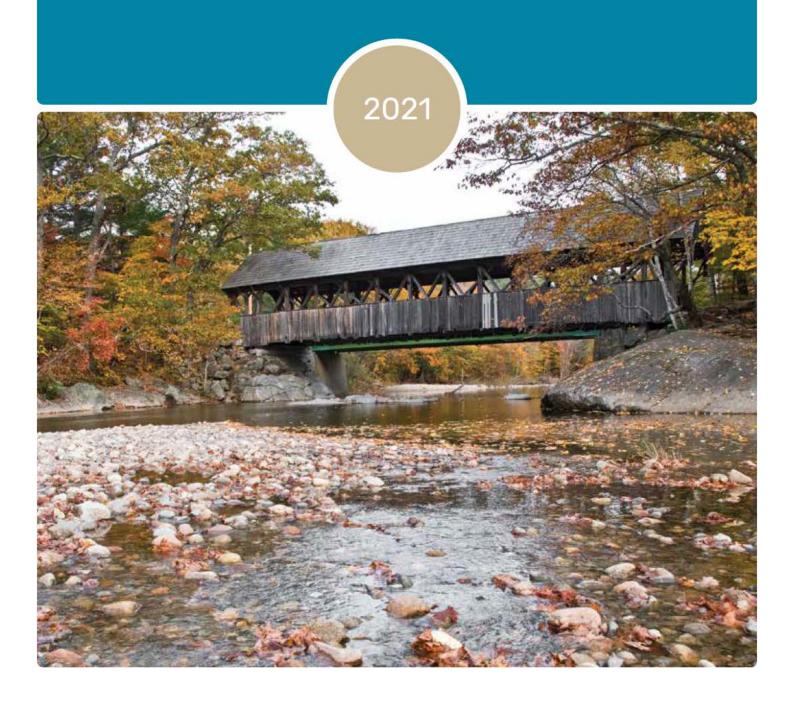


# ANNUAL COMPREHENSIVE FINANCIAL REPORT

For the Fiscal Year Ended June 30, 2021





# Annual Comprehensive Financial Report

For the fiscal year ended June 30, 2021

## **Maine Public Employees Retirement System**

A Component Unit of the State of Maine

P.O. Box 349, Augusta, Maine 04332-0349

Th s report has been produced as required by 5 M R S A §17102 (10), which states that the Maine Public Employees Retirement System must publish an annual report showing "the fiscal transactions of the retirement system for the fiscal year and the assets and label ties of each of the programs of the retirement system at the end of the fiscal year; and the actuary's report on the actuar alive au at on of the financial condition of each of the programs of the retirement system for the fiscal year"

Th s report was prepared by the F nanc a , Adm n strat ve and nvestment staff of the Ma ne Pub c Emp oyees Ret rement System Costs for produc ng th s report were pa d from the operat ng budget of the Ma ne Pub c Emp oyees Ret rement System Th s ACFR s pr nted and a so made ava ab e on ne



# **Government Finance Officers Association**

## Certificate of Achievement for Excellence in Financial Reporting

Presented to

## **Maine Public Employees Retirement System**

For its Annual Comprehensive Financial Report For the Fiscal Year Ended June 30, 2020

Christopher P. Morrill

Executive Director/CEO



# **Public Pension Coordinating Council**

# Recognition Award for Funding **2021**

Presented to

## **Maine Public Employees Retirement System**

In recognition of meeting professional standards for plan funding as set forth in the Public Pension Standards.

Presented by the Public Pension Coordinating Council, a confederation of

National Association of State Retirement Administrators (NASRA) National Conference on Public Employee Retirement Systems (NCPERS) National Council on Teacher Retirement (NCTR)

alan Helinkle

Alan H. Winkle Program Administrator

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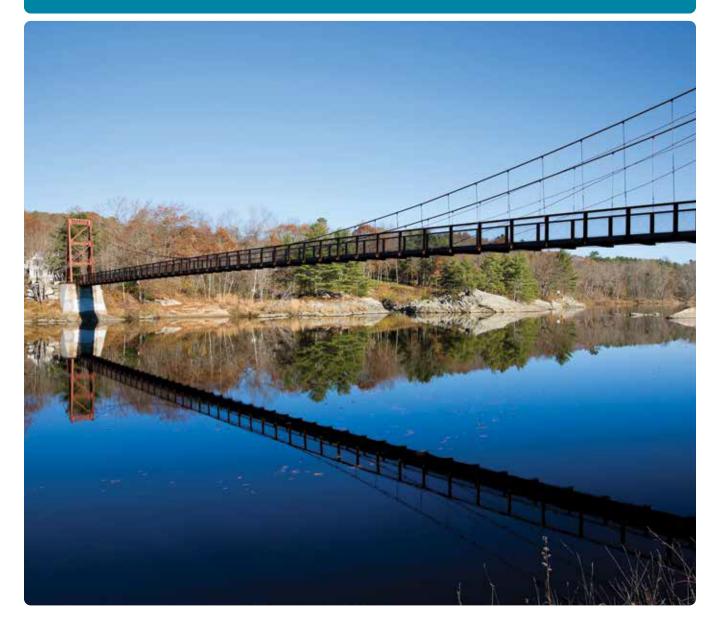
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# **Introductory Section**



Androscoggin Swinging Bridge, Brunswick

## Letter of Transmittal

#### December 15, 2021

I am pleased to present the Annual Comprehensive Financial Report ("ACFR" or "Annual Report") of the Maine Public Employees Retirement System ("MainePERS" or the "System") for the fiscal year ended June 30, 2021 in accordance with the requirements of 5 M.R.S. §17102. This ACFR, taken as a whole, provides information on all aspects of the System. It is written to conform to Governmental Accounting Standards Board (GASB) requirements. Management of the System takes full responsibility for the accuracy, completeness and fairness of the representations made in this report.

Berry, Dunn, McNeil & Parker, LLC, has issued an unmodified opinion on the MainePERS financial statements for the year ended June 30, 2021. The independent auditor s report is located at the front of the financial section.

Management s discussion and analysis (MD&A) immediately follows the independent auditor s report and provides a narrative introduction, overview and analysis of the basic financial statements. MD&A complements this letter of transmittal and should be read in conjunction with it.

#### **Funding of System Programs**

The System administers seven retirement programs, often referred to as "plans." In addition, the System operates a Group Life Insurance Program (GLI) providing life insurance coverage for both active employees and for retirees, and a program of defined contribution retirement plans under sections 401(a), 403(b) and 457(b) of the Internal Revenue Code, collectively referred to as MaineSTART. The System also manages the Retiree Health Insurance Post-Employment Benefits Investment Trust on behalf of the State of Maine. This is an irrevocable trust established for the purpose of accumulating assets to provide funding for the State s liability for retiree health benefits. Assets for the purpose of providing funding for the liability for retiree health and other post-employment benefits (OPEB) for the System s employees are held in the MainePERS OPEB Trust, also administered by the System.

The System s defined benefit retirement programs are the dominant element in its financial activities and position. The four major programs are the State Employee and Teacher Retirement Program, the Judicial Retirement Program, the Legislative Retirement Program and the Participating Local District (PLD) Consolidated Retirement Plan. In addition, the System administers the PLD Agent Plan, which is comprised of six closed single-employer plans on behalf of participating local districts who at the time of consolidation opted not to join the PLD Consolidated Plan.

The System also administers two pay-as-you-go retirement programs, one for judges who retired prior to the establishment of the Judicial Retirement Program in 1984 and the other for former governors and their surviving spouses. The programs are funded each biennium by a direct appropriation from the Legislature and, in the case of the active governor, by employee contributions required by statute.

The basic defined benefit retirement plan funding equation provides that, over the long term, contributions plus investment earnings must be equal to benefit obligations. While investment market performance affects plan funding levels and funding requirements, it does not affect benefit obligations.

The return on invested contributions has historically supplied a significant amount of the benefit funding resources of defined benefit plans. In periods when the investment markets provide lower returns than expected, the resulting funding shortfall has historically been supplemented by a combination of increased contributions and investment market returns in other periods that exceeded expectations. For this reason, the performance of the investment markets is a significant factor affecting the financial activities or position of the System, and the effects of market performance flow through to contribution requirements.

The recent two-decade low-interest environment has affected the potential volatility of employer contributions. This is because low-interest rates mean that the fund is no longer able to earn attractive returns from relatively safer fixed-income assets and as a result is more reliant on earnings from riskier assets, such as equities. As interest rates have fallen and to help maintain contribution stability, the trust fund has decreased its earnings assumption by 1.5% (from 8% to 6.5%) and shifted assets away from fixed-income. At the same time the trust fund has increased diversification by expanding its asset allocation to include a number of alternative asset classes.

### Letter of Transmittal

As with all actuarially-funded defined benefit plans, the System uses actuarial methods and procedures that integrate short-term market behavior with the long-term time horizon of the plan. One of these methods is "smoothing" of investment results, which moderates the volatility of contribution requirements.

The interplay of liabilities (i.e., the obligation to pay benefits) and assets (i.e., contributions and investment earnings on contributions) can be observed in changes in the programs actuarial funded ratios over time. The funded ratio of the State Employee and Teacher Retirement Program had improved steadily from 1990 through 2008. Substantial investment losses in fiscal years 2008 and 2009 reduced the funding ratio. Fiscal years 2010 and 2011 experienced strong investment returns, and in combination with changes to plan provisions, the funding ratio again improved. Subsequent market gains and losses resulted in a funding ratio of 82.2 percent as of the end of fiscal year 2015. Low investment returns in fiscal years 2015 and 2016 reduced the funding ratio to 80.4 percent as of June 30, 2016, and subsequent gains increased it to 80.9 percent as of June 30, 2017, 81.4 percent as of June 30, 2018 and 81.8% as of June 30, 2019 as investment returns increased. As of June 30, 2021, the funding ratio was 82.1 percent, down slightly from 82.4 percent as of June 30, 2020. While investment returns were strong in 2021, a decrease in the discount rate and other changes offset some of those returns, keeping the funding ratio flat.

The funded ratio of the Judicial Retirement Program has in recent years remained close to 100 percent. The funded ratio as of June 30, 2013 was 97.5 percent. In fiscal year 2014, the funded ratio of the plan increased to 101.6 percent and as of June 30, 2015 the funded ratio was 96.9 percent. The funded ratio of this plan increased again as of June 30, 2016 to 100.9 percent; as of June 30, 2017, the funded ratio rose to 102.7 percent. There was a slight decrease in the funded ratio at June 30, 2018 when it was 102.4 percent, followed by an increase to 105 percent at June 30, 2019. As of June 30, 2021, the funding ratio was 107.2 percent, up from 103.6 percent at June 30, 2020.

The funded ratio of the Legislative Retirement Program has been above 100 percent for many years, and continues this year due primarily to member turnover in the Plan created by term limits. As of June 30, 2021, the funded ratio was 140.9 percent, compared to 140.6 percent at June 30, 2020 and 144.4 percent at June 30, 2019.

The funded ratio of the Participating Local District Consolidated Retirement Plan was 91.1 percent as of June 30, 2021. This compares to 89.9 percent as of June 30, 2020 and 89.9 percent as of June 30, 2019. Information concerning the funded status of the non-consolidated participating local district plans administered by the System is available by contacting the System.

Information regarding overall funding progress appears in the MD&A beginning on page 24. More information on the funding levels of all of the System's retirement programs can be obtained from the System.

The System's defined contribution plans, collectively called MaineSTART, provide an important supplement for our defined benefit participants and a valuable alternative for other participants. MaineSTART offers a family of funds from Vanguard designed to be low cost and easy for participants to manage. The investment strategy for these assets is determined by each participant.

The Group Life Insurance Program is funded by premiums paid by its participants and the employers of those participants, and by investment returns on the Group Life Insurance Program assets. The investment strategy for these assets is a similar strategy to the strategy employed for the defined benefit programs assets.

The Retiree Health Insurance Post-Employment Benefits Investment Trust is funded through direct appropriations from the State of Maine and by investment returns on the Trust's assets.

#### Investments

The basis of the investment policy is the mix of investment types in which assets are invested and the allocation of assets among asset classes. The System's Board of Trustees (Board) is responsible for establishing the policy that is the framework for investment of the programs assets. The Board employs in-house investment professionals and outside investment consultants to advise it on investment matters, including policy.

The defined benefit program had a return of 26.5% while the group life insurance program had a return of 30.6% for fiscal year 2021. Total value of the defined benefit portfolio grew to \$18.7 billion at June 30, 2021, as compared to \$15.1 billion at June 30, 2020, as a result of those strong investment returns.

## Letter of Transmittal

The Board s choice of asset classes reflects its assessment of expected investment returns and the nature, level and management of risk. The defined benefit programs assets perform two functions: they collateralize the benefits owed to participants, and they provide investment earnings. All benefit payments must eventually be funded from a combination of contributions and investment earnings.

#### **Highlights of the Past Year**

In March of 2020, MainePERS closed its office buildings to the public as a result of the COVID-19 pandemic. All staff except those required to perform their work in the buildings were sent home. Available equipment was identified, and approximately 20% of staff were able to immediately begin working remotely. Incremental numbers of staff began working remotely as additional equipment was purchased. All personnel were again working by May of 2020.

In July of 2021, MainePERS began a gradual transition to more in person work, bringing staff back to the buildings for two to three days per week, with staff rotating days to keep the building occupancy levels low. This hybrid approach to in person and remote work is expected to continue for the foreseeable future.

#### Acknowledgements

We are pleased to acknowledge that for the seventeenth consecutive year, the System was awarded the Certificate of Achievement for Excellence in Financial Reporting by the Government Finance Officers Association ("GFOA"). In order to be awarded a Certificate of Achievement, a governmental unit must publish an easily readable and efficiently organized Annual Comprehensive Financial Report ("ACFR"), with contents that meet or exceed program standards. We are pleased to share that we are recognized for handling and accounting for retirement funds in a manner that conforms to generally accepted accounting practices and all applicable legal requirements. We fully expect to be in compliance with all of the Certificate of Achievement program requirements into the future. This 2021 ACFR will also be submitted to the GFOA.

The System, through its management staff, is responsible for establishing and maintaining an internal control structure that is designed to provide reasonable assurance that assets are protected from theft, fraud, or misuse and that financial recordkeeping is transparent, complete and accurate. The concept of reasonable assurance recognizes that the cost of a control should not exceed the benefits likely to be derived and that the valuation of costs and benefits requires estimates and judgments by management. Management believes that the existing internal controls accomplish these objectives. Management is also responsible for the completeness, accuracy and fair presentation of financial information and for all disclosures. This responsibility notably encompasses the System's financial statements themselves, including the amounts therein that, necessarily, are based on estimates and judgments.

The preparation of this report has been a collaborative effort of Executive Management, the Accounting and Finance Department, the Investment Department and the Communications Department. The System takes responsibility for all of the information contained in the report and confidently presents it as a basis for the many decisions of the Board of Trustees, staff, and others who will rely on it.

I am joined in transmitting this Annual Comprehensive Financial Report to all of our constituencies by the System's Director of Finance.

Respectfully submitted,

Dr. Rebecca M. Wyke Chief Executive Officer

Sherry Tripp Vandrell Director of Finance

#### Appendix A to Letter of Transmittal

#### **Overview of the System**

The Maine Public Employees Retirement System (MainePERS) is an independent public agency of the State of Maine that traces its history to 1942. By the authority granted to it by the Maine Legislature, the System administers seven defined benefit retirement programs that cover State employees, the State s public school teachers, judges, legislators, and employees of the 311 municipalities and other public entities, called "participating local districts" (PLDs), that have chosen to provide retirement plans to their employees through MainePERS. The System is also responsible for the payment of retirement and survivors benefits to former governors and their surviving spouses and to former judges who retired prior to the establishment of the Judicial Retirement Program in 1984 and their surviving spouses. In addition, the System administers a Group Life Insurance Program that provides or makes available life insurance benefits for active and retired State employees and teachers, judges, and legislators, as well as employees of those PLDs who have chosen to offer the Group Life Insurance Program. The System also administers defined contribution plans for eligible employers who choose to participate in the plans.

#### **Board of Trustees**

Responsibility for the operation of the Maine Public Employees Retirement System rests with the System's Board of Trustees, which is comprised of eight members. State law specifies the Board's composition. With the exception of the State Treasurer, each trustee is subject to the legislative confirmation process. Two trustees are System members, one of whom is proposed and elected by the Maine Education Association and one of whom is proposed and elected by the Maine Education Association and one of whom is proposed and elected by the Maine Education Association and one of whom is proposed and elected by the Maine Education Association and one of whom is proposed and elected by the Maine State Employees Association. One trustee is a PLD member or retiree 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, 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.

The MainePERS trustees also serve as trustees of the Retiree Health Insurance Post-Employment Benefits Investment Trust.

The Board contracts for the services of an actuary to prepare annual valuations of the assets and liabilities of each of the retirement programs administered by the System. The actuary also provides information and recommendations as to sound and appropriate actuarial assumptions, which are utilized, together with valuation information, to determine the programs funding requirements. The System s actuary in fiscal years 2020 and 2021 was Cheiron, Inc.

The Board s management of MainePERS investments is embodied in its investment policy. The policy states the Board s underlying investment objectives, sets out the investment strategies intended to realize the objectives, and establishes guidelines and criteria for implementation of the strategies. The Board has engaged Cambridge Associates to advise it on the investment policy and the administration of the investment program.

The Board is the final administrative decision maker in matters involving the rights, credits, and benefits of members. It has established an administrative appeals process for the making of such decisions. In this process relevant factual information and legal requirements are identified and analyzed by independent Hearing Officers who serve under contract. The Board's final administrative decisions are appealable to the Maine Superior Court.

#### **Administration**

The Chief Executive Officer has administrative responsibility for all aspects of the System and its programs. The Chief Executive Officer oversees all operations and investments with the assistance of the Chief Operating Officer and Chief Investment Officer, respectively, and has administrative responsibility for the internal audit function.

### Appendix A to Letter of Transmittal

The System s primary responsibility is the administration of defined benefit retirement plans. Retirement and related benefits provided by MainePERS include:

- service retirement benefits, that provide retirement income to qualified members;
- disability retirement benefits, that provide income to a member who becomes disabled under Maine law while the member is in service and before the member retires; and
- · death benefits that are paid to a member s designated beneficiaries.

Administration of these programs includes financial administration, investments, recordkeeping of members work and compensation data, and provision of retirement-related services to members, employers, and retirees.

The System also administers the MaineSTART defined contribution retirement plans that are established under sections 401(a), 403(b), and 457(b) of the Internal Revenue Code. These plans are presently available to employees of those employers in the PLD Consolidated Plan that have adopted one or more of the plans.

The System itself and all of its programs are established by and operate within the scope of Maine statutes. The operation of the System's defined benefit retirement plans is also governed by provisions of the Maine Constitution.

#### **Membership and Contributions**

State employees and teachers are covered under the Maine Public Employees Retirement System's State Employee and Teacher Retirement Program. State employees are required by law to become members of MainePERS when hired. There is an exception to this rule for elected and appointed officials, for whom membership is optional. Public school teachers, other than substitute teachers, for whom membership is also optional, must also become members of MainePERS when hired. PLD employees become members of MainePERS when they are hired if their employer participates as a PLD in MainePERS at that time and if they meet the membership eligibility requirements in effect when they are hired. For some PLD employees, membership is optional. These employees include those employed by their PLD before the PLD joined MainePERS, those whose employers provide Social Security or a qualified replacement plan under federal law, elected and appointed officials, and chief administrative officers.

The Legislative Retirement Program, also administered by MainePERS, was established to provide a retirement program for those serving in the Maine Legislature. Except as provided otherwise by statute, membership in the Maine Legislative Retirement Program is mandatory for legislators entering service on or after December 3, 1986.

The Judicial Retirement Program was established to provide a retirement program for Maine's judges. Membership in the Judicial Retirement Program is a condition of employment for all judges serving on or after December 1, 1984.

All members of the System contribute a percentage of their compensation to the System; employers may opt to contribute all or a portion of that percentage on behalf of their employees. Each employer also contributes to the System an amount for the normal costs of the programs that is a percentage of total wages paid to members who are employees of that employer.

Prior to July 1, 2013, the State paid the employer normal cost contributions and unfunded actuarial liability contributions on behalf of all State employee and teacher members. As of July 1, 2013, teacher employers began paying the employer normal cost contributions on behalf of those teacher members they employed while the state continued to pay toward the unfunded actuarial liability associated with teacher members. The employer contribution percentages are actuarially determined by plan and vary from year to year.

Employer normal cost contributions, along with current member contributions, support benefits currently being earned by active members. The State s unfunded actuarial accrued liability (UAAL) contribution is a payment on the amortized debt that represents the liability for benefits in excess of the amount supported by assets of the System. The Maine Constitution requires that the UAAL established as of June 30, 1996 be fully funded in not more than 31 years from July 1, 1997. The amortization period at the end of FY 2021 is 7 years, requiring full payment of the UAAL by the end of FY 2028.

#### Appendix A to Letter of Transmittal

The System also administers pay-as-you-go retirement programs for former judges who retired prior to the establishment of the Judicial Retirement Program in 1984 and their surviving spouses and former governors and their surviving spouses. The programs are funded each biennium by a direct appropriation from the Legislature and, in the case of the active governor, by employee contributions required by statute.

The Group Life Insurance Program is provided or made available to all eligible State employees, public school teachers, and employees of those PLDs who elect to offer this coverage to their employees, as well as to members of the Legislative and Judicial Retirement Programs. Basic coverage for the employee is equal to the employees annual base compensation rounded up to the next \$1,000; supplemental coverage for the employee and coverage for dependents are also available.

Further details regarding program and plan provisions can be found elsewhere in this report and in the actuarial valuation for each program.

#### **Financial Reporting**

Total operating expenses for staff and all other costs of operations are allocated among each of the Programs administered by the System. The System's administrative budget is approved annually by the Board of Trustees, and is reported to the Legislature.

The System s financial statements have been prepared in accordance with generally accepted accounting principles applied on a consistent basis, in accordance with the standards and requirements of the Governmental Accounting Standards Board (GASB). The financial statements are presented in accordance with GASB Statement No. 34, Basic Financial Statements - Management s Discussion and Analysis for State and Local Governments, GASB Statement No. 67, Financial Reporting for Pension Plans, and, with respect to the Group Life Insurance Program, GASB Statement No. 74, Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans. Financial information presented throughout this Report is consistent with the financial statements. The financial statements are prepared on the accrual basis of accounting.

The independent auditor, BerryDunn, has conducted an audit of the financial statements in accordance with, as stated in its audit report, generally accepted auditing standards and including those tests and procedures BerryDunn deemed necessary to express its opinion in its audit report.

The auditors have unrestricted access to the Board and the Board s Finance and Audit Committee to discuss the audit and their findings with respect to the integrity of the System's financial reporting and adequacy of the System's internal controls.

The System reports five defined benefit pension plans, including two multiple-employer cost sharing plans (the State Employee and Teacher Plan and the PLD Consolidated Plan), two single employer plans (the Judicial and Legislative Plans), and an agent multiple employer plan that is an aggregation of single employer plans of those PLDs that elected not to join the consolidated cost sharing plan. Separate actuarial valuations are performed for each of the retirement programs that the System administers; contributions, inflows, and benefits payments are separately tracked and recorded; and separate trust fund balances are attributed to each such program. The System also reports the Group Life Insurance Program for active employees and two multiple-employer cost sharing Other Post-Employment Benefit (OPEB) plans providing life insurance coverage in retirement for state employees and teachers as well as for employees of those PLDs that participate in the life insurance Program. In addition, the System reports the MaineSTART Defined Contribution plans as well as the Retiree Health Insurance Post-Employment Benefits Investment Trust fund. The System s financial statements, notes thereto and required supplementary information are prepared accordingly.

## Board of Trustees, Management Staff, and Principal Professional Consultants June 30, 2021

#### **Board of Trustees**

Brian H. Noyes, <i>Chair</i>	Appointed by the Governor
Richard Metivier, Vice Chair	Appointed by the Maine Municipal Association
Henry Beck, State Treasurer	Ex-Officio Member
John S. Beliveau	Appointed by the Governor
Shirrin L. Blaisdell	Appointed by the Governor from a List of Retired State and PLD Employees Nominated by Retirees
Mark A. Brunton	Elected by the Maine State Employees Association
John H. Kimball	Appointed by the Governor from a List of Nominees Submitted by the Maine Education Association – Retired
Kenneth L. Williams	Elected by the Maine Education Association

#### **Senior Administrative Staff**

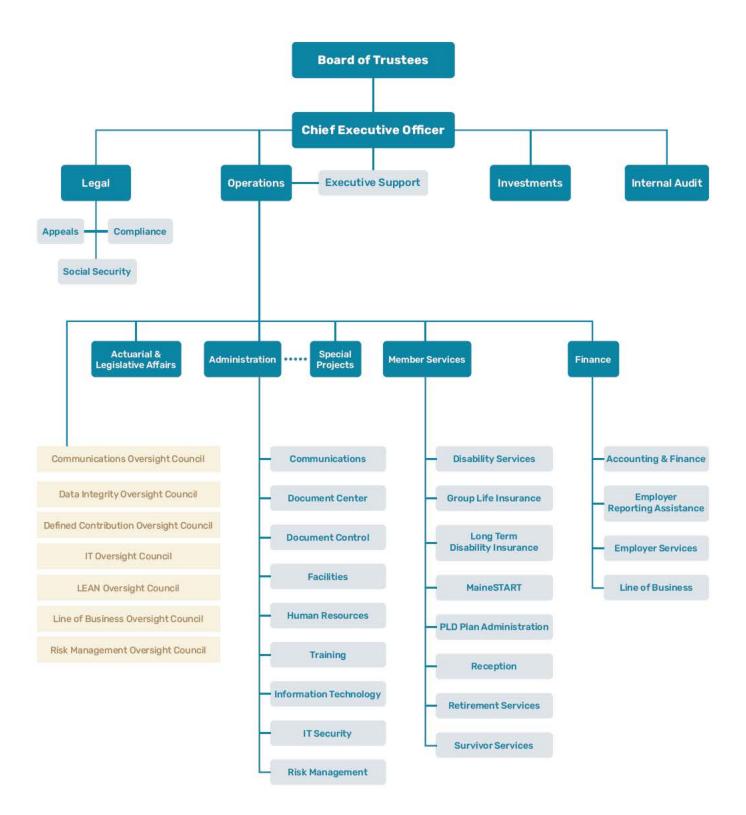
Dr. Rebecca M. Wyke	Chief Executive Officer
Michael J. Colleran	Chief Operating Officer and General Counsel
James A. Bennett Ph.D., CFA, CAIA	Chief Investment Officer
James Dusch	Director of Member Services
Rebecca A. Grant	Director of Administration
Valerie E. Scott	Director of Special Projects
Sherry Tripp Vandrell, CMA, CGFM	Director of Finance

#### **Principal Professional Consultants**

Actuary:	Cheiron, Inc.
Investment Consultant:	Cambridge Associates
Auditors:	BerryDunn

A Schedule of Investment Expenses, which includes fees paid to investment professionals who provide services to MainePERS, can be found in the Financial Section beginning on page 80. A Schedule of Commissions and Fees by broker can be found in the Investment Section on page 95.

### Organizational Chart by Function



## 2021 Legislative Update Legislation Enacted During the 130th First Regular and Special Sessions

An Act to Amend the Retirement Laws Pertaining to Certain Educational Technicians

PL 2021, c. 6 [L.D. 275] Effective Date: March 17, 2021

This law clarifies that Educational Technician I s are not eligible for membership in the State Employee and Teacher Retirement Program.

#### An Act Making Unified Appropriations and Allocations for the Expenditures of State Government, General Fund and Other Funds, and Changing Certain Provisions of the Law Necessary to the Proper Operations of State Government for the Fiscal Years Ending June 30, 2022 and June 30, 2023

PL 2021, c. 29 [L.D. 715] Effective Date: June 29, 2021

This law is the State budget for fiscal years 2022 and 2023. It includes funding for the State Employee/Teacher, Legislative and Judicial Retirement Programs and the Group Life Insurance (GLI) Program, and baseline funding for retired teacher GLI and the pay-as-you-go benefit plans for retired Governors and certain retired Judges. The remaining required funding is appropriated in the additional budget passed as PL 2021, c. 398 (see below).

#### An Act to Allow Certain Employees to Return to Participation in the Maine Public Employees Retirement System

PL 2021, c. 90 [L.D. 711] Effective Date: June 9, 2021

This law allows certain participating local district (PLD) employees who declined or terminated MainePERS membership to subsequently elect to join or rejoin the System.

An Act to Protect Teachers from a Decrease in Retirement Benefits Arising from the COVID-19 Pandemic

PL 2021, c. 225 [L.D. 509] - Effective Date: June 16, 2021

This bill allows certain teachers who experienced a reduction in earnable compensation or service credit from the elimination of extracurricular or cocurricular activities during COVID-19 to elect to pay to include those wages and/or service credit.

An Act to Require the State to Divest Itself of Assets Invested in the Fossil Fuel Industry

PL 2021, c. 231 [L.D. 99] Effective Date: October 18, 2021

This law requires the Board of Trustees to divest the System of any assets invested in the fossil fuel industry and to limit any future investment in that industry. Decisions regarding divestment or investment must be made in accordance with sound investment criteria and consistent with the Board s fiduciary obligations, as set out in the Maine Constitution.

## 2021 Legislative Update Legislation Enacted During the 130th First Regular and Special Sessions

#### An Act to Promote Socially Responsible Investing by the Maine Public Employees Retirement System by Prohibiting Investment in For-Profit Prisons

PL 2021, c. 234 [L.D. 319] Effective Date: October 18, 2021

This law requires the Board of Trustees to divest the System of any assets invested in the for-profit prison industry and to limit any future investment in that industry. Decisions regarding divestment or investment must be made in accordance with sound investment criteria and consistent with the Board s fiduciary obligations, as set out in the Maine Constitution.

#### An Act to Improve the Disability Retirement Program of the Maine Public Employees Retirement System

PL 2021, c. 277 [L.D. 1644] Effective Date: October 18, 2021

This law makes several changes to the disability retirement program administered by MainePERS.

#### An Act to Allow a 5-year Open Enrollment in the Participating Local District Retirement Program for Certain Law Enforcement Officers, Firefighters and Other Municipal Employees

PL 2021, c. 286 [L.D. 1103] Effective Date: October 18, 2021

This law permits certain participating local district employees who elect not to join MainePERS when first eligible to elect to join the System up to and including that employees 5th year employment anniversary.

An Act Regarding Remote Participation in Public Proceedings

PL 2021, c. 290 [L.D. 32] Effective Date: June 21, 2021

This law allows remote participation in public proceedings, such as the Board of Trustees meeting, to continue if the public entity has adopted a written policy regarding that remote participation.

An Act Making Unified Appropriations and Allocations for the Expenditures of State Government, General Fund and Other Funds, and Changing Certain Provisions of the Law Necessary to the Proper Operations of State Government for the Fiscal Years Ending June 30, 2021, June 30, 2022 and June 30, 2023

> PL 2021, c. 398 [L.D. 221] Effective Date: July 1, 2021

This additional State budget includes the remaining pension funding required for fiscal years 2022 and 2023. It also provides special plan coverage for additional state employee positions.

## 2021 Legislative Update Legislation Enacted During the 130th First Regular and Special Sessions

#### An Act to Amend the Laws Governing Retirement Benefit Reductions for Corrections Officers Currently Included in the 1998 Special Plan

PL 2021, c. 401 [L.D. 190] Effective Date: October 18, 2021

This law provides retroactive coverage in the 1998 Special Plan for certain Department of Corrections employees.

# An Act To Expand the 1998 Special Retirement Plan to Include Civilian Employees who Work for the Department of Public Safety Crime Lab and Computer Crimes Unit

PL 2021, c. 474 [L.D. 1101] Effective Date: October 18, 2021

This law expands the 1998 Special Plan to include certain employees of the Maine State Police Crime Laboratory and Computer Crimes Unit effective October 1, 2021, on a prospective basis.

Resolve, Directing the Maine Public Employees Retirement System to Convene a Working Group to Investigate Public Pension Options

Resolve, c. 66 [L.D. 1105] Effective Date: October 18, 2021

This Resolve directs MainePERS to convene a working group to develop new pension plan designs that include Social Security, and to submit a report of proposed plans and implementation timelines to the Legislature by December 1, 2021.

Resolve, To Develop a Plan for Teachers to Collect Social Security

Resolve, c. 72 [L.D. 620] Effective Date: October 18, 2021

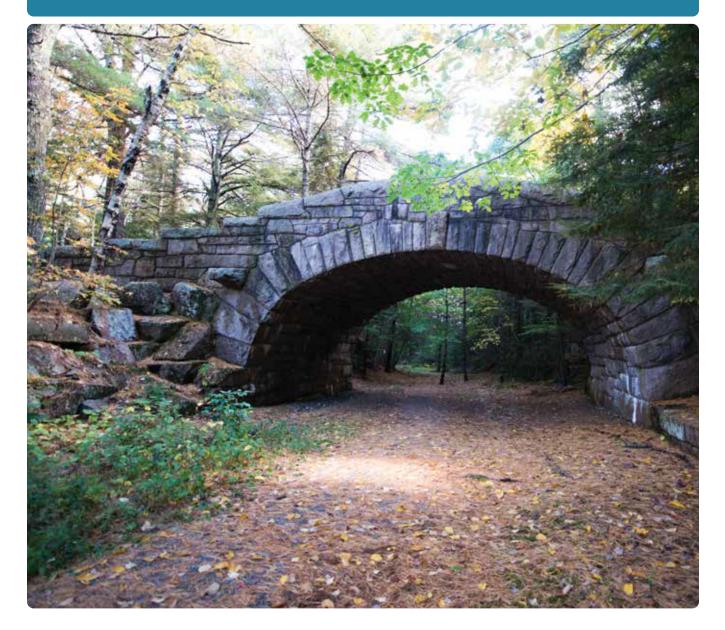
This Resolve directs MainePERS to examine options for teachers to contribute to and collect benefits from Social Security in addition to MainePERS benefits, and to submit a report of findings and recommendations to the Legislature by December 1, 2021.

#### Resolve, Directing the Maine Public Employees Retirement System to Study and Report on How Statewide Retirement Systems Affected by the Windfall Elimination Provision and Government Pension Offset Can Cooperate on Solutions

Resolve, c. 84 [L.D. 341] Effective Date: October 18, 2021

This Resolve directs MainePERS to study how state retirement systems impacted by the Social Security government pension offset and the windfall elimination provision currently cooperate and might further cooperate to address those offsets, and to submit a report of findings and recommendations to the Legislature by January 1, 2022.

# **Financial Section**



Bubble Pond Bridge, Acadia National Park

# 👌 BerryDunn

#### **Independent Auditor's Report**

Board of Trustees Maine Public Employees Retirement System

#### **Report on the Financial Statements**

We have audited the accompanying statement of fiduciary net position of Maine Public Employees Retirement System (the System), a component unit of the State of Maine, as of June 30, 2021, and the related statement of changes in fiduciary net position for the year then ended, and the related notes to the financial statements, which collectively comprise the System's basic financial statements.

#### Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with U.S. generally accepted accounting principles; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

#### Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with U.S. generally accepted auditing standards and the standards applicable to financial audits contained in Government Auditing Standards, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor s judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity s preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity s internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

#### Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the fiduciary net position of the System as of June 30, 2021, and the changes in its fiduciary net position for the year then ended, in accordance with U.S. generally accepted accounting principles.

#### **Other Matters**

#### **Required Supplementary Information**

U.S. generally accepted accounting principles require that Management's Discussion and Analysis and the required supplementary information as listed in the table of contents be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with U.S. generally accepted auditing, which

consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management s responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

#### Additional Supplementary Information

Our audits were conducted for the purpose of forming an opinion on the financial statements. The accompanying additional supplementary information as listed in the table of contents is presented for the purpose of additional analysis and is not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements themselves, and other additional procedures in accordance with U.S. generally accepted auditing standards. In our opinion, the additional supplementary information is fairly stated in all material respects in relation to the basic financial statements as a whole.

The information in the introductory, investment, actuarial and statistical sections as listed in the table of contents has not been subjected to the auditing procedures applied in the audit of the basic financial statements and, accordingly, we do not express an opinion or provide any assurance on that information.

#### **Report on Summarized Comparative Information**

We have previously audited the System's June 30, 2020 basic financial statements and we expressed an unmodified opinion on those statements in our report dated October 15, 2020. In our opinion, the summarized comparative information presented herein, as of and for the year ended June 30, 2020, is consistent, in all material respects, with the audited financial statements from which it has been derived.

#### Other Reporting Required by Government Auditing Standards

In accordance with Government Auditing Standards, we have also issued our report dated October 14, 2021 on our consideration of the Systems internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the Systems internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with Government Auditing Standards in considering the Systems internal control over financial reporting and compliance.

Berry Dunn McNeil & Parker, LLC

Manchester, New Hampshire October 14, 2021

## 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 Plans 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 Plans net position for the years presented. They also present each Plans 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 Plans 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 Plans net position for the years presented. They also present each Plans 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, 2021, 2020, and 2019:

#### **Condensed Comparative Statements of Fiduciary Net Position**

(Dollar Values Expressed in Millions)

	June 30, 2021	June 30, 2020	June 30, 2019
Cash and Rece vab es	\$ 71.9	\$ 71.5	\$ 106.9
nvestments at Fa r Va ue	19,365.3	15,593.5	15,526.9
Co atera on Loaned Securtes	80.3	206.3	200.0
Other Assets	15.0	17.5	19.3
Total Assets	\$ 19,532.5	\$ 15,888.8	\$ 15,853.1
nvestment Management Fees Payab e	\$ 17.9	\$ 19.2	\$ 19.9
Ob gat ons Under Secur t es Lend ng Act v t es	80.3	206.3	200.0
Other L ab t es	24.8	22.8	57.5
Total Liabilities	\$ 123.0	\$ 248.3	\$ 277.4
Fiduciary Net Position — Restricted for Benefits	\$ 19,409.5	\$ 15,640.5	\$ 15,575.7

#### Condensed Comparative Statements of Changes in Fiduciary Net Position (Dollar Values Expressed in Millions)

	June	e 30, 2021	June 30, 2020		ne 30, 2020 June 30, 2	
Additions:						
Member Contr but ons	\$	222.9	\$	214.6	\$	209.8
Emp oyer Contr but ons		319.7		301.5		291.1
Non-Emp oyer Contr but ng Ent t es Contr but ons		183.9		179.0		136.5
Tota nvestment ncome		4,167.8		468.5		996.1
Transfers from Other P ans		0.7		29.2		0.5
Tota Add t ons	\$	4,895.0	\$	1,192.8	\$	1,634.0
Deductions:						
Benefits Pa d	\$	1,085.1	\$	1,052.9	\$	1,009.4
Other		40.9		75.1		45.7
Total Deductions	\$	1,126.0	\$	1,128.0	\$	1,055.1
Net Increase	\$	3,769.0	\$	64.8	\$	578.9
Fiduciary Net Position — Restricted for						
Benefits, Beginning of Year	\$	15,640.5	\$	15,575.7	\$	14,996.8
Fiduciary Net Position — Restricted for						
Benefits, End of Year	\$	19,409.5	\$	15,640.5	\$	15,575.7

#### **Fiduciary Net Position**

The 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.

Comparatively, Fiduciary Net Position of the System increased in fiscal year 2020 by \$64.8 million (.4%) from the prior year Fiduciary Net Position. While lower than in 2019, investment returns were positive and contributed to the increase. Investment income was \$468.5 million in fiscal year 2020 compared to \$996.1 million in fiscal year 2019.

#### Assets

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.

Comparatively, Investments at Fair Value increased by \$66.6 million (.4%) in fiscal year 2020. This increase in Investments at Fair Value combined with a decrease in cash and receivables of \$35.4 million and an increase in collateral on loaned securities of \$6.3 million contributed to an increase in total assets of \$35.7 million during the fiscal year. The increase of \$6.3 million in collateral on loaned securities arose due to changes in the amount and type of securities on loan.

There were \$770.9 thousand in pending sales at June 30, 2021. There were \$275.9 thousand in pending sales at June 30, 2020 and there were \$32.1 million in pending sales at June 30, 2019.

#### Liabilities

On June 30, 2021, total loans outstanding in the securities lending program were \$80.3 million. On June 30, 2020 and 2019, the total loans outstanding in the securities lending program were \$206.3 million and \$200 million, respectively.

### **Additions to Fiduciary Net Position**

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 relative to fiscal year 2020 is due to higher returns across the majority of asset classes.

Additions to Fiduciary Net Position during fiscal year 2020 totaled \$1,192.8 million compared to additions of \$1,634 million to Fiduciary Net Position in fiscal year 2019. While contributions from all sources increased by \$57.7 million, investment income, net of fees and other deductions, decreased by \$527.6 million. The decrease in investment income relative to fiscal year 2019 is due to generally lower returns across all asset classes.

The State s contributions on behalf of State employees totaled \$172.2 million, \$163.7 million, and \$160.8 million for fiscal years 2021, 2020, and 2019, respectively. The State s contributions on behalf of teachers totaled \$179.3 million, \$174.5 million, and \$133 million, for fiscal years 2021, 2020, and 2019, respectively. The State s contribution on behalf of judges totaled \$739 thousand, \$716 thousand, and \$1.2 million for fiscal years 2021, 2020, and 2019, respectively. Based on the funding methodology used and considering the funded status of the Legislative Plan, no employer contribution was required in fiscal years 2021, 2020 or 2019.

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 2021 and 2020 was 4.16%. For fiscal

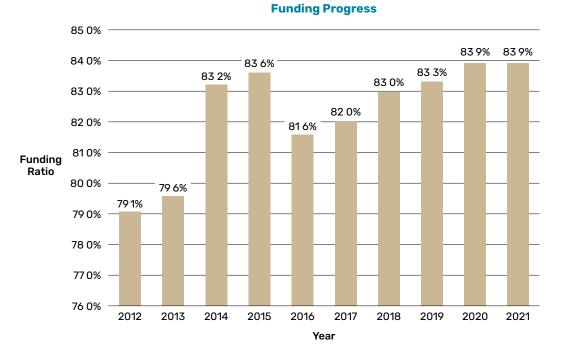
year 2019, the normal cost rate was 3.97%. The range of employer contributions in the PLD Consolidated Plan as a percent of earnable compensation in fiscal year 2021 was 5.2% to 16%; for fiscal year 2020 the range was 4.5% to 16.2%; and for fiscal year 2019 the range was 4.1% to 16.3%.

Member and employer data, contribution and benefit data for the 6 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 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.

Comparatively, deductions from Fiduciary Net Position restricted for benefits during fiscal year 2020 increased by \$72.9 million (6.9%). The fiscal year 2020 increase was due to an increase in the number of recipients receiving benefits, as well as the increased cost of benefits paid and refunds and withdrawals of contributions. Benefit payments in fiscal year 2020 exceeded contributions by \$357.8 million. Contributions totaled \$695.1 million, and benefit payments totaled \$1,052.9 million.



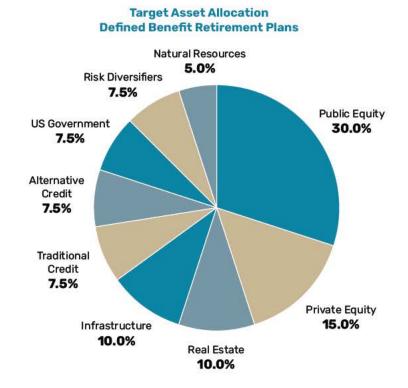
## System Funding Status – Aggregate

At June 30, 2021, the State Employee and Teacher, Judicial, Legislative and PLD defined benefit plans were actuarially funded at 83.9%, unchanged from June 30, 2020. While investment returns were strong in 2021, a reduction in the discount rate used to value the liabilities, along with other changes, contributed to higher liabilities overall. As illustrated in the chart, the actuarial funded ratio of the System was 79.1% at June 30, 2012. The increase in the funded ratio for 2013 and 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 2020 are attributable, in large part, to investment returns during those years.

## 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 January 2021 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, 2021, total fair value of assets in these portfolios (together with the amounts otherwise managed) was \$19.4 billion. The total fair value of assets as of June 30, 2020 and June 30, 2019, respectively, was \$15.6 billion and \$15.5 billion.

The investment return for the defined benefit plan assets, net of all fees, for the year ended June 30, 2021 was 26.5% The investment return for the years ended June 30, 2020 and June 30, 2019, respectively, was 1.8% and 7.1%.

Investment returns in fiscal year 2021 were higher than in fiscal year 2020, due to generally higher returns across the majority of asset classes. Over the five, ten and thirty year periods ended June 30, 2021, the average annual investment return for the total fund was 11.4%, 8.7%, and 8.4%, respectively.

## System Membership – Aggregate

The following membership counts for all of the defined benefit plans are derived from actuarial valuation data:

	2021	2020	% Change
Current act ve part c pants:			
Vested and nonvested	52,041	52,471	0.8%
Term nated part c pants:			
Vested	11,076	10,679	3.7%
nact ves Due Refunds	47,975	46,515	3.1%
Ret rees and benefic ar es rece v ng benefits	48,141	47,350	1.7%
Total Membership	159,223	157,015	1.4%

The number of active State employees at June 30, 2021 in the State Employee and Teacher plan was 12,655, a decrease of 175 from June 30, 2020. The number of active Teachers at June 30, 2021 was 27,444, a decrease of 121 from June 30, 2020. Membership for judges was 60, an increase of 2 from the previous year. Membership for Legislators was 178 at June 30, 2021, a decrease of 1 from the previous year. Total active membership in the PLD Consolidated Plan at June 30, 2020 was 11,704, a decrease of 134 from June 30, 2020. There are no active members in the 6 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:

	2021	2020	% Change
Tota OPEBLab ty	\$ 255.0	\$ 242.9	5.0%
P an Net Pos t on	161.8	122.0	32.6%
Net OPEB Liability	\$ 93.2	\$ 120.9	-22.9%

## **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, 2021, the Fiduciary Net Position Held in Trust for the Investment Trust Fund was \$382,842,080.

## **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 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.

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## Statement of Fiduciary Net Position June 30, 2021 With Summarized Information as of June 30, 2020

	State Employee and Teacher Plan	Judicial Plan	Legislative Plan	PLD Consolidated Plan	PLD Agent Plan
Assets:					
Cash and cash					
equ va ents (note 3)	\$ 26,642,122	\$ 295,823	\$ 54,828	\$ 2,375,017	\$ 26,399
nvestments at fa r va ue (note 3):					
Common equ ty	2,378,401,041	14,348,569	2,659,085	598,748,732	1,556,063
Common/co ect ve trusts	5,224,065,288	31,516,073	5,840,577	1,315,128,278	3,417,833
Partnersh ps	7,263,154,622	43,817,621	8,120,307	1,828,457,246	4,751,902
Tota nvestments	14,865,620,951	89,682,263	16,619,969	3,742,334,256	9,725,798
Rece vab es:					
Contr but ons and					
prem ums (notes 6 and 7)	22,406,539			9,972,782	5,660
Accrued nterest and d v dends	3,283,689	19,810	3,671	826,650	2,148
Due from brokers for					
secur t es so d	612,060	3,692	684	154,082	400
Tota rece vab es	26,302,288	23,502	4,355	10,953,514	8,208
Co atera on oaned					
secur t es (note 5)	63,726,041	384,451	71,247	16,042,663	41,693
Cap ta assets, net of accumu ated					
deprec at on	11,919,780	71,910	13,326	3,000,736	7,798
Tota assets	14,994,211,182	90,457,949	16,763,725	3,774,706,186	9,809,896
Liabilities:					
Accounts payab e	3,658,093	22,069	4,090	920,904	2,393
Due to brokers for					
secur t es purchased	245			62	
Other ab tes	12,022,902	72,533	13,442	3,026,696	7,866
Accrued nvestment					
management fees	14,154,198	85,390	15,825	3,563,238	9,260
Ob gat ons under secur t es					
end ng act v t es (note 5)	63,726,041	384,451	71,247	16,042,663	41,693
Tota ab tes	93,561,479	564,443	104,604	23,553,563	61,212
F duc ary net pos t on –					
restr cted for benefits	\$ 14,900,649,703	\$ 89,893,506	\$ 16,659,121	\$ 3,751,152,623	\$ 9,748,684

The accompanying notes are an integral part of these financial statements.

## Statement of Fiduciary Net Position June 30, 2021 With Summarized Information as of June 30, 2020

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	2021 Total	2020 Summarized
\$ 1,590,525	\$ 998,414	\$ 259,565	\$ 38,061	\$	\$	\$ 32,280,754	\$ 36,941,229
18,635,817	141,191,851	21,296,716	60,472,245	18,818,254	380,874,507	2,995,713,490 7,221,257,439 9,148,301,698	2,557,861,687 5,896,509,580
18,635,817	141,191,851	21,296,716	60,472,245	18,818,254	380,874,507	19,365,272,627	7,139,093,388 15,593,464,655
266,154		41,620			2,000,000	34,692,755	30,420,775
						4,135,968	3,969,787
266,154		41,620			2,000,000	39,599,641	34,666,442
						80,266,095	206,264,894
20,492,496	142,190,265	21,597,901	60,510,306	18,818,254	382,874,507	15,013,550 19,532,432,667	<u>17,492,713</u> 15,888,829,933
974	7,376	1,113				4,617,012	3,548,956
1,931,140	1,562,564	386,279	31,373	1,062,798	3,100	307 20,120,693	19,255,493
2,736	20,731	3,127		2,749	29,327	17,886,581	19,215,103
						80,266,095	206,264,894
1,934,850	1,590,671	390,519	31,373	1,065,547	32,427	122,890,688	248,284,446
\$ 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

## Statement of Changes in Fiduciary Net Position Year Ended June 30, 2021 With Summarized Information for the Year Ended June 30, 2020

	State Employee and Teacher Plan	Judicial Plan	Legislative Plan	PLD Consolidated Plan	PLD Agent Plan
Additions:					
nvestment ncome:					
From nvest ng act v t es:					
Net apprec at on n the fa r					
va ue of p an investments	\$ 3,187,710,825	\$ 19,256,272	\$ 3,554,137	\$ 801,231,522	\$ 2,122,561
nterest	144,250	369	68	16,771	42
D v dends	101,905,492	614,782	113,932	25,654,119	66,671
Less: nvestment expenses	(98,109,870)	(594,109)	(109,342)	(24,630,674)	(66,045)
Net ncome from		·	<u> </u>		
nvest ng act v t es	3,191,650,697	19,277,314	3,558,795	802,271,738	2,123,229
From securities ending activities:	-, -, -,,,				, , , ,
Securtes ending income	371,939	2,244	416	93,634	243
Borrower rebates refunded	69,341	418	78	17,456	45
Management fees	(55,745)	(336)	(62)	(14,033)	(36)
Net ncome from secur t es			/		
end ng act v t es	385,535	2,326	432	97,057	252
Tota nvestment ncome	3,192,036,232	19,279,640	3,559,227	802,368,795	2,123,481
Contr but ons and prem ums (notes 6 and 7):					
Members	159,510,002	635,871	214,905	53,621,126	1,945
Emp oyers	239,444,343	738,939		68,506,486	67,920
Non-emp oyer contr but ng ent t es	179,329,944				
Transfers from other p ans		473,431			
Tota contr but ons and prem ums	578,284,289	1,848,241	214,905	122,127,612	69,865
Tota add t ons	3,770,320,521	21,127,881	3,774,132	924,496,407	2,193,346
Deductions:					
Benefits pa d	888,230,303	4,681,415	514,696	176,403,052	776,437
Refunds and w thdrawa s	14,885,606		34,765	6,288,865	
Transfers to other p ans	384,565		3,271	306,895	
C a ms process ng expenses (note 7)					
Adm n strat ve expenses	11,088,956	67,680	12,383	2,773,339	7,726
Tota deduct ons	914,589,430	4,749,095	565,115	185,772,151	784,163
Net ncrease/(decrease) n					
fiduc ary net pos t on	2,855,731,091	16,378,786	3,209,017	738,724,256	1,409,183
F duc ary net pos t on — restr cted for					
benefits, beg nn ng of year	12,044,918,612	73,514,720	13,450,104	3,012,428,367	8,339,501
F duc ary net pos t on — restr cted for					
benefits, end of year	\$14,900,649,703	\$ 89,893,506	\$ 16,659,121	\$3,751,152,623	\$ 9,748,684

The accompanying notes are an integral part of these financial statements.

## Statement of Changes in Fiduciary Net Position Year Ended June 30, 2021 With Summarized Information for the Year Ended June 30, 2020

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	2021 Total	2020 Summarized
\$ 4,867,551 76	\$ 32,627,685 512	\$ 4,999,304 78	\$12,366,885	\$ 4,415,481	\$ 89,391,625	\$ 4,162,543,848 162,166	2,210,251
(11,151)	(76,017)	(11,621)	(57,434)	(10,000)	(105,147)	128,354,996 (123,781,410)	123,699,264 (130,062,350)
4,856,476	32,552,180	4,987,761	12,309,451	4,405,481	89,286,478	4,167,279,600	465,761,170
						468,476 87,338 (70,212)	980,450 1,893,071 (146,978)
						485,602	2,726,543
4,856,476	32,552,180	4,987,761	12,309,451	4,405,481	89,286,478	4,167,765,202	468,487,713
4,608,345 1,634,067	5,265,344 4,601,234	1,186,563	4,317,161 806,866 221,300	7,736	2,000,000	222,909,355 319,658,264 183,931,178 694,731	214,634,675 301,450,176 179,008,454 29,220,129
	0.0((.570	1 10( 5(2			2 000 000		724 212 424
6,242,412	9,866,578	1,186,563	5,345,327	7,736	2,000,000	727,193,528	724,313,434
11,098,888	42,418,758	6,174,324	17,654,778	4,413,217	91,286,478	4,894,958,730	1,192,801,147
7,270,263	5,772,500	1,093,272	2,542,092	368,155		1,085,110,093 23,751,328 694,731	1,052,898,221 29,131,872 29,220,129
126,433	841,435	130,618	66,130			1,164,616	915,538
117,637	821,718	127,631	221,300		3,100	15,241,470	15,771,937
7,514,333	7,435,653	1,351,521	2,829,522	368,155	3,100	1,125,962,238	1,127,937,697
3,584,555	34,983,105	4,822,803	14,825,256	4,045,062	91,283,378	3,768,996,492	64,863,450
14,973,091	105,616,489	16,384,579	45,653,677	13,707,645	291,558,702	15,640,545,487	15,575,682,037
\$ 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

## Notes to Financial Statements June 30, 2021 With Summarized Information for June 30, 2020

## 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 311 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 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.

## Notes to Financial Statements June 30, 2021 With Summarized Information for June 30, 2020

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, 2021 were calculated as part of a roll-forward 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, 2021, participation in the defined contribution plans was as follows:

	401(a) Plan	457 Plan	403(b) Plan
Emp oyers	6	71	1
Part c pants	84	847	549

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.

#### **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, 2020, 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.

#### **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.

#### 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.

During the year ended June 30, 2021, local, U.S., and world governments began lifting mandates and recommendations designed to encourage self-isolation to curtail the spread of the global pandemic, coronavirus disease (COVID-19), including the temporary shut-down of business in many sectors and limitations on travel and size and duration of group meetings. While these mandates and recommendations have become less restrictive, many sectors are still experiencing disruption to business operations and may feel further impacts. There is uncertainty surrounding the duration of the pandemic, its potential economic ramifications, and any government actions to mitigate them. Therefore, while management expects this matter could have a financial impact on the System s financial position and results of future operations, such potential impact cannot be reasonably estimated at this time.

#### **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.

#### **New Accounting Pronouncement**

The System adopted Governmental Accounting Standards Board (GASB) Statement No. 93, Replacement of Interbank Offered Rates, for the year ended June 30, 2021. This statement addressed accounting and financial reporting implications that result from the replacement of an interbank offered rate, or IBOR. Adopting this statement had no material impact on the System's financial reporting.

# **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 (15%), traditional credit (7.5%), alternative credit (7.5%), real estate (10%), infrastructure (10%), natural resources (5%), US Government (7.5%), 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.

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:

	2021	2020
Cash and Cash Equ va ents	\$ 32,280,754	\$ 36,941,229
nvestments	19,365,272,627	15,593,464,655
Tota Far Vaue	\$ 19,397,553,381	\$ 15,630,405,884

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 <sup>(1)</sup>	2021	2020
ААА	\$ 1,419,475,818	\$ 1,363,796,154
AA	135,904,402	60,689,501
A	485,065,909	247,338,345
BBB	645,411,616	236,650,886
Tota Cred t R sk Debt	\$ 2,685,857,745 (2)	\$ 1,908,474,886 <sup>(2)</sup>

(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 2021 and 2020, all amounts are from common/collective trusts.

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, 2021.

There were no individual investments that constitute 5% or more of fiduciary net position for the other postemployment benefit plans administered by the System as of June 30, 2021.

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, 2021 and 2020, 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, 2021

Investment Type	Fair Value	Less than 1 Year		Less than 1 Year		_	1 to 6 Years	 6 to 10 Years	 10+ Years
Common/Co ect ve Trusts	\$ 2,685,857,745	\$	33,666,851		\$ 1,405,293,456	\$ 733,672,594	\$ 513,224,844		
Tota	\$ 2,685,857,745	\$	33,666,851		\$ 1,405,293,456	\$ 733,672,594	\$ 513,224,844		

Maturities as of June 30, 2020									
Investment Type	Fair Value	Le	ess than 1 Year		1 to 6 Years		6 to 10 Years		10+ Years
Common/Co ect ve Trusts	\$ 1,908,474,886	\$	101,126,038	\$	1,421,297,586	\$	210,576,710	\$	175,474,552
Tota	\$ 1,908,474,886	\$	101,126,038	\$	1,421,297,586	\$	210,576,710	\$	175,474,552

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. 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, 2021 is highlighted in the following table:

Currency	Total
Argent ne Peso	\$ 81,870
Austra an Do ar	99,019,226
Bermud an Do ar	1,228,614
Braz an Rea	37,429,507
Br t sh Pound Ster ng	291,460,865
Canad an Do ar	161,517,670
Ch ean Peso	3,460,377
Ch nese Yuan Renm nb	255,517,213
Co omb an Peso	1,069,666
Czech Koruna	907,642
Dan sh Krone	35,801,686
Egypt an Pound	564,881
Euro	1,295,616,533
Hong Kong Do ar	59,986,155
Hungar an For nt	1,717,778
nd a Rupee	73,576,731
ndones an Rup ah	7,938,122
Japanese Yen	327,443,001
Korean Won	95,352,184
Macao Pataca	1,060,990
Ma ays an R ngg t	8,805,252
Mex can Peso	12,593,067
New srae Sheqe	8,486,159
New Zea and Do ar	4,498,557
Norweg an Krone	9,006,461
Pak stan Rupee	130,430
Papua New Gu nea K na	480,975
Peruv an So	184,297
Ph pp ne Peso	4,483,808
Po shZoty	4,614,116
Qatar R ya	4,756,179
Russ an Rub e	20,314,107
Saud Arab an R ya	20,730,058
S ngapore Do ar	15,212,326
South Afr can Rand	24,883,207
Swed sh Krona	49,757,118
Sw ss Franc	138,677,987
Ta wan Do ar	98,892,920
Tha Baht	11,565,936
Turk sh L ra	1,624,366
Un ted Arab Em rates D rham	4,557,669
Tota	\$ 3,195,005,706

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, 2021, the value of these investments is approximately \$9.2 billion and the remaining funding commitment is approximately \$3.7 billion.

For the year ended June 30, 2021, the annual money-weighted rate of return on all defined benefit plan investments, net of investment expenses, was 26.5%. For the year ended June 30, 2021 the annual money-weighted rate of return on all OPEB plan investments, net of investment expense, was 30.6%. 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, 2021	Level 1	Level 2	Level 3	
nvestments by far va ue eve					
Common Equ ty	\$ 2,995,713,490	\$ 2,995,713,490	\$	\$	
Common/Co ect ve Trusts	7,221,257,439		7,221,257,439		
Co atera from oaned secur t es	80,266,09		80,266,095		
Tota nvestments by far vaue eve	10,297,237,024	\$ 2,995,713,490	\$ 7,301,523,534	\$	
nvestments measured at net asset va ue (NAV)					
A ternat ve Cred t	896,207,596				
nfrastructure	1,903,307,914				
Natura Resources	854,972,034				
Pr vate Equ ty	3,943,370,332				
Rea Estate	1,550,443,822				
Tota nvestments measured at NAV	9,148,301,698				
Tota nvestments measured at far va ue	\$ 19,445,538,722				

		Fair Value Measurements Using			
	June 30, 2020	Level 1	Level 2	Level 3	
nvestments by far va ue eve					
Common Equ ty	\$ 2,557,861,687	\$ 2,557,861,687	\$	\$	
Common/Co ect ve Trusts	5,896,509,580		5,896,509,580		
Co atera from oaned secur t es	206,264,894		206,264,894		
Tota nvestments by far va ue eve	\$ 8,660,636,161	\$ 2,557,861,687	\$ 6,102,774,474	\$	

nvestments measured at net asset va ue (NAV)		
A ternat ve Cred t	711,496,903	
nfrastructure	1,606,338,915	
Natura Resources	809,944,319	
Pr vate Equ ty	2,618,109,220	
Rea Estate	1,393,204,031	
Tota nvestments measured at NAV	7,139,093,388	
Tota nvestments measured at far va ue	\$ 15,799,729,549	

#### **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.

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, 2021					
Investments Measured at NAV	Fair Value	Unfunded Commitments				
A ternat ve Cred t <sup>(1)</sup>	\$ 896,207,596	\$ 519,945,685				
nfrastructure funds <sup>(2)</sup>	1,903,307,914	1,061,379,735				
Natura Resources <sup>(3)</sup>	854,972,034	288,040,270				
Pr vate Equ ty <sup>(4)</sup>	3,943,370,332	1,350,443,529				
Rea estate funds <sup>(5)</sup>	1,550,443,822	444,563,451				
Tota nvestments measured at NAV	\$ 9,148,301,698	\$ 3,664,372,670				

	June 30, 2020				
Investments Measured at NAV	Fair Value	Unfunded Commitments			
A ternat ve Cred t <sup>(1)</sup>	\$ 711,496,903	\$ 477,518,466			
nfrastructure funds <sup>(2)</sup>	1,606,338,915	886,447,202			
Natura Resources <sup>(3)</sup>	809,944,319	290,067,434			
Pr vate Equ ty <sup>(4)</sup>	2,618,109,220	1,377,978,443			
Rea estate funds <sup>(5)</sup>	1,393,204,031	395,181,099			
Tota nvestments measured at NAV	\$ 7,139,093,388	\$ 3,427,192,644			

(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 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 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 Systems 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, 2021 or 2020 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.

Non-cash 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, 2021 and 2020.

Cash collateral is invested in a short-term investment account which had an interest sensitivity of 2 and 10 days as of June 30, 2021 and 2020, 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 2021 and 2020, 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, 2021 and 2020, 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.

#### Aggregate securities on loan by asset class are as follows:

	2021	2020
Domest c equ ty secur t es on oan	\$ 164,429,143	\$ 264,085,139
Aggregate secur t es end ng co atera :		
Short-term nvestment co atera poo	\$ 80,266,094	\$ 206,264,894
Non-cash co atera	87,937,421	63,904,350
Tota co atera	\$ 168,203,515	\$ 270,169,244
Co atera rat o	102.3%	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, 2021, there were 238 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:

	2021	2020
Current part c pants:		
Vested and non-vested	40,099	40,395
Term nated part c pants:		
Vested	8,387	8,157
nact ve due refunds	38,393	37,653
Ret rees and benefic ar es rece v ng benefits	37,690	37,151
	124,569	123,356

#### **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:

	2021	2020
Current part c pants:		
Vested and non-vested	60	58
Term nated part c pants:		
Vested	2	3
nact ve due refunds	1	1
Ret rees and benefic ar es rece v ng benefits	85	83
	148	145

#### **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:

	2021	2020
Current part c pants:		
Vested and non-vested	178	179
Term nated part c pants:		
Vested	124	117
nact ve due refunds	101	94
Ret rees and benefic ar es rece v ng benefits	222	206
	625	596

### **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, 2021, there were 305 employers participating in the plan.

Plan membership counts for the PLD Consolidated Plan at June 30 are as follows:

	2021	2020
Current part c pants:		
Vested and non-vested	11,704	11,838
Term nated part c pants:		
Vested	2,563	2,402
nact ve due refunds	9,479	8,766
Ret rees and benefic ar es rece v ng benefits	10,093	9,860
	33,839	32,866

### **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, 2021, there were 6 employers in the plan.

Plan membership counts for the PLD Agent Plan at June 30 are as follows:

	2021	2020
Current part c pants:		
Vested and non-vested		1
Term nated part c pants:		
Vested		
nact ve due refunds	1	1
Ret rees and benefic ar es rece v ng benefits	51	50
	52	52

#### **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 .93%.

#### **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.

#### 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, 2021, were as follows:

Tota pens on ab ty	\$ 16,392.3
P an fiduc ary net pos t on	14,900.6
Net pens on ab ty	\$ 1,491.7
P an fiduc ary net pos t on as a percentage of the tota pens on ab ty	90.9%

#### 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, 2021, were as follows:

Tota pension ab ty	\$ 75.8
P an fiduc ary net pos t on	 89.9
Net pens on asset	\$ (14.1)
P an fiduc ary net pos t on as a percentage of the tota pens on ab ty	118.6%

#### 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, 2021, were as follows:

Tota pens on ab ty	\$ 10.7
P an fiduc ary net pos t on	 16.7
Net pens on asset	\$ (6.0)
P an fiduc ary net pos t on as a percentage of the tota pens on ab ty	156.0%

#### 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, 2021, were as follows:

Tota pens on ab ty	\$ 3,719.0
P an fiduc ary net pos t on	3,751.1
Net pens on asset	\$ (32.1)
P an fiduc ary net pos t on as a percentage of the tota pens on ab ty	100.9%

#### **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, 2021 was 7 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 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, 2021, 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, 2020, except as indicated.

	State Emp oyee and Teacher	Judca Pan	Leg s at ve P an	PLD Conso dated P an
nvestment Rate of Return	Per annum, compounded annua y: 6 50% for June 30, 2021 and 6 75% for June 30, 2020			
nflat on Rate			2 75%	
		For Ju	ine 30, 2021	
Annua Saary	State emp oyees, 3 26% – 9 43%; Teachers, 2 80% – 13 03%	2 75%	2 75%	2 75% - 11 48%
ncreases, nc ud ng nflat on		For Ju	ne 30, 2020	
	State emp oyees, 2 75% – 8 75%; Teachers, 2 75% – 14 50%	2 75%	2 75%	2 75% - 9 00%
Cost of L v ng Benefit ncreases	2 20% 191%			1 91%
	For June 30, 2021			
Morta ty Rates	State Emp oyee, Jud c a , and Leg s at ve: based on the 2010 Pub c P an Genera Benefits-We ghted Hea thy Ret ree Morta ty Tab e, for ma es and fema es, projected generat ona y us ng the RPEC 2020 mode Teachers: based on the 2010 Pub c P an Teacher Benefits- We ghted Hea thy Ret ree Morta ty Tab e, for ma es and fema es, projected generat ona y us ng the RPEC 2020 mode Based on the 2010 Pub c P an Genera Benefits- We ghted Hea thy Ret ree Morta ty Tab e, for ma es and fema es, projected generat ona y us ng the RPEC 2020 mode			
	For June 30, 2020			
	For act ve members and non-d sab ed ret rees, the RP2014 Tota Dataset Hea thy Annu tant Morta ty Tab e, for ma es and fema es, s used For a rec p ents of d sab ty benefits, the RP2014 Tota Dataset D sab ed Annu tant Morta ty Tab e, for ma es and fema es, s used			

The actuarial assumptions used in the 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 actuarial assumptions used in the June 30, 2020 actuarial valuations were based on the results of an actuarial experience study for the period of June 30, 2012 to June 30, 2015.

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 geometric real rates of return for each major asset class included in the target asset allocation as of June 30, 2021 are summarized in the following table:

Asset Class	Long-Term Expected Real Rate of Return
Pub c equ t es	6.0%
US Government	2.3
Pr vate equ ty	7.6
Rea assets	
Rea estate	5.2
nfrastructure	5.3
Natura resources	5.0
Trad t ona Cred t	3.0
A ternat ve Cred t	7.2
D vers fiers	5.9

### **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:

	1% Decrease	Current Rate	1% Increase
	(5.5%)	(6.5%)	(7.5%)
Net Pens on L ab ty/(Asset):			
State Emp oyee and Teacher P an	\$ 3,537,629,660	\$ 1,491,707,308	\$ (216,518,489)
Jud c a P an	(7,337,865)	(14,105,942)	(20,014,673)
Leg s at ve P an	(4,879,914)	(5,980,650)	(6,929,727)
PLD Conso dated P an	457,316,812	(32,136,209)	(436,978,368)

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 Plans 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 \$351.5 million and \$338.2 million, and for judges in the total amount of \$739 thousand and \$716 thousand, for the years ended June 30, 2021 and 2020, respectively. There were no contributions due from the State of Maine on behalf of legislators in 2021 or 2020.

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 2021 and 2020 are as follows:

	2021	2020
State:		
Emp oyees <sup>(2)</sup>	7.65 8.65%	7.65 8.65%
Emp oyer <sup>(2)</sup>	20.93 32.68%	20.93 32.68%
Teachers:		
Emp oyees	7.65%	7.65%
Emp oyer	4.16%	4.16%
Non-emp oyer ent ty	14.33%	14.33%
Judges:		
Emp oyees	7.65%	7.65%
Emp oyer	8.89%	8.89%
Leg s at ve:		
Emp oyees	7.65%	7.65%
Emp oyer	0.00%	0.00%
Part c pat ng oca d str cts:		
Emp oyees <sup>(2)</sup>	3.85 9.5%	3.85 9.5%
Emp oyers <sup>(2)</sup>	5.2 16.0%	4.5 16.2%

#### Contribution Rates<sup>(1)</sup> (effective July 1 through June 30 of each fiscal year)

(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.

#### 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, 2021 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:

	2021	2020
Ret red State Emp oyees	8,741	8,741
Ret red Teachers	7,534	7,534
Act ve State Emp oyees	11,698	11,698
Act ve 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, 2021 there were 137 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:

	2021	2020
Ret red PLD Emp oyees	2,879	2,879
Act ve PLD Emp oyees	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 retirees 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.

#### **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 \$0.46 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, 2021, were as follows:

Tota OPEB ab ty	\$ 223.5
P an fiduc ary net pos t on	140.6
Net OPEB ab ty	\$ 82.9
P an fiduc ary net pos t on as a percentage of the tota OPEB ab ty	62.9%

#### 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, 2021, were as follows:

Tota OPEB ab ty	\$ 31.5
P an fiduc ary net pos t on	21.2
	<b>*</b> 40.0
Net OPEB ab ty	\$ 10.3
P an fiduc ary net pos t on as a percentage of the tota OPEB ab ty	67.3%

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.

#### **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, 2021 are displayed in the table below. The valuation date is June 30, 2021. These same assumptions were used as of June 30, 2020 unless otherwise noted.

	State emp oyees, nc ud ng judges and eg s ators	Teachers	PLD emp oyees			
	Per annum, compounded annua y:					
nvestment Rate of Return	6 50% for June 30, 2021; 6 75% for June 30, 2020,       6 50% for June 30, 2021;         June 30, 2019 and June 30, 2018; 6 875% for June 30, 2017       6 50% for June 30, 2020;         4 98% for June 30, 2019;       5 13% for June 30, 2018;         5 41% for June 30, 2017       5 41% for June 30, 2017					
nflat on Rate	2 75% for June 30, 2021, June	30, 2020, June 30, 2019, June 3	0, 2018 and June 30, 2017			
		For June 30, 2021				
Annua Saary ncreases,	State emp oyees: 3 26% – 9 43%; Judges and Leg s ators: 2 75%	2 80% - 13 03%	2 75% - 11 48%			
nc ud ng nflat on	For June 30, 2020,	June 30, 2019, June 30, 2018 an	d June 30, 2017			
	2 75% – 8 75% 2 75% – 14 50%		2 75% - 9 00%			
	For June 30, 2021					
Morta ty Rates	Based on the 2010 Pub c P an Genera Benefits-We ghted Hea thy Ret ree Morta ty Tab e, for ma es and fema es, projected generat ona y us ng the RPEC 2020 mode	Genera Benefits-We ghted Hea thy Ret ree Morta ty Tab e, for ma es and fema es, projected generat ona y us ng theTeacher Benefits-We ghted Hea thy Ret ree Morta ty Tab e, for ma es and fema es, projected generat ona y us ng				
	For June 30, 2020, June 30, 2019, June 30, 2018 and June 30, 2017					
	For act ve members and non-d sab ed ret rees of the State emp oyees, eg s at jud c a , and PLD p ans, the RP2014 Tota Dataset Hea thy Annu tant Morta ty Tab e, f and fema es, s used For a rec p ents of d sab ty benefits, the RP2014 Tota Dat D sab ed Annu tant Morta ty Tab e, for ma es and fema es, s used					
Part c pat on Rate for Future Ret rees	10	00% of those current y enro ed				
Convers on Charges	App y to the cost of act v	e group fe nsurance, not ret ree	group fe nsurance			
Form of Benefit Payment	Lump sum					

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, 2021, there were 16 years remaining in the amortization schedule for state employees and teachers, and 9 years remaining for PLD employees.

The actuarial assumptions used in the 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 actuarial assumptions used in the June 30, 2019 actuarial valuations were based on the results of an actuarial experience study conducted for the period of June 30, 2012 to June 30, 2015.

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, 2021 are summarized in the following table:

Asset Class	Long-Term Expected <u>Real Rate of Return</u>
Pub c equ ty	6.0%
Rea estate	5.2
Trad t ona cred t	3.0
US Government secur t es	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 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 Plans 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.

In 2020, the discount rate used to measure the total OPEB liability for the PLD Plan was 6.75%.

#### 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	Current Rate	1% Increase
	<u>(5.5%)</u>	<u>(6.5%)</u>	<u>(7.5%)</u>
Net OPEB L ab ty	\$ 116,907,571	\$ 82,916,308	\$ 55,416,892

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	Current Rate	1% Increase
	<u>(5.5%)</u>	<u>(6.5%)</u>	<u>(7.5%)</u>
Net OPEB Lab ty	\$ 15,325,436	\$ 10,323,979	\$ 6,311,802

#### **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 for employees of participating local districts or the district itself pay premiums of \$.46 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 \$11.5 and \$10.8 million, respectively, for the years ended June 30, 2021 and 2020.

#### **Benefits**

Upon service retirement, only basic life insurance in an amount equal to the retirees 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 \$1,098,486 and \$828,074 for the years ended June 30, 2021 and 2020, 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 7.35% or 8.1% 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 10.1% and 10.0% of annual covered payroll for 2021 and 2020, respectively.

The employer contributions on behalf of its employees, equal to the required contribution, were \$730,247 and \$732,879 for 2021 and 2020, 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 \$0.46 per \$1,000 of coverage for the 2021 and 2020 fiscal years. The total premiums the System paid on behalf of its active employees, equal to the required contributions, were \$37,580 and \$35,488 for 2021 and 2020, 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 Post-Employment Benefits Other Than Pensions.

The total contributions for retiree health insurance coverage, equal to the actuarially determined contributions, were \$0 for 2021 and 2020. The OPEB liability for this plan is immaterial and the Plans assets exceed its actuarial liability at June 30, 2021 and 2020. The actuarial liability is calculated using assumptions similar to those used for the Systems defined benefit plan.

The total contributions for retiree group life insurance coverage, equal to the actuarially determined contributions, were \$7,736 and \$7,748 for 2021 and 2020, 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.

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## Schedule of Historical Pension Information State Employee and Teacher Plan June 30, 2021 (Unaudited)

# Schedule of Changes in the Plan's Net Pension Liability and Related Ratios

Last Ten Fiscal Years\*

	2021	2020		2019
Total pension liability			-	
Serv ce cost	\$ 238,775,193	231,226,103	\$	224,775,112
nterest	989,560,149	968,243,358		934,009,648
Changes of benefit terms		1,223,156		
D fferences between expected and actua exper ence	25,575,263	162,293		208,719,412
Changes of assumpt on	1,175,893,728			
Benefit payments, nc ud ng refunds of member contr but ons	 (902,913,135)	(882,617,693)	-	(851,469,104)
Net change n tota pens on ab ty	1,526,891,198	318,237,217		516,035,068
Tota pens on ab ty, beg nn ng	 14,865,460,130	14,547,222,913	-	14,031,187,845
Tota pens on ab ty, end ng (a)	\$ 16,392,351,328	\$ 14,865,460,130	\$	14,547,222,913
Plan fiduciary net position				
Contr but ons – members	\$ 159,510,002	\$ 151,438,848	\$	146,019,051
Contr but ons — emp oyers	239,444,343	225,468,762		218,530,934
Contr but ons — non-emp oyer contr but ng ent t es	179,329,944	174,530,364		132,980,832
nvestment ncome	3,192,036,232	354,272,726		768,987,130
Benefits pa d, nc ud ng refunds and w thdrawa s	(903,115,909)	(882,819,483)		(851,653,558)
Adm n strat ve expenses	(11,088,956)	(11,343,928)		(11,180,852)
Other	 (384,565)	(2,193,752)	-	(311,233)
Net change n fiduc ary net pos t on	2,855,731,091	9,353,537		403,372,304
P an fiduc ary net pos t on, beg nn ng	 12,044,918,612	12,035,565,075	-	11,632,192,771
P an fiduc ary net pos t on, end ng (b)	\$ 14,900,649,703	\$ 12,044,918,612	\$	12,035,565,075
P an's net pens on ab ty, end ng (a)-(b)	\$ 1,491,701,625	\$ 2,820,541,518	\$	2,511,657,838
P an fiduc ary net pos t on as a				
percentage of the tota pens on ab ty	90.90%	81.03%		82.73%
Covered payro	\$ 2,096,365,332	\$ 2,003,075,813	\$	1,924,006,618
P an net pens on ab ty as a percentage of covered payro	71.16%	140.81%		130.54%

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.

# Schedule of Historical Pension Information State Employee and Teacher Plan June 30, 2021 (Unaudited)

-	2018	2017		2016	_	2015	_	2014
\$	215,826,380	\$ 213,047,075	\$	203,297,053	\$	191,528,649	\$	186,376,754
	914,535,911	886,834,221		882,785,134		861,682,508		842,229,062
						9,778,106		
	34,151,279	95,207,531		81,506,700		(44,287,643)		(17,694,276)
	191,998,939			30,436,605				167,650,573
-	(810,211,176)	(780,157,263)		(744,357,598)	_	(722,573,349)	-	(689,053,212)
	546,301,333	414,931,564		453,667,894		296,128,271		489,508,901
-	13,484,886,512	13,069,954,948		12,616,287,054		12,320,158,783	_	11,830,649,882
\$	14,031,187,845	\$ 13,484,886,512	\$	13,069,954,948	\$	12,616,287,054	\$	12,320,158,783
\$	140,844,880	\$ 139,464,284	\$	125,523,987	\$	123,528,807	\$	121,033,152
	211,251,144	211,037,365	·	199,212,719		173,935,492	•	162,920,147
	129,421,735	116,080,164		112,477,836		147,283,716		142,303,104
	1,077,827,554	1,256,043,735		40,540,759		191,829,057		1,517,432,345
	(810,381,770)	(780,325,980)		(744,523,744)		(722,724,258)		(689,191,030)
	(10,076,242)	(9,216,027)		(8,649,031)		(9,386,695)		(8,246,740)
-		(124,178)		(6,342,010)	_		_	
	738,887,301	932,959,363		(281,759,484)		(95,533,881)		1,246,250,978
-	10,893,305,470	9,960,346,107		10,242,105,591		10,337,639,472	_	9,091,388,494
\$	11,632,192,771	\$ 10,893,305,470	\$	9,960,346,107	\$	10,242,105,591	\$	10,337,639,472
\$	2,398,995,074	\$ 2,591,581,042	\$	3,109,608,841	\$	2,374,181,463	\$	1,982,519,311
	82.90%	80.78%		76.21%		81.18%		83.91%
\$	1,808,274,919	\$ 1,860,294,435	\$	1,816,435,084	\$	1,699,160,889	\$	1,676,857,294
	132.67%	139.31%		171.19%		139.73%		118.23%

### Schedule of Historical Pension Information Judicial Plan June 30, 2021 (Unaudited)

#### Schedule of Changes in the Plan's Net Pension Liability and Related Ratios Last Ten Fiscal Years\*

2021 2020 2019 **Total pension liability** Serv ce cost \$ 1,546,701 \$ 1,608,376 1,596,832 \$ nterest 4.822.289 4,644,191 4,582,454 Changes of benefit terms D fferences between expected and actua exper ence 1,066,613 942,561 (1,087,164)Changes of assumpt ons 836,266 Benefit payments, nc ud ng refunds of member contr but ons (4,681,415) (4,314,558) (4,067,506) 3,590,454 2,880,570 Net change n tota pens on ab ty 1,024,616 Tota pens on ab ty, beg nn ng 72,197,110 69,316,540 68,291,924 Tota pens on ab ty, end ng (a) \$ 75,787,564 \$ 72,197,110 \$ 69,316,540 Plan fiduciary net position Contr but ons - members \$ 635,871 616,095 \$ 620,075 Contr but ons - emp overs 738,939 715,963 1,212,666 19,279,640 nvestment ncome 2,164,283 4,709,445 Benefits pad, nc ud ng refunds and w thdrawa s (4,681,415)(4, 314, 558)(4,067,506) Adm n strat ve expenses (68, 475)(67, 680)(69, 406)Other 473,431 764,902 (2,604) Net change n fiduc ary net post on 16,378,786 (122,721) 2,403,601 P an fiduc ary net post on, beg nn ng 73,514,720 73,637,441 71,233,840 P an fiduc ary net post on, end ng (b) \$ 89,893,506 \$ 73,514,720 \$ 73,637,441 P an's net pens on (asset) ab ty, end ng (a)-(b) \$(14,105,942) \$ (1,317,610) \$ (4,320,901) P an fiduc ary net post on as a percentage of the tota pens on ab ty 106.23% 118.61% 101.83% \$ 8,053,577 Covered payro \$ 8,312,022 8,116,908 \$ P an net pens on (asset) ab ty as a percentage of covered payro (169.71)% (16.36)% (53.23)%

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 auditor s report.

# Schedule of Historical Pension Information Judicial Plan June 30, 2021 (Unaudited)

2018	2017	2016	2015	2014
\$ 1,487,383	\$ 1,465,977	\$ 1,396,704	\$ 1,605,751	\$ 1,530,119
4,442,404	4,358,175	4,154,433	3,863,455	3,773,959
		2,016,584	27,931	
468,895	(893,352)	(1,745,956)	2,237,833	(324,891)
697,807		2,489,800		426,150
(3,804,709)	(3,651,927)	(3,501,911)	(3,383,995)	(3,219,480)
3,291,780	1,278,873	4,809,654	4,350,975	2,185,857
65,000,144	63,721,271	58,911,617	54,560,642	52,373,785
<u>\$ 68,291,924</u>	\$ 65,000,144	\$ 63,721,271	\$ 58,911,617	\$ 54,560,642
\$ 603,875	\$ 584,451	\$ 549,845	\$ 549,691	\$ 528,192
1,179,328	1,144,445	1,077,545	979,281	932,223
6,606,905	7,799,507	129,372	1,055,346	8,416,042
(3,804,709)	(3,651,927)	(3,501,911)	(3,383,995)	(3,219,480)
(61,708)	(56,436)	(47,577)	(49,399)	(41,680)
		6,342,010		
4,523,691	5,820,040	4,549,284	(849,076)	6,615,297
66,710,149	60,890,109	56,340,825	57,189,901	50,574,604
\$ 71,233,840	\$ 66,710,149	\$ 60,890,109	\$ 56,340,825	\$ 57,189,901
<u>\$ (2,941,916)</u>	\$ (1,710,005)	\$ 2,831,162	\$ 2,570,792	<u>\$ (2,629,259)</u>
104.31%	102.63%	95.56%	95.64%	104.82%
\$7,893,762	\$7,639,818	\$ 7,188,426	\$ 7,185,501	\$ 6,742,444
(37.27)%	(22.38)%	39.39%	35.78%	(39.00)%

# Schedule of Historical Pension Information Legislative Plan June 30, 2021 (Unaudited)

# Schedule of Changes in the Plan's Net Pension Liability and Related Ratios

Last Ten Fiscal Years\*

	2021	2020	2019
Total pension liability			
Serv ce cost	\$ 286,472	\$ 334,862	\$ 297,324
nterest	657,782	611,447	577,720
Changes of benefit terms			
D fferences between expected and actua exper ence	180,989	413,313	238,611
Changes of assumpt ons	374,000		
Benefit payments, nc ud ng refunds of member contr but ons	(549,461)	(697,697)	(606,841)
Net change n tota pens on ab ty	949,782	661,925	506,814
Tota pens on ab ty, beg nn ng	9,728,689	9,066,764	8,559,950
Tota pens on ab ty, end ng (a)	\$ 10,678,471	\$ 9,728,689	\$ 9,066,764
Plan fiduciary net position			
Contr but ons — members	\$ 214,905	\$ 156,306	\$ 220,611
Contr but ons — emp oyers			
nvestment ncome	3,559,227	390,165	845,407
Benefits pa d, nc ud ng refunds and w thdrawa s	(549,461)	(697,697)	(606,840)
Adm n strat ve expenses	(12,383)	(12,458)	(12,262)
Other	(3,271)	365,766	45,285
Net change n fiduc ary net pos t on	3,209,017	202,082	492,201
P an fiduc ary net pos t on, beg nn ng	13,450,104	13,248,022	12,755,821
P an fiduc ary net pos t on, end ng (b)	\$ 16,659,121	\$ 13,450,104	\$ 13,248,022
P an's net pens on asset, end ng (a)-(b)	\$ (5,980,650)	\$ (3,721,415)	\$ (4,181,258)
P an fiduc ary net post on as a percentage of the tota pens on $ab ty$	/ 156.01%	138.25%	146.12%
Covered payro	\$ 2,802,145	\$ 2,814,060	\$ 2,659,749
P an net pens on asset as a percentage of covered payro	(213.43)%	(132.24)%	(157.20)%

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.

# Schedule of Historical Pension Information Legislative Plan June 30, 2021 (Unaudited)

2018	2017	2016	2015	2014
\$ 282,199	\$ 264,807	\$ 411,624	\$ 451,393	\$ 400,072
565,088	530,313	547,268	544,526	510,813
			4,418	
(90,816)	157,775	(245,867)	(508,125)	(46,483)
99,915		(146,529)		85,783
(459,746)	(469,043)	(445,331)	(439,112)	(317,606)
396,640	483,852	121,165	53,100	632,579
8,163,310	7,679,458	7,558,293	7,505,193	6,872,614
\$ 8,559,950	\$ 8,163,310	\$7,679,458	\$ 7,558,293	\$ 7,505,193
\$ 153,881	\$ 202,388	\$ 137,893	\$ 193,356	\$ 139,501
			4,418	3,857
1,176,463	1,366,222	47,890	206,454	1,622,296
(459,746)	(469,043)	(445,331)	(439,112)	(317,606)
(11,002)	(10,003)	(9,353)	(9,584)	(7,975)
859,596	1,089,564	(268,901)	(44,468)	1,440,073
11,896,225	10,806,661	11,075,562	11,120,030	9,679,957
<u>\$ 12,755,821</u>	\$ 11,896,225	\$ 10,806,661	\$ 11,075,562	\$ 11,120,030
\$ (4,195,871)	\$ (3,732,915)	\$ (3,127,203)	\$ (3,517,269)	\$ (3,614,837)
149.02%	145.73%	140.72%	146.54%	148.16%
\$ 2,710,694	\$ 2,651,195	\$ 2,590,011	\$2,527,525	\$ 2,534,740
(154.79)%	(140.80)%	(120.74)%	(139.16)%	(142.61)%

# Schedule of Historical Pension Information PLD Consolidated Plan June 30, 2021 (Unaudited)

# Schedule of Changes in the Plan's Net Pension Liability and Related Ratios

Last Ten Fiscal Years\*

	2021	2020	2019
Total pension liability			
Serv ce cost	\$ 86,845,610	\$ 82,715,056	\$ 78,317,217
nterest	\$ 229,954,447	219,752,007	208,360,684
Changes n benefit terms		29,759,516	
D fferences between expected and actua exper ence	13,300,796	(6,552,650)	47,684,163
Changes of assumpt ons	161,866,111		
Benefit payments, nc ud ng refunds of member contr but ons	(182,691,917)	(174,752,167)	(165,399,679)
Net change n tota pens on ab ty	309,275,047	150,921,762	168,962,385
Tota pens on ab ty, beg nn ng	3,409,741,367	3,258,819,605	3,089,857,220
Tota pens on ab ty, end ng (a)	\$ 3,719,016,414	\$ 3,409,741,367	\$ 3,258,819,605
Plan fiduciary net position			
Contr but ons – members	\$ 53,621,126	\$54,090,045	\$ 54,927,202
Contr but ons – emp oyers	68,506,485	66,717,733	61,487,037
nvestment ncome	802,368,797	88,330,927	188,620,107
Benefits pa d, nc ud ng refunds and w thdrawa s	(182,691,917)	(174,752,167)	(165,399,680)
Adm n strat ve expenses	(2,773,340)	(2,797,728)	(2,706,977)
Other	(306,895)	27,683,461	48,552
Net change n fiduc ary net pos t on	738,724,256	59,272,271	136,976,241
P an fiduc ary net pos t on, beg nn ng	3,012,428,367	2,953,156,096	2,816,179,855
P an fiduc ary net pos t on, end ng (b)	\$ 3,751,152,623	\$ 3,012,428,367	\$ 2,953,156,096
P an's net pens on (asset) ab ty, end ng (a)-(b)	\$ (32,136,209)	\$ 397,313,000	\$ 305,663,509
P an fiduc ary net pos t on as a			
percentage of the tota pens on (asset) ab ty	100.86%	88.35%	90.62%
Covered payro	\$ 646,287,594	\$ 641,523,784	\$ 593,884,355
P an net pens on (asset) ab ty as a percentage of covered payro	(4.90)%	61.93%	51.47%

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.

# Schedule of Historical Pension Information PLD Consolidated Plan June 30, 2021 (Unaudited)

_	2018	2017	2016	2015	2014
\$	76,190,510	\$ 76,271,766	\$ 74,208,414	\$ 75,805,492	\$ 72,651,025
	207,492,397	198,972,490	192,774,429	187,928,506	178,293,576
	(106,123,366)				
	1,285,303	(2,160,603)	(9,142,757)	(54,634,906)	19,939,857
	46,439,540		50,884,219	37,593,598	
-	(152,087,885)	(146,163,566)	(139,919,680)	(135,414,526)	(127,161,357)
	73,196,499	126,920,087	168,804,625	111,278,164	143,723,101
_	3,016,660,721	2,889,740,634	2,720,936,009	2,609,657,845	2,465,934,744
\$	3,089,857,220	\$ 3,016,660,721	\$ 2,889,740,634	\$ 2,720,936,009	\$ 2,609,657,845
\$	48,050,202	\$ 46,080,851	\$ 40,861,405	\$ 37,202,921	\$ 33,210,510
	56,092,662	51,387,011	47,624,182	43,366,730	32,706,160
	259,699,519	299,780,948	10,200,342	46,075,304	361,125,177
	(152,087,885)	(146,163,566)	(139,919,680)	(135,414,526)	(127,161,358)
	(2,411,666)	(2,209,324)	(2,028,294)	(2,117,266)	(1,779,304)
-	(386,621)	(62,201)	(217,338)		
	208,956,211	248,813,719	(43,479,383)	(53,887,363)	298,101,185
-	2,607,223,644	2,358,409,925	2,401,889,308	2,455,776,671	2,157,675,486
\$	2,816,179,855	\$ 2,607,223,644	\$ 2,358,409,925	\$ 2,401,889,308	\$ 2,455,776,671
\$	273,677,365	\$ 409,437,077	\$ 531,330,709	\$ 319,046,699	\$ 153,881,174
	91.14%	86.43%	81.61%	88.27%	94.10%
\$	561,126,768	\$ 542,572,528	\$ 521,870,235	\$ 497,616,846	\$ 460,029,637
¥					
	48.77%	75.46%	101.81%	64.11%	33.45%

### Schedule of Historical Pension Information State Employee and Teacher Plan June 30, 2021 (Unaudited)

#### Schedule of Employer Contributions Last Ten Fiscal Years

	2021	2020	2019	2018
Actuar a y determ ned contr but on	\$ 418,558,583	\$ 399,775,788	\$ 350,583,375	\$ 340,376,744
Contr but ons n re at on to the actuar a y determ ned contr but on	418,558,583	399,775,788	350,583,375	340,376,744
Contr but on defic ency (excess)	\$	\$	\$	\$
Covered payro	\$ 2,096,365,332	\$ 2,003,075,813	\$1,924,006,618	\$ 1,865,849,388
Contr but ons as a percentage of covered payro	19.97%	19.96%	18.22%	18.24%

See notes to historical pension and OPEB information. See accompanying independent auditor s report.

### **Required Supplementary Information**

### Schedule of Historical Pension Information Judicial Plan June 30, 2021 (Unaudited)

#### Schedule of Employer Contributions Last Ten Fiscal Years

	2021	2020	2019	2018
Actuar a y determ ned contr but on	\$ 738,939	\$ 715,963	\$ 1,212,666	\$ 1,179,328
Contr but ons n re at on to the actuar a y determ ned contr but on	738,939	715,963	1,212,666	1,179,328
Contr but on defic ency (excess)	\$	\$	\$	\$
Covered payro	\$ 8,312,022	\$ 8,053,577	\$ 8,116,908	\$ 7,893,762
Contr but ons as a percentage of covered payro	8.89%	8.89%	14.94%	14.94%

See notes to historical pension and OPEB information. See accompanying independent auditor s report.

 2017		2016	_	2015	_	2014	_	2013	_	2012
\$ 312,736,906	\$	301,891,511	\$	302,028,725	\$	304,328,386	\$	263,553,204	\$	252,019,252
 312,736,906	_	301,891,511	_	302,028,725	_	304,328,386	_	263,553,204	_	252,019,252
\$ 	\$		\$		\$		\$		\$	
\$ 1,860,230,663	\$	1,816,435,084	\$	1,699,160,889	\$	1,676,857,294	\$	1,672,857,294	\$1	,718,449,172
16.81%		16.62%		17.78%		18.15%		15.75%		14.67%

2017	2016	2015	2014	2013	2012
\$ 1,144,445	\$ 1,077,545	\$ 951,351	\$ 932,223	\$ 841,397	\$ 810,721
1,144,445	1,077,545	951,351	932,223	841,397	810,721
\$	\$	\$	\$	\$	\$
\$ 7,639,818	\$ 7,188,426	\$ 7,185,501	\$ 6,742,444	\$ 6,742,444	\$ 6,790,274
14.98%	14.99%	13.24%	13.83%	12.48%	11.94%

Schedule of Historical Pension Information Legislative Plan June 30, 2021 (Unaudited)

#### Schedule of Employer Contributions Last Ten Fiscal Years

	2021	2020	2019	2018
Actuar a y determ ned contr but on	\$	\$	\$	\$
Contr but ons n re at on to the actuar a y determ ned contr but on				
Contr but on defic ency (excess)	\$	\$	\$	\$
Covered payro	\$ 2,802,145	\$ 2,814,060	\$ 2,659,749	\$ 2,710,694
Contr but ons as a percentage of covered payro	0.00%	0.00%	0.00%	0.00%

See notes to historical pension and OPEB information. See accompanying independent auditor s report.

#### **Required Supplementary Information**

### Schedule of Historical Pension Information PLD Consolidated Plan June 30, 2021 (Unaudited)

#### **Schedule of Employer Contributions**

#### Last Ten Fiscal Years

	2021	2020	2019	2018
Actuar a y determ ned contr but on	\$ 68,506,485	\$ 66,717,733	\$ 61,170,089	\$ 55,551,550
Contr but ons n re at on to the actuar a y determ ned contr but on	68,506,485	66,717,733	61,170,089	55,551,550
Contr but on defic ency (excess)	\$	\$	\$	\$
Covered payro	\$ 646,287,594	641,523,784	\$ 593,884,355	\$ 561,126,768
Contr but ons as a percentage of covered payro	10.60%	10.40%	10.30%	9.90%

See notes to historical pension and OPEB information. See accompanying independent auditor s report.

2017	2016	2015	2014	2013	2012
\$	\$	\$	\$	\$	\$
\$	¢.	¢.	¢	¢	¢
φ	φ	Φ	Ф	φ	φ
\$ 2,651,195	\$ 2,590,011	\$ 2,527,525	\$ 2,534,740	\$ 2,534,740	\$ 2,424,480
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

2017	2016	2015	2014	2013	2012
\$ 51,387,011	\$ 46,968,321	\$ 40,302,580	\$ 35,263,952	\$ 29,704,314	\$ 25,056,574
51,387,011	46,968,321	40,302,580	35,263,952	29,704,314	25,372,687
\$	\$	\$	\$	\$	\$ (316,113)
\$ 542,572,528	\$ 521,870,235	\$ 497,616,846	\$ 460,029,637	\$ 458,424,764	\$ 474,828,262
9.47%	9.00%	8.10%	7.67%	6.48%	5.34%

# Schedule of Historical Pension Information All Defined Benefit Plans June 30, 2021 (Unaudited)

#### **Schedule of Investment Returns**

Last Ten Fiscal Years\*

	2021	<u>2020</u>	<u>2019</u>	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>
Annua money-we ghted rate of return, net of nvestment expenses	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 auditors report.

# Schedule of Historical OPEB Information State Employee and Teacher Plan June 30, 2021 (Unaudited)

# Schedule of Changes in the Plan's Net OPEB Liability and Related Ratios

Last	len	Fiscal	Years
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	 2021	 2020	 2019	 2018	 2017
Total OPEB liability					
Service cost	\$ 2,683,027	\$ 2,190,471	\$ 2,131,845	\$ 2,122,079	\$ 2,065,283
nterest	13,846,827	14,274,714	13,155,332	12,531,082	12,014,739
Di erences between expected					
and actual experience		589,478		1,957,220	
Changes o assumptions	291,076			3,199,639	
Benefit payments	 (6,613,935)	 (8,177,754)	 (7,118,082)	 (7,269,810)	 (6,003,967)
Net change in total OPEB liability	10,206,995	8,876,909	8,169,095	12,540,210	8,076,055
Total OPEB liability, beginning	 213,308,907	 204,431,998	 196,262,903	 183,722,693	 175,646,638
Total OPEB liability, ending (a)	\$ 223,515,902	\$ 213,308,907	\$ 204,431,998	\$ 196,262,903	\$ 183,722,693
Plan fiduciary net position					
Contributions employers	9,866,578	9,310,849	7,756,442	7,638,453	6,921,228
nvestment income	32,552,180	4,885,544	6,418,113	7,804,839	9,885,897
Benefits paid	(6,613,935)	(8,177,754)	(7,118,082)	(7,269,810)	(6,003,967)
Administrative expenses	 (821,718)	 (1,018,932)	 (726,320)	 (769,717)	 (1,335,745)
Net change in fiduciary net position	34,983,105	4,999,707	6,330,153	7,403,765	9,467,413
Plan fiduciary net position, beginning	 105,616,489	 100,616,782	 94,286,629	 86,882,864	 77,415,451
Plan fiduciary net position, ending (b)	\$ 140,599,594	\$ 105,616,489	\$ 100,616,782	\$ 94,286,629	\$ 86,882,864
Plan's net OPEB liability, ending (a) (b)	\$ 82,916,308	\$ 107,692,418	\$ 103,815,216	\$ 101,976,274	\$ 96,839,829
Plan fiduciary net position as a percentage o the total OPEB liability	62.90%	49.51%	49.22%	48.04%	47.29%
Covered payroll	\$ 1,525,192,949	1,484,372,700	\$ 1,380,619,384	\$ 1,343,668,500	\$ 1,277,009,000
Plan net OPEB liability as a percentage o covered payroll	5.44%	7.26%	7.52%	7.59%	7.58%

See notes to historical pension and OPEB in ormation.

 $^{\star}\,$  This in ormation will be presented each year until 10 years o  $\,$  such in ormation is available.

See accompanying independent auditor's report.

# Schedule of Historical OPEB Information PLD Consolidated Plan June 30, 2021 (Unaudited)

# Schedule of Changes in the Plan's Net OPEB Liability and Related Ratios

Last Ten Fiscal Years\*

	 2021	 2020	 2019	 2018	 2017
Total OPEB liability					
Service cost	\$ 309,875	\$ 522,353	\$ 488,545	\$ 442,863	\$ 619,735
nterest	1,962,386	1,941,994	1,832,881	1,706,200	1,616,253
Changes o benefit terms		(636,731)			
Di erences between expected					
and actual experience		727,053		2,045,678	
Changes o assumptions	906,229	(9,045,090)	893,851	1,554,074	(5,591,242)
Benefit payments	 (1,223,890)	 (1,589,460)	 (1,581,540)	 (1,530,346)	 (1,394,586)
Net change in total OPEB liability	1,954,600	(8,079,881)	1,633,737	4,218,469	(4,749,840)
Total OPEB liability, beginning	 29,576,761	 37,656,642	 36,022,905	 31,804,436	 36,554,276
Total OPEB liability, ending (a)	\$ 31,531,361	 29,576,761	\$ 37,656,642	\$ 36,022,905	\$ 31,804,436
Plan fiduciary net position					
Contributions employers	1,186,563	1,127,014	1,100,509	1,069,640	1,037,124
nvestment income	4,987,761	752,517	1,037,784	1,333,324	1,738,914
Benefits paid	(1,223,890)	(1,589,460)	(1,581,540)	(1,530,346)	(1,394,586)
Administrative expenses	 (127,631)	 (164,654)	 (119,519)	 (133,624)	 (238,856)
Net change in fiduciary net position	4,822,803	125,417	437,234	738,994	1,142,596
Plan fiduciary net position, beginning	 16,384,579	 16,259,162	 15,821,928	 15,082,934	 13,940,338
Plan fiduciary net position, ending (b)	\$ 21,207,382	\$ 16,384,579	\$ 16,259,162	\$ 15,821,928	\$ 15,082,934
Plan's net OPEB liability, ending (a) (b)	\$ 10,323,979	\$ 13,192,182	\$ 21,397,480	\$ 20,200,977	\$ 16,721,502
Plan fiduciary net position as a percentage					
o the total OPEB liability	67.26%	55.40%	43.18%	43.92%	47.42%
Covered payroll	\$ 299,768,500	291,745,500	\$ 283,884,893	\$ 276,287,000	\$ 260,552,680
Plan net OPEB liability as a percentage					
o covered payroll	3.44%	4.52%	7.54%	7.31%	6.42%

See notes to historical pension and OPEB in ormation.

\* This in ormation will be presented each year until 10 years o such in ormation is available.

See accompanying independent auditor's report.

# Schedule of Historical OPEB Information State Employee and Teacher Plan June 30, 2021 (Unaudited)

#### **Schedule of Employer Contributions**

Last Ten Fiscal Years\*

		2021	_	2020	2019		2018		2017
Actuar a y determ ned contr but on	\$	10,964,907	\$	10,671,443	\$ 9,040,284	\$	8,805,704	\$	8,239,903
Contr but ons n re at on to the actuar a y determ nee	4								
contr but on		9,866,578	_	9,310,849	7,756,442	_	7,638,453		6,921,228
Contr but on defic ency	\$	1,098,329	\$	1,360,594	\$ 1,283,842	\$	1,167,251	\$	1,318,675
Covered payro	\$	1,525,192,949	\$	1,484,372,700	\$ 1,380,619,384	\$	1,343,668,500	\$ 1	1,277,009,000
Contr but ons as a percentage of covered payro		0.65%		0.63%	0.56%		0.57%		0.54%

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.

#### **Required Supplementary Information**

# Schedule of Historical OPEB Information PLD Plan June 30, 2021 (Unaudited)

#### Schedule of Employer Contributions Last Ten Fiscal Years\*

	_	2021	 2020		2019	 2018	_	2017
Actuar a y determ ned contr but on	\$	1,586,809	\$ 1,544,340	\$	1,287,098	\$ 1,252,650	\$	1,146,324
Contr but ons n re at on to the actuar a y								
determ ned contr but on	_	1,186,563	 1,127,014	_	1,100,509	 1,069,640	_	1,037,124
Contr but on defic ency	\$	400,246	\$ 417,326	\$	186,589	\$ 183,010	\$	109,200
Covered payro	\$	299,768,500	\$ 291,745,500	\$	283,884,893	\$ 276,287,000	\$	260,552,680
Contr but ons as a percentage of covered payro		0.40%	0.39%		0.39%	0.39%		0.40%

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.

Schedule of Historical OPEB Information All OPEB Plans June 30, 2021 (Unaudited)

# Schedule of Investment Returns

Last Ten Fiscal Years\*

	<u>2021</u>	2020	2019	2018	2017
Annua money-we ghted rate of return, net of nvestment expenses	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 auditors report.

# Notes to Historical Pension and OPEB Information June 30, 2021 (Unaudited)

# **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, 2021, 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.

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:

# Notes to Historical Pension and OPEB Information June 30, 2021 (Unaudited)

	State Employee and Teacher Plan	Judicial Plan	Legislative Plan	PLD Consolidated Plan						
nvestment Rate o Return	Per annum, compounded annually: 6.50% or June 30, 2019 and June 30, 2018; 6.875% 7.125% or June 30, 2015	or June 30, 2017 and		Per annum, compounded annually: 6.50% or June 30, 2021; 6.75% or June 30, 2020, June 30, 2019 and June 30, 2018; 6.875% or June 30, 2017 and June 30, 2016; 7.125% or June 30, 2015; 7.25% or June 30, 2014						
n ation Rate	2.75% or June 30, 2021, June 30, 2020, June	30, 2019, June 30, 20 <sup>-</sup>	18, June 30, 2017, and	June 30, 2016; 3.50% or June 30, 2015 and June 30, 2014						
		or the peri	od ended June 30, 20	021						
	State employees, 3.26% 9.43%; Teachers, 2.80% 13.03%	2.75% 11.48%								
Annual Salary	or the periods ended 3	June 30, 2020; June 3	i0, 2019; June 30, 201	8; June 30, 2017; and June 30, 2016						
ncreases, including n ation	State employees, 2.75% 8.75%; Teachers, 2.75% 14.50%	2.75%	2.75%	2.75% 9.00%						
	or 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 o Living Benefit ncreases		2.20% or June 30, 2020, June 30, 2019, June 30, 2018, June 30, 2017 and June 30, 2016; 2.55% or June 30, 2015 and June 30, 2014       1.91% or June 30, 2020, June 30, 2019 and June 30, 2018; 2.20% or June 30, 2017 and June 30, 2016; 2.55% or June 30, 2015 and 3.12% or June 30, 2014								
		or the peri	od ended June 30, 20	)21						
	State Employee, Judicial, and Legislative: based on the 2010 Public Ian General Benefits Weighted Healthy Retiree Mortality Table, or males and emales, projected generationally using the RPEC 2020 model. Teachers: based on the 2010 Public Plan Teacher Benefits Weighted Healthy Retiree Mortality Table, or males and emales, projected generationally using the RPEC 2020 model.									
	or the periods ended June 30, 2020; June 30, 2019; June 30, 2018; June 30, 2017; and June 30, 2016									
Mortality Rates	the RP2014 Total Dataset Healthy An	nuitant Mortality Table	e, or males and emal	teachers, legislative, judicial, and PLD plans, es, is used. or all recipients o disability benefits, or males and emales, is used.						
		or the periods ended	l June 30, 2015 and J	une 30, 2014						
	or active members and non disabled retirees o the State employees and teachers, legislative, judicial, and PLD plans, the RP2000 Tables projected orward to 2015 using Scale AA are used; the ages are set back two years or employees o the teacher plan. Mortality assumptions were also reviewed and updated in 2011 or the PLD Consolidated Plan, and in 2012 or the other Plans, based on actual demographic data o the Plans. or all recipients o disability benefits, the Revenue Ruling 96 7 Disabled Mortality Table or Males and emales 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, 2021, 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.

# Notes to Historical Pension and OPEB Information June 30, 2021 (Unaudited)

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, 2021, there were 16 years remaining in the amortization schedule for state employees and teachers, and 9 years remaining for PLD employees.

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					
		Per annum, compounded annually:						
nvestment Rate o Return	6.50% or June 30, 2021; 6 June 30, 2019 and June 30, 20		6.50% or June 30, 2021; 6.75% or June 30, 2020; 4.98% or June 30, 2019; 5.13% or June 30, 2018; 5.41% or June 30, 2017					
n ation Rate	2.75% or June 30, 2021, 3	June 30, 2020, June 30, 2019, June 30, 201	8 and June 30, 2017					
		or June 30, 2021						
Annual Salary ncreases, including n ation	State employees: 3.26% 9.43%; Judges and Legislators: 2.75%	2.80% 13.03%	2.75% 11.48%					
including n ation	or June 30, 20	020, June 30, 2019, June 30, 2018 and June	e 30, 2017					
	2.75% 8.75%	2.75% 9.00%						
	or June 30, 2021							
	Based on the 2010 Public Plan General Benefits Weighted Healthy Retiree Mortality Table, or males and emales, projected generationally using the RPEC 2020 model.	Benefits         Weighted         Healthy Retiree         Benefits         Weighted Healthy Retiree           Table, or males and emales, projected generationally using the RPEC         2020         Mortality Table, or males and emales, projected generationally using the						
Mortality Rates	or June 30, 20	) 20, June 30, 2019, June 30, 2018 and June	e 30, 2017					
	or active members and non disabled retirees o the State employees, legislative, judicial, and PLD plans, the RP2014 Total Dataset Healthy Annuitant Mortality Table, or males and emales, is used. or all recipients o disability benefits, the RP2014 Total Dataset Disabled Annuitant Mortality Table, or males and emales, is used.							
Participation Rate or uture Retirees		100% o those currently enrolled						
Conversion Charges	Apply to the cost o	active group li e insurance, not retiree grou	o li e insurance					
orm o Benefit Payment		Lump sum						

# Additional Supplementary Information Schedule of Investment Expenses For the Year Ended June 30, 2021

	State Employee and Teacher Plan	Judicial Plan	Legislative Plan	PLD Consolidated Plan	PLD Agent Plan
Asset C ass					
A ternat ve Cred t	\$6,433,386	\$ 38,958	\$7,168	\$ 1,615,114	\$ 4,331
nfrastructure	20,159,046	122,076	22,467	5,060,964	13,570
Natura Resources	6,100,302	36,941	6,796	1,531,494	4,106
Domest c Equ ty					
nternat ona Equ ty	522,642	3,165	582	131,211	352
F xed ncome	188,872	1,144	210	47,417	127
Pr vate Equ ty	36,575,238	221,484	40,768	9,182,282	24,622
Rea Estate	13,599,641	82,348	15,157	3,414,219	9,158
R sk D vers fier	10,599,693	64,188	11,813	2,661,075	7,133
Other nvestment Expenses					
n-house nvestment management	3,931,050	23,805	4,381	986,898	2,646
Tota nvestment expenses	\$ 98,109,870	\$ 594,109	\$ 109,342	\$ 24,630,674	\$66,045

# Additional Supplementary Information Schedule of Administrative Expenses For the Year Ended June 30, 2021

	State Employee and Teacher Plan	Judicial Plan	Legislative Plan	PLD Consolidated Plan	PLD Agent Plan
Persona Serv ces	\$ 5,817,332	\$ 35,505	\$6,496	\$ 1,454,909	\$ 4,053
Profess ona fees	1,481,656	9,043	1,654	370,561	1,053
Computer serv ces	1,158,230	7,069	1,293	289,672	807
Te ephone, data, and nternet serv ces	94,522	577	106	23,640	66
Pr nt ng and postage	205,398	1,254	229	51,370	143
Office rent and bu d ng operat ons	279,908	1,708	313	70,005	195
Deprec at on	1,424,240	8,693	1,590	356,201	992
M sce aneous operat ng expenses	627,670	3,831	702	156,981	437
Tota nvestment expenses	\$ 11,088,956	\$67,680	\$ 12,383	\$ 2,773,339	\$ 7,726

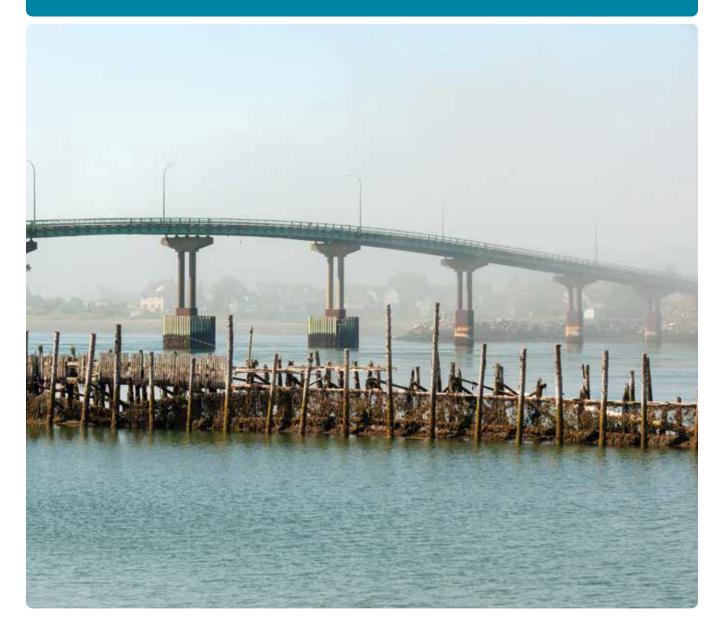
Group Life Insurance Plan Active	Group Life Insurance Plan Retired SET	Group Life Insurance Plan Retired PLD	Defined Contribution Plans	MainePERS OPEB Trust	Retiree Health Insurance Plan	Total
\$	\$	\$	\$	\$	\$	\$ 8,098,957
						25,378,123
						7,679,639
847	5,773	882		779	15,780	24,061
1,404	9,567	1,463		1,291	26,149	697,826
2,564	17,482	2,673		2,360	47,758	310,607
						46,044,394
831	5,666	866		766	15,460	17,144,112
						13,343,902
			57,434			57,434
5,505	37,529	5,737		4,804		5,002,355
\$ 11,151	\$ 76,017	\$ 11,621	\$57,434	\$ 10,000	\$ 105,147	\$ 123,781,410

Group Life Insurance Plan Active		Ins	Group Life urance Plan etired SET	Insu	roup Life urance Plan etired PLD	Defined Intribution Plans	Retiree Health Insurance Plan			Total
\$	61,713	\$	431,078	\$	66,596	\$ 116,095	\$	3,100	\$	7,997,237
	15,718		109,794		17,053	29,569				2,036,082
	12,287		85,828		13,331	23,115				1,591,632
	1,003		7,004		1,088	1,886				129,892
	2,179		15,220		2,364	4,099				282,256
	2,969		20,742		3,222	5,586				384,648
	15,109		105,540		16,393	28,423				1,957,181
	6,659		46,512		7,224	 12,527		<u> </u>	_	862,542
\$	117,637	\$	821,718	\$	127,631	\$ 221,300	\$	3,100	\$	15,241,470

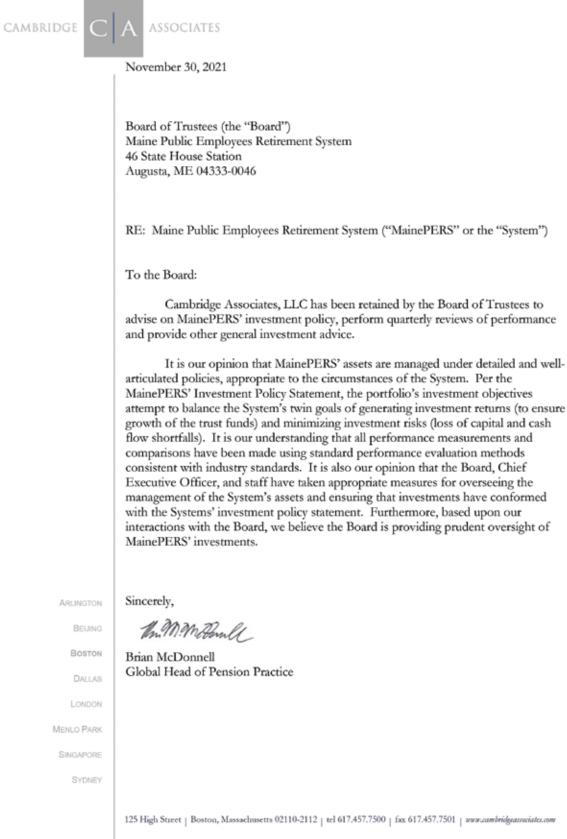
# Additional Supplementary Information Schedule of Professional Fees For the Year Ended June 30, 2021

Profess ona fees	
Aud t	\$ 78,150
Actuar a serv ces	465,899
T serv ce	797,187
Lega serv ces	141,032
Med ca consu t ng	256,439
Other serv ces	297,375
Tota profess ona fees	\$ 2,036,082

# **Investment Section**



Franklin Delano Roosevelt Bridge, Lubec



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#### **Investment Process Overview**

MainePERS is responsible for the investment of trust fund assets consistent with Maine law and the constitution, which requires that assets be invested for the sole purpose of future benefit payments. MainePERS Trustees are responsible for setting investment policy which is then implemented by the MainePERS Investment Team. External consultants play an important role in both the formulation and implementation of investment policy.

The MainePERS investment policy specifies an asset allocation that is consistent with a targeted portfolio risk level. Potential investments are judged on their ability to provide returns consistent with the risks taken. Overall risk is mitigated using a due diligence process which considers a comprehensive range of financial risks, including a number of risks that fall into the categories of Environmental, Social, and Governance (ESG) factors.

## **Investment Activity**

This section presents additional detail concerning investment activity and performance as reported by the MainePERS investment custodian. Certain assets, such as cash in the System's operating bank accounts are not considered part of the investment portfolio and are not included in this section. The investment values presented in this section are based in part on lagged values due to the delayed reporting schedule for alternative asset classes, and therefore differ from the actual June 30 values as reported in the statement of fiduciary net position. In addition, where applicable, investment values are presented on a net basis with securities lending liabilities netted against securities lending collateral. Rates of return presented in this section are as reported by the investment custodian, are time-weighted and reflect the impact of lagged values due to delayed reporting.

The table below summarizes the defined benefit portfolio values and returns for the ten years ended June 30, 2021. Assets grew by \$7.4 billion from \$10.7 billion to \$18.1 billion over this period.

FY Ended June 30	Opening Market Value (\$ millions)	Closing Market Value (\$ millions)	Rate of Return
2021	\$ 14,720	\$ 18,146	26.5%
2020	\$ 14,886	\$ 14,720	1.8%
2019	\$ 14,344	\$ 14,886	7.3%
2018	\$ 13,385	\$ 14,344	10.3%
2017	\$ 12,283	\$ 13,385	12.5%
2016	\$ 12,610	\$ 12,283	0.6%
2015	\$ 12,732	\$ 12,610	2.0%
2014	\$ 11,264	\$ 12,732	16.7%
2013	\$ 10,470	\$ 11,264	11.1%
2012	\$ 10,739	\$ 10,470	0.6%

#### **Summary of Investment Activity**

Annua zed 10-year per od 8.7%

Cumu at ve 10-year per od 129.5%

# **Investment Portfolio**

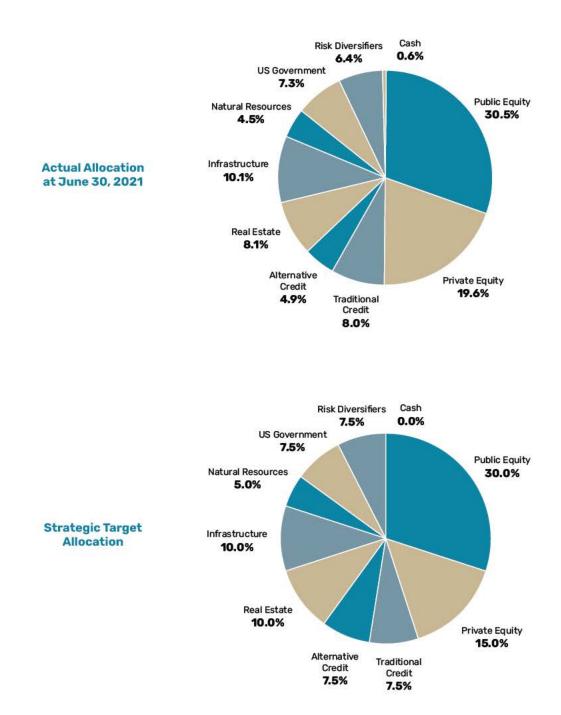
In this section, the investment strategy MainePERS has adopted to optimize the financial health of the plans is reviewed.

The System invests plan assets in a number of major asset classes. The table and pie charts on the following page display the actual and strategic target allocations at June 30, 2021.

The Board of Trustees is of the view that a prudent investment strategy for these plan assets involves accepting some level of investment risk. Because most of its benefit payments are not due for several decades into the future, the System has concluded it is prudent to invest a substantial portion of its assets in equities and other return-seeking investments. The Board allocates 60% to 80% of assets to equities and equity-like securities and is of the view that this provides a prudent compromise between risk and return.

# Strategic Asset Allocation

	Public Equity	Private Equity	Traditional Credit	Alternative Credit	Real Estate	Infrastructure	Natural Resources	US Government	Risk Diversifiers	Cash	Total
Actual Allocation	30.5%	19.6%	8.0%	4.9%	8.1%	10.1%	4.5%	7.3%	6.4%	0.6%	100.0%
Target Allocation	30.0%	15.0%	7.5%	7.5%	10.0%	10.0%	5.0%	7.5%	7.5%	0.0%	100.0%



#### Strategic Asset Allocation

Essentially all of the assets of the System's plans are in portfolios managed by professional investment management firms. These managers act as fiduciaries and invest the assets allocated to them in accordance with the System's investment policies and the individual agreements between MainePERS and the investment managers.

Approximately 45% of assets were invested in passively managed index funds at June 30, 2021. The Board of Trustees views index funds as a cost-effective way of investing in most of the world's capital markets. However, the System does make use of actively managed portfolios where it has identified managers who are thought to be able to add value over an index fund, net of all costs.

The System uses a single firm to manage all of its passive investments. This enables the System to obtain attractive fees and also provides other cost savings on certain kinds of transactions. Since passively managed portfolios have a low risk of significantly underperforming their benchmarks, the Board, the investment staff, and the System's investment consultant find this concentration of assets to be appropriate.

The System typically conducts a thorough review of its strategic asset allocation every three to four years with the assistance of the System's actuary and its general investment consultant. This was last performed in fiscal year 2017.

#### **Benefit Plans – Investment Portfolio**

	at 06/	/30/2021		at 06/30/2020		
	m ons	% of	m	ons	% of	
	of do ars	assets	of d	lo ars	assets	
Public Equity						
BackRock	\$ 5,530	30.5%	\$	4,777	32.4%	
B ack Bear Asset Management		0.0%		21	0.1%	
Total Public Equity	\$ 5,530	30.5%	\$	4,797	32.6%	
Traditional Credit						
B ackRock	\$ 1,460	8.0%	\$	928	6.3%	
Total Traditional Credit	\$ 1,460	8.0%	\$	928	6.3%	
US Government						
BackRock	\$ 1,326	7.3%	\$	981	6.7%	
Total US Government	\$ 1,326	7.3%	\$	981	6.7%	
Private Equity						
ABRY Advanced Secur t es Fund	\$ 1	0.0%	\$	1	0.0%	
ABRY Advanced Secur t es Fund	29	0.2%		19	0.1%	
ABRY Sen or Equ ty V	3	0.0%		3	0.0%	
ABRY Sen or Equ ty V	11	0.1%		6	0.0%	
ABRY Her tage	7	0.0%		4	0.0%	
ABRYV	4	0.0%		3	0.0%	
ABRY V	9	0.0%		12	0.1%	
Advent nternationa GPE V	19	0.1%		17	0.1%	
Advent nternationa GPE V	82	0.5%		49	0.3%	
Advent nternationa GPE X	31 17	0.2%		11	0.1%	
Advent LAPEF V	34	0.1%		11 27	0.1%	
Affin ty As a Pac fic V Affin ty As a Pac fic V	34 10	0.2% 0.1%		6	0.2%	
Ba n Cap ta Venture 2021	5	0.1%		0	0.0%	
Bain Capital Venture Bain Capital Venture	5 4	0.0%			0.0%	
Berksh re V	4 14	0.1%		10	0.1%	
Berksh re X	49	0.3%		27	0.2%	
B ackstone Cap V	19	0.1%		15	0.1%	
B ackstone Cap V	66	0.4%		50	0.3%	
Car y e As a Partners Fund	1	0.0%		1	0.0%	
Car y e As a Partners Fund V	44	0.2%		42	0.3%	
Car y e As a Partners Fund V	18	0.1%		6	0.0%	
Centerbr dge Cap ta Partners	33	0.2%		24	0.0%	
Charterhouse V	55	0.0%		0	0.0%	
Charterhouse X	1	0.0%		1	0.0%	
Charterhouse X	60	0.3%		39	0.3%	
CVC Cap ta Partner V	82	0.5%		71	0.5%	
CVC Cap ta Partner V	38	0.2%		23	0.2%	
	50	0.2/0		25	0.2/0	

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Benefit Plans – Investment Portfolio	
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m         enc.or         % of do ars         assets         assets           EnC.op Energy Cap ta Fund X         12         0.1%         7         0.0%           EnC.op Energy Cap ta Fund X         12         0.1%         7         0.0%           EnC.op Energy Cap ta Fund X         12         0.1%         7         0.1%           EnC.op Energy Cap ta Fund X         13         0.1%         15         0.1%           EnC.op Encode M disteram V         16         0.1%         16         0.1%         16         0.1%         16         0.1%         16         0.1%         16         0.1%         16         0.1%         16         0.0%         16         0.0%         16         0.0%         16         0.0%         16         0.0%         16         0.0%         17         0.0%         16         0.0%         17         0.0%         16         0.0%         17         0.0%         16         0.0%         17         0.0%         18         0.1%         0.1%         0.1%         0.0%         16         0.0%         17         0.0%         16         0.0%         17         0.0%         16         0.0%         17         0.0%         16         0.0%         17		at 06/	30/2021	at 06/30/	2020
of do ars         assets         of do ars         assets         of do ars         assets           EnCap Energy Cap ta Fund X         12         0.1%         7         0.0%         4         0.0%           EnCap Energy Cap ta Fund X         13         0.1%         7         0.0%           EnCap Energy Cap ta Fund X         13         0.1%         7         0.0%           EnCap Energy Cap ta Fund X         10         0.1%         8         0.1%           EnCap Energy Cap ta Fund X         10         0.1%         8         0.1%           EnCap Energy Cap ta Fund X         10         0.1%         8         0.1%           Genera Cata St Group X – Endvance         27         0.2%         8         0.1%           Genera Cata St Group X – Endvance         4         0.4%         28         0.2%           Me man & Fredman V         14         0.1%         34         0.2%           He man & Fredman V         14         0.1%         34         0.2%           He man & Fredman V         14         0.1%         1         0.0%           He man & Fredman V         14         0.1%         1         0.0%           He man & Fredman V         14         0.1%		m ons	% of	m ons	% of
EnCap Energi Cap La Fund X         12         0.1%         7         0.1%           EnCap Energy Cap La Fund X         29         0.2%         23         0.2%           EnCap Energy Cap La Fund X         13         0.1%         7         0.0%           EnCap Fartock M distream         16         0.1%         15         0.1%           EnCap Fartock M distream         16         0.1%         16         0.1%           Genera Cata yst Group X – Endurance         27         0.2%         1         0.0%           Genera Cata yst Group X – Endurance         46         0.3%         8         0.1%           GTCR X         71         0.4%         22         0.2%           M Eman & Fadman V         41         0.1%         3         0.2%           H Eman & Fadman V         44         0.1%         33         0.2%           H Eman & Fadman V         14         0.1%         33         0.2%           H G Bays de Lean Opportun ty         2         0.0%         7         0.0%           H G Bays de Lean Opportun ty (Europe)         6         0.0%         7         0.0%           H G Bays de Lean Opportun ty (Europe)         10         0.0%         1         0.0%         1 </th <th></th> <th></th> <th></th> <th></th> <th></th>					
EnCapie Energi Capie Fordigi Capie	EnCap Energy Cap ta Fund V	7	0.0%	4	0.0%
EnCap Energiv Cap ta Fund X         29         0.2%         23         0.2%           EnCap Energiv Cap ta Fund X         13         0.1%         7         0.0%           EnCap Fartock M distream         16         0.1%         15         0.1%           EnCap Fartock M distream         16         0.1%         16         0.1%         16         0.1%         16         0.1%         16         0.1%         16         0.1%         16         0.1%         16         0.1%         16         0.1%         16         0.1%         16         0.1%         16         0.1%         16         0.1%         16         0.1%         16         0.1%         16         0.1%         16         0.1%         17         0.1%         16         0.1%         17         0.1%         13         0.2%         22         0.2%           GTCR X         71         0.4%         28         0.1%         13         0.1%         13         0.1%         14         0.3%         13         0.2%         17         0.1%         13         0.1%         14         0.1%         14         0.1%         14         0.1%         14         0.1%         14         0.1%         14         0.1% <td></td> <td></td> <td></td> <td></td> <td></td>					
EnC.p. Fatroick Mistream         16         0.1%         15         0.1%           EnC.p.F. Fatroick Mistream         10         0.1%         8         0.1%           Genera Cata yst Group X – Ear y Venture         16         0.1%         1         0.0%           Genera Cata yst Group X – Endvance         27         0.2%         0.0%           Genera Cata yst Group X – Endvance         27         0.2%         0.0%           Genera Cata yst Group X – Endvance         4         0.4%         22         0.2%           GTDX X         1         0.4%         22         0.2%           He man & Fredman V         14         0.4%         22         0.2%           He man & Fredman V         64         0.4%         2         0.2%           He man & Fredman V         2         0.0%         2         0.0%           H G Bays de Loan Opportun ty         2         0.0%         1         0.0%           H G Bays de Loan Opportun ty         17         0.1%         15         0.1%           H G Bays de Loan Opportun ty         17         0.1%         11         0.0%           H G Bays de Loan Opportun ty         17         0.1%         11         0.0%           H G Bays de Loa		29	0.2%	23	0.2%
EnC.Spr Fatrock Misterem V         10         0.1%         8         0.1%           Genera Cata yst Group X – Endvirsnee         27         0.2%         0.0%           Genera Cata yst Group X – Endvirsnee         27         0.2%         0.0%           Genera Cata yst Group X – Endvirsnee         27         0.2%         0.0%           GTCR X         3         0.0%         1         0.0%           GTCR X         11         0.4%         28         0.2%           He man & Fredman V         14         0.1%         34         0.2%           He man & Fredman V         64         0.4%         3         0.2%         8         0.1%           He Gays Ge Loan Opportun ty         2         0.0%         2         0.0%         1         0.1%           H G Bays Ge Loan Opportun ty         10         0.1%         15         0.1%         1         0.1%           H G Bays de Loan Opportun ty         21         0.1%         15         0.1%         1         0.1%           H G Bays de Loan Opportun ty         21         0.1%         15         0.1%         1         0.1%           H G Bays de Loan Opportun ty         21         0.1%         15         0.1%         0.1%	EnCap Energy Cap ta Fund X	13	0.1%	7	0.0%
Generia Cata yst Group X - Ear y Venture         16         0.1%         1         0.0%           Genera Cata yst Group X - Growth Venture         46         0.3%         8         0.0%           GTCR X         71         0.4%         28         0.2%           GTCR X         71         0.4%         28         0.2%           He man & Fr edman V         14         0.4%         28         0.2%           He man & Fr edman V         14         0.4%         28         0.1%           H G Bays de Loan Opportun ty         2         0.0%         7         0.0%           H G Bays de Loan Opportun ty (Europe)         6         0.0%         7         0.0%           H G Bays de Loan Opportun ty (Europe)         3         0.0%         7         0.0%           H G Bays de Loan Opportun ty (Europe)         3         0.0%         1         0.0%           H G Bays de Loan Opportun ty (Europe)         3         0.2%         20         0.1%           H G Bays de Loan Opportun ty (Europe)         10         0.1%         1         0.0%           H G Bays de Loan Opportun ty (Europe)         3         0.2%         2         0.1%           H G Bays de Loan Opportun ty (Europe)         10         0.1%			0.1%		0.1%
Genera Cata yst Group X – Endurance         27         0.2%         0.0%           Genera Cata yst Group X – Growth Venture         46         0.3%         8         0.1%           GTCR X         71         0.4%         28         0.2%           GTCR X         71         0.4%         28         0.2%           GTCR X         71         0.4%         28         0.2%           GTCR X         11         0.2%         22         0.2%           He man & Fredman V         14         0.1%         34         0.2%           He man & Fredman V         2         0.0%         2         0.0%           H G Bays de Loan Opportun ty         2         0.0%         2         0.0%           H G Bays de Loan Opportun ty         (Europe)         6         0.0%         7         0.0%           H G Buyouts         31         0.2%         20         0.1%         13         0.1%           H G Buyouts         3         0.0%         1         0.0%         1         0.0%           H G M de Market LBO Fund         2         0.0%         1         0.0%         1         0.0%           H G M de Market LBO Fund         2         0.2%         2					
General Cata yst Group X – Growth Venture         46         0.3%         8         0.1%           GTCR X         71         0.4%         28         0.2%           GTCR X         41         0.2%         22         0.2%           He man & Fredman V         14         0.1%         33         0.2%           He man & Fredman V         64         0.4%         43         0.3%           He man & Fredman X         35         0.2%         8         0.1%           H G Bays de Loan Opportun ty         2         0.6%         2         0.6%           H G Bays de Loan Opportun ty         2         0.6%         2         0.6%           H G Bays de Loan Opportun ty         10.3%         15         0.1%         1         0.6%           H G Buyouts         3         0.2%         22         0.2%         17         0.1%         15         0.1%           H G Buyouts         3         0.2%         32         0.2%         17         0.2%         17         0.2%           H G M de Market LBO Fund         33         0.2%         32         0.2%         18         0.1%         0.1%         0.1%         0.1%         0.1%         0.1%         0.1%         <				1	
GTCR X         3         0.0%         1         0.0%           GTCR X         71         0.4%         28         0.2%           GTCR X         41         0.2%         22         0.2%           He man & Fredman V         64         0.4%         43         0.3%           He man & Fredman V         64         0.4%         43         0.3%           He man & Fredman V         64         0.4%         43         0.3%           He man & Fredman V         6         0.5%         3         0.4%           He man & Fredman V         6         0.5%         3         0.4%           H G Bays de Loan Opportun ty         6         0.5%         3         0.4%           H G Buyouts         31         0.2%         20         0.1%           H G Buyouts         31         0.2%         32         0.2%           H G M de Market LBO Fund         2         0.6%         1         0.0%           H G M de Market LBO Fund         2         0.6%         1         0.0%           mfex on Buyout Fund V         13         0.1%         11         0.1%           mfex on Buyout Fund V         13         0.1%         11         0.1%	<i>i</i> 1			0	
GTCR X         71         0.4%         28         0.2%           He man & Fredman V         14         0.1%         34         0.2%           He man & Fredman V         64         0.4%         43         0.3%           He man & Fredman V         64         0.4%         43         0.3%           He man & Fredman X         35         0.2%         8         0.1%           H G Bays de Loan Opportun ty (Europe)         6         0.0%         7         0.0%           H B Bays de Loan Opportun ty (Europe)         6         0.0%         1         0.0%           H G Buyouts         3         0.2%         33         0.2%           H G Buyouts         3         0.2%         1         0.0%           H G Capta Partners V         3         0.1%         1         0.0%           H G M de Market LBO Fund         33         0.2%         27         0.2%           nffex on Supp ementa Fund V         13         0.1%         14         0.1%           Kes on vestment Assoc ates V         0         0.0%         0         0.0%           Kes onvestment Assoc ates X         35         0.2%         40         0.3%           Kes onvestitment Assoc ates X	, ,				
GTCR X         41         0.2%         22         0.2%           He man & Fredman V         64         0.4%         43         0.3%           He man & Fredman V         64         0.4%         43         0.3%           He man & Fredman X         35         0.2%         8         0.1%           H G Bays de Loan Opportun ty         (Europe)         6         0.0%         7         0.0%           H G Bays de Loan Opportun ty         (Europe)         6         0.0%         7         0.0%           H G Bays de Loan Opportun ty         (Europe)         6         0.0%         7         0.0%           H G Buyouts         31         0.2%         20         0.1%         15         0.1%           H O Cap ta Partners V         17         0.1%         15         0.1%         16         0.0%         0         0.0%         0         0.0%         0         0.0%         0         0.0%         0         0.0%         0         0.0%         0         0.0%         0         0.0%         0         0.0%         0         0.0%         0         0.0%         0         0.0%         0         0.0%         0         0.0%         0         0.0%         0					
He man & Fredman V       14       0.1%       34       0.2%         He man & Fredman X       35       0.2%       8       0.1%         H G Bays de Loan Opportun ty       2       0.0%       2       0.0%         H G Bays de Loan Opportun ty       2       0.0%       7       0.0%         H G Buys de Loan Opportun ty       6       0.0%       7       0.0%         H G Buyouts       31       0.2%       20       0.1%         H G M de Market LBO Fund       21       0.1%       11       0.1%         H G M de Market LBO Fund       2       0.0%       1       0.0%         Iffex on Supportents Fund V       13       0.1%       11       0.1%         nffex on Supportent Fund V       13       0.1%       14       0.1%         nffex on Supportent Fund V       13       0.1%       14       0.1%         nffex on Supportent Fund V       13       0.1%       14       0.1%         nffex on Supportent Fund V					
He man & Fr edman V       64       0.4%       43       0.3%         He man & Fr edman X       35       0.2%       8       0.1%         H G Bays de Loan Opportun ty       2       0.0%       7       0.0%         H G Bays de Loan Opportun ty       54       0.3%       33       0.2%         H G Buyouts       3       0.2%       20       0.1%         H G Buyouts       3       0.2%       20       0.1%         H G Buyouts       3       0.2%       32       0.2%         H G Market LBO Fund       33       0.2%       32       0.2%         H B M dd e Market LBO Fund       33       0.1%       11       0.0%         mfex on Nouth-Fund Y       13       0.1%       11       0.1%         mfex on Partnersh D Cap ta Fund       13       0.1%       14       0.1%         mfex on Partnersh D Cap ta Fund       13       0.1%       14       0.1%         K Re sonvestment Assoc ates X       36       0.2%       7       0.0%         K Re sonvestment Assoc ates X       80       0.4%       32       0.2%         K Re sonvestment Assoc ates X       80       0.4%       32       0.2%         K Re son vestmen					
He man & Fr edman X       35       0.2%       8       0.1%         H G Bays de Loan Opportun ty       2       0.0%       7       0.0%         H G Bays de Loan Opportun ty       6       0.0%       7       0.0%         H G Buys da Lan Amer ca       54       0.3%       33       0.2%         H G Buyouts       31       0.2%       20       0.1%         H G Buyouts       31       0.2%       20       0.1%         H G Moyouts       31       0.2%       20       0.1%         H G Moyouts       31       0.2%       20       0.1%         H G Mode Market LBO Fund       21       0.1%       11       0.1%         H G M dde Market LBO Fund       2       0.0%       1       0.0%         nffex on Supportents Fund V       13       0.1%       11       0.1%         nffex on Partnersh D Cap ta Fund       13       0.1%       14       0.1%         KR Partner X       36       0.2%       40       0.3%         KR Partner X       36       0.2%       40       0.3%         KR Pare Sa Vuat ons       18       0.1%       19       0.1%         KR Pare Sa Stuat ons       44       0.2%					
H G Bays de Loan Opportun ty       2       0.0%       2       0.0%         H G Bays de Loan Opportun ty (Europe)       6       0.0%       7       0.0%         H G Bays de Loan Opportun ty (Europe)       6       0.0%       7       0.0%         H G Buyouts       3       0.2%       20       0.1%         H G Europe Cap ta Partners V       17       0.1%       13       0.1%         H G Market LBO Fund       23       0.2%       32       0.2%         H G M da Market LBO Fund       2       0.0%       1       0.0%         nflex on Supp emeta Fund V       13       0.1%       11       0.1%         Ke so nvestment Assoc ates X       35       0.2%       27       0.2%         Ke so nvestment Assoc ates X       36       0.2%       7       0.0%         KR Amer cas X       36       0.2%       7       0.0%         KR North Amer ca X       48       0.3%       48       0.3%         KR North Amer ca X       48       0.3%       48       0.3%         KR North Amer ca X       48       0.3%       48       0.3%         KR Amer cas X       30       0.2%       0.0%       0.0%         Nokree Opoptr					
H G Bays de Loan Opportun ty (Europe)       6       0.0%       7       0.0%         H G Braz & Latn Amer ca       54       0.3%       33       0.2%         H G Buyouts       31       0.2%       20       0.1%         H G Buyouts       3       0.0%       1       0.0%         H G Buyouts       3       0.0%       1       0.0%         H G M de Market LBO Fund       23       0.2%       32       0.2%         H G M de Market LBO Fund       30       0.2%       27       0.2%         nflex on Buyout Fund V       13       0.1%       14       0.1%         nflex on Suyout Fund V       13       0.1%       14       0.1%         nflex on Suyout Fund V       36       0.2%       27       0.2%         ke so nvestment Assoc ates X       35       0.2%       40       0.3%         ke so nvestment Assoc ates X       36       0.2%       XKR North Amer ca X       80       0.4%       32       0.2%         KKR North Amer ca X       48       0.3%       48       0.3%       48       0.3%         Ke so nvestment Assoc ates X       80       0.4%       32       0.2%       0.2%       0.2%       0.2%       0.2%<					
H G Bryz & Latn Amer ca       54       0.3%       33       0.2%         H G Buyouts       3       0.0%       1       0.0%         H G Cap ta Partners V       17       0.1%       15       0.1%         H G Europe Cap ta       21       0.1%       13       0.1%         H G Market LBO Fund       23       0.2%       32       0.2%         H G M dd e Market LBO Fund       2       0.0%       1       0.0%         nffex on Buyout Fund V       30       0.2%       27       0.2%         nffex on Suppementa Fund V       13       0.1%       11       0.1%         K e so nvestment Assoc ates X       35       0.2%       0       0.0%         K e so nvestment Assoc ates X       36       0.2%       7       0.0%         K KP Amer ca X       80       0.4%       32       0.2%         KKP Amer ca X       80       0.4%       32       0.2%         KKP Amer ca X       80       0.4%       32       0.2%         KKP Amer ca X       80       0.4%       32       0.2%         KRP Amer ca X       80       0.4%       32       0.2%         Ontex Coportunt y Fund V       0       0.0%					
H 6 Buyouts       31       0.2%       20       0.1%         H 6 Buyouts       3       0.0%       1       0.0%         H 6 Geap ta Partners V       17       0.1%       15       0.1%         H 0 Guop Cap ta       21       0.1%       13       0.1%         H 0 M de Market LBO Fund       22       0.0%       1       0.0%         nflex on Buyout Fund V       30       0.2%       27       0.2%         nflex on Supperment Fund V       13       0.1%       14       0.1%         nflex on Partners hp Cap ta Fund       13       0.1%       14       0.1%         ke so nvestment Assoc ates X       35       0.2%       7       0.0%         Ke so nvestment Assoc ates X       36       0.2%       7       0.0%         KKR Nort Amer ca X       48       0.3%       48       0.3%         KKR Nort Amer ca X       48       0.3%       48       0.3%         KKR Spec a Stuat ons       18       0.1%       19       0.1%         Once Partners V       0       0.0%       1       0.0%         Onex Partners V       10       0.1%       6       0.0%         Onex Partners V       2       0.2%<					
H 0 Buyouts       3       0.0%       1       0.0%         H 0 Capta Partners V       17       0.1%       15       0.1%         H 0 Europe Cap ta       21       0.1%       13       0.1%         H 0 M de Market LBO Fund       2       0.0%       1       0.0%         nflex on Buyout Fund V       33       0.2%       27       0.2%         nflex on Supperneta Fund V       13       0.1%       11       0.1%         riflex on Partnersh C pata Fund V       13       0.1%       14       0.1%         Ke so nvestment Assoc ates X       35       0.2%       40       0.3%         Ke so nvestment Assoc ates X       36       0.2%       7       0.0%         KR R Morth Amer ca X       80       0.4%       32       0.2%         KR R North Amer ca X       80       0.4%       32       0.2%         KR R Spec a Stuat ons       48       0.1%       16       0.0%         OhcAP V       0       0.1%       6       0.0%         Onex Partners V       2       0.2%       32       0.2%         Onex Partners V       10       0.1%       2       0.0%         Onex Partners V       2       0.2%					
H G Capita Partners V       17       0.1%       15       0.1%         H G Europe Cap ta       21       0.1%       13       0.1%         H G M dde Market LBO Fund       2       0.0%       1       0.0%         nffex on Buyout Fund V       30       0.2%       27       0.2%         nffex on Suppementa Fund V       13       0.1%       14       0.1%         nffex on Partnersh p Cap ta Fund       13       0.1%       14       0.1%         Ke so nvestment Assoc ates X       35       0.2%       40       0.2%         Ke so nvestment Assoc ates X       36       0.2%       7       0.0%         KR North Amer ca X       48       0.3%       46       0.3%         KR North Amer ca X       48       0.1%       19       0.1%         KR Spec a S tuat ons       44       0.2%       37       0.2%         OhcAP V       0       0.0%       1       0.0%         Onex Partners       2       0.0%       2       0.0%         Onex Partners V       42       0.2%       32       0.2%         Onex Partners V       40       0.2%       32       0.2%         Pane Schwartz Partners V       40	,				
H O Europe Cap ta       21       0.1%       13       0.1%         H G M dd e Market LBO Fund       2       0.0%       1       0.0%         nflex on Buyout Fund V       30       0.2%       27       0.2%         nflex on Supp ementa Fund V       13       0.1%       11       0.1%         nflex on Partnersh p Cap ta Fund       13       0.1%       14       0.1%         Ke so nvestment Assoc ates X       35       0.2%       7       0.0%         Ke so nvestment Assoc ates X       36       0.2%       7       0.0%         KR so nvestment Assoc ates X       80       0.4%       32       0.2%         KKR North Amer ca X       48       0.3%       48       0.3%         KKR Spec a Stuat ons       18       0.1%       19       0.1%         Oaktree Opportur ty Fund V       0       0.0%       1       0.0%         Onex Partners V       2       0.2%       32       0.2%         Onex Partners V       10       0.1%       6       0.0%         Onex Partners V       2       0.2%       32       0.2%         Onex Partners V       2       0.2%       32       0.2%         Pane Schwatz Partners V <td>•</td> <td></td> <td></td> <td></td> <td></td>	•				
H G M dd e Market LBO Fund       2       0.0%       1       0.0%         nffex on Suppementa Fund V       13       0.1%       11       0.1%         nffex on Suppementa Fund V       13       0.1%       14       0.1%         ke son rvestment Assoc ates V       0       0.0%       0       0.0%         Ke son rvestment Assoc ates X       35       0.2%       7       0.0%         Ke son rvestment Assoc ates X       36       0.2%       7       0.0%         KK R North Amer cas X       80       0.4%       32       0.2%         KKR North Amer cas X       80       0.4%       32       0.2%         Oaktree Opportunt Y Fund V       0       0.0%       1       0.0%         Once Partners V       2       0.0%       2       0.0%         Onex Partners V       21       0.1%       2       0.0%         Pane Schwartz Partners V       13       0.1%       3       0.0%         Pane Schwartz Partners V       22       0.2%       30       0.2%         Pane Schwartz Partners V       13       0.1%       3       0.0%         Pane Schwartz Partners V       22       0.2%       30       0.2%         R ver		21		13	
nffex on Buyout Fund V         30         0.2%         27         0.2%           nffex on Partnersh p Cap ta Fund         13         0.1%         14         0.1%           ke so nvestment Assoc ates V         0         0.0%         0         0.0%           ke so nvestment Assoc ates X         35         0.2%         40         0.3%           Ke so nvestment Assoc ates X         36         0.2%         7         0.0%           KRR Amer cas X         80         0.4%         32         0.2%           KKR North Amer cas X         48         0.3%         48         0.3%           KKR Spec a S tuat ons         44         0.2%         37         0.2%           Oaktree Opportun ty Fund V         0         0.0%         1         0.0%           Onex Partners V         2         0.1%         6         0.0%           Onex Partners V         21         0.1%         2         0.0%           Onex Partners V         21         0.1%         3         0.0%           Pa ne Schwartz Partners V         32         0.2%         52         0.4%           Pa ne Schwartz Partners V         13         0.1%         3         0.0%           Pa ne Schwartz Partners V	H G M dd e Market LBO Fund	33	0.2%	32	0.2%
nflex on Sup ementa Fund V         13         0.1%         11         0.1%           nflex on Partners P, Cap ta Fund         13         0.1%         14         0.1%           Ke so nvestment Assoc ates X         35         0.0%         0         0.0%           Ke so nvestment Assoc ates X         36         0.2%         7         0.0%           Ke so nvestment Assoc ates X         36         0.2%         7         0.0%           KR North Amer cas X         80         0.4%         32         0.2%           KRR North Amer cas X         48         0.3%         48         0.3%           KRR North Amer cas X         48         0.3%         48         0.3%           KRR Spec a Stuat ons         18         0.1%         19         0.1%           KRR North Stuatons         44         0.2%         37         0.2%           Oaktree Opportunt yFund V         0         0.0%         1         0.0%           Onex Partners V         2         0.2%         32         0.2%           Onex Partners V         40         0.2%         52         0.4%           Pa ne Schwartz Partners V         13         0.1%         3         0.0%           Pa ne Schwartz Pa	H G M dd e Market LBO Fund	2	0.0%	1	0.0%
nflex on Partnersh p Cap ta Fund         13         0.1%         14         0.1%           Ke so nvestment Assoc ates X         35         0.2%         40         0.3%           Ke so nvestment Assoc ates X         36         0.2%         7         0.0%           KR Amer cas X         80         0.4%         32         0.2%           KR Amer cas X         80         0.4%         32         0.2%           KKR Amer cas X         48         0.3%         48         0.3%           KKR Spec a Stuat ons         18         0.1%         19         0.1%           Caktree Opportun ty Fund V         0         0.0%         1         0.0%           Onex Partners         2         0.0%         2         0.0%           Onex Partners V         42         0.2%         32         0.2%           Onex Partners V         21         0.1%         2         0.0%           Pa ne Schwartz Partners V         40         0.2%         52         0.4%           Pa ne Schwartz Partners V         30         0.1%         8         0.1%           R vers de M cro Cap Fund V-B         21         0.1%         7         0.0%           R vers de M cro Cap Fund V-B	nflex on Buyout Fund V	30	0.2%	27	0.2%
Ke so nvestment Associates V       0       0.0%       0       0.0%         Ke so nvestment Associates X       35       0.2%       40       0.3%         Ke so nvestment Associates X       36       0.2%       7       0.0%         KKR Amer cas X       80       0.4%       32       0.2%         KKR North Amer ca X       48       0.3%       48       0.3%         KKR Specia Stuations       18       0.1%       19       0.1%         Oaktree Opportunt ty Fund V       0       0.0%       1       0.0%         Onex Partners       2       0.0%       2       0.0%         Onex Partners V       21       0.1%       2       0.0%         Onex Partners V       13       0.1%       3       0.0%         Pa ne Schwartz Partners V       13       0.1%       3       0.0%         R vers de Cap ta Apprecation V       32       0.2%       30       0.2%         R vers de Micro Cap Fund       140       0.8%       66       0.4%         R vers de Micro Cap Fund V       22       0.1%       7       0.0%         R vers de Micro Cap Fund V       22       0.1%       8       0.1%         Shoreview Capta V	nflex on Supp ementa Fund V	13	0.1%	11	0.1%
Ke son nvestment Associates X         35         0.2%         40         0.3%           Ke son nvestment Associates X         36         0.2%         7         0.0%           KKR Amer cas X         80         0.4%         32         0.2%           KKR North Amer cas X         80         0.4%         32         0.2%           KKR North Amer cas X         48         0.3%         48         0.3%           KKR Specia Stuations         18         0.1%         19         0.1%           KKR Specia Stuations         44         0.2%         37         0.2%           Oaktree Opportunity Fund V         0         0.0%         1         0.0%           Onex Partners         2         0.0%         2         0.2%           Onex Partners V         42         0.2%         32         0.2%           Pane Schwartz Partners V         40         0.2%         52         0.4%           Pane Schwartz Partners V         13         0.1%         3         0.0%           R vers de Micro Cap Fund V         93         0.5%         65         0.4%           R vers de Micro Cap Fund V         93         0.5%         65         0.4%           R vers de Micro Cap Fund V <td>nflex on Partnersh p Cap ta Fund</td> <td></td> <td></td> <td>14</td> <td>0.1%</td>	nflex on Partnersh p Cap ta Fund			14	0.1%
Kes onvestment Associates X       36       0.2%       7       0.0%         KKR Amer cas X       80       0.4%       32       0.2%         KKR North Amer ca X       48       0.3%       448       0.3%         KKR Spec a Stuations       18       0.1%       19       0.1%         Oaktree Opportunity Fund V       0       0.0%       1       0.0%         Once Partners       2       0.0%       2       0.0%         Onex Partners V       42       0.2%       32       0.2%         Onex Partners V       2       0.1%       2       0.0%         Pane Schwartz Partners V       40       0.2%       52       0.4%         Pane Schwartz Partners V       13       0.1%       3       0.0%         R vers de Cap ta Apprecation V       32       0.2%       30       0.2%         R vers de M cro Cap Fund V       93       0.5%       65       0.4%         R vers de M cro Cap Fund V       93       0.5%       65       0.4%         R vers de M cro Cap Fund V-B       21       0.1%       8       0.1%         Shorev ew Capt ta       21       0.1%       2       0.1%         Shorev ew Capt tav       3		-			
KKR Amer cas X         80         0.4%         32         0.2%           KKR North Amer ca X         48         0.3%         48         0.3%           KKR Spec a Stuat ons         18         0.1%         19         0.1%           KKR Spec a Stuat ons         44         0.2%         37         0.2%           Cattree Opportun ty Fund V         0         0.0%         1         0.0%           ONCAP V         10         0.1%         6         0.0%           Onex Partners V         2         0.0%         2         0.0%           Onex Partners V         21         0.1%         2         0.0%           Pa ne Schwartz Partners V         40         0.2%         52         0.4%           Pa ne Schwartz Partners V         68         0.4%         41         0.3%           R vers de Cap ta Apprec aton V         32         0.2%         30         0.2%           R vers de M cro Cap Fund V         93         0.5%         65         0.4%           R vers de M cro Cap Fund V         22         0.1%         8         0.1%           Shorev ew Cap ta V         33         0.0%         2         0.0%           Summ t Ged V         16         0					
KKR North Amer ca X         48         0.3%         48         0.1%           KKR Spec a S tuat ons         18         0.1%         19         0.1%           KKR Spec a S tuat ons         44         0.2%         37         0.2%           Oaktree Opportun ty Fund V         0         0.0%         1         0.0%           ONCAP V         10         0.1%         6         0.0%           Onex Partners         2         0.0%         2         0.0%           Onex Partners V         21         0.1%         2         0.0%           Pa ne Schwartz Partners V         13         0.1%         3         0.0%           R vers de Cap ta Apprec at on V         32         0.2%         30         0.2%           R vers de M cro Cap Fund         140         0.8%         66         0.4%           R vers de M cro Cap Fund V         22         0.1%         8         0.1%           Shorev ew Cap ta         21         0.1%         7         0.0%           R vers de M cro Cap Fund V         22         0.1%         8         0.1%           Shorev ew Cap ta V         3         0.2%         41         0.3%           Shorev ew Cap ta V         3					
KKR Spec a Stuat ons       18       0.1%       19       0.1%         KKR Spec a Stuat ons       44       0.2%       37       0.2%         Oaktree Opportun ty Fund V       0       0.0%       1       0.0%         ONCAP V       10       0.1%       6       0.0%         Onex Partners       2       0.0%       2       0.0%         Onex Partners V       42       0.2%       32       0.2%         Dnex Partners V       40       0.2%       52       0.4%         Pa ne Schwartz Partners V       13       0.1%       3       0.0%         Rone Partners V       68       0.4%       41       0.3%         R vers de Cap ta Apprec at on V       32       0.2%       30       0.2%         R vers de M cro Cap Fund       140       0.8%       66       0.4%         R vers de M cro Cap Fund V       93       0.5%       65       0.4%         R vers de M cro Cap Fund V       22       0.1%       8       0.1%         Shorev ew Cap ta       21       0.1%       2       0.0%         Shorev ew Cap ta V       36       0.2%       30       0.2%         Summ t GE V       16       0.1%					
KRR Spec a Stuat ons         44         0.2%         37         0.2%           Daktree Opportun ty Fund V         0         0.0%         1         0.0%           ONCAP V         0         0.1%         6         0.0%           Onex Partners         2         0.0%         2         0.0%           Onex Partners V         42         0.2%         32         0.2%           Onex Partners V         21         0.1%         2         0.0%           Pa ne Schwartz Partners V         40         0.2%         52         0.4%           Pa ne Schwartz Partners V         13         0.1%         3         0.0%           R vers de Cap ta Apprec at on V         32         0.2%         30         0.2%           R vers de M cro Cap Fund         140         0.8%         66         0.4%           R vers de M cro Cap Fund V         93         0.5%         65         0.4%           R vers de M cro Cap Fund V         22         0.1%         8         0.1%           Shorev ew Cap ta         21         0.1%         20         0.1%           Shorev ew Cap ta V         36         0.2%         30         0.2%           Summ t CFed t Partners         33					
Daktree Opportun ty Fund V         0         0.0%         1         0.0%           ONCAP V         10         0.1%         6         0.0%           Onex Partners V         2         0.0%         2         0.0%           Onex Partners V         21         0.1%         2         0.0%           Dex Partners V         21         0.1%         2         0.0%           Pa ne Schwartz Partners V         40         0.2%         52         0.4%           Pa ne Schwartz Partners V         13         0.1%         3         0.0%           Rhone Partners V         68         0.4%         41         0.3%           R vers de Cap ta Apprec aton V         32         0.2%         30         0.2%           R vers de M cro Cap Fund V         93         0.5%         65         0.4%           R vers de M cro Cap Fund V-B         21         0.1%         8         0.1%           Shorev ew Cap ta         21         0.1%         20         0.1%           Shorev ew Cap ta         21         0.1%         20         0.1%           Shorev ew Cap ta         21         0.1%         20         0.1%           Shorev ew Cap ta         21         0.1%					
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R vers de M cro Cap Fund V         22         0.1%         8         0.1%           Shorev ew Cap ta         21         0.1%         20         0.1%           Shorev ew Cap ta V         3         0.0%         2         0.0%           Sovere gn Cap ta V         36         0.2%         30         0.2%           Summ t Cred t Partners         33         0.2%         41         0.3%           Summ t Cred t Partners         33         0.2%         41         0.3%           Summ t GE V         16         0.1%         12         0.1%           Summ t GE X         37         0.2%         5         0.0%           Summ t VC         3         0.0%         13         0.1%           Summ t VC         3         0.0%         13         0.1%           Summ t VC         2         0.3%         26         0.2%           Summ t VC V         2         0.3%         32         0.2%           Summ t VC V         2         0.3%         32         0.2%           Techno ogy mpact Fund         3         0.0%         0.0%         0.0%           Techno ogy mpact Growth Fund         52         0.3%         20         0.1%     <	R vers de M cro Cap Fund V	93	0.5%	65	0.4%
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Sovere gn Cap ta V       36       0.2%       30       0.2%         Summ t Cred t Partners       33       0.2%       41       0.3%         Summ t Europe       4       0.0%       0.0%         Summ t GE V       16       0.1%       12       0.1%         Summ t GE X       108       0.6%       69       0.5%         Summ t GE X       37       0.2%       5       0.0%         Summ t VC       3       0.0%       13       0.1%         Summ t VC V       50       0.3%       26       0.2%         Summ t VC V       2       0.3%       26       0.2%         Summ t VC V       2       0.3%       32       0.2%         Techno ogy mpact Fund       48       0.3%       32       0.2%         Techno ogy mpact Fund       52       0.3%       20       0.1%         TCV V       140       0.8%       79       0.5%         TCV X       57       0.3%       16       0.1%         TCV X       57       0.3%       16       0.1%         TCV X       8       0.0%       0.0%       0.0%         Thoma Bravo X       85       0.5%       64					
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Techno ogy mpact Fund         48         0.3%         32         0.2%           Techno ogy mpact Fund         3         0.0%         0.0%           Techno ogy mpact Growth Fund         52         0.3%         20         0.1%           TCV V         140         0.8%         79         0.5%           TCV X         99         0.5%         54         0.4%           TCV X         57         0.3%         16         0.1%           TCV X         8         0.0%         0.0%           Thoma Bravo X         85         0.5%         64         0.4%					
Techno ogy mpact Fund       3       0.0%       0.0%         Techno ogy mpact Growth Fund       52       0.3%       20       0.1%         TCV V       140       0.8%       79       0.5%         TCV X       99       0.5%       54       0.4%         TCV X       57       0.3%       16       0.1%         TCV X       8       0.0%       0.0%         Thoma Bravo X       85       0.5%       64       0.4%					
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TCV X         57         0.3%         16         0.1%           TCV X         8         0.0%         0.0%           Thoma Bravo X         85         0.5%         64         0.4%					
TCV X         8         0.0%         0.0%           Thoma Bravo X         85         0.5%         64         0.4%					
Thoma Bravo X         95         0.5%         78         0.5%			0.5%	64	0.4%
	Thoma Bravo X	95	0.5%	78	0.5%

	at 06/	/30/2021	at 06/30/2020	
	m ons of do ars	% of assets	m ons of do ars	% of assets
Thoma Bravo X	54	0.3%	34	0.2%
Thoma Bravo Spec a Opportun t es Fund	21	0.1%	17	0.1%
T r dge G oba Agr bus ness	15	0.1%	9	0.1%
Water Street Hea thcare	21	0.1%	21	0.1%
Water Street Hea thcare V	23	0.1%	11	0.1%
Wayzata Opportun t es	5	0.0%	5	0.0%
Wynnchurch Cap ta V Wynnchurch Cap ta V	52 9	0.3% 0.0%	30 0	0.2%
Co- nvestments	9 361	2.0%	277	1.9%
Total Private Equity	\$ 3,553	19.6%	\$ 2,325	15.8%
Real Estate				
Ange o Gordon Net Lease V	\$ 14	0.1%	\$ 11	0.1%
Bar ngs Rea_Estate As a	11	0.1%	7	0.0%
B ackstone Property Partners	368	2.0%	360	2.4%
B ackstone RE Partners V	29	0.2%	32	0.2%
B ackstone RE Partners V	37	0.2%	48	0.3%
B ackstone RE Partners X	20	0.1%	10	0.1%
EQT Rea Estate Harr son Street Core Property Fund	11 118	0.1% 0.7%	11 118	0.1% 0.8%
High Street V	110	0.7%	118	0.8%
H gh Street V	0	0.0%	27	0.0%
H gh Street V	26	0.1%	8	0.2%
nvesco US ncome	212	1.2%	200	1.4%
nvesco Rea Estate As a V	1	0.0%	3	0.0%
P Data Center Partners	28	0.2%	19	0.1%
P Data Center Partners	0	0.0%		0.0%
KKR REPA	3	0.0%	5	0.0%
KKR REPA	38	0.2%	28	0.2%
KKR REPE	32	0.2%	38	0.3%
KKR REPE	1	0.0%		0.0%
Northbr dge Strateg c Fund	33	0.2%	30	0.2%
Pr ma Adv sors Mortgage Fund	87	0.5%	82	0.6%
Prudent a Sen or Hous ng V	51	0.3%	51	0.3%
Rubenste n Partners	27	0.1%	24	0.2%
Smart Markets	206	1.1%	198 12	1.3%
Wa ton Street V Wa ton Street V	11 30	0.1% 0.2%	32	0.1% 0.2%
Westbrook X	4	0.0%	4	0.0%
Westbrook X	25	0.1%	28	0.2%
Westbrook X	4	0.0%	20	0.0%
Co- nvestments	49	0.3%	17	0.1%
Total Real Estate	\$ 1,475	8.1%	\$ 1,401	9.5%
Infrastructure	<b>•</b> • • • •	0.1%	<b>•</b> • • •	0.4%
A nda nfrastructure Fund	\$ 12	0.1%	\$ 14	0.1%
ArcL ght Energy Partners V	20	0.1%	27	0.2%
ArcL ght Energy Partners V Brookfie d nfrastructure Fund	100 109	0.6% 0.6%	95 102	0.6% 0.7%
Brookfie d'infrastructure Fund	80	0.8%	74	0.7%
Car y e G oba nfrastructure Opportun ty Fund	19	0.4%	5	0.0%
Car y e offastructure Fund	0	0.0%	1	0.0%
Car y e Power Partners	43	0.2%	33	0.2%
Cube nfrastructure Fund	3	0.0%	19	0.1%
Cube nfrastructure Fund	74	0.4%	44	0.3%
EQT nfrastructure Fund	104	0.6%	81	0.6%
EQT nfrastructure Fund V	69	0.4%	56	0.4%
G oba Energy & Power nfrastructure Fund	10	0.1%	20	0.1%
G oba Energy & Power nfrastructure Fund	58	0.3%	62	0.4%
G oba nfrastructure Partners Fund	1	0.0%	1	0.0%
G oba nfrastructure Partners Fund	75	0.4%	73	0.5%
G oba nfrastructure Partners Fund	15			
	133	0.7%	104	0.7%
G oba nfrastructure Partners Fund V		0.7% 0.1%		
KKR nfrastructure	133 16 0	0.1% 0.0%	7	0.0% 0.0%
KKR nfrastructure KKR nfrastructure	133 16 0 118	0.1% 0.0% 0.7%	7 107	0.0% 0.0% 0.7%
KKR nfrastructure	133 16 0	0.1% 0.0%	7	0.7% 0.0% 0.7% 0.2% 0.2%

#### Benefit Plans – Investment Portfolio

# Benefit Plans – Investment Portfolio

	at 06/	30/2021	at 06/30/	2020
	m ons	% of	m ons	% of
	of do ars	assets	of do ars	assets
Mer d am nfrastructure Europe C ass B (Secondary)	25	0.1%	25	0.2%
Mer d am nfrastructure Europe (Secondary)	31	0.2%	30	0.2%
Mer d am nfrastructure Europe C ass B (Secondary)	7	0.0%	6	0.0%
Mer d am nfrastructure Europe	39	0.2%	18	0.1%
Mer d am nfrastructure North Amer ca Mer d am nfrastructure North Amer ca (C P)	92 7	0.5% 0.0%	82 7	0.6%
Mer d am nfrastructure North Amer ca (Secondary)	23	0.1%	21	0.1%
Mer d am nfrastructure North Amer ca	4	0.0%	1	0.0%
Stonepeak nfrastructure	131	0.7%	118	0.8%
Stonepeak nfrastructure	139	0.7%	108	0.7%
Co- nvestments	213	1.2%	138	0.9%
Total Infrastructure	\$ 1,830	10.1%	\$ 1,535	10.4%
Alternative Credit				
AG D rect Lend ng	\$ 19	0.1%	\$ 26	0.2%
AG D rect Lend ng	96	0.5%	99	0.7%
AG D rect Lend ng  V ARES Cap ta Europe  V	34 98	0.2% 0.5%	22 79	0.2%
ARES Cap ta Europe V	14	0.1%	17	0.0%
Audax	113	0.6%	94	0.6%
G P Spectrum Fund	22	0.1%	13	0.1%
Mesa West Core	113	0.6%	106	0.7%
Ow Rock	112	0.6%	98	0.7%
Ow Rock	38	0.2%		0.0%
Path ght Cap ta	19	0.1%	,	0.0%
SCP Pr vate Corporate Lend ng Fund SCP SF Debt Fund	16 5	0.1% 0.0%	6	0.0%
S ver Point Specialty Credit	24	0.1%	7	0.0%
TCP D rect Lend ng V	79	0.4%	93	0.6%
Co- nvestments	79	0.4%	53	0.4%
Total Alternative Credit	\$ 881	4.9%	\$ 697	4.7%
Natural Resources				
ACM Fund	\$ 24	0.1%	\$ 24	0.2%
ACM Permanent Crops	47	0.3%	44	0.3%
AMERRA Agr Fund Denham M n ng Fund	42 23	0.2% 0.1%	41 11	0.3%
Homestead Farm and	46	0.3%	35	0.1%
Homestead Farm and	8	0.0%	3	0.0%
Or on M ne F nance	54	0.3%	38	0.3%
S ver Creek Aggregate Reserves Fund	13	0.1%	12	0.1%
Taurus M n ng F nance	13	0.1%	26	0.2%
Taurus M n ng F nance Annex	6	0.0%	12	0.1%
Taurus M n ng F nance	8	0.0%	30	0.2%
Teays R ver Tw n Creeks T mber	329 86	1.8% 0.5%	282 101	1.9% 0.7%
US Farm ng Rea ty	83	0.5%	97	0.7%
Co- nvestments	44	0.2%	38	0.3%
Total Natural Resources	\$ 826	4.5%	\$ 793	5.4%
Risk Diversifiers				
AQR L qu d Enhanced A ternat ve Prem a	\$	0.0%	\$ 199	1.4%
Aspect Core D vers fied	78	0.4%	75	0.5%
Br dgewater Pure A pha Dr dgewater Pure A pha Majar Marketa	202	1.1%	185	1.3%
Br dgewater Pure A pha Major Markets FORT G oba Contrar an Fund	219 218	1.2% 1.2%	195 210	1.3%
HBK Mu t -Strategy	76	0.4%	210	0.0%
W ndham Cap ta	187	1.0%	172	1.2%
W ndham R sk Prem a	182	1.0%	168	1.1%
Total Risk Diversifiers	\$ 1,162	6.4%	\$ 1,205	8.2%
Cash				
L qu d ty Account	103	0.6%	58	0.4%
Total Cash	\$ 103	0.6%	\$ 58	0.4%
Total Assets	\$18,146	100%	\$ 14,720	100%

#### Largest Holdings

#### Largest Holdings at June 30, 2021

Top 10 Direct Common Stock Holdings	Market Value	% of Assets
Арре	\$ 156,039,761	0.86%
M crosoft	\$ 148,151,688	0.82%
Amazon	\$ 108,351,279	0.60%
A phabet	\$ 104,877,016	0.58%
Facebook	\$ 60,387,491	0.33%
Tes a	\$ 38,258,954	0.21%
Berksh re Hathaway	\$ 37,822,411	0.21%
NV D A	\$ 34,728,083	0.19%
JPMorgan Chase	\$ 33,946,605	0.19%
Johnson & Johnson	\$ 31,497,464	0.17%

Some of the System s index fund investments are made through commingled funds, with MainePERS owning units in the funds, and having beneficial, rather than direct ownership of the securities. The largest holdings list reports direct holdings held outside of the commingled funds. For a complete list of the System s holdings, please visit the Investments section of the MainePERS website.

# **Securities Lending**

MainePERS earns additional income on its investment portfolio by lending its securities. The System pays its custodian for managing the securities lending program. Information regarding the results of the securities lending program for the current and prior fiscal years may be found in the Financial Section starting on page 20.

Several of the collective trusts through which the System holds interests in commingled funds also lend securities. Because these trusts are legal entities separate from MainePERS, their lending activities are not reflected in the securities lending results reported in the financial statements. The System shares in the income and the risks of the securities lending activity in the commingled funds, and the income is included in the total income and return figures in this Investment Section and the Financial Statements.

# **Investment Performance**

The table on the following pages displays the rates of return on the System's investment portfolio over the last ten fiscal years, and for the three, five, and ten-year periods ended June 30, 2021.

Over the ten-year period, the annualized rate of return on the System's assets was 8.7%. MainePERS experienced positive returns in each of these ten years. These results are consistent with the long-term risk/return strategy that forms the basis of the System's policies. The 8.7% realized return exceeds the investment return assumption utilized in the actuarial process over this period, which ranged from 7.25% to the current value of 6.5%.

The total return figures in the table on pages 92 and 93 are calculated by the MainePERS custodian and are net of investment management fees and expenses (see Expenses, page 94). The table reports time weighted rates of return and all figures for periods greater than one year are annualized.

# Investment Performance

# **Performance: Actual Returns vs. Benchmark Returns** (All returns are time weighted)

	Total Fund			Dor	nestic Eq	uity	Fo	Foreign Equity			Fixed Income			Real Estate		
Fiscal Year Ended June 30	Actual Return	Benchmark Return <sup>2</sup>	Excess Return	Actual Return	Benchmark Return <sup>3</sup>	Excess Return	Actual Return	Benchmark Return⁴	Excess Return	Actual Return	Benchmark Return⁵	Excess Return	Actual Return	Benchmark Return <sup>6</sup>	Excess Return	
2021	26.5%	27.4%	-0.9%	43.9%	44.2%	-0.2%	36.2%	35.7%	0.5%	3.9%	-0.3%	4.2%	6.9%	2.6%	4.3%	
2020	1.8%	0.0%	1.8%	5.9%	6.5%	-0.6%	-4.8%	-4.8%	0.0%	5.8%	8.7%	-3.0%	3.8%	5.3%	-1.5%	
2019	7.3%	7.5%	-0.2%	9.0%	9.0%	0.0%	1.5%	1.3%	0.2%	9.9%	5.2%	4.7%	8.2%	6.8%	1.4%	
2018	10.3%	8.5%	1.8%	14.8%	14.8%	0.1%	7.7%	7.3%	0.4%	1.0%	-0.4%	1.4%	8.6%	7.1%	1.4%	
2017	12.5%	11.4%	1.1%	18.5%	18.5%	0.0%	20.8%	20.5%	0.4%	0.6%	-0.3%	0.9%	9.8%	5.6%	4.1%	
2016	0.6%	1.0%	-0.4%	1.8%	2.0%	-0.3%	-10.1%	-9.8%	-0.3%	3.6%	6.0%	-2.4%	10.2%	9.4%	0.8%	
2015	2.0%	1.8%	0.3%	7.2%	7.2%	0.0%	-5.1%	-4.9%	-0.2%	-0.4%	1.9%	-2.3%	11.4%	8.8%	2.6%	
2014	16.7%	15.6%	1.1%	24.8%	25.0%	-0.2%	22.0%	22.3%	-0.3%	3.8%	4.4%	-0.6%	10.7%	5.5%	5.1%	
2013	11.1%	10.4%	0.8%	21.5%	21.5%	0.1%	13.9%	14.1%	-0.2%	-1.9%	-0.7%	-1.3%	10.2%	7.8%	2.4%	
2012	0.6%	1.4%	-0.8%	3.8%	4.0%	-0.2%	-14.3%	-14.2%	-0.2%	8.8%	9.0%	-0.1%	11.1%	13.4%	-2.3%	
3 years ending 2021	11.4%	11.0%	0.2%	18.4%	18.7%	-0.3%	9.6%	9.4%	0.2%	6.5%	4.5%	1.9%	6.3%	4.9%	1.4%	
5 years ending 2021	11.4%	10.6%	0.7%	17.7%	17.9%	-0.2%	11.4%	11.1%	0.3%	4.2%	2.5%	1.6%	7.4%	5.5%	1.9%	
10 years ending 2021	8.7%	8.2%	0.5%	14.5%	14.7%	-0.1%	5.7%	5.7%	0.0%	3.4%	3.3%	0.1%	9.1%	7.2%	1.8%	

#### **Investment Performance**

#### **Performance: Actual Returns vs. Benchmark Returns** (All returns are time weighted)

Infrastructure		Pr	Private Equity			ural Resou	rces	Alternative Credit	<b>Risk Diversifiers</b>		
Actual Return	Benchmark Return <sup>7</sup>	Excess Return	Actual Return	Benchmark Return <sup>8</sup>	Excess Return	Actual Return	Benchmark Return <sup>9</sup>	Excess Return	Actual Benchmark Excess Return Return Return	Actual Benchmark Excess Return Return <sup>2</sup> Return	
19.1%	19.3%	-0.3%	60.9%	67.4%	-6.5%	7.8%	20.1%	-12.4%			
-0.7%	1.4%	-2.1%	0.8%	-10.7%	11.5%	4.1%	-27.5%	31.6%			
16.9%	10.2%	6.7%	11.2%	12.0%	-0.8%	4.1%	0.3%	3.8%			
16.6%	12.6%	4.0%	22.7%	17.8%	4.9%	11.5%	6.1%	5.3%			
14.7%	12.4%	2.2%	19.8%	21.5%	-1.8%	7.5%	21.2%	-13.7%			
6.8%	11.8%	-5.0%	6.6%	5.1%	1.5%	5.5%	-17.8%	23.2%			
5.4%	3.6%	1.8%	8.9%	10.3%	-1.4%				Data Not Mean ngfu <sup>10</sup>	Data Not Mean ngfu <sup>10</sup>	
15.5%	14.7%	0.8%	9.8%	7.9%	2.0%						
11.4%	10.1%	1.4%	21.7%	18.7%	1.2%	5.3%	-4.4%	6.2%			
13.1%	11.1%	2.1%	21.5%	19.1%	1.3%	6.9%	2.4%	1.7%			

Notes:

1. Excess Return is Actua Return minus Benchmark Return

2. Tota Fund Benchmark: A combination of the benchmarks for every asset c ass using the target asset c ass weights.

3. Domestic Equity Benchmark: Russe 3000 ndex

4. Foreign Equity Benchmark: Morgan Stan ey Capita nternationa A Country Word Ex U.S. Free

5. Genera Fixed ncome Benchmark: Barc ays Capita Aggregate Bond ndex ess Governments p us T PS

6. Rea Estate Benchmark: NCRE F Property ndex (Lagged one Quarter)

7. nfrast ucture Benchmark: CA nfrast ucture Median (Lagged one Qua ter)

8. Private Equity Benchmark: Russe 3000 ndex 3% (Lagged one Quarter)

9. Natura Resources Benchmark: CA Natura Resources Median (Lagged one Qua ter)

10. A ternative Credit and Risk Diversifiers returns are not meaningfu at this stage of the program.

11. A ternative Credit Benchmark: 50% Bank of America US High Yie d 50% S&P/Loan Syndications & Trading Association US Leverage Loan ndex

12. Risk Diversifiers Benchmark: 0.3 Beta Morgan Stan ey Capita nternationa A Country Word ndex

#### **Investment Expenses**

The table below displays investment management expenses directly attributable to the investment program and paid directly by the System. Examples of directly attributable expenses include fees paid to investment managers and compensation and expenses of the System's own investment professionals, including time spent on investment matters by staff other than full-time investment professionals to the extent it can be separately identified. Other expenses not paid directly by the System include the expenses of securities lending programs conducted by managers of the commingled funds.

The decrease of expenses in 2021 relative to 2020 was the result of one-time events related to the timing of fees paid to several infrastructure managers.

Detail for year ended 6/30/2021	Dollar Expense
Pub c Equ ty	\$ 657,953
Domest c F xed ncome	237,770
A ternat ve Cred t	8,098,958
Pr vate Equ ty	46,165,643
Rea Estate	16,999,274
nfrastructure	25,378,122
Natura Resources	7,679,639
R sk D vers fier	13,343,902
Consu tants	1,120,000
Other nvestment Expenses	653,132
n-house Expenses	3,175,647
DC nvestment Expenses	57,434
Ret ree Hea th nsurance Trust Expenses	105,147
Group L fe nsurance Expenses	98,789
Ma nePERS OPEB	10,000
Total Investment Expenses – All Plans	\$ 123,781,410

Total for FY ended June 30 Defined Benefit Plans	\$ Millions	% of Total Assets
2021	123.8	0.68%
2020	130.1	0.88%
2019	117.2	0.79%
2018	101.5	0.71%
2017	93.8	0.70%
2016	76.0	0.62%
2015	54.7	0.44%
2014	41.1	0.32%
2013	31.4	0.28%
2012	24.3	0.23%
2011	19.7	0.18%

Broker	Commissions	Amount Traded (Millions)	Cost of Trade (%)	Total Shares (Millions)	Commissions (Cents per Share)
Bank of Amer cas Secur t es	\$ 27,989	\$ 341	0.008%	3.7	0.760
Persh ng	13,098	171	0.008%	1.9	0.699
Soc ete Genera e	3,179	130	0.002%	0.0	253.710
Loop Cap ta Markets	2,557	34	0.007%	0.3	0.797
nst net C ear ng Serv ces	1,155	51	0.002%	0.5	0.217
JP Morgan Chase	907	7	0.013%	0.1	0.700
UBS	761	34	0.002%	0.5	0.143
We s Fargo	715	24	0.003%	0.3	0.265
Morgan Stan ey	661	5	0.013%	0.1	0.693
Go dman Sachs	463	45	0.001%	0.7	0.065
Barc ays	402	3	0.014%	0.1	0.688
Cred t Su sse	163	3	0.005%	0.1	0.199
C t group	123	1	0.011%	0.0	0.767
BNP Par bas	121	1	0.020%	0.0	0.800
Other	70	473	0.000%	3.8	0.002
Total	\$ 52,364	\$ 1,324	0.004%	12.1	0.023

# Brokerage Commissions Year Ended June 30, 2021

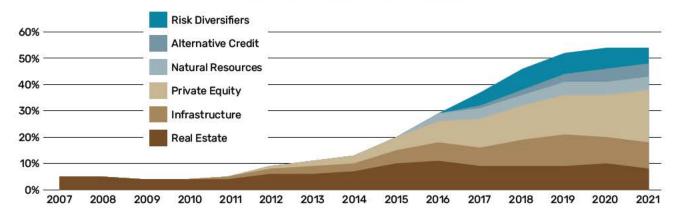
Commissions reported above are those paid directly by MainePERS. The table does not include other transaction costs the System may incur, nor does it include brokerage commissions incurred indirectly through investments in commingled funds. Brokerage commissions and other transaction costs are excluded from the expense table on the previous page. Those commissions and expenses are accounted for in the net income and total return figures reported elsewhere in this report.

Selection of brokers is at the discretion of the Systems investment managers, subject to their fiduciary obligations. MainePERS does not have any directed brokerage programs, commission recapture programs, or similar arrangements. Some of the Systems managers have soft dollar arrangements with brokers, in which the broker agrees to provide additional services to the manager beyond trade execution. In addition some of the Systems managers employ placement agents to market their funds. MainePERS does not pay placement agent fees and requires managers that do use placement agents to disclose the identity of said parties and the amount of payment.

#### A Note on Alternative Assets

The MainePERS Investment Team in 2008 recommended that the System increase its portfolio diversification by adding a number of alternative asset classes to its strategic asset allocation. Prior to this, essentially all of the volatility risk contained in the System's portfolio was due to its holdings of public equities. The expansion into alternative assets began with a strategic target allocation of 20% across Real Estate, Infrastructure, and Private Equity. In subsequent years the target overall allocation to alternative assets was increased to 55%, and Natural Resources, Alternative Credit, and Risk Diversifiers were added to the System's alternatives portfolio. The below chart shows the evolution of the System's Alternative Asset portfolio:



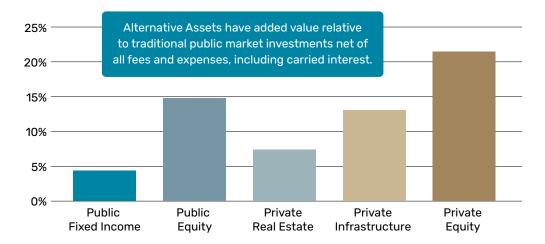


Each of these alternative asset classes plays a unique role in the overall portfolio. Private equity seeks to grow capital at a rate in excess of public equities by taking control positions in individual companies. Real Estate and Infrastructure provide the portfolio with stability, by generally investing in long-lived assets with predictable cash flows. Risk Diversifiers are investments specifically chosen for their ability to earn returns unrelated to public market returns. More in-depth descriptions of alternative asset classes can be found in the System s Investment Policy Statement available on the System s website. The decision to reduce portfolio risk by allocating capital across these asset classes was the result of a deliberative process involving the Trustees, Investment Team and consultants. This process weighed the risks of each asset class (return volatility, illiquidity, potential for extreme downside, adverse selection, etc.) against potential benefits (diversification, stability, higher returns, cash yields, etc.), and took into account interactions between asset classes. The goal of the process was to construct a portfolio that would best enable the System to make future benefit payments while keeping required contributions stable at a reasonable level.

The System s allocation to alternative assets is implemented largely via investments in private funds managed by specialized asset managers. Over the last decade the Investment Team has implemented the System s alternative asset allocation by carefully selecting investment managers in each asset class. This part of the process is crucial – academic research demonstrates the importance of manager selection, as the dispersion between good and poor managers is far wider in alternative assets than in traditional asset classes. The Investment Team has proceeded with the implementation of the System s target allocations in deliberate fashion, and has invested in over 200 individual funds managed by 75 or so managers. While it is likely that some of these investments may perform below expectations, we believe that the alternative asset portfolio is well-constructed and composed of top performers. While evaluating investment performance requires taking a long-term view, and this is especially true with alternative assets, we are pleased with the performance of the alternative asset portfolio to-date.

#### A Note on Alternative Assets

#### MainePERS 5-Year Net Performance Results



Finally, it is important to note that while in many cases expenses associated with alternative assets are higher than for traditional asset classes, all returns and asset values reported in this document are net of all fees and expenses. Many of the System's alternative investment partnership agreements provide for the manager to receive a share of profits, known as carried interest. Carried interest is generally only paid once the System has earned a sufficient return, generally in excess of the System's discount rate. Reported returns and asset values are net of carried interest.

#### Group Life Insurance Program

The Group Life Insurance program is supported by premiums paid by its participants and by reserves. Substantially all the reserves are maintained in an investment portfolio, for which the summary results are displayed below. (Certain assets, such as the cash in the operating bank account, are not considered part of the investment portfolio.) Over this period, the increase in portfolio value is attributable to positive investment return and positive cash flow.

FY Ended June 30	Opening Market Value	Closing Market Value	Actual Return	Benchmark Return	Performance
2021	138.7	181.1	30.5%	29.7%	0.8%
2020	130.8	138.7	4.8%	3.3%	1.5%
2019	120.4	130.8	6.6%	7.1%	0.5%
2018	110.5	120.4	8.9%	8.6%	0.3%
2017	97.9	110.5	12.8%	13.0%	0.2%
2016	95.2	97.9	0.9%	1.0%	0.1%
2015	92.2	95.2	2.6%	2.7%	0.1%
2014	78.3	92.2	18.6%	18.3%	0.3%
2013	68.1	78.3	13.4%	13.1%	0.3%
2012	66.4	68.1	0.6%	0.5%	0.1%
		3 yrs ended 2021	13.4%	12.8%	0.6%
		5 yrs ended 2021	6.7%	6.5%	0.2%
		10 yrs ended 2021	9.1%	8.9%	0.2%

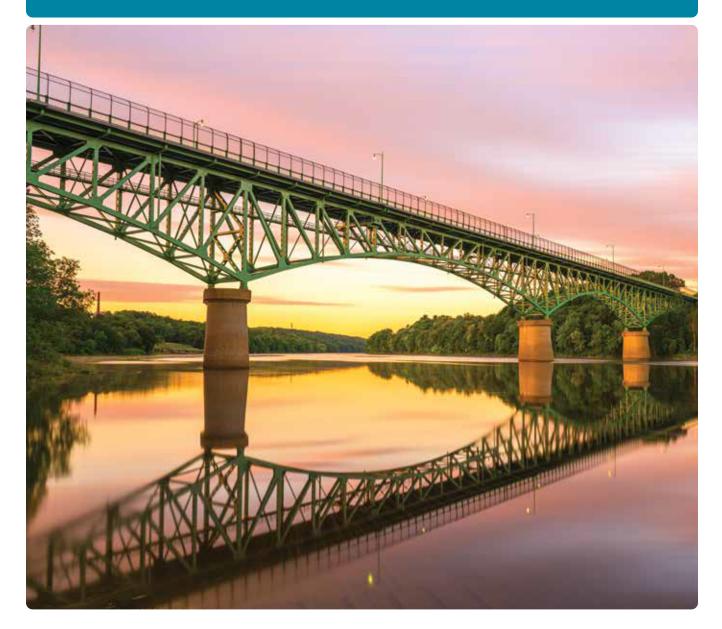
#### **Summary of Investment Activity**

In fiscal year 2009, the Group Life Insurance assets were separated from the defined benefit plan assets while maintaining the same type of investment strategy. Up until this change, beginning in November 2005, the assets had been combined with those of the other plans in the general investment portfolio. Prior to November 2005, the assets had been invested in either a medium term, investment grade fixed income portfolio or similar commingled funds. While the assets were invested in a mutual fund, they were not available for the System's own securities lending program. Any securities lending undertaken by the mutual fund is not covered in this report, although any results are reflected in the total return or gain/loss figures.

Over the ten-year period ended June 30, 2021, the actual return on the portfolio was essentially equivalent to the return of the performance benchmark.

The fees paid by the portfolio are consistent with those detailed in the fees and expenses tables of the previous section. For the period of time the portfolio was invested in a mutual fund, fees were consistent with other holders of the institutional class of shares, as detailed in the fund s prospectus.

# **Actuarial Section**



Memorial Bridge, Augusta



November 11, 2021

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

Dear Members of the Board:

At your request, we have conducted our annual actuarial valuation for each of the funded pension programs administered by the Maine Public Employees Retirement System (MainePERS) as of June 30, 2021 as well as the Group Life Insurance (GLI) Programs. The purpose of this report is to present the annual actuarial valuation results for the various Programs as they relate to financial reporting. Further information, including risk assessments and stress testing projections, are included in the actuarial valuation report for each Program. This report is for the use of the MainePERS Board of Trustees and its auditors in preparing financial reports in accordance with applicable law and accounting requirements. 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 other user.

#### **Funding Objective**

The funding objective for the pension Programs administered by MainePERS is to establish contribution rates that, over time, will remain level as a percentage of payroll while fully funding the Programs. In order to achieve this, we develop contribution rates for each Program that will provide for the current costs (i.e., normal cost expressed as a level percentage of payroll) plus a level percentage of payroll amortization of the unfunded liability over a specified period. To our knowledge, the plan sponsors have consistently funded the full amounts required based on the actuarial valuations and specific statutory provisions.

The funding objective for the retiree GLI Programs is to contribute at least the Actuarially Determined Contribution (ADC) for Teachers, and to contribute based on premium rates for all other State participants and participants of Participating Local Districts (PLDs). Sufficiency of premium rate funding is reviewed at least every 4 years, with the most recent study being performed in 2020. Rates for State participants, as well as the ADC for Teachers, are determined so that the liability will be fully funded by FYE 2038, and Rates for PLDs are determined so that the liability will be fully funded by FYE 2036.

#### **Assumptions and Methods**

The actuarial assumptions and methods used in these valuations have been recommended by the actuary and adopted by the Board of Trustees based on the actuary s most recent review of each Program s experience.

We believe that all the costs, liabilities, rates of interest, and other factors for MainePERS have been determined on the basis of actuarial assumptions and methods that are individually reasonable (taking into account the experience of the Programs administered by MainePERS and reasonable expectations) and that, in the aggregate, offer our best estimate of anticipated experience affecting the Programs. Nevertheless, the emerging costs rely on future plan experience conforming to the underlying assumptions and methods as outlined in this report. To the extent that the actual experience of the Programs deviates from the underlying assumptions and methods, or there are any changes in plan provisions or applicable law, the results will vary accordingly.

The calculations in the following exhibits have been made on a basis consistent with our understanding of MainePERS s funding requirements and goals. The GLI numbers disclosed in the Financial Section were produced in accordance with our understanding of the requirements of Governmental Accounting Standards Board (GASB) Statement No. 74 while the accounting disclosure items in the Financial Section related to the pension Programs are developed in accordance with our understanding of the requirements of GASB Statement No. 67. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

#### **Reliance on Others**

In preparing our report, we relied on information, some oral and some written, supplied by MainePERS. This information includes, but is not limited to, the plan provisions, membership data, and financial information. We performed a limited review of the obvious characteristics of the data for reasonableness and consistency in accordance with Actuarial

Standard of Practice No. 23 and have found no material defects in the data. If there are material defects in the data, it is possible that they would be uncovered by a detailed, systematic review and comparison of the data to search for data values that are questionable. Such a review was beyond the scope of our assignment. We believe the data provided as internally modified is sufficient for the actuarial analysis performed.

#### **Determination of Discount Rate**

We have not performed formal cash flow projections as described under Paragraph 41 of GASB No. 67. However, Paragraph 43 of No. 67 allow for alternative methods to confirm the sufficiency of the fiduciary net position if the evaluations "can be made with sufficient reliability without a separate projection of cash flows into and out of the pension plan..." In our professional judgment, adherence to the actuarial funding policy described above and detailed further in the individual valuation reports will result in the pension programs having projected fiduciary net positions being greater than or equal to the benefit payments projected for each future period for each Program within the System.

For the GLI Programs, we performed formal cash flow projections as described under Paragraph 49 of GASB No. 74. 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.

#### Supporting Schedules

Cheiron is responsible for the following schedules included within the Financial and Actuarial Sections of the MainePERS Annual Financial Report:

- Schedule of Active Member Valuation Data
- Schedule of Benefit Recipients Valuation Data
- · Schedule of Retirees and Beneficiaries Added to and Removed from the Rolls
- Schedule of Change in Net Pension Liability
- · Sensitivity of Net Pension Liability to Changes in Discount Rate
- Analysis of Financial Experience
- Schedule of Funded Liabilities by Type
- Schedule of Changes in Net OPEB Liability

#### Certification

We believe that the Programs administered by MainePERS are adequately and appropriately financed including contributions that are determined and funded on a level cost as a percentage of payroll basis using reasonable actuarial methods and assumptions.

To the best of our knowledge, this report and its contents have been prepared in accordance with generally recognized and accepted actuarial principles and practices 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. This includes the use of assumptions and methods for funding purposes that comply with the Actuarial Standards of Practice. 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 does not contain any adjustments for potential impact of COVID-19 on either economic or demographic assumptions. We anticipate that the virus 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 Principal Consulting Actuary



Vian Ehist

Fiona E. Liston, FSA, EA Principal Consulting Actuary

Elizabeth Wiley, FSA, EA Consulting Actuary

# Section I Demographic Information

#### **Schedule of Active Member Valuation Data**

Valuation						
Date	Number of		Annual Payroll		Average	Percentage Increase
June 30.	Active Members		Active Members		nnual Pay	in Average Pay
	d Teacher Retirement Program 40,099		2,199,458,213	\$	54,851	7.53%
2021		Þ		Þ		
2020	40,395		2,060,622,725		51,012	2.79%
2019	39,876		1,979,024,476		49,629	4.55%
2018	39,843		1,891,366,352		47,470	2.91%
2017	39,836		1,837,608,866		46,129	2.82%
2016	39,942		1,792,004,417		44,865	2.88%
2015	40,016		1,745,075,075		43,609	1.62%
2014	39,669		1,702,310,338		42,913	7.92%
2013	41,809		1,662,390,557		39,762	(8.93)%
2012	39,360		1,718,449,172		43,660	2.97%
Concelidated Dian	for Douticipation I apol District	_				
	for Participating Local Districts	\$	(() 770 5(0	¢	EC 710	7 ((0)
2021	11,704	\$	663,770,560	\$	56,713	7.66%
2020	11,838		623,587,639		52,677	3.84%
2019	11,731		595,083,006		50,727	2.87%
2018	11,416		562,952,637		49,313	3.93%
2017	11,195		531,168,594		47,447	3.37%
2016	11,019		505,798,133		45,902	1.63%
2015	10,870		490,974,092		45,168	6.51%
2014	10,848		460,029,637		42,407	2.79%
2013	11,112		458,424,764		41,255	(6.41)%
2012	10,772		474,828,262		44,080	7.55%
Non Consolidated	Participating Local Districts					
	Participating Local Districts	¢	0	¢	0	0.00%
2021	0	\$	0	\$	0	0.00%
2020	1		44,387		44,387	(26.05)%
2019	12		720,245		60,020	4.15%
2018	16		922,083		57,630	2.09%
2017	19		1,072,561		56,451	5.54%
2016	21		1,123,218		53,487	1.85%
2015	23		1,207,796		52,513	3.86%
2014	24		1,213,514		50,563	(0.92)%
2013	28		1,428,984		51,035	0.97%
2012	28		1,415,305		50,547	0.38%
Judicial Retiremen	t Program					
2021	60	\$	8,745,108	¢	145,752	8.33%
2020	58	φ	7,803,741	φ	134,547	2.72%
2019	61		7,989,945		130,983	0.02%
2018	62		8,119,342		130,957	6.17%
2017	63		7,770,523		123,342	6.44%
2016	62		7,184,400		115,877	(5.29)%
2015	56		6,851,612		122,350	9.76%
2014	60		6,688,159		111,469	(0.81)%
2013	60		6,742,444		112,374	(2.36)%
2012	59		6,790,274		115,089	0.00%
Legislative Retirem	ent Program*					
2021	178	\$	2,802,145	\$	15,742	0.13%
2021	178	φ	2,814,060	Φ	15,721	5.80%
2019	179		2,659,749		14,859	1.41%
2018	185		2,710,694		14,652	2.24%
2017	185		2,651,195		14,331	(2.06)%
2016	177		2,590,011		14,633	3.92%
2015	180		2,534,548		14,081	1.24%
2014	181		2,517,431		13,908	(0.14)%
2013	182		2,534,740		13,927	0.53%
2012	175		2,424,480		13,854	0.04%

 $^{*}$  Leg s at ve sa ar es n even-numbered va uat on years have been ncreased to approx mate a fuses on amount

# Section I Demographic Information

# Schedule of Benefit Recipients Valuation Data

Valuation	Total Number of		Average	Percentage
Date June 30,	Benefit Recipients at Year End	Annual Payments to Benefit Recipients	Annual Benefit	Increase in Average Benefit
	nd Teacher Retirement Program	Benefit Reolpients	Denent	Average Benenit
2021	37,690	\$ 884,049,653	\$ 23,456	1.35%
2020	•			
	37,151	859,787,631	23,143	1.49%
2019	36,471	831,655,042	22,803	2.49%
2018	35,601	792,094,655	22,249	1.89%
2017	34,870	761,472,435	21,837	2.51%
2016	34,181	728,131,830	21,302	2.41%
2015	33,260	691,848,265	20,801	2.30%
2014	32,391	658,595,271	20,333	0.87%
2013	31,624	637,482,081	20,158	0.03%
2012	30,485	614,303,923	20,151	2.33%
Consolidated Plan	for Participating Local Districts			
2021	10,093	\$ 177,787,099	\$ 17,615	2.46%
2020	9,860	169,508,194	17,192	2.56%
2019				
	9,534	159,816,939	16,763	3.62%
2018	9,256	149,732,113	16,177	2.99%
2017	9,006	141,460,984	15,707	2.45%
2016	8,847	135,629,476	15,331	0.70%
2015	8,581	130,647,324	15,225	3.02%
2014	8,333	123,149,154	14,778	2.99%
2013	8,122	116,539,396	14,349	(2.11)%
2012	7,520	110,230,682	14,658	5.77%
Non-Consolidated	Participating Local Districts			
2021	51	\$ 788,225	\$ 15,455	3.33%
2020	50	747,849	14,957	(19.59)%
2019	163	3,032,058	18,602	17.17%
2018	170	2,698,875	15,876	2.51%
2017	174	2,694,654	15,487	(0.14)%
2016	172	2,667,586	15,509	2.36%
	172			
2015		2,666,644	15,151	6.69%
2014	191	2,712,331	14,201	6.82%
2013	196	2,605,703	13,294	0.53%
2012	199	2,631,584	13,224	6.95%
Judicial Retiremer		• • === ===		0.044
2021	85	\$ 4,730,030	\$ 55,647	0.36%
2020	83	4,602,349	55,450	3.35%
2019	76	4,077,523	53,652	2.76%
2018	75	3,915,645	52,209	6.28%
2017	75	3,684,373	49,125	1.05%
2016	74	3,597,415	48,614	1.47%
2015	71	3,401,651	47,911	(1.25)%
2014	67	3,250,749	48,519	(3.23)%
2013	65	3,258,916	50,137	0.94%
2012	63	3,129,136	49,669	(0.64)%
Legislative Retiren	nent Program			
2021	222	\$ 502,011	\$ 2,261	0.89%
2020	206	461,644	2,241	4.04%
2019	200	439,364	2,154	1.89%
2019	185	391,070	2,114	4.45%
2017	185	374,529	2,024	1.05%
2016	174	348,592	2,003	4.00%
2015	170	327,469	1,926	3.55%
2014	153	284,588	1,860	2.42%
2013	155	281,433	1,816	(3.25)%
2012	141	264,716	1,877	1.19%

# Section I Demographic Information

#### Schedule of Retirees and Beneficiaries Added to and Removed from the Rolls

Valuation	Add	led to Rolls	Removed from Rolls		On R	olls at Year End
Date		Annual		Annual		Annual
June 30,	No.	Allowance	No.	Allowance	No.	Allowance
State Employee and	Teacher Retire	ement Program				
2021	1,704	\$ 48,195,942	1,165	\$ 23,933,920	37,690	\$ 884,049,653
2020	1,755	49,364,473	1,075	21,231,884	37,151	859,787,631
2019	1,868	58,337,066	998	18,776,679	36,471	831,655,042
2018	1,781	49,254,819	1,050	18,632,598	35,601	792,094,655
2017	1,641	49,809,275	952	16,468,670	34,870	761,472,435
2016	1,840	52,295,379	919	16,011,814	34,181	728,131,830
2015	1,834	49,547,474	965	16,294,480	33,260	691,848,265
2014	1,668	36,572,188	901	15,458,998	32,391	658,595,271
2013	1,995	37,073,840	856	13,895,682	31,624	637,482,081
2012	2,402	58,170,235	817	13,008,150	30,485	614,303,923
Consolidated Plan fo	r Participating	Local Districts*				
2021	566	\$ 12,926,696	334	\$ 4,647,791	10,093	\$ 177,787,099
2020	666	14,079,408	340	4,388,153	9,860	169,508,194
2019	585	14,105,844	307	4,021,018	9,534	159,816,939
2018	602	12,950,872	352	4,679,743	9,256	149,732,113
2010	521	10,098,997	362	4,267,489	9,006	141,460,984
			277			
2016	543	8,643,493		3,661,341	8,847	135,629,476
2015	620	11,937,098	372	4,438,928	8,581	130,647,324
2014	516	9,816,061	305	3,206,304	8,333	123,149,154
Non-Consolidated Pa	articipating Lo	cal Districts*				
2021	3	\$ 58,952	2	\$ 18,576	51	\$ 788,225
2020	0	9,470	113	2,293,679	50	747,849
2019	7	516,503	14	183,320	163	3,032,058
2018	4	72,079	8	67,858	170	2,698,875
2017	6	106,640	4	79,572	174	2,694,654
2017	2	64,941	6	63,999	174	
						2,667,586
2015 2014	3 6	92,920 162,335	18 11	138,607 55,706	176 191	2,666,644 2,712,331
			11	33,100	1/1	2,112,331
PLDs (Consolidated a						
2013	881	\$9,563,286	300	\$ 3,280,453	8,318	\$ 119,145,099
2012	425	10,710,058	316	3,014,263	7,719	112,862,266
Judicial Retirement I	Program					
2021	5	\$ 297,556	3	\$ 169,875	85	\$ 4,730,030
2020	8	607,435	1	82,609	83	4,602,349
2019	2	187,761	1	25,883	76	4,077,523
2018	5	460,761	5	229,489	75	3,915,645
2017	1	86,958	Ő	0	75	3,684,373
2016	7	426,643	4	230,879	74	3,597,415
			2		74 71	
2015	6	312,332		161,430		3,401,651
2014	6	254,034	4	262,201	67	3,250,749
2013	3	148,384	1	18,604	65	3,258,916
2012	3	142,235	2	112,433	63	3,129,136
Legislative Retireme	nt Program					
2021	22	\$ 52,617	6	\$ 12,250	222	\$ 502,011
2020	10	36,369	8	14,089	206	461,644
2019	25	67,535	6	19,241	204	439,364
2019	8	30,692	8	14,151	185	391,070
			0			
2017	20	48,314	9	22,377	185	374,529
2016	12	38,391	8	17,268	174	348,592
2015	25	53,264	9 8 8 7	10,383	170	327,469
	F	10 024	7	7,779	153	284,588
2014	5	10,934			155	
	5 18	24,752	4	8,035	155	281,433

\* Th s schedu e was deve oped n aggregate for the Part c pat ng Loca D str cts pr or to 2014 Beg nn ng w th 2014, t was deve oped sp t between the Conso dated P an and the Non-Conso dated PLDs

# Section II Accounting Information

#### Schedule of Change in Net Pension Liability as of June 30, 2021

	State Employee eacher Retirement Program	Consolidated Plan for PLDs		Non- Consolidated PLDs		Judicial Retirement Program	Legislative Retirement Program
Total Pension Liability	 	 					 
Service Cost	\$ 238,775,193	\$ 86,845,610	\$	614	\$	1,546,701	\$ 286,472
Interest	989,560,149	229,954,447		464,671		4,822,289	657,782
Change in benefit terms	0	0		0		0	0
Difference between expected							
and actual experience	25,575,263	13,300,796		101,904		1,066,613	180,989
Change in assumptions	1,175,893,728	161,866,111		207,063		836,266	374,000
Benefit payments, including refunds	(902,913,135)	(182,691,917)		(776,437)		(4,681,415)	(549,461)
Net change in Total Pension Liability	\$ 1,526,891,198	\$ 309,275,047	\$	(2,185)	\$	3,590,454	\$ 949,782
Total Pension Liability							
beginning of year	\$ 14,865,460,130	\$ 3,409,741,367	\$	7,265,280	\$	72,197,110	\$ 9,728,689
Total Pension Liability end of year	\$ 16,392,351,328	\$ 3,719,016,414	\$	7,263,095	\$	75,787,564	\$ 10,678,471
Plan Fiduciary Net Position							
Contributions Employer	\$ 418,573,519	\$ 68,506,485	\$	67,920	\$	738,939	\$ 0
Contributions Member	159,510,003	53,621,126		1,945		635,871	214,905
Transfers	(389,920)	(306,895)		0		473,431	(3,271)
Net Investment Income	3,192,036,230	802,368,797		2,123,481		19,279,640	3,559,227
Benefit payments, including refunds	(902,913,135)	(182,691,917)		(776,437)		(4,681,415)	(549,461)
Administrative Expenses	 (11,088,956)	 (2,773,340)	_	(7,726)	_	(67,680)	 (12,383)
Net Change in Plan Fiduciary							
Net Position	\$ 2,855,727,741	\$ 738,724,256	\$	1,409,183	\$	16,378,786	\$ 3,209,017
Plan Fiduciary Net Position							
beginning of year	\$ 12,044,916,279	\$ 3,012,428,367	\$	8,339,501	\$	73,514,720	\$ 13,450,104
Plan Fiduciary Net Position							
end of year	\$ 14,900,644,020	\$ 3,751,152,623	\$	9,748,684	\$	89,893,506	\$ 16,659,121
Net Pension Liability/(Asset) –							
end of year	\$ 1,491,707,309	\$ (32,136,209)	\$	(2,485,589)	\$	(14,105,942)	\$ (5,980,650)

# Section II Accounting Information

#### Sensitivity of Net Pension Liability to Changes in Discount Rate as of June 30, 2021

	State Employee & Teacher Retirement Program	Consolidated Plan for PLDs	Non- Consolidated PLDs	Judicial Retirement Program	Legislative Retirement Program
Discount Rate					
1% Decrease	5.50%	5.50%	5.50%	5.50%	5.50%
Current Discount Rate	6.50%	6.50%	6.50%	6.50%	6.50%
1% ncrease	7.50%	7.50%	7.50%	7.50%	7.50%
Net Pension Liability					
1% Decrease	\$ 3,537,629,660	\$ 457,316,812	\$ (1,457,561)	\$ (7,337,865)	\$ (4,879,914)
Current Discount Rate	1,491,707,308	(32,136,209)	(2,485,589)	(14,105,942)	(5,980,650)
1% ncrease	(216,518,489)	(436,978,368)	(2,843,676)	(20,014,673)	(6,929,727)

The tab e be ow s a ga n/ oss ana ys s of the changes n the actuar a ab ty, reflect ng var ances between actua exper ence and assumed exper ence for d fferent k nds of r sk as spec fied n the GFOA GAAFR

#### Analysis of Financial Experience Gain and Loss in Accrued Liability During Year Resulting from Differences Between Assumed Experience and Actual Experience For Year Ended June 30, 2021

	tate Employee acher Retirement Program	Consolidated Plan for PLDs	Non- Consolidated PLDs	Judicial Retirement Program	Legislative Retirement Program
Type of Activity					
nvestment ncome	\$ 720,053,045	\$ 181,079,340	\$ 491,158	\$ 4,321,879	\$ 796,071
Combined Liability Experience	(25,575,263)	(13,300,796)	(101,903)	(1,066,613)	(180,989)
Gain (or Loss) During Year					
rom inancial Experience	\$ 694,477,782	\$ 167,778,544	\$ 389,255	\$ 3,255,266	\$ 615,082
Non Recurring tems	 (1,175,893,728)	 (161,866,111)	 (207,063)	 (836,266)	(374,000)
Composite Gain (or Loss) During Year	\$ (481,415,946)	\$ 5,912,433	\$ 182,192	\$ 2,419,000	\$ 241,082

# Section II

# Accounting Information

#### Schedule of Funded Liabilities by Type Aggregate Actuarial Liabilities For

Valuation Date	(1) Active Member	(2) Retirees, Vested Terms.		(3) Active Members mployer Financed		Reported	Liab	ion of Act ilities Cov eported A	vered
June 30,	Contributions	Beneficiaries	(=	Portion)		Assets*	(1)	(2)	(3)
State Employee	and Teacher Retireme	ent Program							
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		11,419,986,651	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		10,375,552,498	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%
2012	2,271,164,594	6,656,860,191		2,625,281,496		8,880,730,120	100%	99%	0%
Consolidated P	lan for Participating Lo	cal Districts							
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%
2012	398,895,449	1,262,186,227		707,745,483		2,103,481,277	100%	100%	63%
Non-Consolidat	ted Participating Local	Districts							
2021	\$ 0	\$ 7,263,094	\$	0	\$	8,806,718	100%	100%	100%
2020	622,269	6,901,654	*	(258,643)	Ŧ	8,481,468	100%	100%	100%
2019	4,329,750	32,342,346		1,437,687		36,627,381	100%	100%	0%
2018	4,461,906	30,747,638		2,782,257		36,380,088	100%	100%	42%
2017	4,468,152	30,140,204		3,419,931		35,772,138	100%	100%	34%
2016	4,494,490	30,215,191		3,337,304		35,516,058	100%	100%	24%
2015	4,640,093	29,733,833		4,144,814		35,942,796	100%	100%	38%
2014	4,667,251	31,696,569		3,382,954		35,485,488	100%	97%	0%
2013	4,764,800	29,539,283		4,180,808		33,454,845	100%	97%	0%
2012	4,757,033	27,810,149		4,313,899		33,172,070	100%	100%	14%
Judicial Retirer	nent Program								
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%
2012	9,379,428	24,731,810		12,229,440		49,735,004	100%	100%	100%
Legislative Reti	rement Program								
2021	\$ 3,039,312	\$ 7,836,190	\$	(197,031)	\$	15,049,435	100%	100%	100%
2020	3,039,660	6,844,699	Ŧ	(155,670)	Ŧ	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%
2012	2,321,819	3,895,976		25,844		9,322,419	100%	100%	100%

\* Reported assets are measured at actuar a value Results would be different if market value of assets were used Despite the name of this exhibit, the labit espresented in this schedule are not an appropriate measurement of the settlement value of the Program

# Section II Accounting Information

The Maine Public Employees Retirement System covers Postretirement Group Life Insurance obligations for 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 Plans and the Participating Local Districts Plans (PLDs).

## Schedule of Changes in Net OPEB Liability as of June 30, 2021

	State Sponsored Plans Retiree Group Life Insurance	PLD Retiree Group Life Insurance		
Total OPEB Liability				
Serv ce cost (BOY)	\$ 2,683,027	\$ 309,875		
nterest ( nc udes nterest on serv ce cost)	13,846,827	1,962,386		
Change n benefit terms	0	0		
D fference between expected and actua exper ence	0	0		
Change n assumpt ons	291,076	906,229		
Benefit payments, nc ud ng refunds	(6,613,935)	(1,223,890)		
Net change n tota OPEB ab ty	\$ 10,206,995	\$ 1,954,600		
Tota OPEB L ab ty – beg nn ng of year	\$ 213,308,907	\$ 29,576,761		
Tota OPEB L ab ty – end of year	\$ 223,515,902	\$ 31,531,361		
Plan Fiduciary Net Position				
Contr but ons — Emp oyer	\$ 9,866,578	\$ 1,186,563		
Contr but ons – Member	0	0		
Net nvestment ncome	32,552,180	4,987,761		
Benefit payments, nc ud ng refunds	(6,613,935)	(1,223,890)		
Adm n strat ve Expense	(821,718)	(127,631)		
Net Change n P an F duc ary Net Post on	\$ 34,983,105	\$ 4,822,803		
P an F duc ary Net Pos t on — beg nn ng of year	\$ 105,616,489	\$ 16,384,579		
P an F duc ary Net Pos t on — end of year	\$ 140,599,594	\$ 21,207,382		
Net OPEB Liability — end of year	\$ 82,916,308	\$ 10,323,979		

# **State Employee and Teacher Program**

## 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 and state fire marshal inspectors, oil and hazardous materials emergency response workers, and capitol security officers: 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.

Fire marshal investigators and fire marshal sergeants: 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 ten years of service at 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 Ten 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 ten 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 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	Ag	e 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 Ten 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 ten 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 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 ten 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.

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.

Eligibility: Ten 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.), except oil and hazardous materials emergency response workers, certain prison employee, and Capitol Police 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.

# 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: 66%% 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 on 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 ten years following normal retirement age or on 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 a cap) (see item 12). On the date when service benefits reach a level of 66¾% of average final compensation or ten 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 on 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 a 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-ofduty.

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 members dependent children, the surviving spouse and dependent children shall share equally an annual sum equal to the members average final compensation. When there are no longer any dependent children, the surviving spouse shall receive two-thirds of the members 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 members accumulated contributions with interest.

## 12. Cost-of-Living Adjustments

All service and disability retirement and survivor benefits 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 that portion of the benefit that is not in excess of a COLA cap 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 is 3%. 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 Cap 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

Members who did not have ten 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 twelve 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\*.

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. Plan Changes since Prior Valuation

None

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.

# **A. Actuarial Assumptions**

Where assumptions were changed in 2021, the revised assumption in effect for this June 30, 2021 valuation are shown with gray shading.

# **1. Annual Rate of Investment Return**

Teachers	6.50%			
(both prev ous y 6 75%)				

Rate is net of both administrative and investment expense.

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

State Emp oyees	2.20%
Teachers	2.20%

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

	Prior Assum	<b>Prior Assumption</b>		mption
Service	State Employees	Teachers	State Employees	Teachers
0	8.75%	14.50%	9.43%	13.03%
5	5.00	5.75	6.24	5.83
10	3.75	4.75	5.32	4.81
15	3.20	4.00	3.98	4.29
20	2.95	3.25	3.78	3.26
25 and over	2.75	2.75	3.26	2.80

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

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

	<b>Prior Assumption</b>	Revised Ass	umption
Service	State Employees and Teachers	State Employees	Teachers
0	33.50%	32.5%	26.0%
5	10.50	10.0	9.0
10	5.95	6.0	5.5
15	4.25	4.0	3.5
20	4.00	3.0	3.0
25	4.00	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.

		Prior Ass	sumption		Revised Assumption (Showing values in 2021)			
		(Showing va	lues in 2021)					
	State E	mployees	Теа	chers	State E	mployees	Теа	chers
Age	Male	Female	Male	Female	Male	Female	Male	Female
50	40	31	38	25	31	25	10	6
55	56	42	53	34	47	35	21	17
60	76	61	72	50	72	48	36	27
65	108	93	103	77	104	70	59	37
70	167	149	159	123	160	113	98	60
75	273	245	259	202	271	202	180	115
80	459	413	437	341	489	373	345	323
85	801	734	763	606	899	706	719	632
90	1,434	1,333	1,365	1,100	1,560	1,317	1,338	1,193
95	2,297	2,226	2,187	1,837	2,432	2,148	2,251	2,122

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

Prior rates for State Employees are based on 104% and 120% of the RP-2014 Total Dataset Healthy Annuitant Mortality Table, respectively, for males and females, using the RP-2014 Total Dataset Employee Mortality Table for ages prior to the start of the Healthy Annuitant Mortality Table, both projected from the 2006 base rates using the RPEC 2015 model, with an ultimate rate of 0.85% for ages 20–85, grading down to an ultimate rate of 0.00% for ages 111–120, and convergence to the ultimate rate in the year 2020. Prior rates for Teachers are based on 99% of the RP-2014 Total Dataset Healthy Annuitant Mortality Table for both males and females, using the RP-2014 Total Dataset Employee Mortality Table for ages prior to the start of the Healthy Annuitant Mortality Table 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 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 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.

Revised 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.

Revised 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 revised 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.

	Prior Assumption							
		(Showing val	ues in 2021)		(Showing values in 2021)			
	State E	mployees	Теа	chers	State E	mployees	Tea	chers
Age	Male	Female	Male	Female	Male	Female	Male	Female
20	4	2	3	1	3	1	3	1
25	4	2	4	2	3	1	2	1
30	4	2	4	2	4	2	3	2
35	5	3	5	3	6	3	4	3
40	6	5	6	4	7	4	5	3
45	9	7	9	6	8	5	6	4
50	16	12	16	10	12	7	10	6
55	27	19	26	16	18	11	16	10
60	46	28	44	23	28	17	26	16
65	81	43	77	35	40	25	41	24

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

\* 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.

Prior rates for State Employees are based on 104% and 120% of the RP-2014 Total Dataset Employee Mortality Table, respectively, for males and females, using the RP-2014 Total Dataset Healthy Annuitant Mortality Table rates after the end of the Total Employee Mortality Table, both projected from the 2006 base rates using the RPEC 2015 model, with an ultimate rate of 0.85% for ages 20–85, grading down to an ultimate rate of 0.00% for ages 111–120, and convergence to the ultimate rate in the year 2020. Prior rates for Teachers are based on 99% of the RP-2014 Total Dataset Healthy Annuitant Mortality Table for both males and females, using the RP-2014 Total Dataset Healthy Annuitant Mortality Table for both males and females, using the RP-2014 Total Dataset Healthy Annuitant Mortality Table rates after the end of the Total Employee Mortality Table, respectively, both projected using the RPEC 2015 model, with an ultimate rate of 0.85% for ages 20–85, grading down to an ultimate rate of 0.00% for ages 111–120, and convergence to the ultimate rate of 0.85% for ages 20–85.

Revised 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. Revised 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.

		Prior Ass	umption		Revised Assumption (Showing values in 2021)			
		(Showing val	ues in 2021)					
	State E	mployees	Теа	chers	State E	mployees	Теа	chers
Age	Male	Female	Male	Female	Male	Female	Male	Female
25	80	23	80	23	36	21	31	25
30	77	29	77	29	53	37	47	44
35	90	41	90	41	72	57	63	68
40	108	56	108	56	89	76	78	91
45	168	88	168	88	112	99	98	119
50	206	116	206	116	161	144	142	173
55	238	146	238	146	220	185	194	222
60	270	173	270	173	280	213	246	256
65	323	211	323	211	331	223	290	268
70	418	286	418	286	390	264	343	316

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

Prior rates are based on 108% and 105% of the RP-2014 Total Dataset Disabled Annuitant Mortality Table, respectively, for males and females, projected from the 2006 base rates using the RPEC 2015 model, with an ultimate rate of 0.85% for ages 20–85, grading down to an ultimate rate of 0.00% for ages 111–120, and convergence to the ultimate rate in the year 2020.

Revised 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. Revised 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.

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

#### **Teachers and State Regular Plans**

#### **Prior Assumptions**

State Regular Employees	3
and Teachers	

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

#### **Revised Assumptions**

	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:

	1770 Special Fian Retirement					
Prior Assumption			<b>Revised A</b>	ssumption		
Age	Service < 25	Service >= 25	Service < 25	Service >= 25		
55	20.0%	25.0%	20.0%	25.0%		
57	10.0	25.0	10.0	25.0		
60	20.0	30.0	20.0	30.0		
62	15.0	30.0	30.0	30.0		
65	23.4	30.0	23.4	30.0		
67	36.8	50.0	36.8	50.0		
70	100.0	100.0	100.0	25.0%		

### 1998 Special Plan Retirement

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

	25 & 6411 an						
Ser	rvice Prior Assumption		<b>Revised Assumption</b>				
<	24	0.0%	0.0%				
25	29	25.0	25.0				
30	31	50.0	25.0				
32	34	50.0	40.0				
35	37	100.0	40.0				
38	3+	100.0	100.0				

## 25 & Out Plan

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.

State Employees						
	Prior Ass	umptions		Revis	sed Assump	tions
Age	Regular	Special	Teachers	Regular	Special	Teachers
25	5.0	5.4	2.1	2.5	5.4	1.1
30	6.1	6.5	2.3	3.1	6.5	1.2
35	9.3	9.9	2.3	9.3	9.9	1.2
40	14.8	15.8	3.1	14.0	15.8	1.6
45	22.8	24.4	7.0	16.0	24.4	3.1
50	34.0	36.4	10.9	18.0	36.4	6.6
55	39.9	42.6	14.9	25.0	42.6	22.1
60	43.4	46.4	18.8	43.4	46.4	22.2

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

\* 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.

## **11. Vacation/Sick Leave Credits**

For members who had ten years of service on July 1, 1993, credits for unused vacation and sick leave may be used to increase final average compensation and/or creditable service. In order 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: 5% assumed for all future years. Revised assumption: 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: June 30. Revised assumption: 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 prior assumptions were adopted by the Board of Trustees at their July 14, 2016 meeting. The demographic assumptions adopted are based on an experience study covering the period from June 30, 2012 through June 30, 2015, and the economic assumptions are based on this experience study along with the advice of the MainePERS investment consultants.

The 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.

# 14. Changes since Last Valuation

Assumptions for salary increase, termination, mortality, disability, retirement, COLA timing and member contribution interest were changed based on results of the most recent experience study. The discount rate was also lowered to 6.50%.

# **15. Rationale for Change in Actuarial 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.

## 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 model 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 are based on an assumption that each future years 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.

# **B. Actuarial Methods**

# **1. Funding Method**

For the Plans in this Program, the funding methodology employed is the entry age normal funding 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 funding 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 7 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.

# 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 cash flow for the year and imputed returns at the actuarial assumption. This expected value is compared to the market value 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

# **Consolidated Plan for Participating Local Districts**

## **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 reports 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.

Eligibility for Members not in Active Service at Retirement and not in Active Service on or after October 1, 1999: At least ten 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.

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 ten 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.

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.

#### 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.

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 No Age Disability Benefits, and either disabled in the line-of-duty or disabled with at least five years of creditable service.

Benefit: 66%% 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 ten 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 66¾% of average final compensation or ten 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 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.

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 date.

# 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-ofduty.

Benefit: Designated beneficiary, spouse, children, or parents entitled to benefit calculated as if 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 members dependent children, the surviving spouse and dependent children shall share equally an annual sum equal to the members average final compensation. When there are no longer any dependent children, the surviving spouse shall receive two-thirds of the members 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."

# 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 5 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 are effective September 1 and are applied to all benefits that have been in payment for 6 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.

# 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**

#### None

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.

# **A. Actuarial Assumptions**

Where assumptions were changed in 2021, the revised assumption in effect for this June 30, 2021 valuation are shown with gray shading.

# **1. Annual Rate of Investment Return**

PLDs	6.50%		
(prev ous y 6 75%)			

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	Prior	Revised
0	9.00%	11.48%
1	4.80	8.66
2	3.60	4.81
3	3.10	4.29
4	2.75	4.03
5	2.75	3.78
10	2.75	3.26
15	2.75	3.26
20	2.75	3.01
25	2.75	2.75
30	2.75	2.75

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

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

	<b>Prior Assumption</b>		<b>Revised Assumptio</b>	
Service	Regular	Special	Regular	Special
0	25.0%	25.0%	28.0%	17.90%
1	20.0	12.5	21.0	14.4
2	15.0	10.0	15.0	10.5
3	12.0	7.5	12.0	9.5
4	10.0	5.0	10.0	7.8
5	9.0	4.0	9.0	7.9
10	6.0	2.5	5.0	4.5
15	4.0	2.5	3.5	2.9
20	2.5	2.5	3.5	2.7
20	2.5	2.5	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)

	Prior Assumption (Showing values in 2021)			ssumption lues in 2021)
Age	Male	Female	Male	Female
50	40	31	31	25
55	56	42	47	35
60	76	61	72	48
65	108	93	104	70
70	167	149	160	113
75	273	245	271	202
80	459	413	489	373
85	801	734	899	706
90	1,434	1,333	1,560	1,317
95	2,297	2,226	2,432	2,148

Prior rates are based on 104% and 120% of the RP-2014 Total Dataset Healthy Annuitant Mortality Table, respectively, for males and females, using the RP-2014 Total Dataset Employee Mortality Table for ages prior to start of the Healthy Annuitant Mortality Table, both projected from the 2006 base rates using the RPEC 2015 model, with an ultimate rate of 0.85% for ages 20–85 grading down to an ultimate rate of 0.00% for ages 111–120, and convergence to the ultimate rate in the year 2020.

Revised 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 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, 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)\*

	Prior Assumption (Showing values in 2021)		Revised Assumption (Showing values in 202	
Age	Male	Female	Male	Female
20	4	2	3	1
25	4	2	3	1
30	4	2	4	2
35	5	3	6	3
40	6	5	7	4
45	9	7	8	5
50	16	12	12	7
55	27	19	18	11
60	46	28	28	17
65	81	43	40	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.

Prior rates are based on 104% and 120% of the RP-2014 Total Dataset Healthy Annuitant Mortality Table, respectively, for males and females, using the RP-2014 Total Dataset Employee Mortality Table for ages prior to start of the Healthy Annuitant Mortality Table, both projected from the 2006 base rates using the RPEC 2015 model, with an ultimate rate of 0.85% for ages 20–85 grading down to an ultimate rate of 0.00% for ages 111–120, and convergence to the ultimate rate in the year 2020.

Revised 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.

#### **Prior Assumption Revised Assumption** (Showing values in 2021) (Showing values in 2021) Age Male Female Male Female

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

Prior rates are based on 108% and 105% of the RP-2014 Total Dataset Disabled Annuitant Mortality Table, respectively, for males and females, projected from the 2006 base rates using the RPEC 2015 model, with an ultimate rate of 0.85% for ages 20–85, grading down to an ultimate rate of 0.00% for ages 111–120, and convergence to the ultimate rate in the year 2020.

Revised 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**

	Current Assum	nption	Revised As	ssumption
Age	NRA 60	NRA 65	NRA 60	NRA 65
45	50	50	N/A	N/A
50	50	50	N/A	N/A
55	50	50	N/A	N/A
60	200	50	120	60
65	250	200	250	200
70	1,000	1,000	1,000	250
75	1,000	1,000	1,000	1,000

In the case of PLD employees, NRA 60 refers to those who were hired prior to July 1, 2014, and Tier 2NRA 65 refers to those who were hired on or after July 1, 2014.

## **Special Plans**

	Special Plans	
Years of Service	<b>Current Assumption</b>	<b>Revised Assumption</b>
20	400	350
21	300	300
22	300	280
23	300	250
24	300	200
25	400	350
26	300	250
27	300	230
28	300	250
29	300	400
30	400	250
31 33	300	250
34	300	330
35+	1,000	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.

		Proposed Assumption		
Age	<b>Current Assumption</b>	Regular	Special	
25	1.8	0.9	2.3	
30	2.4	1.2	3.0	
35	3.0	1.8	4.5	
40	4.2	4.2	10.5	
45	9.0	8.7	21.8	
50	19.8	16.5	41.3	
55	36.6	28.5	70.0	
60	65.0	30.0	70.0	
60	65.0	30.0	70.0	

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

\* 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; female spouse is assumed to be three years younger than 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: 5% assumed for all future years. Revised assumption: 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: June 30. Revised assumption: September 1.

Member Contribution Rates: For purposes of developing liability amounts, the member contribution rates in effect for FY 2021 are assumed to continue for all periods in the future.

# **12.** Rationale for Assumptions

The prior assumptions were adopted by the Board of Trustees at their July 14, 2016 meeting. The demographic assumptions adopted are based on an experience study covering the period from June 30, 2012 through June 30, 2015 and the economic assumptions are based on this experience study along with the advice of the MainePERS investment consultants.

The revised demographic assumptions were adopted by the Board of Trustees at their May 13, 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**

Assumptions for salary increase, termination, mortality, disability, retirement, COLA timing and member contribution interest were changed based on results of the most recent experience study. The discount rate was also lowered to 6.50%.

# 14. Rationale for Change in Actuarial Assumptions

The revised demographic assumptions were adopted by the Board of Trustees at their May 13, 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.

# 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 are based on an assumption 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.

# **B. Actuarial Methods**

# **1. Funding Method**

The entry age normal actuarial funding 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 funding 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 funding 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 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 PLD contribution to the Plan and the Plans 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 cash flow for the year and imputed returns at the actuarial assumption. This expected value is compared to the market value 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

# **Judicial Retirement Program**

## 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.

# **5. Service Retirement Benefits**

#### Eligibility:

- A. Eligibility for Members with at Least Ten 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 ten 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 Ten 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 ten 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.

#### 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 ten 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 ten years.

The benefit is reduced for retirement before age 60 at the approximate rates listed in the table below, for members with at least ten years 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 members age is less than age 62, if less than ten 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 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 Option, and either disabled in the line-of-duty or disabled with at least five years of creditable service.

Benefit: 66<sup>3</sup>/<sub>3</sub>% 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 on 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 and the date that the service retirement benefit 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 a cap) (see item 12). On the date when service benefits reach a level of 66%% 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.

# 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-ofduty 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 on 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 a 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-ofduty.

Benefit: Designated beneficiary, spouse, children, or parents entitled to benefit calculated as if 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 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 judges retirement benefit determined on date of death, payable to the spouse and/or dependent children.

# 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 members dependent children, the surviving spouse and dependent children shall share equally an annual sum equal to the members average final compensation. When there are no longer any dependent children, the surviving spouse shall receive two-thirds of the members 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.

# 12. Cost-of-Living Adjustments

All service and disability retirement and survivor benefits 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 that portion of the benefit that is not in excess of a COLA cap 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 is 3%. 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 Cap 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

Members who did not have ten years of service on July 1, 1993 will begin receiving cost-of-living adjustments at the latter 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.

# 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**

#### None

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.

# **A. Actuarial Assumptions**

Where assumptions were changed in 2021, the revised assumption in effect for this June 30, 2021 valuation are shown with gray shading.

### 1. Annual Rate of Investment Return

Jud c a	6.50%
(prev ous y 6	75%)

Rate is net of both administrative and investment expense.

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

Judca 2.
----------

3. Annual Rate of Individual Salary Increase:

Jud c a	2.75%

### 4. Sample Rates of Termination (% at Selected Ages)

Age	<b>Termination Rate</b>
25	7%
30	6
35	5
40	4
45	3
50	2
55	1
45 50	3

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 time of termination.

	<b>Prior Assumption</b>		Revised A	Assumption
	(Showing v	alues in 2021)	021) (Showing values in 20	
Age	Male	Female	Male	Female
50	40	31	31	25
55	56	42	47	35
60	76	61	72	48
65	108	93	104	70
70	167	149	160	113
75	273	245	271	202
80	459	413	489	373
85	801	734	899	706
90	1,434	1,333	1,560	1,317
95	2,297	2,226	2,432	2,148

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

Prior rates are based on 104% and 120% of the RP-2014 Total Dataset Healthy Annuitant Mortality Table, respectively, for males and females, using the RP-2014 Total Dataset Employee Mortality Table for ages prior to start of the Healthy Annuitant Mortality Table, both projected from the 2006 base rates using the RPEC 2015 model, with an ultimate rate of 0.85% for ages 20–85 grading down to an ultimate rate of 0.00% for ages 111–120, and convergence to the ultimate rate in the year 2020.

Revised 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 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, 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 Healthy Lives at Selected Ages (number of deaths per 10,000 members)\*

	Prior Assumption (Showing values in 2021)			Assumption alues in 2021)
Age	Male	Female	Male	Female
20	4	2	3	1
25	4	2	3	1
30	4	2	4	2
35	5	3	6	3
40	6	5	7	4
45	9	7	8	5
50	16	12	12	7
55	27	19	18	11
60	46	28	28	17
65	81	43	40	25

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

Prior rates are based on 104% and 120% of the RP-2014 Total Dataset Employee Mortality Table, respectively, for males and females, using the RP-2014 Total Dataset Healthy Annuitant Mortality Table rates after the end of the Total Employee Mortality Table, both projected from the 2006 base rates using the RPEC 2015 model, with an ultimate rate of 0.85% for ages 20–85, grading down to an ultimate rate of 0.00% for ages 111–120, and convergence to the ultimate rate in the year 2020.

Revised 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)

	<b>Prior Assumption</b>		Revised A	Assumption
	(Showing v	alues in 2021)	(Showing v	alues in 2021)
Age	Male	Female	Male	Female
25	80	23	36	21
30	77	29	53	37
35	90	41	72	57
40	108	56	89	76
45	168	88	112	99
50	206	116	161	144
55	238	146	220	185
60	270	173	280	213
65	323	211	331	223
70	418	286	390	264

Prior rates are based on 108% and 105% of the RP-2014 Total Dataset Disabled Annuitant Mortality Table, respectively, for males and females, projected from the 2006 base rates using the RPEC 2015 model, with an ultimate rate of 0.85% for ages 20–85, grading down to an ultimate rate of 0.00% for ages 111–120, and convergence to the ultimate rate in the year 2020.

Revised 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.

		Prio	r Assumpt	ions	Revis	ed Assump	otions
Αç	ge	NRA 60	NRA 62	NRA 65	NRA 60	NRA 62	NRA 65
60	61	1,000	N/A	N/A	1,000	N/A	N/A
6	2	1,000	500	N/A	1,000	200	N/A
6	3	1,000	500	N/A	1,000	275	N/A
6	4	1,000	500	N/A	1,000	350	N/A
6	5	1,000	500	N/A	1,000	425	400
6	6	1,000	500	500	1,000	500	500
6	7	1,000	500	500	1,000	450	450
6	8	1,000	500	500	1,000	400	400
6	9	1,000	500	500	1,000	350	350
7	0	1,000	500	500	1,000	300	300
71	75	1,000	1,000	1,000	1,000	250	250
76	79	1,000	1,000	1,000	1,000	500	500
80	)+	1,000	1,000	1,000	1,000	1,000	1,000

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

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.

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

Age	Disability Rate
25	0%
30	0
35	0
40	0
45	0
50	0
55	0
60	0

### **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; female spouse is assumed to be three years younger than 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 valuation date. Annual increases are applied as of the beginning of each subsequent valuation.

Member Contribution Interest Rate: 5% assumed for all future years. Revised assumption: 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: June 30. Revised assumption: September 1.

### **12.** Rationale for Actuarial Assumptions

The prior assumptions were adopted by the Board of Trustees at their July 14, 2016 meeting. The demographic assumptions adopted are based on an experience study covering the period from June 30, 2012 through June 30, 2015, and the economic assumptions are based on this experience study along with the advice of the MainePERS investment consultants. The Board continuously reviews the investment return assumption and adopted a reduced rate of 6.75% effective with the 2018 valuation, at the advice of its investment consultant.

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**

The retirement, mortality, COLA timing, and member contribution interest assumptions were updated based on the most recent experience study. The discount rate was also lowered to 6.50%.

### 14. Rationale for Change in Actuarial 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.

### 15. Disclosure of Models Used

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.

# **B. Actuarial Methods**

### **1. Funding 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 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 rate for this Program is developed by amortizing the unfunded liability over an open ten-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 rate. Amortization payments are assumed to be made in each pay period. Plan changes that increase benefits are funded immediately; all other assumption changes and gain/ losses are included in the UAL amortization.

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

By using an open amortization period, this funding 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.

### 2. Asset Valuation Method

For purposes of determining the State contribution 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 cash flow for the year and imputed returns at the actuarial assumption. This expected value is compared to the market value 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

# **Legislative Retirement Program**

### 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 Ten 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 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 ten 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 Ten 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 ten 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.

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 ten 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 ten 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 ten 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 ten 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 No Age Disability Option, and either disabled in the line-of-duty or disabled with at least five years of creditable service.

Benefit: 66%% 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 on 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 ten years following normal retirement age and 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 a cap) (see item 12). On the date when service benefits reach a level of 66¾% of average final compensation or ten 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 on 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 a 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-ofduty.

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 twothirds 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 members dependent children, the surviving spouse and dependent children shall share equally an annual sum equal to the members average final compensation. When there are no longer any dependent children, the surviving spouse shall receive two-thirds of the members 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 members accumulated contributions with interest.

### 12. Cost-of-Living Adjustments

All service and disability retirement and survivor benefits 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 that portion of the benefit that is not in excess of a COLA cap 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 is 3%. 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 Cap 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

Members who did not have ten years of service on July 1, 1993 will begin receiving the cost-of-living adjustments at the latter 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\*.

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**

None

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.

# **A. Actuarial Assumptions**

Where assumptions were changed in 2021, the revised assumption in effect for this June 30, 2021 valuation are shown with gray shading.

**1. Annual Rate of Investment Return** 

Leg s at ve	6.50%
(prev ous v 6	75%)

Rate is net of both administrative and investment expense.

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

Leg s at ve 2.20%

**3. Annual Rate of Individual Salary Increase** 

Leg s at ve 2.75%

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

Service	<b>Prior Assumption</b>	<b>Revised Assumption</b>
0	0%	0%
1	0	5
2	30	10
3	30	15
4	25	20
5	25	25
6	10	30
7	10	40
8	50	50
9	50	50
10	25	50
11	25	50
12	25	50
13	25	50
14	25	50
15	25	50
16+	50	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.

		sumption alues in 2021)	Revised Assumption (Showing values in 2021)			
Age	Male	Female	Male	Female		
50	40	31	31	25		
55	56	42	47	35		
60	76	61	72	48		
65	108	93	104	70		
70	167	149	160	113		
75	273	245	271	202		
80	459	413	489	373		
85	801	734	899	706		
90	1,434	1,333	1,560	1,317		
95	2,297	2,226	2,432	2,148		

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

Prior rates are based on 104% and 120% of the RP-2014 Total Dataset Healthy Annuitant Mortality Table, respectively, for males and females, using the RP-2014 Total Dataset Employee Mortality Table for ages prior to start of the Healthy Annuitant Mortality Table, both projected from the 2006 base rates using the RPEC 2015 model, with an ultimate rate of 0.85% for ages 20–85 grading down to an ultimate rate of 0.00% for ages 111–120, and convergence to the ultimate rate in the year 2020.

Revised 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 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, 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 Healthy Lives at Selected Ages (number of deaths per 10,000 members)\*

		sumption alues in 2021)	Revised Assumption (Showing values in 2021)			
Age	Male	Female	Male	Female		
20	4	2	3	1		
25	4	2	3	1		
30	4	2	4	2		
35	5	3	6	3		
40	6	5	7	4		
45	9	7	8	5		
50	16	12	12	7		
55	27	19	18	11		
60	46	28	28	17		
65	81	43	40	25		

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

Prior rates are based on 104% and 120% of the RP-2014 Total Dataset Employee Mortality Table, respectively, for males and females, using the RP-2014 Total Dataset Healthy Annuitant Mortality Table rates after the end of the Total Employee Mortality Table, both projected from the 2006 base rates using the RPEC 2015 model, with an ultimate rate of 0.85% for ages 20–85, grading down to an ultimate rate of 0.00% for ages 111–120, and convergence to the ultimate rate in the year 2020.

Revised 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)

	Prior As	sumption	<b>Revised Assumption</b>				
	(Showing va	alues in 2021)	(Showing values in 2021)				
Age	Male	Female	Male Female				
25	80	23	36	21			
30	77	29	53	37			
35	90	41	72	57			
40	108	56	89	76			
45	168	88	112	99			
50	206	116	161	144			
55	238	146	220	185			
60	270	173	280	213			
65	323	211	331	223			
70	418 286		390	264			

Prior rates are based on 108% and 105% of the RP-2014 Total Dataset Disabled Annuitant Mortality Table, respectively, for males and females, projected from the 2006 base rates using the RPEC 2015 model, with an ultimate rate of 0.85% for ages 20–85, grading down to an ultimate rate of 0.00% for ages 111–120, and convergence to the ultimate rate in the year 2020.

Revised 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):

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; female spouse is assumed to be three years younger than 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: 5% assumed for all future years. Revised assumption: 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: June 30. Revised assumption: September 1.

### **12.** Rationale for Actuarial Assumptions

The prior assumptions were adopted by the Board of Trustees at their July 14, 2016 meeting. The demographic assumptions adopted are based on an experience study covering the period from June 30, 2012 through June 30, 2015, and the economic assumptions are based on this experience study along with the advice of the MainePERS investment consultants. The Board continuously reviews the investment return assumption and adopted a reduced rate of 6.75% effective with the 2018 valuation, at the advice of its investment consultant.

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**

The retirement, mortality, COLA timing, and member contribution interest assumptions were updated based on the most recent experience study. The discount rate was also lowered to 6.50%.

### 14. Rationale for Change in Actuarial Assumptions

The revised 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.

#### 15. Disclosure of Models Used

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.

## **B. Actuarial Methods**

### **1. Funding 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 employer s 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 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 rate for this Program is developed by amortizing the unfunded liability over an open ten-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 rate.

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

By using an open amortization period, this funding 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.

### 2. Asset Valuation Method

For purposes of determining the State contribution 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 cash flow for the year and imputed returns at the actuarial assumption. This expected value is compared to the market value 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

## Retiree Group Life Insurance Summary of 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
PLD Employees:	PLD must pay \$0.21 biweekly per \$1,000 of base benefit, based on the coverage amounts declining from 100% to 40%. Biweekly rates increase to \$0.22 in FYE 2022, \$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.)

### Retiree Group Life Insurance Assumptions and Methods

# **Economic Assumptions**

Valuation Date: June 30, 2021

Annual Rate of Investment Return:

State Emp oyees	6.50%						
Teachers	6.50%						
Judges	6.50%						
Leg s at ve	6.50%						
PLDs	6.50%						
(A prev ous y 6 75%)							

Rate is net of both administrative and investment expense.

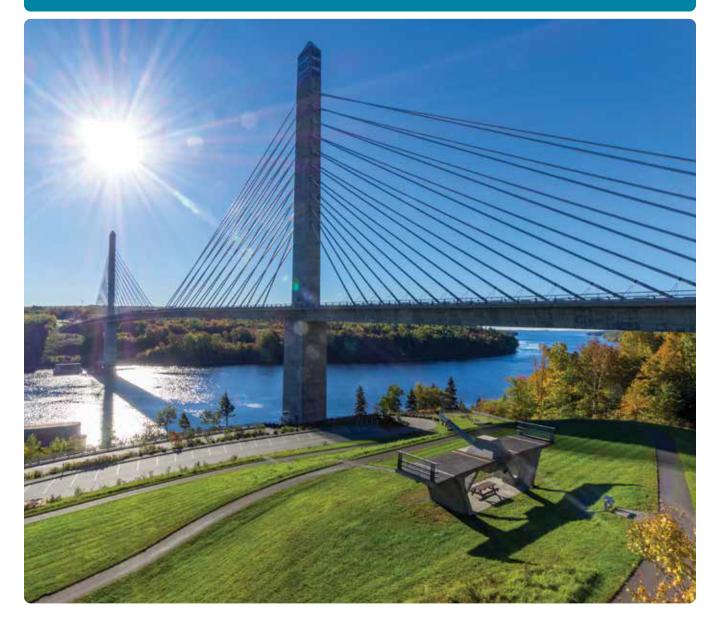
Cost-of-Living Increases in Life Benefits: N/A. Unlike pension benefits, Life Benefits do not increase with Cost of Living. Premium Expense Assumption: To reflect administrative expenses associated with the distribution of benefits, the following loads, determined in the 2020 Premium Study, have been added to the liabilities, normal cost, and benefit payments. **State Employees, Judges and Legislators:** 9.84% **Teachers:** 16.51% **Participating Local Districts:** 9.36% of claims **Conversion Charges:** Applies to the cost of active group life insurance, not retiree group life insurance. Form of Benefit Payment: Lump Sum.

### **Other Assumptions and Methods**

All other assumptions and methods match those used for the pension valuation as of June 30, 2021.

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# **Statistical Section**



Penobscot Narrows Bridge, Stockton Springs

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## Maine Public Employees Retirement System Statistical Section (Unaudited)

This section of the Maine Public Employees Retirement System s Annual Comprehensive Financial Report presents detailed information as a context for understanding this year s financial statements, note disclosures, and supplementary information. This information has not been audited by the independent auditor.

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# Defined Benefit Plan Changes in Fiduciary Net Position — State Employee and Teacher Plan Last Ten Fiscal Years

Fiscal Year	 2021		2020	_	2019	 2018
Additions						
Member contr but ons	\$ 159,510,002	\$	151,438,849	\$	146,019,051	\$ 140,844,879
Emp oyer contr but ons	239,444,343		225,468,763		218,530,934	211,251,144
Non-emp oyer ent ty contr but ons	179,329,944		174,530,364		132,980,832	129,421,735
nvestment ncome (net of expenses)	3,192,036,232		354,272,725		768,987,130	1,077,827,555
Transfer from other funds	 					 
Tota add t ons to fiduc ary net pos t on	 3,770,320,521		905,710,701	_	1,266,517,947	 1,559,345,313
Deductions						
Benefit payments	888,230,303		863,977,621		832,934,948	792,397,467
Refunds	14,885,606		18,841,863		18,718,610	17,984,303
Adm n strat ve expenses	11,088,956		11,343,928		11,180,852	10,076,242
Transfer to other funds	 384,565		2,193,752		311,233	 
Tota deduct ons from						
fiduc ary net pos t on	 914,589,430		896,357,164		863,145,643	 820,458,012
Change in fiduciary net position	\$ 2,855,731,091	\$	9,353,537	\$	403,372,304	\$ 738,887,301
Fiduciary Net Position						
Beg nn ng of Year	\$ 12,044,918,612	\$ 1	12,035,565,075	\$	11,632,192,771	\$ 10,893,305,470
End of Year	\$ 14,900,649,703	\$ 1	12,044,918,612	\$	12,035,565,075	\$ 11,632,192,771

	2017		2016	 2015		2014		2013		2012
\$	139,464,284	\$	125,523,986	\$ 123,528,807	\$	121,033,152	\$	121,059,118	\$	121,071,499
	211,037,365		199,212,719	173,935,492		162,920,147		136,937,972		125,839,206
	116,080,164		112,477,836	147,283,716		142,303,104		126,762,206		126,343,975
	1,256,043,735		40,540,758	191,829,057		1,517,432,346		929,806,764		43,821,836
_	1,722,625,548		477,755,299	 636,577,072	_	1,943,688,749		1,314,566,060		417,076,516
	762,449,708		727,717,177	703,292,105		667,506,634		651,525,831		612,512,717
	17,876,272		16,806,566	19,432,153		21,684,397		17,891,255		21,024,589
	9,216,027		8,649,030	9,386,695		8,246,740		7,651,938		7,268,110
_	124,178		6,342,010	 	_		_			
	789,666,185		759,514,783	 732,110,953		697,437,771		677,069,024		640,805,416
\$	932,959,363	\$	(281,759,484)	\$ (95,533,881)	\$	1,246,250,978	\$	637,497,036	\$	(223,728,900)
\$ \$	9,960,346,107 10,893,305,470	\$ \$	10,242,105,591 9,960,346,107	10,337,639,472 10,242,105,591	\$ \$	9,091,388,494 10,337,639,472	\$ \$	8,453,891,458 9,091,388,494	\$ \$	8,677,620,358 8,453,891,458

# Defined Benefit Plan Changes in Fiduciary Net Position – Judicial Plan Last Ten Fiscal Years

FiscalYear		2021	2020			2019	 2018	
Additions								
Member contr but ons	\$	635,871	\$	616,095	\$	620,075	\$ 603,875	
Emp oyer contr but ons		738,939		715,963		1,212,666	1,179,328	
Non-emp oyer ent ty contr but ons								
nvestment ncome (net of expenses)		19,279,640		2,164,283		4,709,445	6,606,905	
Transfer from other funds		473,431		764,902			 	
Tota add t ons to fiduc ary net pos t on		21,127,881		4,261,243		6,542,186	 8,390,108	
Deductions								
Benefit payments		4,681,415		4,313,483		4,021,982	3,804,709	
Refunds				1,075		45,524		
Adm n strat ve expenses		67,680		69,406		68,475	61,708	
Transfer to other funds						2,604	 	
Tota deduct ons from								
fiduc ary net pos t on		4,749,095		4,383,964		4,138,585	 3,866,417	
Change in fiduciary net position	\$	16,378,786	\$	(122,721)	\$	2,403,601	\$ 4,523,691	
Fiduciary Net Position								
Beg nn ng of Year	\$	73,514,720	\$	73,637,441	\$	71,233,840	\$ 66,710,149	
End of Year	\$	89,893,506	\$	73,514,720	\$	73,637,441	\$ 71,233,840	

	2017		2016		2015		2014		2013		2012
\$	584,451	\$	549,845	\$	549,691	\$	528,192	\$	518,094	\$	517,419
	1,144,445		1,077,545		979,281		932,223		841,397		810,721
	7,799,507		129,372 6,342,010		1,055,347		8,416,042		5,195,908		238,870
	9,528,403		8,098,772		2,584,319		9,876,457		6,555,399		1,567,010
	3,651,927		3,501,911		3,383,995		3,219,480		3,282,344		3,171,846
	56,436		47,577		49,399		41,681		42,858		40,852
	3,708,363		3,549,488		3,433,394		3,261,161		3,325,202		3,212,698
\$	5,820,040	\$	4,549,284	\$	(849,075)	\$	6,615,296	\$	3,230,197	\$	(1,645,688)
\$ \$	60,890,109 66,710,149	\$ \$	56,340,825 60,890,109	\$ \$	57,189,900 56,340,825	\$ \$	50,574,604 57,189,900	\$ \$	47,344,407 50,574,604	\$ \$	48,990,095 47,344,407

# Defined Benefit Plan Changes in Fiduciary Net Position – Legislative Plan Last Ten Fiscal Years

Fiscal Year	 2021	 2020	 2019	 2018
Additions				
Member contr but ons	\$ 214,905	\$ 156,306	\$ 220,611	\$ 153,881
Emp oyer contr but ons				
Non-emp oyer ent ty contr but ons				
nvestment ncome (net of expenses)	3,559,227	390,164	845,407	1,176,462
Transfer from other funds	 	 365,766	 45,285	 
Tota add t ons to fiduc ary net pos t on	 3,774,132	 912,236	 1,111,303	 1,330,343
Deductions				
Benefit payments	514,696	520,364	482,660	427,063
Refunds	34,765	177,332	124,180	32,682
Adm n strat ve expenses	12,383	12,458	12,262	11,002
Transfer to other funds	 3,271	 	 	 
Tota deduct ons from				
fiduc ary net pos t on	 565,115	 710,154	 619,102	 470,747
Change in fiduciary net position	\$ 3,209,017	\$ 202,082	\$ 492,201	\$ 859,596
Fiduciary Net Position				
Beg nn ng of Year	\$ 13,450,104	\$ 13,248,022	\$ 12,755,821	\$ 11,896,225
End of Year	\$ 16,659,121	\$ 13,450,104	\$ 13,248,022	\$ 12,755,821

	2017		2016	16 2015			2014		2013		2012
\$	202,388	\$	137,893	\$	193,356 4,418	\$	139,501 3,857	\$	194,669 6,507	\$	133,579
	1,366,222		47,890		206,453		1,622,295		975,524		48,845
	1,568,610		185,783		404,227		1,765,653		1,176,700		182,424
	399,142 69,901 10,003		367,545 77,786 9,353		327,875 111,237 9,584		308,770 8,836 7,975		280,254 82,768 8,040		274,088 5,613 7,241
	479,046		454,684		448,696		325,581		371,062		286,942
\$	1,089,564	\$	(268,901)	\$	(44,469)	\$	1,440,072	\$	805,638	\$	(104,518)
\$ \$	10,806,661 11,896,225	\$ \$	11,075,562 10,806,661	\$ \$	11,120,031 11,075,562	\$ \$	9,679,959 11,120,031	\$ \$	8,874,321 9,679,959	\$ \$	8,978,839 8,874,321

# Defined Benefit Plan Changes in Fiduciary Net Position – PLD Consolidated Plan Last Ten Fiscal Years

FiscalYear		2021	2020			2019	 2018	
Additions								
Member contr but ons	\$	53,621,126	\$	54,090,045	\$	54,927,202	\$ 48,050,202	
Emp oyer contr but ons		68,506,486		66,717,733		61,487,037	56,092,662	
Non-emp oyer ent ty contr but ons								
nvestment ncome (net of expenses)		802,368,795		88,330,927		188,620,107	259,699,519	
Transfer from other funds				27,886,461		268,552	 	
Tota add t ons to fiduc ary net pos t on		924,496,407	_	237,025,166	_	305,302,898	 363,842,383	
Deductions								
Benefit payments		176,403,052		167,897,392		158,671,037	147,516,358	
Refunds		6,288,865		6,854,776		6,728,643	4,571,527	
Adm n strat ve expenses		2,773,339		2,797,728		2,706,977	2,411,666	
Transfer to other funds		306,895	_	203,000		220,000	 386,621	
Tota deduct ons from								
fiduc ary net pos t on		185,772,151	_	177,752,896	_	168,326,657	 154,886,172	
Change in fiduciary net position	\$	738,724,256	\$	59,272,271	\$	136,976,241	\$ 208,956,211	
Fiduciary Net Position								
Beg nn ng of Year	\$	3,012,428,367	\$	2,953,156,096	\$	2,816,179,855	\$ 2,607,223,644	
End of Year	\$	3,751,152,623	\$	3,012,428,367	\$	2,953,156,096	\$ 2,816,179,855	

\* Refunds n fisca year 2015 reflect the return of approx mate y \$41 m on of non-P an cash be ng managed by the System on beha f of PLD Conso dated P an emp oyers

 2017		2016	6 2015			2014	 2013	2012		
\$ 46,080,851	\$	40,861,405	\$	37,202,921	\$	33,210,510	\$ 31,658,619	\$	32,343,655	
51,387,011		47,624,182		43,366,730		32,706,160	26,465,471		22,260,128	
 299,780,948 124,177		10,200,342		46,075,304		361,125,177	 221,313,918		10,111,043	
 397,372,987		98,685,929		126,644,955		427,041,847	 279,438,008		64,714,826	
140,413,488		134,834,445		129,476,010		121,559,257	114,627,512		108,646,611	
5,750,078		5,085,235		48,939,042		5,602,101	6,051,774		22,911,291	
2,209,324		2,028,294		2,117,266		1,779,304	1,810,389		1,732,139	
 186,378		217,338					 			
 148,559,268	_	142,165,312		180,532,318		128,940,662	 122,489,675		133,290,041	
\$ 248,813,719	\$	(43,479,383)	\$	(53,887,363)	\$	298,101,185	\$ 156,948,333	\$	(68,575,215)	
\$ 2,358,409,925	\$	2,401,889,308	\$	2,455,776,671	\$	2,157,675,486	\$ 2,000,727,153	\$	2,069,302,368	
\$ 2,607,223,644	\$	2,358,409,925	\$	2,401,889,308	\$	2,455,776,671	\$ 2,157,675,486	\$	2,000,727,153	

# Defined Benefit Plan Changes in Fiduciary Net Position – PLD Agent Plan Last Ten Fiscal Years

FiscalYear		2021	 2020	 2019	 2018	
Additions						
Member contr but ons	\$	1,945	\$ 28,694	\$ 68,708	\$ 68,609	
Emp oyer contr but ons		67,920	345,323	638,946	594,730	
Non-emp oyer ent ty contr but ons						
nvestment ncome (net of expenses)		2,123,481	421,327	2,377,478	3,477,465	
Transfer from other funds			 	 	 	
Tota add t ons to fiduc ary net pos t on		2,193,346	 795,344	 3,085,132	 4,140,804	
Deductions						
Benefit payments		776,437	1,759,029	2,842,649	2,788,425	
Refunds			913,894	201,763		
Adm n strat ve expenses		7,726	20,772	35,552	33,056	
Transfer to other funds			 26,823,377	 	 	
Tota deduct ons from						
fiduc ary net pos t on		784,163	 29,517,072	 3,079,964	 2,821,481	
Change in fiduciary net position	\$	1,409,183	\$ (28,721,728)	\$ 5,168	\$ 1,319,323	
Fiduciary Net Position						
Beg nn ng of Year	\$	8,339,501	\$ 37,061,229	\$ 37,056,061	\$ 35,736,738	
End of Year	\$	9,748,684	\$ 8,339,501	\$ 37,061,229	\$ 37,056,061	

	2017		2016		2015		2014		2013		2012
\$	76,783	\$	83,614	\$	94,468	\$	94,136	\$	106,000	\$	105,380
	630,639		783,608		916,671		667,846		656,047		102,509
	4,160,113		112,396		662,680		5,581,964		3,591,957		79,872
	4,867,535		979,618		1,673,819		6,343,946		4,354,004		287,761
	2,777,307		2,779,624		2,780,492		2,702,486		2,644,060		2,608,985
	4,005		29,962		32,253		1,897,634 27,981		30,704		201,244 30,884
	2,781,312		2,809,586		2,812,745		4,628,101		2,674,764		2,841,113
\$	2,086,223	\$	(1,829,968)	\$	(1,138,926)	\$	1,715,845	\$	1,679,240	\$	(2,553,352)
\$ \$	33,650,515 35,736,738	\$ \$	35,480,483 33,650,515	\$ \$	36,619,409 35,480,483	\$ \$	34,903,564 36,619,409	\$ \$	33,224,324 34,903,564	\$ \$	35,777,676 33,224,324
Ψ	55,150,150	Ψ	55,050,515	Ψ	55,700,705	Ψ	30,017,407	Ψ	34,703,304	Ψ	55,227,524

# Group Life Insurance Plan Changes in Fiduciary Net Position Last Ten Fiscal Years\*

### Group Life Insurance Plan – Active Employees

Fiscal Year	 2021	 2020	 2019	 2018	 2017
Additions					
Member contributions	\$ 4,608,345	\$ 4,424,086	\$ 4,245,342	\$ 3,865,718	\$ 4,464,169
Emp oyer contributions	1,634,067	1,499,430	1,231,777	1,041,734	1,066,443
Non emp oyer entity contributions	-	-	-	-	-
nvestment ncome (net of expenses)	4,856,476	699,113	869,669	754,459	947,664
Tota additions to					
fiducia y net position	 11,098,888	 6,622,629	 6,346,788	 5,661,911	 6,478,276
Deductions					
Benefit payments	7,396,696	5,144,330	2,295,347	4,229,368	4,222,130
Refunds	-	-	-	-	-
Administrative expenses	117,637	138,058	73,556	73,496	56,138
Transfer to other funds	_	_	_	_	_
Tota deductions from					
fiducia y net position	 7,514,333	 5,282,388	 2,368,903	 4,302,864	 4,278,268
Change in fiduciary net position	\$ 3,584,555	\$ 1,340,241	\$ 3,977,885	\$ 1,359,047	\$ 2,200,008
Fiduciary Net Position					
Beginning of Year	\$ 14,973,091	\$ 13,632,850	\$ 9,654,965	\$ 8,295,918	\$ 6,095,910
End of Year	\$ 18,557,646	\$ 14,973,091	\$ 13,632,850	\$ 9,654,965	\$ 8,295,918

\* The System current y has this information avai ab e for the years indicated. Additiona

information wi be added to the schedu e each year unti the requisite ten years is obtained.

## Group Life Insurance Plan Changes in Fiduciary Net Position Last Ten Fiscal Years\*

### Group Life Insurance Plan – State Employee & Teacher Retirees

Fiscal Year	 2021	 2020	 2019	 2018	 2017
Additions					
Emp oyer contributions	\$ 5,265,344	\$ 4,832,759	\$ 4,209,464	\$ 4,179,011	\$ 3,650,300
Non emp oyer entity contributions	4,601,234	4,478,090	3,546,978	3,459,442	3,270,928
nvestment ncome (net of expenses)	32,552,180	4,885,544	6,418,113	7,804,837	9,885,897
Transfer from other funds	-	-	-	-	-
Tota additions to					
fiducia y net position	 42,418,758	 14,196,393	 14,174,555	 15,443,290	 16,807,125
Deductions					
Benefit payments	6,613,935	8,177,754	7,118,082	7,269,808	6,759,071
Refunds	-	-	-	-	-
Administrative expenses	 821,718	 1,018,932	 726,320	 769,717	 580,641
Tota deductions from					
fiducia y net position	 7,435,653	 9,196,686	 7,844,402	 8,039,525	 7,339,712
Change in fiduciary net position	\$ 34,983,105	\$ 4,999,707	\$ 6,330,153	\$ 7,403,765	\$ 9,467,413
Fiduciary Net Position					
Beginning of Year	\$ 105,616,489	\$ 100,616,782	\$ 94,286,629	\$ 86,882,864	\$ 77,415,451
End of Year	\$ 140,599,594	\$ 105,616,489	\$ 100,616,782	\$ 94,286,629	\$ 86,882,864

\* The System current y has this information avai ab e for the years indicated. Additiona

information wi be added to the schedu e each year unti the requisite ten years is obtained.

# Group Life Insurance Plan Changes in Fiduciary Net Position Last Ten Fiscal Years\*

### Group Life Insurance Plan – PLD Retirees

Fiscal Year	 2021	 2020	 2019	 2018	 2017
Additions					
Emp oyer contributions	\$ 1,186,563	\$ 1,127,014	\$ 1,100,509	\$ 1,069,640	\$ 1,037,124
Non emp oyer entity contributions	-	-	-	-	-
nvestment ncome (net of expenses)	4,987,761	752,517	1,037,784	1,333,324	1,738,914
Transfer from other funds	 	 	 	 	 
Tota additions to					
fiducia y net position	 6,174,324	 1,879,531	 2,138,293	 2,402,964	 2,776,038
Deductions					
Benefit payments	1,223,890	1,589,460	1,581,540	1,530,346	1,529,148
Refunds	-	-	-	-	-
Administrative expenses	 127,631	 164,654	 119,519	 133,624	 104,294
Tota deductions from					
fiducia y net position	 1,351,521	 1,754,114	 1,701,059	 1,663,970	 1,633,442
Change in fiduciary net position	\$ 4,822,803	\$ 125,417	\$ 437,234	\$ 738,994	\$ 1,142,596
Fiduciary Net Position					
Beginning of Year	\$ 16,384,579	\$ 16,259,162	\$ 15,821,928	\$ 15,082,934	\$ 13,940,338
End of Year	\$ 21,207,382	\$ 16,384,579	\$ 16,259,162	\$ 15,821,928	\$ 15,082,934

\* The System current y has this information avai ab e for the years indicated. Additiona

information wi be added to the schedu e each year unti the requisite ten years is obtained.

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# Defined Contribution Plans Changes in Fiduciary Net Position Last Ten Fiscal Years

Fiscal Year	 2021	 2020	 2019	 2018
Additions				
Member contr but ons	\$ 4,317,161	\$ 3,880,598	\$ 3,712,509	\$ 3,256,015
Emp oyer contr but ons	806,866	735,443	634,731	587,906
Other contr but ons				
nvestment ncome (net of expenses)	12,309,451	2,043,343	2,488,685	2,801,636
Transfer from other funds	221,300	203,000	220,000	386,621
Tota add t ons to fiduc ary net pos t on	 17,654,778	 6,862,384	 7,055,925	 7,032,178
Deductions				
Benefit payments				
Refunds and w thdrawa s	2,542,092	2,342,931	3,292,801	2,774,078
Adm n strat ve expenses	287,430	290,464	299,377	 496,042
Transfer to other funds				
Tota deduct ons from				
fiduc ary net pos t on	 2,829,522	 2,633,395	 3,592,178	 3,270,120
Change in fiduciary net position	\$ 14,825,256	\$ 4,228,989	\$ 3,463,747	\$ 3,762,058
Fiduciary Net Position				
Beg nn ng of Year	\$ 45,653,677	\$ 41,424,688	\$ 37,960,941	\$ 34,198,883
End of Year	\$ 60,478,933	\$ 45,653,677	\$ 41,424,688	\$ 37,960,941

	2017		2016		2015		2014		2013		2012
\$	3,218,801 560,505	\$	3,628,460 47,768	\$	3,165,927 131,589	\$	3,505,423 109,515	\$	2,662,317 111,327	\$	2,888,874 43,434
	3,447,427		226,942		719,767		3,210,308		1,815,398		318,640
	186,378		217,338								
	7,413,111		4,120,508		4,017,283		6,825,246		4,589,042		3,250,948
	2,072,166		1,866,147		1,718,286		2,032,458		643,765		1,055,018
	284,202		309,558		130,964		112,015		113,827		45,964
	2 254 240		2 175 705		1 040 250		2 144 472		757 500		1 100 000
¢	2,356,368	\$	2,175,705	\$	2,168,033	\$	2,144,473	\$	757,592	\$	1,100,982
Ψ	5,050,145	Ψ	1,744,003	Ψ	2,100,033	Ψ	4,000,113	Ψ	3,031,430	Ψ	2,147,700
\$ \$	29,142,140 34,198,883	\$ \$	27,197,337 29,142,140	\$ \$	25,029,304 27,197,337	\$ \$	20,348,531 25,029,304	\$ \$	16,517,081 20,348,531	\$ \$	14,367,115 16,517,081

# MainePERS OPEB Plan Changes in Fiduciary Net Position Last Ten Fiscal Years

Fiscal Year	 2021	 2020	 2019	 2018
Additions				
Member contr but ons	\$	\$	\$	\$
Emp oyer contr but ons	7,736	7,748	5,964	5,943
Other contr but ons				
nvestment ncome (net of expenses)	4,405,481	669,208	895,130	1,079,702
Transfer from other funds				
Tota add t ons to fiduc ary net pos t on	 4,413,217	 676,956	 901,094	 1,085,645
Deductions				
Benefit payments	368,155	346,862	312,865	259,584
Refunds and w thdrawa s				
Adm n strat ve expenses				
Transfer to other funds			 	
Tota deduct ons from				
fiduc ary net pos t on	 368,155	 346,862	 312,865	 259,584
Change in fiduciary net position	\$ 4,045,062	\$ 330,094	\$ 588,229	\$ 826,061
Fiduciary Net Position				
Beg nn ng of Year	\$ 13,707,645	\$ 13,377,551	\$ 12,789,322	\$ 11,963,261
End of Year	\$ 17,752,707	\$ 13,707,645	\$ 13,377,551	\$ 12,789,322

	2017		2016		2015		2014		2013		2012
\$		\$		\$		\$		\$		\$	
	5,943		6,768		5,730		6,108		115,482		118,498
	1,589,340		137,078		342,706		1,800,572		875,336		44,558
	1,595,283		143,846		348,436		1,806,680		990,818		163,056
	273,449		275,081		251,016		278,933		187,708		208,872
	273,449		275,081		251,016		278,933		187,708		208,872
\$	1,321,834	\$	(131,235)	\$	97,420	\$	1,527,747	\$	803,110	\$	(45,816)
\$ \$	10,641,427 11,963,261	\$ \$	10,772,662 10,641,427	\$ \$	10,675,242 10,772,662	\$ \$	9,147,495 10,675,242	\$ \$	8,344,385 9,147,495	\$ \$	8,390,201 8,344,385

# Retiree Health Investment Trust Fund Changes in Fiduciary Net Position Last Ten Fiscal Years

FiscalYear	 2021	 2020	 2019	 2018
Additions				
Member contr but ons	\$	\$	\$	\$
Emp oyer contr but ons	2,000,000		2,000,000	2,000,000
Other contr but ons				
nvestment ncome (net of expenses)	89,286,478	13,858,561	18,845,823	21,271,236
Transfer from other funds				
Tota add t ons to fiduc ary net pos t on	 91,286,478	 13,858,561	 20,845,823	 23,271,236
Deductions				
Benefit payments				
Refunds				
Adm n strat ve expenses	3,100	3,000	3,000	6,480
Transfer to other funds				
Tota deduct ons from				
fiduc ary net pos t on	 3,100	 3,000	 3,000	 6,480
Change in fiduciary net position	\$ 91,283,378	\$ 13,855,561	\$ 20,842,823	\$ 23,264,756
Fiduciary Net Position				
Beg nn ng of Year	\$ 291,558,702	\$ 277,703,141	\$ 256,860,318	\$ 233,595,562
End of Year	\$ 382,842,080	\$ 291,558,702	\$ 277,703,141	\$ 256,860,318

	2017		2016		2015		2014		2013		2012
\$	4,000,000	\$	5,584,992	\$		\$		\$	1,840,385	\$	6,000,000
	26,513,072		2,388,249		5,405,438		29,564,596		18,706,315		959,334
	30,513,072		7,973,241		5,405,438		29,564,596		20,546,700		6,959,334
	5,844		5,354		117,844		90,030		85,609		68,643
	5,844		5,354		117,844		90,030		85,609		68,643
\$	30,507,228	\$	7,967,887	\$	5,287,594	\$	29,474,566	\$	20,461,091	\$	6,890,691
\$ \$	203,088,334 233,595,562	\$ \$	195,120,447 203,088,334	\$ \$	189,832,853 195,120,447	\$ \$	160,358,287 189,832,853	\$ \$	139,897,196 160,358,287	\$ \$	133,006,505 139,897,196

# Defined Benefit Plans Benefit and Refund Deductions from Fiduciary Net Position by Type Last Ten Fiscal Years

#### **State Employee and Teacher Plan**

Fiscal Year	 2021	 2020	 2019	 2018
Type of Benefit				
Serv ce ret rement benefits	\$ 846,828,672	\$ 821,283,878	\$ 789,638,248	\$ 748,896,621
D sab ty benefits	21,839,089	23,324,932	24,240,969	24,787,516
Pre-Ret rement death benefits	 19,562,542	 19,368,811	 19,055,731	 18,713,331
Tota benefits	\$ 888,230,303	\$ 863,977,621	\$ 832,934,948	\$ 792,397,468
Type of Refund				
Death	\$ 4,088,307	\$ 4,840,969	\$ 3,819,233	\$ 3,079,428
Separat on	10,797,299	14,000,894	14,899,378	14,904,875
Other	 	 	 	 
Tota refunds	\$ 14,885,606	\$ 18,841,863	\$ 18,718,610	\$ 17,984,303

Data by type of refund, by p an, was not read y ava ab e for the years pr or to 2013 Th s nformat on w cont nue to be populated until the requires the ten years s d sp ayed x = 1.

#### **Judicial Plan**

Fiscal Year	2021	2020	2019	2018
Type of Benefit				
Serv ce ret rement benefits	\$ 4,681,415	\$ 4,313,483	\$ 4,021,982	\$ 3,804,709
D sab ty benefits				
Pre-Ret rement death benefits				
Tota benefits	\$ 4,681,415	\$ 4,313,483	\$ 4,021,982	\$ 3,804,709
Type of Refund				
Death	\$	\$	\$	\$
Separat on		1,075	45,524	
Other				
Tota refunds	\$	\$ 1,075	\$ 45,524	\$

Data by type of refund, by p an, was not read y ava ab e for the years pr or to 2013 Th s nformat on w cont nue to be populated unt the requisite ten years s d sp ayed

 2017	 2016	 2015	 2014	 2013	 2012
\$ 718,059,271	\$ 683,518,206	\$ 658,113,295	\$ 622,008,923	\$ 604,712,027	\$ 566,668,373
26,232,096	26,795,729	27,863,125	28,930,711	30,077,965	29,864,477
 18,158,342	 17,403,242	 17,315,685	 16,567,000	 16,735,839	 15,979,866
\$ 762,449,709	\$ 727,717,177	\$ 703,292,105	\$ 667,506,634	\$ 651,525,831	\$ 612,512,716
\$ 4,373,110	\$ 2,778,790	\$ 3,120,006	\$ 3,247,581	\$ 3,955,186	
13,503,162	14,027,776	16,312,147	18,436,816	13,936,069	
\$ 17,876,272	\$ 16,806,566	\$ 19,432,153	\$ 21,684,397	\$ 17,891,255	\$

 2017	 2016	 2015	 2014	 2013	 2012
\$ 3,651,927	\$ 3,501,911	\$ 3,383,995	\$ 3,194,250 25,230	\$ 3,207,656 74,688	\$ 3,107,935 63,911
\$ 3,651,927	\$ 3,501,911	\$ 3,383,995	\$ 3,219,480	\$ 3,282,344	\$ 3,171,846
\$	\$	\$	\$	\$	
\$ 	\$ 	\$ 	\$ 	\$ 	\$ 

# Defined Benefit Plans Benefit and Refund Deductions from Fiduciary Net Position by Type Last Ten Fiscal Years

#### **Legislative Plan**

Fiscal Year	 2021	 2020	 2019	 2018
Type of Benefit				
Serv ce ret rement benefits	\$ 446,440	\$ 451,474	\$ 421,421	\$ 363,478
D sab ty benefits	15,412	15,295	15,022	14,629
Pre-Ret rement death benefits	 52,844	 53,595	 46,217	 48,956
Tota benefits	\$ 514,696	\$ 520,364	\$ 482,660	\$ 427,063
Type of Refund				
Death	\$ 397	\$ 20,473	\$	\$
Separat on	34,369	156,859	124,180	32,682
Other	 	 	 	 
Tota refunds	\$ 34,765	\$ 177,332	\$ 124,180	\$ 32,682

Data by type of refund, by p an, was not read y ava ab e for the years pr or to 2013 Th s nformat on w cont nue to be populated until the requires the ten years s d sp ayed x = 1.

#### **PLD Consolidated Plan**

Fiscal Year	 2021	 2020	 2019	 2018
Type of Benefit				
Serv ce ret rement benefits	\$ 164,016,103	\$ 156,066,355	\$ 147,218,859	\$ 136,330,957
D sab ty benefits	7,068,410	6,632,012	6,413,911	6,469,460
Pre-Ret rement death benefits	 5,318,539	 5,199,025	 5,038,267	 4,715,941
Tota benefits	\$ 176,403,052	\$ 167,897,392	\$ 158,671,037	\$ 147,516,358
Type of Refund				
Death	\$ 853,751	\$ 1,676,570	\$ 785,480	\$ 574,813
Separat on	5,435,114	5,178,205	5,943,162	3,996,714
Other*	 	 	 	 
Tota refunds	\$ 6,288,865	\$ 6,854,776	\$ 6,728,643	\$ 4,571,527

\* Refunds n fisca year 2015 reflect the return of approx mate y \$43 m on of

non-P an cash be ng managed by the System on beha f of PLD Conso dated P an emp oyers

Data by type of refund, by p an, was not read y ava ab e for the years pr or to 2013 Th s nformat on w cont nue to be populated unt the requires the ten years s d sp ayed x = 1

	2017		2016		2015		2014		2013		2012
\$	347,133 14,377	\$	312,108 19,245	\$	289,432 8,142	\$	271,025 7,994	\$	242,015 8,099	\$	231,584 7,863
\$	37,632	\$	36,192	\$	30,301	\$	29,751	\$	30,140	\$	34,641 274,088
φ		φ		φ		φ		φ		φ	214,000
\$	14,720	\$	6,122	\$	11,524	\$		\$			
Ŷ	55,181	¥	71,664	Ŷ	99,713	Ψ	8,836	Ψ	82,768		
\$	69,901	\$	77,786	\$	111,237	\$	8,836	\$	82,768	\$	

 2017	 2016	 2015	 2014	 2013	 2012
\$ 129,354,921 6,596,584 4,461,983	\$ 123,607,716 6,954,282 4,272,447	\$ 118,281,904 6,994,050 4,200,056	\$ 110,537,271 7,133,396 3,888,590	\$ 104,017,589 6,860,218 3,749,705	\$ 98,259,313 6,842,091 3,545,207
\$ 140,413,488	\$ 134,834,445	\$ 129,476,010	\$ 121,559,257	\$ 114,627,512	\$ 108,646,611
\$ 938,577 4,811,501	\$ 589,655 4,495,580	\$ 1,141,276 4,797,240 43,000,526	\$ 613,327 4,988,774	\$ 982,328 5,069,446	
\$ 5,750,078	\$ 5,085,235	\$ 48,939,042	\$ 5,602,101	\$ 6,051,774	\$ 

# Defined Benefit Plans Benefit and Refund Deductions from Fiduciary Net Position by Type Last Ten Fiscal Years

### **PLD Agent Plan**

Fiscal Year	 2021	 2020	 2019		2018
Type of Benefit					
Serv ce ret rement benefits	\$ 776,437	\$ 1,759,029	\$ 2,842,649	\$	2,788,425
D sab ty benefits					
Pre-Ret rement death benefits	 	 			
Tota benefits	\$ 776,437	\$ 1,759,029	\$ 2,842,649	\$	2,788,425
Type of Refund					
Death	\$	\$	\$	\$	
Separat on		913,894	201,763		
Other	 	 	 	. <u></u>	
Tota refunds	\$ 	\$ 913,894	\$ 201,763	\$	
		 	 	-	

Data by type of refund, by p an, was not read y ava ab e for the years pr or to 2013 Th s nformat on w cont nue to be populated until the requires the ten years s d sp ayed x = 1.

#### **Pension Combined**

Fiscal Year	 2021		2020	 2019	 2018
Type of Benefit					
Serv ce ret rement benefits	\$ 1,016,749,067	\$	983,874,218	\$ 944,143,159	\$ 892,184,190
D sab ty benefits	28,922,911		29,972,239	30,669,902	31,271,605
Pre-Ret rement death benefits	 24,933,925		24,621,431	 24,140,215	 23,478,228
Tota benefits	\$ 1,070,605,903	\$	1,038,467,888	\$ 998,953,276	\$ 946,934,023
Type of Refund					
Death	\$ 4,942,455	\$	6,538,012	\$ 4,604,713	\$ 3,654,240
Separat on	16,266,781		20,250,927	21,214,007	18,934,271
Other*	 	_		 	 
Tota refunds	\$ 21,209,236	\$	26,788,940	\$ 25,818,720	\$ 22,588,511

\* Refunds n fisca year 2015 reflect the return of approx mate y \$43 m on of

non-P an cash be ng managed by the System on beha f of PLD Conso dated P an emp oyers

Data by type of refund, by p an, was not read y ava ab e for the years pr or to 2013 Th s nformat on w cont nue to be populated unt the requisite ten years s d sp ayed

2012	 2013	 2014	 2015	 2016	 2017	
2,608,985	\$ 2,644,060	\$ 2,702,486	\$ 2,780,492	\$ 2,779,624	\$ 2,777,307	\$
2,608,985	\$ 2,644,060	\$ 2,702,486	\$ 2,780,492	\$ 2,779,624	\$ 2,777,307	\$
		\$	\$	\$	\$	\$
	 	 1,897,634	 	 	 	
	\$ 	\$ 1,897,634	\$ 	\$ 	\$ 	\$

	2017		2016		2015		2014		2013		2012
\$	854,190,558	\$	813,719,565	\$	782,849,118	\$	738,713,955	\$	714,823,347	\$	670,876,190
Ŧ	32,843,057	Ŧ	33,769,256	Ŧ	34,865,317	Ŧ	36,097,330	Ŧ	37,020,969	Ŧ	36,778,342
	22,657,957		21,711,881		21,546,043		20,485,341		20,515,684		19,559,715
\$	909,691,572	\$	869,200,702	\$	839,260,478	\$	795,296,626	\$	772,360,000	\$	727,214,247
\$	5,326,407	\$	3,374,567	\$	4,272,805	\$	3,860,908	\$	4,937,513	\$	4,406,322
	18,369,844		18,595,020		21,209,100		23,434,426		19,088,284		21,003,032
					43,000,526		1,897,634				18,733,381
\$	23,696,251	\$	21,969,587	\$	68,482,431	\$	29,192,968	\$	24,025,797	\$	44,142,736

# Group Life Insurance Plan Benefit and Refund Deductions from Fiduciary Net Position by Type Last Ten Fiscal Years\*

### **Group Life Insurance Plan – Active Employees**

			Fiscal Year		
	2021	2020	2019	2018	2017
Type of Benefit**					
Basic active c aims	\$ 5,277,696	\$ 2,538,518	\$ 1,528,091	\$ 2,118,390	\$ 1,717,860
Supp ementa c aims	1,680,000	2,037,102	438,000	1,758,000	1,886,684
Dependent c aims	145,000	200,000	202,500	237,500	182,500
Accidenta Death & Dismemberment c aims	294,000	256,000	125,000	60,000	309,000
	7,396,696	5,031,620	2,293,591	4,173,890	4,096,044
Conversion expense		112,710	1,755	55,478	53,235
Tota benefits	\$7,396,696	\$ 5,144,330	\$ 2,295,346	\$ 4,229,368	\$ 4,149,279

#### Group Life Insurance Plan - State Employee & Teacher Retirees

			Fiscal Year		
	2021	2020	2019	2018	2017
Type of Benefit**					
Basic retiree c aims	\$ 6,613,935	\$ 8,177,754	\$ 7,118,082	\$ 7,269,809	\$ 6,003,967
Tota benefits	\$ 6,613,935	\$ 8,177,754	\$ 7,118,082	\$ 7,269,809	\$ 6,003,967

#### **Group Life Insurance Plan – PLD Retirees**

			Fiscal Year		
	2021	2020	2019	2018	2017
Type of Benefit**					
Basic retiree c aims	\$ 1,223,890	\$ 1,589,460	\$ 1,581,539	\$ 1,530,346	\$ 1,394,586
Tota benefits	\$ 1,223,890	\$ 1,589,460	\$ 1,581,539	\$ 1,530,346	\$ 1,394,586

\* The System current y has this information avai ab e for the years indicated. Additiona information wi be added to the schedu e each year unti the requisite ten years is obtained.

\*\* Benefit amounts disp ayed in 2018 and beyond inc ude the cost of third party processing activities.

## **State Employee and Teacher Plan**

### **Retirement Effective Dates**

July 1, 2012 – June 30, 2021*	Years of Creditable Service											
	Less than 5	5-10	10-15	15-20	20-25	25-30	Greater than 30					
Period 7/1/2020 to 6/30/2021												
Average Month y Benefit	\$ 121	\$ 518	\$ 889	\$ 1,378	\$ 1,988	\$ 2,346	\$3,335					
Average Fina Sa a y	\$ 8,109	\$ 33,552	\$ 36,727	\$ 41,498	\$ 45,638	\$ 47,620	\$ 54,653					
Number of Service Retirees	1,738	1,690	3,074	2,971	3,674	6,951	10,504					
Period 7/1/2019 to 6/30/2020												
Average Month y Benefit	\$ 153	\$ 513	\$ 874	\$ 1,363	\$ 1,968	\$ 2,309	\$ 3,288					
Average Fina Saa y	\$ 8,998	\$ 33,062	\$ 36,013	\$ 40,514	\$ 44,617	\$ 46,618	\$ 53,611					
Number of Service Retirees	1,630	1,616	3,036	2,882	3,590	6,928	10,273					
Period 7/1/2018 to 6/30/2019												
Average Month y Benefit	\$ 157	\$ 504	\$ 856	\$ 1,333	\$ 1,940	\$ 2,269	\$ 3,241					
Average Fina Sa a y	\$ 9,126	\$ 32,761	\$ 35,302	\$ 39,506	\$ 43,727	\$ 45,871	\$ 52,845					
Number of Service Retirees	1,482	1,526	2,925	2,817	3,528	6,893	10,009					
Period 7/1/2017 to 6/30/2018												
Average Month y Benefit	\$ 159	\$ 497	\$ 830	\$ 1,292	\$ 1,889	\$ 2,205	\$ 3,165					
Average Fina Sa a y	\$ 9,253	\$ 32,389	\$ 34,666	\$ 38,544	\$ 42,761	\$ 45,081	\$ 51,936					
Number of Service Retirees	1,334	1,413	2,812	2,664	3,454	6,836	9,672					
Period 7/1/2016 to 6/30/2017												
Average Month y Benefit	\$ 165	\$ 493	\$ 806	\$ 1,265	\$ 1,857	\$ 2,163	\$ 3,108					
Average Fina Sa a y	\$ 9,821	\$ 32,228	\$ 33,672	\$ 37,623	\$ 41,937	\$ 44,336	\$ 50,999					
Number of Service Retirees	1,198	1,345	2,744	2,544	3,402	6,767	9,415					
Period 7/1/2015 to 6/30/2016												
Average Month y Benefit	\$ 170	\$ 485	\$ 780	\$ 1,229	\$ 1,806	\$ 2,105	\$ 3,040					
Average Fina Sa a y	\$ 10,649	\$ 32,076	\$ 32,842	\$ 36,832	\$ 40,960	\$ 43,503	\$ 50,158					
Number of Service Retirees	1,070	1,259	2,663	2,467	3,331	6,670	9,164					
Period 7/1/2014 to 6/30/2015												
Average Month y Benefit	\$ 178	\$ 472	\$ 755	\$ 1,188	\$ 1,757	\$ 2,050	\$ 2,970					
Average Fina Sa a y	\$ 11,307	\$ 31,831	\$ 31,809	\$ 35,631	\$ 40,059	\$ 42,711	\$ 49,231					
Number of Service Retirees	930	1,182	2,550	2,332	3,283	6,569	8,889					
Period 7/1/2013 to 6/30/2014												
Average Month y Benefit	\$ 189	\$ 463	\$ 725	\$ 1,153	\$ 1,715	\$ 2,002	\$ 2,907					
Average Fina Sa a y	\$ 12,446	\$ 31,627	\$ 30,576	\$ 34,457	\$ 38,903	\$ 41,888	\$ 48,257					
Number of Service Retirees	786	1,105	2,426	2,245	3,215	6,430	8,586					
Period 7/1/2012 to 6/30/2013												
Average Month y Benefit	\$ 210	\$ 465	\$ 708	\$ 1,139	\$ 1,700	\$ 1,987	\$ 2,877					
Average Fina Sa a y	\$ 40,079	\$ 33,962	\$ 30,962	\$ 33,820	\$ 38,005	\$ 41,170	\$ 47,284					
Number of Service Retirees	650	1,009	2,319	2,160	3,123	6,337	8,360					

### **Judicial Plan**

<b>Retirement Effective Dates</b>										
July 1, 2012 – June 30, 2021*				Years	of C	reditable S	Servio	ce		
	Les	ss than 5	5-10	10-15		15-20		20-25	25-30	Greater than 30
Period 7/1/2020 to 6/30/2021										
Average Month y Benefit	\$	590	\$ 1,759	\$ 3,626	\$	3,848	\$	4,970	\$ 5,451	\$ 5,377
Average Fina Saa y	\$	13,909	\$ 49,814	\$ 71,833	\$	84,665	\$	97,657	\$ 106,603	\$ 112,263
Number of Service Retirees		10	17	19		24		13	9	5
Period 7/1/2019 to 6/30/2020										
Average Month y Benefit	\$	600	\$ 1,781	\$ 3,822	\$	3,878	\$	4,916	\$ 5,516	\$ 5,367
Average Fina Sa a y	\$	14,754	\$ 47,685	\$ 75,013	\$	89,166	\$	98,422	\$ 108,358	\$ 111,931
Number of Service Retirees		8	15	19		22		11	11	5
Period 7/1/2018 to 6/30/2019										
Average Month y Benefit	\$	566	\$ 1,757	\$ 3,953	\$	4,077	\$	4,715	\$ 5,668	\$ 5,340
Average Fina Sa a y	\$	13,088	\$ 49,706	\$ 76,249	\$	92,037	\$	96,657	\$ 110,586	\$ 111,931
Number of Service Retirees		7	13	16		19		9	9	5
Period 7/1/2017 to 6/30/2018										
Average Month y Benefit	\$	562	\$ 1,778	\$ 3,985	\$	4,037	\$	4,779	\$ 5,615	\$ 5,293
Average Fina Sa a y	\$	13,088	\$ 55,919	\$ 78,254	\$	92,037	\$	97,926	\$ 110,586	\$ 111,931
Number of Service Retirees		7	13	14		19		8	9	5
Period 7/1/2016 to 6/30/2017										
Average Month y Benefit	\$	442	\$ 1,729	\$ 4,358	\$	4,244	\$	4,738	\$ 5,586	\$ 5,268
Average Fina Sa a y	\$	10,273	\$ 57,420	\$ 84,234	\$	89,784	\$	103,183	\$ 110,586	\$ 111,931
Number of Service Retirees		6	12	12		20		5	9	5
Period 7/1/2015 to 6/30/2016										
Average Month y Benefit	\$	440	\$ 1,707	\$ 4,317	\$	4,199	\$	4,696	\$ 5,542	\$ 5,229
Average Fina Sa a y	\$	10,273	\$ 57,420	\$ 84,234	\$	87,575	\$	103,183	\$ 110,586	\$ 111,931
Number of Service Retirees		6	12	12		19		5	9	5
Period 7/1/2014 to 6/30/2015										
Average Month y Benefit	\$	388	\$ 1,689	\$ 4,606	\$	4,154	\$	4,655	\$ 5,499	\$ 5,190
Average Fina Sa a y	\$	17,129	\$ 57,420	\$ 79,169	\$	86,262	\$	103,183	\$ 110,586	\$ 111,931
Number of Service Retirees		4	12	13		15		5	9	5
Period 7/1/2013 to 6/30/2014										
Average Month y Benefit	\$	315	\$ 1,590	\$ 4,861	\$	4,000	\$	4,621	\$	\$ 5,164
Average Fina Sa a y	\$	8,279	\$ 54,733	\$ 78,970	\$	84,290	\$	103,183	\$ 110,586	\$ 111,931
Number of Service Retirees		1	9	15		12		5	9	5
Period 7/1/2012 to 6/30/2013										
Average Month y Benefit	\$	315	\$ 1,623	\$ 5,070	\$	4,229	\$	4,750	\$ 5,464	\$ 5,541
Average Fina Sa a y	\$	118,269	\$ 112,541	\$ 87,240	\$	93,463	\$	110,809	\$ 110,586	\$ 109,339
Number of Service Retirees		1	5	17		9		6	9	4

### **Legislative Plan**

Ecgisiative riali												
<b>Retirement Effective Dates</b>												
July 1, 2012 – June 30, 2021*					Years	of Cr	editable S	ervice	9			
	Les	ss than 5		5-10	10-15		15-20		20-25	25-30	Greater th	an 30
Period 7/1/2020 to 6/30/2021												
Average Month y Benefit	\$	85	\$	174	\$ 283	\$	363	\$	530	\$ -	\$	-
Average Fina Sa a y	\$	8,342	\$	12,834	\$ 12,549	\$	14,024	\$	14,145	\$ -	\$	-
Number of Service Retirees		30		125	19		10		1	0		0
Period 7/1/2019 to 6/30/2020												
Average Month y Benefit	\$		\$	176	\$ 286	\$	362	\$	-	\$ -	\$	-
Average Fina Sa a y	\$	9,768	\$	12,641	\$ 12,538	\$	14,524	\$	-	\$ -	\$	-
Number of Service Retirees		29		111	18		7	\$	-	\$ -	\$	-
Period 7/1/2018 to 6/30/2019												
Average Month y Benefit	\$		\$		\$	\$		\$	-	\$ -	\$	-
Average Fina Sa a y	\$		\$	12,478	\$ 12,409	\$	14,524	\$	-	\$ -	\$	-
Number of Service Retirees		26		116	17		7		0	0		0
Period 7/1/2017 to 6/30/2018												
Average Month y Benefit	\$		\$		\$	\$		\$	-	\$ -	\$	-
Average Fina Sa a y	\$		\$	12,318	\$ 12,388	\$	14,665	\$	-	\$ -	\$	-
Number of Service Retirees		23		104	17		4		0	0		0
Period 7/1/2016 to 6/30/2017												
Average Month y Benefit	\$		\$		\$	\$		\$	-	\$ -	\$	-
Average Fina Sa a y	\$		\$	12,109	\$ 12,284	\$	14,900	\$	-	\$ -	\$	_
Number of Service Retirees		23		105	16		3		0	0		0
Period 7/1/2015 to 6/30/2016			,									
Average Month y Benefit	\$		\$		\$	\$	402	\$	-	\$ -	\$	-
Average Fina Sa a y	\$	10,120	\$	12,078	\$ 11,681	\$	12,773	\$	-	\$ -	\$	_
Number of Service Retirees		23		97	14		3		0	0		0
Period 7/1/2014 to 6/30/2015			,									
Average Month y Benefit	\$		\$		\$	\$	382	\$	-	\$ -	\$	-
Average Fina Sa a y	\$	10,270	\$	11,994	\$ 11,153	\$	13,204	\$	-	\$ -	\$	-
Number of Service Retirees		24		96	16		4		0	0		0
Period 7/1/2013 to 6/30/2014												
Average Month y Benefit	\$		\$		\$	\$		\$	-	\$ -	\$	-
Average Fina Sa a y	\$		\$	11,643	\$ 11,138	\$	13,204	\$	-	\$ -	\$	-
Number of Service Retirees		22		84	14		4		0	0		0
Period 7/1/2012 to 6/30/2013												
Average Month y Benefit	\$		\$		\$	\$		\$	-	\$ -	\$	-
Average Fina Sa a y	\$	18,728	\$	11,778	\$ 11,339	\$	13,204	\$	-	\$ -	\$	-
Number of Service Retirees		24		87	11		4		0	0		0

### **PLD Consolidated Plan**

<b>Retirement Effective Dates</b>								
July 1, 2012 – June 30, 2021*				Years	of Creditable S	ervice		
	Le	ss than 5	5-10	10-15	15-20	20-25	25-30	Greater than 30
Period 7/1/2020 to 6/30/2021								
Average Month y Benefit	\$	5 148	\$ 589	\$ 927	\$ 1,464	\$ 2,082	\$ 2,535	\$ 3,369
Average Fina Sa a y	\$	5 7,434	\$ 24,928	\$ 31,993	\$ 37,403	\$ 41,204	\$ 47,356	\$ 51,003
Number of Service Retirees		2,061	1,822	1,571	1,467	1,574	1,059	545
Period 7/1/2019 to 6/30/2020								
Average Month y Benefit	\$	5 155	\$ 579	\$ 887	\$ 1,431	\$ 2,045	\$ 2,476	\$ 3,323
Average Fina Sa a y	\$	5 7,702	\$ 24,757	\$ 30,632	\$ 36,562	\$ 40,068	\$ 45,538	\$ 50,187
Number of Service Retirees		1,936	1,722	1,491	1,427	1,550	995	555
Period 7/1/2018 to 6/30/2019								
Average Month y Benefit	\$		\$ 566	\$ 862	\$ 1,403	\$ 1,988	\$ 2,411	\$ 3,252
Average Fina Sa a y	\$		\$ 24,631	\$ 30,073	\$ 35,969	\$ 38,828	\$ 44,497	\$ 49,703
Number of Service Retirees		1,795	1,602	1,443	1,387	1,447	977	557
Period 7/1/2017 to 6/30/2018								
Average Month y Benefit	\$		\$ 545	\$ 820	\$ 1,350	\$ 1,923	\$ 2,337	\$ 3,152
Average Fina Sa a y	\$	5 7,736	\$ 24,418	\$ 29,145	\$ 35,125	\$ 37,357	\$ 43,630	\$ 48,843
Number of Service Retirees		1,639	1,451	1,329	1,331	1,326	994	579
Period 7/1/2016 to 6/30/2017								
Average Month y Benefit	\$		\$ 528	\$ 790	\$ 1,307	\$ 1,859	\$ 2,268	\$ 3,064
Average Fina Sa a y	\$	5 7,669	\$ 24,049	\$ 28,550	\$ 34,100	\$ 35,609	\$ 42,422	\$ 47,585
Number of Service Retirees		1,478	1,297	1,271	1,276	1,233	1,008	599
Period 7/1/2015 to 6/30/2016								
Average Month y Benefit	\$	5 138	\$ 511	\$ 748	\$ 1,281	\$ 1,809	\$ 2,228	\$ 3,015
Average Fina Sa a y	\$	5 7,707	\$ 23,663	\$ 27,128	\$ 33,490	\$ 33,885	\$ 41,686	\$ 47,280
Number of Service Retirees		1,328	1,176	1,201	1,252	1,139	1,031	618
Period 7/1/2014 to 6/30/2015								
Average Month y Benefit	\$		\$ 497	\$ 727	\$ 1,256	\$ 1,797	\$ 2,206	\$ 3,004
Average Fina Sa a y	\$	5 7,777	\$ 23,320	\$ 26,728	\$ 32,942	\$ 32,952	\$ 41,008	\$ 46,870
Number of Service Retirees		1,186	1,050	1,130	1,167	1,090	1,037	638
Period 7/1/2013 to 6/30/2014								
Average Month y Benefit	\$		\$ 471	\$ 675	\$ 1,178	\$ 1,748	\$ 2,138	\$ 2,919
Average Fina Sa a y	\$	8,018	\$ 23,316	\$ 25,525	\$ 31,381	\$ 31,737	\$ 40,026	\$ 46,278
Number of Service Retirees		1,007	926	1,064	1,046	1,072	1,063	656
Period 7/1/2012 to 6/30/2013								
Average Month y Benefit	\$	5 136	\$ 449	\$ 629	\$ 1,103	\$ 1,710	\$ 2,086	\$ 2,858
Average Fina Sa a y	\$	39,573	\$ 35,552	\$ 28,806	\$ 36,407	\$ 32,317	\$ 39,707	\$ 46,137
Number of Service Retirees		882	779	1,002	906	1,083	1,076	656

## **PLD Agent Plan**

<b>Retirement Effective Dates</b>										
July 1, 2012 – June 30, 2021*				Years	of Cr	editable S	ervic	е		
	Les	s than 5	5-10	10-15		15-20		20-25	25-30	Greater than 30
Period 7/1/2020 to 6/30/2021										
Average Month y Benefit	\$	65	\$ 461	\$ 493	\$	833	\$	1,063	\$ 2,089	\$ 3,069
Average Fina Sa a y	\$	1,846	\$ 10,786	\$ 14,951	\$	21,467	\$	28,690	\$ 37,420	\$ 58,065
Number of Service Retirees		26	2	5		9		6	9	8
Period 7/1/2019 to 6/30/2020										
Average Month y Benefit	\$	64	\$ 458	\$ 571	\$	829	\$	1,059	\$ 2,078	\$ 3,099
Average Fina Sa a y	\$	1,846	\$ 10,786	\$ 15,337	\$	21,467	\$	28,690	\$ 37,420	\$ 59,692
Number of Service Retirees		26	2	7		9		6	9	7
Period 7/1/2018 to 6/30/2019										
Average Month y Benefit	\$	63	\$ 451	\$ 619	\$	905	\$	1,931	\$ 2,369	\$ 2,825
Average Fina Sa a y	\$		\$ 10,786	\$ 17,952	\$	25,145	\$	32,493	\$ 39,754	\$ 48,478
Number of Service Retirees		28	2	11		16		30	31	20
Period 7/1/2017 to 6/30/2018										
Average Month y Benefit	\$	59	\$ 351	\$ 540	\$	874	\$	1,843	\$ 2,247	\$ 2,591
Average Fina Sa a y	\$		\$ 14,768	\$ 17,146	\$	25,602	\$	31,931	\$ 39,102	\$ 46,194
Number of Service Retirees		26	4	16		18		31	33	23
Period 7/1/2016 to 6/30/2017										
Average Month y Benefit	\$	60	\$ 340	\$ 505	\$	846	\$	1,815	\$ 2,216	\$ 2,576
Average Fina Sa a y	\$		\$ 15,590	\$ 15,597	\$	24,795	\$	31,931	\$ 38,813	\$ 46,217
Number of Service Retirees		24	5	19		20		31	33	22
Period 7/1/2015 to 6/30/2016										
Average Month y Benefit	\$	49	\$ 337	\$ 501	\$	839	\$	1,816	\$ 2,221	\$ 2,523
Average Fina Sa a y	\$		\$ 15,644	\$ 15,294	\$	24,795	\$	31,502	\$ 38,440	\$ 46,217
Number of Service Retirees		23	5	19		20		33	31	22
Period 7/1/2014 to 6/30/2015										
Average Month y Benefit	\$	45	\$ 337	\$ 455	\$	837	\$	1,820	\$ 2,189	\$ 2,501
Average Fina Sa a y	\$	1,609	\$ 15,644	\$ 13,693	\$	24,755	\$	31,406	\$ 36,887	\$ 45,304
Number of Service Retirees		21	5	21		20		33	33	21
Period 7/1/2013 to 6/30/2014										
Average Month y Benefit	\$		\$ 275	\$ 457	\$	833	\$	1,795	\$	\$ 2,483
Average Fina Saa y	\$		\$ 16,653	\$ 13,692	\$	24,627	\$	30,255	\$ 36,436	\$ 45,304
Number of Service Retirees		20	4	23		22		34	34	21
Period 7/1/2012 to 6/30/2013										
Average Month y Benefit	\$		\$ 273	\$ 450	\$	797	\$	1,748	\$ 2,065	\$ 2,319
Average Fina Saa y	\$	39,810	\$ 20,825	\$ 13,898	\$	26,695	\$	29,884	\$ 35,644	\$ 42,989
Number of Service Retirees		23								

### **All Defined Benefit Pension Plans, Combined**

**Retirement Effective Dates** 

July 1, 2012 – June 30, 2021*	021* Years of Creditable Service									
	Less	than 5		5-10		10-15	15-20	20-25	25-30	Greater than 30
Period 7/1/2020 to 6/30/2021										
Average Month y Benefit	\$	162	\$	563	\$	915	\$ 1,422	\$ 2,026	\$ 2,375	\$ 3,338
Average Fina Sa a y	\$	7,756	\$	28,691	\$	35,161	\$ 40,312	\$ 44,404	\$ 47,627	\$ 54,479
Number of Service Retirees		3,829		3,633		4,672	4,470	5,272	8,034	11,071
Period 7/1/2019 to 6/30/2020										
Average Month y Benefit	\$	179	\$	557	\$	893	\$ 1,399	\$ 2,000	\$ 2,335	\$ 3,291
Average Fina Sa a y	\$	8,298	\$	28,428	\$	34,290	\$ 39,375	\$ 43,335	\$ 46,547	\$ 53,450
Number of Service Retirees		3,599		3,443		4,558	4,335	5,159	7,948	10,850
Period 7/1/2018 to 6/30/2019										
Average Month y Benefit	\$	177	\$	543	\$	873	\$ 1,369	\$ 1,962	\$ 2,291	\$ 3,242
Average Fina Sa a y	\$	8,355	\$	28,174	\$	33,602	\$ 38,499	\$ 42,334	\$ 45,742	\$ 52,683
Number of Service Retirees		3,306		3,243		4,404	4,237	5,017	7,913	10,598
Period 7/1/2017 to 6/30/2018										
Average Month y Benefit	\$	173	\$	530	\$	839	\$ 1,326	\$ 1,906	\$ 2,226	\$ 3,164
Average Fina Sa a y	\$	8,388	\$	27,950	\$	32,915	\$ 37,612	\$ 41,281	\$ 44,935	\$ 51,762
Number of Service Retirees		2,998		2,975		4,177	4,024	4,823	7,876	10,286
Period 7/1/2016 to 6/30/2017										
Average Month y Benefit	\$	172	\$	518	\$	812	\$ 1,295	\$ 1,863	\$ 2,181	\$ 3,105
Average Fina Sa a y	\$	8,593	\$	27,750	\$	32,079	\$ 36,657	\$ 40,248	\$ 44,131	\$ 50,799
Number of Service Retirees		2,701		2,757		4,047	3,853	4,675	7,821	10,048
Period 7/1/2015 to 6/30/2016										
Average Month y Benefit	\$	172	\$	504	\$	782	\$ 1,262	\$ 1,812	\$ 2,126	\$ 3,038
Average Fina Sa a y	\$	8,943	\$	27,562	\$	31,106	\$ 35,902	\$ 39,162	\$ 43,310	\$ 49,980
Number of Service Retirees		2,425		2,538		3,899	3,748	4,510	7,745	9,818
Period 7/1/2014 to 6/30/2015										
Average Month y Benefit	\$	173	\$	490	\$	759	\$	\$ 1,772	\$ 2,077	\$ 2,973
Average Fina Sa a y	\$	8,697	\$	27,354	\$	30,250	\$ 34,875	\$ 38,303	\$ 42,528	\$ 49,081
Number of Service Retirees		2,143		2,340		3,719	3,529	4,410	7,652	9,561
Period 7/1/2013 to 6/30/2014										
Average Month y Benefit	\$	179	\$	470	\$	727	\$	\$ 1,728	\$ 2,026	\$ 2,908
Average Fina Sa a y	\$	9,877	\$	27,332	\$	29,082	\$ 33,579	\$ 37,127	\$ 41,680	\$ 48,133
Number of Service Retirees		1,821		2,123		3,537	3,320	4,328	7,537	9,274
Period 7/1/2012 to 6/30/2013										
Average Month y Benefit	\$	364	\$	433	\$	681	\$	\$ 1,698	\$ 2,006	\$ 2,881
Average Fina Sa a y	\$	28,688	\$	30,446	\$	28,554	\$ 32,680	\$ 36,429	\$ 41,244	\$ 47,413
Number of Service Retirees		440		1,482		3,112	2,860	4,288	7,658	9,194
Period 7/1/2011 to 6/30/2012										
Average Month y Benefit	\$	647	\$	427	\$	671	\$ 1,083	\$ 1,678	\$ 1,979	\$ 2,845
Average Fina Sa a y	\$	25,200	\$	59,515	\$	27,199	\$ 31,429	\$ 35,443	\$ 40,189	\$ 46,386
Number of Service Retirees		568		1,402		3,013	2,777	4,182	7,413	8,863

## Defined Benefit Plans Retired Members by Type of Benefit and Option As of June 30, 2021

#### **State Employees and Teacher Plan**

			Type of Reti	rement Bene	əfit	Benefit Option Selected*									
Amount of Monthly Benefit	Number of Retired Members	Service Retiree	Beneficiary	Disability	Pre-Retire Death Benefit	Full Benefit to Retiree	1	2	3	4	5	6	7	8	Other
\$0 \$250	2,538	1,645	851	29	13	774	275	304	61	33	605	123	46	60	257
\$251 \$500	2,775	1,383	1,265	8	119	718	212	263	71	18	917	116	28	36	396
\$501 \$750	3,157	1,548	1,142	19	448	789	252	264	96	23	846	119	36	44	688
\$751 \$1,000	2,229	1,520	678	31	0	782	218	255	125	22	438	96	43	68	182
\$1,001 \$1,250	2,141	1,602	483	56	0	810	222	242	145	23	326	110	41	50	172
\$1,251 \$1,500	2,153	1,705	361	87	0	775	239	221	140	27	342	125	69	53	162
\$1,501 \$1,750	2,321	1,867	315	139	0	887	293	258	99	20	386	95	49	71	163
\$1,751 \$2,000	2,549	2,107	269	173	0	1,011	295	256	113	31	417	132	60	75	159
Over \$2,001	17,827	15,924	885	1,018	0	7,860	2,245	1,747	757	363	1,926	753	690	819	667
Totals	37,690	29,301	6,249	1,560	580	14,406	4,251	3,810	1,607	560	6,203	1,669	1,062	1,276	2,846

#### **Judicial Plan**

			Type of Reti	rement Ben	efit	Benefit Option Selected*									
Amount of Monthly Benefit	Number of Retired Members	Service Retiree	Beneficiary	Disability		Full Benefit to Retiree	1	2	3	4	5	6	7	8	Other
\$0 \$250	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
\$251 \$500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
\$501 \$750	1	0	1	0	0	0	0	0	0	0	1	0	0	0	0
\$751 \$1,000	2	0	2	0	0	0	0	0	0	0	1	0	0	0	1
\$1,001 \$1,250	1	0	1	0	0	0	0	0	0	0	1	0	0	0	0
\$1,251 \$1,500	3	1	2	0	0	1	0	0	0	0	2	0	0	0	0
\$1,501 \$1,750	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
\$1,751 \$2,000	2	0	2	0	0	0	0	1	0	0	0	0	0	0	1
0ver \$2,001	76	62	13	1	0	16	8	21	10	4	9	4	0	2	2
Totals	85	63	21	1	0	17	8	22	10	4	14	4	0	2	4

#### **Legislative Plan**

			Type of Retir	rement Bene	efit	Benefit Option Selected*									
Amount of Monthly Benefit	Number of Retired Members	Service Retiree	Beneficiary	Disability		Full Benefit to Retiree	1	2	3	4	5	6	7	8	Other
\$0 \$250	181	153	28	0	0	77	19	45	6	0	16	13	1	1	3
\$251 \$500	31	30	1	0	0	19	3	6	1	0	0	1	0	1	0
\$501 \$750	9	1	0	1	7	1	0	0	0	0	0	0	0	0	8
\$751 \$1,000	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
\$1,001 \$1,250	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
\$1,251 \$1,500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
\$1,501 \$1,750	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
\$1,751 \$2,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Over \$2,001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	222	184	29	2	7	97	22	51	7	0	16	14	1	2	12

\* There are eight options available to retirees or their monthly retirement benefit:

ull Benefit to Retiree: Provides the highest benefit to the retiree; there is no benefit provided or a beneficiary(ies).

Option 1: The monthly benefit is reduced, and remaining contributions and interest, i any, are paid to a beneficiary(ies) upon retiree's death in a one time, lump sum payment. Option 2: The monthly benefit is reduced, and the same monthly benefit is paid to a beneficiary(ies) upon the retiree's death.

Option 3: The monthly benefit is reduced, and one hal o the monthly benefit is paid to a beneficiary(ies) upon the retiree's death.

Option 4: The monthly benefit is reduced, and a retiree designated percentage o the monthly benefit is paid to a beneficiary(ies) upon the retiree's death.

Option 5: The monthly benefit is split (up to 49%) with a beneficiary(ies) while both the retiree and beneficiary(ies) are living; upon death o either, the other receives the higher benefit or the remainder o his/her li e.

Option 6: Similar to Option 2, except the retiree's monthly benefit will increase to the ull Benefit amount in the event the beneficiary(ies) dies be ore the retiree.

Option 7: Similar to Option 3, except the retiree's monthly benefit will increase to the ull Benefit amount in the event the beneficiary(ies) dies be ore the retiree.

Option 8: Similar to Option 4, except the retiree's monthly benefit will increase to the ull Benefit amount in the event the beneficiary(ies) dies be ore the retiree.

Other: De ault option or specific circumstances such as disability benefits, survivor benefits, and qualified domestic relations order benefits.

# Defined Benefit Plans Retired Members by Type of Benefit and Option As of June 30, 2021

#### **PLD Consolidated Plan**

			Type of Retir	ement Bene	efit	Benefit Option Selected*									
Amount of Monthly Benefit	Number of Retired Members	Service Retiree	Beneficiary	Disability	Pre-Retire Death Benefit	Full Benefit to Retiree	1	2	3	4	5	6	7	8	Other
\$0 \$250	1,540	1,059	454	23	4	540	150	194	56	18	299	77	31	46	129
\$251 \$500	1,183	690	450	12	31	303	149	178	47	11	293	56	15	8	123
\$501 \$750	1,162	675	349	12	126	289	130	152	42	10	247	52	15	21	204
\$751 \$1,000	873	595	255	23	0	257	98	151	47	9	154	43	18	14	82
\$1,001 \$1,250	725	547	150	28	0	228	98	125	40	7	94	45	13	11	64
\$1,251 \$1,500	583	446	114	23	0	171	74	95	14	7	93	45	13	15	56
\$1,501 \$1,750	548	432	77	39	0	152	75	92	21	4	109	29	9	7	50
\$1,751 \$2,000	500	381	71	48	0	160	58	71	22	3	93	22	11	10	50
Over \$2,001	2,979	2,609	176	193	1	958	333	461	141	58	461	212	98	86	171
Totals	10,093	7,434	2,096	401	162	3,058	1,165	1,519	430	127	1,843	581	223	218	929

#### **PLD Agent Plan**

			Type of Reti	ement Bene	efit	Benefit Option Selected*									
Amount of Monthly Benefit	Number of Retired Members	Service Retiree	Beneficiary	Disability		Full Benefit to Retiree	1	2	3	4	5	6	7	8	Other
\$0 \$250	7	6	1	0	0	2	1	2	0	0	1	1	0	0	0
\$251 \$500	4	1	3	0	0	1	0	0	1	0	2	0	0	0	0
\$501 \$750	9	6	3	0	0	4	1	1	1	0	1	0	0	0	1
\$751 \$1,000	4	2	2	0	0	0	0	2	1	0	0	0	0	0	1
\$1,001 \$1,250	8	7	1	0	0	3	0	1	1	0	1	0	1	0	1
\$1,251 \$1,500	6	3	3	0	0	1	0	1	1	0	2	1	0	0	0
\$1,501 \$1,750	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0
\$1,751 \$2,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Over \$2,001	12	12	0	0	0	1	0	7	0	0	1	2	0	1	0
Totals	51	38	13	0	0	12	3	14	5	0	8	4	1	1	3

\* There are eight options available to retirees or their monthly retirement benefit:

ull Benefit to Retiree: Provides the highest benefit to the retiree; there is no benefit provided or a beneficiary(ies).

Option 1: The monthly benefit is reduced, and remaining contributions and interest, i any, are paid to a beneficiary (ies) upon retiree's death in a one time, lump sum payment.

Option 2: The monthly benefit is reduced, and the same monthly benefit is paid to a beneficiary(ies) upon the retiree's death.

Option 3: The monthly benefit is reduced, and one hal o the monthly benefit is paid to a beneficiary(ies) upon the retiree's death.

Option 4: The monthly benefit is reduced, and a retiree designated percentage o the monthly benefit is paid to a beneficiary(ies) upon the retiree's death.

Option 5: The monthly benefit is split (up to 49%) with a beneficiary(ies) while both the retiree and beneficiary(ies) are living; upon death o either, the other receives the higher benefit or the remainder o his/her li e.

Option 6: Similar to Option 2, except the retiree's monthly benefit will increase to the ull Benefit amount in the event the beneficiary(ies) dies be ore the retiree. Option 7: Similar to Option 3, except the retiree's monthly benefit will increase to the ull Benefit amount in the event the beneficiary(ies) dies be ore the retiree. Option 8: Similar to Option 4, except the retiree's monthly benefit will increase to the ull Benefit amount in the event the beneficiary(ies) dies be ore the retiree. Other: De ault option or specific circumstances such as disability benefits, survivor benefits, and qualified domestic relations order benefits. This page intentionally left blank.

## Employee Contribution Rates Last Ten Fiscal Years

Fiscal Year	2021	2020	2019	2018
Judges	7.65%	7.65%	7.65%	7.65%
Legislators	7.65%	7.65%	7.65%	7.65%
School Teacher Employees	7.65%	7.65%	7.65%	7.65%
State of Maine Employees				
Emp oyee C ass:				
Genera	7.65%	7.65%	7.65%	7.65%
Po ce – Grandfathered	8.65%	8.65%	8.65%	8.65%
Mar ne Wardens – Grandfathered	NotApp cab e	8.65%	8.65%	8.65%
Game Wardens – Grandfathered	8.65%	8.65%	8.65%	8.65%
Pr son Wardens – Grandfathered	NotApp cab e	8.65%	8.65%	8.65%
Forest Rangers – Grandfathered	8.65%	8.65%	8.65%	8.65%
1998 Spec a P an Groups	8.65%	8.65%	8.65%	8.65%
25-Year/No-Age Spec a P an Groups	8.65%	8.65%	8.65%	8.65%
Participating Local District Employees				
Emp oyee C ass:				
AC – Age 60 – Genera COLA*	8.10%	8.10%	8.00%	8.00%
AC – Age 65 – Genera COLA*	7.35%	7.35%	NotApp cab e	NotApp cab e
BC – Age 60 – Genera COLA*	4.60%	4.60%	4.50%	4.50%
BC – Age 65 – Genera COLA*	3.85%	3.85%	NotApp cab e	NotApp cab e
1C – Spec a COLA	8.80%	8.30%	8.00%	8.00%
2C – Spec a COLA	8.10%	8.00%	8.00%	8.00%
3C – Spec a COLA	9.50%	9.50%	9.50%	9.50%
4C – Spec a COLA	8.70%	8.90%	9.00%	9.00%
AN – Age 60 – Genera No COLA*	7.80%	8.00%	8.00%	8.00%
AN – Age 65 – Genera No COLA*	7.05%	7.25%	NotApp cab e	NotApp cab e
1N — Spec a No COLA	8.30%	8.10%	8.00%	8.00%
2N – Spec a No COLA	7.60%	7.80%	8.00%	8.00%
3N – Spec a No COLA	9.00%	9.30%	9.50%	9.50%
4N — Spec a No COLA	8.10%	8.70%	9.00%	9.00%

\* Effect ve n fisca year 2020, d fferent contr but on rates were assessed those emp oyees w th a norma ret rement age of 60 and those w th a norma ret rement age of 65

2017	2016	2015	2014	2013	2012
7.65%	7.65%	7.65%	7.65%	7.65%	7.65%
7.65%	7.65%	7.65%	7.65%	7.65%	7.65%
7.65%	7.65%	7.65%	7.65%	7.65%	7.65%
7.65%	7.65%	7.65%	7.65%	7.65%	7.65%
8.65%	8.65%	8.65%	8.65%	8.65%	8.65%
8.65%	8.65%	8.65%	8.65%	8.65%	8.65%
8.65%	8.65%	8.65%	8.65%	8.65%	8.65%
8.65%	8.65%	8.65%	8.65%	8.65%	8.65%
8.65%	8.65%	8.65%	8.65%	8.65%	8.65%
8.65%	8.65%	8.65%	8.65%	8.65%	8.65%
8.65%	8.65%	8.65%	8.65%	8.65%	8.65%

8.00%	7.50%	7.00%	6.50%	6.50%	6.50%
NotApp cab e					
4.50%	4.00%	3.50%	3.00%	3.00%	3.00%
NotApp cab e					
8.00%	7.50%	7.00%	6.50%	6.50%	6.50%
8.00%	7.50%	7.00%	6.50%	6.50%	6.50%
9.50%	9.00%	8.50%	8.00%	8.00%	8.00%
9.00%	8.50%	8.00%	7.50%	7.50%	7.50%
8.00%	7.50%	7.00%	6.50%	6.50%	6.50%
NotApp cab e					
8.00%	7.50%	7.00%	6.50%	6.50%	6.50%
8.00%	7.50%	7.00%	6.50%	6.50%	6.50%
9.50%	9.00%	8.50%	8.00%	8.00%	8.00%
9.00%	8.50%	8.00%	7.50%	7.50%	7.50%

# Employer Contribution Rates Last Ten Fiscal Years

Fiscal Year	2021	2020	2019	2018
Judges	8.89%	8.89%	14.94%	14.94%
Legislators	0.00%	0.00%	0.00%	0.00%
School Teacher Employers	18.49%	18.49%	15.05%	15.05%
State of Maine Employees				
Emp oyee C ass:				
Genera	21.98%	21.98%	24.01%	24.05%
Po ce – Grandfathered	31.89%	31.89%	46.42%	46.51%
Mar ne Wardens – Grandfathered	NotApp cab e	0.00%	0.00%	0.00%
Game Wardens – Grandfathered	32.68%	32.68%	47.64%	47.73%
Pr son Wardens – Grandfathered	NotApp cab e	0.00%	0.00%	0.00%
Forest Rangers – Grandfathered	20.93%	20.93%	24.94%	24.99%
1998 Spec a P an Groups	26.32%	26.32%	26.19%	26.24%
25-Year/No-Age Spec a P an Groups	22.94%	22.94%	23.44%	23.48%
Participating Local District Employees				
Emp oyee C ass:				
AC – Genera COLA	10.10%	10.00%	10.00%	9.60%
BC – Genera COLA	6.20%	6.30%	6.30%	6.10%
1C – Spec a COLA	16.00%	16.20%	16.30%	15.70%
2C – Spec a COLA	10.80%	10.60%	10.50%	10.10%
3C – Spec a COLA	12.90%	12.80%	12.70%	12.20%
4C – Spec a COLA	9.30%	8.90%	8.70%	8.40%
AN – Genera No COLA	7.60%	7.40%	7.30%	7.00%
1N – Spec a No COLA	11.40%	11.10%	10.90%	10.50%
2N – Spec a No COLA	6.60%	6.00%	5.70%	5.50%
3N – Spec a No COLA	8.60%	8.10%	7.80%	7.50%
4N — Spec a No COLA	5.20%	4.50%	4.10%	3.90%

2017	2016	2015	2014	2013	2012
14.98%	14.99%	13.24%	13.25%	11.98%	11.99%
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
13.38%	13.38%	15.68%	15.68%	13.85%	13.85%
22.69%	22.37%	18.43%	18.14%	14.21%	14.18%
38.56%	38.01%	41.05%	40.43%	39.36%	39.22%
40.99%	40.41%	31.62%	31.20%	33.44%	33.33%
42.18%	41.59%	36.50%	35.98%	38.60%	38.47%
27.75%	27.28%	29.51%	29.05%	26.83%	26.74%
21.99%	21.64%	22.73%	22.36%	13.69%	13.65%
29.16%	28.71%	23.04%	22.65%	17.39%	17.33%
23.96%	23.57%	20.42%	20.08%	15.43%	15.38%
0.50%	0.00%	7.00%	6 50%	5 20%	4 40%
9.50%	8.90%	7.80%	6.50%	5.30%	4.40%
6.40%	5.80%	4.70%	3.90%	3.20%	2.70%
14.20%	14.00%	13.40%	12.80%	12.20%	10.20%
9.10%	8.90%	8.30%	7.90%	7.50%	6.30%
11.40%	11.40%	11.00%	10.50%	10.00%	8.30%
7.70%	7.60%	7.20%	6.90%	6.60%	5.50%
6.50%	5.60%	4.10%	3.40%	2.80%	2.40%
9.30%	8.70%	7.50%	7.10%	6.80%	5.60%
5.60%	5.20%	4.40%	4.20%	4.00%	3.30%
7.40%	7.00%	6.10%	5.80%	5.50%	4.50%
4.60%	4.40%	4.00%	3.80%	3.60%	3.00%

## Principal Participating Employers Current Year and Nine Years Ago

### 2021

Participating Entity	<b>Covered Employees</b>	Rank	Percentage of Total System	
State of Ma ne	14,199	1	24.92%	
Ma ne Veterans Home	1,282	2	2.25%	
Port and Schoo Department	1,213	3	2.13%	
Lew ston Schoo Department	930	4	1.63%	
Port and, C ty of	925	5	1.62%	
Bangor Schoo Department	538	6	0.94%	
Reg ona Schoo Un t No 6	534	7	0.94%	
South Port and Schoo Department	526	8	0.92%	
Auburn Schoo Department	520	9	0.91%	
Scarborough Schoo Department	509	10	0.89%	
A Others*	35,799		62.85%	
Tota (549 Part c pat ng Ent t es)	56,975		100.00%	

\* "A Others" nc udes emp oyees covered under two or more emp oyer types n 2021, "A Others" cons sted of:

	Employers	Members
Part c pat ng Loca D str cts	309	11,380
Schoo D str cts	224	24,419
Tota	533	35,799

### 2012

Participating Entity	<b>Covered Employees</b>	Rank	Percentage of Total System	
State of Ma ne	14,793	1	25.82%	
Ma ne Veterans Home	1,470	2	2.57%	
Port and Schoo Department	1,162	3	2.03%	
Port and, C ty of	851	4	1.49%	
Lew ston Schoo Department	758	5	1.32%	
Bangor Schoo Department	631	6	1.10%	
Reg ona Schoo Un t No 6	580	7	1.01%	
Auburn Schoo Department	557	8	0.97%	
Reg ona Schoo Un t No 14	525	9	0.92%	
South Port and Schoo Department	519	10	0.91%	
A Others	35,436		61.86%	
Tota (547 Part c pat ng Ent t es)	57,282		100.00%	

Note: Covered emp oyees of these emp oyers are e g b e to part c pate n the Defined Benefit P ans adm n stered by Ma nePERS, wh ch prov de norma and d sab ty ret rement benefits and certa n surv vor benefits, as we as benefits under the Group L fe nsurance P an

Data for this schedule is derived from the System's pension administration records

#### **State Entities**

State of Maine Maine Community College System Maine Dairy & Nutrition Council Maine Developmental Disabilities Council Maine Potato Board MECDHH/Governor Baxter School for the Deaf Northern New England Passenger Rail Authority

#### Teachers

Acton School Department Andover School Department AOS No. 43 Central Office AOS No. 43 Howland AOS No. 43 Milo AOS No. 47 Central Office AOS No. 47 Dedham AOS No. 47 Orrington AOS No. 77 Alexander AOS No. 77 Central Office AOS No. 77 Charlotte AOS No. 77 Eastport AOS No. 77 Lubec AOS No. 77 Pembroke AOS No. 77 Perry AOS No. 90 Baileyville AOS No. 90 Central Office AOS No. 90 East Range AOS No. 90 Lee AOS No. 90 Princeton AOS No. 91 Bar Harbor AOS No. 91 Central Office AOS No. 91 Cranberry Isle AOS No. 91 Frenchboro AOS No. 91 MDI High School AOS No. 91 Mt Desert AOS No. 91 Southwest Harbor AOS No. 91 Swans Island AOS No. 91 Tremont AOS No. 91 Trenton AOS No. 92 Vassalboro AOS No. 92 Waterville AOS No. 92 Winslow AOS No. 93 Bristol AOS No. 93 Central Office AOS No. 93 Great Salt Bay AOS No. 93 Jefferson AOS No. 93 Nobleboro AOS No. 93 South Bristol AOS No. 94 Central Office AOS No. 94 Harmony AOS No. 94 MSAD 46 AOS No. 96 Central Office AOS No. 96 Cutler AOS No. 96 East Machias AOS No. 96 Jonesboro AOS No. 96 Machias AOS No. 96 Machiasport AOS No. 96 Wesley

AOS No. 96 Whiting AOS No. 98 Boothbay Harbor AOS No. 98 Central Office AOS No. 98 Edgecomb AOS No. 98 Georgetown AOS No. 98 Southport Athens School Department Auburn School Department Augusta School Department **Bangor School Department Biddeford School Department Brewer School Department** Brunswick School Department Calais School Department Cape Elizabeth School Department Caswell School Department **Chebeague Island School Department** Cherryfield School Department Community School District No. 8 Airline Community School District No. 13 Deer Isle-Stonington Community School District No. 17 Moosabec Community School District No. 18 Wells-Ogunquit Community School District No. 19 Five Town **Dayton School Department** East Millinocket School Department Easton School Department Ellsworth School Department **Erskine Academy Eustis School Department** Falmouth School Department **Fayette School Department** Foxcroft Academy Fryeburg Academy George Stevens Academy **Glenburn School Department Gorham School Department Greenbush School Department** Hancock School Department Hermon School Department Indian Island School Indian Township School Isle Au Haut School Department Islesboro School Department Kittery School Department Lamoine School Department Lee Academy Lewiston School Department Limestone Public Schools Lincoln Academy Lincolnville School Department Lisbon School Department Long Island School Department Madawaska School Department Maine Central Institute Maine Education Association Maine Indian Education Maine Ocean School Maine School Administrative District No. 4 Guilford Maine School Administrative District No. 7 North Haven

Maine School Administrative District No. 8 Vinalhaven Maine School Administrative District No. 12 Jackman Maine School Administrative District No. 13 Bingham Maine School Administrative District No. 20 Fort Fairfield Maine School Administrative District No. 23 Carmel Maine School Administrative District No. 24 Van Buren Maine School Administrative District No. 27 Fort Kent Maine School Administrative District No. 28 Camden Maine School Administrative District No. 32 Ashland Maine School Administrative District No. 33 St. Agatha Maine School Administrative District No. 42 Mars Hill Maine School Administrative District No. 45 Washburn Maine School Administrative District No. 53 Pittsfield Maine School Administrative District No. 58 Kingfield Maine School Administrative District No. 59 Madison Maine School of Science and Mathematics Medway School Department Milford School Department Millinocket School Department Monhegan Plantation School Department Northport School Department Otis School Department Oxford Hills Technical School No. 11 Pleasant Point School Portland School Department Region 10 Cumberland-Sagadahoc County Region 2 Southern Aroostook County **Region 3 Northern Penobscot County Region 4 United Technologies Center** Region 7 Waldo County Technical Center Region 8 Midcoast School of Technology Region 9 School of Applied Technology Regional School Unit No. 1 Regional School Unit No. 2 **Regional School Unit No. 4** Regional School Unit No. 5 Regional School Unit No. 10 Regional School Unit No. 12 Regional School Unit No. 13 Regional School Unit No. 14 Regional School Unit No. 16 Regional School Unit No. 18 Regional School Unit No. 19 Regional School Unit No. 20 Regional School Unit No. 21 Regional School Unit No. 22 Regional School Unit No. 23 Regional School Unit No. 24 Regional School Unit No. 25 Regional School Unit No. 26 Regional School Unit No. 34 Regional School Unit No. 38 Regional School Unit No. 39 Regional School Unit No. 50 Regional School Unit No. 56 Regional School Unit No. 71 Regional School Unit No. 73 Regional School Unit No. 78 Regional School Unit No. 89

RSU No. 3 - MSAD No. 3 Unity RSU No. 6 - MSAD No. 6 Bar Mills RSU No. 9 - MSAD No. 9 Farmington RSU No. 11 - MSAD No. 11 Gardiner RSU No. 15 - MSAD No. 15 Gray RSU No. 17 - MSAD No. 17 South Paris RSU No. 29 - MSAD No. 29 Houlton RSU No. 35 - MSAD No. 35 Eliot RSU No. 37 - MSAD No. 37 Harrington RSU No. 40 - MSAD No. 40 Waldoboro RSU No. 44 - MSAD No. 44 Bethel RSU No. 49 - MSAD No. 49 Fairfield RSU No. 51 - MSAD No. 51 Cumberland Center RSU No. 52 - MSAD No. 52 Turner RSU No. 54 - MSAD No. 54 Skowhegan RSU No. 55 - MSAD No. 55 Cornish RSU No. 57 - MSAD No. 57 Waterboro RSU No. 60 - MSAD No. 60 North Berwick RSU No. 61 - MSAD No. 61 Bridgton RSU No. 63 - MSAD No. 63 RSU No. 64 - MSAD No. 64 East Corinth RSU No. 67 - MSAD No. 67 Lincoln RSU No. 68 - MSAD No. 68 Dover-Foxcroft RSU No. 70 - MSAD No. 70 RSU No. 72 - MSAD No. 72 Fryeburg RSU No. 74 - MSAD No. 74 North Anson RSU No. 75 - MSAD No. 75 Topsham RSU No. 79 - MSAD No. 1 Presque Isle RSU No. 84 - MSAD No. 14 Saco School Department Sanford School Department Scarborough School Department School Agent Carrabassett School Agent Coplin Plantation School Agent Pleasant Ridge Plantation Sebago Public Schools South Portland School Department St. George School Department State of Maine Thornton Academy Union 60 Greenville Union 69 Appleton Union 69 Hope Union 76 Brooklin Union 76 Sedgwick Union 93 Blue Hill Union 93 Brooksville Union 93 Castine Union 93 Penobscot Union 93 Surry School Department Union 103 Beals Union 103 Jonesport Union 122 New Sweden Union 122 Westmanland Union 122 Woodland Vanceboro School Department Veazie School Department Washington Academy West Bath School Department

Westbrook School Department Winthrop School Department Wiscasset School Department Yarmouth School Department York School Department

#### **PLD Consolidated**

Acton, Town of Alfred, Town of Androscoggin County Androscoggin Valley Council of Governments Anson-Madison Sanitary District Aroostook County Aroostook Waste Solutions (Tri Community Landfill) Auburn Housing Authority Auburn Lewiston Airport Auburn Public Library Auburn Water and Sewer District Auburn, City of Augusta Housing Authority Augusta, City of Baileyville, Town of **Bangor Housing Authority Bangor Public Library** Bangor Water District Bangor, City of Bar Harbor, Town of **Bath Water District** Bath, City of Baxter Academy of Technology and Science Belfast Water District Belfast, City of **Berwick Sewer District** Berwick, Town of Bethel, Town of **Biddeford Housing Authority** Biddeford, City of **Boothbay Harbor Sewer District** Boothbay Harbor, Town of **Boothbay Region Water District** Bowdoinham Water District **Brewer Housing Authority** Brewer, City of Bridaton, Town of Brownville, Town of **Brunswick Fire and Police Brunswick Public Library Association Brunswick Sewer District** Brunswick, Town of Buckfield, Town of Bucksport, Town of Buxton, Town of Calais, City of Camden, Town of **Cape Elizabeth Police** Caribou Fire and Police Carrabassett Valley, Town of Chesterville, Town of China, Town of

**Coastal Counties Workforce Community Regional Charter School** Community School District No. 12 Easte Range-Support Community School District No. 18 Wells-Ogunquit-Support Cumberland County Cumberland, Town of Damariscotta, Town of Danforth, Town of Davton, Town of Dexter, Town of Dover-Foxcroft Water District Dover-Foxcroft, Town of Durham, Town of Eagle Lake Water & Sewer District East Millinocket, Town of Easton, Town of Eastport, City of Ecology Learning Center Eddington, Town of Eliot, Town of Ellsworth, City of Enfield, Town of **Erskine Academy** Fairfield, Town of Falmouth Memorial Library Falmouth, Town of Farmington Village Corporation Farmington, Town of Fort Fairfield Housing Authority Fort Fairfield Utilities District Fort Fairfield, Town of Fort Kent, Town of Franklin County Freeport, Town of Frenchville, Town of Fryeburg, Town of Gardiner Water District Gardiner, City of Glenburn, Town of Good Will Home Association Gorham Fire and Police Gorham. Town of Gould Academy Grand Isle, Town of Greater Augusta Utility District Greenville, Town of Hallowell, City of Hampden Water District Hampden, Town of Hancock County Harpswell, Town of Harrison, Town of Hartland, Town of Hermon, Town of Hodgdon, Town of Holden, Town of Houlton Water Company Houlton, Town of Jackman Utility District

Jay, Town of **Kennebec County** Kennebec Sanitary Treatment District Kennebec Water District Kennebunk Kennebunkport Wells Water District Kennebunk Light and Power District Kennebunk Sewer District Kennebunk, Town of Kennebunkport, Town of Kittery Water District Kittery, Town of Knox County Sheriff s Office Lebanon, Town of Levant, Town of Lewiston Auburn 911 Lewiston Housing Authority Lewiston-Auburn Water Pollution Control Authority Lewiston, City of Limestone, Town of Lincoln Academy Lincoln and Sagadahoc Multi-County Jail Authority Lincoln County Lincoln County Sheriff s Office Lincoln Sanitary District Lincoln Water District Lincoln, Town of Linneus, Town of Lisbon Water Department Lisbon, Town of Livermore Falls Water District Livermore Falls, Town of Lovell. Town of Lubec Water District Lubec, Town of Lyman, Town of M.A.D.S.E.C. Madawaska Water District Madawaska, Town of Maine Academy of Natural Sciences Maine County Commissioners Association Maine Housing Authority Maine Maritime Academy Maine Municipal Association Maine Municipal Bond Bank Maine Principals Association Maine Public Employees Retirement System Maine School Administrative District No. 13 Bingham Maine School Administrative District No. 31 Howland Maine School Administrative District No. 41 Milo Maine School Administrative District No. 53 Pittsfield Maine School Management Association Maine School of Science and Mathematics Maine Turnpike Authority Maine Veterans Homes Maine Virtual Academy Mapleton, Castle Hill, and Chapman, Towns of Mars Hill Utility District Mars Hill, Town of Mechanic Falls Sanitary District

Mechanic Falls, Town of Medway, Town of Midcoast Council of Governments Milford, Town of Millinocket, Town of Milo Water District Monmouth, Town of Monson, Town of Mount Desert Island Regional School District Mount Desert Water District Mount Desert, Town of New Gloucester, Town of Newport Water District Newport, Town of North Berwick Water District North Berwick, Town of Northern Oxford Regional Solid Waste Board Norway Water District Norway, Town of Ogunguit, Town of Old Orchard Beach, Town of Old Town Housing Authority Old Town Water District Old Town, City of Orland, Town of Orono, Town of Orrington, Town of Otis, Town of Otisfield, Town of Oxford County Oxford, Town of Paris Utility District Paris, Town of Penobscot County Penquis Phippsburg, Town of Piscataquis County Pittsfield, Town of Pleasant Pt. Passamaguoddy Reservation Housing Authority Poland, Town of Portland Housing Authority Portland Public Library Portland, City of Presque Isle, City of Princeton, Town of Regional School Unit No. 1 **Regional School Unit No. 2** Regional School Unit No. 4 **Regional School Unit No. 5** Regional School Unit No. 9 Regional School Unit No. 10 **Regional School Unit No. 16** Regional School Unit No. 20 Regional School Unit No. 21 Regional School Unit No. 23 Regional School Unit No. 25 Regional School Unit No. 26 Regional School Unit No. 29

Regional School Unit No. 34 Regional School Unit No. 39 Regional School Unit No. 49 Regional School Unit No. 51 Regional School Unit No. 54 Regional School Unit No. 56 Regional School Unit No. 60 Regional School Unit No. 67 Regional School Unit No. 71 Regional School Unit No. 73 **Richmond Utilities District** Richmond, Town of Rockland, City of Rockport, Town of **Rumford Fire and Police Rumford Mexico Sewerage District Rumford Water District** Rumford, Town of Sabattus, Town of Saco, City of Sagadahoc County Sanford Housing Authority Sanford Sewerage District Sanford Water District Sanford, City of Scarborough, Town of Searsport Water District Searsport, Town of Skowhegan, Town of Somerset County South Berwick Sewer District South Berwick Water District South Berwick, Town of South Portland Housing Authority South Portland, City of Southwest Harbor, Town of St. Agatha, Town of Standish, Town of Thomaston, Town of Thompson Free Library **Topsham Sewer District** Topsham. Town of Trenton, Town of Union, Town of United Technologies Center, Region 4 Van Buren Housing Authority Van Buren, Town of Vassalboro, Town of Veazie Fire and Police Waldo County Waldo County Technical Center Waldoboro, Town of Washburn Water and Sewer District Washburn, Town of Washington County Waterboro, Town of Waterville Fire and Police Waterville Sewerage District Wells Fire and Police

Wells, Town of West Bath, Town of Westbrook Fire and Police Westbrook, City of Wilton, Town of Windham, Town of Winslow, Town of Winter Harbor Utility District Winterport Water District Winthrop Utilities District Winthrop, Town of Wiscasset, Town of Yarmouth Water District Yarmouth, Town of York County York Sewer District York Water District York, Town of

#### **PLD Non-Consolidated**

Bingham Water District Cape Elizabeth, Town of Community School District No. 903 Knox County Limestone Water and Sewer District Western Maine Community Action





Casco Bay Bridge, Portland