established by the Board in 2012 and as amended in May 2022 assigned strategic target allocations for these asset classes, as shown in the above chart.

Assets of the Group Life Insurance Plans and the Retiree Health Insurance Trust are invested separately from the assets of the defined benefit retirement plans. The target allocations for these assets are public equity (70%), real estate (5%), traditional credit (16%), and US Government (9%).

All of the assets invested by the System are in portfolios managed by professional investment management firms. These managers act as fiduciaries and invest the assets assigned to them in accordance with the Board's investment policy and their separate contractual arrangements. At June 30, 2022, total fair value of assets in these portfolios (together with the amounts otherwise managed) was $18.8 billion. The total fair value of assets as of June 30, 2021 and June 30, 2020, respectively, was $19.4 billion and $15.6 billion.

The investment return for the defined benefit plan assets, net of all fees, for the year ended June 30, 2022 was 3.3% The investment return for the years ended June 30, 2021 and June 30, 2020, respectively, was 26.5% and 1.8%. Investment returns in fiscal year 2022 were lower than in fiscal year 2021, due to generally lower returns across the majority of asset classes. Over the five, ten and thirty year periods ended June 30, 2022, the average annual investment return for the total fund was 9.5%, 8.9%, and 8.1%, respectively.

System Membership – Aggregate

The following membership counts for all of the defined benefit plans are derived from actuarial valuation data:

	2022	2021	% Change
Current active participants:			
Vested and nonvested	52,717	52,041	1.3%
Terminated participants			
Vested	11,688	11,076	5.5%
Inactives Due Refunds	48,984	47,975	2.1%
Retirees and beneficiaries receiving benefits	49,166	48,141	2.1%
Total Membership	**162,555**	**159,233**	**2.1%**

The number of active State employees at June 30, 2022 in the State Employee and Teacher plan was 12,403, a decrease of 252 from June 30, 2021. The number of active Teachers at June 30, 2022 was 27,444, a decrease of 274 from June 30, 2021. Membership for judges remained the same at 60. Membership for Legislators was 174 at June 30, 2022, a decrease of 4 from the previous year. Total active membership in the PLD Consolidated Plan at June 30, 2022 was 12,362, an increase of 658 from June 30, 2021. There are no active members in the 5 remaining non-consolidated plans.

Group Life Insurance Plan

The Group Life Insurance Plans provide life insurance coverage for eligible members of the defined benefit plans administered by the System. Eligible members include State employees, including judges and legislators, teachers and those PLD employees whose employers have elected to participate in the program, and whose positions are eligible for coverage. Eligible employees who elect coverage receive life insurance coverage while actively employed and may carry coverage into retirement. The following summarized data, stated in millions, is derived from actuarial valuation data for the Group Life Insurance Plan with respect to benefits in retirement:

	2022	2021	% Change
Total OPEB Liability	$267.9	$255.0	5.1%
Plan Net Position	141.5	161.8	-12.5%
Net OPEB Liability	**$126.4**	**$93.2**	**35.6%**

Defined Contribution Plans

The Section 401(a), Section 457 and Section 403(b) Plans administered by the Board are defined contribution plans. These plans are provided as supplemental plans to the basic retirement benefits of employees of PLDs that elect to participate in the Defined Contribution Plans. Contributions may be made to the Plans subject to plan and Internal Revenue Code limitations. Investments in the Defined Contribution Plans are individually directed and controlled by plan participants.

Retiree Health Insurance Trust Fund

The Maine State Legislature established the Retiree Health Insurance Post Employment Investment Trust (Investment Trust Fund) as an irrevocable trust for the sole purpose of holding and investing funds appropriated or otherwise provided to the Investment Trust Fund for the purpose of accumulating assets to provide funding to the State's unfunded liability obligations for retiree health benefits. The Trustees of the System were named Trustees of the Investment Trust Fund. At June 30, 2022, the Fiduciary Net Position Held in Trust for the Investment Trust Fund was $331,180,383.

Currently Known Facts, Decisions, or Conditions

In response to the global pandemic, coronavirus disease (COVID-19), management has taken a series of steps designed to protect staff and the public from exposure to the disease. This included re-assignment of roughly seventy-five percent of staff to remote work in March of 2020. We continued to operate with a mostly remote workforce through July of 2021 with no disruption in operations. A phased approach to bringing staff back in person was put in place in July of 2021 and management continues to monitor the environment and is prepared to adjust operations as appropriate.

Requests for Information

Questions concerning this Management's Discussion and Analysis, other parts of the System's financial statements or the System's financial activities should be directed to Maine Public Employees Retirement System, Sherry Tripp Vandrell, Director of Finance, at PO Box 349, Augusta, Maine 04332 or at (207) 512-3100 or toll-free at (800) 451-9800.

MAINE PUBLIC EMPLOYEES RETIREMENT SYSTEM
(A Component Unit of the State of Maine)

STATEMENT OF FIDUCIARY NET POSITION

June 30, 2022
With Summarized Information as of June 30, 2021

	State Employee and Teacher Plan	Judicial Plan	Legislative Plan	PLD Consolidated Plan	PLD Agent Plan
Assets:					
Cash and cash equivalents (note 3)	$ 88,697,513	$ 668,488	$ 125,817	$ 16,052,480	$ 69,373
Investments at fair value (note 3):					
Common equity	1,986,020,784	11,699,231	2,200,613	501,353,203	1,214,057
Common/collective trusts	4,763,697,236	28,061,939	5,278,421	1,202,552,807	2,912,054
Partnerships	7,738,555,647	45,586,205	8,574,716	1,953,529,234	4,730,589
Total investments	14,488,273,668	85,347,375	16,053,749	3,657,435,244	8,856,700
Receivables:					
Contributions and premiums (notes 6 and 7)	24,779,140	–	–	12,593,619	–
Accrued interest and dividends	3,682,471	21,693	4,080	929,607	2,251
Due from brokers for securities sold	26,536	156	29	6,698	16
Total receivables	28,488,147	21,849	4,109	13,529,924	2,267
Collateral on loaned securities (note 5)	8,158,837	48,062	9,040	2,059,626	4,988
Capital assets, net of accumulated depreciation	10,485,945	61,770	11,619	2,647,083	6,410
Total assets	14,624,104,110	86,147,544	16,204,334	3,691,724,357	8,939,738
Liabilities:					
Accounts payable	4,351,886	25,636	4,822	1,098,595	2,660
Due to brokers for securities purchased	15,787,630	93,001	17,494	3,985,446	9,651
Other liabilities	11,705,194	68,953	12,970	2,954,871	7,155
Accrued investment management fees	15,402,680	90,734	17,067	3,888,269	9,416
Obligations under securities lending activities (note 5)	8,158,837	48,062	9,040	2,059,626	4,988
Total liabilities	55,406,227	326,386	61,393	13,986,807	33,870
Fiduciary net position – restricted for benefits	$14,568,697,883	$ 85,821,158	$ 16,142,941	$ 3,677,737,550	$ 8,905,868

The accompanying notes are an integral part of these financial statements.

Group Life Insurance Plan Active	Group Life Insurance Plan Retired SET	Group Life Insurance Plan Retired PLD	Defined Contribution Plans	MainePERS OPEB Trust	Retiree Health Insurance Trust Fund	2022 Total	2021 Summarized
$ 3,079,155	$ –	$ –	$ 23,195	$ –	$ –	$ 108,716,021	$ 32,280,754
–	–	–	–	–	–	2,502,487,888	2,995,713,490
13,306,575	127,175,728	18,939,547	53,898,637	16,183,789	329,211,318	6,561,218,051	7,221,257,439
–	–	–	–	–	–	9,750,976,391	9,148,301,698
13,306,575	127,175,728	18,939,547	53,898,637	16,183,789	329,211,318	18,814,682,330	19,365,272,627
337,596	–	85,211	866	–	2,000,000	39,796,792	34,692,755
–	–	–	–	–	–	4,640,102	4,135,968
–	–	–	–	–	–	33,435	770,918
337,956	–	85,211	866	–	2,000,000	44,470,329	39,599,641
–	–	–	–	–	–	10,280,553	80,266,095
–	–	–	–	–	–	13,212,827	15,013,550
16,723,686	127,175,728	19,024,758	53,922,698	16,183,789	331,211,318	18,991,362,060	19,532,432,667
711	6,793	1,012	–	–	–	5,492,115	4,617,012
–	–	–	–	–	–	19,893,222	307
3,833,601	3,980,556	678,011	17,763	1,371,337	3,100	24,633,511	20,120,693
3,517	33,612	5,006	–	4,319	27,835	19,482,455	17,886,581
–	–	–	–	–	–	10,280,553	80,266,095
3,837,829	4,020,961	684,029	17,763	1,375,656	30,935	79,781,856	122,890,688
$ 12,885,857	$123,154,767	$ 18,340,729	$ 53,904,935	$ 14,808,133	$ 331,180,383	$ 18,911,580,204	$ 19,409,541,979

MAINE PUBLIC EMPLOYEES RETIREMENT SYSTEM
(A Component Unit of the State of Maine)

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION

Year Ended June 30, 2022
With Summarized Information for the Year Ended June 30, 2021

	State Employee and Teacher Plan	Judicial Plan	Legislative Plan	PLD Consolidated Plan	PLD Agent Plan
Additions:					
Investment income/(loss):					
From investing activities:					
Net appreciation in the fair value of plan investments	$ (105,384,214)	$ (598,411)	$ (117,068)	$ (26,417,021)	$ (53,736)
Interest	509,721	2,817	529	118,852	324
Dividends	129,195,621	761,064	143,155	32,614,280	78,977
Less: investment expenses	(104,006,433)	(620,718)	(115,950)	(26,298,696)	(65,930)
Net income from investing activities	(79,685,305)	(455,248)	(89,334)	(19,982,585)	(40,365)
From securities lending activities:					
Securities lending income	258,446	1,522	286	65,242	158
Borrower rebates refunded	75,597	445	84	19,084	46
Management fees	(38,727)	(228)	(43)	(9,776)	(24)
Net income from securities lending activities	295,316	1,739	327	74,550	180
Total investment income/(loss)	(79,389,989)	(453,509)	(89,007)	(19,908,035)	(40,185)
Contributions and premiums (notes 6 and 7):					
Members	164,348,772	650,172	161,937	65,104,304	–
Employers	348,890,554	867,895	43,111	78,887,165	98,328
Non-employer contributing entities (note 1)	194,654,436	–	–	–	–
Transfers from other plans	–	29,746	–	89,325	–
Total contributions and premiums	707,893,762	1,547,813	205,048	144,080,794	98,328
Total additions	628,503,773	1,094,304	116,041	124,172,759	58,143
Deductions:					
Benefits paid	930,771,975	5,094,485	543,252	187,842,235	770,747
Refunds and withdrawals	17,380,023	–	75,595	6,734,145	122,401
Transfers to other plans	341,271	–	–	–	–
Claims processing expenses (note 7)	–	–	–	–	–
Administrative expenses	11,962,324	72,167	13,374	3,011,452	7,811
Total deductions	960,455,593	5,166,652	632,221	197,587,832	900,959
Net increase/(decrease) in fiduciary net position	(331,951,820)	(4,072,348)	(516,180)	(73,415,073)	(842,816)
Fiduciary net position – restricted for benefits, beginning of year	14,900,649,703	89,893,506	16,659,121	3,751,152,623	9,748,684
Fiduciary net position – restricted for benefits, end of year	$14,568,697,883	$ 85,821,158	$ 16,142,941	$ 3,677,737,550	$ 8,905,868

The accompanying notes are an integral part of these financial statements.

Group Life Insurance Plan Active	Group Life Insurance Plan Retired SET	Group Life Insurance Plan Retired PLD	Defined Contribution Plans	MainePERS OPEB Trust	Retiree Health Insurance Trust Fund	2022 Total	2021 Summarized
$ (2,336,879)	$(20,305,172)	$ (3,019,261)	$ (8,195,492)	$ (2,630,183)	$ (53,539,555)	$ (222,596,992)	$4,162,543,848
188	1,680	251	–	–	–	634,362	162,166
–	–	–	–	–	–	162,793,097	128,354,996
(10,445)	(83,878)	(12,537)	(52,974)	(10,703)	(119,042)	(131,397,306)	(123,781,410)
(2,347,136)	(20,387,370)	(3,031,547)	(8,248,466)	(2,640,886)	(53,658,597)	(190,566,839)	4,167,279,600
–	–	–	–	–	–	325,654	468,476
–	–	–	–	–	–	95,256	87,338
–	–	–	–	–	–	(48,798)	(70,212)
–	–	–	–	–	–	372,112	485,602
(2,347,136)	(20,387,370)	(3,031,547)	(8,248,466)	(2,640,886)	(53,658,597)	(190,194,727)	4,167,765,202
4,419,399	–	–	5,191,562	–	–	239,876,146	222,909,355
1,634,118	5,991,899	1,277,664	795,549	8,759	2,000,000	440,495,042	319,658,264
–	4,592,852	–	–	–	–	199,247,288	183,931,178
–	–	–	222,200	–	–	341,271	694,731
6,053,517	10,584,751	1,277,664	6,209,311	8,759	2,000,000	879,959,747	727,193,528
3,706,381	(9,802,619)	(1,753,883)	(2,039,155)	(2,632,127)	(51,658,597)	689,765,020	4,894,958,730
9,136,577	6,015,090	851,262	–	312,447	–	1,141,338,070	1,085,110,093
–	–	–	4,192,584	–	–	28,504,748	23,751,328
–	–	–	–	–	–	341,271	694,731
132,764	802,591	137,140	120,059	–	–	1,192,554	1,164,616
108,829	824,527	124,368	222,200	–	3,100	16,350,152	15,241,470
9,378,170	7,642,208	1,112,770	4,534,843	312,447	3,100	1,187,726,795	1,125,962,238
(5,671,789)	(17,444,827)	(2,866,653)	(6,573,998)	(2,944,574)	(51,661,697)	(497,961,775)	3,768,996,492
18,557,646	140,599,594	21,207,382	60,478,933	17,752,707	382,842,080	19,409,541,979	15,640,545,487
$ 12,885,857	$123,154,767	$ 18,340,729	$ 53,904,935	$ 14,808,133	$ 331,180,383	$ 18,911,580,204	$19,409,541,979

1. Overview of the Maine Public Employees Retirement System Benefit Plans

Background

The Maine Public Employees Retirement System (the System or MainePERS), which is a component unit of the State of Maine, is the administrator of a public employee retirement system established and administered under the Laws of the State of Maine. The System was formerly named the Maine State Retirement System. The System provides pension, disability, and death benefits to its members, which include employees of the State, public school teachers (as defined by Maine law) and employees of 316 local municipalities and other public entities (participating local districts, or PLDs) in Maine, each of which contracts for participation in the System under provisions of the relevant statutes.

Individual PLDs are permitted by law to withdraw from participation in the System. Withdrawal precludes the PLD's nonmember employees, if any, and its employees hired subsequent to withdrawal from membership in the System. Depending on the circumstances and requirements of the PLD's participation under the System, a withdrawn PLD may have continuing funding obligations after withdrawal with respect to its employees who are active members at the time of withdrawal and who continue to be members thereafter, to its terminated vested employee members, and to its former employee members who are retired at the time of withdrawal.

Board of Trustees

The Board is comprised of eight members. State law specifies the composition of the Board, whose members are confirmed by the Legislature. Three trustees are System members, one of whom is proposed and elected by the Maine Education Association, one of whom is proposed and elected by the Maine State Employees Association, and one of whom is an active or retired PLD member appointed by the governing body of the Maine Municipal Association. Four other trustees are appointed by the Governor. Of these, one must be selected by the Governor from a list of nominees submitted by the Maine Retired Teachers Association and one must be a MainePERS retiree selected from a list of nominees submitted by State and/or PLD retirees. The remaining two appointees are direct gubernatorial appointments, both of whom must be qualified through training or experience in investments, accounting, banking or insurance or as actuaries. All appointed trustees are required to have "a working knowledge of retirement policy and legal issues and a general knowledge and understanding of banking, finance, and investment practices." The eighth trustee is the State Treasurer, who serves ex-officio. All trustee terms are three years, except for the two-year term of the State Treasurer. The Board annually elects its chair and vice chair from among its members.

Defined Benefit Plans

Pension funds managed by the System are constitutionally restricted and held in trust for the payment of pension and related benefits. The Board, in its fiduciary capacity, establishes the System's investment policies and oversees their overall implementation. The System administers five defined benefit pension plans consisting of the State Employee and Teacher Plan which includes the Governors' Plan, the Judicial Plan, the Legislative Plan, the PLD Consolidated Plan, and the PLD Agent Plan. The System maintains

1. Overview of the Maine Public Employees Retirement System Benefit Plans (Continued)

separate reserves and accounts and performs separate annual actuarial valuations for each pension plan. Additional information regarding each plan can be found in Note 6 of this report.

Group Life Insurance Plans

The Group Life Insurance Plans (the Plans) were established by the State Legislature to provide group life insurance benefits, during active service as well as in retirement, to State employees, Teachers, members of the Judiciary and the Legislature, as well as Elected and Appointed Officers of the State, that are eligible for membership in the System. Group Life Insurance benefits are also provided to the employees of PLDs that elect to participate in the Plans. Generally, benefit plan provisions can only be amended through statutory change. Employees are eligible for coverage under the Plans, subject to their membership in one or more of the aforementioned eligible employment classes and any other conditions of eligibility that the Board may prescribe by rule or decision.

Group Life Insurance funds managed by the System are held in trust for the payment of benefits to participants and/or their beneficiaries. The Board, in its fiduciary capacity, establishes the System's investment policies and oversees their overall implementation. The System maintains separate reserves and accounts for both active and retiree coverage and biennial actuarial valuations are performed for each plan within the program. In those years where a full actuarial valuation is not completed, a roll-forward of plan liabilities from the previous valuation to the current fiscal year end with expected benefit payments and accruals is conducted. The liabilities for fiscal year ended June 30, 2022 were calculated as part of a full actuarial valuation.

Defined Contribution Plans

The Section 401(a), Section 457 and Section 403(b) Plans (Defined Contribution Plans), administered by the System's Board of Trustees with funds held in trust, are defined contribution plans. These plans are available as supplemental plans to the basic retirement benefits of employees of PLDs that elect to participate in the Defined Contribution Plans. Contributions may be made to the Defined Contribution Plans by plan participants subject to plan and Internal Revenue Code limitations. At June 30, 2022, participation in the defined contribution plans was as follows:

	401(a) Plan	457 Plan	403(b) Plan
Employers	7	72	1
Participants	89	926	564

Investments in the Defined Contribution Plans are individually directed and controlled by plan participants. Benefits for deferred compensation, employer contributions, and earnings on the accounts are not recognized by Plan participants for income tax purposes until actually paid to the participant or beneficiary.

1. Overview of the Maine Public Employees Retirement System Benefit Plans (Concluded)

MainePERS OPEB Trust

The MainePERS Other Post-Employment Benefits (OPEB) Trust is an irrevocable trust established for the purpose of accumulating assets to provide funding for retiree health benefits and life insurance in retirement for qualified individuals who retire from MainePERS. The Trustees of the System were named Trustees of the MainePERS OPEB Trust. Contributions are made to the Trust on an annual basis in the amount equal to the actuarially determined contribution amount.

Retiree Health Insurance Trust Fund

The Maine State Legislature established the Retiree Health Insurance Post Employment Investment Trust (Investment Trust Fund) as an irrevocable trust formed solely to hold and invest funds appropriated or otherwise provided to the Investment Trust Fund for the purpose of accumulating assets to provide funding to the State's unfunded liability obligations for retiree health benefits. The Trustees of the System were named Trustees of the Investment Trust Fund.

2. Summary of Significant Accounting Policies

Basis of Accounting

The System's financial statements are prepared using the accrual basis of accounting.

Comparative Summarized Information

The financial statements include certain prior-year summarized comparative information in total but not by fund. Such information does not include sufficient detail to constitute a presentation in conformity with generally accepted accounting principles. Accordingly, such information should be read in conjunction with the System's financial statements for the year ended June 30, 2021, from which the summarized information was derived.

Use of Estimates

The preparation of financial statements in conformity with U.S. generally accepted accounting principles (U.S. GAAP) requires management to make significant estimates and assumptions. These estimates affect the reported amounts of fiduciary net position at the date of the financial statements, the actuarial information included in the required supplementary information as of the actuarial information date, the changes in fiduciary net position during the reporting period and, when applicable, the disclosure of contingent assets and liabilities at the date of the financial statements, as reported in the notes to the financial statements. Actual results could differ from those estimates.

2. Summary of Significant Accounting Policies (Continued)

Revenue Recognition

Pension contributions and group life insurance premiums, as well as contributions to the Retiree Health Insurance Trust, are recognized as additions in the period when they become due pursuant to formal commitments or statutory or contractual requirements. Contributions to Defined Contribution Plans are recognized in the period they are contributed.

Investment income includes net appreciation or depreciation in the fair value of investments, interest and dividend income, foreign currency transaction gains and losses, and securities lending income, less investment expenses, which include investment management and custodial fees and all other significant investment related costs. Dividends include income returns from partnerships. Investment income is recognized when earned and investment expenses are recorded when incurred.

Benefits Paid and Refunds and Withdrawals

Pension and group life insurance benefits and contributions and premium refunds and withdrawals to the System's members and beneficiaries are recognized as deductions when due and payable in accordance with the terms of the statutes. In addition, an estimate is made for group life insurance death benefits incurred before year end but not reported to the System until after year end. These are reflected as other liabilities. Distributions from Defined Contribution Plans and the Retiree Health Insurance Trust are recognized in the period the disbursement is made.

Investments

Investments are reported at fair value. Debt and equity securities that are traded on recognized exchanges are valued at the last sales price and the current exchange rates on the reporting date. Other regularly traded securities, including derivatives, are valued by the System's custodians through a variety of external sources. Investments that do not have an established market are reported at estimated fair value. The fair value of shares in common/collective trusts is based on unit values reported by the funds. The fair value of other investments, including private market partnerships, is based on third-party appraisals and valuations provided by the sponsor of the partnerships. Management reviews and approves all such appraisals and valuations prepared by other parties. Investment purchases and sales are recorded as of their trade date. Proceeds related to securities sold not yet purchased are carried as a liability and are adjusted to the fair value of the securities.

Assets of the defined benefit pension plans are pooled for investment purposes and are allocated to each plan based on each plan's fiduciary net position, as are investment expenses and administrative expenses. Assets of the Group Life Insurance Plans are pooled for investment purposes and are allocated to each plan based on each plan's fiduciary net position, as are investment expenses and administrative expenses. Other assets managed by the System are invested separately from the assets of the defined benefit pension plans and the Group Life Insurance Plans.

2. Summary of Significant Accounting Policies (Continued)

Due to/from Brokers

Amounts due to/from brokers for securities purchased or sold consist of trades not yet settled.

Cash and Cash Equivalents

The System considers all highly liquid debt instruments that have a maturity of 90 days or less when purchased to be cash equivalents.

Capital Assets

All capital assets with a unit cost of $5,000 or greater are capitalized and reported in the accompanying financial statements. Purchased capital assets are valued at cost.

Capital asset costs include the purchase price or construction cost, plus those costs necessary to place the asset in its intended location and condition for use.

Depreciation is calculated using the straight-line method with estimated useful lives of 3 to 40 years.

Administrative Expenses

The cost of administering each of the plans managed by the System is financed primarily by investment income.

Risks and Uncertainties

The System makes investments in accordance with the Board's investment policy in a combination of equities, fixed income securities, infrastructure, private equity, real estate, derivative financial instruments, other investment securities and mutual funds and common/collective trusts holding such investments. The investment policy specifically prohibits investment managers from using derivative financial instruments to introduce leverage without specific prior approval by the Board. Investment securities and securities underlying certain investments are exposed to various risks, such as interest rate risk, market risk, custodial credit risk and credit risk. Investments in the Defined Contribution Plans are individually directed and controlled by plan participants. Due to the level of risk associated with certain investment securities and the level of uncertainty related to changes in the value of investment securities, changes in the values of investment securities are likely to occur in the near term and it is at least possible that such changes could materially affect the amounts reported in the statements of fiduciary net position and changes in fiduciary net position.

2. Summary of Significant Accounting Policies (Concluded)

Defined Benefit Contributions

Contributions to the Defined Benefit Plans from employers and non-employer contributing entities are established by an actuarial valuation on the basis of actuarial assumptions related to economic indicators (e.g., interest rates, inflation rates), and member and retiree compensation and demographics. By law, the assumptions are adopted by the Board based on recommendation of the System's actuary. The System is also required by Maine law to perform an actuarial experience study whenever the Board, on recommendation of its actuary, determines such a study to be necessary for actuarial soundness or prudent administration.

3. Cash and Cash Equivalents and Investments

The Board is responsible for identifying the System's investment objective and establishing an investment policy to meet that objective. The Board relies on staff and consultants with appropriate expertise to establish investment policy, monitor compliance with that policy, and determine whether the investment objective has been met. The Board established the strategic asset allocation as part of its overall investment policy. The policy identifies the following investment classes and targets for all defined benefit pension plan assets: public equity (30%), private equity (12.5%), traditional credit (5%), alternative credit (10%), real estate (10%), infrastructure (10%), natural resources (5%), US Government (10%), and risk diversifiers (7.5%). For the group life insurance plan assets, the policy identifies four investment classes and targets: public equity (70%), real estate (5%), traditional credit (16%), and US Government (9%).

Custodial credit risk is the risk that in the event of a financial institution failure, the System's deposits may not be returned to it. The System has no formal policy for custodial credit risk. Cash and cash-like securities are held at two institutions: Bangor Savings Bank and JP Morgan. Cash balances at Bangor Savings Bank are insured by the Federal Deposit Insurance Corporation up to $250,000. Bangor Savings Bank mitigates custodial credit risk through use of securities repurchase arrangements.

3. Cash and Cash Equivalents and Investments (Continued)

Cash equivalents at JP Morgan are invested in the JP Morgan Prime Money Market Fund. The JP Morgan Prime Money Market fund is composed of short term debt securities held in a collective fund for the benefit of the System and other investors. All securities purchased in the JP Morgan Prime Money Market must either be payable on demand or have a maturity not exceeding eighteen months from the time of purchase.

The System's cash equivalents and investments are not exposed to custodial credit risk (a) because the underlying investments are registered in the name of the System and held by the System's custodian, or (b) because their existence is not evidenced by securities that exist in physical or book entry form.

These amounts are disclosed in the financial statements at June 30 as follows:

	2022	2021
Cash and Cash Equivalents	$ 108,716,021	$ 32,280,754
Investments	18,814,682,330	19,365,272,627
Total Fair Value	$ 18,923,398,351	$ 19,397,553,381

Credit risk is the risk an issuer or other counterparty to an investment will not fulfill its obligations to the System. The System has no formal policy on credit risk. The following table summarizes the System's aggregate fixed income portfolio credit ratings at June 30:

Quality Rating [1]	2022	2021
AAA	$ 2,132,229,634	$ 1,419,475,818
AA	26,790,410	135,904,402
A	109,314,443	485,065,909
BBB	122,709,648	645,411,616
Not Rated	956,800	-
Total Credit Risk Debt	$ 2,392,000,935 [2]	$ 2,685,857,745 [2]

[1] Quality ratings are reported using S&P's rating categories and are based on bond ratings assigned by S&P, Moody's, and Fitch. The median rating is used when 3 ratings are available, and the lower or only rating is used in cases where only 2 or a single rating is available.

[2] Includes direct investments in debt securities held by the System as well as debt securities underlying investments in common/collective trusts. In 2022 and 2021, all amounts are from common/collective trusts.

3. Cash and Cash Equivalents and Investments (Continued)

Concentration of credit risk is the risk of loss that may be attributed to the magnitude of investment in a single issue. The System's investment policy places no limit on the amount the System may invest in any one issuer.

There were no individual investments that constitute 5% or more of fiduciary net position for the defined benefit pension plans administered by the System as of June 30, 2022.

There were no individual investments that constitute 5% or more of fiduciary net position for the other post-employment benefit plans administered by the System as of June 30, 2022.

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. The System has no formal investment policy related to managing interest rate risk. All of the System's fixed income portfolios are managed in accordance with contractual guidelines. Contractual guidelines generally specify a range of effective duration for the portfolio. Duration is widely used in the management of fixed income portfolios as a measure of a debt investment's exposure to fair value changes arising from changing interest rates. The System's interest rate risk is closely aligned with the Barclays Capital Aggregate Index. The following table details the System's interest rate risk for its debt investments at June 30, 2022 and 2021, using the segmented time distribution method. Maturities are based on the weighted average maturities of underlying investments in the common/collective trusts.

		Maturities as of June 30, 2022			
Investment Type	Fair Value	Less than 1 Year	1 to 6 Years	6 to 10 Years	10+ Years
Common/ Collective Trusts	$ 2,392,000,935	$ 36,324,854	$ 1,318,277,989	$ 639,563,081	$ 397,835,011
Total	$ 2,392,000,935	$ 36,324,854	$ 1,318,277,989	$ 639,563,081	$ 397,835,011

		Maturities as of June 30, 2021			
Investment Type	Fair Value	Less than 1 Year	1 to 6 Years	6 to 10 Years	10+ Years
Common/ Collective Trusts	$ 2,685,857,745	$ 33,666,851	$ 1,405,293,456	$ 733,672,594	$ 513,224,844
Total	$ 2,685,857,745	$ 33,666,851	$ 1,405,293,456	$ 733,672,594	$ 513,224,844

Foreign currency risk is the risk that changes in exchange rates will adversely impact the recorded fair value of an investment. The System does not have a formal investment policy limiting the amount of foreign currency exposure of its investments. The System's currency exposures reside primarily in the System's international equity investments. The System may hedge a portfolio's foreign currency exposure with currency forward contracts depending on their views of the currency relative to the dollar.

3. Cash and Cash Equivalents and Investments (Continued)

All of the System's portfolios are managed in accordance with contractual guidelines. The System has nearly eliminated all direct exposure to foreign currency by using index funds which means the System owns units of U.S. dollar denominated commingled funds rather than conducting transactions directly in foreign currency. The System is still indirectly exposed to all the foreign currencies within the index.

The System's direct and indirect exposure to foreign currency risk in U.S. dollars as of June 30, 2022 is highlighted in the following table:

Currency	Total	Currency	Total
Australian Dollar	83,324,595	Peruvian Sol	790,814
Bermudian Dollar	456,534	Philippine Peso	3,721,368
Brazilian Real	24,934,499	Polish Zloty	2,923,559
British Pound Sterling	247,137,599	Qatar Riyal	5,448,389
Canadian Dollar	140,736,613	Russian Ruble	1,830
Chilean Peso	2,507,582	Saudi Arabian Riyal	22,191,234
Chinese Yuan Renminbi	171,555,165	Singapore Dollar	15,982,397
Colombian Peso	1,050,237	South African Rand	17,946,581
Czech Koruna	1,005,693	Swedish Krona	34,042,042
Danish Krone	28,897,227	Swiss Franc	112,394,531
Egyptian Pound	427,429	Taiwan Dollar	73,554,811
Euro	1,133,581,108	Thai Baht	9,861,169
Hong Kong Dollar	46,969,169	Turkish Lira	1,458,960
Hungarian Forint	1,002,771	United Arab Emirates Dirham	6,547,049
India Rupee	67,903,436	**Total**	$ 2,604,810,607
Indonesian Rupiah	9,406,557		
Japanese Yen	239,898,427		
Korean Won	58,638,911		
Macao Pataca	461,294		
Malaysian Ringgit	7,655,319		
Mexican Peso	11,102,609		
New Israeli Sheqel	7,742,845		
New Zealand Dollar	2,739,103		
Norwegian Krone	8,811,151		

3. Cash and Cash Equivalents and Investments (Continued)

The System has entered into contracts to invest in partnerships with a focus on private equity, infrastructure, real estate and other investment strategies. As of June 30, 2022, the value of these investments is approximately $9.8 billion and the remaining funding commitment is approximately $3.6 billion.

For the year ended June 30, 2022, the annual money-weighted rate of return on all defined benefit plan investments, net of investment expenses, was 3.4%. For the year ended June 30, 2022 the annual money-weighted rate of return on all OPEB plan investments, net of investment expense, was 14.1%. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested, based on monthly calculations.

The System categorizes its fair value measurements within the fair value hierarchy established by US GAAP. The hierarchy is based on the valuation inputs used to measure the fair value of the asset. Level 1 inputs are quoted prices in active markets for identical assets. Level 2 inputs are other significant observable inputs. Level 3 inputs are unobservable inputs. The System has the following recurring fair value measurements at June 30:

		Fair Value Measurements Using		
	June 30, 2022	Level 1	Level 2	Level 3
Investments by fair value level				
Common Equity	$ 2,502,487,888	$ 2,502,487,888	$ -	$ -
Common/Collective Trusts	6,561,218,051	-	6,561,218,051	-
Collateral from loaned securities	10,280,553	-	10,280,553	-
Total investments by fair value level	9,073,986,492	$ 2,502,487,888	$ 6,571,498,604	$ -
Investments measured at net asset value (NAV)				
Alternative Credit	1,256,693,328			
Infrastructure	1,999,797,510			
Natural Resources	956,469,081			
Private Equity	3,628,981,470			
Real Estate	1,909,035,002			
Total investments measured at NAV	9,750,976,391			
Total investments measured at fair value	$ 18,824,962,883			

3. Cash and Cash Equivalents and Investments (Continued)

		Fair Value Measurements Using		
	June 30, 2021	Level 1	Level 2	Level 3
Investments by fair value level				
Common Equity	$ 2,995,713,490	$ 2,995,713,490	$ -	$ -
Common/Collective Trusts	7,221,257,439	-	7,221,257,439	-
Collateral from loaned securities	80,266,095	-	80,266,095	-
Total investments by fair value level	10,297,237,024	$ 2,995,713,490	$ 7,301,523,534	$ -
Investments measured at net asset value (NAV)				
Alternative Credit	896,207,596			
Infrastructure	1,903,307,914			
Natural Resources	854,972,034			
Private Equity	3,943,370,332			
Real Estate	1,550,443,822			
Total investments measured at NAV	9,148,301,698			
Total investments measured at fair value	$ 19,445,538,722			

Common Equity

Common equity securities classified in Level 1 of the fair value hierarchy are valued using prices quoted in active markets.

Common/Collective Trusts

Units of collective investment funds, including short-term investment funds, are valued based on quoted prices for similar assets, exchange rates, interest rates, credit risks and default rates. A unit value is determined for each fund on the valuation date. Valuation of each fund is determined each day the Fund is open for contributions and redemptions and, for financial reporting purposes, on the report date should the reporting period end on a date the Fund is not open. Unit values are determined by dividing each Fund's investments at fair value by the number of units outstanding on the valuation date.

Investments Measured at NAV

Alternative investments are generally reported at the NAV obtained from statements provided by the investment managers and assessed by the System as reasonable.

3. Cash and Cash Equivalents and Investments (Continued)

NAVs determined by investment managers generally consider variables including operating results, projected cash flows, recent sales prices and other pertinent information, and may reflect discounts for the illiquid nature of certain investments held. Due to the inherent uncertainties in valuation, the estimated fair values in NAV calculations may differ significantly from values that would have been used had a ready market existed.

The fair value and unfunded commitments for investments measured at NAV per share (or its equivalent) are presented in the following tables:

June 30, 2022

Investments Measured at NAV	Fair Value	Unfunded Commitments
Alternative Credit [(1)]	$ 1,256,693,328	$ 706,529,331
Infrastructure [(2)]	1,999,797,510	933,516,913
Natural Resources [(3)]	956,469,081	219,184,033
Private Equity [(4)]	3,628,981,470	1,114,996,820
Real Estate [(5)]	1,909,035,002	605,678,679
Total investments measured at NAV	$ 9,750,976,391	$ 3,579,905,776

June 30, 2021

Investments Measured at NAV	Fair Value	Unfunded Commitments
Alternative Credit [(1)]	$ 896,207,596	$ 519,945,685
Infrastructure [(2)]	1,903,307,914	1,061,379,735
Natural Resources [(3)]	854,972,034	288,040,270
Private Equity [(4)]	3,943,370,332	1,350,443,529
Real Estate [(5)]	1,550,443,822	444,563,451
Total investments measured at NAV	$ 9,148,301,698	$ 3,664,372,670

(1) Alternative Credit funds are funds that invest primarily in debt instruments issued by non-investment grade and unrated entities. Alternative credit investments are expected to pay or accrue periodic interest and to return principal at maturity. The fair values in this type have been determined using the NAV per share (or its equivalent) of the System's ownership interest in partners' capital. Alternative

3. Cash and Cash Equivalents and Investments (Concluded)

Credit funds are typically structured as partnerships with fixed lifetimes. These funds are generally not available for redemption, and distributions are received as underlying investments within the funds are liquidated, which on average can occur over a span of 7 or more years.

(2) Infrastructure funds are funds that invest primarily in infrastructure assets such as roads, ports, pipelines, and airports, primarily in the US and Europe. The fair values in this type have been determined using the NAV per share (or its equivalent) of the System's ownership interest in partners' capital. These funds are generally not available for redemption, and distributions are received as underlying investments within the funds are liquidated, which on average can occur over a span of 10 or more years.

(3) Natural Resources funds are funds that invest primarily in assets and businesses related to natural resources such as farming, timber, and mining. The fair values in this type have been determined using the NAV per share (or its equivalent) of the System's ownership interest in partners' capital. These funds are generally not available for redemption, and distributions are received as underlying investments within the funds are liquidated, which on average can occur over a span of 10 or more years.

(4) Private Equity funds are funds that invest primarily in debt and equity securities of private businesses. The fair values in this type have been determined using the NAV per share (or its equivalent) of the System's ownership interest in partners' capital. These funds are generally not available for redemption, and distributions are received as underlying investments within the funds are liquidated, which on average can occur over a span of 10 or more years.

(5) Real Estate funds are funds that invest primarily in commercial real estate and real estate debt. The fair values in this type have been determined using the NAV per share (or its equivalent) of the System's ownership interest in partners' capital. The majority of these investments (85% of dollar value) are available for redemption, subject to the timing of asset disposition. The remaining funds are generally not available for redemption, and distributions are received as underlying investments within the funds are liquidated, which on average can occur over a span of 10 or more years.

4. Derivative Securities

Derivative financial instruments are financial contracts whose value depends on the value of one or more underlying assets, reference rates or financial indices. They include futures, forwards, options, and swap contracts. In addition, some traditional securities can have derivative-like characteristics, e.g., asset-backed securities, including collateralized mortgage obligations, which are sensitive to changes in interest rates and to prepayments.

The System may be a party, both directly and indirectly, to various derivative financial investments that are used in the normal course of investing to enhance expected returns on investments, to manage the risk of exposure to changes in value of investments due to fluctuations in market conditions, and to gain

4. Derivative Securities (Concluded)

passive exposure to markets. In addition to normal market risks these investments may involve, to varying degrees, elements of interest rate risk, credit risk, leverage risk, counterparty risk, and custodial credit risk.

Leverage risk may be created with derivatives. Financial leverage generally involves borrowing and then reinvesting the proceeds with the hope of earning a higher rate of return than the borrowing costs. With derivative instruments economic leverage may be effectively created without any explicit borrowing. Leveraged investments may be more volatile than if an investment had not been leveraged. Leveraging tends to exaggerate the effect of any increase or decrease in the value of an underlying investment. In a leveraged transaction an amount more than the initial investment may be lost. The System's investment policy requires specific approval from the Board of any investment strategy that involves the use of direct financial leverage.

Counterparty risk is the risk that the counterparty to a derivative transaction is unwilling or unable to deliver on their obligations to the System.

The System manages leverage risk and counterparty risk on a manager by manager basis by establishing guidelines with each manager. The manager is customarily allowed to invest within these predetermined guidelines.

The System's managers may also invest in swaps. Interest rate swaps are used to adjust interest rate and yield curve exposures and substitute for physical securities. Long swap positions increase exposure to long term rates; short positions decrease exposure. Credit default swaps are used to manage credit exposure. Purchased credit default swaps decrease credit exposure, while written credit default swaps increase exposure. Total return swaps are a means to gain exposure to an index.

The System may also hold investments in futures and options, which are used to manage various risks within the portfolio. A financial futures contract is an agreement between two parties to buy or sell units of a particular index or a certain amount of a security at a set price on a future date. The System may purchase and sell financial futures contracts to hedge against the effect of changes in the values of securities it owns or expects to purchase.

In addition to the derivative financial instruments directly held, the System may have indirect exposure to risk through its ownership interests in commingled investment funds, which use, hold or write derivative financial instruments. There also may be indirect exposure in the securities lending programs in which the System participates, in which some collateral pools may include derivatives (note 5). Where derivatives are held in those funds/pools, risks and risk management are as described above.

The System did not have any direct derivative investments as of June 30, 2022 or 2021 or during the years then ended.

5. Securities Lending

The System has entered into agreements with its master custodian to lend to broker-dealers and other entities any type of security held in the System's portfolio and held with the master custodian. Securities are loaned against collateral that may include cash, U.S. government securities and irrevocable letters of credit. U.S. securities are loaned against collateral generally valued at 102% of the fair value of the securities plus any accrued interest. Non-U.S. securities are loaned against collateral valued at 105% of the fair value of the securities plus any accrued interest.

Noncash collateral cannot be pledged or sold unless the borrower defaults. As a result, those securities are excluded from both assets and liabilities.

All securities loans can be terminated on demand by either the lender or the borrower. The average term of the System's loans was approximately 1 day as of June 30, 2022 and 2021.

Cash collateral is invested in a short-term investment account which had an interest sensitivity of 3 and 2 days as of June 30, 2022 and 2021, respectively. Cash collateral may also be invested separately in "term loans," in which case the investments match the loan term. These loans can be terminated on demand by either lender or borrower.

During fiscal years 2022 and 2021, there were no violations of legal or contractual provisions, and no borrower or lending agent default losses identified to the System by the securities lending agent. Securities lending earnings are credited to the System on approximately the fifteenth day of the following month.

Custodial credit risk is the risk that in the event of the insolvency of a borrower, and the master custodian has failed to live up to its contractual responsibilities relating to the lending of those securities, the System's securities are not returned to it. The master custodian's responsibilities include performing appropriate borrower and collateral investment credit analyses, demanding adequate types and levels of collateral, and complying with applicable Department of Labor and Federal Financial Institutions Examination Council regulations concerning securities lending. At June 30, 2022 and 2021, all of the collateral for securities lending is subject to custodial credit risk.

Because of the program's collateralization of loans, generally at 102% (or more), the System believes that there is no material credit risk.

Some of the System's assets are held in common/collective trusts and are subject to similar agreements arranged by those trusts. The income from those arrangements and the associated collateral are not included in the securities lending amounts reported.

5. Securities Lending (Concluded)

Aggregate securities on loan by asset class are as follows:

	2022	2021
Domestic equity securities on loan	$ 143,149,657	$ 164,429,143
Aggregate securities lending collateral:		
Short-term investment collateral pool	$ 10,280,553	$ 80,266,094
Noncash collateral	136,387,502	87,937,421
Total collateral	$ 146,668,055	$ 168,203,515
Collateral ratio	102.5%	102.3%

6. Defined Benefit Plans

State Employee and Teacher Plan

The State Employee and Teacher Plan administered by MainePERS is a multiple-employer cost sharing plan with a special funding situation. As of June 30, 2022, there were 239 employers, including the State of Maine, participating in the plan. The State of Maine is also a non-employer contributing entity in that the State pays the unfunded actuarial liability on behalf of teachers, while school districts contribute the normal cost, calculated actuarially, for their teacher members.

Plan membership counts for the State Employee and Teacher Plan at June 30 are as follows:

	2022	2021
Current participants:		
Vested and non-vested	40,121	40,099
Terminated participants:		
Vested	8,843	8,387
Inactive due refunds	38,807	38,393
Retirees and beneficiaries receiving benefits	38,408	37,690
	126,179	124,569

6. Defined Benefit Plans (Continued)

Judicial Plan

The Judicial Plan administered by MainePERS is a single-employer plan offered by the State of Maine.

Plan membership counts for the Judicial Plan at June 30 are as follows:

	2022	2021
Current participants:		
Vested and non-vested	60	60
Terminated participants:		
Vested	2	2
Inactive due refunds	1	1
Retirees and beneficiaries receiving benefits	90	85
	153	148

Legislative Plan

The Legislative Plan administered by MainePERS is a single-employer plan offered by the State of Maine.

Plan membership counts for the Legislative Plan at June 30 are as follows:

	2022	2021
Current participants:		
Vested and non-vested	174	178
Terminated participants:		
Vested	119	124
Inactive due refunds	95	101
Retirees and beneficiaries receiving benefits	223	222
	611	625

6. Defined Benefit Plans (Continued)

PLD Consolidated Plan

The PLD Consolidated Plan administered by MainePERS is a multiple-employer cost sharing plan. Eligible employers (districts) are defined in Maine statute. As of June 30, 2022, there were 311 employers participating in the plan.

Plan membership counts for the PLD Consolidated Plan at June 30 are as follows:

	2022	2021
Current participants:		
Vested and non-vested	12,362	11,704
Terminated participants:		
Vested	2,724	2,563
Inactive due refunds	10,080	9,479
Retirees and beneficiaries receiving benefits	10,400	10,093
	35,566	33,839

PLD Agent Plan

The PLD Agent Plan administered by MainePERS is an agent multiple-employer plan for financial reporting purposes. This plan is an aggregation of single employer plans that were open when the PLD Consolidated Plan began. Under the legislation that created the consolidated plan, single employers could either join the consolidated plan whereby the single employer plan would end, or they could opt to not join the plan and continue to maintain their single employer plan as a closed plan until there were no further liabilities for pension, at which time the single employer plan would be dissolved. As of June 30, 2022, there were 5 employers in the plan.

Plan membership counts for the PLD Agent Plan at June 30 are as follows:

	2022	2021
Current participants:		
Vested and non-vested	–	–
Terminated participants:		
Vested	–	–
Inactive due refunds	1	1
Retirees and beneficiaries receiving benefits	45	51
	46	52

6. Defined Benefit Plans (Continued)

Benefits

Benefit terms are established in Maine statute; in the case of the PLD Consolidated Plan, an advisory group, also established by Maine statute, reviews the terms of the plan and periodically makes recommendations to the Legislature to amend the terms. The System's retirement programs provide defined retirement benefits based on members' average final compensation and service credit earned as of retirement. Vesting (i.e., eligibility for benefits upon reaching qualification) occurs upon the earning of five years of service credit (effective October 1, 1999, the prior ten year requirement was reduced by legislative action to five years for State employees and teachers; separate legislation enacted the same reduced requirement for judges, legislators, and employees of PLDs). In some cases, vesting occurs on the earning of one year of service credit immediately preceding retirement at or after normal retirement age. Normal retirement age for State employees and teachers, judges and legislative members is age 60, 62 or 65, and is determined based on date of membership. The normal retirement age is determined by whether a member had met certain creditable service requirements on specific dates, as established by statute. For PLD members, normal retirement age is 60 or 65. The monthly benefit of members who retire before normal retirement age by virtue of having at least 25 years of service credit is reduced by a statutorily prescribed factor for each year of age that a member is below her/his normal retirement age at retirement. The System also provides disability and death benefits which are established by statute for all participating employers under applicable statutory provisions.

Upon termination of membership, members' accumulated employee contributions are refundable with interest, credited in accordance with statute. Withdrawal of accumulated contributions results in forfeiture of all benefits and membership rights. The annual rate of interest credited to members' accounts is set by the Board and is currently 1.52%.

Funding Policy

The Maine Constitution, Maine statutes and the System's funding policy provide for periodic employer contributions in addition to the normal cost contributions for the State Employee and Teacher Plan. These are actuarially determined amounts that, based on certain actuarial assumptions, are sufficient to fully fund, on an actuarial basis, the initial unfunded actuarial accrued liability (IUAAL) that existed in the State Employee and Teacher Retirement Plan in 1996 by the year 2028. Level percentage of payroll employer contribution rates are determined using the entry age normal actuarial funding method. The System also uses the level percentage of payroll method to amortize the unfunded liability of the State Employee and Teacher Retirement Plan.

6. Defined Benefit Plans (Continued)

Net Pension Liability – State Employee and Teacher Plan

The components of the net pension liability of the State of Maine and participating teacher employers, stated in millions of dollars as of June 30, 2022, were as follows:

Total pension liability	$16,981.8
Plan fiduciary net position	14,568.7
Net pension liability	$ 2,413.1
Plan fiduciary net position as a percentage of the total pension liability	85.8%

Net Pension Liability – Judicial Plan

The components of the net pension asset of the State of Maine for the Judicial Plan, stated in millions of dollars as of June 30, 2022, were as follows:

Total pension liability	$ 77.4
Plan fiduciary net position	85.8
Net pension asset	$ (8.4)
Plan fiduciary net position as a percentage of the total pension liability	110.8%

Net Pension Liability – Legislative Plan

The components of the net pension asset of the State of Maine for the Legislative Plan, stated in millions of dollars as of June 30, 2022, were as follows:

Total pension liability	$ 11.0
Plan fiduciary net position	16.2
Net pension asset	$ (5.2)
Plan fiduciary net position as a percentage of the total pension liability	147.1%

6. Defined Benefit Plans (Continued)

Net Pension Liability – PLD Consolidated Plan

The components of the net pension asset of the PLD Consolidated Plan participating employers, stated in millions of dollars as of June 30, 2022, were as follows:

Total pension liability	$ 3,943.6
Plan fiduciary net position	3,677.8
Net pension liability	$ 265.8
Plan fiduciary net position as a percentage of the total pension liability	93.3%

Actuarial Methods and Assumptions

Actuarial valuations of ongoing plans involve estimates of the values of reported amounts and assumptions about the probability of occurrence of events far into the future. Assumptions in an actuarial valuation typically include projections concerning future employment, mortality, and inflation. Actuarially determined contributions are subject to continual periodic revision as actual results are compared to past expectations and new estimates are made concerning the future. The Schedules of Changes in Net Pension Liabilities and Related Ratios, presented as Required Supplementary Information immediately following the Notes to Financial Statements, present multi-year trend information about whether the fiduciary net position of the plan is increasing or decreasing over time relative to the total pension liability of the plan.

Projections of benefits for financial reporting purposes are based on the provisions of the plans in effect at the time of each valuation and the historical pattern of sharing of costs between the employer and plan members. Actuarial methods and assumptions include techniques that are designed to reduce short-term volatility in actuarial accrued liabilities and the actuarial value of assets, consistent with the long-term perspective of the funding methodologies.

The expected value of assets takes the prior year's actuarial value of assets and adjusts it for contributions, benefit payments, and expected interest earnings at the assumed rate for each plan. One-third of the difference between this expected value of assets and the actual fair value of assets is added to or subtracted from the expected value to provide the actuarial value of assets.

Costs are developed using the entry age normal cost method (based on a level percentage of covered payroll).

The initial unfunded actuarial pension liability of the State Employee and Teacher Program is amortized on a level percentage of payroll on a closed basis. The remaining amortization period as of June 30, 2022 was 6 years. All other gains, losses, and changes are amortized over twenty-year closed periods beginning on the date as of which they occur. The net pension liability of the Judicial and Legislative Plans is amortized on an open basis over a period of ten years. The net pension liability of the PLD Consolidated Plan is amortized on a level percentage of payroll using a method where a separate twenty-year closed

6. Defined Benefit Plans (Continued)

period is established annually for the gain or loss for that year. The amortization period can have a significant impact on contribution rates developed through the annual valuation process.

The total pension liability was determined by an actuarial valuation as of June 30, 2022, using the following actuarial assumptions, applied to all periods included in the measurement period. These same assumptions were used in the actuarial valuation as of June 30, 2021, except as indicated.

	State Employee and Teacher Plan	Judicial Plan	Legislative Plan	PLD Consolidated Plan
Investment Rate of Return	Per annum, compounded annually: 6.50% for June 30, 2022 and June 30, 2021			
Inflation Rate	2.75%			
Annual Salary Increases, including Inflation	For June 30, 2022 and June 30, 2021			
	State employees, 3.26% - 9.43%; Teachers, 2.80% - 13.03%	2.75%	2.75%	2.75% - 11.48%
Cost of Living Benefit Increases	2.20%			1.91%
Mortality Rates	For June 30, 2022 and June 30, 2021			
	State Employee, Judicial, and Legislative: based on the 2010 Public Plan General Benefits-Weighted Healthy Retiree Mortality Table, for males and females, projected generationally using the RPEC_2020 model. Teachers: based on the 2010 Public Plan Teacher Benefits-Weighted Healthy Retiree Mortality Table, for males and females, projected generationally using the RPEC_2020 model.			Based on the 2010 Public Plan General Benefits-Weighted Healthy Retiree Mortality Table, for males and females, projected generationally using the RPEC_2020 model.

The actuarial assumptions used in the June 30, 2022 and June 30, 2021 actuarial valuations were based on the results of an actuarial experience study for the period of June 30, 2016 to June 30, 2020.

The long-term expected rate of return on Defined Benefit Plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of investment expense and inflation) are developed for each major class of assets. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of

6. Defined Benefit Plans (Continued)

geometric real rates of return for each major asset class included in the target asset allocation as of June 30, 2022 are summarized in the following table:

Long-Term Asset Class	Expected Real Rate of Return
Public equities	6.0%
US Government	2.3
Private equity	7.6
Real assets	
Real estate	5.2
Infrastructure	5.3
Natural resources	5.0
Traditional Credit	3.2
Alternative Credit	7.4
Diversifiers	5.0

Discount Rate

The discount rate used to measure the total pension liability for each of the Defined Benefit Plans was 6.5%. The projection of cash flows used to determine the discount rate assumed that plan member contributions will be made at the current contribution rate and that employer and non-employer entity contributions will be made at contractually required rates, actuarially determined. Based on these assumptions, the fiduciary net position for each of the Defined Benefit Plans was projected to be available to make all projected future benefit payments to current plan members. Therefore, the long-term expected rate of return on investments was applied to all periods of projected benefit payments to determine the total pension liability.

Sensitivity of the net pension liability to changes in the discount rate

The following table presents the net pension liability for the State Employee and Teacher Plan, Judicial Plan, Legislative Plan, and PLD Consolidated Plan calculated using the discount rate of 6.5%, as well as what the net pension liability would be if it were calculated using a discount rate of one percentage point lower (5.5%) or one percentage point higher (7.5%) than the current rate:

6. Defined Benefit Plans (Continued)

	1% Decrease (5.5%)	Current Rate (6.5%)	1% Increase (7.5%)
Net Pension Liability/(Asset):			
State Employee and Teacher Plan	$ 4,539,859,831	$ 2,413,100,748	$ 668,280,148
Judicial Plan	(1,553,123)	(8,395,473)	(14,364,327)
Legislative Plan	(4,386,913)	(5,165,660)	(6,436,726)
PLD Consolidated Plan	785,353,277	265,835,339	(163,564,722)

Information regarding sensitivity of the net pension liability to changes in the discount rate for individual single employer plans making up the PLD Agent Plan can be found in each Plan's annual actuarial report, available by contacting the System.

Contributions

Retirement benefits are funded by contributions from members and employers and by earnings from investments. Disability and death benefits are funded by employer normal cost contributions and by investment earnings. Member and employer normal cost contributions are each a percentage of applicable member compensation. Member contribution rates are defined by law or MainePERS' Board rule and depend on the terms of the plan under which a member is covered. Employers' contributions are determined by actuarial valuations.

Included in the Employers and Non-employer Contributing Entities Contributions reported in the statement of changes in fiduciary net position are contributions received from the State of Maine on behalf of state employees and teachers in the total amount of $475.2 million and $351.5 million, and for judges in the total amount of $868 thousand and $739 thousand, for the years ended June 30, 2022 and 2021, respectively. There were no contributions due from the State of Maine on behalf of legislators in 2022 or 2021.

Employer normal cost retirement contribution rates as applied to State employee members' and teacher members' compensation are the actuarially determined rates. The UAAL rate as applied to State employee members' compensation is first established through the annual valuation process as an amount that will meet the required UAAL payment amount; it is then adjusted in the State's budget process to take into account differences in salary growth projections of the State Budget Office. This adjusted rate, expressed as a percentage of payroll, is the actual rate paid by the State as payment of the required UAAL payment amount for State employees. For teachers, the actuarially determined UAAL amount is paid in twelve equal monthly installments. PLD employer contribution rates are the actuarially determined rates. The rates in effect in 2022 and 2021 are as follows:

6. Defined Benefit Plans (Concluded)

Contribution Rates[1] (effective July 1 through June 30 of each fiscal year)

	2022	2021
State:		
Employees[2]	7.65 – 8.65%	7.65 – 8.65%
Employer[2]	21.95 – 46.97%	20.93 – 32.68%
Teachers:		
Employees	7.65%	7.65%
Employer	3.84%	4.16%
Non-employer entity	14.29%	14.33%
Judges:		
Employees	7.65%	7.65%
Employer	6.99%	8.89%
Legislative:		
Employees	7.65%	7.65%
Employer	0.00%	0.00%
Participating local districts:		
Employees[2]	3.85 – 9.7%	3.85 – 9.5%
Employers[2]	5.5 – 15.2%	5.2 – 16.0%

(1) Employer Contribution Rates include normal cost and UAAL required payment, expressed as a percentage of payroll.

(2) Employee and Employer retirement contribution rates vary depending on specific terms of plan benefits for certain classes of employees or, in the case of PLDs, on benefit plan options selected by a particular PLD. The contributions of withdrawn entities that do not have active employees but continue to have other liabilities are set in dollar amounts, not as rates.

7. Group Life Insurance Program

Plan Description

The Group Life Insurance Program administered by MainePERS is comprised of two multiple-employer cost-sharing defined benefit OPEB plans in addition to a multiple-employer cost-sharing plan providing life insurance benefits to active employees. Group Life Insurance Program coverage for active employees is available to eligible participants and includes basic insurance consisting of life insurance and accidental death and dismemberment insurance in the amount equal to the participant's annual base compensation rounded up to the next $1,000. Additional supplemental insurance coverage is available to those participants who elect basic coverage. Participants may also elect to insure the life of a dependent not otherwise insured under the basic and supplemental insurance provisions of the program.

7. Group Life Insurance Program (Continued)

Group Life Insurance Plan for Retired State Employees and Teachers

The Group Life Insurance Plan for Retired State Employees and Teachers is a multiple-employer cost sharing plan with a special funding situation. As of June 30, 2022 there were 228 employers, including the State of Maine, participating in the plan. The State of Maine is also a non-employer contributing entity in that the State pays contributions for retired public school teachers in the plan.

Plan membership counts for the Group Life Insurance Plan for Retired State Employees and Teachers as of the valuation date are as follows:

	2022	2021
Retired State Employees	8,741	8,741
Retired Teachers	7,534	7,534
Active State Employees	11,698	11,698
Active Teachers	15,029	15,029
	43,002	43,002

Group Life Insurance Plan for Retired PLD Employees

The Group Life Insurance Plan for Retired PLD employees is a multiple-employer cost sharing plan. As of June 30, 2022 there were 139 employers participating in the plan.

Plan membership counts for the Group Life Insurance Plan for Retired PLD Employees as of the valuation date are as follows:

	2022	2021
Retired PLD Employees	2,879	2,879
Active PLD Employees	5,498	5,498
	8,377	8,377

Benefits

The Group Life Insurance Plans provide basic group life insurance benefits, during retirement, to retirees who participated in the group life insurance plan prior to retirement for a minimum of 10 years (the 10-year participation requirement does not apply to recipients of disability retirement benefits).

The level of coverage in retirement is initially set to an amount equal to the retiree's average final compensation. The initial amount of basic life is then subsequently reduced at the rate of 15% per year to the greater of 40% of the initial amount or $2,500.

7. Group Life Insurance Plan (Continued)

Funding Policy

Premium rates are those determined by the System's Board of Trustees to be actuarially sufficient to pay anticipated claims. For state employee, judicial and legislative employment classes, the premiums for retiree life insurance coverage are factored into the premiums paid for basic coverage while participants are active members. Premiums for basic life insurance coverage for retired teachers are paid by the State of Maine as the total dollar amount of each year's annual required contribution. PLD employers with retired PLD employees are required to remit a premium of $0.48 per $1,000 of coverage per month during the post-employment retired period.

Net OPEB Liability – Retired State Employee and Teacher Plan

The components of the net OPEB liability of the State of Maine and participating teacher employers, stated in millions of dollars as of June 30, 2022, were as follows:

Total OPEB liability	$ 235.1
Plan fiduciary net position	123.2
Net OPEB liability	$ 111.9
Plan fiduciary net position as a percentage of the total OPEB liability	52.4%

Net OPEB Liability – PLD Plan

The components of the net OPEB liability of the PLD Plan participating employers, stated in millions of dollars as of June 30, 2022, were as follows:

Total OPEB liability	$ 32.8
Plan fiduciary net position	18.3
Net OPEB liability	$ 14.5
Plan fiduciary net position as a percentage of the total OPEB liability	55.9%

Actuarial valuations of ongoing plans involve estimates of the values of reported amounts and assumptions about the probability of occurrence of events far into the future. Assumptions in an actuarial valuation typically include projections concerning future employment, mortality, and inflation. Actuarially determined contribution requirements are subject to continual periodic revision as actual results are compared to past expectations and new estimates are made concerning the future. The Schedule of Historical OPEB Information, presented as Required Supplementary Information immediately following the Notes to Financial Statements, will present multi-year trend information about whether the actuarial value of plan assets is increasing or decreasing over time relative to the actuarial accrued liabilities for benefits.

7. Group Life Insurance Plan (Continued)

Actuarial Methods and Assumptions

Projections of benefits for financial reporting purposes are based on the provisions of the plan in effect at the time of each valuation and the historical pattern of sharing of premium costs between the employer and plan members. Actuarial methods and assumptions include techniques that are designed to reduce short-term volatility in actuarial accrued liabilities and the actuarial value of assets, consistent with the long-term perspective of the funding methodologies.

Costs are developed using the individual entry age normal cost method based on a level percentage of payroll.

Significant actuarial assumptions employed by the actuary for funding purposes as of June 30, 2022 are displayed in the table below. The valuation date is June 30, 2022. These same assumptions were used as of June 30, 2021 unless otherwise noted.

	State employees, including judges and legislators	Teachers	PLD employees
Investment Rate of Return	Per annum, compounded annually: 6.50% for June 30, 2022 and June 30, 2021		
Inflation Rate	2.75%		
Annual Salary Increases, including Inflation	For June 30, 2022 and June 30, 2021		
	State employees: 3.26% - 9.43%; Judges and Legislators: 2.75%	2.80 - 13.03%	2.75% - 11.48%
Mortality Rates	For June 30, 2022 and June 30, 2021		
	Based on the 2010 Public Plan General Benefits-Weighted Healthy Retiree Mortality Table, for males and females, projected generationally using the RPEC_2020 model.	Based on the 2010 Public Plan Teacher Benefits-Weighted Healthy Retiree Mortality Table, for males and females, projected generationally using the RPEC_2020 model.	Based on the 2010 Public Plan General Benefits-Weighted Healthy Retiree Mortality Table, for males and females, projected generationally using the RPEC_2020 model.
Participation Rate for Future Retirees	100% of those currently enrolled		
Conversion Charges	Apply to the cost of active group life insurance, not retiree group life insurance		
Form of Benefit Payment	Lump sum		

7. Group Life Insurance Plan (Continued)

The unfunded actuarial accrued liability is being amortized as a level percentage of payroll over a 30-year period on a closed basis. As of June 30, 2022, there were 15 years remaining in the amortization schedule for state employees and teachers, and 8 years remaining for PLD employees.

The actuarial assumptions used in the June 30, 2022 and June 30, 2021 actuarial valuations were based on the results of an actuarial experience study conducted for the period of June 30, 2016 to June 30, 2020.

The long-term expected rate of return on OPEB Plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of investment expense and inflation) are developed for each major class of assets. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of geometric real rates of return for each major asset class included in the target asset allocation as of June 30, 2022 are summarized in the following table:

Asset Class	Long-Term Expected Real Rate of Return
Public equity	6.0%
Real estate	5.2
Traditional credit	3.2
US Government securities	2.3

Discount Rate

The discount rate used to measure the total OPEB liability for the State Employee and Teacher Plan and the PLD Plan was 6.5% in 2022 and 2021. The projection of cash flows used to determine the discount rate assumed that employer and non-employer entity contributions will be made at contractually required rates, actuarially determined. Based on these assumptions, the Plan's fiduciary net position was projected to be available to make all projected future benefit payments to current plan members. Therefore, the long-term expected rate of return on investments was applied to all periods of projected benefit payments to determine the total OPEB liability.

7. Group Life Insurance Plan (Continued)

Sensitivity of the net OPEB liability to changes in the discount rate

The following table presents the net OPEB liability for the Retired State Employee and Teacher Plan calculated using the discount rate of 6.5%, as well as what the net OPEB liability would be if it were calculated using a discount rate of one percentage point lower (5.5%) or one percentage point higher (7.5%) than the current rate:

	1% Decrease (5.5%)	Current Rate (6.5%)	1% Increase (7.5%)
Net OPEB Liability	$147,880,155	$111,905,319	$ 82,795,531

The following table presents the net OPEB liability for the PLD Plan calculated using the discount rate of 6.5%, as well as what the net OPEB liability would be if it were calculated using a discount rate of one percentage point lower (5.5%) or one percentage point higher (7.5%) than the current rate:

	1% Decrease (5.5%)	Current Rate (6.5%)	1% Increase (7.5%)
Net OPEB Liability	$ 19,657,043	$ 14,483,155	$ 10,329,020

Premiums

The basic life benefits for participants are funded by the State, school districts, PLDs and individuals. Participants pay additional premiums for supplemental and dependent insurance based upon the coverage selected.

Maine statute requires the System's Board of Trustees to establish on a regular basis the premium rates for participants in the Group Life Insurance Plan. The premium rates are determined to be actuarially sufficient to pay anticipated claims and cover administrative costs. The State of Maine remits premiums at a single rate that supports basic coverage for active and retired state employees (including Legislative and Judicial employees). This rate is $.82 per month for every $1,000 of coverage. The State remits premiums for retired teachers at a rate of $.33 per month for every $1,000 of coverage. As per individual collective bargaining agreements between employers and employees, individual school districts or teachers themselves pay premiums at the rate of $.11 per month for every $1,000 of coverage while active, and employees of participating local districts or the district itself pay premiums of $.48 per month for every $1,000 in coverage for employees while active and retired. In those cases where employees themselves pay premiums, those premiums are usually deducted from employees' compensation and remitted to the System.

Included in the Employers and Non-employer Contributing Entities Contributions and Premiums in the statement of changes in fiduciary net position are group life insurance premiums received from the State of Maine on behalf of active and retired state employees, retired teachers, legislators, and judges in the total amount of $12.2 and $11.5 million, respectively, for the years ended June 30, 2022 and 2021.

7. Group Life Insurance Plan (Concluded)

Benefits

Upon service retirement, only basic life insurance in an amount equal to the retiree's average final compensation will continue at no cost to the participant as long as the retiree participated in the group life insurance plan prior to retirement for a minimum of 10 years.

If a participant becomes eligible for disability retirement, the amount of basic insurance in force at the time of such retirement will be continued until normal retirement age, after which the amount will be reduced at the same rate as for a service retiree. The 10-year participation requirement does not apply to recipients of disability retirement benefits.

Under the Accidental Death and Dismemberment provisions of the plan, no legal action can be brought to recover any benefit after 3 years from the deadline for filing claims. The deadline for filing claims under the Accidental Death and Dismemberment provisions of the plan is 90 days after the date of the loss giving rise to the claim.

Claims Processing Expenses

All benefits are processed and paid by a third-party administrator (TPA). The fees incurred for services performed by the TPA totaled $1,072,495 and $1,098,486 for the years ended June 30, 2022 and 2021, respectively, and are listed as claims processing expenses in the basic financial statements.

8. Statutory and Constitutional Requirements

An amendment to the Maine constitution approved in November 1995 requires the State of Maine to fund the unfunded actuarial liability of the State Employee and Teacher Retirement Plan existing on June 30, 1996, over a period not to exceed 31 years beginning July 1, 1997, and not later than June 30, 2028. The amendment prohibits the creation of new unfunded liabilities in that Plan except those arising from experience losses, which under the 1995 amendment must be funded over a period of not more than ten years. An amendment approved in November 2017 extends the period from ten years to twenty years.

9. The System's Employee Benefits

Defined Benefit Plan

The System, as the employer of its staff, is a PLD in the PLD Consolidated Plan. As such, the System's employees are required by statute to contribute 7.05% or 7.8% of their annual covered salaries, depending on which plan they participate in. The System is required to contribute at the contribution rate established by the Board under the actuarial valuation of the PLD Consolidated Plan. The contribution rate was 10.3% and 10.1% of annual covered payroll for 2022 and 2021, respectively.

9. The System's Employee Benefits (Concluded)

The employer contributions on behalf of its employees, equal to the required contribution, were $790,723 and $730,247 for 2022 and 2021, respectively. The actuarial assumptions used in the PLD Consolidated Plan valuation are described in the actuarial assumptions and methods footnote to the required supplementary information.

The System's contributions to the PLD Consolidated Plan are treated as administrative costs of the Plan and are funded as a component of normal cost and included in the contribution rates paid by all employers in each of the plans administered by the System. Accordingly, the System does not reflect a portion of the collective net pension liability or related deferred inflows and outflows of resources related to pension obligations in the System's basic financial statements.

Group Life Insurance Plan

The System, as the employer of its staff, is a PLD in the Group Life Insurance Plan. The System pays the premiums for Basic only coverage for all active employees. Employees who elect additional coverage under the Supplemental and/or Dependent provisions have the additional required premiums withheld from their pay in order to fund such coverage.

The System was required to pay premiums for Basic coverage at the rate of $0.48 and $.46 per $1,000 of coverage for the 2022 and 2021 fiscal years, respectively. The total premiums the System paid on behalf of its active employees, equal to the required contributions, were $41,086 and $37,580 for 2022 and 2021, respectively.

Other Post-Employment Benefits

The System provides OPEB to its retirees in the form of health insurance coverage and group life insurance coverage. The System's annual OPEB costs are actuarially determined based on the parameters of GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions.*

The total contributions for retiree health insurance coverage, equal to the actuarially determined contributions, were $0 for 2022 and 2021. The OPEB liability for this plan is immaterial and the Plan's assets exceed its actuarial liability at June 30, 2022 and 2021. The actuarial liability is calculated using assumptions similar to those used for the System's defined benefit plan.

The total contributions for retiree group life insurance coverage, equal to the actuarially determined contributions, were $8,759 and $7,736 for 2022 and 2021, respectively. The OPEB liability for this plan is immaterial.

10. Risk Management

The System carries insurance to cover its exposure to various risks of loss. There were no uninsured losses during the last three years.

REQUIRED SUPPLEMENTAL SCHEDULE

SCHEDULE OF HISTORICAL PENSION INFORMATION
STATE EMPLOYEE AND TEACHER PLAN

June 30, 2022
(UNAUDITED)

SCHEDULE OF CHANGES IN THE PLAN'S NET PENSION LIABILITY AND RELATED RATIOS
LAST TEN FISCAL YEARS *

	2022	2021	2020	2019	2018	2017	2016	2015	2014
Total pension liability									
Service cost	$ 271,706,726	$ 238,775,193	$ 231,226,103	$ 224,775,112	$ 215,826,380	$ 213,047,075	$ 203,297,053	$ 191,528,649	$ 186,376,754
Interest	1,052,840,572	989,560,149	968,243,358	934,009,648	914,535,911	886,834,221	882,785,134	861,682,508	842,229,062
Changes of benefit terms	104,916,162	-	1,223,156	-	-	-	-	9,778,106	-
Differences between expected and actual experience	107,921,791	25,575,263	162,293	208,719,412	34,151,279	95,207,531	81,506,700	(44,287,643)	(17,694,276)
Changes of assumptions	-	1,175,893,728	-	-	191,998,939	-	30,436,605	-	167,650,573
Benefit payments, including refunds of member contributions	(947,944,497)	(902,913,135)	(882,617,693)	(851,469,104)	(810,211,176)	(780,157,263)	(744,357,598)	(722,573,349)	(689,053,212)
Net change in total pension liability	589,440,754	1,526,891,198	318,237,217	516,035,068	546,301,333	414,931,564	453,667,894	296,128,271	489,508,901
Total pension liability, beginning	16,392,351,328	14,865,460,130	14,547,222,913	14,031,187,845	13,484,886,512	13,069,954,948	12,616,287,054	12,320,158,783	11,830,649,882
Total pension liability, ending (a)	$ 16,981,792,082	$ 16,392,351,328	$ 14,865,460,130	$ 14,547,222,913	$ 14,031,187,845	$ 13,484,886,512	$ 13,069,954,948	$ 12,616,287,054	$ 12,320,158,783
Plan fiduciary net position									
Contributions - member	$ 164,348,772	$ 159,510,002	$ 151,438,848	$ 146,019,051	$ 140,844,880	$ 139,464,284	$ 125,523,986	$ 123,528,807	$ 121,033,152
Contributions - employer	348,890,554	239,444,343	225,468,762	218,530,934	211,251,144	211,037,365	199,212,719	173,935,492	162,920,147
Contributions - non-employer	194,654,436	179,329,944	174,530,364	132,980,832	129,421,735	116,080,164	112,477,836	147,283,716	142,303,104
Net investment income (loss)	(79,389,989)	3,192,036,232	354,272,726	768,987,130	1,077,827,554	1,256,043,735	40,540,758	191,829,057	1,517,432,345
Benefit payments, including refunds of member contributions	(948,151,998)	(903,115,909)	(882,819,483)	(851,653,558)	(810,381,770)	(780,325,980)	(744,523,743)	(722,724,258)	(689,191,030)
Administrative expenses	(11,962,324)	(11,088,956)	(11,343,928)	(11,180,852)	(10,076,242)	(9,216,027)	(8,649,030)	(9,386,695)	(8,246,740)
Other	(341,271)	(384,565)	(2,193,752)	(311,233)	-	(124,178)	(6,342,010)	-	-
Net change in fiduciary net position	(331,951,820)	2,855,731,091	9,353,537	403,372,304	738,887,301	932,959,363	(281,759,484)	(95,533,881)	1,246,250,978
Plan fiduciary net position, beginning	14,900,649,703	12,044,918,612	12,035,565,075	11,632,192,771	10,893,305,470	9,960,346,107	10,242,105,591	10,337,639,472	9,091,388,494
Plan fiduciary net position, ending (b)	$ 14,568,697,883	$ 14,900,649,703	$ 12,044,918,612	$ 12,035,565,075	$ 11,632,192,771	$ 10,893,305,470	$ 9,960,346,107	$ 10,242,105,591	$ 10,337,639,472
Plan's net pension liability, ending (a)-(b)	$ 2,413,094,199	$ 1,491,701,625	$ 2,820,541,518	$ 2,511,657,838	$ 2,398,995,074	$ 2,591,581,042	$ 3,109,608,841	$ 2,374,181,463	$ 1,982,519,311
Plan fiduciary net position as a percentage of the total pension liability	85.79%	90.90%	81.03%	82.73%	82.90%	80.78%	76.21%	81.18%	83.91%
Covered payroll	$ 2,221,410,193	$ 2,096,365,332	$ 2,003,075,813	$ 1,924,006,618	$ 1,808,274,919	$ 1,860,294,435	$ 1,816,435,084	$ 1,699,160,889	$ 1,676,857,294
Plan net pension liability as a percentage of covered payroll	108.63%	71.16%	140.81%	130.54%	132.67%	139.31%	171.19%	139.73%	118.23%

See notes to historical pension and OPEB information.

* This information will be presented each year until 10 years of such information is available.

See accompanying independent auditors' report.

REQUIRED SUPPLEMENTAL SCHEDULE

SCHEDULE OF HISTORICAL PENSION INFORMATION
JUDICIAL PLAN

June 30, 2022
(UNAUDITED)

SCHEDULE OF CHANGES IN THE PLAN'S NET PENSION LIABILITY AND RELATED RATIOS
LAST TEN FISCAL YEARS *

	2022	2021	2020	2019	2018	2017	2016	2015	2014
Total pension liability									
Service cost	$ 1,733,281	$ 1,546,701	$ 1,608,376	$ 1,596,832	$ 1,487,383	$ 1,465,977	$ 1,396,704	$ 1,605,751	$ 1,530,119
Interest	4,875,889	4,822,289	4,644,191	4,582,454	4,442,404	4,358,175	4,154,433	3,863,455	3,773,959
Changes of benefit terms	273,590	-	-	-	-	-	2,016,584	27,931	-
Differences between expected and actual experience	(150,154)	1,066,613	942,561	(1,087,164)	468,895	(893,352)	(1,745,956)	2,237,833	(324,891)
Changes of assumptions	-	836,266	-	-	697,807	-	2,489,800	-	426,150
Benefit payments, including refunds of member contributions	(5,094,485)	(4,681,415)	(4,314,558)	(4,067,506)	(3,804,709)	(3,651,927)	(3,501,911)	(3,383,995)	(3,219,480)
Net change in total pension liability	1,638,121	3,590,454	2,880,570	1,024,616	3,291,780	1,278,873	4,809,654	4,350,975	2,185,857
Total pension liability, beginning	75,787,564	72,197,110	69,316,540	68,291,924	65,000,144	63,721,271	58,911,617	54,560,642	52,374,785
Total pension liability, ending (a)	$ 77,425,685	$ 75,787,564	$ 72,197,110	$ 69,316,540	$ 68,291,924	$ 65,000,144	$ 63,721,271	$ 58,911,617	$ 54,560,642
Plan fiduciary net position									
Contributions - member	$ 650,172	$ 635,871	$ 616,095	$ 620,075	$ 603,875	$ 584,451	$ 549,845	$ 549,691	$ 528,192
Contributions - employer	867,895	738,939	715,963	1,212,666	1,179,328	1,144,445	1,077,545	979,281	932,223
Contributions - non-employer	-	-	-	-	-	-	-	-	-
Net investment income (loss)	(453,509)	19,279,640	2,164,283	4,709,445	6,606,904	7,799,507	129,372	1,055,346	8,416,042
Benefit payments, including refunds of member contributions	(5,094,485)	(4,681,415)	(4,314,558)	(4,067,506)	(3,804,709)	(3,651,927)	(3,501,911)	(3,383,995)	(3,219,480)
Administrative expenses	(72,167)	(67,680)	(69,406)	(68,475)	(61,708)	(56,436)	(47,577)	(49,399)	(41,681)
Other	29,746	473,431	764,902	(2,604)	-	-	6,342,010	-	-
Net change in fiduciary net position	(4,072,348)	16,378,786	(122,721)	2,403,601	4,523,691	5,820,040	4,549,284	(849,076)	6,615,296
Plan fiduciary net position, beginning	89,893,506	73,514,720	73,637,441	71,233,840	66,710,149	60,890,109	56,340,825	57,189,901	50,574,605
Plan fiduciary net position, ending (b)	$ 85,821,158	$ 89,893,506	$ 73,514,720	$ 73,637,441	$ 71,233,840	$ 66,710,149	$ 60,890,109	$ 56,340,825	$ 57,189,901
Plan's net pension (asset) liability, ending (a)-(b)	$ (8,395,473)	$ (14,105,942)	$ (1,317,610)	$ (4,320,901)	$ (2,941,916)	$ (1,710,005)	$ 2,831,162	$ 2,570,792	$ (2,629,259)
Plan fiduciary net position as a percentage of the total pension liability	110.84%	118.61%	101.83%	106.23%	104.31%	102.63%	95.56%	95.64%	104.82%
Covered payroll	$ 8,502,222	$ 8,312,022	$ 8,053,577	$ 8,116,908	$ 7,893,792	$ 7,639,818	$ 7,188,426	$ 7,185,501	$ 6,742,444
Plan net pension (asset) liability as a percentage of covered payroll	(98.74)%	(169.71)%	(16.36)%	(53.23)%	(37.27)%	(22.38)%	39.39%	35.78%	(39.00)%

See notes to historical pension and OPEB information.

* This information will be presented each year until 10 years of such information is available.

See accompanying independent auditors' report.

REQUIRED SUPPLEMENTAL SCHEDULE

SCHEDULE OF HISTORICAL PENSION INFORMATION
LEGISLATIVE PLAN

June 30, 2022
(UNAUDITED)

SCHEDULE OF CHANGES IN THE PLAN'S NET PENSION LIABILITY AND RELATED RATIOS
LAST TEN FISCAL YEARS *

	2022	2021	2020	2019	2018	2017	2016	2015	2014
Total pension liability									
Service cost	$ 375,207	$ 286,472	$ 334,862	$ 297,324	$ 282,199	$ 264,807	$ 411,624	$ 451,393	$ 400,072
Interest	698,694	657,782	611,447	577,720	565,088	530,313	547,268	544,526	510,813
Changes of benefit terms	43,111	-	-	-	-	-	-	4,418	-
Differences between expected and actual experience	(199,354)	180,989	413,313	238,611	(90,816)	157,775	(245,867)	(508,125)	(46,483)
Changes of assumptions	-	374,000	-	-	99,915	-	(146,529)	-	85,783
Benefit payments, including refunds of member contributions	(618,847)	(549,461)	(697,697)	(606,841)	(459,746)	(469,043)	(445,331)	(439,112)	(317,606)
Net change in total pension liability	298,811	949,782	661,925	506,814	396,640	483,852	121,165	53,100	632,579
Total pension liability, beginning	10,678,471	9,728,689	9,066,764	8,559,950	8,163,310	7,679,458	7,558,293	7,505,193	6,872,614
Total pension liability, ending (a)	$ 10,977,282	$ 10,678,471	$ 9,728,689	$ 9,066,764	$ 8,559,950	$ 8,163,310	$ 7,679,458	$ 7,558,293	$ 7,505,193
Plan fiduciary net position									
Contributions - member	$ 161,937	$ 214,905	$ 156,306	$ 220,611	$ 153,881	$ 202,388	$ 137,893	$ 193,356	$ 139,501
Contributions - employer	43,111	-	-	-	-	-	-	4,418	3,857
Contributions - non-employer	-	-	-	-	-	-	-	-	-
Net investment income (loss)	(89,006)	3,559,227	390,165	845,408	1,176,463	1,366,222	47,890	206,454	1,622,296
Benefit payments, including refunds of member contributions	(618,847)	(549,461)	(697,697)	(606,841)	(459,746)	(469,043)	(445,331)	(439,112)	(317,606)
Administrative expenses	(13,374)	(12,383)	(12,458)	(12,262)	(11,002)	(10,003)	(9,353)	(9,584)	(7,975)
Other	-	(3,271)	365,766	45,285	-	-	-	-	-
Net change in fiduciary net position	(516,179)	3,209,017	202,082	492,201	859,596	1,089,564	(268,901)	(44,468)	1,440,073
Plan fiduciary net position, beginning	16,659,121	13,450,104	13,248,022	12,755,821	11,896,225	10,806,661	11,075,562	11,120,030	9,679,957
Plan fiduciary net position, ending (b)	$ 16,142,942	$ 16,659,121	$ 13,450,104	$ 13,248,022	$ 12,755,821	$ 11,896,225	$ 10,806,661	$ 11,075,562	$ 11,120,030
Plan's net pension asset ending (a)-(b)	$ (5,165,660)	$ (5,980,650)	$ (3,721,415)	$ (4,181,258)	$ (4,195,871)	$ (3,732,915)	$ (3,127,203)	$ (3,517,269)	$ (3,614,837)
Plan fiduciary net position as a percentage of the total pension liability	147.06%	156.01%	138.25%	146.12%	149.02%	145.73%	140.72%	146.54%	148.16%
Covered payroll	$ 2,801,166	$ 2,802,145	$ 2,814,060	$ 2,659,749	$ 2,710,694	$ 2,651,195	$ 2,590,011	$ 2,527,525	$ 2,534,740
Plan net pension liability as a percentage of covered payroll	(184.41)%	(213.43)%	(132.24)%	(157.20)%	(154.79)%	(140.80)%	(120.74)%	(139.16)%	(142.61)%

See notes to historical pension and OPEB information.

* This information will be presented each year until 10 years of such information is available.

See accompanying independent auditors' report.

REQUIRED SUPPLEMENTAL SCHEDULE

SCHEDULE OF HISTORICAL PENSION INFORMATION
PLD CONSOLIDATED PLAN

June 30, 2022
(UNAUDITED)

SCHEDULE OF CHANGES IN THE PLAN'S NET PENSION LIABILITY AND RELATED RATIOS
LAST TEN FISCAL YEARS *

	2022	2021	2020	2019	2018	2017	2016	2015	2014
Total pension liability									
Service cost	$ 93,851,265	$ 86,845,610	$ 82,715,056	$ 78,317,217	$ 76,190,510	$ 76,271,766	$ 74,208,414	$ 75,805,492	$ 72,651,025
Interest	241,612,217	229,954,447	219,752,007	208,360,684	207,492,397	198,972,490	192,774,429	187,928,506	178,293,576
Changes of benefit terms	16,214,107	-	29,759,516	-	(106,123,366)	-	-	-	-
Differences between expected and actual experience	67,455,268	13,300,796	(6,552,650)	47,684,163	1,285,303	(2,160,603)	(9,142,757)	(54,634,906)	19,939,857
Changes of assumptions	-	161,866,111	-	-	46,439,540	-	50,884,219	37,593,598	-
Benefit payments, including refunds of member contributions	(194,576,381)	(182,691,917)	(174,752,167)	(165,399,679)	(152,087,885)	(146,163,566)	(139,919,680)	(135,414,526)	(127,161,357)
Net change in total pension liability	224,556,476	309,275,047	150,921,762	168,962,385	73,196,499	126,920,087	168,804,625	111,278,164	143,723,101
Total pension liability, beginning	3,719,016,414	3,409,741,367	3,258,819,605	3,089,857,220	3,016,660,721	2,889,740,634	2,720,936,009	2,609,657,845	2,465,934,744
Total pension liability, ending (a)	$ 3,943,572,890	$ 3,719,016,414	$ 3,409,741,367	$ 3,258,819,605	$ 3,089,857,220	$ 3,016,660,721	$ 2,889,740,634	$ 2,720,936,009	$ 2,609,657,845
Plan fiduciary net position									
Contributions - member	$ 65,104,305	$ 53,621,126	$ 54,090,045	$ 54,927,202	$ 48,050,202	$ 46,080,851	$ 40,861,405	$ 37,202,921	$ 33,210,510
Contributions - employer	78,887,165	68,506,485	66,717,733	61,487,037	56,092,662	51,387,011	47,624,182	43,366,730	32,706,160
Refund of IUUAL account balances	-	-	-	-	-	-	-	(43,000,526)	-
Net investment income (loss)	(19,908,035)	802,368,797	88,330,927	188,620,106	259,699,519	299,780,948	10,200,342	46,075,304	361,125,177
Benefit payments, including refunds of member contributions	(194,576,381)	(182,691,917)	(174,752,167)	(165,399,679)	(152,087,885)	(146,163,566)	(139,919,680)	(135,414,526)	(127,161,358)
Administrative expenses	(3,011,451)	(2,773,340)	(2,797,728)	(2,706,977)	(2,411,666)	(2,209,324)	(2,028,294)	(2,117,266)	(1,779,304)
Other	89,325	(306,895)	27,683,461	48,552	(386,621)	(62,201)	(217,338)	-	-
Net change in fiduciary net position	(73,415,072)	738,724,256	59,272,271	136,976,241	208,956,211	248,813,719	(43,479,383)	(53,887,363)	298,101,185
Plan fiduciary net position, beginning	3,751,152,623	3,012,428,367	2,953,156,096	2,816,179,855	2,607,223,644	2,358,409,925	2,401,889,308	2,455,776,671	2,157,675,486
Plan fiduciary net position, ending (b)	$ 3,677,737,551	$ 3,751,152,623	$ 3,012,428,367	$ 2,953,156,096	$ 2,816,179,855	$ 2,607,223,644	$ 2,358,409,925	$ 2,401,889,308	$ 2,455,776,671
Plan's net pension (asset) liability, ending (a)-(b)	$ 265,835,339	$ (32,136,209)	$ 397,313,000	$ 305,663,509	$ 273,677,365	$ 409,437,077	$ 531,330,709	$ 319,046,701	$ 153,881,174
Plan fiduciary net position as a percentage of the total pension liability	93.26%	100.86%	88.35%	90.62%	91.14%	86.43%	81.61%	88.27%	94.10%
Covered payroll	$ 744,218,538	$ 646,287,594	$ 641,523,784	$ 593,884,355	$ 561,126,768	$ 542,572,528	$ 521,870,235	$ 497,616,846	$ 460,029,637
Plan net pension (asset) liability as a percentage of covered payroll	35.72%	(4.97)%	61.93%	51.47%	48.77%	75.46%	101.81%	64.11%	33.45%

See notes to historical pension and OPEB information.

* This information will be presented each year until 10 years of such information is available.

See accompanying independent auditors' report.

MAINE PUBLIC EMPLOYEES RETIREMENT SYSTEM
(A Component Unit of the State of Maine)

REQUIRED SUPPLEMENTARY INFORMATION

SCHEDULE OF HISTORICAL PENSION INFORMATION
STATE EMPLOYEE AND TEACHER PLAN

June 30, 2022
(UNAUDITED)

SCHEDULE OF EMPLOYER CONTRIBUTIONS
Last Ten Fiscal Years

	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Actuarially determined contribution	$ 438,298,297	$ 418,558,583	$ 399,775,788	$ 350,583,375	$ 340,376,744	$ 312,736,906	$ 301,891,511	$ 302,028,725	$ 304,328,386	$ 263,553,204
Contributions in relation to the actuarially determined contribution	438,298,297	418,558,583	399,775,788	350,583,375	340,376,744	312,736,906	301,891,511	302,028,725	304,328,386	263,553,204
Contribution deficiency (excess)	$ –	$ –	$ –	–	$ –	$ –	$ –	$ –	$ –	$ –
Covered payroll	$2,221,410,193	$2,096,365,332	$2,003,075,813	$1,924,006,618	$1,865,849,388	$1,860,230,663	$1,816,435,084	$1,699,160,889	$1,676,857,294	$1,672,857,294
Contributions as a percentage of covered payroll	19.73%	19.97%	19.96%	18.22%	18.24%	16.81%	16.62%	17.78%	18.15%	15.75%

See notes to historical pension and OPEB information.

See accompanying independent auditor's report.

MAINE PUBLIC EMPLOYEES RETIREMENT SYSTEM
(A Component Unit of the State of Maine)

REQUIRED SUPPLEMENTARY INFORMATION

SCHEDULE OF HISTORICAL PENSION INFORMATION
JUDICIAL PLAN

June 30, 2022
(UNAUDITED)

SCHEDULE OF EMPLOYER CONTRIBUTIONS
Last Ten Fiscal Years

	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Actuarially determined contribution	$ 594,305	$ 738,939	$ 715,963	$ 1,212,666	$ 1,179,328	$ 1,144,445	$ 1,077,545	$ 951,351	$ 932,223	$ 841,397
Contributions in relation to the actuarially determined contribution	594,305	738,939	715,963	1,212,666	1,179,328	1,144,445	1,077,545	951,351	932,223	841,397
Contribution deficiency (excess)	$ –	$ –	$ –	$ –	$ –	$ –	$ –	$ –	$ –	$ –
Covered payroll	$ 8,502,222	$ 8,312,022	$ 8,053,577	$ 8,116,908	$ 7,893,762	$ 7,639,818	$ 7,188,426	$ 7,185,501	$ 6,742,444	$ 6,742,444
Contributions as a percentage of covered payroll	6.99%	8.89%	8.89%	14.94%	14.94%	14.98%	14.99%	13.24%	13.83%	12.48%

See notes to historical pension and OPEB information.

See accompanying independent auditor's report.

MAINE PUBLIC EMPLOYEES RETIREMENT SYSTEM
(A Component Unit of the State of Maine)

REQUIRED SUPPLEMENTARY INFORMATION

SCHEDULE OF HISTORICAL PENSION INFORMATION
LEGISLATIVE PLAN

June 30, 2022
(UNAUDITED)

SCHEDULE OF EMPLOYER CONTRIBUTIONS
Last Ten Fiscal Years

	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Actuarially determined contribution	$ –	$ –	$ –	$ –	$ –	$ –	$ –	$ –	$ –	$ –
Contributions in relation to the actuarially determined contribution	–	–	–	–	–	–	–	–	–	–
Contribution deficiency (excess)	$ –	$ –	$ –	$ –	$ –	$ –	$ –	$ –	$ –	$ –
Covered payroll	$ 2,801,166	$ 2,802,145	$ 2,814,060	$ 2,659,749	$ 2,710,694	$ 2,651,195	$ 2,590,011	$ 2,527,525	$ 2,534,740	$ 2,534,740
Contributions as a percentage of covered payroll	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

See notes to historical pension and OPEB information.

See accompanying independent auditor's report.

MAINE PUBLIC EMPLOYEES RETIREMENT SYSTEM
(A Component Unit of the State of Maine)

REQUIRED SUPPLEMENTARY INFORMATION

SCHEDULE OF HISTORICAL PENSION INFORMATION
PLD CONSOLIDATED PLAN

June 30, 2022
(UNAUDITED)

SCHEDULE OF EMPLOYER CONTRIBUTIONS
Last Ten Fiscal Years

	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Actuarially determined contribution	$ 78,887,165	$ 68,506,485	$ 66,717,733	$ 61,170,089	$ 55,551,550	$ 51,387,011	$ 46,968,321	$ 40,302,580	$ 35,263,952	$ 29,704,314
Contributions in relation to the actuarially determined contribution	78,887,165	68,506,485	66,717,733	61,170,089	55,551,550	51,387,011	46,968,321	40,302,580	35,263,952	29,704,314
Contribution deficiency (excess)	$ –	$ –	$ –	–	$ –	$ –	$ –	$ –	$ –	$ –
Covered payroll	$ 744,218,538	$ 646,287,594	$ 641,523,784	$ 593,884,355	$ 561,126,768	$ 542,572,528	$ 521,870,235	$ 497,616,846	$ 460,029,637	$ 458,424,764
Contributions as a percentage of covered payroll	10.60%	10.60%	10.40%	10.30%	9.90%	9.47%	9.00%	8.10%	7.67%	6.48%

See notes to historical pension and OPEB information.

See accompanying independent auditor's report.

MAINE PUBLIC EMPLOYEES RETIREMENT SYSTEM
(A Component Unit of the State of Maine)

REQUIRED SUPPLEMENTARY INFORMATION

SCHEDULE OF HISTORICAL PENSION INFORMATION
ALL DEFINED BENEFIT PLANS

June 30, 2022
(UNAUDITED)

SCHEDULE OF INVESTMENT RETURNS
*Last Ten Fiscal Years **

	2022	2021	2020	2019	2018	2017	2016	2015	2014
Annual money-weighted rate of return, net of investment expenses	3.4%	26.5%	1.8%	7.08%	10.30%	12.49%	0.48%	1.98%	16.66%

See notes to historical pension and OPEB information.

* Retroactive information is not required to be presented. This information will be presented each year until 10 years of such information is available.

See accompanying independent auditor's report.

MAINE PUBLIC EMPLOYEES RETIREMENT SYSTEM
(A Component Unit of the State of Maine)

REQUIRED SUPPLEMENTARY INFORMATION

SCHEDULE OF HISTORICAL OPEB INFORMATION
STATE EMPLOYEE AND TEACHER PLAN

June 30, 2022
(UNAUDITED)

SCHEDULE OF CHANGES IN THE PLAN'S NET OPEB LIABILITY AND RELATED RATIOS
*Last Ten Fiscal Years **

	2022	2021	2020
Total OPEB liability			
Service cost	$ 2,756,810	$ 2,683,027	$ 2,190,471
Interest	15,240,012	13,846,827	14,274,714
Differences between expected and actual experience	365,044	–	589,478
Changes of assumptions	–	291,076	–
Benefit payments	(6,817,681)	(6,613,935)	(8,177,754)
Net change in total OPEB liability	11,544,185	10,206,995	8,876,909
Total OPEB liability, beginning	223,515,902	213,308,907	204,431,998
Total OPEB liability, ending (a)	$ 235,060,087	$ 223,515,902	$ 213,308,907
Plan fiduciary net position			
Contributions – employers	10,584,751	$ 9,866,578	$ 9,310,849
Investment income (loss)	(20,387,369)	32,552,180	4,885,544
Benefits paid	(6,817,681)	(6,613,935)	(8,177,754)
Administrative expenses	(824,527)	(821,718)	(1,018,932)
Net change in fiduciary net position	(17,444,826)	34,983,105	4,999,707
Plan fiduciary net position, beginning	140,599,594	105,616,489	100,616,782
Plan fiduciary net position, ending (b)	$ 123,154,768	$ 140,599,594	$ 105,616,489
Plan's net OPEB liability, ending (a)-(b)	$ 111,905,319	$ 82,916,308	$ 107,692,418
Plan fiduciary net position as a percentage of the total OPEB liability	52.39%	62.90%	49.51%
Covered payroll	$ 1,600,464,673	$ 1,525,192,949	$ 1,484,372,700
Plan net OPEB liability as a percentage of covered payroll	6.99%	5.44%	7.26%

See notes to historical pension and OPEB information.

*This information will be presented each year until 10 years of such information is available.

See accompanying independent auditor's report.

2019	2018	2017
$ 2,131,845	$ 2,122,079	$ 2,065,283
13,155,332	12,531,082	12,014,739
–	1,957,220	–
–	3,199,639	–
(7,118,082)	(7,269,810)	(6,003,967)
8,169,095	12,540,210	8,076,055
196,262,903	183,722,693	175,646,638
$ 204,431,998	$ 196,262,903	$ 183,722,693
$ 7,756,442	$ 7,638,453	$ 6,921,228
6,418,113	7,804,839	9,885,897
(7,118,082)	(7,269,810)	(6,003,967)
(726,320)	(769,717)	(1,335,745)
6,330,153	7,403,765	9,467,413
94,286,629	86,882,864	77,415,451
$ 100,616,782	$ 94,286,629	$ 86,882,864
$ 103,815,216	$ 101,976,274	$ 96,839,829
49.22%	48.04%	47.29%
$ 1,380,619,384	$ 1,343,668,500	$ 1,277,009,000
7.52%	7.59%	7.58%

MAINE PUBLIC EMPLOYEES RETIREMENT SYSTEM
(A Component Unit of the State of Maine)

REQUIRED SUPPLEMENTARY INFORMATION

SCHEDULE OF HISTORICAL OPEB INFORMATION
PLD CONSOLIDATED PLAN

June 30, 2022
(UNAUDITED)

SCHEDULE OF CHANGES IN THE PLAN'S NET OPEB LIABILITY AND RELATED RATIOS
*Last Ten Fiscal Years **

	2022	2021	2020
Total OPEB liability			
Service cost	$ 308,456	$ 309,875	$ 522,353
Interest	2,121,985	1,962,386	1,941,994
Changes of benefit terms	–	–	(636,731)
Differences between expected and actual experience	(149,516)	–	727,053
Changes of assumptions	–	906,229	(9,045,090)
Benefit payments	(988,402)	(1,223,890)	(1,589,460)
Net change in total OPEB liability	1,292,523	1,954,600	(8,079,881)
Total OPEB liability, beginning	31,531,361	29,576,761	37,656,642
Total OPEB liability, ending (a)	$ 32,823,884	$ 31,531,361	$ 29,576,761
Plan fiduciary net position			
Contributions – employers	$ 1,277,664	$ 1,186,563	$ 1,127,014
Investment income (loss)	(3,031,547)	4,987,761	752,517
Benefits paid	(988,402)	(1,223,890)	(1,589,460)
Administrative expenses	(124,368)	(127,631)	(164,654)
Net change in fiduciary net position	(2,866,653)	4,822,803	125,417
Plan fiduciary net position, beginning	21,207,382	16,384,579	16,259,162
Plan fiduciary net position, ending (b)	$ 18,340,729	$ 21,207,382	$ 16,384,579
Plan's net OPEB liability, ending (a)-(b) $	$ 14,483,155	$ 10,323,979	$ 13,192,182
Plan fiduciary net position as a percentage of the total OPEB liability	55.88%	67.26%	55.40%
Covered payroll	$ 301,040,000	$ 299,768,500	$ 291,745,500
Plan net OPEB liability as a percentage of covered payroll	4.81%	3.44%	4.52%

See notes to historical pension and OPEB information.

*This information will be presented each year until 10 years of such information is available.

See accompanying independent auditor's report.

	2019	2018	2017
	$ 488,545	$ 442,863	$ 619,735
	1,832,881	1,706,200	1,616,253
	–	–	–
	–	2,045,678	–
	893,851	1,554,074	(5,591,242)
	(1,581,540)	(1,530,346)	(1,394,586)
	1,633,737	4,218,469	(4,749,840)
	36,022,905	31,804,436	36,554,276
	$ 37,656,642	$ 36,022,905	$ 31,804,436
	$ 1,100,509	$ 1,069,640	$ 1,037,124
	1,037,784	1,333,324	1,738,914
	(1,581,540)	(1,530,346)	(1,394,586)
	(119,519)	(133,624)	(238,856)
	437,234	738,994	1,142,596
	15,821,928	15,082,934	13,940,338
	$ 16,259,162	$ 15,821,928	$ 15,082,934
	$ 21,397,480	$ 20,200,977	$ 16,721,502
	43.18%	43.92%	47.42%
	$ 283,884,893	$ 276,287,000	$ 260,552,680
	7.54%	7.31%	6.42%

MAINE PUBLIC EMPLOYEES RETIREMENT SYSTEM
(A Component Unit of the State of Maine)

REQUIRED SUPPLEMENTARY INFORMATION

SCHEDULE OF HISTORICAL OPEB INFORMATION
STATE EMPLOYEE AND TEACHER PLAN

June 30, 2022
(UNAUDITED)

SCHEDULE OF EMPLOYER CONTRIBUTIONS
*Last Ten Fiscal Years**

	2022	2021	2020
Actuarially determined contribution	$ 11,242,005	$ 10,964,907	$ 10,671,443
Contributions in relation to the actuarially determined contribution	10,584,751	9,866,578	9,310,849
Contribution deficiency	$ 657,254	$ 1,098,329	$ 1,360,594
Covered payroll	$ 1,600,464,673	$ 1,525,192,949	$ 1,484,372,700
Contributions as a percentage of covered payroll	0.66%	0.65%	0.63%

See notes to historical pension and OPEB information.

*This information will be presented each year until 10 years of such information is available.

See accompanying independent auditor's report.

	2019	2018	2017
	$ 9,040,284	$ 8,805,704	$ 8,239,903
	7,756,442	7,638,453	6,921,228
	$ 1,283,842	$ 1,167,251	$ 1,318,675
	$ 1,380,619,384	$ 1,343,668,500	$ 1,277,009,000
	0.56%	0.57%	0.54%

MAINE PUBLIC EMPLOYEES RETIREMENT SYSTEM
(A Component Unit of the State of Maine)

REQUIRED SUPPLEMENTARY INFORMATION

SCHEDULE OF HISTORICAL OPEB INFORMATION
PLD CONSOLIDATED PLAN

June 30, 2022
(UNAUDITED)

SCHEDULE OF EMPLOYER CONTRIBUTIONS
Last Ten Fiscal Years

	2022	2021	2020
Actuarially determined contribution	$ 1,942,791	$ 1,586,809	$ 1,5,44,340
Contributions in relation to the actuarially determined contribution	1,277,664	1,186,563	1,127,014
Contribution deficiency	$ 665,127	$ 400,246	$ 417,326
Covered payroll	$ 301,040,000	$ 299,768,500	$ 291,745,500
Contributions as a percentage of covered payroll	0.42%	0.40%	0.39%

See notes to historical pension and OPEB information.

*This information will be presented each year until 10 years of such information is available.

See accompanying independent auditor’s report.

	2019	2018	2017
	$ 1,287,098	$ 1,252,650	$ 1,146,324
	1,100,509	1,069,640	1,037,124
	$ 186,589	$ 183,010	$ 109,200
	$ 283,884,893	$ 276,287,000	$ 260,552,680
	0.39%	0.39%	0.40%

MAINE PUBLIC EMPLOYEES RETIREMENT SYSTEM
(A Component Unit of the State of Maine)

REQUIRED SUPPLEMENTARY INFORMATION

SCHEDULE OF HISTORICAL OPEB INFORMATION
ALL OPEB PLANS

June 30, 2022
(UNAUDITED)

SCHEDULE OF INVESTMENT RETURNS
*Last Ten Fiscal Years **

	2022	2021	2020	2019	2018	2017
Annual money-weighted rate of return, net of investment expenses	14.1%	30.6%	6.0%	6.6%	9.00%	12.88%

See notes to historical pension and OPEB information.

* Retroactive information is not required to be presented. This information will be presented each year until 10 years of such information is available.

See accompanying independent auditor's report.

1. Basis of Presentation

The schedule of investment returns for pension plans applies to the State Employee and Teacher Plan, the Judicial Plan, the Legislative Plan, the PLD Consolidated Plan, and the PLD Agent Plans, as investments of these plans are commingled. Assets in the Group Life Insurance Plans, including assets to provide life insurance benefits to active employees, are commingled for investment purposes but separately from the pension plan assets.

2. Actuarial Methods and Assumptions – Defined Benefit Plans

The information in the historical pension information was determined as part of the actuarial valuations at the dates indicated. Additional information as of the latest actuarial valuation date, June 30, 2022, is as follows:

Actuarial Cost Method

The Entry Age Normal actuarial funding method is used to determine costs. Under this funding method, the total employer contribution rate consists of two elements, the normal cost rate and the unfunded actuarial liability rate.

The individual entry age normal method is used to determine liabilities. Under the individual entry age normal method, a normal cost rate is calculated for each employee. 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 the member's expected future salary. The normal cost for each employee is the product of the member's pay and normal cost rate. The normal cost for the group is the sum of the normal costs for all members.

Experience gains and losses, i.e., decreases or increases in liabilities and/or in assets when actual experience differs from the actuarial assumptions, affect the unfunded actuarial accrued liability.

Asset Valuation Method

An actuarial value of assets is used for determining employer contributions. The use of an actuarial value of assets for this purpose helps mitigate volatility in contribution rates that might otherwise occur due to fluctuations in market conditions. The specific technique adopted in this valuation recognizes in a given year one-third of the investment return that is different from the actuarial assumption for investment return.

Amortization

The net pension liability of the State Employee and Teacher Retirement Program is amortized on a level percentage of payroll over the amortization period then in effect under statutory and constitutional requirements (Note 6 to the Financial Statements). The net pension liabilities of the Legislative Plan and the Judicial Plan are amortized on a level percentage of payroll over open ten year periods.

2. Actuarial Methods and Assumptions – Defined Benefit Plans (Concluded)

The net pension liability of the PLD Consolidated Plan is amortized on a level percentage of payroll using a method where a separate twenty-year closed period is established annually for the gain or loss for that year.

Significant actuarial assumptions employed by the actuary for funding purposes as of June 30 for each year indicated are as follows:

	State Employee and Teacher Plan	Judicial Plan	Legislative Plan	PLD Consolidated Plan
Investment Rate of Return	Per annum, compounded annually: 6.50% for June 30, 2022 and June 30, 2021; 6.75% for June 30, 2020, June 30, 2019 and June 30, 2018; 6.875% for June 30, 2017 and June 30, 2016; 7.125% for June 30, 2015 and June 30, 2014			Per annum, compounded annually: 6.50% for June 30, 2022 and June 30, 2021; 6.75% for June 30, 2020, June 30, 2019 and June 30, 2018; 6.875% for June 30, 2017 and June 30, 2016; 7.125% for June 30, 2015; 7.25% for June 30, 2014
Inflation Rate	2.75% for June 30, 2022, June 30, 2021, June 30, 2020, June 30, 2019, June 30, 2018, June 30, 2017, and June 30, 2016; 3.50% for June 30, 2015 and June 30, 2014			
Annual Salary Increases, including Inflation	For the period ended June 30, 2022 and June 30, 2021			
	State employees, 3.26% - 9.43%; Teachers, 2.80% - 13.03%	2.75%	2.75%	2.75% - 11.48%
	For the periods ended June 30, 2020; June 30, 2019; June 30, 2018; June 30, 2017; and June 30, 2016:			
	State employees, 2.75% - 8.75%; Teachers, 2.75% - 14.50%	2.75%	2.75%	2.75% - 9.00%
	For the periods ended June 30, 2015 and June 30, 2014:			
	State employees, 3.50% - 10.50%; Teachers, 3.50% - 13.50%	3.50%	3.50%	3.50% - 9.50%
Cost of Living Benefit Increases	2.20% for June 30, 2022, June 30, 2021, June 30, 2020, June 30, 2019, June 30, 2018, June 30, 2017 and June 30, 2016; 2.55% for June 30, 2015 and June 30, 2014			1.91% for June 30, 2022, June 30, 2021, June 30, 2020, June 30, 2019 and June 30, 2018; 2.20% for June 30, 2017 and June 30, 2016; 2.55% for June 30, 2015 and 3.12% for June 30, 2014
Mortality Rates	For the period ended June 30, 2022 and June 30, 2021			
	State Employee, Judicial, and Legislative: based on the 2010 Public Plan General Benefits-Weighted Healthy Retiree Mortality Table, for males and females, projected generationally using the RPEC_2020 model. Teachers: based on the 2010 Public Plan Teacher Benefits-Weighted Healthy Retiree Mortality Table, for males and females, projected generationally using the RPEC_2020 model.			Based on the 2010 Public Plan General Benefits-Weighted Healthy Retiree Mortality Table, for males and females, projected generationally using the RPEC_2020 model.
	For the periods ended June 30, 2020; June 30, 2019; June 30, 2018; June 30, 2017; and June 30, 2016:			
	For active members and non-disabled retirees of the State employees and teachers, legislative, judicial, and PLD plans, the RP2014 Total Dataset Healthy Annuitant Mortality Table, for males and females, is used. For all recipients of disability benefits, the RP2014 Total Dataset Disabled Annuitant Mortality Table, for males and females, is used.			
	For the periods ended June 30, 2015 and June 30, 2014:			
	For active members and non-disabled retirees of the State employees and teachers, legislative, judicial, and PLD plans, the RP2000 Tables projected forward to 2015 using Scale AA are used; the ages are set back two years for employees of the teacher plan. Mortality assumptions were also reviewed and updated in 2011 for the PLD Consolidated Plan, and in 2012 for the other Plans, based on actual demographic data of the Plans. For all recipients of disability benefits, the Revenue Ruling 96-7 Disabled Mortality Table for Males and Females is used.			

3. Actuarial Methods and Assumptions – Group Life Insurance Plans

The information in the historical Group Life Insurance Plan information was determined as part of the actuarial valuations at the dates indicated. Additional information as of the latest actuarial valuation date, June 30, 2022, is as follows:

Actuarial Cost Method

The individual entry age normal method is used to determine liabilities. Under the individual entry age normal method, a normal cost rate is calculated for each employee. 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 the member's expected future salary. The normal cost for each employee is the product of the member's pay and normal cost rate. The normal cost for the group is the sum of the normal costs for all members.

The actuarial accrued liability is defined as the present value of future benefits less the present value of future normal cost contributions. The unfunded actuarial accrued liability is the total of the actuarial liability for all members less the actuarial value of the System's assets.

Experience gains and losses, i.e., decreases or increases in liabilities and/or in assets when actual experience differs from the actuarial assumptions, affect the unfunded actuarial accrued liability.

Asset Valuation Method

Asset amounts are taken as reported to the actuaries by the System without audit or change, except that State of Maine assets are allocated to State, Legislators, and Judges based on total actuarial liability.

Amortization

The unfunded actuarial accrued liability is being amortized as a level percentage of payroll over a 30-year period on a closed basis. As of June 30, 2022, there were 15 years remaining in the amortization schedule for state employees and teachers, and 8 years remaining for PLD employees.

3. Actuarial Methods and Assumptions – Group Life Insurance Plan (Concluded)

Significant actuarial assumptions employed by the actuary for funding purposes as of June 30 for each year indicated are as follows:

	State employees, including judges and legislators	Teachers	PLD employees
Investment Rate of Return	Per annum, compounded annually:		
	6.50% forJune 30, 2022 and June 30, 2021; 6.75% for June 30, 2020, June 30, 2019 and June 30, 2018; 6.875% for June 30, 2017		6.50% for June 30, 2022 and June 30, 2021; 6.75% for June 30, 2020; 4.98% for June 30, 2019; 5.13% for June 30, 2018; 5.41% for June 30, 2017
Inflation Rate	2.75% for June 30, 2022, June 30, 2021, June 30, 2020, June 30, 2019, June 30, 2018 and June 30, 2017		
Annual Salary Increases, including Inflation	For June 30, 2022 and June 30, 2021		
	State employees: 3.26% - 9.43%; Judges and Legislators: 2.75%	2.80 - 13.03%	2.75% - 11.48%
	For June 30, 2020, June 30, 2019, June 30, 2018 and June 30, 2017		
	2.75% - 8.75%	2.75% - 14.50%	2.75% - 9.00%
Mortality Rates	For June 30, 2022 and June 30, 2021		
	Based on the 2010 Public Plan General Benefits-Weighted Healthy Retiree Mortality Table, for males and females, projected generationally using the RPEC_2020 model.	Based on the 2010 Public Plan Teacher Benefits-Weighted Healthy Retiree Mortality Table, for males and females, projected generationally using the RPEC_2020 model.	Based on the 2010 Public Plan General Benefits-Weighted Healthy Retiree Mortality Table, for males and females, projected generationally using the RPEC_2020 model.
	For June 30, 2020, June 30, 2019, June 30, 2018 and June 30, 2017		
	For active members and non-disabled retirees of the State employees, legislative, judicial, and PLD plans, the RP2014 Total Dataset Healthy Annuitant Mortality Table, for males and females, is used. For all recipients of disability benefits, the RP2014 Total Dataset Disabled Annuitant Mortality Table, for males and females, is used.		
Participation Rate for Future Retirees	100% of those currently enrolled		
Conversion Charges	Apply to the cost of active group life insurance, not retiree group life insurance		
Form of Benefit Payment	Lump sum		

MAINE PUBLIC EMPLOYEES RETIREMENT SYSTEM
(A Component Unit of the State of Maine)

ADDITIONAL SUPPLEMENTARY INFORMATION

SCHEDULE OF INVESTMENT EXPENSES

For the Year Ended June 30, 2022

	State Employee and Teacher Plan	Judicial Plan	Legislative Plan	PLD Consolidated Plan	PLD Agent Plan
Asset Class					
Alternative Credit	$ 6,794,188	$ 40,548	$ 7,575	$1,717,955	$ 4,308
Infrastructure	22,280,377	132,971	24,837	5,633,733	14,124
Natural Resources	5,861,170	34,979	6,534	1,482,036	3,715
Domestic Equity	–	–	–	–	–
International Equity	497,462	2,969	555	125,787	315
Fixed Income	215,948	1,289	241	54,604	137
Private Equity	37,806,603	225,634	42,150	9,559,643	23,967
Real Estate	14,283,720	85,247	15,923	3,611,730	9,052
Risk Diversifier	12,160,015	72,570	13,556	3,074,739	7,709
Other Investment Expenses	–	–	–	–	–
In-house investment management	4,106,950	24,511	4,579	1,038,469	2,603
Total investment expenses	$ 104,006,433	$ 620,718	$115,950	$26,298,696	$ 65,930

Group Life Insurance Plan Actives	Group Life Insurance Plan Retired SET	Group Life Insurance Plan Retired PLD	Defined Contribution Plans	MainePERS OPEB Trust	Retiree Health Insurance Plan	Total
$ –	$ –	$ –	$ –	$ –	$ –	$ 8,564,574
–	–	–	–	–	–	28,086,042
–	–	–	–	–	–	7,388,434
778	6,249	934	–	820	16,703	25,484
1,348	10,820	1,617	–	1,421	28,888	671,182
2,615	21,000	3,139	–	2,759	56,126	357,858
–	–	–	–	–	–	47,657,997
807	6,484	969	–	852	17,325	18,032,109
–	–	–	–	–	–	15,328,589
–	–	–	52,974	–	–	52,974
4,897	39,325	5,878	–	4,851	–	5,232,063
$ 10,445	$ 83,878	$ 12,537	$ 52,974	$ 10,703	$ 119,042	$131,397,306

MAINE PUBLIC EMPLOYEES RETIREMENT SYSTEM
(A Component Unit of the State of Maine)

ADDITIONAL SUPPLEMENTARY INFORMATION

SCHEDULE OF ADMINISTRATIVE EXPENSES

For the Year Ended June 30, 2022

	State Employee and Teacher Plan	Judicial Plan	Legislative Plan	PLD Consolidated Plan	PLD Agent Plan
Personal services	$ 6,365,806	$ 38,404	$ 7,117	$1,602,556	$ 4,157
Professional fees	1,524,595	9,197	1,704	383,809	995
Computer services	1,307,336	7,887	1,462	329,115	854
Telephone, data, and internet services	101,340	611	113	25,512	66
Printing and postage	277,575	1,675	310	69,878	181
Office rent and building operations	321,124	1,937	359	80,841	210
Depreciation	1,305,162	7,874	1,459	328,567	852
Miscellaneous operating expenses	759,386	4,582	850	191,174	496
Total administrative expenses	$11,962,324	$ 72,167	$13,374	$3,011,452	$ 7,811

Group Life Insurance Plan Active	Group Life Insurance Plan Retired SET	Group Life Insurance Plan Retired PLD	Defined Contribution Plan	Retiree Health Insurance Plan	Total
$ 57,914	$ 438,776	$ 66,183	$ 118,245	$ 3,100	$ 8,702,258
13,870	105,086	15,851	28,319	-	2,083,427
11,894	90,111	13,592	24,284	-	1,786,535
922	6,985	1,054	1,882	-	138,485
2,525	19,132	2,886	5,156	-	379,318
2,921	22,134	3,339	5,965	-	438,830
11,874	89,961	13,569	24,243	-	1,783,561
6,909	52,342	7,894	14,106	-	1,037,738
$108,829	$ 824,527	$ 124,368	$ 222,200	$ 3,100	$16,350,152

MAINE PUBLIC EMPLOYEES RETIREMENT SYSTEM
(A Component Unit of the State of Maine)

ADDITIONAL SUPPLEMENTARY INFORMATION

SCHEDULE OF PROFESSIONAL FEES

For the Year Ended June 30, 2022

Professional fee	
Audit	$ 67,500
Actuarial services	560,535
IT service	877,118
Legal services	136,706
Medical consulting	149,170
Other services	292,398
Total professional fees	$ 2,083,427

MAINEPERS

BOARD OF TRUSTEES INVESTMENTS MEMORANDUM

TO: BOARD MEMBERS

FROM: JAMES BENNETT, CHIEF INVESTMENT OFFICER

SUBJECT: **PRIVATE MARKETS ACTIONS**

DATE: OCTOBER 6, 2022

POLICY REFERENCE

Board Policy 2.1 – Investment Policy Statement

Board Policy 4.5 – Board/Staff Relations

Board Policy 4.6 – Communication and Support to the Board

The Investment Team will make two recommendations for Trustee consideration at the October 13th meeting:

Farallon Capital: The Investment Team recommends a commitment of up to $100 million to Farallon Capital, within the Risk Diversifiers allocation.

Audax Senior Loan: The Investment Team recommends that the System exit its investment in Audax's senior loan strategy, within the Alternative Credit allocation.

Investment Team and consultant recommendation memorandums follow this overview.

FARALLON CAPITAL INSTITUTIONAL PARTNERS (RISK DIVERSIFIERS)

Farallon Capital Management is a San Francisco-based investment management firm that was founded in 1986. The Firm manages approximately $37 billion in assets and has nearly 300 employees, including over 80 investment professionals, across six global offices. Farallon aims to deliver attractive risk-adjusted returns through a disciplined process of bottom-up fundamental securities analysis and a focus on capital preservation. The Firm's flagship fund, Farallon Capital Institutional Partners, is a multi-strategy fund that may invest in merger arbitrage, risk arbitrage, credit, long/short equity, and direct investments. As a multi-strategy manager, Farallon manages teams of investment specialists dedicated to each strategy and continuously allocates the Fund's capital across strategies based on what it believes are the most attractive risk-adjusted return opportunities.

The role of Risk Diversifiers in the overall portfolio is to "provide significant risk diversification benefits away from Growth Assets". An investment in Farallon Capital Institutional Partners is expected to provide these benefits, as the strategy's portfolio is constructed specifically to have low correlations with public equity and credit markets as well as exhibits low correlations to other investments within the Risk Diversifier allocation. Consistent with our target of a 7.5% Risk Diversifier allocation and portfolio construction plan, the Investment Team is recommending a commitment of up to $100 million to Farallon Capital Institutional Partners.

AUDAX SENIOR LOAN (ALTERNATIVE CREDIT)

Audax's Senior Loan strategy seeks to build portfolios of loans to medium-sized North American-based sponsor-backed companies. Since inception Audax has raised nearly $14 billion for this strategy across a variety of drawdown funds, evergreen funds, and SMAs. MainePERS' investment with Audax is structured as a separately managed account (SMA). MainePERS committed $100 million to this strategy in 2017 and the SMA was fully invested by the start of 2018.

MAINEPERS

BOARD OF TRUSTEES INVESTMENTS MEMORANDUM

TO: BOARD MEMBERS

FROM: JAMES BENNETT, CHIEF INVESTMENT OFFICER

SUBJECT: **PROXY VOTING DISCUSSION**

DATE: OCTOBER 6, 2022

As a reminder, Glass Lewis attended the July Trustee meeting to provide an update on the System's proxy voting during FY22. Questions arose during this discussion regarding the System's voting patterns compared to those of other public pension plans. This memo presents a high level comparison of the System's proxy voting relative to other plans, based on a Morningstar report released in August.

POLICY REFERENCE

Board Policy 2.1 – Investment Policy Statement

Board Policy 2.7 – Engagement

Board Policy 4.5 – Board/Staff Relations

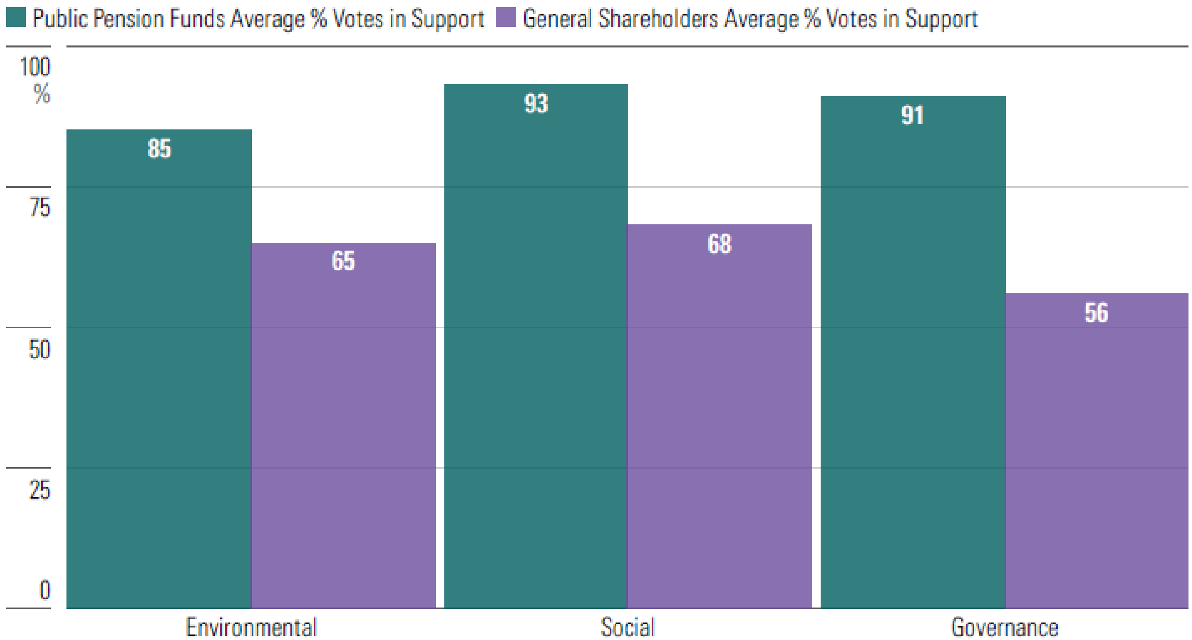
Board Policy 4.6 – Communication and Support to the Board

MORNINGSTAR PROXY VOTING REPORT

In August, Morningstar released a report that compared public pension plan's proxy votes across a set of "key ESG" proposals put forward by shareholders during the 2021 proxy season. They defined these as ESG-related shareholder proposals that received at least 40% support from independent shareholders. Several charts from this report are shown below, and the full report can be downloaded here.

One finding in the report is that public pensions are more likely to support ESG resolutions than shareholders in general:

Exhibit 3 Public Pension Funds Overwhelmingly Support Key ESG Resolutions Versus General Shareholders



Sources: Morningstar and state agencies.

The report is based on 29 funds, including MainePERS, that make their proxy voting records readily available. The below table shows how each of these funds voted in aggregate on these 72 ESG proposals:

Exhibit A3.1 Public Pension Funds' 2021 ESG Proxy-Voting Profiles

State	Name	2021 Assets ($ in Bil)	ESG Votes For	ESG Votes Against	ESG Votes % For	ESG Votes % Against
CA	California Public Employees' Retirement System	500.9	70	1	99%	1%
CA	California State Teachers' Retirement System	327.6	70	1	99%	1%
NY	New York State Common Retirement Fund	279.7	70	1	99%	1%
NY	New York City Retirement Systems	274.7	69	2	97%	3%
FL	Florida Retirement System	206.4	71	1	99%	1%
TX	Teacher Retirement System of Texas	204.0	67	2	97%	3%
WA	Washington State Investment Board	168.9	63	7	90%	10%
NY	New York State Teachers' Retirement System	151.4	61	8	88%	12%
WI	State of Wisconsin Investment Board	147.0	67	1	99%	1%
OH	Ohio Public Employees Retirement System	109.3	60	11	85%	15%
GA	Teachers Retirement System of Georgia	105.8	1	66	1%	99%
MA	Massachusetts Pension Reserves Investment Trust	104.0	67	1	99%	1%
NJ	New Jersey Division of Investment	99.3	63	0	100%	0%
OR	Oregon Public Employees	97.0	70	0	100%	0%
MN	Minnesota State Board of Investment	94.0	71	1	99%	1%
CA	University of California Retirement Plan	92.1	71	0	100%	0%
PA	Pennsylvania Public Schools	75.1	58	9	87%	13%
CO	Colorado Public Employees Retirement Association	72.6	68	4	94%	6%
MD	Maryland State Retirement	67.9	68	1	99%	1%
CT	Connecticut Retirement Plans and Trust Funds	44.6	63	0	100%	0%
TX	Employees Retirement System of Texas	35.4	45	8	85%	15%
NE	Nebraska Investment Council	20.8	61	10	86%	14%
ME	Maine Public Employees Retirement Fund	18.7	53	7	88%	12%
NM	New Mexico Educational Retirement Board	16.7	63	1	98%	2%
NH	New Hampshire Retirement System	11.9	64	1	98%	2%
RI	Employees Retirement System of Rhode Island	10.5	70	0	100%	0%
ND	North Dakota State Investment Board	7.5	39	3	93%	7%
VT	Vermont State Retirement System	5.5	57	0	100%	0%
OH	Ohio Public Pension X	--	22	44	33%	67%

Sources: Morningstar, FiveThirtyEight.com, and state agencies.

MainePERS is reported as voting against seven proposals and in favor of 53. The reported value of 53 is incorrect, and should be 56 – the report lists MainePERS as abstaining from 3 proposals for which we voted in favor of.

We will provide additional comments on this report at the meeting.

MAINEPERS

BOARD OF TRUSTEES INVESTMENTS MEMORANDUM

TO: BOARD MEMBERS

FROM: JAMES BENNETT, CHIEF INVESTMENT OFFICER

SUBJECT: **QUARTERLY REBALANCING ACTIVITY REPORT**

DATE: OCTOBER 6, 2022

This memo summarizes rebalancing activity undertaken through the third quarter of calendar year 2022.

POLICY REFERENCE

Board Policy 2.1 – Investment Policy Statement

Board Policy 4.5 – Board/Staff Relations

Board Policy 4.6 – Communication and Support to the Board

PUBLIC MARKETS REBALANCING

Rebalancing activity within the public markets portfolio during the third quarter shifted capital between asset classes to better reflect their new (as of May 2022) long-term policy weights of 5% for Traditional Credit and 10% for US Government.

	Asset Class			
Month	**Public Equity**	**Traditional Credit**	**US Government**	**Note**
January		-$78 Million		Raising Cash
February	-$100 Million	-$75 Million		Raising Cash
March	-$50 Million	-$50 Million		Raising Cash
June	$40 Million	-$80 Million	$40 Million	Rebalancing
July	$80 million	-$80 million	$80 million	Rebalancing
August	$155 million	-$140 million	$310 million	Rebalancing & Reinvesting Cash
September	-	-	-	No Activity

RISK DIVERSIFERS REBALANCING

At the July 14, 2022 Board meeting, the Trustees authorized the Investment Team to rebalance across existing managers and strategies within the System's Risk Diversifiers portfolio, consistent with the goal of maintaining diversification within the allocation. Three rebalancing actions within the Risk Diversifiers portfolio occurred during the third quarter of 2022 as described below.

1. ***Fort Global Contrarian Fund*** - Partial redemption of $75 million in July in order to rightsize the allocation within the Risk Diversifiers portfolio.

2. ***Bridgewater Pure Alpha Fund*** - Partial redemption of $50 million in July in order to rightsize the allocation within the Risk Diversifiers portfolio.

3. ***Bridgewater Pure Alpha Fund*** - Partial redemption of $75 million in July in order to rightsize the allocation within the Risk Diversifiers portfolio.

During the quarter, the System also redeemed one existing investment and funded a new strategy:

4. ***Windham Risk Regime*** - Full redemption of $163.4 million.

5. ***Hudson Bay Fund*** - New investment of $100 million.

MAINEPERS

BOARD OF TRUSTEES INVESTMENTS MEMORANDUM

TO: BOARD MEMBERS

FROM: JAMES BENNETT, CHIEF INVESTMENT OFFICER

SUBJECT: **INVESTMENT REVIEW**

DATE: OCTOBER 6, 2022

Following this memo is the Quarterly Rebalancing Report, material for a follow-up discussion on the System's proxy voting, and the Monthly Investment Review for September.

The Investment Review for this month includes several slides that provide a comparison of MainePERS versus other public pension plans along a few key attributes, including asset allocation. We have included these slides as information sharing to provide the Trustees with a high-level summary of the System's positioning relative to other public pension plans.

POLICY REFERENCE

Board Policy 2.1 – Investment Policy Statement

Board Policy 4.5 – Board/Staff Relations

Board Policy 4.6 – Communication and Support to the Board

MONTHLY INVESTMENT REVIEW: HIGHLIGHTS AND OBSERVATIONS

Preliminary Fund results for the month include:

- Month-end fund value of $17.8 billion.
- Monthly return of -2.9%.
- Fiscal and calendar year-to-date returns of -2.5% and -6.4%, respectively.

Investment Review
October 13, 2022

MainePERS
PUBLIC EMPLOYEES RETIREMENT SYSTEM

Investment Objective

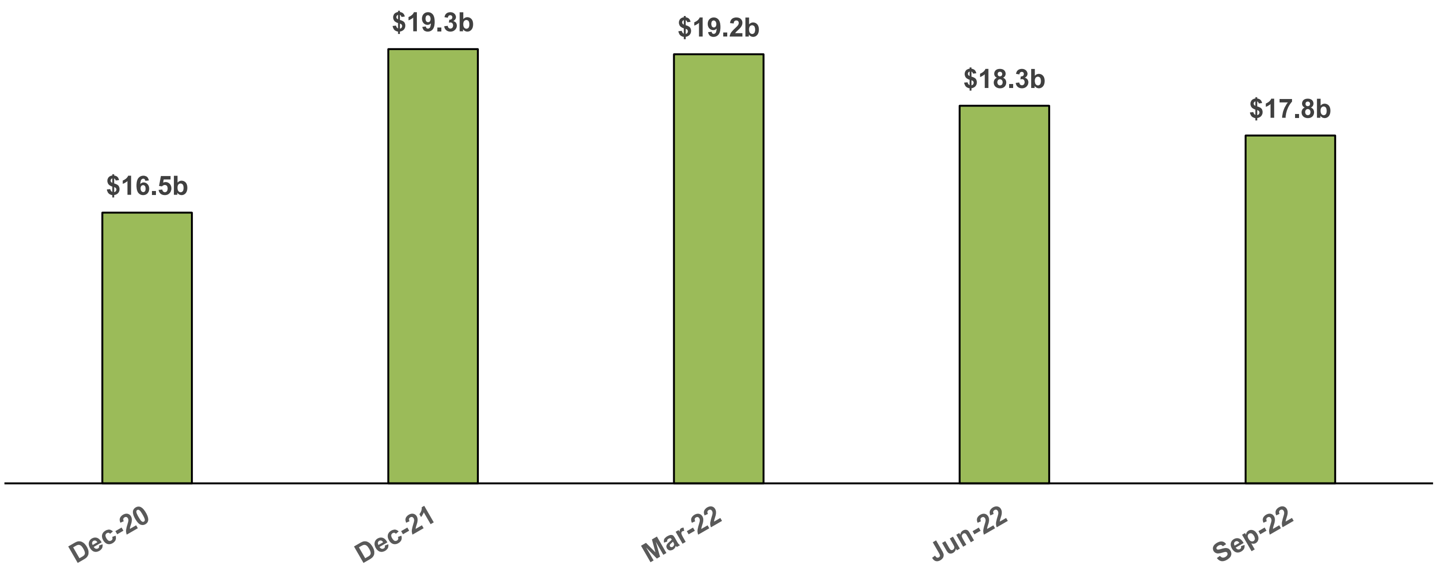
MainePERS' investment objectives balance the System's twin goals of generating investment returns (to ensure growth of the trust funds) and minimizing investment risks (loss of capital and cash flow shortfalls).

The Board recognizes and accepts that these goals are in opposition, and that a trade-off exists between expected risk and return. The Board balances these goals by seeking to optimize portfolio returns consistent with an established targeted portfolio risk level.

Additionally, by optimizing investment returns on trust assets, rather than attempting to maximize them, the Board seeks to maintain contribution rate and funding level volatility at acceptable levels that have been determined from time to time during strategic asset allocation planning and asset/liability reviews.

September 2022 Performance (Preliminary)

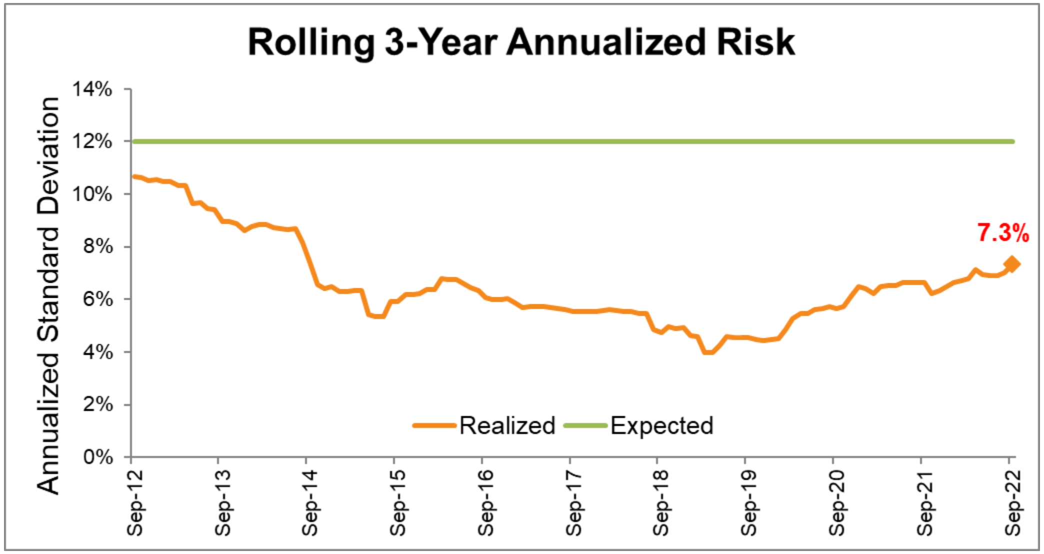
The preliminary fund value at the end of September is $17.8 billion.



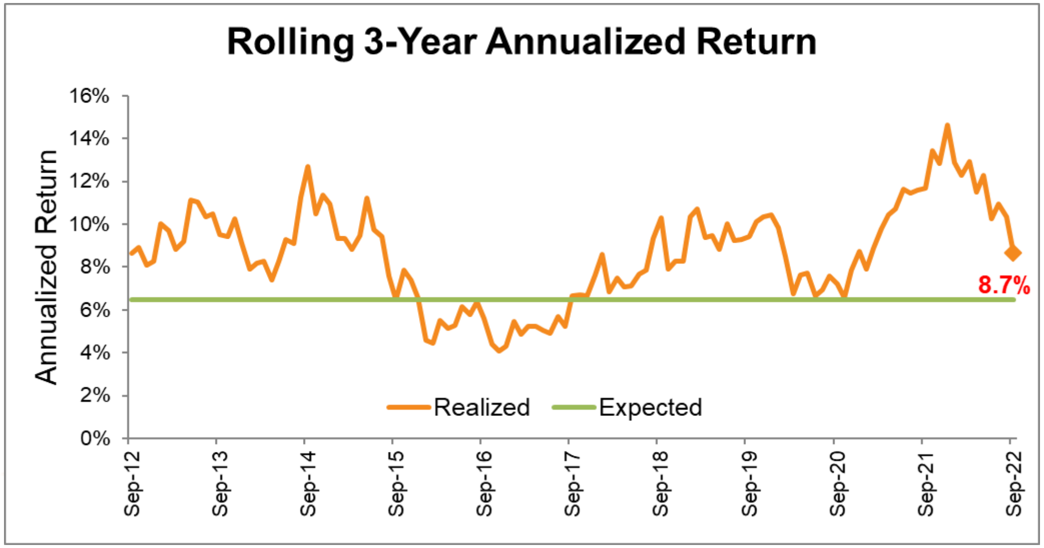
Fund and Benchmark Returns

	Sep-22	CYTD 2022	FYTD 2023
Total Fund	-2.9%	-6.4%	-2.5%
Russell 3000	-9.3%	-24.6%	-4.5%
MSCI ACWI ex-USA	-10.0%	-26.5%	-9.9%
Barclays Agg. Bond Index	-4.3%	-14.6%	-4.8%

Investment Objective Measurement: Risk and Return



Despite a volatile year-to-date in 2022, observed risk at the Fund level remains below targeted risk on a rolling 3-year annualized basis.



On a rolling 3-year annualized basis, investment returns continue to exceed expected values and the System's discount rate.

Note: Rolling 3-year return and standard deviation are calculated at each point in time based on returns over prior 36 months. All figures are annualized.

September 2022 Asset Allocation (Preliminary)

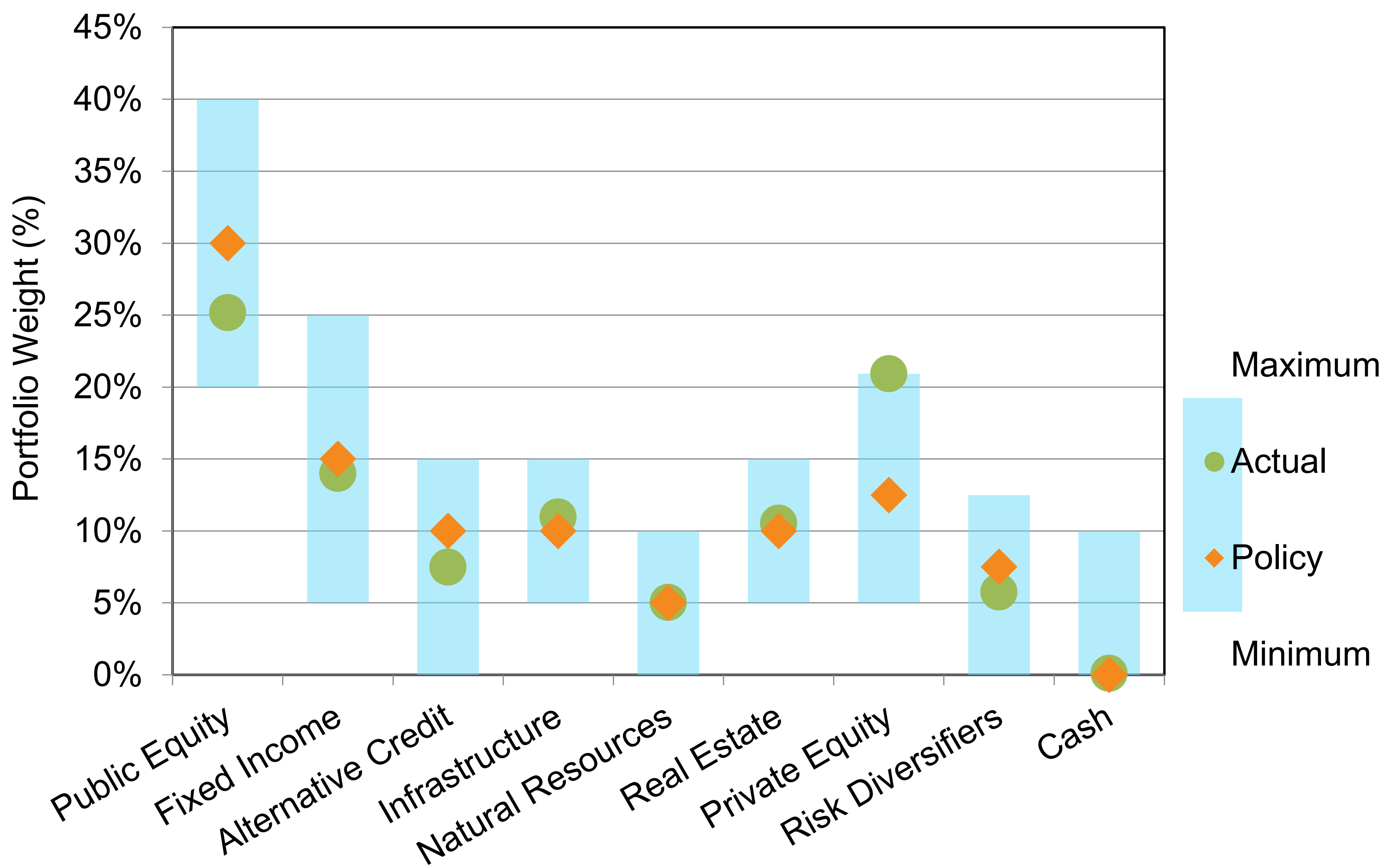
Assets (Millions)		Value	% of Fund	Policy %
MainePERS Portfolio	**$**	**17,831**	**100.0%**	**100.0%**
Domestic Equity	$	2,817	15.8%	18.6%
International Equity	$	1,673	9.4%	11.4%
Fixed Income	$	2,496	14.0%	15.0%
Alternative Credit	$	1,334	7.5%	10.0%
Infrastructure	$	1,956	11.0%	10.0%
Natural Resources	$	899	5.0%	5.0%
Private Equity	$	3,731	20.9%	12.5%
Real Estate	$	1,880	10.5%	10.0%
Risk Diversifiers	$	1,027	5.8%	7.5%
Cash	$	19	0.1%	0.0%

Portfolio weights for most asset classes remain near MainePERS Investment Policy asset allocation weights.

Private equity remains overweight at ~21% of Fund value, and private markets assets in aggregate comprise 55.0% of the overall portfolio, above the 47.5% policy weight.

* Total Public Equity policy weight is 30%, divided across U.S. and non-U.S. equities based on ACWI weights.

September 2022 Asset Allocation (Preliminary)

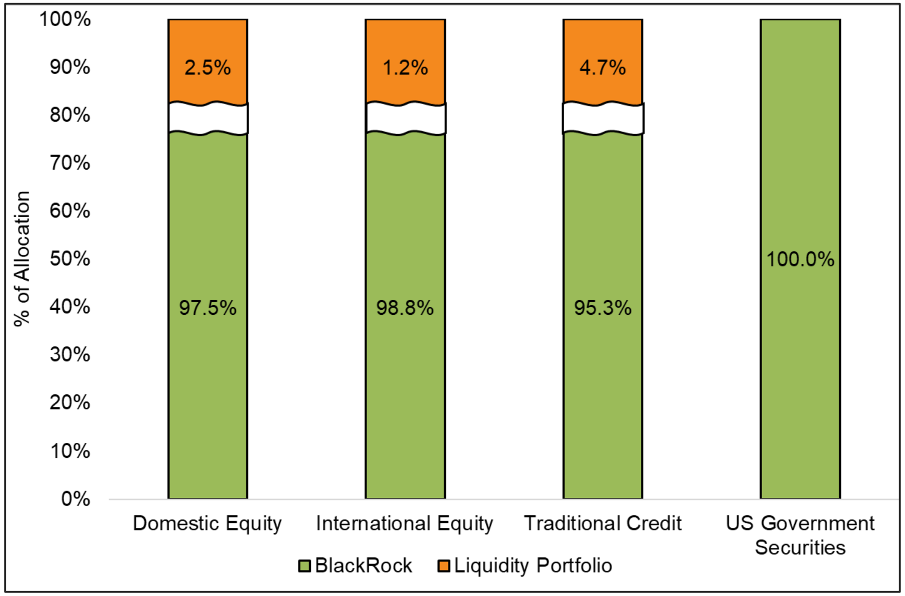


With the exception of private equity, all asset classes remain within their investment policy range. Private equity continues to exceed its upper policy bound by 1%.

Public Securities: Liquidity Portfolio

At the end of September, 0.7% of Fund assets were invested via ETFs and futures contracts in an account managed by Parametric Associates.

The Liquidity Portfolio accounts for 1.8% of MainePERS' total exposure to public securities.



MainePERS Liquidity Portfolio	Market Value (Millions)	Exposure Type
Parametric Domestic Equity	$70.3	Futures
Parametric International Equity	$19.3	Futures
Parametric Traditional Credit	$38.3	ETFs
Parametric US Government Securities	$0.0	Futures
Total Liquidity Portfolio	**$127.9**	

Derivatives and Leverage

MainePERS has **exposure to derivatives** in the following areas:

- Public Equities, Public Fixed Income, and Risk Diversifiers

MainePERS has **financial leverage** (borrowing and investing) in the following areas:

- BlackRock – Financial leverage in securities lending
- JP Morgan – Financial leverage in securities lending
- Alternative Credit
- Infrastructure
- Natural Resources
- Private Equity
- Real Estate

Investment Related Fees: September 2022

Description	FYTD 23	FY 22	FY 21	FY 20	FY 19
Investment Mgmt. Fees	$30,639,936	$119,200,558	$118,561,261	$124,480,394	$106,398,871
Securities Lending Fees [1]	197,685	1,744,317	1,653,172	2,239,396	2,226,826
Consulting Fees	280,000	1,120,000	1,120,000	1,120,000	1,120,000
Broker Commissions [2]	43,513	30,833	52,364	37,461	28,970
Placement Agent Fees	0	0	0	0	0
Total	**$31,161,134**	**$122,095,708**	**$121,386,797**	**$127,877,251**	**$109,774,667**
Percentage of Fund [3]	**0.70%**	**0.66%**	**0.67%**	**0.87%**	**0.74%**

1. Securities Lending Fees are through 8/31/2022
2. Actual paid commissions reported by JP Morgan
3. Annualized estimated total fees divided by the current fund value for FYTD 23. The prior years' calculations are actual fees divided by the June 30 market value of that year.

Securities Lending: August 2022

	Average Lendable Assets	Average Assets On Loan	Total Sec Lending Revenue	Revenue Split	MainePERS Net Income	MainePERS Net Income, FYTD
BlackRock						
Fixed Income	$2,008,868,441	$1,565,920,336	$139,746	60%/40%	$83,848	$160,552
Total Equity	$1,785,025,950	$214,907,715	$113,085	60%/40%	$76,371	$152,471
Total Blackrock	$3,793,894,391	$1,780,828,051	$252,831		$160,219	$313,023
JP Morgan						
Domestic Equities	$2,917,464,373	$140,381,789	$51,232	85%/15%	$43,553	$90,698
Total	**$6,711,358,764**	**$1,921,209,840**	**$304,063**		**$203,772**	**$403,721**

Total Annualized Securities Lending Income, FY 2023: $2,422,324 (0.01%, or 1.4 bps)

Total Actual Securities Lending Income, FY 2022: $3,118,726 (0.02%, or 1.7 bps)

Liquidity Schedule: September 2022

Term	Market Value	Percent of Portfolio
Liquid[1]	$7,007m	39.3%
Semi-Liquid[2]	$2,331m	13.1%
Illiquid[3]	$8,493m	47.6%
Total	**$17,831m**	**100.0%**

Sources and Uses of Liquidity

Private Markets Activity	Last 12 Months Actual	Next 12 Months Projection
Capital Contributions	-$1,708m	-$910m
Distributions	$1,894m	$1,745m
Net Private Markets Activity	**$186m**	**$835m**
Benefit Payments	**-$325m**	**-$420m**
Net Cash Flows	**-$139m**	**$415m**

[1]Liquid assets includes public equities and public fixed income
[2]Semi-liquid assets includes risk diversifiers, open-end real estate investments, and listed alternative credit funds
[3]Illiquid assets includes closed-end alternative credit, infrastructure, natural resources, private equity, and real estate funds

MainePERS Alternative Investments Summary

as of 09/30/2022	# of Funds	# of GP Relationships
Alternative Credit	22	13
Infrastructure	34	11
Natural Resources	15	10
Private Equity	120	33
Real Estate	34	19
Risk Diversifiers	9	7
Total*	**234**	**84**

*GP Total may not add due to overlapping relationships

Currently, MainePERS is invested in 234 funds, and has 84 distinct manager relationships.

MainePERS Alternative Investments Summary

(in $millions)	Current Market Value			Unfunded Commitment	
as of 09/30/2022	Dollars	% of Fund	Policy %*	Dollars	% of Fund
Alternative Credit	$ 1,334	7.5%	10.0%	$ 668	3.7%
Infrastructure	$ 1,956	11.0%	10.0%	$ 829	4.6%
Natural Resources	$ 899	5.0%	5.0%	$ 224	1.3%
Private Equity	$ 3,731	20.9%	12.5%	$ 1,238	6.9%
Real Estate	$ 1,880	10.5%	10.0%	$ 571	3.2%
Risk Diversifiers	$ 1,027	5.8%	7.5%	$ -	0.0%
Total Alternatives	**$ 10,827**	**60.7%**	**55.0%**	**$ 3,530**	**19.8%**

For more details please see Private Markets Investment Summary at http://www.mainepers.org/Investments/
*Investment Policy weights approved by the Board of Trustees effective May 2022

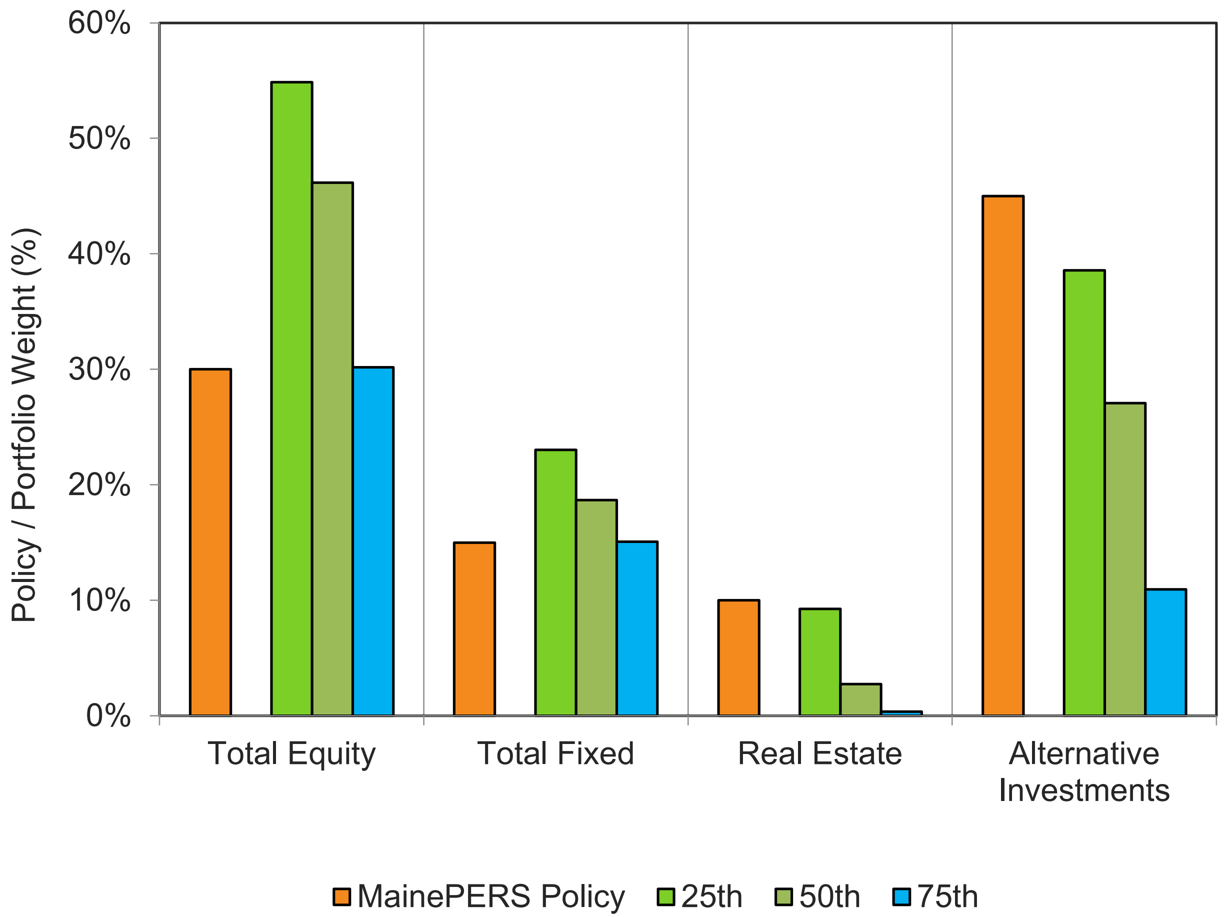
Note: Market values shown above are preliminary estimates. Private market asset values are based on 3/31/2022 values, adjusted for subsequent cash flows.

(in $millions)	Private Market Commitments by Vintage Year				3-Year
as of 09/30/2022	2019	2020	2021	2022	Average[1]
Alternative Credit	$ 200	$ 275	$ 410	$ 425	$ 295
Infrastructure	$ 350	$ 235	$ 180	$ 200	$ 255
Natural Resources	$ 175	$ -	$ -	$ 30	$ 58
Private Equity	$ 240	$ 276	$ 438	$ 218	$ 318
Real Estate	$ 230	$ 80	$ 285	$ 180	$ 198
Total Commitments	**$ 1,195**	**$ 866**	**$ 1,313**	**$ 1,053**	**$ 1,125**

[1]3-Year Average: 2019-2021

MainePERS
Asset Allocation Comparison

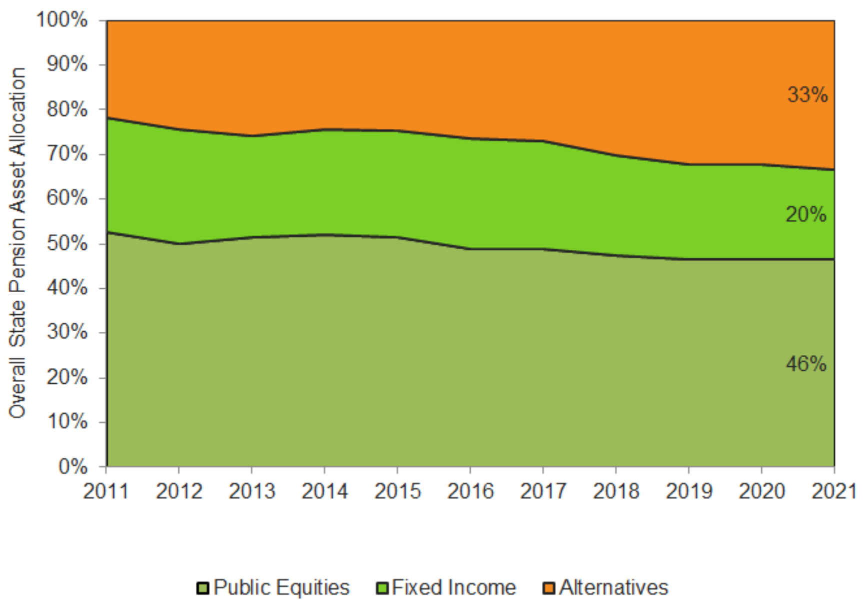
Asset Allocation: MainePERS vs Public Plan Universe



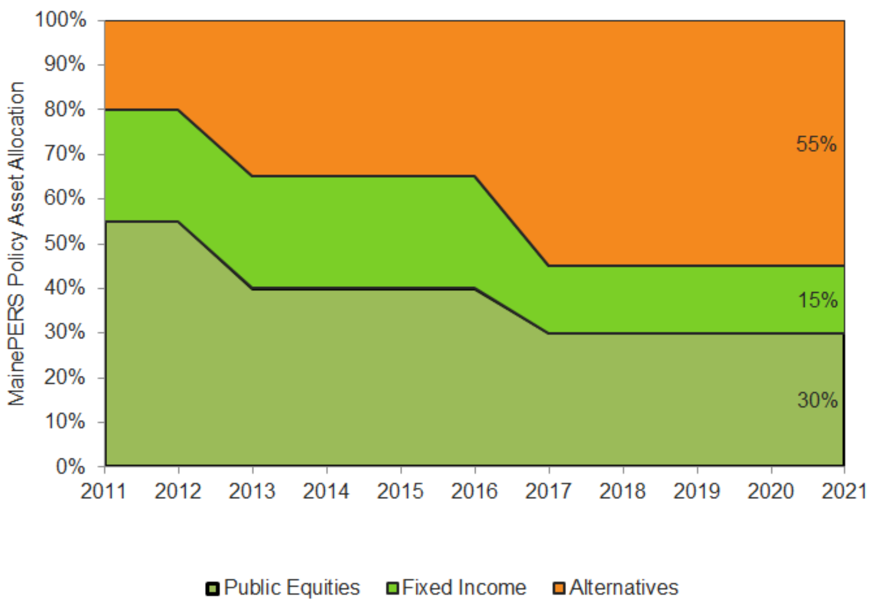
Source: Wilshire TUCS Report as of June 30, 2022. The Wilshire Trust Universe Comparison Service ("TUCS") includes ~45 Public Pension Plans with total assets greater than $5 billion.

Evolution of State Pension Plan Asset Allocations

Overall State Pension Allocations



MainePERS Policy Allocation



State pension plans have gradually shifted their asset allocations to include a higher weight to alternatives in the years following the global financial crisis.

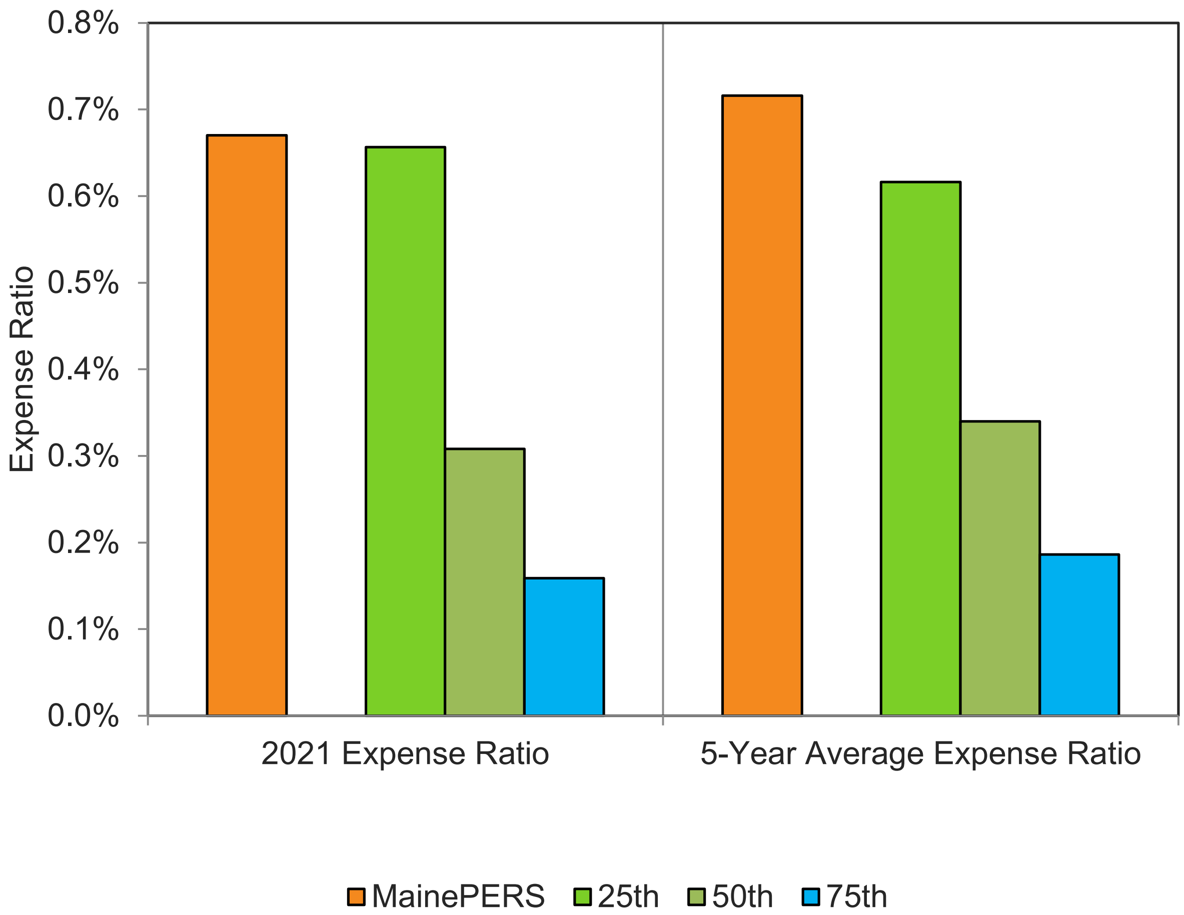
Overall state pension plan allocations to alternatives increased from 10% of total assets in 2006 to 33% by 2021. The increase in alternatives has mostly come from public equities, which fell from 61% in 2006 to 46% in 2021.

Notes

Source: Cliffwater; MainePERS Annual Comprehensive Financial Reports

Overall State Pension Asset Allocation is “asset weighted”, meaning individual state pension values are weighted by pension assets. For example, CalPERS is the largest state pension plan in the data set, with a 13% asset weighting.

Expense Ratios: MainePERS vs Public Plan Universe



Source: Public Plans Data as of 2021; website accessed 9/30/2022
Data set is comprised of 53 public pension plans that provided expense and market value data for the 5-years ended in 2021.

Public Pension Plan Returns

Annualized Returns as of June 30, 2022

Source: Wilshire TUCS Report as of June 30, 2022. The Wilshire Trust Universe Comparison Service ("TUCS") includes ~45 Public Pension Plans with total assets greater than $5 billion.

MainePERS Private Market Investments Summary: 06/30/2022

Asset Class Summary	Commitment (A)	Amount Contributed (B)	Total Distributions (C)	Current Market Value (D)	Total Value (C+D)	Interim Net IRR
Alternative Credit	$ 1,967,790	$ 1,428,081	$ 486,077	$ 1,148,035	$ 1,634,112	6.7%
Infrastructure	$ 3,259,920	$ 3,091,295	$ 2,456,026	$ 2,022,936	$ 4,478,963	11.6%
Natural Resources	$ 1,015,500	$ 1,047,549	$ 409,042	$ 912,541	$ 1,321,584	6.5%
Private Equity	$ 4,820,149	$ 4,383,544	$ 3,609,177	$ 3,643,086	$ 7,252,262	17.4%
Real Estate	$ 2,742,564	$ 2,433,613	$ 1,766,485	$ 1,906,030	$ 3,672,515	7.9%
Total	$ 13,805,923	$ 12,384,082	$ 8,726,808	$ 9,632,628	$ 18,359,436	11.3%

Note: This Asset Class Summary table includes all private market investments: both fund investments and co-investments.

Co-Investment Summary	Commitment (A)	# of Co-Investments	Amount Contributed (B)	Total Distributions (C)	Current Market Value (D)	Total Value (C+D)	Interim Net IRR
Alternative Credit Co-Investments	$ 178,700	29	$ 185,738	$ 60,427	$ 143,078	$ 203,505	8.2%
Infrastructure Co-Investments	$ 207,250	10	$ 204,513	$ 187,740	$ 148,159	$ 335,899	13.5%
Natural Resources Co-Investments	$ 32,500	2	$ 31,142	$ -	$ 42,133	$ 42,133	10.9%
Private Equity Co-Investments	$ 370,496	30	$ 352,577	$ 308,610	$ 264,532	$ 573,142	16.2%
Real Estate Co-Investments	$ 66,500	5	$ 57,317	$ 4,791	$ 56,798	$ 61,588	3.8%
Total	$ 855,446	76	$ 831,288	$ 561,567	$ 654,699	$ 1,216,266	15.1%

Note: This table contains values for the co-investment portion of the private market portfolio.

(all dollar amounts in thousands) Page 1

MainePERS Private Market Investments Summary: 06/30/2022

Alternative Credit

Fund Name	Commitment (A)	Date of Commitment	Amount Contributed (B)	Total Distributions (C)	Current Market Value (D)	Total Value (C+D)	Interim Net IRR
Angelo Gordon Direct Lending Fund II	$ 25,000	3/31/2020	$ 23,749	$ 17,612	$ 14,189	$ 31,801	20.0%
Angelo Gordon Direct Lending Fund III	$ 100,000	7/20/2018	$ 100,633	$ 57,553	$ 74,045	$ 131,598	10.9%
Participation Agreement #1	$ 7,500	10/11/2019	$ 7,463	$ 1,314	$ 7,279	$ 8,593	7.7%
Participation Agreement #2	$ 5,000	10/11/2019	$ 4,994	$ 5,422	$ -	$ 5,422	8.8%
Participation Agreement #3	$ 5,000	10/11/2019	$ 5,000	$ 5,700	$ -	$ 5,700	7.3%
Participation Agreement #4	$ 7,500	10/18/2019	$ 7,488	$ 1,437	$ 7,208	$ 8,645	8.0%
Participation Agreement #5	$ 5,000	12/6/2019	$ 5,000	$ 1,696	$ 4,323	$ 6,019	8.8%
Participation Agreement #6	$ 10,000	12/6/2019	$ 9,991	$ 1,234	$ 9,810	$ 11,044	8.4%
Participation Agreement #7	$ 5,000	12/11/2019	$ 5,000	$ 1,167	$ 4,666	$ 5,833	6.9%
Participation Agreement #8	$ 5,000	8/13/2020	$ 4,914	$ 716	$ 4,818	$ 5,534	NM
Participation Agreement #9	$ 7,500	4/9/2021	$ 7,425	$ 623	$ 7,396	$ 8,019	NM
Participation Agreement #10	$ 5,000	4/20/2021	$ 5,007	$ 655	$ 4,772	$ 5,427	NM
Participation Agreement #11	$ 5,000	5/5/2021	$ 5,000	$ 489	$ 4,886	$ 5,375	NM
Angelo Gordon Direct Lending Fund IV	$ 100,000	1/24/2020	$ 75,000	$ 5,073	$ 81,927	$ 87,000	12.4%
Participation Agreement #1	$ 5,000	10/23/2020	$ 4,913	$ 1,089	$ 4,406	$ 5,495	NM
Participation Agreement #2	$ 12,500	8/17/2021	$ 12,295	$ 483	$ 12,335	$ 12,818	NM
Participation Agreement #3	$ 7,500	10/5/2021	$ 7,500	$ 7,913	$ -	$ 7,913	NM
Participation Agreement #4	$ 5,000	12/21/2021	$ 4,925	$ 216	$ 4,915	$ 5,131	NM
Participation Agreement #5	$ 5,000	12/21/2021	$ 4,925	$ 176	$ 4,916	$ 5,092	NM
Participation Agreement #6	$ 5,000	1/12/2022	$ 4,925	$ 170	$ 4,904	$ 5,074	NM
Participation Agreement #7	$ 7,500	1/12/2022	$ 7,388	$ 284	$ 7,338	$ 7,622	NM
Participation Agreement #8	$ 12,500	6/16/2022	$ 12,406	$ 63	$ 12,313	$ 12,376	NM
Angelo Gordon Direct Lending Fund IV Annex	$ 50,000	11/18/2021	$ 20,000	$ -	$ 20,587	$ 20,587	NM
Ares Capital Europe IV	$ 122,000	4/30/2018	$ 97,001	$ 19,457	$ 85,434	$ 104,891	3.2%
Ares Capital Europe V	$ 122,000	9/4/2020	$ 56,812	$ 1,054	$ 54,451	$ 55,505	NM
Ares Senior Direct Lending Fund II	$ 100,000	12/10/2021	$ 25,327	$ 795	$ 26,224	$ 27,019	NM
Audax Senior Debt (MP), LLC	$ 100,000	6/30/2017	$ 100,000	$ -	$ 122,648	$ 122,648	4.6%
Comvest Credit Partners VI	$ 125,000	5/20/2022	$ 6,250	$ -	$ 6,286	$ 6,286	NM
Deerpath Capital VI	$ 75,000	9/30/2021	$ 54,590	$ 1,384	$ 55,526	$ 56,910	NM
Global Infrastructure Partners Spectrum	$ 100,000	2/20/2019	$ 49,936	$ 17,491	$ 35,331	$ 52,822	NM
Mesa West Core Lending Fund	$ 100,000	6/18/2013	$ 118,530	$ 52,973	$ 119,555	$ 172,528	6.5%
Owl Rock Capital Corporation	$ 100,000	3/10/2017	$ 100,000	$ 22,638	$ 94,958	$ 117,596	4.5%
Participation Agreement #1	$ 5,000	5/7/2018	$ 4,851	$ 5,499	$ -	$ 5,499	12.7%

(all dollar amounts in thousands)

MainePERS Private Market Investments Summary: 06/30/2022

Alternative Credit

Fund Name	Commitment (A)	Date of Commitment	Amount Contributed (B)	Total Distributions (C)	Current Market Value (D)	Total Value (C+D)	Interim Net IRR
Participation Agreement #2	$ 6,185	7/31/2018	$ 6,196	$ 7,745	$ -	$ 7,745	9.9%
Participation Agreement #3	$ 5,000	8/7/2018	$ 4,938	$ 5,634	$ -	$ 5,634	7.9%
Participation Agreement #4	$ 5,000	8/20/2018	$ 4,566	$ 5,835	$ -	$ 5,835	8.1%
Participation Agreement #5	$ 5,000	12/21/2018	$ 4,827	$ 1,382	$ 4,511	$ 5,894	6.8%
Participation Agreement #6	$ 7,500	8/7/2020	$ 8,905	$ 2,783	$ 7,373	$ 10,156	NM
Participation Agreement #7	$ 7,500	7/26/2021	$ 6,565	$ 512	$ 6,567	$ 7,079	NM
Participation Agreement #8	$ 12,500	6/17/2022	$ 3,536	$ -	$ 3,571	$ 3,571	NM
Owl Rock Capital Corporation III	$ 100,000	6/19/2020	$ 107,089	$ 7,089	$ 105,724	$ 112,813	5.4%
Pathlight Capital Fund II	$ 75,000	4/22/2021	$ 98,876	$ 40,771	$ 62,212	$ 102,983	NM
Participation Agreement #1	$ 7,500	4/1/2022	$ 7,368	$ 146	$ 7,336	$ 7,482	NM
Participation Agreement #2	$ 7,500	4/1/2022	$ 7,429	$ 43	$ 7,433	$ 7,477	NM
Pathlight Capital Fund III	$ 75,000	6/24/2022	$ -	$ -	$ -	$ -	NM
Solar Capital Private Corporate Lending Fund	$ 50,000	6/26/2019	$ 35,139	$ 3,643	$ 37,165	$ 40,808	15.0%
Solar Capital Debt Fund	$ 50,000	6/26/2019	$ 14,706	$ 612	$ 16,225	$ 16,837	NM
Silver Point Specialty Credit II	$ 50,000	1/31/2020	$ 57,821	$ 21,181	$ 39,694	$ 60,875	7.5%
Tennenbaum Direct Lending VIII	$ 100,000	11/30/2017	$ 100,883	$ 73,413	$ 47,733	$ 121,146	6.4%

(all dollar amounts in thousands)

MainePERS Private Market Investments Summary: 06/30/2022

Infrastructure

Fund Name	Commitment (A)	Date of Commitment	Amount Contributed (B)	Total Distributions (C)	Current Market Value (D)	Total Value (C+D)	Interim Net IRR
Alinda Infrastructure Fund II	$ 50,000	9/17/2009	$ 67,889	$ 64,449	$ 10,026	$ 74,475	2.1%
ArcLight Energy V	$ 75,000	10/28/2011	$ 76,031	$ 95,561	$ 7,982	$ 103,543	8.0%
Shore Co-Investment Holdings II	$ 20,000	1/30/2014	$ 17,709	$ 19,737	$ -	$ 19,737	8.4%
ArcLight Energy VI	$ 150,000	11/25/2014	$ 159,687	$ 86,490	$ 90,890	$ 177,380	2.8%
Great River Hydro Partners	$ 12,000	6/17/2017	$ 10,718	$ 8,639	$ 18,548	$ 27,187	30.0%
Brookfield Infrastructure Fund II	$ 100,000	6/28/2013	$ 115,841	$ 99,990	$ 87,913	$ 187,903	9.9%
Brookfield Infrastructure Fund III	$ 100,000	4/15/2016	$ 96,327	$ 44,079	$ 93,297	$ 137,376	11.8%
Co-Investment #1	$ 20,000	3/31/2017	$ 15,945	$ 17,596	$ 14,492	$ 32,088	26.2%
Carlyle Global Infrastructure Opportunity Fund	$ 100,000	5/1/2019	$ 76,949	$ 4,662	$ 79,871	$ 84,533	9.4%
Carlyle Infrastructure Partners	$ 50,000	11/2/2007	$ 57,366	$ 64,289	$ 387	$ 64,676	2.5%
Carlyle Power Partners II	$ 50,000	11/19/2015	$ 61,769	$ 29,038	$ 50,366	$ 79,403	8.9%
Cube Infrastructure	$ 45,000	4/16/2010	$ 60,063	$ 96,104	$ 1,068	$ 97,172	8.0%
Cube Infrastructure II	$ 90,000	9/11/2018	$ 73,467	$ 3,927	$ 75,646	$ 79,573	3.3%
Cube Infrastructure III	$ 90,000	8/16/2021	$ 17,597	$ -	$ 15,493	$ 15,493	NM
EQT Infrastructure III	$ 68,000	12/3/2016	$ 93,718	$ 127,290	$ 37,705	$ 164,995	21.4%
EQT Infrastructure IV	$ 100,000	12/17/2018	$ 88,063	$ 16,802	$ 94,460	$ 111,262	13.6%
EQT Infrastructure V	$ 75,000	12/8/2020	$ 37,251	$ 3,311	$ 30,971	$ 34,281	NM
First Reserve Energy Infrastructure Fund	$ 50,000	6/30/2010	$ 59,716	$ 51,704	$ 5,545	$ 57,249	-1.2%
First Reserve Energy Infrastructure Fund II	$ 100,000	10/21/2013	$ 125,740	$ 121,842	$ 38,964	$ 160,806	15.7%
Global Infrastructure Partners Sonic	$ 30,000	7/31/2020	$ 31,578	$ -	$ 24,437	$ 24,437	NM
Global Infrastructure Partners	$ 75,000	3/31/2008	$ 101,173	$ 205,062	$ 709	$ 205,771	17.2%
Global Infrastructure Partners II	$ 75,000	12/3/2011	$ 104,709	$ 143,427	$ 36,071	$ 179,498	16.1%
Global Infrastructure Partners III	$ 150,000	4/15/2016	$ 166,753	$ 63,713	$ 170,801	$ 234,513	11.2%
Co-Investment #1	$ 29,000	2/28/2017	$ 27,420	$ 15,870	$ 33,439	$ 49,309	15.2%
Co-Investment #2	$ 25,000	8/16/2018	$ 26,645	$ 2,489	$ 12,703	$ 15,192	-15.5%
Global Infrastructure Partners IV	$ 150,000	12/21/2018	$ 88,243	$ 8,385	$ 81,142	$ 89,527	2.0%
IFM Global Infrastructure (US), L.P.	$ 100,000	12/20/2012	$ 144,550	$ 208,040	$ -	$ 208,040	9.8%
KKR Diversified Core Infrastructure Fund	$ 100,000	4/29/2022	$ -	$ -	$ -	$ -	NM

(all dollar amounts in thousands)

MainePERS Private Market Investments Summary: 06/30/2022

Infrastructure

Fund Name	Commitment (A)	Date of Commitment	Amount Contributed (B)	Total Distributions (C)	Current Market Value (D)	Total Value (C+D)	Interim Net IRR
KKR Global Infrastructure Investors	$ 75,000	9/29/2010	$ 87,917	$ 154,068	$ 22	$ 154,089	13.1%
KKR Global Infrastructure Investors II	$ 150,000	10/24/2014	$ 182,659	$ 218,162	$ 85,418	$ 303,580	16.9%
KKR Atlanta Co-Invest	$ 24,000	9/26/2014	$ 21,428	$ 28,551	$ -	$ 28,551	5.7%
KKR Taurus Co-Invest II	$ 25,000	8/15/2017	$ 25,000	$ 34,190	$ 22,514	$ 56,704	21.9%
KKR Byzantium Infrastructure Aggregator	$ 15,000	10/17/2017	$ 15,000	$ 7,013	$ 9,737	$ 16,750	3.3%
KKR Global Infrastructure Investors III	$ 100,000	3/29/2018	$ 82,876	$ 17,277	$ 76,730	$ 94,007	8.0%
Meridiam Infrastructure (SCA)	$ 11,000	9/23/2015	$ 21,938	$ 9,271	$ 25,895	$ 35,166	8.5%
Meridiam Infrastructure Europe II (SCA)	$ 22,500	9/23/2015	$ 27,380	$ 13,797	$ 33,855	$ 47,652	11.6%
Meridiam Infrastructure Europe III SLP	$ 95,000	4/27/2016	$ 69,465	$ 13,144	$ 47,839	$ 60,983	-6.3%
Meridiam Sustainable Infrastructure Europe IV	$ 90,000	4/16/2021	$ 9,952	$ 4	$ 7,667	$ 7,670	NM
Meridiam Infrastructure N.A. II	$ 75,000	9/28/2012	$ 88,232	$ 31,084	$ 172,025	$ 203,109	18.7%
MINA II CIP	$ 175	6/30/2015	$ 169	$ 29	$ 19,399	$ 19,428	138.3%
Meridiam Infrastructure N.A. II	$ 20,000	6/30/2015	$ 18,870	$ 4,342	$ 44,076	$ 48,418	27.0%
Meridiam Infrastructure N.A. III	$ 50,000	7/12/2017	$ 13,887	$ 1	$ 21,779	$ 21,780	NM
Stonepeak Infrastructure Partners II	$ 140,000	11/12/2015	$ 188,331	$ 223,546	$ 46,284	$ 269,830	13.8%
Stonepeak Claremont Co-Invest	$ 25,000	5/30/2017	$ 25,000	$ 51,938	$ 15	$ 51,953	17.8%
Stonepeak Spear (Co-Invest) Holdings	$ 25,000	1/8/2018	$ 19,648	$ 1,717	$ 36,710	$ 38,427	17.0%
Stonepeak Infrastructure Partners III	$ 150,000	10/13/2017	$ 143,150	$ 39,705	$ 183,810	$ 223,515	21.6%
Stonepeak Infrastructure Partners IV	$ 125,000	5/8/2020	$ 46,994	$ 5,582	$ 44,065	$ 49,647	NM

(all dollar amounts in thousands)

MainePERS Private Market Investments Summary: 06/30/2022

Natural Resources

Fund Name	Commitment (A)	Date of Commitment	Amount Contributed (B)	Total Distributions (C)	Current Market Value (D)	Total Value (C+D)	Interim Net IRR
ACM Permanent Crops	$ 35,000	10/24/2014	$ 39,100	$ 10,375	$ 60,516	$ 70,890	10.8%
ACM Permanent Crops II	$ 35,000	5/12/2016	$ 41,072	$ 8,885	$ 23,769	$ 32,654	-7.9%
AMERRA Agri Fund III	$ 50,000	2/11/2016	$ 96,188	$ 67,504	$ 32,564	$ 100,068	1.7%
Denham Mining Fund	$ 35,000	6/29/2018	$ 26,701	$ -	$ 38,728	$ 38,728	17.0%
Homestead Capital Farmland II	$ 50,000	8/8/2016	$ 54,272	$ 9,540	$ 53,369	$ 62,909	4.9%
Homestead Capital Farmland III	$ 30,000	10/26/2018	$ 19,862	$ 2,014	$ 19,344	$ 21,358	6.9%
Orion Mine Finance Fund II	$ 50,000	5/25/2016	$ 100,749	$ 74,178	$ 45,489	$ 119,667	8.9%
Orion Mine Finance Co-Fund II	$ 20,000	8/13/2018	$ 20,085	$ -	$ 32,934	$ 32,934	14.3%
Silver Creek Aggregate Reserves Fund	$ 100,000	11/6/2018	$ 15,166	$ 1,774	$ 16,721	$ 18,496	NM
Taurus Mining Fund	$ 50,000	3/27/2015	$ 41,459	$ 45,135	$ 4,406	$ 49,540	7.3%
Taurus Mining Fund Annex	$ 23,000	12/1/2016	$ 18,298	$ 22,993	$ 1,135	$ 24,128	17.9%
Taurus Mining Fund No. 2	$ 75,000	4/18/2019	$ 55,593	$ 42,630	$ 24,695	$ 67,325	25.0%
Teays River Integrated Agriculture	$ 200,000	7/1/2015	$ 198,989	$ 28,770	$ 344,882	$ 373,652	10.0%
Twin Creeks Timber	$ 125,000	1/7/2016	$ 198,940	$ 83,680	$ 125,271	$ 208,951	1.5%
U.S. Farming Realty Trust III	$ 100,000	7/7/2015	$ 110,017	$ 11,565	$ 79,520	$ 91,086	-4.6%
Canally Coinvest Holdings	$ 12,500	12/9/2019	$ 11,057	$ -	$ 9,199	$ 9,199	-13.8%

(all dollar amounts in thousands)

MainePERS Private Market Investments Summary: 06/30/2022

Private Equity

Fund Name	Commitment (A)	Date of Commitment	Amount Contributed (B)	Total Distributions (C)	Current Market Value (D)	Total Value (C+D)	Interim Net IRR
ABRY Advanced Securities Fund II	$ 20,000	5/4/2011	$ 20,530	$ 29,628	$ 521	$ 30,149	13.2%
ABRY Advanced Securities Fund III	$ 30,000	4/30/2014	$ 44,186	$ 19,942	$ 22,371	$ 42,313	-1.5%
ABRY Heritage Partners	$ 10,000	5/31/2016	$ 10,696	$ 10,879	$ 6,700	$ 17,579	27.0%
ABRY Partners VII	$ 10,000	4/29/2011	$ 12,930	$ 17,259	$ 2,461	$ 19,719	12.6%
ABRY Partners VIII	$ 20,000	8/8/2014	$ 23,751	$ 29,422	$ 3,854	$ 33,276	10.3%
ABRY Senior Equity IV	$ 10,000	12/7/2012	$ 10,819	$ 16,620	$ 1,686	$ 18,305	15.2%
ABRY Senior Equity V	$ 12,050	1/19/2017	$ 12,560	$ 3,933	$ 14,102	$ 18,035	18.6%
Advent International GPE VII	$ 30,000	6/29/2012	$ 34,511	$ 52,335	$ 6,187	$ 58,522	13.8%
Advent International GPE VIII	$ 50,000	2/5/2016	$ 55,594	$ 42,125	$ 59,814	$ 101,938	19.6%
Advent International GPE IX	$ 50,000	5/9/2019	$ 34,629	$ 3,998	$ 60,802	$ 64,800	49.0%
GPE IX TKE Co-Investment	$ 24,000	3/30/2020	$ 21,243	$ -	$ 21,110	$ 21,110	-0.3%
Advent International GPE X	$ 45,000	4/28/2022	$ -	$ -	$ -	$ -	NM
Advent Latin America PE Fund VI	$ 20,000	10/17/2014	$ 19,516	$ 10,750	$ 21,210	$ 31,960	16.4%
Affinity Asia Pacific Fund IV	$ 60,000	2/28/2013	$ 64,277	$ 68,021	$ 30,607	$ 98,628	14.5%
Affinity Asia Pacific Fund V	$ 40,000	12/11/2017	$ 16,134	$ 3,777	$ 17,092	$ 20,869	NM
Bain Capital Ventures 2021	$ 25,000	10/28/2020	$ 14,125	$ 1	$ 16,981	$ 16,982	NM
Bain Capital Ventures 2022	$ 25,000	6/10/2022	$ -	$ -	$ -	$ -	NM
Bain Capital Venture Coinvestment Fund III	$ 15,000	4/1/2021	$ 11,775	$ -	$ 14,143	$ 14,143	NM
Bain Capital Venture Coinvestment Fund IV	$ 15,000	6/10/2022	$ -	$ -	$ -	$ -	NM
Berkshire Fund VIII	$ 15,000	7/20/2011	$ 16,795	$ 24,989	$ 11,603	$ 36,593	17.4%
Berkshire Fund IX	$ 50,000	3/18/2016	$ 53,980	$ 24,021	$ 63,318	$ 87,339	19.6%
Blackstone Capital Partners VI	$ 30,000	6/30/2010	$ 37,416	$ 48,703	$ 12,463	$ 61,166	12.2%
Blackstone Capital Partners VII	$ 54,000	3/27/2015	$ 59,239	$ 29,960	$ 59,610	$ 89,570	15.6%
Carlyle Asia Partners III	$ 15,000	12/31/2009	$ 20,408	$ 29,734	$ 1,038	$ 30,772	12.5%
Carlyle Asia Partners IV	$ 60,000	6/3/2014	$ 77,167	$ 84,420	$ 35,232	$ 119,652	12.5%
Carlyle Asia Partners V	$ 45,000	10/30/2017	$ 29,741	$ 9,074	$ 26,375	$ 35,449	15.1%
Centerbridge Capital Partners III	$ 30,000	10/24/2014	$ 46,787	$ 41,510	$ 31,113	$ 72,624	19.8%
CB Blizzard Co-Invest	$ 10,000	9/11/2019	$ 15,684	$ 10,053	$ 1,592	$ 11,645	-39.4%
Charterhouse Capital Partners VIII	$ 13,500	1/6/2011	$ 11,188	$ 14,160	$ -	$ 14,160	7.9%

(all dollar amounts in thousands)

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Private Equity

Fund Name	Commitment (A)	Date of Commitment	Amount Contributed (B)	Total Distributions (C)	Current Market Value (D)	Total Value (C+D)	Interim Net IRR
Charterhouse Capital Partners IX	$ 4,500	1/6/2011	$ 5,373	$ 7,091	$ 127	$ 7,218	11.9%
Charterhouse Capital Partners X	$ 67,000	5/13/2015	$ 53,928	$ 40,175	$ 50,828	$ 91,003	20.2%
Charterhouse Acrostone	$ 12,000	8/24/2018	$ 13,254	$ 21,268	$ 9	$ 21,277	16.9%
Charterhouse Capital Partners XI	$ 45,000	4/23/2021	$ 0	$ -	$ (538)	$ (538)	NM
CVC Capital Partners VI	$ 67,000	7/12/2013	$ 94,227	$ 84,573	$ 84,251	$ 168,824	18.1%
CVC Capital Partners VII	$ 48,000	5/9/2017	$ 68,811	$ 32,011	$ 63,272	$ 95,283	25.9%
CVC Capital Partners VIII	$ 44,000	6/11/2020	$ 22,946	$ 14,073	$ 9,626	$ 23,699	16.2%
EnCap Energy Capital VIII	$ 30,000	1/31/2011	$ 34,181	$ 21,445	$ 13,446	$ 34,891	0.5%
EnCap Energy Capital Fund VIII Co-Investors, L.P.	$ 16,238	12/8/2011	$ 16,495	$ 5,144	$ 7,199	$ 12,342	-4.4%
EnCap Energy Capital Fund IX	$ 30,000	12/19/2012	$ 34,502	$ 33,735	$ 14,429	$ 48,164	10.0%
EnCap Energy Capital Fund X	$ 40,000	3/5/2015	$ 41,240	$ 30,173	$ 45,204	$ 75,377	16.7%
EnCap Energy Capital Fund XI	$ 40,000	5/31/2017	$ 32,160	$ 7,441	$ 36,489	$ 43,930	18.8%
EnCap Flatrock Midstream Fund III	$ 20,000	4/9/2014	$ 25,034	$ 16,752	$ 14,234	$ 30,986	8.4%
EnCap Flatrock Midstream Fund IV	$ 22,000	11/17/2017	$ 13,650	$ 7,094	$ 8,965	$ 16,059	8.0%
General Catalyst X - Early Venture	$ 19,565	3/26/2020	$ 18,391	$ -	$ 38,346	$ 38,346	69.9%
General Catalyst X - Endurance	$ 22,826	3/26/2020	$ 22,859	$ -	$ 25,986	$ 25,986	9.8%
General Catalyst X - Growth Venture	$ 32,609	3/26/2020	$ 30,815	$ -	$ 50,224	$ 50,224	39.8%
General Catalyst XI - Creation	$ 8,823	10/29/2021	$ 2,143	$ -	$ 2,093	$ 2,093	NM
General Catalyst XI - Endurance	$ 29,412	10/29/2021	$ 15,969	$ -	$ 15,384	$ 15,384	NM
General Catalyst XI - Ignition	$ 11,765	10/29/2021	$ 4,818	$ -	$ 4,796	$ 4,796	NM
GTCR Fund X	$ 30,000	1/28/2011	$ 31,766	$ 64,445	$ 164	$ 64,609	21.4%
GTCR Fund XI	$ 35,000	11/15/2013	$ 34,196	$ 67,178	$ 62,241	$ 129,419	38.1%
GTCR Fund XII	$ 50,000	9/29/2017	$ 51,223	$ 31,746	$ 53,948	$ 85,694	32.0%
Co-Investment #1	$ 5,238	4/26/2019	$ 4,556	$ -	$ 8,378	$ 8,378	21.4%
Co-Investment #2	$ 5,997	11/1/2019	$ 5,806	$ 10,935	$ 2,745	$ 13,680	50.3%
GTCR XIII	$ 50,000	10/27/2020	$ 12,430	$ 1,809	$ 16,220	$ 18,029	NM
H.I.G. Bayside Loan Fund II	$ 25,000	5/28/2010	$ 24,192	$ 29,602	$ 2,084	$ 31,686	6.6%
H.I.G. Bayside Loan Ops Fund III (Europe)	$ 30,000	7/27/2012	$ 26,707	$ 31,070	$ 4,292	$ 35,363	7.9%
H.I.G. Brazil & Latin America Partners	$ 60,000	7/1/2015	$ 63,534	$ 14,505	$ 85,577	$ 100,082	19.1%

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Private Equity

Fund Name	Commitment (A)	Date of Commitment	Amount Contributed (B)	Total Distributions (C)	Current Market Value (D)	Total Value (C+D)	Interim Net IRR
H.I.G. Capital Partners V	$ 15,000	2/28/2013	$ 18,834	$ 22,149	$ 13,816	$ 35,964	23.5%
H.I.G. Europe Capital Partners II	$ 22,500	7/1/2013	$ 25,240	$ 20,667	$ 13,518	$ 34,185	11.6%
H.I.G. Growth Buyouts & Equity Fund II	$ 17,500	6/30/2011	$ 22,235	$ 24,210	$ 17,576	$ 41,786	16.3%
H.I.G. Growth Buyouts & Equity Fund III	$ 35,000	9/13/2018	$ 11,852	$ -	$ 11,783	$ 11,783	NM
H.I.G Middle Market LBO Fund II	$ 40,000	2/7/2014	$ 47,563	$ 63,274	$ 29,688	$ 92,961	30.7%
Co-Investment #1	$ 9,000	10/12/2017	$ 9,000	$ -	$ 5,069	$ 5,069	-11.5%
Co-Investment #2	$ 686	6/19/2020	$ 686	$ -	$ 830	$ 830	9.8%
Co-Investment #3	$ 1,000	6/1/2021	$ 1,079	$ -	$ 1,355	$ 1,355	NM
H.I.G. Middle Market LBO Fund III	$ 40,000	7/23/2019	$ 25,920	$ 431	$ 29,729	$ 30,160	36.6%
Hellman & Friedman Capital Partners VII	$ 30,000	6/19/2009	$ 44,342	$ 105,630	$ 5,700	$ 111,329	24.7%
Hellman & Friedman Capital Partners VIII	$ 45,000	9/24/2014	$ 48,407	$ 26,428	$ 62,906	$ 89,334	18.8%
Hellman & Friedman Capital Partners IX	$ 45,000	9/28/2018	$ 43,952	$ 1,069	$ 52,786	$ 53,856	14.7%
Hellman & Friedman Capital Partners X	$ 45,000	5/10/2021	$ 24,529	$ -	$ 22,744	$ 22,744	NM
Inflexion Buyout Fund IV	$ 27,000	9/30/2014	$ 33,518	$ 34,364	$ 20,074	$ 54,439	14.4%
Inflexion Partnership Capital Fund I	$ 17,000	9/30/2014	$ 22,242	$ 25,566	$ 14,626	$ 40,192	21.6%
Inflexion Supplemental Fund IV	$ 10,000	5/31/2016	$ 14,245	$ 17,933	$ 8,920	$ 26,853	24.1%
Kelso Investment Associates VIII	$ 3,000	1/6/2011	$ 3,022	$ 4,263	$ 150	$ 4,412	8.2%
Kelso Investment Associates IX	$ 60,000	11/5/2014	$ 69,666	$ 75,442	$ 40,745	$ 116,186	20.2%
KIA IX (Hammer) Investor	$ 25,000	8/12/2016	$ 25,426	$ 69,298	$ 217	$ 69,515	21.4%
Kelso Investment Associates X	$ 45,000	3/16/2018	$ 39,687	$ 12,888	$ 57,695	$ 70,583	44.2%
Kelso Investment Associates XI	$ 45,000	12/22/2021	$ 1,547	$ -	$ 1,384	$ 1,384	NM
KKR North American Fund XI	$ 60,000	2/7/2012	$ 95,328	$ 147,951	$ 37,549	$ 185,500	20.1%
KKR North America Fund XI (Platinum)	$ 8,003	2/26/2016	$ 8,040	$ 2,313	$ 5,913	$ 8,226	0.5%
KKR Element Co-Invest	$ 10,000	8/29/2016	$ 10,050	$ 24,030	$ -	$ 24,030	23.5%
KKR Americas XII	$ 60,000	3/3/2016	$ 59,957	$ 22,564	$ 80,449	$ 103,013	25.4%
KKR Sigma Aggregator	$ 15,000	6/22/2018	$ 15,000	$ -	$ 19,453	$ 19,453	6.7%
KKR Enterprise Co-Invest	$ 16,721	10/11/2018	$ 15,000	$ -	$ -	$ -	-100.0%
KKR Enterprise Co-Invest AIV A	$ 8,936	11/8/2019	$ 8,936	$ 7,243	$ 4,320	$ 11,563	27.1%
KKR North America XIII	$ 40,000	6/25/2021	$ 6,689	$ -	$ 6,340	$ 6,340	NM

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Private Equity

Fund Name	Commitment (A)	Date of Commitment	Amount Contributed (B)	Total Distributions (C)	Current Market Value (D)	Total Value (C+D)	Interim Net IRR
KKR Special Situations Fund	$ 60,000	12/19/2012	$ 118,957	$ 97,434	$ 11,784	$ 109,218	-3.2%
KKR Special Situations Fund II	$ 60,000	12/19/2014	$ 97,892	$ 73,542	$ 33,439	$ 106,981	3.9%
Oaktree Opportunities VIII	$ 30,000	12/9/2009	$ 30,000	$ 43,849	$ 231	$ 44,080	9.1%
ONCAP IV	$ 15,000	11/8/2016	$ 12,053	$ 2,725	$ 16,468	$ 19,193	16.8%
Onex Partners III	$ 10,000	1/6/2011	$ 11,181	$ 16,832	$ 1,806	$ 18,637	13.2%
Onex Partners IV	$ 60,000	11/22/2013	$ 62,871	$ 43,444	$ 43,926	$ 87,370	8.2%
Co-Investment #1	$ 10,000	2/27/2017	$ 10,471	$ 1,181	$ 15,659	$ 16,841	10.3%
Onex Partners V	$ 45,000	7/11/2017	$ 38,694	$ 2,378	$ 43,005	$ 45,383	16.4%
Paine & Partners Capital Fund IV	$ 60,000	12/18/2014	$ 53,247	$ 29,070	$ 47,541	$ 76,611	9.6%
Wawona Co-Investment Fund I	$ 15,000	3/31/2017	$ 15,012	$ -	$ 8,623	$ 8,623	-10.0%
Lyons Magnus Co-Investment Fund I	$ 15,000	11/8/2017	$ 15,000	$ -	$ 36,054	$ 36,054	20.8%
PSP Maverick Co-Invest	$ 7,238	9/12/2019	$ 7,254	$ -	$ 12,681	$ 12,681	22.1%
PSP AH&N Co-Investment Fund	$ 19,724	11/27/2019	$ 17,539	$ -	$ 30,997	$ 30,997	26.9%
Paine Schwartz Food Chain Fund V	$ 45,000	8/3/2018	$ 39,651	$ 10,723	$ 40,653	$ 51,376	33.5%
SNFL Co-Investment Fund	$ 10,000	10/11/2019	$ 5,024	$ 265	$ 7,426	$ 7,691	17.0%
Rhone Partners V	$ 56,000	3/12/2015	$ 70,335	$ 32,124	$ 77,703	$ 109,827	17.0%
Riverside Capital Appreciation Fund VI	$ 60,000	7/3/2013	$ 61,710	$ 70,903	$ 24,886	$ 95,789	12.0%
RCAF VI CIV XXXII	$ 12,399	10/21/2015	$ 12,687	$ 35,260	$ -	$ 35,260	19.9%
Riverside Micro-Cap Fund III	$ 35,000	6/30/2014	$ 49,448	$ 183,115	$ 63,467	$ 246,582	38.1%
Riverside Micro-Cap Fund IV	$ 60,000	10/23/2015	$ 55,659	$ -	$ 100,335	$ 100,335	13.8%
Riverside Micro-Cap Fund IV-B	$ 20,000	8/9/2019	$ 24,292	$ 5,583	$ 33,991	$ 39,574	33.5%
Riverside Micro-Cap Fund V	$ 40,000	8/21/2018	$ 30,673	$ -	$ 42,243	$ 42,243	21.2%
Riverside Micro-Cap Fund VI	$ 45,000	8/26/2021	$ 0	$ -	$ (1,002)	$ (1,002)	NM
Shoreview Capital Partners III	$ 24,000	7/24/2013	$ 25,134	$ 28,438	$ 24,368	$ 52,807	20.0%
Shoreview Capital Partners IV	$ 30,000	6/3/2019	$ 10,422	$ 5,768	$ 8,609	$ 14,377	NM
Sovereign Capital IV	$ 46,500	7/7/2014	$ 40,344	$ 21,967	$ 36,141	$ 58,109	11.3%
Summit Partners Credit II	$ 60,000	10/25/2013	$ 90,550	$ 82,699	$ 24,406	$ 107,104	6.7%
Summit Europe Growth Equity III	$ 22,000	3/18/2020	$ 10,563	$ -	$ 10,066	$ 10,066	NM
Summit Growth Equity VIII	$ 25,000	5/27/2011	$ 33,302	$ 61,691	$ 16,007	$ 77,698	27.3%

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Private Equity

Fund Name	Commitment (A)	Date of Commitment	Amount Contributed (B)	Total Distributions (C)	Current Market Value (D)	Total Value (C+D)	Interim Net IRR
Co-Investment #1	$ 16,000	6/3/2015	$ 16,000	$ 38,735	$ 16,654	$ 55,390	32.3%
Summit Growth Equity IX	$ 60,000	8/26/2015	$ 83,052	$ 88,968	$ 91,219	$ 180,187	37.4%
Co-Investment #1	$ 15,000	11/29/2016	$ 14,895	$ 41,104	$ -	$ 41,104	159.6%
Summit Partners Co-Invest (Ironman)	$ 15,000	4/20/2018	$ 15,001	$ -	$ 17,903	$ 17,903	4.5%
Summit Partners Co-Invest (Giants-B)	$ 15,000	10/22/2019	$ 15,000	$ 41,780	$ 5,244	$ 47,024	84.3%
Summit Growth Equity X	$ 60,000	2/26/2019	$ 57,704	$ 13,804	$ 55,502	$ 69,306	21.8%
Summit Partners Co-Invest (Lions)	$ 7,000	10/14/2020	$ 7,000	$ -	$ 7,096	$ 7,096	NM
Summit Partners Co-Invest (Indigo)	$ 10,000	12/11/2020	$ 11,432	$ -	$ 11,424	$ 11,424	NM
Summit Growth Equity XI	$ 45,000	10/1/2021	$ 0	$ -	$ (227)	$ (227)	NM
Summit Venture Capital III	$ 13,150	5/27/2011	$ 18,044	$ 32,899	$ 2,432	$ 35,332	17.5%
Summit Venture Capital IV	$ 40,000	8/26/2015	$ 49,739	$ 48,377	$ 57,247	$ 105,624	43.7%
Summit Venture Capital V	$ 45,000	6/16/2020	$ 18,361	$ 773	$ 17,229	$ 18,002	NM
Summit Partners Co-Invest (CS)	$ 12,000	10/22/2021	$ 12,007	$ -	$ 9,682	$ 9,682	NM
Technology Crossover Ventures VIII	$ 60,000	5/8/2013	$ 52,307	$ 39,509	$ 57,533	$ 97,042	10.7%
Technology Crossover Ventures IX	$ 60,000	2/19/2016	$ 48,428	$ 46,154	$ 49,123	$ 95,277	21.8%
TCV Sports	$ 8,000	9/25/2018	$ 8,000	$ -	$ 6,954	$ 6,954	-3.7%
Technology Crossover Ventures X	$ 45,000	8/31/2018	$ 33,774	$ -	$ 63,365	$ 63,365	31.9%
Technology Crossover Ventures XI	$ 45,000	10/2/2020	$ 19,087	$ -	$ 19,366	$ 19,366	NM
Technology Impact Fund	$ 40,000	12/18/2017	$ 35,377	$ 22,270	$ 81,658	$ 103,928	60.2%
Technology Impact Fund II	$ 40,000	4/13/2021	$ 8,320	$ -	$ 8,689	$ 8,689	NM
Technology Impact Growth Fund	$ 40,000	11/26/2018	$ 47,422	$ 26,676	$ 32,519	$ 59,195	13.8%
Technology Impact Growth Fund II	$ 40,000	8/6/2021	$ 5,562	$ -	$ 4,667	$ 4,667	NM
Thoma Bravo Fund XI	$ 50,000	5/1/2014	$ 69,098	$ 119,295	$ 68,974	$ 188,270	27.4%
Thoma Bravo Fund XII	$ 60,000	4/27/2016	$ 72,729	$ 45,352	$ 87,087	$ 132,438	16.9%
Thoma Bravo Fund XIII	$ 45,000	12/7/2018	$ 56,723	$ 30,516	$ 64,082	$ 94,599	37.4%
Thoma Bravo Special Opportunities Fund II	$ 15,000	3/27/2015	$ 17,555	$ 18,290	$ 17,372	$ 35,662	17.1%
Tillridge Global Agribusiness Partners II	$ 50,000	10/21/2016	$ 24,318	$ 125	$ 19,937	$ 20,062	NM
Water Street Healthcare Partners III	$ 25,000	7/25/2012	$ 29,674	$ 76,771	$ 7,660	$ 84,431	35.4%
Water Street Healthcare Partners IV	$ 33,000	9/15/2017	$ 31,714	$ 10,624	$ 26,546	$ 37,170	8.6%

(all dollar amounts in thousands)

MainePERS Private Market Investments Summary: 06/30/2022

Private Equity

Fund Name	Commitment (A)	Date of Commitment	Amount Contributed (B)	Total Distributions (C)	Current Market Value (D)	Total Value (C+D)	Interim Net IRR
Water Street Healthcare Partners V	$ 43,000	4/15/2022	$ -	$ -	$ -	$ -	NM
Wayzata Opportunities Fund III	$ 30,000	9/11/2012	$ 14,718	$ 10,063	$ 3,926	$ 13,989	NM
Wynnchurch Capital Partners IV	$ 40,000	10/23/2014	$ 38,047	$ 35,402	$ 56,314	$ 91,716	29.1%
Wynnchurch Capital Partners V	$ 40,000	1/15/2020	$ 16,260	$ -	$ 22,107	$ 22,107	NM

(all dollar amounts in thousands)

MainePERS Private Market Investments Summary: 06/30/2022

Real Estate

Fund Name	Commitment (A)	Date of Commitment	Amount Contributed (B)	Total Distributions (C)	Current Market Value (D)	Total Value (C+D)	Interim Net IRR
Angelo Gordon Net Lease IV	$ 50,000	2/17/2020	$ 29,237	$ 1,036	$ 31,074	$ 32,110	7.5%
Angelo Gordon Realty Fund XI	$ 50,000	3/31/2022	$ -	$ -	$ -	$ -	NM
Bain Capital Real Estate II	$ 50,000	3/5/2021	$ 15,667	$ 920	$ 18,592	$ 19,511	NM
Blackrock Granite Property Fund	$ 63,791	9/30/2006	$ 68,771	$ 53,312	$ -	$ 53,312	-4.9%
Blackstone Property Partners	$ 350,000	6/29/2017	$ 350,000	$ 31,542	$ 472,291	$ 503,833	10.5%
Blackstone Real Estate Partners VII	$ 75,000	2/26/2012	$ 104,132	$ 152,899	$ 19,288	$ 172,187	15.5%
Blackstone Real Estate Partners VIII	$ 50,000	3/27/2015	$ 62,958	$ 63,322	$ 41,618	$ 104,940	18.0%
Blackstone Real Estate Partners IX	$ 40,000	12/21/2018	$ 31,699	$ 13,388	$ 36,724	$ 50,112	39.8%
Barings Asia Real Estate II	$ 50,000	7/31/2018	$ 21,041	$ -	$ 19,067	$ 19,067	NM
EQT Real Estate II	$ 55,000	4/26/2019	$ 21,269	$ 4,956	$ 17,656	$ 22,611	NM
EQT Real Estate Rock Co-Investment	$ 11,000	8/10/2020	$ 8,790	$ -	$ 10,934	$ 10,934	NM
H/2 Credit Partners, L.P.	$ 75,000	6/21/2011	$ 75,000	$ 112,177	$ -	$ 112,177	5.9%
Harrison Street Core Property Fund, L.P.	$ 75,000	4/30/2012	$ 94,737	$ 47,941	$ 134,763	$ 182,704	9.1%
HSRE-Coyote Maine PERS Core Co-Investment	$ 20,000	12/4/2020	$ 14,000	$ -	$ 17,342	$ 17,342	NM
High Street Real Estate Fund IV, L.P.	$ 25,000	8/23/2013	$ 24,717	$ 34,157	$ -	$ 34,157	14.7%
High Street Real Estate Fund V	$ 25,000	7/24/2015	$ 24,925	$ 36,045	$ -	$ 36,045	13.2%
High Street Real Estate Fund VI	$ 25,000	3/22/2019	$ 25,000	$ 2,598	$ 30,485	$ 33,084	18.6%
HSREF VI Elgin Co-Invest	$ 10,000	4/9/2021	$ 10,000	$ 631	$ 12,521	$ 13,152	NM
High Street Real Estate Fund VII	$ 35,000	8/16/2021	$ 13,260	$ -	$ 12,469	$ 12,469	NM
Hines US Property Partners	$ 200,000	9/9/2021	$ 79,719	$ 3,645	$ 76,331	$ 79,976	NM
Invesco Real Estate Asia IV	$ 30,000	3/25/2020	$ 17,906	$ 10,069	$ 6,210	$ 16,279	-27.6%
Invesco US Income Fund	$ 195,000	7/17/2014	$ 167,184	$ 53,462	$ 292,696	$ 346,157	13.3%
IPI Data Center Partners I	$ 30,000	12/15/2017	$ 31,645	$ 16,578	$ 40,668	$ 57,246	25.6%
IPI Data Center Partners II	$ 25,000	12/20/2019	$ 12,311	$ 1,619	$ 10,469	$ 12,088	NM
JPMCB Strategic Property Fund	$ 130,000	11/15/2005	$ 186,941	$ 297,519	$ -	$ 297,519	5.8%
KKR Real Estate Partners Europe I	$ 50,000	12/2/2015	$ 51,092	$ 44,022	$ 22,197	$ 66,219	10.3%
KKR Real Estate Partners Europe II	$ 25,000	12/23/2019	$ 17,085	$ 3,288	$ 16,371	$ 19,659	26.7%
KKR Real Estate Partners Americas I	$ 50,000	12/20/2013	$ 49,812	$ 59,226	$ 2,502	$ 61,729	11.2%
KKR Real Estate Partners Americas II	$ 50,000	6/2/2016	$ 57,945	$ 66,550	$ 18,045	$ 84,596	25.0%
Northbridge-Strategic Fund II	$ 30,000	2/8/2019	$ 30,000	$ 2,905	$ 38,352	$ 41,257	10.3%
Prima Mortgage Investment Trust, LLC	$ 75,000	7/29/2011	$ 97,488	$ 92,443	$ 39,465	$ 131,908	3.8%

(all dollar amounts in thousands)

MainePERS Private Market Investments Summary: 06/30/2022

Real Estate

Fund Name	Commitment (A)	Date of Commitment	Amount Contributed (B)	Total Distributions (C)	Current Market Value (D)	Total Value (C+D)	Interim Net IRR
Principal Life Insurance Company U.S. Property	$ 60,000	5/20/2005	$ 60,000	$ 125,410	$ -	$ 125,410	6.2%
PRISA	$ 90,000	6/30/2005	$ 139,622	$ 222,450	$ -	$ 222,450	5.3%
Rubenstein Properties Fund III	$ 30,000	10/23/2015	$ 30,606	$ 627	$ 28,925	$ 29,552	-1.0%
LCC Co-Investor B	$ 15,000	10/18/2019	$ 14,917	$ -	$ 11,408	$ 11,408	-11.1%
Rubenstein Properties Fund IV	$ 25,000	4/16/2019	$ 5,700	$ 56	$ 4,352	$ 4,408	NM
Prudential Senior Housing Fund V	$ 50,000	3/17/2015	$ 41,333	$ 5,453	$ 51,038	$ 56,491	7.0%
Smart Markets Fund, L.P.	$ 195,000	6/17/2013	$ 168,182	$ 60,323	$ 286,118	$ 346,441	11.4%
Stonelake Opportunity Partners VII	$ 40,000	6/30/2022	$ 0	$ -	$ (284)	$ (284)	NM
Walton Street Real Estate Fund VII	$ 50,000	5/9/2012	$ 43,990	$ 49,099	$ 13,039	$ 62,138	10.0%
Walton Street Real Estate Fund VIII	$ 50,000	10/23/2015	$ 42,685	$ 27,936	$ 32,505	$ 60,441	12.4%
Co-Investment #1	$ 10,000	9/27/2017	$ 9,610	$ 4,160	$ 4,592	$ 8,752	-3.0%
Westbrook Real Estate Fund IX	$ 15,000	6/30/2014	$ 17,380	$ 17,500	$ 3,098	$ 20,599	6.3%
Westbrook Real Estate Fund X	$ 50,000	1/15/2015	$ 48,455	$ 42,649	$ 18,281	$ 60,931	11.1%
Westbrook Real Estate Fund XI	$ 40,000	1/31/2019	$ 16,802	$ 4,571	$ 14,826	$ 19,397	NM

(all dollar amounts in thousands)

MainePERS Private Market Investments Summary: 06/30/2022

Notes: NM = Not Meaningful. MainePERS only reports IRRs for funds with more than 24 months of history and for which Amount Contributed is greater than 50% of Commitments. "Date of Commitment" is not the date of first capital draw. The "IRR" presented uses interim estimates and may not be indicative of ultimate performance of partnership investments due to a number of factors including lags in valuation, maturity of fund, and differences in investment pace and strategy of various funds. Performance figures should not be used to compare returns among multiple funds or different limited partners. Private market investments are long-term investments which are expected to generate returns over the course of their entire life cycle of 10 or more years. Common industry practice dictates that any performance analysis on these funds while they are still in the early years of their investment cycle would not generate meaningful results. The Interim Net IRR figures presented in this table are based on cash flow information provided by the general partner. The above information was not prepared, reviewed, or approved by any of the partnerships, general partners, or their affiliates and may differ from those generated by the general partner or other limited partners due to differences in timing of investments, disposal of in-kind distributions, and accounting and valuation policies.

MAINEPERS

BOARD OF TRUSTEES MEMORANDUM

TO: BOARD MEMBERS

FROM: MICHAEL J. COLLERAN, CHIEF OPERATING OFFICER & GENERAL COUNSEL
CHIP GAVIN, CHIEF SERVICES OFFICER

SUBJECT: OPERATIONS AND MEMBER SERVICES REPORT

DATE: OCTOBER 5, 2022

Content in the following paragraphs was selected to provide noteworthy information regarding the System's operations and member services.

POLICY REFERENCE

Board Policy 4.5 – Board/Staff Relations

Board Policy 4.6 – Communications and Support to the Board

MEMBER SERVICES

1. SECURE ONLINE DOCUMENT SIGNATURES AND TRANSMITTALS. MainePERS instituted the online secure signature system DocuSign for selected MainePERS documents in June 2021, prompted in part by the pandemic and as part of the now ongoing effort to have stronger electronic communication options for members and others. The use of that tool is growing. Roughly 50 transactions were conducted monthly from launch through January 2022. Roughly 100 documents were completed per month through June 2022. The usage in the most recent months has increased to 120-170 completed documents per month, the strongest utilization to date. This is an area of continued focus for MainePERS and additional usage.

2. MEMBER ACCOUNT STATEMENTS. A new format for annual member account statements is launching in October. Following a pilot period in 2021-2022, member account statements since June 2022 are now sent annually to every active member in the month of their birth. The statements are intended to provide information to active members about their account. The new statement format launching this month provides more information and explanation than the prior format.

3. CUSTOMARY SERVICES DATA. The customary member services data points that have been provided to Trustees as part of the operations update in the past are attached to this report.

FINANCE

1. ACCOUNTING AND FINANCE. Work continues in support of the two supplemental audits related to GASB 67 and GASB 74. We have begun work on the Annual Comprehensive Financial Report and have engaged Visible Logic for assistance again this year. Accounting staff are preparing for an upgrade of the accounting software used to process transactions and prepare reports, which is expected to get underway this winter.

2. EMPLOYER REPORTING. Timeliness of employer reporting was back up, with 90.1% of the defined benefit payrolls due in September uploaded on time, just below the fiscal year to date monthly average of 90.4% and comparable to last September's rate of 90.0%. The Employer Reporting unit became fully-staffed as of September 26, and the new Employer Reporting Training Specialist continues to train staff new to the unit.

3. EMPLOYER AUDITING. We initiated three payroll compliance audits in September, two of which have been closed. One resulted in no findings, and the other resulted in a small number of minor findings that were quickly resolved. Approximately 92% of audit findings to date have been satisfactorily resolved.

4. INTERNAL AUDIT. CliftonLarsonAllen's audit of the disability retirement program continues.

5. LINE OF BUSINESS. The Line of Business team is pairing up with Employer Reporting team to assist the Maine Community College System with some additional automation as they begin a migration to a new payroll application.

6. CONTRIBUTIONS AND DISBURSEMENTS. Attached is a report of contributions and member disbursements for the combined defined benefit plans fiscal year to date with a comparison to the same period in FY22.

ADMINISTRATION

1. BUSINESS CONTINUITY PLAN/FACILITIES. In September, we conducted a tabletop test of our Facilities Business Continuity Plan involving weather, fire, and equipment failure interruptions to normal operations. A test report with recommendations is in development and will be presented to the senior management team for approval.

2. HUMAN RESOURCES. We had two new employees start last month, including our new Human Resources Generalist. After announcing our retention payment program, for the first time in seven months we did not have any terminations in September. We currently have nine positions in recruitment.

   The health care premium holiday has been extended through November. This benefits both employees and MainePERS and is based on favorable claims experience in the self-insured plan.

3. DOCUMENT CENTER. Staff continues to focus on address research, correction, and other changes, including in support of processing required minimum distributions.

4. INCIDENT RESPONSE PLAN. We closed out incident responses on two vendor email-spoofing incidents. Staff responded appropriately to these incidents, and the vendors were cooperative in providing information and addressing the incidents.

INFORMATION TECHNOLOGY

1. ENTERPRISE ASSET MANAGEMENT. We completed beta testing successfully and have deployed the system to all workstations. Each device is reporting back information on performance, installed software, and warranty status, which allows for improved monitoring, patching, and resolution of issues.

2. SECURITY. Implementation of both Airgap and CyberArk is in the final stage. Airgap will increase our ability to recover quickly and safely from certain types of cyber-attacks. CyberArk provides secure vendor access to the MainePERS network.

3. UNINTERRUPTIBLE POWER SUPPLY BATTERIES. The IT team completed replacement of the uninterruptible power supply battery backup system in Augusta last month and is working on the same for the Portland office.

RECOMMENDATION

No Board action is recommended at this time.

OCTOBER 2022 BOT SUPPLEMENTAL NUMBERS

BENEFITS PAYROLL. Monthly pension payments were made to 47,049 recipients in September, totaling $98,525,514.15.

RETIREMENT SERVICES. One hundred seventy-two (172) individuals received their first benefit payment in September, with the typical benefit amount being $2,431. First time recipients averaged 23 years of service. The count of new recipients, payment amount, and service are in line with what has been seen during the same month in recent prior years.

One hundred ninety-nine (199) former members received a refund of their contributions in September, typically amounting to $9,715 as the result of two years of service. The aggregate amount refunded was $1,933,334.

DISABILITY SERVICES. Nine (9) new disability retirement applications were received in September. Fifteen (15) intakes were completed with varying levels of detail and duration were conducted.

SURVIVOR SERVICES. Forty-eight (48) life insurance claims were sent to our carrier (The Hartford) in September, with a total value of $983,345 in payments due to beneficiaries.

DEFINED CONTRIBUTION PLAN SERVICES. MaineSTART had 1,611 participants at the end of September, with $50,831,630 of investment assets in the program.

PLD PLAN ADMINISTRATION. Two new employers joined the PLD Retirement Program one effective in October and one in November, 2022. One employer made plan changes (allowing newly eligible employees to purchase credit for prior service at the employees' expense) that were effective October 1, 2022.

Maine Public Employees Retirement System

Contributions and Disbursements - Defined Benefit Plans

For the Two Months Ended August 31, 2022 and August 31, 2021

	Current	Year to Date	Prior Year to Date
Contributions			
Employer Contributions[1]	$ 43,499,250	$ 90,989,371	$ 41,824,654
Member Contributions	16,673,598	32,570,789	30,213,248
Member Repurchases	1,322,914	961,165	242,852
Total Contributions	**$ 61,495,762**	**$ 124,521,325**	**$ 72,280,754**
Member Disbursements			
Benefits Payroll	$ 97,894,540	$ 193,961,184	$ 182,454,024
Member Refunds	2,268,734	2,924,819	3,395,317
Total Member Disbursements	**$ 100,163,274**	**$ 196,886,003**	**$ 185,849,341**
Net	**$ (38,667,512)**	**$ (72,364,678)**	**$ (113,568,587)**

[1]Employer Contributions include both normal cost and UAL contributions.

MAINEPERS

BOARD OF TRUSTEES MEMORANDUM

TO: BOARD MEMBERS

FROM: MICHAEL COLLERAN, CHIEF OPERATING OFFICER AND GENERAL COUNSEL

SUBJECT: FIDUCIARY DUTY EDUCATION

DATE: OCTOBER 5, 2022

Annual fiduciary duty education is a best practice for retirement system Boards of Trustees. At the October meeting, AAG Betsy Stivers and I will provide an overview of the Board's fiduciary duties. A copy of our presentation follows this memo.

POLICY REFERENCE

Board Policy 1.2 – Trustee Fiduciary Responsibility

Board Policy 4.5 – Board/Staff Relations

Board Policy 4.6 – Communication and Support to the Board

RECOMMENDATION

No Board action is required.

MainePERS
PUBLIC EMPLOYEES RETIREMENT SYSTEM

Fiduciary Duty Education
October 13, 2022

Mike Colleran
Betsy Stivers

What is a Fiduciary?

- **A fiduciary is someone in a position of trust.**
  - Under the circumstances, others must rely on their integrity and fidelity. This gives rise to special duties that the fiduiciary owes to the others.
- "A fiduciary is someone who manages money or property for someone else. When you are named a fiduciary, you are required by law to manage the person's money and property for their benefit, not yours." *Consumer Financial Protection Bureau (CFPB).*
- Examples of fiduciairies include trustees, investment advisors, attorneys, general partners, guardians, and people with power of attorney.

What Makes You Fiduciaries?

- **The Constitution of Maine**

"All of the assets . . . of the Maine State Retirement System . . . and all contributions and payments made to the system to provide for retirement and related benefits shall be held, invested or disbursed **as in trust for the exclusive purpose** of providing for such benefits and shall not be encumbered for, or diverted to, other purposes."

What Makes You Fiduciaries?

- **Maine Statutes**

Board members have the statutory duties of a trustee and must follow the Maine Uniform Prudent Investor Act and apply principles of the Maine Uniform Trust Code.

- **Federal Law on Qualified Pension Plans**

Retirement fund assets must not be “used for, or diverted to purposes other than the exclusive benefit of [the] employees or their beneficiaries.” IRC §401(a)(2).

The “phrase ‘purposes other than for the exclusive benefit of [the] employees or their beneficiaries’ includes all objects or aims not solely designed for the proper satisfaction of all liabilities to employees or their beneficiaries covered by the trust.” Treas. Regs. § 1.401-2(a)(3).

What Duties do Fiduciaries Have?

- **Duty of Loyalty**
  - This is the duty in the Maine Constitution and statute to act solely in the interests of the members, retirees, and beneficiaries as recipients of retirement or related benefits.
    - Do not self deal.
    - Do not use the position for personal gain.
    - Do not act with a conflict of interest.
    - Do not favor one group of members over another.

What Duties do Fiduciaries Have?

Maine Attorney General Aaron M. Frey on Duty of Loyalty:

As a fiduciary of a pension trust, the MainePERS Board of Trustees ("the Trustees") has a duty of loyalty to administer the trust solely in the interest of the beneficiaries and for the articulated purpose of the trust – providing retirement and related benefits. A trustee's duty of loyalty is a fundamental principle of common law reflected in the Restatement (Third) of Trusts,[1] the Maine Uniform Trust Code,[2] and the Employee Retirement Income Security Act of 1974 ("ERISA").[3] The constitutional intent is clear. By requiring the funds be held as in trust for the exclusive purpose of providing retirement benefits, the Constitution is mandating that the Trustees manage these funds solely in the best interest of MainePERS members as pension recipients.

Letter to Joint Standing Committee on Labor and Housing dated April 9, 2021 regarding LD 99 and LD 319

What Duties do Fiduciaries Have?

- **Duty of Prudence**
  - Exercise reasonable care, skill, and caution in administering the trust, acting as a prudent person would under the circumstances.
    - Consider the entire portfolio when making investment decisions and the role that the investment under consideration plays in the portfolio.
    - Diversification is required, unless because of special circumstances the purposes of the trust would be better served without diversification.
    - Use special skills and expertise if you have them; otherwise delegation is allowed and encouraged in matters where the fiduciary is not an expert.