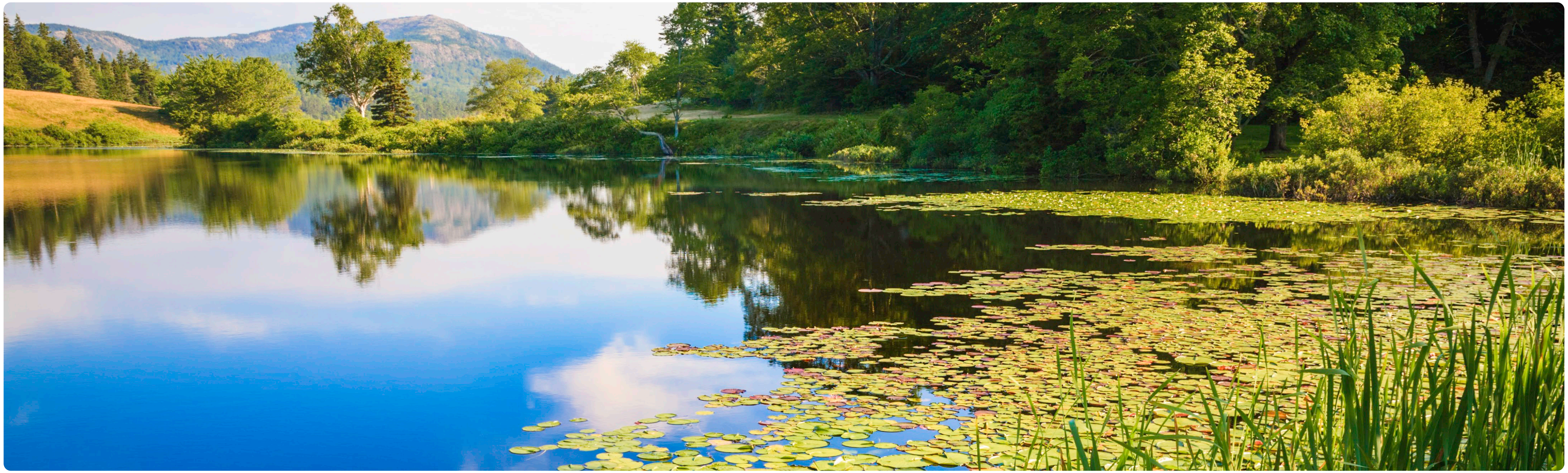
MainePERS 6-30-2020 Information for Committee on Appropriations and Financial Affairs



Maine State Defined Benefit Plans

3 State of Maine Sponsored Plans*

- State Employee and Teacher Retirement Program
- Judicial Retirement Program
- Legislative Retirement Program

*There are 2 small additional plans which are funded on a pay-as-you-go basis.

- These plans have varying histories and funding levels
- The MainePERS actuary values each plan's assets and liabilities annually
- Every two years the valuation of each plan is used to determine the funding level and the next biennium's required contributions

How are State of Maine Plans Valued?

Each year, MainePERS works with the actuary to value each plan as of June 30th

- This is called a "valuation", and takes 4+ months
  - Recalculates liabilities incorporating the recently completed fiscal year behaviors such as age, longevity, expected retirement age, expected turnover, etc.
  - Uses the assumed earnings rate (currently 6.75%) on assets to discount liabilities to current value at June 30th
  - Calculates the actuarial value of investments using actual investment returns using:
    - 3 year smoothing of gains/losses
    - 20 year amortization of most recent smoothed gain/loss
  - Re-calculates funding level, or assets / liabilities

State of Maine Defined Benefit Plan Preliminary Funding as of 6/30/2020

The State/Teacher Plan, which was funded at less than 20% in the 1980's, has a unique history in reaching a solid funding level of 83%

June 30, 2020 State of Maine Plan Funding (Preliminary Pending Valuation Completion)			
	State/Teacher Plan	**Judicial Plan**	**Legislative Plan**
Actuarial Value of Assets	**$12.3 B**	**$75.1 M**	**$13.7 M**
Actuarial Liabilities	**$14.8 B**	**$71 M**	**$9 M**
Funding Ratio 6-30-2020	**83.0%**	**105.5%**	**147.9%**
Funding Ratio 6-30-2019	**81.8%**	**105.0%**	**144.4%**

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What Helped Fix the S/T Plan?

A strong commitment to full funding was made in 1995 using a constitutional amendment

1. Full actuarially calculated contributions must be made every year
2. No new unfunded liabilities may be created except for experience losses
   a) The full 25 year cost of any new benefit must be fully funded in the year awarded
3. Unfunded liabilities resulting from experience losses must be retired in 10 (20 years as of 2017) years or less
4. The 1996 legacy liability must be retired by 2028

How Did the 2009 Recession Affect Costs?

Following the 2009 Recession, SOM made changes to their plans to lower their costs

- S/T Plan costs were $622M for the FY 2010-11 biennium
- Recessionary losses of 21% of MainePERS trust caused FY 2012-13 total costs to increase to $916M
- Governor and Legislature reduced the COLA, increased retirement age, and changed healthcare eligibility
- FY 2012-13 total costs ended at $510M

What Has MainePERS Done to Help Plan Funding?

Following the 2009 Recession, MainePERS made contribution rate volatility its greatest risk

- Lowered the discount rate on liabilities (earnings assumption) from 7.75% to 6.75% over 9 years (other systems are now following with an average discount rate of 7.2% and decreasing)
- Adopted new trust fund asset allocations in 2012 and 2017 to limit the amount of investment risk while still earning 6.75%
- Introduced and helped pass a constitutional amendment to amortize gains/losses over 20 years instead of 10 in 1995 amendment

How are State of Maine Contributions and Rates of Payroll Calculated?

MainePERS calculates SOM rates every two years, one year in advance of next biennial budget

- The actuary creates contribution rates from the preliminary valuation results at June 30 every two years so that MainePERS can provide rate information to the State and school districts for budgeting
- School districts pay teacher normal costs
- The State of Maine is responsible for state employee, judges and legislator normal costs plus the Unfunded Actuarial Liability (UAL) costs
  - Only part of these costs come from the general fund
  - Some come from federal or grant-funded programs
- Total State of Maine costs for FY22-23 less teacher normal costs are $751M ($861M less $110M)

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FY22-23 Defined Benefit Plan Costs

FY 2022 Contributions

	Normal Cost % of Payroll	Estimated Normal Cost in Dollars	UAL Amortization % of Payroll	UAL Amortization Cost in Dollars	Total Contribution Rate	Estimated Total Cost in Dollars
Teachers	3.84%	$54.3M	14.29%	$202.3M	18.13%	$256.6M
State Regular	4.08%	$25.0M	18.03%	$110.3M	22.11%	$135.3M
25 & Out	4.37%	$ 1.8M	20.87%	$ 8.6M	25.24%	$ 10.4M
1998 Special	5.45%	$ 4.5M	20.36%	$ 16.9M	25.81%	$ 21.4M
Fire Marshals	10.83%	$ .2M	32.30%	$ .4M	43.13%	$ .6M
Judicial	12.48%	$ 1.1M	-5.49%	$ -.5M	6.95%	$ .6M
Legislative	4.94%	$ .2M	-4.94%	$ -.2M	-0- %	$ -0- M

Does not include closed plans.

FY 2023Contributions

	Normal Cost % of Payroll	Estimated Normal Cost in Dollars	UAL Amortization % of Payroll	UAL Amortization Cost in Dollars	Total Contribution Rate	Estimated Total Cost in Dollars
Teachers	3.84%	$55.8M	14.29%	$207.8M	18.13%	$263.6M
State Regular	4.08%	$25.5M	18.16%	$113.3M	22.24%	$138.8M
25 & Out	4.37%	$ 1.8M	21.04%	$ 8.8M	25.41%	$ 10.6M
1998 Special	5.45%	$ 4.6M	20.52%	$ 17.4M	25.97%	$ 22.0M
Fire Marshals	10.83%	$ .2M	32.55%	$ .4M	43.38%	$ .6M
Judicial	12.48%	$ 1.1M	-5.53%	$ -.5M	6.95%	$ .6M
Legislative	4.94%	$ .2M	-4.94%	$ -.2M	-0- %	$ -0- M

Does not include closed plans.

S/T Plan 15-Year Amortization Schedule

(New schedule will be developed when FY20 valuation is complete in October)

Future Dollars

In Future Dollars						
FYE	**UAL @ BOY**	Normal Rate	UAL rate	Normal Cost	UAL Payment	Total Payment
2019	**$ 2,611,201,194**	4.18%	14.59%	$80,138,804	$279,624,431	$ 359,763,235
2020	**$ 2,423,044,262**	4.18%	15.57%	$82,270,315	$306,728,060	$ 388,998,375
2021	**$ 2,215,954,007**	4.17%	15.57%	$84,471,148	$315,163,081	$ 399,634,229
2022	**$ 2,001,663,594**	4.17%	15.08%	$86,738,426	$313,623,397	$ 400,361,823
2023	**$ 1,785,525,577**	4.17%	15.08%	$89,071,851	$322,248,041	$ 411,319,892
2024	**$ 1,553,734,250**	4.17%	14.82%	$91,472,054	$325,551,709	$ 417,023,763
2025	**$ 1,308,468,096**	4.16%	14.83%	$93,940,850	$334,504,381	$ 428,445,231
2026	**$ 1,041,370,841**	4.16%	14.71%	$96,479,689	$340,887,186	$ 437,366,875
2027	**$ 752,478,158**	4.16%	14.71%	$99,090,559	$350,261,583	$ 449,352,142
2028	**$ 436,412,440**	4.16%	14.65%	$101,775,430	$358,467,523	$ 460,242,953
2029	**$ 91,966,389**	4.16%	0.72%	$104,536,102	$18,102,364	$ 122,638,466
2030	**$ 76,954,585**	4.16%	0.69%	$107,374,178	$17,877,825	$ 125,252,003
2031	**$ 61,886,979**	4.15%	0.70%	$110,291,791	$18,369,465	$ 128,661,256
2032	**$ 45,810,664**	4.15%	0.68%	$113,291,261	$18,508,775	$ 131,800,036
2033	**$ 28,872,707**	4.15%	0.41%	$116,374,454	$11,411,972	$ 127,786,426
					$ 3,331,329,793	

Assumes 6.75% earnings on market value of assets in all years from FYE19 through FYE33

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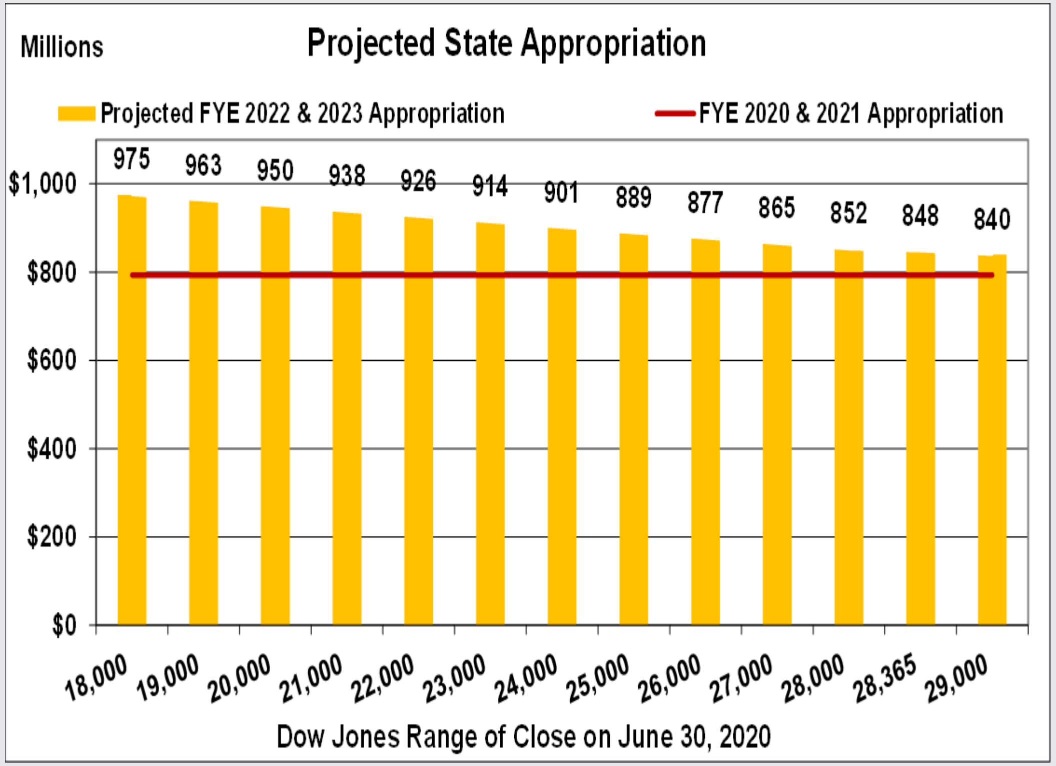
How Did the COVID Markets Affect the Projected FY22-23 Pension Contributions?

- FY20 returns – 5.44%
- FY19 returns 7.38%
- Expected returns of 6.75% projected FY22-23 rates of $840M due to increased salaries & UAL pay down
- Actual returns and actuarial adjustment resulted in $861M



Includes biennial Teacher Normal Costs of approximately $107M

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Will the Retirement of the 1996 UAL in 2028 Make the Plan Fully Funded and Safe?

Keeping a defined benefit plan fully funded today is different than 20-30 years ago

- No – the presence of volatile markets will continue to create new UALs
- A large market disruption similar to 2009 will place the plan in a 10-20% unfunded position again
- The primary reason for this is that markets are fundamentally different than 20-30 years ago
  - *Long-term low interest rates mean a higher percentage of the trust fund has to be in equities or equity-like investments to earn a meaningful return, increasing risk and volatility that mirrors the financial markets*
- The primary method of reducing volatility in the S/T plan as structured is to reduce the earnings expectation and asset allocation risk, i.e. reduce the discount rate which increases contributions.
- "Pay now or pay later" - reducing the discount rate is necessary to avoid unnecessary and unpredictable budget volatility

S/T Plan Members Eligible to Retire

4,597 (17%) Teachers

Length of Service	Plan	Retirement	Total Count
25+ years	Age 60 and 62	Normal	854
20-24 years	Age 60 and 62	Normal	362
15-20 years	Age 60 and 62	Normal	338
1-14 years	Age 60 and 62	Normal	149
1+	Age 65	Normal	312
25+ years	Age 60 (2 1/8%)	Early	20
25+ years	Age 62 (6%)	Early	2562

2,228 (20%) State Regular Plan

Length of Service	Plan	Retirement	Total Count
25+ years	Age 60 and 62	Normal	449
20-24 years	Age 60 and 62	Normal	140
15-20 years	Age 60 and 62	Normal	180
1-14 years	Age 60 and 62	Normal	102
1+	Age 65	Normal	215
25+ years	Age 60 (2 1/8%)	Early	49
25+ years	Age 62 (6%)	Early	1093

Other Critical Impacts to the Plan

COVID19 may create difficult issues for members that MainePERS can't address

- COVID-19 has unknown health effects
- No medical system is yet qualified to understand these long-term effects because they haven't been experienced
- A long-term disability insurance program integrated into MainePERS will enable employees affected by COVID-19 to get the assistance they need that applying for a permanent disability retirement can not provide