Arkansas Teacher Retirement System

Annual Actuarial Valuation of Annuities Being Paid to Retirees and Beneficiaries

June 30, 2024

OUTLINE OF CONTENTS
Report of Actuarial Valuation of ATRS Retirees and Beneficiaries

800.521.0498 | P: 248.799.9000 | www.grsconsulting.com

November 12, 2024

Board of Trustees
Arkansas Teacher Retirement System
Little Rock, Arkansas

Dear Board Members:

Presented in this report are the results of the ***Annual Actuarial Valuation of annuities being paid to retirees and beneficiaries*** of the Arkansas Teacher Retirement System (ATRS).

The purpose of this document is to provide a summary of the liabilities of the System's retirees and beneficiaries. This is one of multiple documents comprising the actuarial results. Funding of the System's liabilities as well as calculations of the liabilities of active and inactive members is provided in a separate report. The other documents include the active and inactive valuation dated November 5, 2024 and the presentation (available in December).

The date of the valuation was June 30, 2024 (using amounts payable as of July 1, 2024).

This report was prepared at the request of the Board and is intended for use by the Retirement System and those designated or approved by the Board. This report may be provided to parties other than the Retirement System only in its entirety and only with the permission of the Board. GRS is not responsible for unauthorized use of this report.

The valuation was based upon census data and financial information provided by the System's administrative staff. Preparation of this data requires considerable staff time. The helpful cooperation of the Arkansas Teacher Retirement System staff in furnishing the data is acknowledged with appreciation. We checked for internal and year-to-year consistency, but did not audit the data. We are not responsible for the accuracy or completeness of the data provided by ATRS.

This report was prepared using certain assumptions approved by the Board. The actuarial assumptions used for valuation purposes are summarized in the Appendix. These assumptions reflect experience during the period July 1, 2015 to June 30, 2020 and expectations for the future.

This report was prepared using our proprietary valuation model and related software which, in our professional judgment, has the capability to provide results that are consistent with the purposes of the valuation and has no material limitations or known weaknesses. We performed tests to ensure that the model reasonably represents that which is intended to be modeled.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements; and changes in plan provisions or applicable law. The scope of an actuarial valuation does not contain an analysis of the potential range of such future measurements.

To the best of our knowledge, the information contained in this report is accurate and fairly presents the actuarial position of the Arkansas Teacher Retirement System as of the valuation date. All calculations have been made in conformity with generally accepted actuarial principles and practices and with the Actuarial Standards of Practice issued by the Actuarial Standards Board. The actuarial assumptions used for the valuation produce results which, individually and in the aggregate, are reasonable. The combined effect of the assumptions, excluding prescribed assumptions or methods set by law, is expected to have no significant bias (i.e., not significantly optimistic or pessimistic).

This report has been prepared by actuaries who have substantial experience valuing public employee retirement systems. Judith A. Kermans, Heidi G. Barry and Derek Henning are Members of the American Academy of Actuaries (MAAA) and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein. The actuaries submitting this report are independent of the plan sponsor.

Respectfully submitted,
Gabriel, Roeder, Smith & Company

Judith A. Kermans, EA, FCA, MAAA

Heidi G. Barry, ASA, FCA, MAAA

Derek Henning, ASA, EA, FCA, MAAA

JAK/HGB/DH:rl

Comments

As expected, during the year ended June 30, 2024 the number of retired lives increased, as did the total amount being paid monthly to retired lives.

The financing diagram on page 6 shows the general pattern in which cash benefits increase (the green line). The schedule below shows how ATRS history illustrates the general pattern.

June 30	Retired Lives Receiving Benefits		
	No.	Annual Amounts	% of Active Payroll
		(Millions)	
1967	3,846	$ 6.27	
1972	5,453	11.08	
1977	7,524	23.96	
1982	8,828	36.64	
1987	10,526	66.45	10.0%
1992	12,033	115.50	10.7%
1997	14,233	194.90	15.0%
2002	19,199	334.15	20.5%
2003	20,271	359.98	21.4%
2004	21,428	386.23	22.1%
2005	22,680	415.04	21.1%
2006	24,153	449.77	21.6%
2007	25,611	484.55	22.1%
2008	26,801	515.56	22.7%
2009	28,818	564.59	23.5%
2010	30,587	612.77	24.8%
2011	32,099	657.08	23.3%
2012	34,160	709.17	25.3%
2013	36,254	763.76	27.1%
2014	38,478	822.19	28.8%
2015	40,748	916.62	31.9%
2016	43,095	983.87	34.1%
2017	45,092	1,044.74	35.8%
2018	46,824	1,099.35	36.8%
2019	48,677	1,146.74	37.9%
2020	50,133	1,194.82	38.8%
2021	51,405	1,242.70	38.8%
2022	52,748	1,293.75	39.0%
2023	54,646	1,346.62	38.6%
2024	56,177	1,403.75	38.9%

A significant financial goal for the Arkansas Teacher Retirement System was to reach a point in time where System assets fully covered the liabilities for future benefit payments to retirees and beneficiaries then on rolls. This goal was achieved in 1980 and retired life liabilities continue to be 100% funded.

Subset of the Annual Actuarial Valuation of Active and Inactive Members

Other Observations

General Implications of Contribution Allocation Procedure or Funding Policy on Future Expected Plan Contributions and Funded Status

Given the plan's contribution allocation procedure, if all actuarial assumptions are met (including the assumption of the plan earning 7.25% on the actuarial value of assets), it is expected that:

1) The employer normal cost as a percentage of pay will remain approximately level;
2) The unfunded actuarial accrued liabilities will be fully amortized after 20 years; and
3) The funded status of the plan will increase gradually towards a 100% funded ratio.

Limitations of Funded Status Measurements

Unless otherwise indicated, a funded status measurement presented in this report is based upon the actuarial accrued liability and the actuarial value of assets. Unless otherwise indicated, with regard to any funded status measurements presented in this report:

1) The measurement is inappropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan's benefit obligations; in other words, of transferring the obligations to an unrelated third party in an arm's length market value type transaction.
2) The measurement is dependent upon the actuarial cost method which, in combination with the plan's amortization policy, affects the timing and amounts of future contributions. A funded status measurement in this report of 100% is not synonymous with no required future contributions. If the funded status were 100%, the plan would still require future normal cost contributions (i.e., contributions to cover the cost of the active membership accruing an additional year of service credit).
3) The measurement would produce a different result if the market value of assets were used instead of the actuarial value of assets, unless the market value of assets is used in the measurement.

Limitations of Project Scope

Actuarial standards do not require the actuary to evaluate the ability of the plan sponsor or other contributing entity to make required contributions to the plan when due. Such an evaluation was not within the scope of this project and is not within the actuary's domain of expertise. Consequently, the actuary performed no such evaluation.

FINANCIAL PRINCIPLES (SUBSET OF THE ANNUAL ACTUARIAL VALUATION OF ACTIVE AND INACTIVE MEMBERS)

Financial Principles and Operational Techniques

Promises Made and To Be Paid For. As each year is completed, the System in effect hands an "IOU" to each member then acquiring a year of service credit. The "IOU" says: "The Arkansas Teacher Retirement System owes you one year's worth of retirement benefits, payments in cash commencing when you qualify for retirement."

The related ***key financial questions*** are:

Which generation of taxpayers contributes the money to cover the IOU?
The present taxpayers, who receive the benefit of the member's present year of service?
Or the future taxpayers, who happen to be in Arkansas at the time the IOU becomes a cash demand?

The financial objective of the ATRS is that this year's taxpayers contribute the money to cover the IOUs being handed out this year so that ***the employer contribution rate will remain approximately level from generation to generation*** -- our children and our grandchildren will not have to contribute greater percents of pay than we contribute now. This objective was set forth in Act 793 of 1977.

(There are systems which have ***a design for deferring contributions to future taxpayers***, lured by a lower contribution rate now and putting aside the fact that the contribution rate must then relentlessly grow much greater over decades of time -- consume now, and let your children face higher contribution rates after you retire.)

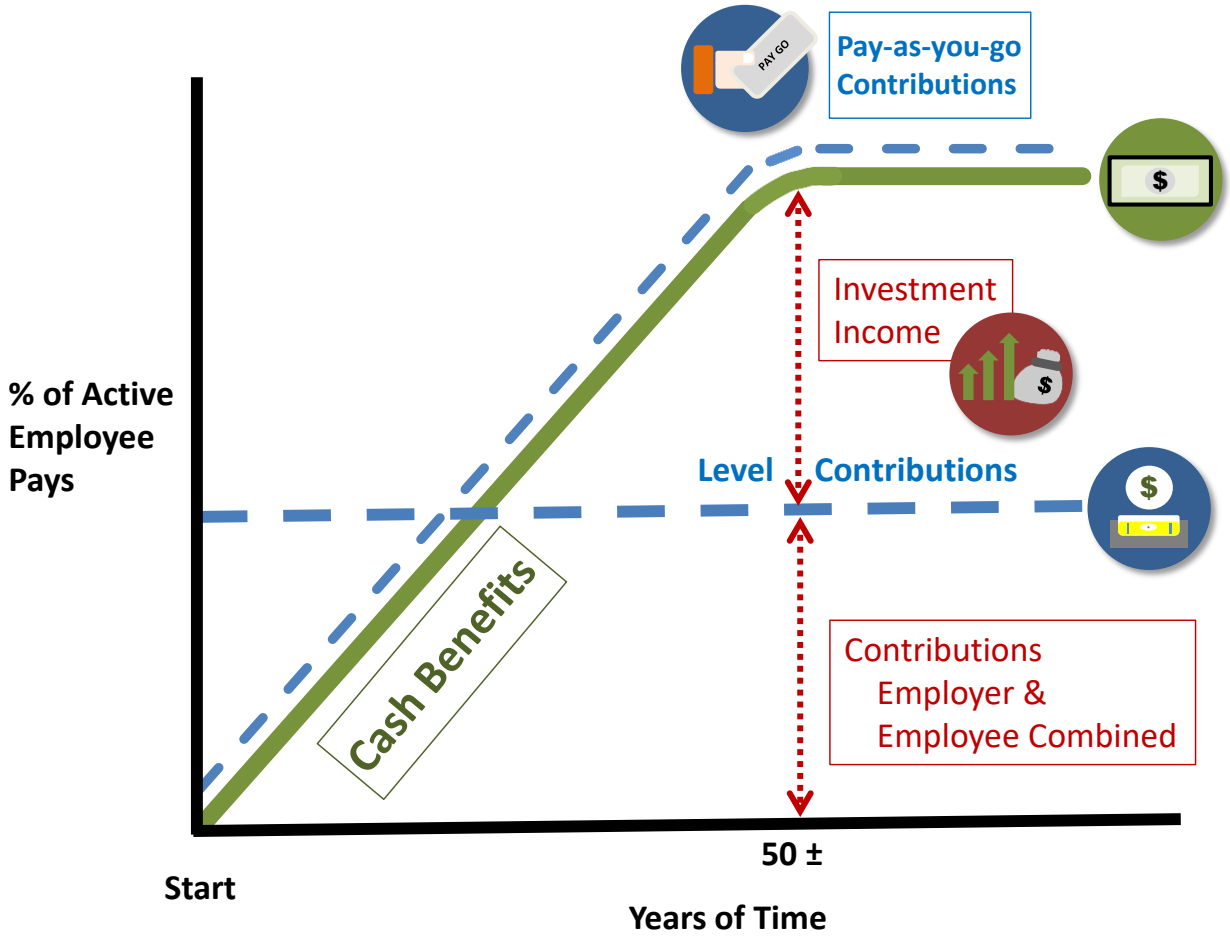
An inevitable byproduct of the level-cost design is the accumulation of reserve assets for decades and the income produced when the assets are invested. ***Investment income*** becomes the ***third and largest contributor*** for benefits to employees, and is interlocked with the contribution amounts required from employees and employers.

Translated to actuarial terminology, this level-cost objective means that the contribution rates must total at least the following:

> Normal Cost (the cost of members' service being rendered this year)
> ... plus ...
> Interest on Unfunded Actuarial Accrued Liabilities (unfunded accrued liabilities are the difference between (i) liabilities for service already rendered and (ii) the accrued assets of the plan).

Computing Contributions to Support System Benefits. From a given schedule of benefits and from the employee data and asset data furnished, the actuary determines the contribution rates to support the benefits, by means of ***an actuarial valuation***. An actuarial valuation has a number of ingredients such as: the rate of investment income which plan assets will earn; the rates of withdrawal of active members who leave covered employment before qualifying for any monthly benefit; the rates of mortality; the rates of disability; the rates of pay increases; and the assumed age or ages at actual retirement. In an actuarial valuation, assumptions must be made as to what the above rates will be, for the next year and for decades in the future. Only the subsequent actual experience of the System can indicate the degree of accuracy of the assumptions.

Reconciling Differences Between Assumed Experience and Actual Experience. Once actual experience has occurred and been observed, it will not coincide exactly with assumed experience, regardless of the accuracy of the assumptions or the skill of the actuary and the precision of the calculations made. The System copes with these continually changing differences by having annual actuarial valuations. Each actuarial valuation is a complete recalculation of assumed future experience, taking into account all past differences between assumed and actual experience. The result is continual adjustments in financial position.



CASH BENEFITS LINE. This relentlessly increasing line is the fundamental reality of retirement plan financing. It happens each time a new benefit is added for future retirements (and happens regardless of the design for contributing for benefits).

LEVEL CONTRIBUTION LINE. Determining the level contribution line requires detailed assumptions concerning a variety of experiences in future decades, including:

- **Economic Risk Areas**
  - Rates of investment return
  - Rates of pay increase
  - Changes in active member group size
- **Non-Economic Risk Areas**
  - Ages at actual retirement
  - Rates of mortality
  - Rates of withdrawal of active members (turnover)
  - Rates of disability

Actuarial Valuation Process

The financing diagram on the preceding page shows the relationship between the two fundamentally different philosophies of paying for retirement benefits: the method where contributions match cash benefit payments (or barely exceed cash benefit payments, as in the Federal Social Security program), and is thus an ***increasing contribution method***; and the ***level contribution method*** which equalizes contributions between the generations.

The actuarial valuation is the mathematical process by which the level contribution rate is determined, and the flow of activity constituting the valuation may be summarized as follows:

A. ***Census data***, furnished by plan administrator

Retired lives now receiving benefits
Former employees with vested benefits not yet payable
Active employees

B. + ***Asset data*** (cash & investments), furnished by plan administrator

C. + ***Benefit provisions*** that establish eligibility and amounts of payments to members

D. + ***Assumptions concerning future financial experience in various risk areas***, which assumptions are established by the Board of Trustees after consulting with the actuary

E. + ***The funding method*** for employer contributions (the long-term planned pattern for employer contributions)

F. + ***Mathematically combining the assumptions, the funding method, and the data***

G. = Determination of:

Plan financial position, and/or
New Employer Contribution Rate

Risks Associated with Measuring the Accrued Liability and Actuarially Determined Contribution

The determination of the accrued liability and the actuarially determined contribution requires the use of assumptions regarding future economic and demographic experience. Risk measures, as illustrated in this report, are intended to aid in the understanding of the effects of future experience differing from the assumptions used in the course of the actuarial valuation. Risk measures may also help with illustrating the potential volatility in the accrued liability and the actuarially determined contribution that result from the differences between actual experience and the actuarial assumptions.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions due to changing conditions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period, or additional cost or contribution requirements based on the Plan's funded status); and changes in plan provisions or applicable law. The scope of an actuarial valuation does not include an analysis of the potential range of such future measurements.

Examples of risk that may reasonably be anticipated to significantly affect the plan's future financial condition include:

1. **Investment Risk** – actual investment returns may differ from the expected returns;
2. **Asset/Liability Mismatch** – changes in asset values may not match changes in liabilities, thereby altering the gap between the accrued liability and assets and consequently altering the funded status and contribution requirements;
3. **Contribution Risk** – actual contributions may differ from expected future contributions. For example, material changes may occur in the anticipated number of covered employees, covered payroll, or other relevant contribution base. In a fixed rate plan with unfunded liabilities, a reduction in covered payroll can have a negative effect on the system as actual employer contributions are based on a lower than expected payroll;
4. **Salary and Payroll Risk** – actual salaries and total payroll may differ from expected, resulting in actual future accrued liability and contributions differing from expected;
5. **Longevity Risk** – members may live longer or shorter than expected and receive pensions for a period of time other than assumed; and
6. **Other Demographic Risks** – members may terminate, retire or become disabled at times or with benefits other than assumed resulting in actual future accrued liability and contributions differing from expected. Teacher shortages and reductions in school age populations may have an effect on the System other than expected.

The effects of certain trends in experience can generally be anticipated. For example, if the investment return since the most recent actuarial valuation is less (or more) than the assumed rate, the cost of the plan can be expected to increase (or decrease). Likewise, if longevity is improving (or worsening), increases (or decreases) in cost can be anticipated.

The timely receipt of the actuarially determined contributions is critical to support the financial health of the plan. Users of this report should be aware that contributions made at the actuarially determined rate do not necessarily guarantee benefit security.

Plan Maturity Measures

Risks facing a pension plan evolve over time. A young plan with virtually no investments and paying few benefits may experience little investment risk. An older plan with a large number of members in pay status and a significant trust may be much more exposed to investment risk. Generally accepted plan maturity measures are discussed below and on the following pages. An additional historical summary of plan maturity measures can be found on page 11.

	2024	2023	2022	2021	2020
Ratio of the Market Value of Assets to Total Payroll	6.2	5.9	5.9	6.7	5.7
Ratio of Actuarial Accrued Liability to Payroll	7.3	7.3	7.4	7.5	7.6
Ratio of Actives to Retirees and Beneficiaries	1.3	1.3	1.4	1.4	1.4
Ratio of Net Cash Flow to Market Value of Assets	-3.2%	-3.3%	-1.0%*	-3.2%	-3.9%
Duration of the Present Value of Future Benefits	14.17	14.16	14.03	14.02	13.83

** The net cash flow for 2022 includes $507.4 million from the settlement of a lawsuit.*

Ratio of the Market Value of Assets to Payroll

The relationship between assets and payroll is a useful indicator of the potential volatility of contributions. The market value of assets is currently 6.2 times the payroll indicating that a return on assets 2% different from assumed would equal approximately 12% of payroll. Such a change could affect the amortization period by approximately four years based on 2024 results. While asset smoothing would reduce the effect, asset gains and losses much larger than 2% are common. An increasing level of this maturity measure generally indicates an increasing volatility in the amortization period.

Ratio of Actuarial Accrued Liability to Payroll

As the ratio of actuarial accrued liability to payroll increases, the amortization period becomes increasingly sensitive to the effects of demographic gains and losses, and assumption changes. For example, a 1% demographic gain or loss would correspond to 7.3% of payroll and would affect the amortization period by two years based on the 2024 results.

Ratio of Actives to Retirees and Beneficiaries

A young plan with many active members and few retirees will have a high ratio of actives to retirees. A mature open plan may have close to the same number of actives to retirees resulting in a ratio near 1.0. A super-mature or closed plan may have significantly more retirees than actives resulting in a ratio below 1.0.

Ratio of Net Cash Flow to Market Value of Assets

A positive net cash flow means contributions exceed benefits and expenses. A negative cash flow means benefits and expenses exceed contributions, and existing funds may be used to make payments. A certain amount of negative net cash flow is generally expected to occur when benefits are prefunded through a qualified trust. Large negative net cash flows as a percent of assets may indicate a super-mature plan or a need for additional contributions.

Plan Maturity Measures (Concluded)

Duration of Present Value of Future Benefits

The modified duration of the present value of future benefits may be used to approximate the sensitivity to a 1% change in the assumed rate of return. For example, the current duration of 14.2 (which is based on a 7.25% discount rate) indicates that the present value of future benefits would increase approximately 14.2% if the assumed rate of return were lowered 1%. Such a change could affect the amortization period by 20 years or more.

Additional Risk Assessment

Additional risk assessment is outside the scope of the annual actuarial valuation. Additional assessment may include scenario tests, sensitivity tests, stochastic modeling, stress tests, and a comparison of the present value of accrued benefits at low-risk discount rates with the actuarial accrued liability.

Plan Maturity Measures (Based on Market Value of Assets)

Valuation Date June 30	(1) Accrued Liabilities (AAL)	(2) Market Value of Assets	(3) Unfunded AAL (1)-(2)	(4) Valuation Payroll^	(5) % Change in Payroll	(6) Funded Ratio (2)/(1)	(7) Annuitant Liabilities (AnnLiab)	(8) AnnLiab/ AAL (7)/(1)	(9) Liability/ Payroll (1)/(4)	(10) Assets/ Payroll (2)/(4)	(11) Est. Porfolio Std. Dev.	(12) Std. Dev. % of Pay (10)x(11)	(13) Unfunded/ Payroll (3)/(4)	(14) Net External Cash Flow (NECF)	(15) NECF/ Assets (14)/(2)	(16) Portfolio Rate of Return	(17) 10-year Trailing Average
2012	$ 16,139	$ 11,484	$ 4,655	$ 2,803		71.2%	$ 7,649	47.4%	575.8%	409.7%			166.1%	$ (285)	-2.5%	-1.1%	6.6%
2013#	16,718	12,830	3,888	2,819	0.6%	76.7%	8,181	48.9%	593.0%	455.1%			137.9%	(337)	-2.6%	14.9%	8.0%
2014	17,310	14,856	2,454	2,851	1.1%	85.8%	8,777	50.7%	607.2%	521.1%			86.1%	(395)	-2.7%	19.2%	8.2%
2015	18,136	15,036	3,100	2,874	0.8%	82.9%	9,778	53.9%	631.0%	523.1%			107.9%	(445)	-3.0%	4.3%	7.7%
2016	18,812	14,559	4,253	2,888	0.5%	77.4%	10,430	55.4%	651.3%	504.0%			147.3%	(505)	-3.5%	0.2%	6.3%
2017#*	20,298	16,285	4,013	2,922	1.2%	80.2%	11,337	55.9%	694.7%	557.4%			137.3%	(556)	-3.4%	16.0%	6.0%
2018	20,935	17,493	3,442	2,986	2.2%	83.6%	11,851	56.6%	701.1%	585.8%	12.7%	77.3%	115.3%	(607)	-3.5%	11.4%	7.6%
2019	21,709	17,742	3,967	3,027	1.4%	81.7%	12,460	57.4%	717.2%	586.1%	12.5%	76.3%	131.1%	(642)	-3.6%	5.2%	10.4%
2020	22,352	16,902	5,450	3,078	1.7%	75.6%	12,890	57.7%	726.2%	549.1%	12.5%	71.5%	177.1%	(665)	-3.9%	-1.0%	8.8%
2021*	23,987	21,469	2,518	3,205	4.1%	89.5%	13,596	56.7%	748.4%	669.8%	13.8%	92.1%	78.6%	(677)	-3.2%	31.7%	9.6%
2022	24,697	19,679	5,018	3,320	3.6%	79.7%	14,044	56.9%	743.8%	592.7%	13.7%	81.1%	151.1%	(192)	-1.0%	-7.5%	8.9%
2023	25,592	20,675	4,917	3,492	5.2%	80.8%	14,511	56.7%	732.9%	592.1%	13.9%	82.3%	140.8%	(689)	-3.3%	8.7%	8.3%
2024	26,356	22,359	3,997	3,612	3.4%	84.8%	14,992	56.9%	729.8%	619.1%	13.9%	86.1%	110.7%	(720)	-3.2%	11.8%	7.6%

(*) ATRS had experience studies in these years leading to a change or "true up" in actuarial assumptions. A pattern of periodic studies is a sign of a well-run system and suggests the extent to which the liability measures the actuary provides are likely to be realistic.

(#) ATRS had benefit changes in these years. Benefit increases cause liabilities to rise; benefit decreases cause liabilities to fall. In either case benefit changes affect the year by year comparability of the measures on this page.

(^) Includes payroll for return to work retirees.

(6) The Funded ratio is the most widely known measure of a plan's financial strength, but the trend in the funded ratio is much more important than the absolute ratio. The funded ratio should trend to 100%. As it approaches 100%, it is important to re-evaluate the level of investment risk in the portfolio and potentially to re-evaluate the assumed rate of return.

(9) and (10) The ratios of liabilities and assets to payroll gives an indication of both maturity and volatility. Many systems have values between 500% and 700%. Values significantly above that range may indicate difficulty in supporting the benefit level as a level % of payroll or an increased level of volatility in results.

(13) The ratio of unfunded liability to payroll gives an indication of the plan sponsor's ability to actually pay off the unfunded liability. A value above approximately 300% or 400% may indicate difficulty in discharging the unfunded liability within a reasonable time frame.

(14) and (15) The ratio of Net External Cash Flow to assets is an important measure of sustainability. Negative ratios are common and expected for a maturing system. In the longer term, this ratio should be on the order of approximately -4%. A ratio that is significantly more negative than that for an extended period could be a leading indicator of potential exhaustion of assets.

(16) and (17) Investment return is probably the largest single risk that most systems face. The year by year return and the 10-year geometric average give an indicator of the past performance of the investment program. Of course, past performance is not a guarantee of future results. Some of the trailing averaged are distorted by the extraordinary events of 2008 and 2021.

BENEFIT PROVISIONS

Summary of Benefit Provisions
June 30, 2024

1. **Post-Retirement Increases – A.C.A. §§ 24-7-713, 24-7-727 (compound COLA).** Each July 1, annuities are adjusted to be equal to the base annuity times 100% plus 3% for each full year in the period from the effective date of the base annuity to the current July 1. The base annuity is the amount of the member's annuity on the later of July 1, 2001 or the effective date of retirement. The July 1, 2009 cost of living adjustment for retirees was compounded. The annuity was set to 103% of the June 30, 2009 retirement benefit amount. After it was calculated on July 1, 2009, the base amount was reset to be the July 1, 2009 benefit amount. Future cost of living raises will be established by the new updated base amount. Future cost of living adjustments will be evaluated on an annual basis to determine if a simple or compound cost of living increase will be given, depending on the financial condition of the System.

2. **Lump Sum Death Benefit – A.C.A. § 24-7-720.** Beneficiaries of deceased active members or retirees with 10 or more years of ATRS credited service are eligible to receive a lump sum death benefit of up to $10,000. Resolution 2020-27 on September 28, 2021 set the minimum amount of the lump sum death benefit for all eligible members to six thousand six hundred sixty-seven dollars ($6,667); retired members who retired on or before July 1, 2007 will receive an additional six hundred sixty-six dollars and sixty cents ($666.60) for each contributory year of service credit up to the maximum amount of ten thousand dollars ($10,000); and all other members will receive an additional three hundred thirty-three dollars and thirty cents ($333.30) for each contributory year of service credit up to the maximum amount of ten thousand dollars ($10,000).

3. **Act 808 Retirement – A.C.A. § 24-4-732.** Any employee of a state agency who was an active member of the Arkansas Teacher Retirement System on April 8, 1987, and who qualified for retirement before January 1, 1988, could become a member of the Arkansas Public Employees Retirement System and retire from that system. All credited service was transferred to that system but the member's contributions were retained by the Arkansas Teacher Retirement System and the benefit amount is transferred monthly to the Arkansas Public Employees Retirement System. Each July 1, annuities are adjusted by 3% (compound escalator).

4. **Act 793 Retirement – A.C.A § 24-4-522.** Any employee who was a member of the rehabilitation services in 1977 was permitted to become a member of the Arkansas Public Employees Retirement System. Liabilities associated with prior service earned through June 30, 1978 remain in the Arkansas Teacher Retirement System. Future service is allocated to the Arkansas Public Employees Retirement System. Each July 1, annuities are adjusted by 3% (compound escalator).

5. **Retiree Benefit Stipend – A.C.A. § 24-7-713.** Each retired member as of June 30, 2008, with 5 or more years of ATRS credited service receives a $75 per month stipend. Members in T-DROP do not receive the $75 per month stipend until actual retirement. For all members retiring on or after July 1, 2008, a minimum of 10 years of ATRS credited service is required to receive the $75 per month stipend. The ATRS Board is allowed to set the stipend to a minimum of $1 per month and a maximum of $75 per month. By Board Resolution 2017-34 on November 13, 2017 the benefit stipend is removed from the base amount for all retirees and beneficiaries beginning in fiscal year 2019 and the benefit stipend will be reduced to $50.00 for fiscal year 2020 and beyond. The Resolution contains a "hold harmless" provision that prevents the lowering of the stipend if it would actually reduce the total monthly benefit. This would only affect retirees when the COLA is less than $25 per month.

6. **T-DROP Cash Balance Account.** Effective July 1, 2012, a T-DROP cash balance account was established that allows members exiting (retiring) from T-DROP to place all or a portion of their T-DROP proceeds into a Cash Balance Account (CBA) at ATRS. On November 13, 2017, by Resolution 2017-38 the Board set the CBA interest rate schedule based on years of participation as follows: 2.50% for year one, 2.75% for year two, 3.00% for year three, 3.25% for year four, 3.50% for year five, and 4.00% for year six and beyond. Each fiscal year, the Board can grant an incentive interest rate to encourage continued participation in the CBA program. For fiscal year 2024, the Board granted CBA participants an incentive rate of 0%, by Resolution 2023-38 on September 25, 2023.

7. **Optional Forms of Benefits – A.C.A. § 24-7-706:**

   Option 1 ***(Straight Life Annuity)***

   A member will receive the maximum monthly benefit for which he/she qualifies, throughout his/her lifetime. No monthly benefits will be paid to his/her beneficiary after the member's death. Should a member die before he/she has drawn benefits in an amount equal to his/her contributions plus earned interest, the balance will be paid to a designated beneficiary. The designated beneficiary may be anyone chosen by the member.

   Option A (100% Survivor Annuity)

   Under this option a member will receive a reduced annuity throughout his/her lifetime. Upon the member's death, the designated beneficiary(ies) will receive (equal shares of) the same annuity for the balance of his/her lifetime.

   Option B (50% Survivor Annuity)

   Under this option a member will receive a reduced annuity throughout his/her lifetime. Upon the member's death, the designated beneficiary(ies) will receive (equal shares of) one-half (1/2) of this annuity for the balance of his/her lifetime.

Option C (Annuity for Ten Years Certain and Life Thereafter)

A reduced monthly benefit payable for 120 months. After that time, or if the beneficiary dies prior to 120 months, a member's monthly allowance will revert to the amount he/she would have received under the regular plan and continue for life. If the member dies before receiving 120 payments, the designated beneficiary will receive a monthly benefit in the same amount until monthly benefits to both the member and the beneficiary equal 120 monthly payments. No further benefits are then payable to the beneficiary.

Pop-Up Election

Following the death of or a divorce from the member's designated beneficiary, his or her benefit reverts (pops-up) to the straight life annuity amount from the elected optional annuity amount. The member may then elect new beneficiaries in accordance with Arkansas Code and rules adopted by the ATRS board.

Option Factors are based upon a 5.0% interest rate and the PUB-2010 General Healthy Retiree/MP-2020 tables (generational projections using retirement year 2025) adjusted with a 50% unisex mix.

Sample Benefit Computations for a Member Retiring July 1, 2024 with a Simple 3% COLA

Data for an example member is shown below.

Annual retirement benefit as of July 1, 2024 (excluding stipend): $30,000

Projected benefits, taking into account increases after retirement would be:

Year Ended June 30	Annual Amount		$ Increase
	Base	Current	
2025	$30,000	$30,000	$ 0
2026	30,000	30,900	900
2027	30,000	31,800	900
2028	30,000	32,700	900
2029	30,000	33,600	900

Thereafter, the amount would increase by $900 annually for life. Act 793 members and Act 808 members receive compound COLAs.

CHANGES IN PURCHASING POWER

Benefit Changes During Recent Years of Retirement and Related Changes in Purchasing Power (1990 $)

Year Ended June 30	Increase Beginning of Year	Benefit Dollars in Year*	Inflation (Loss) in Year#	Purchasing Power at Year End	
				1990 $	% of 1990
1990	$ ----	$ 11,000	----	$ 11,000	100%
1991	330	11,330	(4.7)%	10,822	98%
1992	1,005	12,335	(3.1)%	11,429	104%
1993	1,045	13,380	(3.0)%	12,036	109%
1994	1,082	14,462	(2.5)%	12,693	115%
1995	400	14,862	(3.0)%	12,660	115%
1996	400	15,262	(2.8)%	12,652	115%
1997	772	16,034	(2.3)%	12,993	118%
1998	481	16,515	(1.7)%	13,161	120%
1999	1,383	17,898	(2.0)%	13,989	127%
2000	1,129	19,027	(3.7)%	14,336	130%
2001	1,406	20,433	(3.2)%	14,911	136%
2002	807	21,240	(1.1)%	15,337	139%
2003	562	21,802	(2.1)%	15,417	140%
2004	562	22,364	(3.3)%	15,314	139%
2005	562	22,926	(2.5)%	15,312	139%
2006	562	23,488	(4.3)%	15,037	137%
2007	562	24,050	(2.7)%	14,994	136%
2008	562	24,612	(5.0)%	14,611	133%
2009	562	25,174	1.4 %	15,161	138%
2010	755	25,929	(1.1)%	15,453	140%
2011	778	26,707	(3.6)%	15,370	140%
2012	778	27,485	(1.7)%	15,558	141%
2013	778	28,263	(1.8)%	15,723	143%
2014	778	29,041	(2.1)%	15,828	144%
2015	778	29,819	(0.1)%	16,232	148%
2016	778	30,597	(1.0)%	16,491	150%
2017	778	31,375	(1.6)%	16,638	151%
2018	778	32,153	(2.9)%	16,575	151%
2019	751	32,904	(1.6)%	16,687	152%
2020+	451	33,355	(0.6)%	16,807	153%
2021	751	34,106	(5.4)%	16,306	148%
2022	751	34,857	(9.1)%	15,281	139%
2023	751	35,608	(3.0)%	15,160	138%
2024	751	36,359	(3.0)%	15,033	137%
2025	751	37,110			

* *The $11,000 benefit used to begin this schedule is an arbitrary amount. A different beginning amount could show a different purchasing power amount, but the same in percent loss.*

\# *Based on Consumer Price Index, All Urban Consumers, United States City Average (June values).*

\+ *The Retiree Benefit Stipend was reduced by $300 in FY 2020.*

Benefit Changes During Recent Years of Retirement and Related Changes in Purchasing Power (2000 $)

Year Ended June 30	Increase Beginning of Year	Benefit Dollars in Year*	Inflation (Loss) in Year#	Purchasing Power at Year End	
				2000 $	% of 2000
2000	$ - - - -	$ 11,600	- - - -	$ 11,600	100%
2001	1,003	12,603	(3.2)%	12,207	105%
2002	523	13,126	(1.1)%	12,579	108%
2003	372	13,498	(2.1)%	12,668	109%
2004	372	13,870	(3.3)%	12,605	109%
2005	372	14,242	(2.5)%	12,624	109%
2006	372	14,614	(4.3)%	12,417	107%
2007	372	14,986	(2.7)%	12,400	107%
2008	372	15,358	(5.0)%	12,100	104%
2009	372	15,730	1.4 %	12,573	108%
2010	472	16,202	(1.1)%	12,815	110%
2011	486	16,688	(3.6)%	12,746	110%
2012	486	17,174	(1.7)%	12,902	111%
2013	486	17,660	(1.8)%	13,039	112%
2014	486	18,146	(2.1)%	13,125	113%
2015	486	18,632	(0.1)%	13,460	116%
2016	486	19,118	(1.0)%	13,675	118%
2017	486	19,604	(1.6)%	13,797	119%
2018	486	20,090	(2.9)%	13,745	118%
2019	459	20,549	(1.6)%	13,831	119%
2020+	159	20,708	(0.6)%	13,848	119%
2021	459	21,167	(5.4)%	13,431	116%
2022	459	21,626	(9.1)%	12,582	108%
2023	459	22,085	(3.0)%	12,479	108%
2024	459	22,544	(3.0)%	12,371	107%
2025	459	23,003			

** The $11,600 benefit used to begin this schedule is an arbitrary amount. A different beginning amount could show a different purchasing power amount, but the same in percent loss.*

 # Based on Consumer Price Index, All Urban Consumers, United States City Average (June values).

+ The Retiree Benefit Stipend was reduced by $300 in FY 2020.

Benefit Changes During Recent Years of Retirement and Related Changes in Purchasing Power (2010 $)

Year Ended June 30	Increase Beginning of Year	Benefit Dollars in Year*	Inflation (Loss) in Year#	Purchasing Power at Year End	
				2010 $	% of 2010
2010	$ - - - -	$ 11,900	- - - -	$ 11,900	100%
2011	357	12,257	(3.6)%	11,836	99%
2012	357	12,614	(1.7)%	11,981	101%
2013	357	12,971	(1.8)%	12,108	102%
2014	357	13,328	(2.1)%	12,188	102%
2015	357	13,685	(0.1)%	12,499	105%
2016	357	14,042	(1.0)%	12,699	107%
2017	357	14,399	(1.6)%	12,812	108%
2018	357	14,756	(2.9)%	12,764	107%
2019	330	15,086	(1.6)%	12,837	108%
2020+	30	15,116	(0.6)%	12,780	107%
2021	330	15,446	(5.4)%	12,391	104%
2022	330	15,776	(9.1)%	11,605	98%
2023	330	16,106	(3.0)%	11,506	97%
2024	330	16,436	(3.0)%	11,403	96%
2025	330	16,766			

** The $11,900 benefit used to begin this schedule is an arbitrary amount. A different beginning amount could show a different purchasing power amount, but the same in percent loss.*

 # Based on Consumer Price Index, All Urban Consumers, United States City Average (June values).

+ The Retiree Benefit Stipend was reduced by $300 in FY 2020.

VALUATION DATA

Summary of
Annuities Being Paid Retirees and Beneficiaries July 1, 2024
by Disbursing Account and Gender

Disbursing Account	Men		Women		Totals	
	No.	Annual Annuities	No.	Annual Annuities	No.	Annual Annuities
RETIREMENT RESERVE ACCOUNT						
Age & Service Annuities						
Retirees	10,955	$303,715,679	39,748	$ 997,133,272	50,703	$1,300,848,951
Beneficiaries	466	10,574,304	1,111	28,347,398	1,577	38,921,702
Totals	11,421	314,289,983	40,859	1,025,480,670	52,280	1,339,770,653
Disability						
Retirees	508	8,258,414	2,109	34,237,426	2,617	42,495,840
Beneficiaries	145	2,377,307	141	2,683,346	286	5,060,653
Totals	653	10,635,721	2,250	36,920,772	2,903	47,556,493
Act 793	63	1,018,980	60	536,592	123	1,555,572
Retirement Reserve Account	12,137	325,944,684	43,169	1,062,938,034	55,306	1,388,882,718
Act 808 Retirement Reserve Account	15	1,067,493	8	312,245	23	1,379,738
Total Retirement Reserve Account	12,152	327,012,177	43,177	1,063,250,279	55,329	1,390,262,456
SURVIVOR'S BENEFIT ACCOUNT						
Beneficiaries of Deceased Members	441	6,693,653	407	6,796,577	848	13,490,230
RETIREMENT SYSTEM TOTALS						
Total Annuities Being Paid	**12,593**	$333,705,830	**43,584**	$1,070,046,856	**56,177**	$1,403,752,686
Prior Year Totals	12,330	$323,142,251	42,316	$1,023,473,463	54,646	$1,346,615,714

Average Age	**72.4**	**72.3**	**72.3**

Summary of
Annuities Being Paid Retirees and Beneficiaries July 1, 2024
by Disbursing Account and Source of Financing

Disbursing Account	Annual Annuities		Total	
	Employee Financed	Employer Financed	No.	Annual Annuities
RETIREMENT RESERVE ACCOUNT				
Age & Service Annuities				
Retirees	$67,871,697	$ 1,232,977,254	50,703	$ 1,300,848,951
Beneficiaries	297,785	38,623,917	1,577	38,921,702
Totals	68,169,482	1,271,601,171	52,280	1,339,770,653
Disability				
Retirees	1,241,502	41,254,338	2,617	42,495,840
Beneficiaries	127,305	4,933,348	286	5,060,653
Totals	1,368,807	46,187,686	2,903	47,556,493
Act 793	92,594	1,462,978	123	1,555,572
Retirement Reserve Account	69,630,883	1,319,251,835	55,306	1,388,882,718
Act 808 Retirement Reserve Account	51,592	1,328,146	23	1,379,738
Total Retirement Reserve Account	69,682,475	1,320,579,981	55,329	1,390,262,456
SURVIVOR'S BENEFIT ACCOUNT				
Beneficiaries of Deceased Members	379,801	13,110,429	848	13,490,230
RETIREMENT SYSTEM TOTALS				
Total Annuities Being Paid	**$70,062,276**	**$ 1,333,690,410**	**56,177**	**$ 1,403,752,686**
Prior Year Totals	$69,437,273	$ 1,277,178,441	54,646	$ 1,346,615,714

Annuities Being Paid Retirees and Beneficiaries July 1, 2024 by Type of Annuity Being Paid

Type of Annuity	No.	Annual Amounts		
		Original Annuities	Base Annuities	Current Annuities
RETIREMENT RESERVE ACCOUNT				
Age & Service				
Option 1 (Basic single life)	41,319	$ 674,115,602	$ 751,382,658	$1,027,112,303
Option A (Joint & 100% Survivor)	5,745	98,843,205	110,095,621	152,039,803
Option B (Joint & 50% Survivor)	2,797	64,254,084	73,757,700	102,144,498
Option C (10-year certain)	842	15,869,897	15,799,405	19,552,347
Beneficiaries	1,577	31,052,264	26,885,088	38,921,702
Totals	52,280	884,135,052	977,920,472	1,339,770,653
Disability				
Option 1	2,182	24,214,056	25,546,544	35,273,376
Option A	357	4,093,205	4,080,239	5,492,655
Option B	78	1,216,130	1,273,816	1,729,809
Option C	0	-	-	-
Beneficiaries	286	3,595,842	3,441,060	5,060,653
Totals	2,903	33,119,233	34,341,659	47,556,493
Act 793	123	705,677	1,555,572	1,555,572
Retirement Reserve Account	55,306	917,959,962	1,013,817,703	1,388,882,718
Act 808 Retirement Reserve Account	23	416,115	1,379,738	1,379,738
Total Retirement Reserve Account	55,329	918,376,077	1,015,197,441	1,390,262,456
SURVIVOR'S BENEFIT ACCOUNT				
Beneficiaries of Deceased Members				
Age 0-17	134	1,260,642	1,259,851	1,394,610
Age 18-23	74	692,381	691,367	789,881
Other	640	7,535,988	8,242,672	11,305,739
Totals	848	9,489,011	10,193,890	13,490,230
RETIREMENT SYSTEM TOTALS				
Total Annuities Being Paid	56,177	$ 927,865,088	$1,025,391,331	$1,403,752,686

The Original Annuity is the annuity at the date of retirement (includes stipend).

The Base Annuity is the amount from which the 3.0% COLA is calculated.

The Current Annuity is the annuity payable at July 1, 2024 including the COLA granted on July 1.

Annuities Being Paid July 1, 2024 from the Retirement Reserve Account to AGE AND SERVICE Retirees and Beneficiaries by Attained Ages

Attained Age	Annual Amounts			
	No.	Original Annuities	Base Annuities	Current Annuities
Under 40	11	$ 194,268	$ 164,609	$ 222,941
40-44	4	110,351	92,043	121,656
45-49	18	311,612	300,938	326,817
50-54	419	12,922,360	12,650,193	13,764,299
55-59	1,322	37,629,138	37,133,753	43,511,196
60-64	6,663	126,159,186	126,563,447	155,258,965
65-69	11,705	208,317,355	214,339,695	278,468,400
70-74	12,614	212,571,578	230,930,577	322,816,663
75-79	10,219	161,996,901	188,201,559	275,344,718
80-84	5,544	78,269,868	99,418,742	148,192,667
85-89	2,522	32,325,433	45,062,329	67,302,853
90-94	966	10,721,097	17,670,703	26,399,511
95 & Up	273	2,605,905	5,391,884	8,039,967
Totals	**52,280**	**$884,135,052**	**$977,920,472**	**$1,339,770,653**
Avg. Age	**72.3**			

Amounts in the Original Annuities column include the original $900 Retiree Benefit Stipend. Amounts in the Base Annuities column exclude this amount for purposes of determining the COLA. Amounts in the Current Annuities column include the current $600 Retiree Benefit Stipend.

Annuities Being Paid July 1, 2024
from the Retirement Reserve Account to
DISABILITY Retirees and Beneficiaries by Attained Ages

Attained Age	Annual Amounts			
	No.	Original Annuities	Base Annuities	Current Annuities
Under 40	8	$ 83,419	$ 79,006	$ 92,739
40-44	30	366,972	351,072	390,336
45-49	99	1,292,947	1,239,421	1,448,398
50-54	182	2,592,585	2,477,637	2,915,487
55-59	334	4,668,770	4,457,508	5,472,043
60-64	518	5,761,346	5,461,351	7,258,756
65-69	580	6,378,868	6,130,037	8,696,992
70-74	496	5,115,433	5,273,187	7,906,117
75-79	388	4,175,840	4,972,866	7,507,900
80-84	186	2,015,871	2,659,790	4,003,975
85-89	53	491,092	795,538	1,195,925
90-94	23	142,570	349,360	525,343
95 & Up	6	33,520	94,886	142,482
Totals	**2,903**	**$33,119,233**	**$34,341,659**	**$47,556,493**
Avg. Age	**66.8**			

Amounts in the Original Annuities column include the original $900 Retiree Benefit Stipend. Amounts in the Base Annuities column exclude this amount for purposes of determining the COLA. Amounts in the Current Annuities column include the current $600 Retiree Benefit Stipend.

Annuities Being Paid July 1, 2024
from the Retirement Reserve Account to
ACT 793 Retirees and Beneficiaries by Attained Ages

Attained Age	Annual Amounts		
	No.	Original Annuities	Current Annuities
Under 40	-	$ -	$ -
40-44	-	-	-
45-49	-	-	-
50-54	-	-	-
55-59	-	-	-
60-64	-	-	-
65-69	3	5,222	9,881
70-74	23	74,363	136,344
75-79	35	172,194	349,279
80-84	36	258,298	567,602
85-89	19	130,837	311,801
90-94	7	64,763	180,665
95 & Up	-	-	-
Totals	**123**	**$705,677**	**$1,555,572**
Avg. Age	**79.7**		

Base annuities are equal to current annuities since the COLA is compounded.

Annuities Being Paid July 1, 2024 from the Retirement Reserve Account to SURVIVOR BENEFICIARIES by Attained Ages

Attained Age	Annual Amounts			
	No.	Original Annuities	Base Annuities	Current Annuities
Under 40	217	$2,004,448	$ 2,000,990	$ 2,251,608
40-44	4	20,910	20,760	28,619
45-49	5	45,869	46,248	60,080
50-54	16	292,972	280,997	317,371
55-59	32	457,832	452,798	556,728
60-64	100	1,221,228	1,150,790	1,419,231
65-69	148	1,890,493	1,880,087	2,509,602
70-74	129	1,355,051	1,428,920	2,029,619
75-79	99	1,285,495	1,490,099	2,165,676
80-84	55	524,938	737,815	1,101,177
85-89	29	273,084	439,487	655,855
90-94	13	112,717	245,370	365,531
95 & Up	1	3,974	19,529	29,133
Totals	**848**	**$9,489,011**	**$10,193,890**	**$13,490,230**
Avg. Age	**56.3**			

Amounts in the Original Annuities column include the original $900 Retiree Benefit Stipend. Amounts in the Base Annuities column exclude this amount for purposes of determining the COLA. Amounts in the Current Annuities column include the current $600 Retiree Benefit Stipend.

Annuities Being Paid July 1, 2024
from the ACT 808 Retirement Reserve Account to
ACT 808 Retirees and Beneficiaries by Attained Ages

Attained Age	Annual Amounts		
	No.	Original Annuities	Current Annuities
Under 40	-	$ -	$ -
40-44	-	-	-
45-49	-	-	-
50-54	-	-	-
55-59	-	-	-
60-64	-	-	-
65-69	-	-	-
70-74	-	-	-
75-79	-	-	-
80-84	-	-	-
85-89	7	153,070	540,640
90-94	12	199,498	688,309
95 & Up	4	63,547	150,789
Totals	**23**	**$416,115**	**$1,379,738**
Avg. Age	**91.7**		

Base annuities are the same as current annuities since the COLA is compounded.

Retiree and Beneficiary Data
as of June 30

Year	Estimated Number Added	Estimated Number Removed	Total Retirees*	Annual Allowances (Millions)	% Increase in Annual Allowances@	Average Annual Allowances
1992	455	312	12,033	$ 115.50	10.4%	$ 9,599
1993	589	316	12,306	129.71	12.3%	10,540
1994	846	512	12,640	141.87	9.4%	11,224
1995	908	342	13,206	156.59	10.4%	11,857
1996	1,107	654	13,659	170.59	8.9%	12,489
1997	1,049	475	14,233	194.90	14.3%	13,694
1998	809	240	14,802	220.38	13.1%	14,888
1999	1,582	497	15,887	248.75	12.9%	15,658
2000	1,249	479	16,657	280.14	12.6%	16,818
2001	1,571	450	17,778	309.03	10.3%	17,383
2002	1,989	568	19,199	334.15	8.1%	17,404
2003	1,621	549	20,271	359.98	7.7%	17,758
2004	1,685	528	21,428	386.23	7.3%	18,025
2005	1,822	570	22,680	415.04	7.5%	18,300
2006	1,958	485	24,153	449.77	8.4%	18,622
2007	2,017	559	25,611	484.55	7.7%	18,920
2008	1,703	513	26,801	515.56	6.4%	19,237
2009	2,721	704	28,818	564.59	9.5%	19,591
2010	2,588	819	30,587	612.77	8.5%	20,034
2011	2,394	882	32,099	657.08	7.2%	20,470
2012	2,932	871	34,160	709.17	7.9%	20,760
2013	3,039	945	36,254	763.76	7.7%	21,067
2014	3,156	932	38,478	822.19	7.7%	21,368
2015	3,326	1,056	40,748	916.62	11.5%	22,495
2016	3,272	925	43,095	983.87	7.3%	22,830
2017	2,996	999	45,092	1,044.74	6.2%	23,169
2018	2,927	1,195	46,824	1,099.35	5.2%	23,478
2019	2,849	996	48,677	1,146.74	4.3%	23,558
2020	2,811	1,355	50,133	1,194.82	4.2%	23,833
2021	2,852	1,580	51,405	1,242.70	4.0%	24,175
2022	2,788	1,445	52,748	1,293.75	4.1%	24,527
2023	3,389	1,491	54,646	1,346.62	4.1%	24,643
2024	2,879	1,348	56,177	1,403.75	4.2%	24,988

** T-DROP participants are classified as active members for purposes of the valuation and are not included in this schedule.*

@ Upon actual retirement, T-DROP account balances may be paid in the form of an additional annuity – a "T-DROP Annuity." Annual annuities shown include T-DROP annuities beginning in 2015.

REPORTED ASSETS

Reported Assets

The assets of the Retirement System, as of June 30, 2024, were reported to your actuary to be $22,359,231,384. This amount, reduced by a funding value adjustment of $49,901,426 this year, is used to finance the Retirement System liability.

Accounts	Assets as of June 30	
	2024	2023
Regular Accounts		
Members' Deposit Accounts		
Contributions	$ 1,830,533,728	$ 1,718,903,627
Interest	13,013,551,141	11,599,922,370
Total	14,844,084,869	13,318,825,997
T-DROP Member Deposit Accounts		
Contributions	32,961,427	32,472,783
Interest	17,836,421	18,548,379
Total	50,797,848	51,021,162
Cash Balance Account	240,202,392	226,279,957
Employer's Accumulation Account	(7,498,915,914)	(7,256,480,855)
Retirement Reserve Account	14,288,978,608	13,886,819,183
Act 808 Retirement Reserve Account	5,192,191	6,235,877
T-Lump Sum Payable	299,014,864	320,171,587
Survivors Benefit Account	119,259,431	112,186,981
Total Regular Accounts	22,348,614,289	20,665,059,889
Other Accounts		
Income Expense Account	10,617,095	9,992,029
Other Special Reserves	-	-
Miscellaneous	-	-
Total Other Accounts	10,617,095	9,992,029
Total Accounting Value of Assets	22,359,231,384	20,675,051,918
Funding Value Adjustment	(49,901,426)	339,856,905
Funding Value of Assets	$22,309,329,958	$21,014,908,823

VALUATION RESULTS

Liabilities for Annuities Being Paid July 1, 2024
Tabulated by Type of Annuity

Type of Annuity	Liabilities July 1, 2024		
	Men	Women	Totals
RETIREMENT RESERVE ACCOUNT			
Age & Service Annuities			
Option 1 (Straight Life)	$ 1,745,026,970	$ 8,606,168,394	$10,351,195,364
Option A (100% Joint & Survivor)	885,523,315	1,032,012,123	1,917,535,438
Option B (50% Joint & Survivor)	425,602,089	711,408,530	1,137,010,619
Option C (10 Years Certain & Life)	53,211,808	204,917,187	258,128,995
Beneficiaries	80,648,376	232,260,831	312,909,207
Total Age & Service	3,190,012,558	10,786,767,065	13,976,779,623
Disability Annuities			
Option 1	51,681,690	292,428,393	344,110,083
Option A	27,167,139	48,776,449	75,943,588
Option B	7,026,897	12,539,721	19,566,618
Option C	-	-	-
Beneficiaries	21,926,211	25,472,360	47,398,571
Total Disability	107,801,937	379,216,923	487,018,860
Act 793	6,500,750	4,431,239	10,931,989
Retirement Reserve Account	3,304,315,245	11,170,415,227	14,474,730,472
Act 808 Retirement Reserve Account	4,141,313	1,054,833	5,196,146
Total Retirement Reserve Account	3,308,456,558	11,171,470,060	14,479,926,618
SURVIVORS' BENEFIT ACCOUNT			
Beneficiaries of Deceased Members	58,710,971	63,503,585	122,214,556
RETIREMENT SYSTEM TOTALS			
Total Annuity Liabilities	3,367,167,529	11,234,973,645	14,602,141,174
Cash Benefit Account Liabilities			240,202,392
Liabilities for Lump Sum Death Benefits			150,053,843
Total	$ 3,367,167,529	$11,234,973,645	$14,992,397,409

Annual Reserve Transfers

The annual accounting transfers listed below are recommended so that retired life accounts will be fully funded as of the valuation date.

Reserve Account	June 30, 2024 Balance Reported	Transfer Amount	June 30, 2024 Balance After Transfer
Retiree Accounts			
RRA	$ 14,288,978,608	$ 185,751,864	$ 14,474,730,472
808 RRA	5,192,191	3,955	5,196,146
SBA	119,259,431	2,955,125	122,214,556
Total Retiree Accounts	14,413,430,230	188,710,944	14,602,141,174
EAA	(7,498,915,914)	(188,710,944)	(7,687,626,858)
Total	**$ 6,914,514,316**	**$ -**	**$ 6,914,514,316**

Lump sum death benefits for retirees are paid from the Employer Accumulation Account and are not included in the figures shown in this report. The actuarial accrued liabilities for lump sum death benefits for retirees are currently $150.1 million. The Cash Balance Account includes an additional $240.2 million of retiree liabilities and is not included in the schedule above. No reserve transfers are required for this account.

Retirement Reserve Account
Comparative Statement of Annuities, Accrued Liabilities and Assets
($ Millions)

Valuation Date June 30	Annual Annuities Being Paid			Average	Computed Liabilities	Applicable Assets	Unfunded Retired Life Liabilities	Ratio of Assets to Liabilities
	No.	Amount	% Incr.					
1980*#	8,001	$ 30.10	3.5%	$ 3,761	$ 280.70	$ 280.7	none	100.0%
1985*+	9,331	51.49	13.6%	5,518	479.9	479.9	none	100.0%
1990	11,054	87.84	7.2%	7,946	847.7	847.7	none	100.0%
1995	12,622	150.45	10.8%	11,920	1,428.6	1,428.6	none	100.0%
2000* ##	16,172	275.65	14.6%	17,045	2,828.8	2,828.8	none	100.0%
2005	22,147	409.42	7.5%	18,486	4,148.1	4,148.1	none	100.0%
2006	23,606	443.98	8.4%	18,808	4,483.4	4,483.4	none	100.0%
2007	25,038	478.30	7.7%	19,103	4,816.4	4,816.4	none	100.0%
2008	26,258	509.29	6.5%	19,396	5,391.3	5,391.3	none	100.0%
2009	28,228	557.83	9.5%	19,762	5,891.9	5,891.9	none	100.0%
2010	29,969	605.55	8.6%	20,206	6,358.0	6,358.0	none	100.0%
2011^	31,498	649.47	7.3%	20,619	6,972.6	6,972.6	none	100.0%
2012	33,533	701.09	7.9%	20,907	7,481.0	7,481.0	none	100.0%
2013	35,622	755.26	7.7%	21,202	8,004.8	8,004.8	none	100.0%
2014	37,824	813.33	7.7%	21,503	8,561.9	8,561.9	none	100.0%
2015@	40,070	907.09	11.5%	22,638	9,515.7	9,515.7	none	100.0%
2016	42,395	973.78	7.4%	22,969	10,157.2	10,157.2	none	100.0%
2017* ^	44,394	1,034.17	6.2%	23,295	11,026.4	11,026.4	none	100.0%
2018	46,108	1,088.30	5.2%	23,603	11,515.7	11,515.7	none	100.0%
2019	47,979	1,137.79	4.5%	23,714	12,094.6	12,094.6	none	100.0%
2020	49,365	1,182.98	4.0%	23,964	12,494.4	12,494.4	none	100.0%
2021^	50,633	1,230.58	4.0%	24,304	13,163.2	13,163.2	none	100.0%
2022	51,944	1,281.16	4.1%	24,664	13,580.5	13,580.5	none	100.0%
2023	53,809	1,333.49	4.1%	24,782	14,019.7	14,019.7	none	100.0%
2024	55,329	1,390.26	4.3%	25,127	14,479.9	14,479.9	none	100.0%

* *After plan amendments.*

\# *After change in interest assumption from 6.0% to 7.0%, change in post-retirement adjustments from 1.5% to 3.0% and recommended reserve transfer.*

\+ *After redetermination of base, retroactive application of new minimum benefit formula and reserve transfers.*

\## *Includes Act 808 and Act 793 retirees beginning in 2000.*

^ *After changes in assumptions.*

@ *Upon actual retirement, T-DROP account balances maybe paid in the form of an additional annuity – a "T-DROP Annuity." Annual annuities shown include T-DROP annuities beginning in 2015.*

Survivors' Benefit Account
Accrued Liabilities and Assets
Comparative Statement

Valuation Date June 30	Annual Annuities Being Paid		Computed Liabilities	Applicable Assets	Unfunded Accrued Liabilities	Ratio of Assets to Liabilities
	No.	Amount				
1980*#	393	$ 772,631	$ 7,042,644	$ 7,042,644	none	100.0%
1985*+	421	1,240,399	12,411,800	12,411,800	none	100.0%
1990	424	1,830,743	18,117,244	18,117,244	none	100.0%
1995	416	2,723,940	26,220,218	26,220,218	none	100.0%
2000*	485	4,487,519	43,701,138	43,701,138	none	100.0%
2005	533	5,619,675	56,257,745	56,257,745	none	100.0%
2006	547	5,791,974	57,605,939	57,605,939	none	100.0%
2007	573	6,250,603	63,481,565	63,481,565	none	100.0%
2008	543	6,269,551	66,496,539	66,496,539	none	100.0%
2009	590	6,761,034	70,857,161	70,857,161	none	100.0%
2010	618	7,224,585	75,108,334	75,108,334	none	100.0%
2011^	601	7,605,212	81,150,385	81,150,385	none	100.0%
2012	627	8,081,913	84,930,745	84,930,745	none	100.0%
2013	632	8,491,667	88,139,802	88,139,802	none	100.0%
2014	654	8,861,734	89,793,996	89,793,996	none	100.0%
2015	678	9,530,889	95,272,795	95,272,795	none	100.0%
2016	700	10,084,359	98,960,258	98,960,258	none	100.0%
2017* ^	698	10,574,602	104,668,995	104,668,995	none	100.0%
2018	716	11,042,074	107,043,067	107,043,067	none	100.0%
2019	741	11,313,962	106,306,434	106,306,434	none	100.0%
2020	768	11,843,667	108,528,929	108,528,929	none	100.0%
2021^	772	12,116,736	113,740,676	113,740,676	none	100.0%
2022	804	12,596,386	115,961,127	115,961,127	none	100.0%
2023	837	13,120,866	119,954,069	119,954,069	none	100.0%
2024	848	13,490,230	122,214,556	122,214,556	none	100.0%

* *Includes plan amendments.*

\# *After change in interest assumption from 6.0% to 7.0%, change in post-retirement adjustments from 1.5% to 3.0% and recommended reserve transfer.*

\+ *After redetermination of base annuity, retroactive application of new minimum benefit formula and recommended reserve transfer.*

^ *After changes in assumptions.*

Annual Allowances of Retired Lives by Year of Retirement as of June 30, 2024

Calendar Year of Retirement	No.	Annual Amount Being Paid			Average
		Original	Total Increase	Current	
2024*	660	$ 8,240,864	$ 449,516	$ 8,690,380	$13,167
2023	2,836	51,340,213	5,779,181	57,119,394	20,141
2022	3,208	50,905,340	7,393,020	58,298,360	18,173
2021	2,667	47,382,648	9,505,342	56,887,990	21,330
2020	2,680	45,425,834	10,248,893	55,674,727	20,774
2019	2,682	43,623,965	11,567,251	55,191,216	20,578
2018	2,663	44,564,105	12,917,684	57,481,789	21,585
2017	2,681	44,575,501	15,467,547	60,043,048	22,396
2016	2,721	44,769,569	17,082,927	61,852,496	22,732
2015	2,899	48,109,208	19,975,591	68,084,799	23,486
2014	2,827	48,371,690	21,864,417	70,236,107	24,845
2013	2,596	44,648,399	22,034,671	66,683,070	25,687
2012	2,521	41,805,187	22,246,451	64,051,638	25,407
2011	2,263	37,731,530	20,943,341	58,674,871	25,928
2010	1,901	31,855,299	20,088,923	51,944,222	27,325
2009	1,947	33,165,754	22,009,849	55,175,603	28,339
2008	1,871	30,354,804	19,782,920	50,137,724	26,797
2007	1,732	27,938,484	18,656,042	46,594,526	26,902
2006	1,491	24,475,828	17,842,218	42,318,046	28,382
2005	1,468	24,545,590	20,017,893	44,563,483	30,357
2004	1,284	20,543,740	16,287,295	36,831,035	28,685
2003	1,142	18,170,277	15,225,005	33,395,282	29,243
2002	1,067	17,386,174	14,548,194	31,934,368	29,929
2001	1,014	15,736,313	13,540,448	29,276,761	28,873
2000	912	15,389,013	13,971,645	29,360,658	32,194
1999	761	11,879,390	12,267,367	24,146,757	31,730
1998	710	10,447,122	11,255,213	21,702,335	30,567
1997	521	8,585,606	9,879,933	18,465,539	35,442
1996	386	6,682,583	8,046,494	14,729,077	38,158
1995	429	7,014,323	8,725,050	15,739,373	36,689
1994	408	6,713,162	9,136,228	15,849,390	38,847
1993	281	4,911,796	6,954,987	11,866,783	42,231
1992	162	2,170,495	3,381,390	5,551,885	34,271
1991	120	1,552,902	2,362,773	3,915,675	32,631
1990	131	1,421,474	2,731,578	4,153,052	31,703
Before 1989	535	5,430,906	11,700,321	17,131,227	32,021
TOTAL	**56,177**	**$927,865,088**	**$475,887,598**	**$1,403,752,686**	**$24,988**

** Reporting for calendar year 2024 is not yet complete. The July 1st retirees are not included in the schedule.*

APPENDIX

APPENDIX

Single Life Retirement Values
Based on PubG-2010 Mortality Amount-Weighted Tables
Adjusted Using MP-2020 Projection Scale and 7.25% Interest

Sample Attained Ages in 2024*	Present Value of $1.00 Monthly for Life		Present Value of $1 Monthly for Life Increasing 3.0% Annually		Future Life Expectancy (Years)		Percent Dying within Next Year	
	Men	Women	Men	Women	Men	Women	Men	Women
40	$160.03	$162.55	$213.61	$218.42	45.45	48.45	0.09 %	0.05 %
45	155.66	158.89	205.22	211.11	40.21	43.16	0.13 %	0.07 %
50	149.99	154.08	194.84	202.00	35.10	37.99	0.29 %	0.22 %
55	143.10	148.30	182.69	191.30	30.23	33.04	0.43 %	0.30 %
60	134.34	140.66	168.05	177.99	25.52	28.19	0.66 %	0.42 %
65	123.42	130.67	150.82	161.67	21.04	23.47	0.96 %	0.61 %
70	109.91	117.95	130.82	142.23	16.79	18.95	1.48 %	0.98 %
75	93.95	102.44	108.69	120.08	12.89	14.74	2.49 %	1.74 %
80	76.31	84.72	85.74	96.39	9.46	10.96	4.47 %	3.21 %
85	58.84	66.25	64.31	73.21	6.67	7.77	8.24 %	6.13 %
Base	2705 x 1.05	2706 x 1.05	2705 x 1.05	2706 x 1.05				
Projection	964	965	964	965				

* *Rates and life expectancies in future years are determined by the MP-2020 projection scale.*

Age	Benefit Increasing 3.0% Yearly	Portion of Age 60 Lives Still Alive	
		Men	Women
60	$100.00	100%	100%
65	115.00	96%	98%
70	130.00	91%	94%
75	145.00	84%	89%
80	160.00	73%	81%
Ref		2705 x 1.05	2706 x 1.05

The above chart is an illlustration for a member who retires at age 60 in 2024.

800.521.0498 | P: 248.799.9000 | www.grsconsulting.com

November 12, 2024

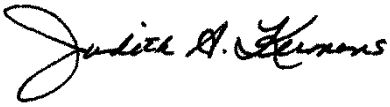
Mr. Mark White
Executive Director
Arkansas Teacher Retirement System
1400 West Third Street
Little Rock, Arkansas 72201

Re: Report of the June 30, 2024 Actuarial Valuation of Retirees and Beneficiaries

Dear Mr. White:

Attached is a copy of this report. Please let us know if anything else is needed.

Sincerely,
Gabriel, Roeder, Smith & Company



Judith A. Kermans, EA, FCA, MAAA

JAK:rl
Enclosures

One Towne Square | Suite 800 | Southfield, Michigan 48076-3723