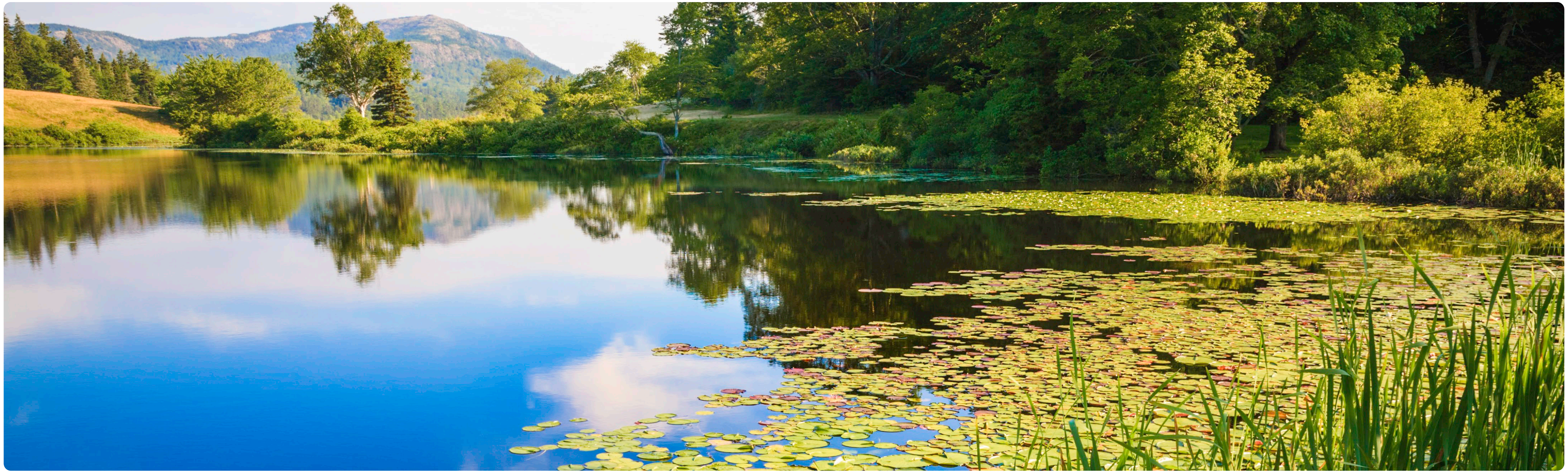
MainePERS
PUBLIC EMPLOYEES RETIREMENT SYSTEM

1-27-2021 Presentation to the Joint Standing Committee on Labor and Housing



MainePERS Mission and Services

Our mission is to serve the public with sound retirement services to Maine governments.

The State of Maine

- State Employee and Teacher Retirement Program (1942)
- The Legislative Retirement Program (1985)
- The Judicial Retirement Program (1984)
- Group Life Insurance

Maine Local Governments

- Participating Local District Consolidated Retirement Program (1993) and predecessor plans (1942)
- MaineSTART Defined Contribution Plans
  - 457(b), 403(b), 401(a)
- Group Life Insurance

Primary Responsibilities for State of Maine Plans

Legislature

(Plan Sponsor)

- Establish the plans and plan administration by law
- Determine new or changes to existing benefits through law in accordance with the State Constitution
  - No new unfunded liabilities except experience losses; for example, no increasing the level of benefits for existing employees unless fully funded up front
- Fund the plans in accordance with the State Constitution based on actuarially calculated costs

MainePERS

Fiduciary Trustee/Administrator

- Calculate and collect employer/employee contributions and place into the MainePERS trust
- Administer the trust under fiduciary duty standards, the Maine Constitution, and State Law
  - Calculate plan liabilities based on sound actuarial principles
  - Manage trust assets
  - Pay benefits
- Support the Legislature in understanding the effect of bills under consideration on the plans

Primary Guidance

Legislature for State Plans

- Maine Constitution, Art. IX, §§ 18, 18-A, 18-B
  - Retirement funds held in trust for the exclusive purpose of providing retirement benefits
  - Costs funded annually and calculated on an actuarially sound basis
  - No new unfunded liabilities except experience losses
  - Unfunded liabilities retired over a period not exceeding 20 years
  - 1996 unfunded actuarial liability must be retired by 2028
- Federal and Maine laws

MainePERS

- Maine Constitution and laws
- MainePERS Rules
- Federal laws where applicable
- Fiduciary standards
  - Prudence
  - Loyalty

How Do Defined Benefit Plans Work?

- State of Maine ***defined benefit plans*** provide plan members with a fixed retirement benefit throughout retirement based on
  - Average of their highest 3 years salary
  - The number of years worked under the plan (service credit)
  - A multiplier of 2% (unless otherwise specified)

Example of most common benefit terms:

$60,000 X 2% X 20 years = $24,000 / 12 = $2,000 per month

Types of Retirement Benefits

Service Retirement

- State Employee and Teacher Plan contains several plans with different terms
  - Teachers
  - State Employees
    - Regular
    - 25 & Out Plan
    - 1998 Special Plan
    - Fire Marshals
    - 3 closed plans (State Police, Inland F&W, and Forest Rangers)

Disability Retirement

- Provided for members with permanent disability existing while in service
- Benefit is based on a percentage of average final compensation, typically 59%
- Service credit continues to accrue, with the retiree crossing over to service retirement when the two benefit amounts are equal

State/Teacher Plan Membership

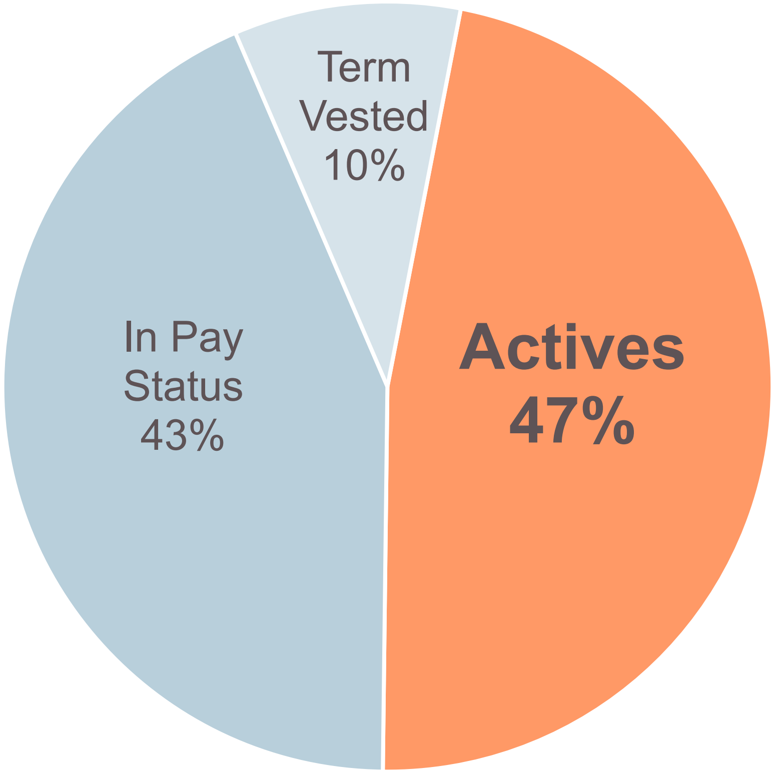
- S/T plans have different levels of membership based on the terms of the plan
- The status of members within each S/T plan varies between plans

	Teachers	State Regular	1998 Special	25 & Out	Fire Marshals	Closed Plans	Total S&T
Actives	27,565	11,132	1,213	469	13	3	40,395
Retirees	17,804	9,924	434	122	-	447	28,731
Beneficiaries /Survivors	3,244	3,197	114	24	-	252	6,831
Disability	683	827	69	6	-	4	1,589
Term Vested	5,162	2,658	291	46	-	-	8,157
Inactive Due Refunds	29,609	7,037	939	67	-	1	37,653
Total	**84,067**	**34,775**	**3,060**	**734**	**13**	**707**	**123,356**

State Employee & Teacher Plan Key Points

- Overall, the plan is “aging”
  - This means the number of retirees or total beneficiaries is increasing faster than the number of active members is growing
    - Longer life spans
  - Plan aging creates the need to carefully plan for market disruptions because losses become larger in relation to the number of active members over which to spread the costs
- Terminated vested members can draw a benefit at normal retirement age

.9 Members in Pay for Each Active Member

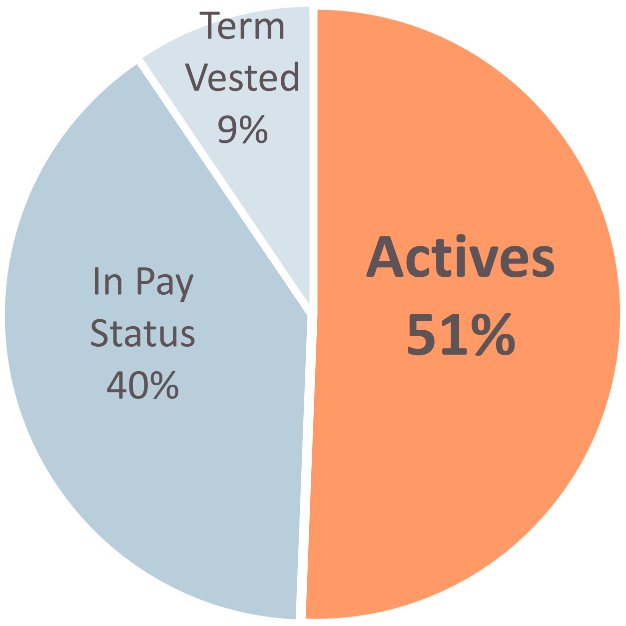


S/T Plan – Teachers

- Can retire with 25 years of service or at NRA
- 7.65% employee contribution
- 2% accrual rate
- School districts pay annual or “normal” costs
- State of Maine pays unfunded liability costs

Status as of	With Years of Service	Normal Retirement Age	Early Retirement Reduction Factor	COLA Eligibility After Retiring
1-Jul-1993	> 10	60	2.125%	> 12 mos.
1-Jul-1993	< 10	62	6%	> 12 mos. + NRA
1-Jul-2011	> 5	62	6%	> 12 mos. + NRA
1-Jul-2011	< 5	65	6%	> 12 mos. + NRA

.8 Members in Pay to Each Active Member

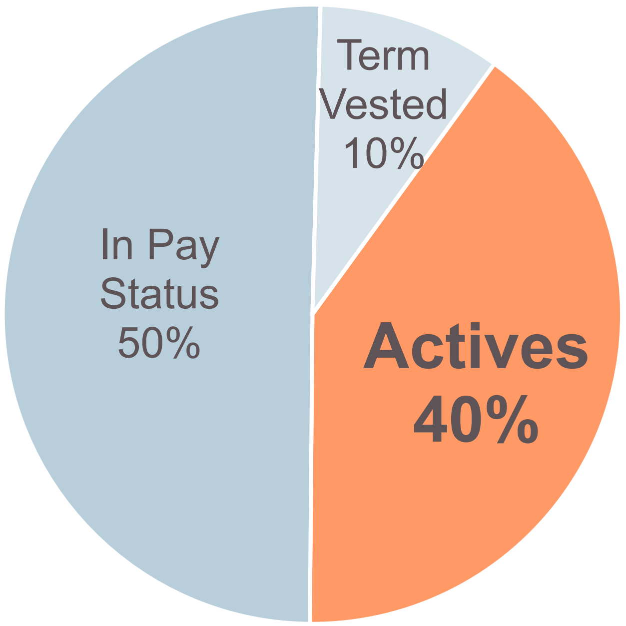


S/T Plan – State Regular Plan

- Can retire with 25 years of service or at NRA
- 7.65% employee contribution
  - 1.15% for those with employer paid contributions
- 2% accrual rate

Status as of	Years of Service	Normal Retirement Age	Early Retirement Reduction Factor	COLA Eligibility After Retiring
1-Jul-1993	> 10	60	2.125%	> 12 mos.
1-Jul-1993	< 10	62	6%	> 12 mos. + NRA
1-Jul-2011	> 5	62	6%	> 12 mos. + NRA
1-Jul-2011	< 5	65	6%	> 12 mos. + NRA

1.25 Members in Pay to Each Active Member



S/T Plan – 1998 Special Plan (1,213 Members)

- Retire with
  - 10 years in the plan at age 55 or
  - 25 years in plan-covered positions at age 55
- Employee contribution rate
  - 8.65% for first 25 years of service and 7.65% after the first 25 years of service
    or
  - 1.15% with employer paying remainder
- 2% Accrual
- Vesting
  - 10 years service in the plan
- Early retirement reduction factor
  - 2.125% or 6% depending on service at 7/1/93
- COLA at > 12 months + NRA
- Members receive a split benefit based on plan membership before and after entry date into the plan

- Liquor Inspectors (eff. 7/1/1998)
- Airplane pilots (eff. 7/1/1998)
- Forest Rangers (eff. 7/1/1998)
- Fed-funded BIA firefighters (eff. 7/1/1998)
- Baxter St. Park Rangers (1/1/2000)
- Fire Marshals (eff. 1/1/2000)
- Department of Corrections (eff. 1/1/2000)
- Capitol Police (eff. 7/1/2002)
- Oil & Hazardous Waste Emergency Response employees (eff. 1/1/2002)
- Emergency Communications Specialists (eff. 7/1/20)
- BMV Detectives (eff. 7/1/20)
- AG Detectives (eff. 7/1/20)

*with limited exceptions, service prior to effective dates is in the regular plan

S/T Plan - 25 Year No-Age Special Plan (469 Members)

- Retire with
  - 25 years of service regardless of age
- Employee contribution rate
  - 8.65% for first 25 years of service and 7.65% after the first 25 years of service

    or
  - 1.15% with employer paying remainder
- 2% Accrual rate
- Vesting
  - Same as S/T Plan - Regular
- No early retirement
- COLA at > 12 months + NRA

- Inland Fisheries and Wildlife Officers hired after 8/31/84
- Marine Resources Officers hired after 8/31/84
- State Police hired after 9/15/84

S/T Plan – State Fire Marshals (13 Members)

- Retire with
  - 20 years of service regardless of age
- Employee contribution rate
  - 8.65% for first 25 years of service and 7.65% after the first 25 years of service

    or
  - 1.15% with employer paying remainder
- 2.5% Accrual rate for first 25 years of service and 2% accrual rate for additional years
- Vesting
  - Same as S/T Plan - Regular
- No early retirement
- COLA at > 12 months + NRA

- State Fire Marshal Investigator 7/1/2020
- State Fire Marshal Senior Investigator 7/1/2020
- State Fire Marshal Sergeant 7/1/2020

How Pension Costs Are Calculated

Normal Costs

- Costs that cover retirement benefits earned in the current period or year
- If nothing ever changes, normal costs will cover the full cost of each member's retirement throughout their life
- Events that can change normal costs
  - Life span increases/decreases
  - Unusual inflation/deflation etc.
  - Changes in employment trends

Unfunded Actuarial Liability Costs

- Commonly referred to as UAL costs
- UAL costs cover losses needed to restore 100% funding
- Common causes of funding losses creating a UAL are:
  - Investment losses
  - Life span increases
  - Normal and/or UAL scheduled payments are not made
  - Benefit increases that are not funded

What Increases / Decreases Plan Costs?

- Plan costs *increase* whenever the amount owed to members, or the liabilities, increase. For example
  - Increasing the COLA base
  - Providing subsidized early retirement
  - Providing subsidized service credit purchases
  - Adding groups to special plans or increasing the benefits
  - Inflation is higher than expected
  - Members live longer
  - Low turnover and salary growth

- Plan costs *decrease* whenever the amount owed to members, or liabilities, decrease. For example
  - Member lifespans decrease
  - Inflation is lower than expected
  - High turnover with new employees starting at lower salaries
  - Removing subsidized costs

Proposed Legislation and Plan Costs

Article IX, Section 18-A of the Maine Constitution

"Unfunded liabilities may not be created except those resulting from experience losses."

- Most often, but not always, proposed legislation results in increased liabilities, or amounts owed to members
- These are voluntary increases (i.e. they are not "experience losses" such as inflation, mortality, investment loss, etc.)
  - These do not create an unfunded liability if they are prospective only and do not apply to past service credit – they increase normal cost only
  - These do create an unfunded liability if they apply to past service credit (increasing the COLA for example)

How Plan Funding is Calculated

- Funding goal is 100% or higher, i.e. there are enough or more assets to pay for all pension liabilities owed
- Plan funding = Trust Fund Assets / Liabilities or Benefits Owed
- Assets
  - Trust fund assets are adjusted for 3 year smoothing of gains and losses
- Liabilities
  - Total of all future liabilities “discounted” back to the present value
    - Assumption for longevity, future inflation, employee turnover and others affect total liabilities
    - Discount rate is MainePERS assumed earnings rate on trust assets (currently 6.75%)

What Increases / Decreases Plan Funding?

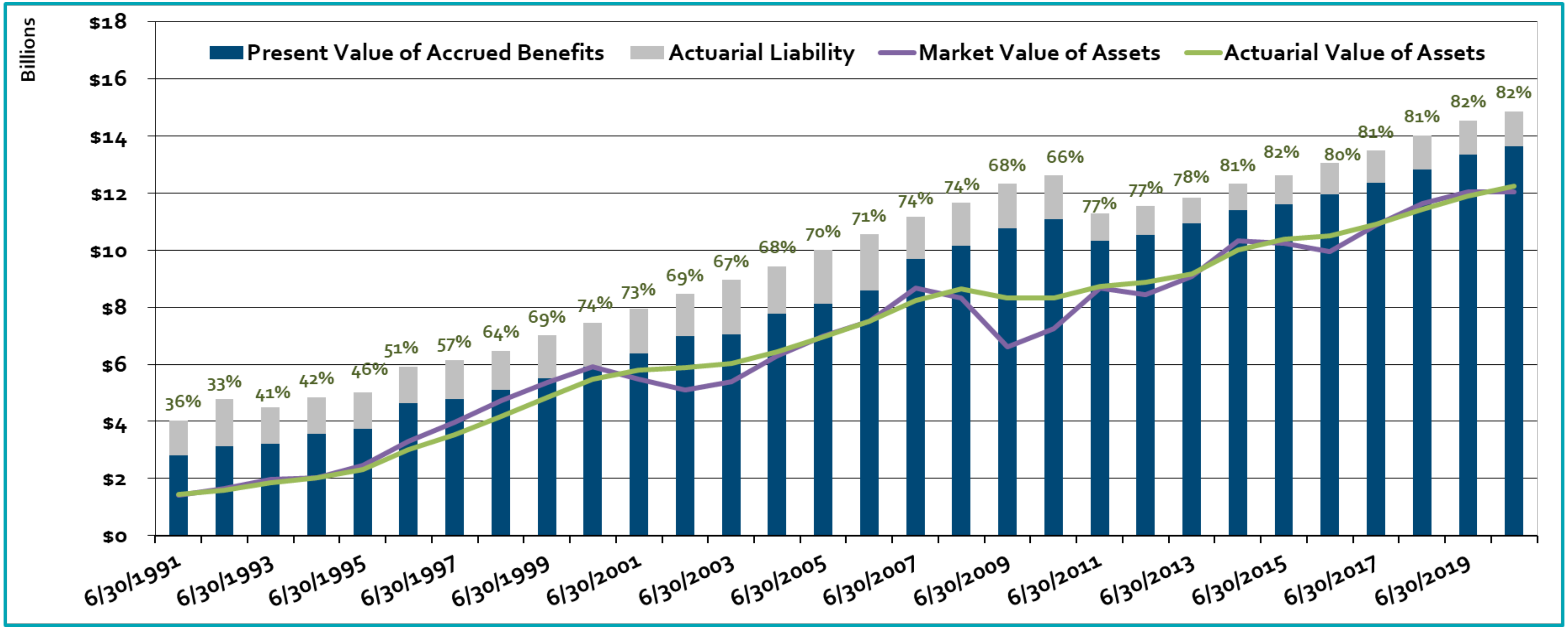
- Increases occur when assets go up more than liabilities
- This can happen because
  - Investment returns are higher than the discount rate for liabilities – currently 6.75%
  - Liabilities decrease due to
    - High turnover
    - Low CPI and COLA
    - Low wage inflation
    - Shorter life spans

- Decreases occur when liabilities go up more than assets
- This can happen because
  - Investment returns are lower than the discount rate for liabilities – currently 6.75%
  - Liabilities increase due to
    - Low turnover
    - High wage inflation
    - High wage increases
    - Longer life spans

Plan Funding

- The variable factors that affect plan funding frequently balance each other out
  - This is because MainePERS and the Board of Trustees work with the actuary to adopt reasonable assumptions for calculating liabilities
- Sometimes a single factor, such as the extraordinary losses in the 2009 recession, will have a substantial impact on funding
  - The largest influences on maintaining stable funding are:
    - The Constitutional guards on unfunded liabilities and paying the full costs each year
    - Gradually lowering the discount rate on liabilities and the investment risk on assets
  - Protecting plan funding becomes increasingly important as the plan “ages”

State/Teacher Funding History



State of Maine Plan Funding

- The State of Maine's commitment to full funding of the State/Teacher plan is a remarkable success story
- <20% funded in the 1980s
- State/Teacher Plan funding today is funded in the top 25% of state-wide public plans
- The Judicial Plan remains well funded because full contributions have been made throughout the life of the Plan.
- The Legislative Plan is well funded because of consistent contributions and term limits.

Valuation at 6-30-2020	State/Teacher	Legislative	Judicial
Membership			
Active members	40,395	179	58
Active member payroll	$2.061 B	$2.814 M	$7.804 M
Average salary	$51,011	$15,721	$134.547
Retirees/Others in Pay Status	37,151	206	83
Total Annual Retiree Benefits	$ .86 B	$462 thou	$4.602 M
Average Retiree Benefit	$23,143	$2,241	$55,450
Assets and Liabilities			
Actuarial Liability	$14.865 B	$9.729 M	$72.197 M
Actuarial Value of Assets	$12.250 B	$13.679 M	$74.766 M
Unfunded Accrued Liability (UAL)	$2.615 B	($3.950) M	($2.569) M
Actuarial Funding Ratio	**82.4%**	**140.6%**	**103.6%**
Employer Contributions			
Normal Cost Rate	3.88%	2.83%	12.17%
UAL Rate	16.27%	(17.12)%	(4.02)%
Member Contributions (with exceptions)	7.65%	7.65%	7.65%

2022-2023 Pension Costs

- MainePERS calculates costs based on known values at July 1st to enable state budget process to start
- Costs are normally calculated using a 3-year smoothing of gains and losses
- Trustees approved a one-time only 10-year smoothing schedule for FY2020 returns based on the approach approved for private sector plans after the 2009 losses

FY 20-21 Billed Costs	$796M
2018 Projected Costs for FY 22-23	$840M
FY 22-23 Calculated Costs	$879M
FY 22-23 Billed Costs with 10-yr amort	$861M

2021 MainePERS Focus

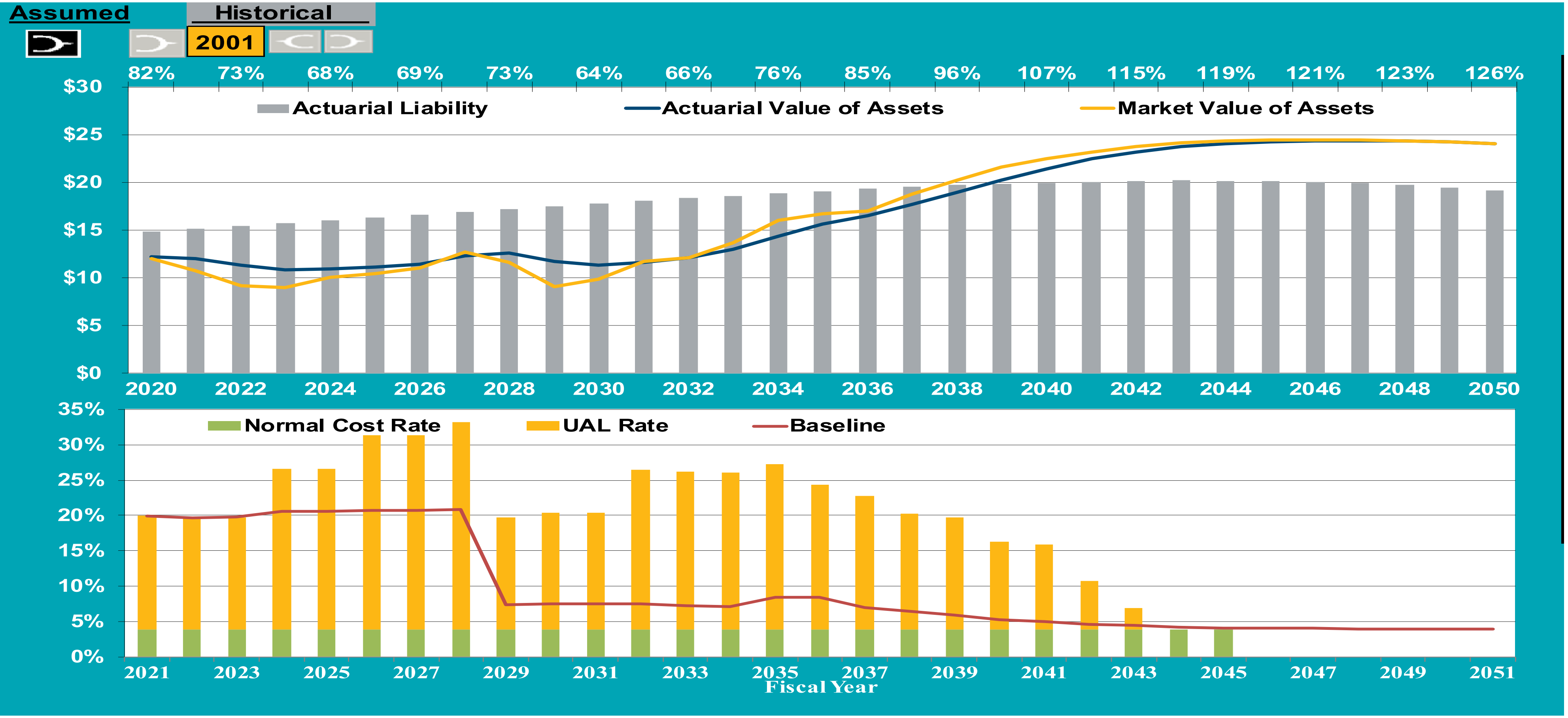
- Maintaining long-term plan funding
- Disability Program / Long-term disability insurance
- Data clean-up
- Continue responsible investing
- Monitoring for plan impacts from COVID-19

2028 Does Not End Pension Funding Concerns

- Future downward market jolts are bound to happen and will create new UAL costs that are constitutionally required to be repaid over 20 years
- As Treasury rates have dropped, MainePERS has been and will continue to periodically lower the earnings assumption, which increases the normal cost but stabilizes total pension costs and funding
- Total costs are most likely to remain where they are today without the precipitous drop many are anticipating

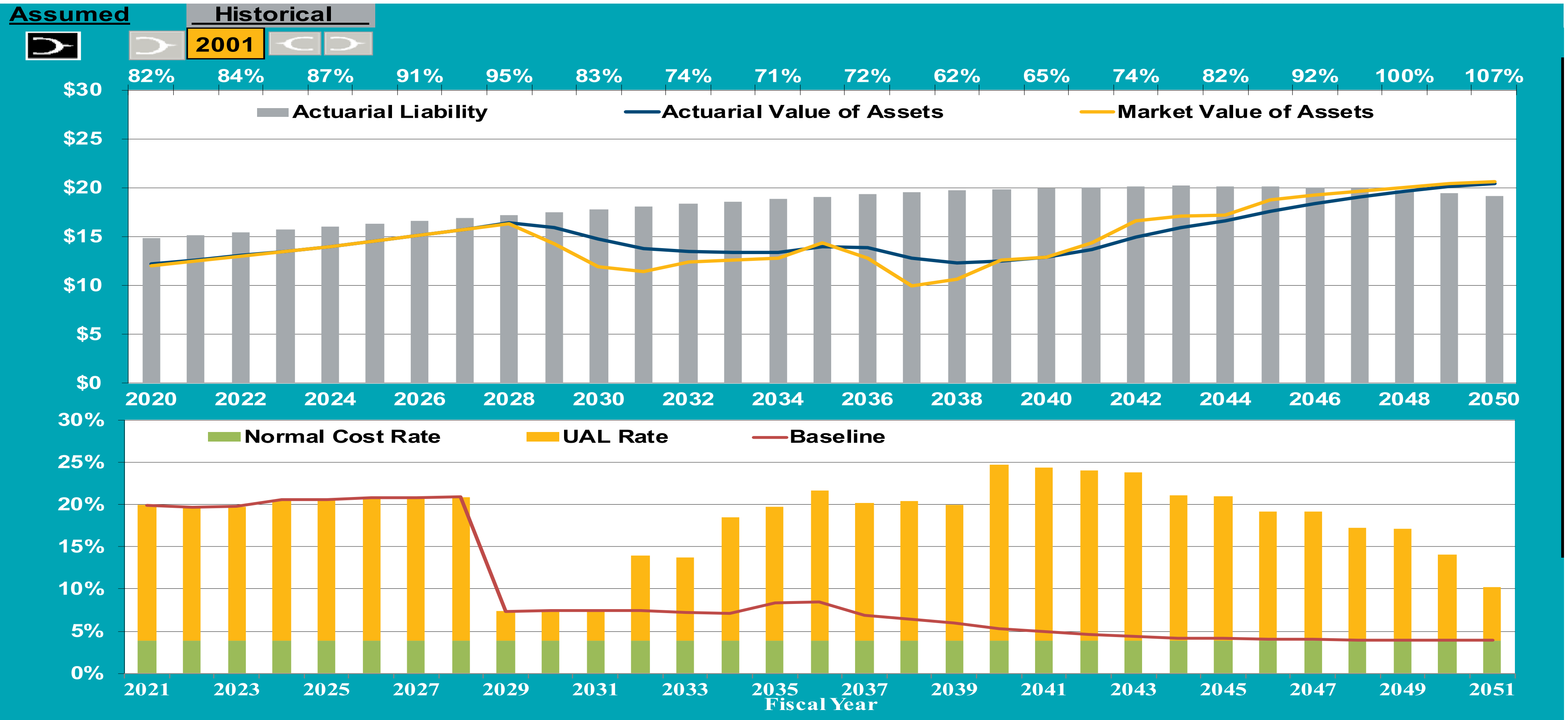
What if Same Market Cycle Beginning in 2001 Repeats Starting Next Year?

FYE	
2021	-8.316%
2022	-11.332%
2023	2.791%
2024	14.415%
2025	6.443%
2026	6.271%
2027	16.972%
2028	-8.059%
2029	-18.149%
2030	13.197%
2031	24.037%
2032	5.955%
2033	15.276%
2034	19.550%
2035	6.032%
2036	4.495%
2037	13.343%
2038	10.681%
2039	9.780%
2040	7.814%
2041	6.750%
2042	6.750%
2043	6.750%
2044	6.750%
2045	6.750%
ave=	6.598%



What if Same Market Cycle Beginning in 2001 Repeats Starting in 2029?

FYE	
2021	6.750%
2022	6.750%
2023	6.750%
2024	6.750%
2025	6.750%
2026	6.750%
2027	6.750%
2028	6.750%
2029	-8.316%
2030	-11.332%
2031	2.791%
2032	14.415%
2033	6.443%
2034	6.271%
2035	16.972%
2036	-8.059%
2037	-18.149%
2038	13.197%
2039	24.037%
2040	5.955%
2041	15.276%
2042	19.550%
2043	6.032%
2044	4.495%
2045	13.343%
ave=	6.277%



Disability Program / LTDI

- Disability Retirement Program
  - Available to members who are permanently disabled
  - Stressful for members with long-term but not permanent disabilities
  - 2020 change – moving to the Disability Evaluation Services program at UMass Medical School as the medical board
- Long-Term Disability Insurance
  - LTDI can provide income protection to those who are unable to work but don’t qualify for Disability Retirement
  - Work on a MainePERS LTDI program has been ongoing
    - Needs coordination with the State and stakeholders on terms of the policy

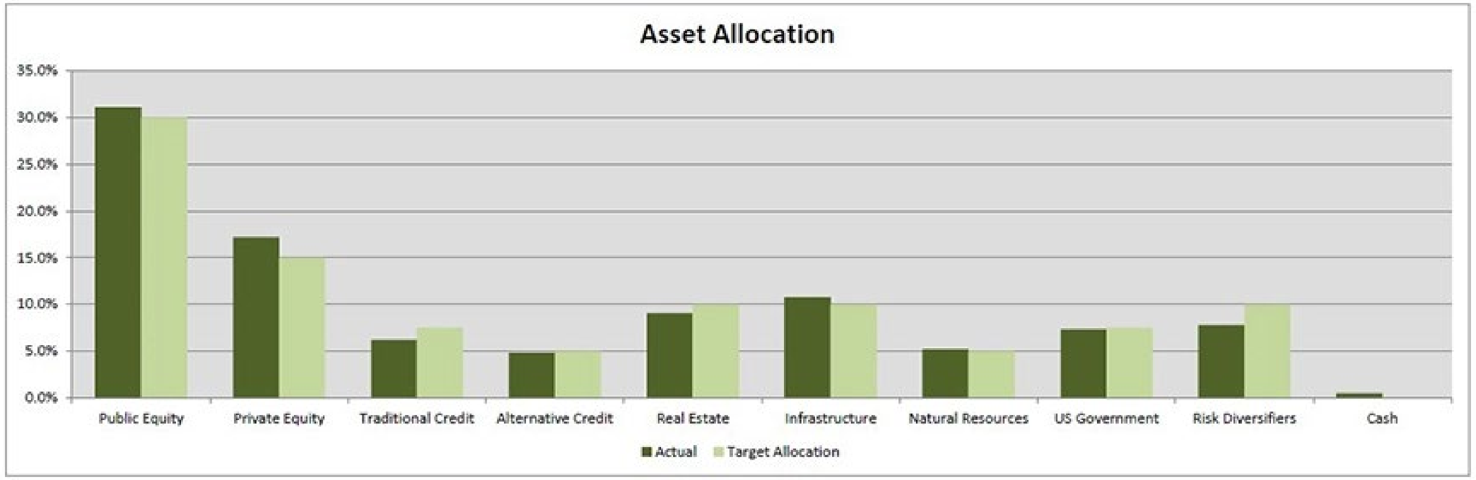
Data Clean-up

- MainePERS and its retirement plans are 79 years old
- There have been multiple iterations of managing the data from paper to electronic to new programs and upgrades
  - One thing that has never happened is a scrubbing of the data and how it moved from one system to another
  - Data gets scrubbed one person at a time as they retire
- We are starting this massive project one step at a time, simultaneously implementing new processes to keep the data clean in the future
  - Large multi-year project

MainePERS Trust Fund Portfolio

- The $16.7B pension trust fund is in a balanced portfolio
- MainePERS sets the asset allocation based on generating returns while limiting risks
- Our current expected return assumption is 6.75%, lower than most public pensions which helps maintain good plan funding
- 2020 FY returns: 1.8%
- 2021 FYTD returns: 15.3%

09/30/20	Public Equity	Private Equity	Traditional Credit	Alternative Credit	Real Estate	Infrastructure	Natural Resources	US Government	Risk Diversifiers	Cash	Total
Actual	31.1%	17.2%	6.2%	4.8%	9.1%	10.8%	5.2%	7.3%	7.8%	0.5%	100.0%
Target Allocation	30.0%	15.0%	7.5%	5.0%	10.0%	10.0%	5.0%	7.5%	10.0%	0.0%	100.0%



Note: The Target Allocations were approved in June 2017.

Calendar Year Returns As of December 2020

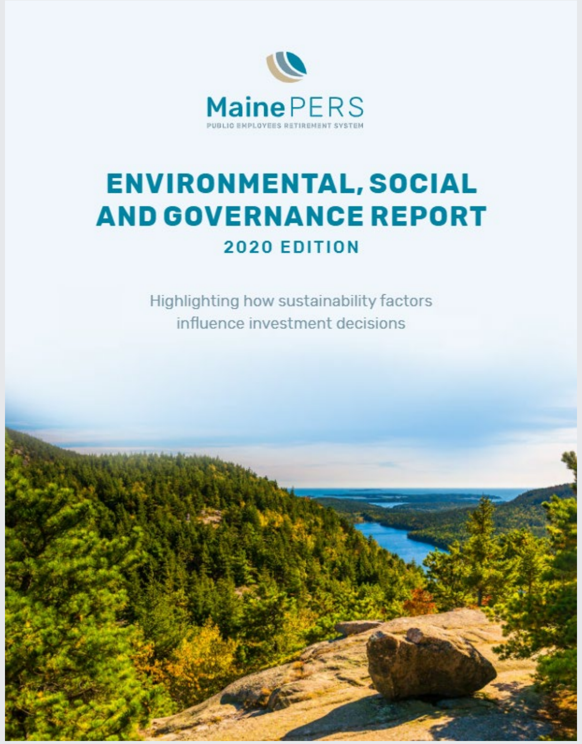
Name	Market Value	1 Year	2 Year	3 Year	5 Year	10 Year	15 Year	20 Year	25 Year	30 Year
Total Fund Composite	**16,540,086,228**	10.60	11.87	8.45	9.70	8.08	6.59	6.30	7.30	8.34
MainePERS Policy Index		11.00	13.10	8.20	9.26	7.70	6.44	6.11	7.23	8.14

Responsible Investors

- Public assets are passively invested or “indexed”
  - Efficient way of optimizing market returns and minimizing fees and administrative costs
- Private investment fund decisions are made based on a holistic analysis
  - Each potential investment is evaluated against a lengthy checklist to gain confidence that the fund will perform as expected over time
  - This includes Environmental, Social and Governance (ESG) considerations
- Pensions are fiduciaries and required to follow the exclusive benefit rule, i.e. invest for the exclusive benefit of member retirements
  - Maine requires this of MainePERS in the Constitution
- We receive periodic requests to invest, divest, or modify an investment in response to a concern
  - These requests have increased during the pandemic

ESG Report

- We incorporate ESG considerations into all of our private fund decisions because it is sound investing practice
- While MainePERS cannot invest for any other purpose than member retirements, we do use our $16.7B "voice" to encourage public companies to take actions to increase their long-term value, such as being responsible to the environment, employees, etc.



COVID-19 Impacts

- Internal
  - Limited on-site work to staff to who need to be in building on March 19th
  - Moved gradually back to full output capacity as we acquired the equipment for 75% of staff to work remotely by May 31st
  - No interruption to retiree benefit payments
- Members and Retirees
  - Retirements and terminations are slightly below prior years