REPORT HIGHLIGHTS

PENSION TRUSTEE ADVISORS

SENSITIVITY ANALYSIS OF COLORADO PERA HYBRID DEFINED BENEFIT PLAN ACTUARIAL ASSUMPTIONS, October 2015

KEY FACTS AND FINDINGS

- A determination that a retirement plan will achieve **full** funding **is the most important indicator** of actuarial soundness and sustainability, because it means benefits are secure and the Plan has met its obligations systematically and responsibly.
- Projections of when full funding will be achieved are based on **actuarial assumptions**, which are:
    - **Key drivers** of the projected full funding date
    - Approved by the PERA Board of Trustees based on PERA experience, professional standards, independent recommendations, and long-term expected results
- The PERA Hybrid Defined Benefit Plan is **currently on track** to be fully funded by 2052-2053 based on current actuarial assumptions. Prior to the changes in Senate Bill 10-001, insolvency was projected.
- Actual **experience may vary** significantly from assumptions — particularly over short periods, resulting in full funding **dates significantly different** (sooner or later) from current projections.
    - **Investment return** has the widest range of variability and has the **biggest impact** on the full funding date.
    - PERA population growth has a significant impact but is more difficult to detect under current reporting.
    - If mortality continues to improve beyond 2020, the full funding date will likely be later than now estimated
    - Other assumption variability has far less impact.
- Even though investment returns have been strong, the current projected full funding dates for the PERA Hybrid Plan are later than projected when Senate Bill 10-001 passed, This is due to:
    - **Reducing the actuarial assumed investment rate to 7.50%**
    - **Lower** than expected **population growth**
- We calculate:
    - **A 33% likelihood of investment returns exceeding 8.6% and the Plan meeting the 2041 target.**
    - A **51% chance** of investment returns above 7.4%, resulting in the State Division **being fully funded by 2055**.
    - A 28% chance that 40-year average investment returns will be below 6.1%, the **minimum necessary to remain solvent.**

BACKGROUND

This study explores the role and variability of actuarial assumptions in projecting the most likely future funded status of the PERA Hybrid Defined Benefit Plan.

The Plan provides lifetime retirement benefits to its members that are financed by employer and member contributions as well as investment earnings. For the Plan to be sustainable, its resources (contributions and investment return) must equal its liabilities for future benefits for all members. The goal of any retirement system is to accumulate sufficient assets to fully fund all of its future obligations under current law.

This study considers:

- The growth in Unfunded Liabilities over the past 16 years since the Plan was fully funded and the causes of that growth.
- The effect of past and future variability of each actuarial assumption and its likely impact on the date of full funding.
- A signal light format that accomplishes an expanded reporting of the Plan's funded status and includes the likelihood of achieving full funding objectives.
- A look-back at the Plan's progress since the adoption of Senate Bill 10-001, which was intended to result in full funding by 2041.

An equally important objective of this report is to develop an understandable format for communicating the Plan's funding progress. The goal is to provide actionable information that both PERA and the General Assembly will find useful in developing sound public policy with regard to the Plan. Specifically, the signal light format will provide the basis for deciding if, and when, consideration of changes in funding or benefits provided is advisable to accomplish funding objectives.

KEY RECOMMENDATIONS

1) PERA should utilize the proposed **signal light reporting** annually to give policymakers an assessment of the current projected full funding dates compared to the objective. The investment return required (and the likelihood) of maintaining, improving, or declining from the current signal should also be determined periodically and whenever significant changes have occurred. Other metrics should also be considered.
2) PERA should expand its annual reporting to **include the causes for any changes in the expected full funding dates**.
3) PERA should ensure that future actuarial audits include a **confirmation o**f the multi-year actuarial **projections** currently used to determine the full funding date.