Today’s Information

• The PLD Consolidated Retirement Plan
• Retirement Plan Landscape
• PLD Plan in Comparison to Other US Plans
• PLD Plan Changes Adopted May 10, 2018
• Remaining Changes Under Consideration
  – Retire/Rehire provisions
  – Re-entering the PLD Plan after Retiring
The PLD Consolidated Retirement Plan
The PLD Defined Benefit

• The PLD Consolidated Retirement Plan became effective in 1994 from multiple individual plans being combined in a cost-sharing format

• The PLD Plan offers multiple options, all based on:
  – The average of your highest 3 years of salary
  – The number of years you worked under the plan (also known as service credit)
  – A multiplier of 1% to 2.67% (most common option is 2%)

• The monthly retirement benefit at normal retirement age (the age at which a member can retire under the plan without reduction) is:

  \[
  \text{Average final compensation} \times \text{multiplier} \times \text{years worked under plan} / 12
  \]

  Example:  \( \$54,000 \times 2\% \times 20 \text{ years} = \$21,600 / 12 = \$1,800 \text{ per month} \)
PLD Consolidated Retirement Plan
Managing the PLD Plan

• Employers are **Sponsors**, responsible for PLD Plan funding

• MainePERS **Administers** the PLD Plan through
  – MainePERS Staff
  – PLD Advisory Committee (membership is specified in state statute and includes equal employer and member representation)
  – MainePERS Board of Trustees

• The MainePERS actuary calculates **funding requirements**, working within actuarial standards and practices
  – Actuarial calculations **are not** math – they are a science
  – Similar calculations apply to setting insurance rates and health care costs based upon population data
PLD Consolidated Retirement Plan
Managing the PLD Plan

• The PLD Advisory Committee advises MainePERS on Plan policy and funding. Membership is balanced and set in statute, consisting of 10 voting members (5 from labor and 5 from management):
  – One member designated by MEA
  – One member designated by AFSCME
  – One member designated by MSEA/SEIU
  – One member designated by IAFF
  – One member designated by Teamsters
  – Three members designated by MMA
  – Two members designated by MSMA

• And 2 non-voting members
  – One designated by the Governor
  – MainePERS Executive Director who serves as chair
Retirement Plan Landscape
Defined Benefit (DB) Plan History

Private Sector

- Started in the late 1800s, rising in popularity in the 1940s and 50s
- Designed to meet shifting demands of employers and participants
- Most employers have moved to 401(k) plans following the 2002 dot.com bubble burst losses and increasing longevity
- Remaining DB plans are focusing on risk strategies, with continuing freezes and conversion to 401(k)

Public Sector

- Started in the US after the Revolutionary War
- Expanded noticeably in state and local governments in the 1940s and 50s
- Most plans remained in tact until the 2009 recession
- The focus since that time has been benefit and cost reduction, and the consequences of not paying the fully calculated costs
Challenges for Defined Benefit Retirement Plans

• Financial Markets
• Longevity/Mortality
• Maturing Plans
• Labor Pool and Member Demographics
• Declining Funding Levels
• Higher Contribution Rates
• Financial market ups and downs create volatile contributions

• Funding levels are re-calculated every year – extreme losses can impact contributions immediately

• Long-term lower market returns also create funding challenges
  – Extended low interest rate environment

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Prepared by MainePERS as of 6/20/2018

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### MainePERS Long-Term Fiscal Year Investment Returns Net of Fees

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<th></th>
<th>Market Value (in millions)</th>
<th>1 Year</th>
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</table>
• Current census data shows people that reach age 65 will live on average to age 84

• Why is this a challenge for defined benefit plans?
  – Because the plan must pay all members for their additional years in retirement
  – If everyone on average lives two year longer, the plan must fund those additional years
  – This creates increased contributions
Retirement Plan Landscape
Defined Benefit Plan Maturity

Plans are Getting Older

• When plans are new, the majority of members are actively working
  – This allows cost fluctuations to be spread over the entire membership

• As plans mature, the ratio of active to retired members decline
  – This leaves fewer members to absorb cost changes that affect all members

• The PLD Plan is mature because it is a continuation of multiple separate plans

Active to Retired Ratios

2018 Public Plan Database

Prepared by MainePERS as of 6/20/2018
Maine is the Nation’s Oldest State  2016 Census Bureau Data

- Maine has been the oldest state for some time, and is getting older
- Maine’s oldest county?
  - Lincoln County
  - Median age 49.8 as of 2015
- The age of the available labor pool continues to increase, along with neighboring states
- This demographic feature has to be factored in to PLD Plan rates and provisions
Retirement Plan Landscape
Other Demographic Challenges

• Health
  – Healthcare advancements create longer lifespans at an increased cost
  – Retirees higher healthcare insurance premiums and co-pays

• Boomerang Kids
  – “It’s Official: The Boomerang Kids Won’t Leave”  *NYT June 20, 2014*

• Supplemental Retirement Savings Challenges
  – “Studies show that most Americans worry that their savings will fall short in retirement”  *CNN March 16, 2018*

• People are Working Longer
  – “Dying at your desk is not a retirement plan”  *Washington Post June 17, 2017*
How Does the PLD Plan Compare?

Most Defined Benefit Plan Funding has Declined

- High returns in the 1990s enabled many plans to believe they could increase benefits.
- Two major market disruptions reduced funding levels, but plans were left with higher liabilities that still had to be paid, provoking further funding declines.

[Graph showing PLD, Local, and National Funding Levels]

Prepared by MainePERS as of 6/20/2018
How Does the PLD Plan Compare?
Nearly All Employer Costs Have Increased

Rise of US Average & PLD Employer **Aggregate** Costs

- US pension costs have increased in spite of cost-reduction measures:
  - Plans in over 35 states have increased rates
  - Some states have statutory rates that have not changed
  - Plans in over 30 states have reduced COLAs, 17 of which affect current retirees
  - Plans in over 40 states have reduced future benefits

Prepared by MainePERS as of 6/20/2018
How Does the PLD Plan Compare?

PLD Plan Costs Compare Favorably to Most

- The PLD Plan was overfunded in 2001
- Employer contribution rates were reduced from aggregate 8% to 3%
- Rates were scheduled to begin returning to 8% to maintain 100%+ funding in 2009 when the recession hit
- Increases resumed at 1% per year in 2011 to today’s 10% aggregate rate
- The PLD Plan remains 16-19% better funded on average than other US Plans

[Graph showing US and PLD employer and normal cost percentage of pay over years from 2001 to 2017.]

Prepared by MainePERS as of 6/20/2018
What’s the Problem? – the Markets are Roaring

Market Volatility

- Contribution rates are recalculated every year.
- Large volatility or consistently low returns can have an unacceptable impact on rates.
- Market recovery does not equal funding recovery.
  - You earn higher returns, but on a reduced principal.
  - You have to make up for what you lost plus what you didn’t earn.

MainePERS Short/Long-term Returns

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</table>
PLD Plan Changes Adopted May 10, 2018

What’s the Problem? – the Markets Were Not Roaring

Actual and Projected Returns

Employer Rates w/ FY17-20 Projected Returns

Prepared by MainePERS as of 6/20/2018
PLD Plan Changes Adopted May 10, 2018
Why are PLD Costs Low Compared to Others?

• MainePERS has made sound decisions for the PLD Plan over the last 12 years
  – MainePERS has gradually reduced the expected investment return used to calculate funding needed to pay benefits from 8% to 6.875% as long-term investment return expectations continue to decrease in a low-interest rate environment
    – Most US plans are just beginning to phase in reductions to 7.00-7.50%
  – MainePERS has kept up the funding for demographic changes that increase plan cost, such as people living longer
    – By keeping up with changes, there are no big underfunding surprises
  – Contribution rates have been increased to help restore the funding lost in the recession
  – Some changes were made to PLD requirements and discretionary benefits in 2014
    – MainePERS invests to earn strong returns without taking undue risk
PLD Plan Changes Adopted May 10, 2018
Why are More Changes Necessary?

- The traditional methods of addressing decreased funding don’t work anymore
  - Raise contribution rates to whatever level is needed
    - **Result:** Employers will drop out of the Plan
  - Reduce benefit levels
    - **Result:** Members may not want or value the Plan
  - Lower, freeze, or eliminate COLAs
    - **Result:** Retirees benefit value deteriorates
  - Close the Plan
- Can be a downward spiral
PLD Plan Changes Adopted May 10, 2018

What Else Can be Done?

A New Framework that protects the *Core Benefit* is needed

- **Fairly** share the market risk between all parties – employers, members and retirees
- Create minimum *and* maximum contribution rates to create predictable costs
- Determine which parts of the benefit are critical for a sound retirement, which are nice to have but not critical, and modify or eliminate high-cost discretionary benefits that are not critical to a sound retirement
- Determine member and employer tolerance for maximum contribution rates for a sound retirement benefit
  - Contribution rates should generally be well under the maximum, with the difference available to absorb large financial market declines
The New Framework for Creating PLD Plan Sustainability

**Priority** - Protect the Basic Benefit

- The basic benefit formula provides a stable and sound basis for member retirement saving and planning.
- Average final compensation $ \times $ multiplier $ \times $ years worked = basic benefit

**Part 1**
Adjust Incentives, Subsidies & Discretionary Add-ons

- Adjust high-cost provisions that are not part of the basic retirement benefit.

**Part 2**
Introduce New Market Risk Sharing Mechanisms

- Manage the negative impacts to the plan when short-term market losses erode plan funding.

Prepared by MainePERS as of 6/20/2018
<table>
<thead>
<tr>
<th>Current Provision</th>
<th>Adopted Change</th>
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<tbody>
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<td>• All retiring members may include up to 30 days of unused, paid sick and/or vacation leave in AFC calculation</td>
<td>• Both benefits remain available to members with 20 or more years of service at retirement</td>
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<tr>
<td>• All retiring members may receive service credit for up to 90 days of unused, unpaid sick and/or vacation leave</td>
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PLD Plan Changes Adopted May 10, 2018

Early Retirement Subsidy

Current Provision

• Early retirement subsidies are available to all eligible members
  - Benefits for members in the plan before July 1, 2014 are reduced by an average of 2.125% per year for repayment of additional unearned benefit
  - Benefits for members in the plan after June 30, 2014 are reduced by an average of 6% per year for repayment of additional unearned benefit

Adopted Change

• Retirement benefits for all members that retire before normal retirement age will be reduced to pay the cost to the Plan (average 6-7% per year)
  ★ Important exception: Current retirement subsidies will continue to be available to members with 20 or more years of service as of June 30, 2019

• Deferred COLA option available

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PLD Plan Changes Adopted May 10, 2018
Cost-of-Living Adjustment (COLA)

Current Provision

• Eligible retirees may receive up to 3% of their entire benefit based on the Consumer Price Index for Urban Consumers (CPI-U) as of the 12 months ending June 30th of each year
• 12 month waiting period
• COLA adjustments are cumulative
• COLAs may be reduced or frozen to protect plan funding

Adopted Change

• Eligible retirees may receive up to 2.5% of their entire benefit based on the Consumer Price Index for Urban Consumers (CPI-U) as of the 12 months ending June 30th of each year
• 24 month waiting period
• COLA adjustments are cumulative
• COLAs may be reduced or frozen to protect plan funding

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Introducing New Market Risk Sharing Mechanisms
Recognizing and Meeting Market Risk Head-on

• Short-term financial market ups and downs are currently the biggest risk to defined benefit plans

• Why currently?
  – Because all retirement plans (defined benefit and 401(k) or 457) are still recovering from the 2008-09 great recession, making each new down market very costly
  – While long-term financial market returns may even out over time, short-term market volatility has a significant impact on annual contributions to the plan
  – Member contributions have already risen, and short-term volatility combined with lower returning markets are creating continuing increases in employer contributions
  – Without a structured formula to moderate the effects of financial risk, employers and members may no longer wish to participate in the Plan, which places the Plan in jeopardy

• Retirement plans are most sustainable using short-term protections that support long-term plan management
Introducing New Market Risk Sharing Mechanisms

How a Defined Benefit Plan Can Manage Market Risk

• Setting appropriate investment goals and asset allocations

• Moderating the variability of inflows (contributions) into the plan
  – Variable contribution rates can provide both employers and members
    with rates that annually decrease during strong markets and increase
    during weak markets
  – Currently only employer rates are automatically adjusted each year based
    on market performance

• Moderating discretionary outflows (COLAs) from the plan

• Controlling excessively high and low contribution rates
  – MainePERS and its actuarial firm won an award from the Society of Actuaries
    for the model adopted for rates as of July 1, 2019 that controls risks and rates
Introducing New Market Risk Sharing Mechanisms

What Do These Proposed Changes Look Like?

**Current Rate Structure**
- Current aggregate employer rate is 10% with no upper limits
- Current aggregate member rate 8.0% is fixed, without annual market gain/loss sharing

**Proposed Future Rate Structure**
- Base will be FY19 calculated rates
- Employer and member cost split of future total annual increase or decrease is 55%/45%
- Employer aggregate cap will be 12.5%, minimum not less than 55% of total calculated normal cost
- Member aggregate cap will be 9.0%, minimum not less than 45% of total calculated normal cost

**COLA**
- If any market losses are severe enough to exceed the employer and member contribution caps, the COLA formula would reduce the COLA
- This would most likely partially reduce rather than freeze the COLA
Remaining Changes Under Consideration

Retire/Rehire

**Current Provision**

- Members who retire at or after their normal retirement age may return to employment for a MainePERS PLD Consolidated Plan employer in a Plan-covered position and receive their full pension benefit
- There is no direct cost to the employer or rehired retiree

**Proposed Change**

- Members who retire at or after their normal retirement age may return to employment for a MainePERS PLD Consolidated Plan employer and continue to receive their pension benefit without harming Plan funding or creating subsidization by other employers and members
- PLD Plan retirees can re-enter the Plan
Remaining Changes Under Consideration

Retire/Rehire History – What Changed?

• Retire/rehire was a prohibited practice in many or most plans until the turn of the century
  - Defined benefit plans are constructed and funded on the basis that young workers enter the workforce and the defined benefit plan when older workers permanently retire
  - Allowing members to “retire in place” runs counter to the original construction of these plans
Remaining Changes Under Consideration
Retire/Rehire – What Changed?

**Economics & Demographics**

- **Economic** – The average S&P return from
  - 86 to 2000 was 16.9%
  - New benefits were considered and granted, including DROP, retire/rehire, and lower normal retirement ages

- **Demographic** – An aging workforce was anticipated but baby boomers were not turning 60 until 2006 and 65 until 2011

**S&P Historical Market Returns**

[Graph of S&P Historical Market Returns from 1986 to 2016]

Prepared by MainePERS as of 6/20/2018
Remaining Changes Under Consideration
What Changed Next to Bring Us to Today?

Economics & Demographics

- **Economic** – The average S&P return from
  - 2001 to 2016 was 8.3%
  - Contribution rates increased
  - US funding went from 102% to 72%
  - Benefits like COLAs, multipliers going forward and other were reduced

- **Demographic** – Workforce Aged
  - Members were increasingly concerned about living longer and having enough money to do so and pay for increasing healthcare costs
  - Employers were increasingly concerned about filling positions

Prepared by MainePERS as of 6/20/2018
Remaining Changes Under Consideration

How has MainePERS Kept the Plan Well-funded?

• Acted early
  – Reduced the discount rate at the earliest signals – ahead of other plans which has helped maintain strong funding
  – Kept up with longevity/mortality along the way and prevented abrupt/delayed contribution increases
  – Modified plan provisions in 2014
  – Developed a framework to prevent rather than react, increasing the long-term sustainability of the fund and MainePERS ability to pay benefits throughout all members lifetimes
Remaining Changes Under Consideration
But What about Retire/Rehire?

MainePERS Kept a Watchful Eye

- The actuarial data has not shown a significant change in use, so no changes have been made
- However
  - Labor pools and expected cost of retirement are causing both employers and members to start planning on this
  - Employers don’t report all rehires
  - Trends and incidental information indicating future increased use of retire/rehire means this is the time to act
Why Doesn’t MainePERS Wait Until it is a Problem?

- MainePERS practices prevention, not reaction
  - Prevention is less costly, reaction is more costly and can be damaging to members

- MainePERS made the decision in early 2016 to address retire/rehire, along with the other preventive changes recently adopted

- The overwhelming majority of comments and concerns expressed during the recent process were about retire/rehire
  - Most of these comments indicated many people are counting on this, which confirms this is the right time to implement measure to prevent any harm to the Plan
Remaining Changes Under Consideration

What is the Cost to the Plan of Retire/Rehire?

• If nothing ever changed, there would be no cost
  – That’s because our actuaries calculate the annual “normal” cost each year to pay for the lifetime benefits that are earned each year

• But things do change
  – People live longer, and frequently work longer than they expected
  – MainePERS can never earn exactly what it expects to earn
  – Recent market volatility and regulatory changes are creating increasing pressure on contribution rates which in turn can cause the plan to become too costly

• When the Plan is underfunded, costs to restore underfunding are paid through increased contribution rates on active employees
  – PLD employers/active members that do not use retire/rehire therefore subsidize those who do through increased rates
What are the Solutions?

• Most states require contributions to be made by employers, rehired retirees, or both in using this practice

• MainePERS wants to support
  – Employers facing recruitment challenges
  – Members facing retirement planning challenges

• Possible solutions based on research and 2017-18 comments
  – Base contribution on Unfunded Actuarial Liability rate, which varies year-to-year (currently between 3% and 6%)
  – Create a flat contribution rate of 5%, which has the advantage of predictability (could change if a major market disruption occurs)
  – Allow retirees to re-enter the Plan and earn additional service credit (this has already been approved by the Legislature – waiting adoption by MainePERS)