

Arkansas Public Employees Retirement System  
Board of Trustees

ACTUARIAL FUNDING POLICY

February 15, 2023

**Arkansas Public Employees Retirement System  
Board of Trustees**

**Actuarial Funding Policy**

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## Actuarial Funding Policy

### Introduction

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The purpose of this Actuarial Funding Policy is to record the funding objectives and policy set by the Board of Trustees (Board) for the Arkansas Public Employees Retirement System (APERS). The Board establishes this Funding Policy to help ensure the systematic accumulation of assets needed to pay future benefits for members of APERS.

In 2012, the Governmental Accounting Standards Board (GASB) approved two new financial reporting standards. GASB Statement No. 67, "Financial Reporting for Pension Plans" replaced the requirements of Statement No. 25. GASB Statement No. 68, "Accounting and Financial Reporting for Pensions" replaced the requirements of Statements No. 27 and No. 50. The new GASB statements separate accounting cost (expense) from funding cost (contributions), necessitating the creation of this funding policy.

The APERS Board of Trustees adopted this Funding Policy on February 15, 2023. This funding policy shall be reviewed by the Board periodically, but at least every five years in conjunction with the experience study.

### Funding Objectives

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1. Maintain adequate assets so that current plan assets plus future contributions and investment earnings should be sufficient to fund all benefits expected to be paid to members and their beneficiaries.
2. Maintain stability of employer contribution rates, consistent with other funding objectives.
3. Maintain public policy goals of accountability and transparency. Each policy element is clear in intent and effect, and each should allow an assessment of whether, how and when the funding requirements of the plan will be met.
4. Monitor material risks to assist in any risk management strategies the Board deems appropriate.
5. Promote intergenerational equity. Each generation of members and employers should incur the cost of benefits for the employees who provide services to them, rather than deferring those costs to future members and employers.
6. Provide a reasonable margin for adverse experience to help offset risks.
7. Review investment return assumption in conjunction with the periodic asset liability study and in consideration of the Board's risk profile.
8. Continue progress of systematic reduction of the Unfunded Actuarial Accrued Liabilities (UAAL).

## Elements of Actuarial Funding Policy

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### 1. Actuarial Cost Method

The Individual Entry Age Normal actuarial cost method of valuation shall be used in determining Actuarial Accrued Liability (AAL) and Normal Cost for all benefits. Differences in the past between assumed experience and actual experience (“actuarial gains and losses”) shall become part of the AAL. The Normal Cost shall be determined on an individual basis for each active member.

### 2. Actuarial (Funding) Value of Assets Method

The investment gains or losses of each valuation period, resulting from the difference between actual investment return and assumed investment return, shall be recognized annually in level amounts over 4 years in calculating the Funding Value of Assets. Regardless of the results obtained from the smoothing method described above, the Funding Value of Assets shall not diverge from the Market Value of Assets by more than 25%. For the District Judges Old Plan Still Paying, the market value of assets shall be used as the Funding Value of Assets.

### 3. Amortization Method

For APERS:

- a. A level percent of payroll amortization method shall be used to systematically pay off the UAAL over a closed period of years.
- b. Beginning with the 2023 annual actuarial valuation, once APERS reaches a 20-year amortization period, the amortization period will remain closed and the remaining UAAL will be amortized over that period.
- c. Each year, changes in the UAAL due to the actuarial gains or losses for each annual actuarial valuation or from changes to the actuarial assumptions will be amortized over a closed 20-year period.
- d. Changes in the UAAL due to changes in benefit provisions that would result in an increase in the employer contribution rate shall be amortized over a closed 15-year period for active members and a closed 5-year period for non-active members (i.e., retired members and deferred members).
- e. Changes in the UAAL due to changes in benefit provisions that would result in a decrease in the employer contribution rate shall be amortized over a closed 30-year period for active members and a closed 15-year period for non-active members (i.e., retired members and deferred members).
- f. The maximum amortization period to finance the total UAAL shall not exceed 30 years.

For District Judges:

- a. A level dollar amortization method shall be used to systematically pay off the UAAL over a closed period of years.
- b. A closed 5-year period (as of the June 30, 2022 valuation) shall be used for the New Plan and Paid-Off Old Plan.
- c. A closed 13-year period (as of the June 30, 2022 valuation) shall be used for the Still Paying Old Plan.

#### **4. Funding Target and Computed Employer Contribution Rate**

- a. The targeted funded ratio shall be 100%.
- b. The employer contribution rate for APERS shall at least be equal to the employer normal cost unless the funded ratio exceeds 120%. If the funded ratio exceeds 120%, the amount of the actuarial value of assets in excess of 120% of the actuarial accrued liability shall be amortized over a 30-year period to reduce the normal cost contribution.
- c. The employer contribution rate for APERS shall not be less than the Contributory Group member contribution rate.
- d. The Board may establish a minimum employer contribution rate for APERS. The employer contribution rate shall not be less than the Board established minimum employer contribution rate. The Board has the discretion to establish, change or remove the minimum employer contribution rate at any time.
- e. The Board may establish a maximum employer contribution rate for APERS. The employer contribution rate shall not be greater than the Board established maximum employer contribution rate, with one exception. If the Board established maximum employer contribution rate results in a total UAAL amortization period greater than that presented in 3.f., the employer contribution rate will be based upon the total UAAL amortized over the period presented in 3.f. . The Board has the discretion to establish, change or remove the maximum employer contribution rate at any time.
- f. The employer contribution rate for APERS and District Judges shall be for the fiscal year beginning two years after the actuarial valuation date.
- g. Once the District Judges New Plan and Paid Off Old Plan achieve a funded ratio of 100% or greater, the UAAL contribution for this portion of District Judges will become part of the APERS overall contribution rate.

#### **5. Risk Management**

- a. Assumption Changes
  - i. The actuarial assumptions used shall be those last adopted by the Board based on the most recent experience study and upon the advice of the actuary. The actuary shall conduct an experience study at least every five years. The results of the study shall be the basis for the actuarial assumption changes adopted by the Board.
  - ii. The actuarial assumptions can be updated during the five-year period if significant plan design changes or other significant events occur, as advised by the actuary.
- b. Amortization Method

The amortization method, Level Percent Closed, will ensure full payment of the UAAL over a finite reasonable period of years.
- c. Risk Measures

The following risk measures will be annually determined to provide quantifiable measurements of risk and their movement over time.

  - i. Classic Measures Currently Determined
    - A. Funded ratio (actuarial value of assets / actuarial accrued liability)
    - B. UAAL amortization period (years required to pay down the UAAL based on current funding rates)

- ii. Dollar Standard Deviation of Investment Return / Total Payroll
    - A. Measures the risk associated with negative asset returns relative impact on the funded status of the plan. A decrease in this measure indicates a decrease in investment risk.
  - iii. Total UAAL / Total Payroll
    - A. Measures the risk associated with contribution decreases relative impact on the ability to fund the UAAL. A decrease in this measure indicates a decrease in contribution risk.
  - iv. Total Actuarial Value of Assets / Total Payroll
    - A. Measures the risk associated with the ability to respond to asset experience through adjustments in contributions. A decrease in this measure indicates a decrease in asset risk.
  - v. Total AAL / Total Payroll
    - A. Measures the risk associated with the ability to respond to liability experience through adjustments in contributions. A decrease in this measure indicates a decrease in experience risk. This also provides a long-term measure of the asset risk in situations where the System has a funded ratio below 100%.
- d. Risk Control

The Board shall carefully monitor the risk measures above and shall consider steps to mitigate risk, particularly as the funded ratio increases. Risk mitigation may involve a reduction in the assumed rate of investment return. Examples of risk mitigating techniques include, but are not limited to:

- i. Review asset allocation with a goal of reducing the standard deviation of the portfolio return
- ii. Reduce asset-liability mismatching

## Glossary

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1. **Actuarial Accrued Liability (AAL):** The difference between (i) the actuarial present value of future plan benefits, and (ii) the actuarial present value of future normal cost. Sometimes referred to as “accrued liability” or “past service liability.”
2. **Actuarial Assumptions:** Estimates of future plan experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and salary increases. Decrement assumptions (rates of mortality, disability, turnover and retirement) are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (salary increases and investment income) consist of an underlying rate in an inflation-free environment plus a provision for a long-term average rate of inflation.
3. **Actuarial Cost Method:** A mathematical budgeting procedure for allocating the dollar amount of the “actuarial present value of future plan benefits” between the actuarial present value of future normal cost and the actuarial accrued liability. Sometimes referred to as the “actuarial funding method.”
4. **Actuarial Gain (Loss):** A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions during the period between two actuarial valuation dates, in accordance with the actuarial cost method being used. For example, if during a given year the assets earn more than the investment return assumption, the amount of earnings above the assumption will cause an unexpected reduction in UAAL, or “actuarial gain” as of the next valuation. These include contribution gains and losses that result from actual contributions made being greater or less than the level determined under the policy.
5. **Actuary:** A person who is trained in the applications of probability and compound interest to problems in business and finance that involve payment of money in the future, contingent upon the occurrence of future events. Most actuaries in the United States are Members of the American Academy of Actuaries (MAAA). The Society of Actuaries is an international research, education and membership organization for actuaries in the life and health insurance, employee benefits, and pension fields. It administers a series of examinations leading initially to Associateship and the designation ASA and ultimately to Fellowship with the designation FSA.
6. **Amortization:** Paying off an interest-bearing liability by means of periodic payments of interest and principal, as opposed to paying it off with a lump sum payment.
7. **Asset Liability Study:** A comprehensive strategic asset allocation review designed to assess the continuing appropriateness of the Investment Objectives and Asset Allocation Policy. It includes a study of future benefit payments, liabilities, required funding, the appropriateness of the actuarial interest rate assumption and the prospective funded status of liabilities. It may also include a study of portfolio design for optimal diversification and comparisons with peer practices.
8. **Entry Age Normal Actuarial Cost Method:** A funding method that calculates the Normal Cost as a level percentage of pay over the working lifetime of the plan’s members.
9. **Experience Study:** An actuarial investigation of demographic and economic experiences of the system during the period studied. The investigation is made for the purpose of updating the actuarial assumptions used in valuing the actuarial liabilities.

10. **Funding Value of Assets:** The value of current plan assets recognized for valuation purposes. Generally based on a phased-in recognition of all or a portion of market related investment return. Sometimes referred to as Actuarial Value of Assets.
11. **Market Value of Assets:** The fair value of plan assets as reported in the plan's financial statements.
12. **Normal Cost (NC):** The annual cost assigned, under the actuarial funding method, to current and subsequent plan years. Sometimes referred to as "current service cost." Any payment toward the unfunded actuarial accrued liability is not part of the normal cost.
13. **Unfunded Actuarial Accrued Liability (UAAL):** The difference, if any, between the actuarial accrued liability and valuation assets. Sometimes referred to as "unfunded accrued liability."

## Revised

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August 15, 2014  
February 15, 2023