ARTRS
Arkansas Teacher Retirement System

A PENSION TRUST FUND OF
THE STATE OF ARKANSAS
MARK WHITE, EXECUTIVE DIRECTOR

ANNUAL COMPREHENSIVE FINANCIAL REPORT 2022

Prepared by the Staff of

ARKANSAS TEACHER RETIREMENT SYSTEM

1400 West Third Street • Little Rock, AR 72201

501.682.1517 • artrs.gov

ARTRS

Arkansas Teacher Retirement System

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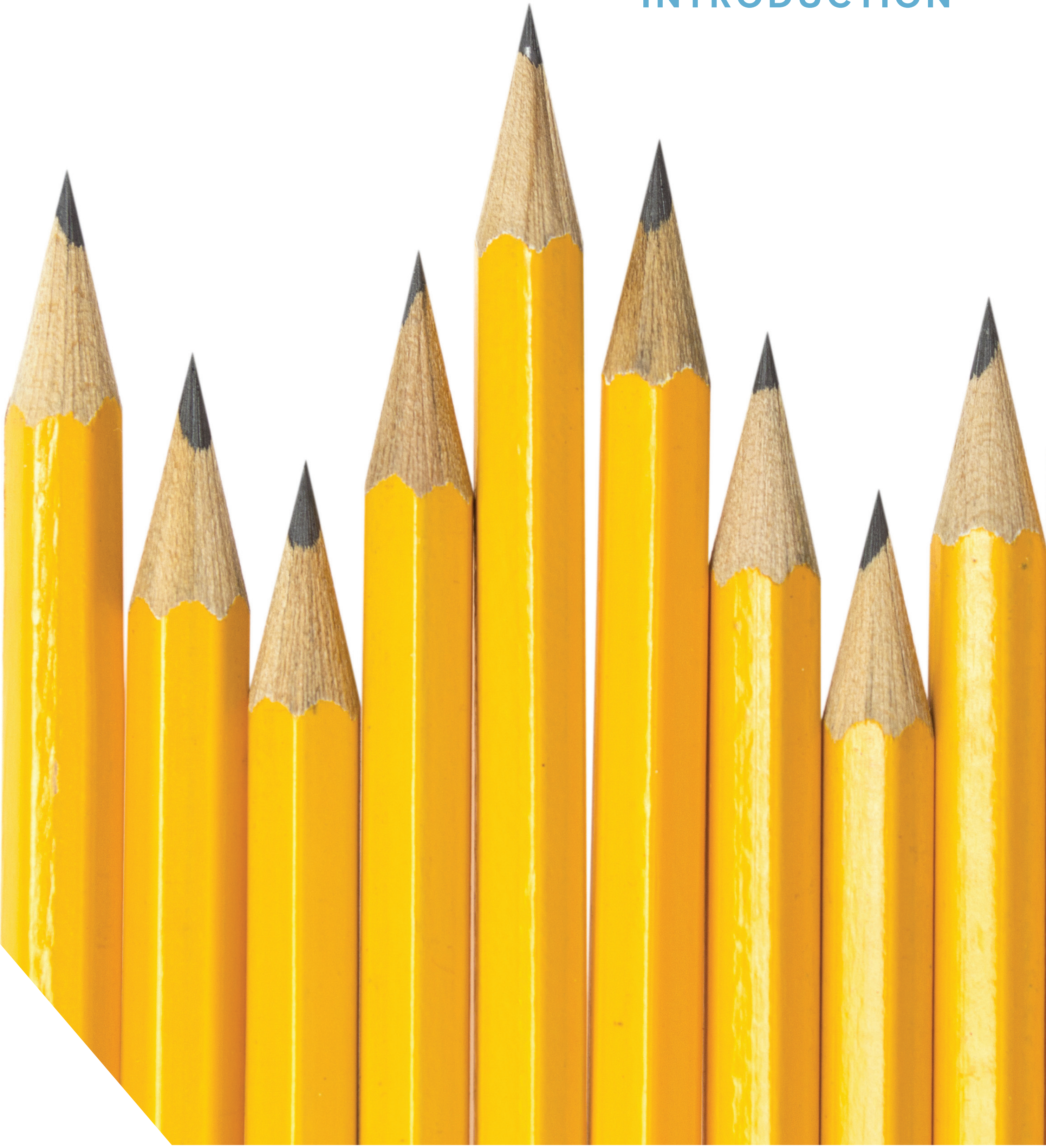
INTRODUCTION



Arkansas Teacher Retirement System

ARTRS
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July 3, 2023

Board of Trustees
Arkansas Teacher Retirement System
1400 West Third
Little Rock, AR 72201

The Arkansas Teacher Retirement System (the "System" or ATRS) is pleased to submit this Annual Comprehensive Financial Report (ACFR) for the fiscal year ended June 30, 2022. The ATRS ACFR provides comprehensive information on the retirement plan that ATRS administers. Responsibility for both the accuracy of the data and the completeness and fairness of presentation rests with the System. To the best of the System's knowledge and belief, the enclosed data is accurate in all material respects and presents fairly the System's financial status and changes in the financial condition.

The 2022 Financial Report is presented in five sections. Contents are summarized below (a detailed Table of Contents may be found on Page 3).

Introductory Section:
This section contains the transmittal letter, the Board of Trustees, and organizational chart.

Financial Section:
This section provides the System's financial statements, required supplementary information, and supporting schedules with additional information about the System's expenses.

Investment Section:
This section includes the investment consultant's report, investment policies, asset allocation, and investment results.

Actuarial Section:
This section provides the certification letter from the independent actuary, supporting schedules, and a summary of plan provisions.

Statistical Section:
This section presents schedules and tables of comparative data related to the membership, active and retired, of the System.

On March 17, 1937, ATRS was established by Act 266 of 1937. ATRS is a combination contributory/noncontributory retirement system governed by Arkansas retirement law, Title 24 of the Arkansas Code. ATRS is one of five state-supported retirement systems in Arkansas and provides retirement, disability, and survivor benefits to employees of Arkansas public schools and educationally related public agencies. The System has 338 participating employers.

Investments

ATRS has structured a diversified portfolio that has allocations to equity markets, bonds, private equity, real assets, and alternative investments. Investing in multiple asset classes not only allows the System to benefit from equity advances, but also offers protection during down markets. The approach is not static and changes in accordance with the changing investment environment. For example, investments in alternative classes such as real assets continue to be added. These target allocation alignments are designed to further stabilize the portfolio and match the ATRS assets to its liabilities.

Over the long-term, ATRS' investment approach has proved beneficial and is designed to weather investment market volatility. ATRS maintains a roster of compelling investment managers, and new opportunities that will benefit the System are being considered. ATRS still uses indexing to level out risk. A focus on long term growth potential, coupled with asset protection and cost containment, continue to be a focus for ATRS.

Additions/Deductions to Plan Net Assets

As a retirement system matures, employer and member contributions are supplemented from investment earnings to fully fund retirement benefits and operating costs. This process is intended to leave the investment nucleus untouched to continue providing the required investment income for future generations of plan participants.

Fiscal year 2022 contributions totaled about $684 million dollars ($501 million employer and $183 million member) and remained stable from previous years. As ATRS becomes a more mature system, the total active members compared to retirees will continue to move more towards a one-to-one ratio, and is now about a 1.4 to one ratio. This equalization trend will occur for some time as ATRS matures, as the Baby Boomer generation reaches retirement age, and as schools continue to consolidate and outsource nonteaching positions to private contractors in transportation, food service, custodial services, and substitute teachers.

Funding Status

ATRS had a -7.47% actuarially determined return as compared to its 7.25% assumed rate of return. To reduce the impact of wild swings in the financial markets, annual results are spread over a four-year period (four-year smoothing). ATRS remains a stable 81% funded. Amortization required to fund the unfunded accrued actuarial liability (UAAL) increased to 26 years.

Internal Control

Internal controls are at the heart of safeguarding the System's assets. ATRS has an active internal audit department that is continually reviewing and updating control policies. As the System grows and technology advances, we feel it prudent to continuously monitor internal systems and policies to detect and correct potential errors before they occur and to correct any errors that are discovered.

Professional Services

The ATRS Board of Trustees employs firms that are proven experts to draw on their knowledge and expertise on policy and administration. ATRS' independent general investment consultant and real asset consultant is AON Hewitt Investment Consulting, headquartered in Chicago, IL; the private equity consultant is Franklin Park, Associates, LLC of Bala Cynwyd, PA; and the independent actuary is Gabriel Roeder Smith & Company, headquartered in Southfield, MI. The System also uses the services of specialized consultants along with national and local legal firms.

Acknowledgements

This report is intended to provide complete and reliable information as a foundation for management decisions, determining compliance with legal provisions, and determining conscientious administration of the System's fund. Compilation of this report symbolizes the collective efforts of the staff, under the direction of the Board of Trustees.

This report is posted on the ATRS website (artrs.gov) and hard copies are available upon request.

Respectfully submitted,

Mark White
Executive Director

MEMBER AND RETIRED TRUSTEES

Position #1
Member Trustee
1st Congressional District

Susan Ford
Cabot, AR
Term Expires 6/30/2028

Position #2
Member Trustee
2nd Congressional District

Michael Johnson
Sherwood, AR
Term Expires 6/30/2027

Position #3
Member Trustee
3rd Congressional District

Arthur "Chip" Martin
Fayetteville, AR
Term Expires 6/30/2025

Position #4
Member Trustee
4th Congressional District

Kathy Clayton
Malvern, AR
Term Expires 6/30/2025

Position #5
Member Trustee
Administrator Trustee

Dr. Mike Hernandez
Little Rock, AR
Term Expires 6/30/2027

Position #6
Member Trustee
Administrator Trustee

Shawn Higginbotham
Hot Springs, AR
Term Expires 6/30/2027

Position #7
Member Trustee
Non-Certified Trustee

Kelsey Bailey
Little Rock, AR
Term Expires 6/30/2027

Position #8
Member Trustee
Minority Trustee

Anita Bell
North Little Rock, AR
Term Expires 6/30/2027

Position #9
Retirant Trustee

Jeff Stubblefield
Charleston, AR
Term Expires 6/30/2028

Position #10
Retirant Trustee

Bobby Lester
Jacksonville, AR
Term Expires 6/30/2025

Position #11
Retirant Trustee

Danny Knight (Chair)
Sherwood, AR
Term Expires 6/30/2024

EX OFFICIO TRUSTEES

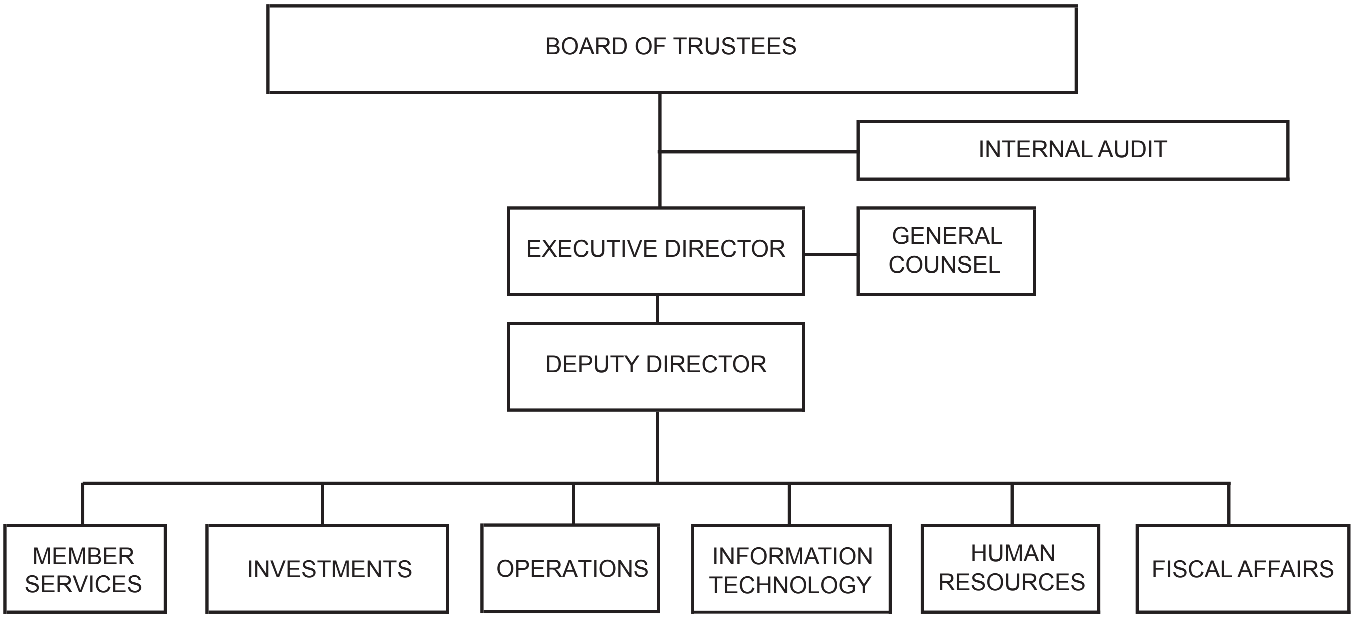
Jacob Oliva
Secretary of Education
Little Rock, AR

Larry Walther
State Treasurer
Little Rock, AR

Susannah Marshall
State Bank Commissioner
Little Rock, AR

Dennis Milligan
State Auditor
Little Rock, AR

ORGANIZATIONAL CHART



ADMINISTRATIVE STAFF

Mark White
Executive Director

Rod Graves
Deputy Director

Curtis Carter, CPA
Associate Director of Fiscal Affairs

Vicky Fowler
Human Resources Manager

Jennifer Liwo
General Counsel

Mullahalli Manjunath
Associate Director of Information Technology

Willie Kincade
Associate Director of Operations

Brenda West, CPA
Internal Auditor

ACTUARY

Gabriel Roeder Smith & Company • Southfield, MI

LEGAL COUNSEL

Gill, Ragon, Owen, PA • Little Rock, AR

Kutak Rock, LLP • Scottsdale, AZ

Rose Law Firm, PA • Little Rock, AR

SECURITIES MONITORING COUNSEL

Bernstein, Litowitz, Berger & Grossman, LLP
New York, NY

Bleichmar Fonti & Auld • New York, NY

Cohen Milstein, Sellers & Toll • Washington, DC

Kaplan, Fox & Kilsheimer • New York, NY

Kessler, Topaz, Meltzer & Check, LLP • Radnor, PA

Labaton Sucharow, LLP • New York, NY

Attorney General's Office Contact • Little Rock, AR

INVESTMENT CONSULTANTS

AON Hewitt Investment Consulting (AHIC)
Chicago, IL

Franklin Park • Bala Cynwyd, PA

Global Principal Partners • Miami, FL

Simmons • Little Rock, AR

CUSTODIAN (DOMESTIC AND INTERNATIONAL)

State Street Public Fund Services • Boston, MA

State Street Fund Services Toronto Inc.
Toronto, Ontario

PUBLIC MARKETS

Allianz Global Investors Capital • New York, NY

BlackRock • San Francisco, CA

D.E. Shaw & Company, LP • New York, NY

GMO, LLC. • Boston, MA

Harris Associates, LP • Chicago, IL

Jacobs Levy Equity Management, Inc.
Florham Park, NJ

Kennedy Capital Management • St. Louis, MO

Lazard Asset Management, LLC • New York, NY

Loomis Sayles & Company, LP • Boston, MA

Pershing Square Capital Management, LP
New York, NY

Putnam Investments Management • Boston, MA

Reams Asset Management • Columbus, IN

Russell Implementation Services • Seattle, WA

State Street Global Advisors (SSGA) • Boston, MA

State Street Global Markets, LLC
Transition Management • Boston, MA

State Street – Securities Lending • Boston, MA

Stephens Investment Management • Houston, TX

T. Rowe Price Associates, Inc. • Baltimore, MD

Trian Partners • New York, NY

Voya Investment Management (FKA ING)
Chicago, IL

Wellington Management Co., LLP • Boston, MA

PRIVATE EQUITY

Franklin Park • Bala Cynwyd, PA

21st Century Group I • Dallas, TX

Advent International Corporation • Boston, MA

Alpine Investors • San Francisco, CA

Altaris Capital Partners, LLC • New York, NY

Altus Capital Partners • Westport, CT

American Industrial Partners • New York, NY

Arlington Capital Partners • Chevy Chase, MD

Atlas Holdings, LLC • Greenwich, CT

Audax • New York, NY

Big River Steel • Osceola, AR

Bison Capital Asset Management, LLC
Santa Monica, CA

BV Investment Partners (FKA Boston Ventures)
Boston, MA

Castlelake II & III • Minneapolis, MN

Clearlake Capital Group • Santa Monica, CA

Court Square Capital Partners III, LP
New York, NY

The Cypress Group • New York, NY

Diamond State Ventures

Diamond State Ventures III • Little Rock, AR

DLJ Investment Partners III • Darien, CT

Doughty Hanson & Company III

Doughty Hanson & Company Technology
London, England

DW Healthcare • Park City, UT

Greenbriar Equity Group • Rye, NY

EnCap Investments, LP • Houston, TX

Greyrock Capital Group, LLC • Chicago, IL

Grosvenor Capital Management, FKA Credit Suisse
Customized Fund Investment Group
New York, NY

GTLA • Pine Bluff, AR

Highland Pellets • Pine Bluff, AR

Insight Equity II
Insight Mezzanine I • Southlake, TX

J.F. Lehman & Company • New York, NY

KPS Capital Partners • New York, NY

Levine Leichtman III • Beverly Hills, CA

Lime Rock Resources III • Westport, CT

LLR Equity Partners III • Philadelphia, PA

Mason Wells • Milwaukee, WI

Natural Gas Partners (NGP) • Irving, TX

Oak Hill Capital Partners • New York, NY

One Rock Capital Partners, LLC • New York, NY

PineBridge Investments • New York, NY

Revelstoke Capital Partners • Denver, CO

Riverside Partners • Boston, MA

Siris Capital Group • New York, NY

SK Capital Partners • New York, NY

Sycamore Partners III • New York, NY

TA XI • Boston, MA

Tennenbaum • Santa Monica, CA

Thoma Bravo, LLC • San Francisco, CA

VISTA Equity Partners • San Francisco, CA

Wellspring Capital Management, LLC • New York, NY

The Wicks Group of Companies, LLC • New York, NY

WNG II • Dallas, TX • Dublin, Ireland

REAL ASSETS

INFRASTRUCTURE

Antin Infrastructure Partners • London, England

Axium Infrastructure • New York, NY

DIF • Amsterdam, Netherlands

Global Energy & Power Infrastructure
(FKA First Reserve) • Greenwich, CT

Global Infrastructure Partners • New York, NY

IFM Investors (US), LLC • New York, NY

I Squared Capital • Miami, FL

Kohlberg Kravis Roberts & Co • New York, NY

Macquarie Infrastructure and Real Assets
Chicago, IL

REAL ESTATE

Almanac Realty Securities • New York, NY

Blackstone Real Estate Partners • New York, NY

Calmwater • Los Angeles, CA

REAL ASSETS (Continued)

REAL ESTATE (Continued)

The Carlyle Group • New York, NY

CB Richard Ellis Strategic Partners • Los Angeles, CA

Cerberus • New York, NY

FPA Core Plus • Irvine, CA

Harbert Management Corporation • Dallas, TX

Heitman • Chicago, IL

J.P. Morgan Asset Management • New York, NY

Kayne Anderson • Los Angeles, CA

Landmark Partners • Simsbury, CT

LaSalle • Chicago, IL

Lone Star Real Estate Partners Fund IV, LP
Dallas, TX

Long Wharf Real Estate Partners, LLC • Boston, MA

MetLife Commercial • Morristown, NJ

Metropolitan Real Estate Partners
Co-Investments Fund • New York, NY

New Boston Fund VII • Boston, MA

O'Connor North American Property Partners II
New York, NY

Olympus Real Estate Corporation • Addison, TX

PGIM Real Estate • New York, NY

Rockwood Capital Real Estate Partners
New York, NY

Torchlight Debt Opportunity Fund (Cayman) II, LP
Torchlight Debt Opportunity Fund III
New York, NY

UBS Realty Investors • Hartford, CT

Walton Street Capital • Chicago, IL

Westbrook Funds IX • New York, NY

DIRECT REAL ESTATE PARTNERSHIPS

CRI – American Center • Rogers, AR

ALTERNATIVE INVESTMENTS

HEDGE FUNDS

Anchorage Capital Group, LLC • New York, NY

Breven Howard US, LLC • New York, NY

Capital Fund Management • Paris, France

Capula Investment US, LP • Greenwich, CT

Circumference Group • Little Rock, AR

Graham Capital Management, LP • Rowayton, CT

Man Group • London, UK

Parametric • Minneapolis, MN

York Capital Management • New York, NY

RE-INSURANCE

Aeolus • Hamilton, Bermuda

Nephila Capital Rubik Holdings, Ltd.
Hamilton, Bermuda

FARM MANAGER

Halderman Farm Management • Wabash, IN

UBS Agrivest • Dallas, TX

TIMBERLAND

BTG Pactual Timberland Investment Group
Atlanta, GA

FINANCIAL

ARTRS
Arkansas Teacher Retirement System

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Arkansas Teacher Retirement System

STATEMENT OF FIDUCIARY NET POSITION

June 30, 2022

ASSETS	
Cash and cash equivalents	$ 367,097,595
Receivables:	
Member contributions	11,161,680
Employer contributions	27,931,363
Investment trades pending	22,734,956
Accrued investment income	19,710,817
Due from other funds	4,052,757
Other receivables	8,688,539
Total Receivables	94,280,112
Investments, at fair value:	
Public equities	3,653,122,876
Fixed income	1,385,176,672
Real estate	203,361,821
Pooled investments	5,411,394,714
Alternative investments	8,472,390,499
State recycling tax credits	144,000,000
Investment derivatives	10,632
Total Investments	19,269,457,214
Securities lending collateral	770,201,695
Capital assets, net of accumulated depreciation	89,714
Other assets	103,247
TOTAL ASSETS	20,501,229,577
DEFERRED OUTFLOWS OF RESOURCES	
Deferred outflows related to OPEB	685,899
TOTAL ASSETS AND DEFERRED OUTFLOWS OF RESOURCES	20,501,915,476
LIABILITIES	
Accrued expenses and other liabilities	762,426
Compensated absences	602,734
Post-employment benefit liability	3,241,556
Investment trades pending payable	30,567,166
Accrued investment expenses	12,681,186
Securities lending liability	770,276,668
Due to other funds	2,246,426
TOTAL LIABILITIES	820,378,162
DEFERRED INFLOWS OF RESOURCES	
Deferred inflows of resources related to OPEB	2,070,062
TOTAL LIABILITIES AND DEFERRED INFLOWS OF RESOURCES	822,448,224
NET POSITION RESTRICTED FOR PENSION BENEFITS	$ 19,679,467,252

The accompanying notes are an integral part of these financial statements.

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION

June 30, 2022

ADDITIONS	
Contributions:	
Member	$ 183,315,252
Employer	501,522,604
Total contributions	684,837,856
Investment income	
From investing activities:	
Net appreciation (depreciation) in fair value of investments	(1,220,967,830)
Interest and dividends	179,888,115
Real estate operating income	6,387,875
Total investment income (loss)	(1,034,691,840)
Less investment expense	51,906,810
Net investment income (loss)	(1,086,598,650)
From securities lending activities:	
Securities lending gross income	5,308,266
Less: securities lending expense	1,780,441
Net securities lending income (loss)	3,527,825
Other income	225,661
TOTAL ADDITIONS (LOSSES)	(398,007,308)
DEDUCTIONS	
Benefits	1,374,220,915
Refunds of contributions	10,426,792
Administrative expenses	6,650,604
TOTAL DEDUCTIONS	1,391,298,311
NET CHANGE IN NET POSITION	(1,789,305,619)
NET POSITION - BEGINNING OF YEAR	21,468,772,871
NET POSITION - END OF YEAR	$ 19,679,467,252

The accompanying notes are an integral part of these financial statements.

NOTES TO FINANCIAL STATEMENTS

June 30, 2022

NOTE 1: Summary of Significant Accounting Policies

A. Reporting Entity/History

Act 266 of 1937, as amended, established the Arkansas Teacher Retirement System (ATRS) as an office of Arkansas state government for the purpose of providing retirement benefits for public school and other public education employees. Act 427 of 1973, as amended, provided that the general administration of ATRS, responsibility for its proper operation, and responsibility for making effective the provisions of the Teacher Retirement law are vested in a 15-member Board of Trustees. The State Bank Commissioner, Treasurer of State, Auditor of State, and Commissioner of Elementary and Secondary Education are exofficio trustees. The remaining 11 trustees are elected and consist of seven active members of ATRS with at least five years of actual service, three retired members receiving an annuity from ATRS, and one active or retired member from a minority racial ethnic group. The seven active trustees consist of one member from each of the four congressional districts; two employed in positions requiring an administrator's license, of which one must be a superintendent or an educational cooperative director; and one member employed in a position that does not require state licensure. The trustees are elected in accordance with rules adopted by the Board. Board members serve as trustees without compensation but are reimbursed for any necessary expenses incurred to attend Board meetings or perform other duties authorized by the Board.

B. Plan Description

ATRS is a cost-sharing, multiple-employer, defined benefit pension plan that covers employees of schools and education-related agencies, including Arkansas School for the Blind, Arkansas School for the Deaf, Arkansas Activities Association, State Board of Education, regional education service cooperatives, ATRS, Arkansas Educational Television Commission, area vocational-technical schools, Arkansas Rehabilitation Services, enterprises privatized by a public school district, and educational nonprofit organizations licensed and regulated by Division of Developmental Disabilities Services of the Department of Human Services.

On June 30, 2022, the number of participating employers was as follows:	
Public schools	258
State colleges and universities	39
State agencies	17
Other/privatized	26
Total	340

On June 30, 2022, ATRS's membership consisted of the following:	
Retirees or beneficiaries currently receiving benefits	52,748
T-DROP participants	3,251
Inactive plan members (not receiving benefits)	13,986
Active members	
Fully vested	45,504
Non-vested	22,623
Total	138,112

Members are eligible for full retirement benefits at age 60 with five or more years of actual and reciprocal service or at any age with 28 or more years of credited service. Members with 25 years of actual and reciprocal service who have not attained age 60 may receive an annuity reduced by 10/12 of 1% multiplied by the number of months by which the early retirement precedes the earlier of (1) completion of 28 years of credited service or (2) attainment of age 60. The normal retirement benefit, paid monthly, is determined based on (1) the member's final average salary (FAS) (effective July 1, 2018, computed using the average of the annual salaries paid during the period of 5 years of credited service producing the highest annual average) and (2) the number of years of service. For active members as of June 30, 2018, a benchmark 3-year FAS was established as a minimum FAS.

NOTES TO FINANCIAL STATEMENTS (Continued)

June 30, 2022

NOTE 1: Summary of Significant Accounting Policies (Continued)

B. Plan Description (Continued)

ATRS has contributory and noncontributory plans. The contributory plan has been in effect since the beginning of ATRS. The noncontributory plan became available July 1, 1986. Act 907 of 1999, effective July 1, 1999, requires all new members under contract for 181 or more days to be contributory. Act 443 of 2021, effective July 1, 2021, increased the required number of contract days to 185 or more days. Act 385 of 2005 allows noncontributory members to make an irrevocable election to become contributory on July 1 of each fiscal year.

A cost of living adjustment (COLA) is payable on July 1 of each year to retirees, certain survivors, and annuity beneficiaries who received monthly benefits for the previous 12 months. The COLA is calculated by multiplying 100% of the member's base retirement annuity times 3%. Act 780 of 2017 allows the Board of Trustees to evaluate any future COLA adjustments on an annual basis to determine if a simple or compound COLA increase will be given based on the financial condition of the system.

Act 1096 of 1995 created a teacher deferred retirement option plan (T-DROP) for members with 30 or more years of service credit. Effective September 1, 2003, Act 992 of 2003 requires employers to make contributions on behalf of all members participating in T-DROP at rates established by the Board of Trustees. Member contributions and accumulation of service credit will cease once a member enters T-DROP. During participation in T-DROP, ATRS will credit the member account with plan deposits and interest. The plan deposits will be calculated beginning with the member's plan benefit reduced by 1% for each year of credited service. The Board of Trustees may authorize early participation in T-DROP for members with at least 28 years but less than 30 years of credited service. The plan deposit for early participation will be calculated the same as the regular T-DROP deposit with a further reduction of at least .5% but not more than 1% for each month of credited service under 30 years. The T-DROP account accrues interest at a variable rate that is set annually by the ATRS Board of Trustees. T-DROP deposits into member accounts cease at the completion of 10 years of participation in the program; however, a member may continue employment and will continue to receive interest on the account balance at the 10-year plus interest rate set annually by the Board of Trustees. When T-DROP participation ceases, the member may receive a distribution as a lump-sum cash payment or monthly annuity, roll it into another tax-deferred account, or defer the distribution into a T-DROP cash balance account held by ATRS.

Disability retirement benefits are payable to members who are vested and demonstrate total and permanent incapacity to perform the duties of their position while in active employment. The disability annuity is computed in the same manner as the age and service annuity.

Survivor benefits are payable to qualified survivors upon the death of an active, vested member. Eligible spouse survivors receive a survivor annuity that is based on the member's years of service credit prior to their death, and minor child survivors receive a percentage of the member's highest salary earned. ATRS also provides a lump sum death benefit for active and retired members with 10 or more years of actual service. The minimum benefit amount is $6,667 and an additional amount is provided based on the member's retirement date and years of contributory service up to a $10,000 maximum.

C. Basis of Presentation – Fund Accounting

The accounting system is organized and operated on a fund basis. A fund is defined as a fiscal and accounting entity with a self-balancing set of accounts recording cash and other financial resources, together with all related liabilities and residual equities or balances and changes therein, which are segregated for purposes of carrying on specific activities or attaining certain objectives in accordance with special regulations, restrictions, or limitations. The following types of funds, if applicable to this Agency, are recognized in the accompanying financial statements.

NOTES TO FINANCIAL STATEMENTS (Continued)

June 30, 2022

NOTE 1: Summary of Significant Accounting Policies (Continued)

C. Basis of Presentation – Fund Accounting (Continued)

Fiduciary Funds

Trust and Custodial Funds –Trust and Custodial Funds are used to report resources held by the Agency in a trustee capacity or as an agent for individuals, other governmental units, and other funds. These include Pension Trust Funds, Employee Health Trust Funds, Investment Trust Funds, Private-Purpose Trust Funds, and Custodial Funds. The specific activity accounted for at this Agency includes the following: Arkansas Teacher Retirement System Pension Trust Fund.

D. Basis of Accounting

Basis of accounting refers to when revenues and expenditures or expenses are recognized and reported in the financial statements. The economic resources measurement focus and accrual basis of accounting are used in Fiduciary Fund financial statements. Under the accrual basis, revenues are recognized when earned, and expenses are recorded when incurred.

E. Federal Income Tax Status

During the year ended June 30, 2022, ATRS was a qualified plan under 26 USC § 401(a) and was exempt from federal income taxes under 26 USC § 501(a).

F. Cash and Cash Equivalents

Cash and cash equivalents include demand accounts, imprest accounts, cash on hand, cash in State Treasury, cash on deposit with investment managers, and short-term investment funds (STIF). The STIF accounts are created through daily sweeps of excess cash by the custodial bank into bank-sponsored commingled funds that are invested in U.S. Government and agency securities and other short-term investments. The STIF accounts have a weighted average maturity of 90 days or less and the holdings are stated at fair value.

G. Deposits and Investments

Deposits

Deposits consist of cash in bank, cash in State Treasury, cash on deposit with investment managers, and cash in short-term investment funds totaling $2,693,081, $3,226,786, $110,310,808, and $250,866,845, respectively. The STIF account is valued at amortized cost which approximates fair value and all other deposits are carried at cost. State Treasury Management Law governs the management of funds held in the State Treasury, and the Treasurer of State is responsible for ensuring these funds are adequately insured and collateralized.

Custodial Credit Risk – Custodial credit risk for deposits is the risk that, in the event of the failure of a depository institution, the Agency will not be able to recover deposits or will not be able to recover collateral securities that are in the possession of an outside party. The Agency has adopted the State Board of Finance Policy requiring the use of depository insurance and collateralization procedures to manage the risk that deposits may not be returned. As of June 30, 2022, none of the Agency's bank balance of $2,726,389 was exposed to custodial credit risk.

As of June 30, 2022, $1,958,613 of $110,722,803 in cash held by investment managers was exposed to custodial credit risk as it was uninsured and uncollateralized.

As of June 30, 2022, none of the $250,866,845 balance in cash in the STIF account was exposed to custodial credit risk as it was collateralized with securities held by the custodial agent in the name of ATRS.

NOTES TO FINANCIAL STATEMENTS (Continued)

June 30, 2022

NOTE 1: Summary of Significant Accounting Policies (Continued)

G. Deposits and Investments (Continued)

Investments

Ark. Code Ann. §§ 24-2-601 — 24-2-619 authorizes the ATRS Board of Trustees to have full power to invest and reinvest monies of ATRS and to hold, purchase, sell, assign, transfer or dispose of any of the investments, or investment proceeds in accordance with the prudent investor rule.

Each investment manager is required to invest within the specific guidelines and parameters set by the Board of Trustees. Asset allocation guidelines have been established as follows:

Asset Allocation	Minimum	Target	Maximum
Total equity	48.0%	53.0%	58.0%
Fixed income	13.0%	15.0%	17.0%
Alternatives	N/A*	5.0%	N/A*
Real assets***	N/A*	15.0%	N/A*
Private equity	N/A*	12.0%	N/A*
Cash equivalents	0.0%	0.0%	5.0%

*Due to the illiquid nature of alternatives, real assets, and private equity, it is not prudent to set rebalancing ranges for these asset classes.
**Additional allocations to total equity may be made beyond the maximum range to serve as a placeholder for unfunded and uncommitted alternatives, real assets, and private equity.
***Real assets include real estate, timber, agriculture, and infrastructure.

The fair value measurement of investments is categorized within the hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure the fair value of the asset and gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities and the lowest priority to unobservable inputs. In instances where inputs used to measure fair value fall into different levels, fair value measurements in their entirety are categorized based on the lowest level input that is significant to the valuation.

The hierarchy of inputs is defined as follows:

Level 1: Unadjusted quoted prices for identical instruments in active markets.

Level 2: Quoted prices for similar instruments in active markets; quoted prices for identical or similar instruments in markets that are not active; and model-derived valuations in which all significant inputs are observable.

Level 3: Valuations derived from valuation techniques in which significant inputs are unobservable.

Assets classified in Level 1 are valued directly from a predetermined primary external pricing vendor. Assets classified in Level 2 are subject to pricing by an alternative pricing source due to lack of information available by the primary vendor. Assets classified in Level 3 are valued using an internal fair value as provided by the investment manager due to lack of an independent pricing source. For investments that do not have a readily determinable fair value and fall outside of the fair value hierarchy, the system establishes the value by utilizing the Net Asset Value (NAV) or its equivalent as a practical expedient.

The categorization of investments within the hierarchy is based upon the pricing transparency of the instrument(s) and should not be perceived as the particular investment's risk.

NOTES TO FINANCIAL STATEMENTS (Continued)

June 30, 2022

NOTE 1: Summary of Significant Accounting Policies (Continued)

G. Deposits and Investments (Continued)

Investments (Continued)

The fair value measurement of plan investments and securities lending collateral as of June 30, 2022, was as follows:

Investments measured at fair value	Total	Level 1	Level 2	Level 3
Public equity investments:				
Domestic equities	$ 2,476,613,809	$ 2,476,613,809		
International equities	994,157,696	994,157,696		
Preferred equities	182,351,371	171,495,838		$ 10,855,533
Fixed income investments:				
U.S. Government obligations	72,496,599		$ 72,496,599	
Corporate obligations	990,097,138		990,097,138	
Asset- and mortgage-backed securities	39,020,680		39,020,680	
Fixed income funds	33,281,653		33,281,653	
Promissory notes	250,280,602			250,280,602
Real estate investments:				
Real estate	70,559,802			70,559,802
Real estate investment trusts	132,802,019	132,802,019		
State recycling tax credits:	144,000,000		144,000,000	
Derivative investments:				
Forward contracts	10,632		10,632	
Total plan investments at fair value	5,385,672,001	$ 3,775,069,362	$ 1,278,906,702	$ 331,695,937

Investments measured at net asset value (NAV)	Total
Pooled investments:	
Collective investment trusts	4,282,835,628
Closed end funds	646,963,161
Exchange traded funds	24,392,712
Mutual funds	457,203,213
Alternative investments:	
Private equity funds	3,196,118,061
Real estate funds	2,013,967,561
Hedge funds	1,032,960,553
Other private investments	2,229,344,324
Total plan investments at net asset value	13,883,785,213
Total plan investments	$ 19,269,457,214
Securities Lending Collateral:	
Compass fund*	$ 770,201,695

*Cash collateral received totaled $770,276,668. The amount reported in the GASB Statement No. 40 footnote above is the market value of the collateral received at June 30, 2022.

NOTES TO FINANCIAL STATEMENTS (Continued)

June 30, 2022

NOTE 1: Summary of Significant Accounting Policies (Continued)

G. Deposits and Investments (Continued)

Investments (Continued)

Public equity investments are classified as Level 1 and valued based on published market prices and quotations from either national security exchanges or active markets for those securities.

Fixed income investments are classified as Level 2 and include publicly traded securities in inactive markets. Investments in this category are sourced from reputable pricing vendors using price matrix models and techniques. Matrix pricing is used to value securities based on the securities' relationship to benchmark quoted prices. Fair value is defined as the quoted market value on the last trading day of the period.

Real estate consists of direct real estate investments and real estate investment trusts. Direct real estate investments are classified as Level 3 and are comprised mostly of owned properties leased to commercial enterprises. These investments are valued using professional property valuations or appraisals, net of debt borrowed against the related assets. Appraisals and valuations are updated every three years. Real estate investment trust is valued at net asset value (NAV) per share calculated at the estimated market value of the total assets less liabilities divided by the number of common shares outstanding. These are classified as Level 1 since they report a daily NAV per share and are actively traded on either national security exchanges or active markets for those securities.

Pooled investments consist of collective investments trusts, closed end funds, exchange traded funds and mutual funds. The fair value of these investments is determined based on NAV per share calculated as assets less liabilities divided by the number of shares owned. These investments are classified as Level 1 since they report a daily NAV per share and are actively traded on either national security exchanges or active markets for those securities.

Derivative investments include forward contracts and warrants and are classified as Level 2 and valued using observable exchange, dealer, or broker market pricing.

Alternative Investments are valued using the NAV per share (or its equivalent) but generally do not have a readily obtainable market value. These values are based on the capital account balance of the general partner reports at the end of each reporting period, adjusted by subsequent contributions, distributions, management fees, and changes in values of foreign currency. There are inherent uncertainties in estimating fair values for these types of investments, and it is possible that the estimates will change in the near-term or the subsequent sale of assets will be different from the reported net asset value. Generally, the investments cannot be redeemed or have certain redemption restrictions and distributions are from the liquidation of the underlying assets. The expected holding period is dependent on the discretion of the fund manager.

NOTES TO FINANCIAL STATEMENTS (Continued)

June 30, 2022

NOTE 1: Summary of Significant Accounting Policies (Continued)

G. Deposits and Investments (Continued)

Investments (Continued)

The unfunded commitments and redemption terms for alternative investments measured at the NAV per share (or its equivalent) are presented in the following table:

Investments measured at net asset value (NAV)	Total	Unfunded Commitments	Redemption Frequency	Redemption Notice Period
Pooled investments:				
Collective investment trusts	$ 4,282,835,628		Daily - Monthly	1-15 days
Closed end funds	646,963,161		Daily	Daily
Exchange traded funds	24,392,712		Daily	Daily
Mutual funds	457,203,213		Daily	Daily
Alternative investments:				
Private equity funds				
Buyout funds	1,252,463,922	$ 649,011,101	N/A	N/A
Distressed debt funds	30,180,581	34,882,798	N/A	N/A
Growth equity funds	38,574,317	18,757,033	N/A	N/A
Hard assets	235,302,129	42,477,803	N/A	N/A
Infrastructure funds	383,597,421	146,011,539	Quarterly - Annually	90 days
Mezzanine funds	40,506,399	17,243,201	N/A	N/A
Multi-strategy funds	521,273,742	225,670,362	N/A	N/A
Structured capital funds	52,112,301	48,765,017	N/A	N/A
Turnaround funds	113,299,673	78,437,309	N/A	N/A
Venture capital funds	528,807,576	142,684,560	N/A	N/A
Real estate funds				
Core funds	894,534,716	70,000,000	Quarterly	30-90 days
Debt funds	104,932,514	80,303,758	Quarterly	90 days
Farmland funds	246,224,783	2,134,323	Quarterly	60 days
Opportunistic funds	140,976,463	372,277,058	N/A	N/A
Timberland funds	335,923,075		Quarterly	90 days
Value added funds	291,376,010	315,278,896	N/A	N/A
Hedge funds				
Co-investment funds	42,593,287	59,880,757	Quarterly	65 days
Credit funds	158,929,830		Quarterly - Annually	90 days
Equity funds	34,804,338		Quarterly	60 days
Event driven funds	70,618,769		Annually	90 days
Global macro funds	192,735,536		Monthly	3-15 days
Reinsurance funds	158,903,286		Semi-annually - Annually	60-90 days
Relative value funds	85,622,296		Daily - Quarterly	45 days
Risk premia funds	288,753,211		Weekly - Monthly	3-5 days
Other				
Private investments	2,229,344,324		Daily - Monthly	3-10 days
Total plan investments at net asset value	$ 13,883,785,213	$ 2,303,815,515		

NOTES TO FINANCIAL STATEMENTS (Continued)

June 30, 2022

NOTE 1: Summary of Significant Accounting Policies (Continued)

G. Deposits and Investments (Continued)

Investments (Continued)

Private Equity Funds – Private equity funds include 67 buyout funds, 3 distressed debt funds, 3 growth equity funds, 13 hard asset funds, 11 infrastructure funds, 4 mezzanine funds, 5 multi-strategy funds, 4 structured capital funds, 9 turnaround funds, and 15 venture capital funds that invest mostly in private companies across a variety of industries. The value of the investments in this type have been determined using the NAV per share (or its equivalent) of the System's ownership interest in partners' capital. These investments cannot be easily redeemed. The nature of private equity investments is that distributions are received through the liquidation of the underlying assets of the fund. The expected holding period of a private equity portfolio company is 2 to 10 years.

Real Estate Funds – Real estate funds include 7 core funds, 9 debt funds, 2 farmland funds, 20 opportunistic funds, 2 timberland funds, and 21 value added funds that invest primarily in the United States, Europe, and Asia. Fund investments can be made in the debt, equity, or a combination of both in real estate property ventures. The value of the investments in this asset class have been determined using the NAV per share (or its equivalent) of the System's ownership interest in partners' capital. These investments can be redeemed with proper notification to the fund manager. Distributions from each fund may be received as cash flows from operations or return of capital from sales of assets. The expected holding period of underlying assets in the real estate funds is 2 to 10 years.

Hedge Funds – Hedge funds consist of 1 co-investment fund, 4 credit funds, 1 equity fund, 1 event driven fund, 2 global macro funds, 12 re-insurance funds, 1 relative value fund and 3 risk premia funds. The value of the investments in this asset class have been determined using the NAV per share (or its equivalent) of the System's ownership interest in partners' capital. Redemption ranges from monthly to annually depending on the manager (with the exception of one fund that currently has a 1-year hold). Distributions are received through liquidation of the underlying assets. The expected holding period is dependent on the discretion of the fund manager.

Securities Lending Collateral – Cash collateral received from borrowers in the securities lending program is invested in a collective investment fund comprised of a liquidity pool. The value of this fund has been determined by the fund administrator using the NAV per share (or its equivalent).

Concentration of Investments – Generally accepted accounting principles require each pension plan to disclose investments (other than those issued or explicitly guaranteed by the U.S. Government) in any one organization that represent 5% or more of the pension plan's fiduciary net position. As of June 30, 2022, the Agency had investments of 5% or more of fiduciary net position in the following organizations.

NOTES TO FINANCIAL STATEMENTS (Continued)

June 30, 2022

NOTE 1: Summary of Significant Accounting Policies (Continued)

G. Deposits and Investments (Continued)

Investments (Continued)

Organization	Net Asset Value
Blackrock Institutional Trust Company, N.A.	
BlackRock MSCI ACWI IMI Index Fund	$ 838,337,834
BlackRock U.S. Core Plus Bond Fund	250,927,113
Total	$ 1,089,264,947
Franklin Park Associates, LLC	
ATRS/FP Private Equity Fund, LP	$ 412,492,667
Franklin Park Corporate Finance Access Fund, LP	45,106,100
Franklin Park Corporate Finance Access Fund II, LP	7,211,364
Franklin Park International Fund 2011, LP	13,301,480
Franklin Park International Fund 2012, LP	8,317,828
Franklin Park International Fund 2013, LP	15,929,282
Franklin Park International Fund 2014, LP	17,625,279
Franklin Park International Fund 2015, LP	24,546,668
Franklin Park International Fund 2016, LP	23,586,733
Franklin Park International Fund 2017, LP	31,027,813
Franklin Park International Fund 2018, LP	26,014,716
Franklin Park International Fund 2019, LP	20,224,069
Franklin Park International Fund X, LP	14,319,630
Franklin Park International Fund XI, LP	480,184
Franklin Park Venture Capital Fund XIII, LP	35,872,568
Franklin Park Venture Capital Fund XIV, LP	3,697,396
Franklin Park Venture Capital Opportunity Fund, LP	10,271,875
Franklin Park Venture Fund Series 2008, LP	24,448,288
Franklin Park Venture Fund Series 2009, LP	11,134,168
Franklin Park Venture Fund Series 2010, LP	33,410,818
Franklin Park Venture Fund Series 2011, LP	57,842,352
Franklin Park Venture Fund Series 2012, LP	44,793,926
Franklin Park Venture Fund Series 2013, LP	46,124,304
Franklin Park Venture Fund Series 2014, LP	65,936,497
Franklin Park Venture Fund Series 2015, LP	46,336,614
Franklin Park Venture Fund Series 2016, LP	47,834,792
Franklin Park Venture Fund Series 2017, LP	31,125,527
Franklin Park Venture Fund Series 2018, LP	40,557,057
Franklin Park Venture Fund Series 2019, LP	29,421,395
Total	$ 1,188,991,390
Jacobs Levy Equity Management, Inc.	
Jacobs Levy 130-30 Core 3 Fund, LLC	$ 1,046,063,010
State Street Global Advisors Trust Company	
State Street MSCI ACWI IMI Index Securities Lending Fund	$ 928,297,265
State Street U.S. Aggregate Bond Index Non-Lending Fund	857,865,268
Total	$ 1,786,162,533

NOTES TO FINANCIAL STATEMENTS (Continued)

June 30, 2022

NOTE 1: Summary of Significant Accounting Policies (Continued)

G. Deposits and Investments (Continued)

Investments (Continued)

Rate of Return – The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested. For the year ended June 30, 2022, the annual money-weighted rate of return on pension plan investments, net of pension plan investment expense, was -5.15%.

Interest Rate Risk – Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. The Agency does not have a formal investment policy that limits investment maturities as a means of managing its exposure to fair value losses arising from increasing interest rates. The summary shown below indicates that 96% of the Agency's investment maturities are one year or longer.

		Investment Maturities (In Years)			
Investment Type	Total	Less than 1	1 - 5	6 - 10	More than 10
Convertible preferred equities	$ 111,492,189	$ 88,689,968	$ 4,649,249	$ 148,965	$ 18,004,007
U.S. Government obligations	72,496,599	11,245,822	33,057,202	22,864,844	5,328,731
Corporate obligations	990,097,138	30,243,815	675,050,729	211,025,466	73,777,128
Asset- and mortgage-backed securities	39,020,680		6,494,515	7,025,045	25,501,120
Fixed income funds	33,281,653		33,281,653		
Promissory notes	250,280,602		5,015,816		245,264,786
Collective investment trusts	1,844,583,839		735,791,458	1,108,792,381	
Private investments	355,299,695			355,299,695	
State recycling tax credits	144,000,000	16,000,000	64,000,000	64,000,000	
Total	$ 3,840,552,395	$ 146,179,605	$ 1,557,340,622	$ 1,769,156,396	$ 367,875,772
Securities Lending Collateral					
Compass fund	$ 635,294,081	$ 635,294,081			

Asset-Backed Securities – As of June 30, 2022, ATRS held asset-backed securities with a fair value of $28,103,232. These securities represent interests in various trusts consisting of pooled financial assets other than mortgage loans conveyed by the issuing parties. ATRS's ability to recover the amount of principal invested in these securities depends on the performance and quality of the trust assets.

Mortgage-Backed Securities – As of June 30, 2022, mortgage-backed securities had a fair value of $5,265,158. The yields and maturities of mortgage-backed securities generally depend on when the underlying mortgage loan principal and interest are repaid. Although the full amount of principal will be received if prepaid, the interest income that would have been collected during the remaining period to maturity, net of any market adjustment, is lost.

Corporate Bonds – As of June 30, 2022, ATRS held corporate bonds with a fair value of $240,616,402. Corporate bonds are debt instruments that are issued by private corporations. These bonds have a term maturity and can have either a fixed or variable interest rate. Variable interest rate bonds have adjustments that are made periodically and vary directly with movements in interest rates.

Convertible Corporate Bonds – As of June 30, 2022, ATRS held convertible bonds with a fair value of $746,480,737. Convertible bonds convey an option to the bondholder to exchange each bond for a specified number of shares of common stock of the corporation. Convertible bonds generally offer lower coupon rates and promised yields to maturity in exchange for the value of the option to trade the bond into stock.

NOTES TO FINANCIAL STATEMENTS (Continued)

June 30, 2022

NOTE 1: Summary of Significant Accounting Policies (Continued)

G. Deposits and Investments (Continued)

Investments (Continued)

Promissory Notes – ATRS also held 4 promissory notes with a fair value of $250,280,602 at June 30, 2022. Promissory notes are a form of debt that companies use to raise money in exchange for payment of a fixed amount of periodic income at a specified date or on demand. Three unsecured promissory notes were issued to Big River Steel Holdings, LLC and one secured note was issued to Highland LP.

Credit Risk – Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. The risk is measured by the credit quality of investments in debt securities as described by nationally-recognized statistical rating organizations. A formal investment policy that limits investment in debt based on their statistical rating as a means of managing exposure to credit risk has not been adopted by the Agency.

As of June 30, 2022, the Agency's exposure to credit risk as rated by Standard and Poor's and Moody's Investor Service is as follows:

Standard and Poor's		Moody's Investors Service	
Rating	Total	Rating	Total
AAA	$ 8,662,840	Aaa	$ 8,117,880
AA	1,625,339	Aa	253,224,104
A	276,368,412	A	18,209,183
BBB	175,211,479	Baa	145,581,016
BB	109,946,379	Ba	90,747,634
B	39,457,363	B	58,034,579
CCC or below	21,351,357	Caa or below	5,185,764
Unrated	3,135,432,627	Unrated	3,188,955,636
Total	$ 3,768,055,796	Total	$ 3,768,055,796
Securities Lending Collateral			
Unrated	$ 635,294,081	Unrated	$ 635,294,081

Custodial Credit Risk – Custodial credit risk for investments is the risk that, in the event of the failure of the counterparty to a transaction, the Agency will not be able to recover the value of its investments or collateral securities that are in the possession of an outside party. Investment securities are exposed to custodial credit risk if the securities are uninsured, are not registered in the name of the Agency, and are held by either the counterparty or the counterparty's trust department or agent but not in the Agency's name. The Agency has adopted the State Board of Finance Policy requiring the use of depository insurance and collateralization procedures to manage the risk that investments may not be returned. As of June 30, 2022, none of the Agency's investments were exposed to custodial credit risk.

Concentration of Credit Risk – Concentration of credit risk is the risk of loss attributed to the magnitude of the Agency's investment in a single issuer (not including investments issued or explicitly guaranteed by the U.S. Government, investment in mutual funds, external investment pools, or other pooled investments). The Agency has not adopted a formal investment policy to limit the amount it may invest in any one issuer to manage the concentration of credit risk. As of June 30, 2022, none of the Agency's investments in any one issuer represent more than 5% of total investments.

NOTES TO FINANCIAL STATEMENTS (Continued)

June 30, 2022

NOTE 1: Summary of Significant Accounting Policies (Continued)

G. Deposits and Investments (Continued)

Investments (Continued)

Foreign Currency Risk – Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment or deposit. The Agency does not have an investment policy that limits investment in foreign currency.

The Agency's exposure to foreign currency risk in U.S. dollars for investments and deposits at June 30, 2022, was as follows:

			Investments						
Currency	Fair Value	Cash Deposits	Equities	Fixed Income	Real Estate	Pooled Investments	Alternative Investments	Forward Contracts	Securities Lending
Argentine Peso (ARS)	$ 540,017	$ 303,299		$ 236,718					
Australian Dollar (AUD)	5,838,756				$ 5,838,756				
Brazilian Real (BRL)	29,941,708	62,885	$ 27,294,097	2,584,726					
British Pound Sterling (GBP)	363,983,292	45,507	141,213,417		19,668,431	$ 201,644,118		$ 1,411,819	
Canadian Dollar (CAD)	31,919,584	147	20,784,053		7,582,846	3,552,538			
Chilean Peso (CLP)	3,201,655		3,201,655						
Euro (EUR)	484,056,557	59,759	407,713,759	441,771			$ 76,370,747	(529,479)	
Hong Kong Dollar (HKD)	122,536,350	385,995	117,729,030			3,675,911		745,414	
Hungarian Forint (HUF)	3,282,734		3,282,734						
Indian Rupee (INR)	411,996	411,996							
Japanese Yen (JPY)	264,896,133	734,312	129,011,883					242,324	$ 134,907,614
Mexican Peso (MXN)	8,247,089		4,686,365	3,560,724					
New Taiwan Dollar (TWD)	23,021,779	2	23,021,777						
Philippine Peso (PHP)	3,452,219	7,015	3,445,204						
Singapore Dollar (SGD)	4,786,316				4,786,316				
South African Rand (ZAR)	8,501,610	75	8,501,535						
South Korean Won (KRW)	62,183,514	2	62,092,136					91,376	
Swedish Krona (SEK)	38,866,885	541	39,953,154					(1,086,810)	
Swiss Franc (CHF)	56,680,910	(52,954)	56,645,764					88,100	
Thailand Baht (THB)	5,584,782		5,584,782						
Yuan Renminbi (CNY)	32	32							
Totals	$ 1,521,933,918	$ 1,958,613	$ 1,054,161,345	$ 6,823,939	$ 37,876,349	$ 208,872,567	$ 76,370,747	$ 962,744	$ 134,907,614

For Forward Currency Contracts in the schedule above, a positive number represents the market value of contracts to purchase that currency in excess of the market value of contracts to sell that currency. A negative number, therefore, represents the market value of contracts to sell foreign currency in excess of contracts to purchase that currency.

Derivatives – Derivative instruments are financial contracts or agreements whose values depend on the values of one or more underlying assets, reference rates, and/or financial indexes. Derivative instruments include futures contracts, forward contracts, swap contracts, options contracts, forward foreign currency exchange and rights. ATRS investment guidelines state that derivatives may be used to reduce the risk in a portfolio but should not be used to create a position of leverage or substantially increase the risk of the overall portfolio. Futures and options should be matched by cash or cash equivalent securities, and all short futures positions should be matched by equivalent long security positions. Each investment manager's derivative usage is specified in the investment management agreement or specific guidelines.

NOTES TO FINANCIAL STATEMENTS (Continued)

June 30, 2022

NOTE 1: Summary of Significant Accounting Policies (Continued)

G. Deposits and Investments (Continued)

Investments (Continued)

At June 30, 2022, the fair value balance of derivative instruments and the changes in fair value for the year then ended, were as follows:

	Changes in Fair Value Fair		Value at June 30, 2022	
Type	Classification	Amount	Classification	Amount
Foreign currency forwards	Investment income	$ (217,721)	Investments	$ 10,632
Warrants	Investment income	$ (121,672)	Investments	$ 0

Foreign Currency Forwards – ATRS enters into various currency contracts to manage exposure of foreign portfolio holdings to changes in foreign currency exchange rates. A forward exchange contract is a commitment to purchase or sell a foreign currency at a future date at a negotiated forward rate. Risks associated with such contracts include movement in the value of the foreign currency relative to the U.S. dollar and the ability of the counterparty to perform. The contracts are valued at forward exchange rates, and the changes in value of open contracts are recognized as unrealized appreciation (depreciation) in fair value of investments, a component of investment income, in the statement of changes in plan net position. The realized gain or loss on closed forward currency contracts represents the difference between the value of the original contracts and the closing value of such contracts and is included in net appreciation (depreciation) in fair value of investments, a component of investment income, in the statement of changes in plan net position. At June 30, 2022, ATRS had outstanding forward exchange currency contracts to purchase foreign currencies with contract amounts of $4,390,024 and market values of $4,387,267, resulting in a net loss of $2,757. Outstanding forward exchange currency contracts to sell foreign currencies with contract amounts of $3,437,912 had market values of $3,424,523, resulting in a net gain of $13,389.

The net fair value and net notional amounts of foreign currency forwards as of June 30, 2022, were as follows:

	Fair Value at June 30, 2022		
Foreign Currency Forwards	Fair Value	Net Notional	
British Pound Sterling	$ 7,209	GBP	101,105
Euro	3,159	EUR	1,556,205
Hong Kong Dollar	42	HKD	4,600,458
Swedish Krona	2,979	SEK	11,136,980
United States Dollar	(2,757)	USD	4,390,024
Totals	$ 10,632		

Securities Lending Transactions – Arkansas Code Annotated and Board policy permit ATRS to participate in a securities lending program administrated by State Street Bank (the "Custodian"). The Custodian enters into agreements with broker-dealers or other entities to loan securities for collateral with a simultaneous agreement to return the collateral for the same securities in the future. There were no restrictions on the dollar amount of securities loaned by ATRS. Securities on loan to participating brokers at year-end include U.S. Government securities, corporate securities, and international securities. Brokers who borrow the securities provide cash or other collateral, including securities issued or guaranteed by the U.S. Government. Collateral must be provided in the amount of at least 100% of the market value of the loaned securities. ATRS cannot pledge or sell collateral securities received unless the borrower defaults. The cash collateral received on each loan is invested in a collective investment fund comprised of a liquidity pool and a duration pool.

NOTES TO FINANCIAL STATEMENTS (Continued)

June 30, 2022

NOTE 1: Summary of Significant Accounting Policies (Continued)

G. Deposits and Investments (Continued)

Investments (Continued)

As of June 30, 2022, the liquidity pool had an average duration of 3.90 days and an average weighted final maturity of 76.56 days for USD collateral. Because the loans are terminable at will, their duration generally will not match the duration of the investments made with cash collateral.

At year-end, ATRS had no credit risk exposure to borrowers due to the custodian's indemnification agreement to purchase replacement securities, or return cash collateral in the event a borrower fails to return a loaned security or fails to pay the Agency for income of the securities while on loan. No borrowers failed to return loaned securities or pay distributions during the year. Investments made with cash collateral appear as an asset on the Statement of Plan Net Position. Corresponding liabilities are recorded, as ATRS must return the cash collateral to the borrower upon expiration of the loan.

ATRS is exposed to investment risk, including the possible loss of principal value in the cash collateral pool, due to fluctuation in the market value of the assets held by the cash collateral pool. As of June 30, 2022, the fair value of the securities lending liabilities exceeded the securities lending assets by $74,974.

H. Capital Assets

Capital assets purchased and in the custody of this Agency were recorded as expenditures at the time of purchase. Assets with costs exceeding $5,000 and an estimated useful life exceeding one year are reported at historical cost, including ancillary costs (such as professional fees and costs, freight costs, preparation or setup costs, and installation costs). Gifts or contributions are generally recorded in the accounts at acquisition value at the time received. Acquisition value is the market value if the Agency would have purchased the item. Depreciation is reported for capital assets based on a straight-line method, with no salvage value. Estimated useful lives generally assigned are as follows:

Assets:	Years
Equipment	5-20

Capital assets activity for the year ended June 30, 2022, was as follows:

	Beginning Balance	Additions	Retirements	Ending Balance
Fiduciary activities:				
Equipment	$ 970,414		$ (48,478)	$ 921,936
Less: Accumulated depreciation	864,174	$ 16,448	(48,400)	832,222
Fiduciary activities, net	$ 106,240	$ (16,448)	$ (78)	$ 89,714

NOTES TO FINANCIAL STATEMENTS (Continued)

June 30, 2022

NOTE 1: Summary of Significant Accounting Policies (Continued)

I. Compensated Absences – Employee Leave

Annual leave is earned by all full-time employees. Upon termination, employees are entitled to receive compensation for their unused accrued annual leave up to 30 days. Liabilities for compensated absences are determined at the end of the year based on current salary rates.

Sick leave is earned by all full-time employees and may be accrued up to 120 days. Compensation up to a maximum of $7,500 for unused sick leave is payable to employees upon retirement.

Compensated absences payable attributable to this Agency's employee annual and sick leave as of June 30, 2022 and 2021, amounted to $602,734 and $597,032, respectively. The net changes to compensated absences payable during the year ended June 30, 2022, amounted to $5,702.

J. Post-Employment Benefits Other Than Pensions (OPEB)

Arkansas State Employee Health Insurance Plan (Plan)
Plan Description – The Department of Transformation and Shared Services – Employee Benefits Division (DTSS-EBD) provides medical and prescription drug benefits for eligible state employees and retirees. Policies for DTSS-EBD related to medical and prescription drug plans are established by the State and Public School Life and Health Insurance Board (Board) and may include ad hoc benefit changes or annual cost redeterminations. For the current year, no ad hoc or cost redetermination changes occurred. The Constitution of Arkansas, Article 5, vests the General Assembly with legislative power to enact and amend duties of and benefit provisions of the Board and DTSS-EBD, respectively, as published in Subchapter 4, Chapter 5 of Title 21 of the Arkansas Code Annotated. DTSS-EBD is included in the State of Arkansas's Annual Comprehensive Financial Report (ACFR), which includes all applicable financial information, notes, and required supplementary information. That report may be obtained by writing to Department of Transformation and Shared Services, 501 Woodlane, Suite 201, Little Rock, Arkansas 72201 or by calling 501-319-6565.

The Agency contributes to the Plan, a single employer defined benefit OPEB plan administered by DTSSEBD, on a monthly basis. The Board establishes medical and prescription drug benefits for three classes of covered individuals: active employees, terminated employees with accumulated benefits, and retires and beneficiaries. The Plan is established on the basis of a pay-as-you-go financing requirement, and no assets are accumulated in a trust, as defined by Governmental Accounting Standards Board (GASB) Statement No. 75. The State's annual OPEB cost for the Plan is based on an actuarially-determined calculated amount made in accordance with GASB Statement No. 75.

Funding Policy – Employer contributions to the Plan are established by Ark. Code Ann. § 21-5-414 and may not exceed $550 per budgeted position. Employees, retirees, and beneficiaries contribute varying amounts based on the type of coverage and inclusion of family members. Benefits for Medicare-eligible retirees are coordinated with Medicare Parts A and B, and the Plan is the secondary payer. The portion of the State's annual OPEB liability attributable to ATRS as of June 30, 2022, is $3,241,556.

K. Deferred Outflows of Resources and Deferred Inflows of Resources

Deferred outflows of resources represent a decrease of net position that applies to future periods. Thus, these items will not be recognized as an outflow of resources (an expense or expenditure) until a future period.

Deferred inflows of resources represent an increase of net position that applies to future periods. These items will not be recognized as an inflow of resources (revenue) until a future period.

NOTES TO FINANCIAL STATEMENTS (Continued)

June 30, 2022

NOTE 1: Summary of Significant Accounting Policies (Continued)

L. Contributions

The Agency's funding policy provides for periodic employer contributions at statutorily-established rates based on annual actuarial valuations. The employer contribution rate was 14.75% for the fiscal year ending June 30, 2022. Contributory members are required to contribute 6.75% of gross wages to ATRS. Employee contributions are refundable if ATRS-covered employment terminates before a monthly benefit is payable. Employee contributions remaining on deposit with ATRS for a period of one or more years earn interest credits, which are included in the refund.

M. Reserves

In accordance with the provisions of Ark. Code Ann. § 24-7-405, ATRS must maintain reserve accounts showing plan net position available for benefits. At June 30, 2022, the reserve accounts were funded at a level that complied with the Code provisions.

	Total
Members' deposit account reserve	$ 12,705,935,722
Employers' accumulation account reserve	(7,008,782,952)
Retirement reserve	13,474,952,199
Teacher deferred retirement option plan account reserve	387,233,520
Survivor benefit account reserve	110,412,603
Income - expense account reserve	9,716,160
Total	$ 19,679,467,252

The Code provisions define each of the reserve accounts as follows:

Members' Deposit Account Reserve – The account in which members' contributions shall be accumulated with regular interest and from which shall be made transfers and refunds of contributions.

Employers' Accumulation Account Reserve – The account in which shall be accumulated the employer's contributions to ATRS and from which shall be made transfers as provided in the Code.

Retirement Reserve – The account from which shall be paid all annuities and benefits in lieu of annuities payable as provided in this act to retirants who retired on account of superannuation or disability and to beneficiaries of such retirants.

Teacher Deferred Retirement Option Plan Account Reserve – The account in which shall be accumulated plan deposits made on behalf of the member with plan interest.

Survivor Benefit Account Reserve – The account from which shall be paid survivor benefits payable as provided in this act.

Income - Expense Account Reserve – The account to which shall be credited all investment income from invested assets of ATRS. It shall also be the account in which shall be accumulated the contributions made by employers for the administrative expenses of ATRS, from which shall be made annual transfers of interest credits and excess amounts to the other accounts of ATRS, and from which shall be paid all the expenses of the Board necessary for the administration and operation of ATRS.

NOTES TO FINANCIAL STATEMENTS (Continued)

June 30, 2022

NOTE 2: Net Pension Liability

The components of the net pension liability of the participating employers at June 30, 2022, were as follows:

Total pension liability	$ 24,957,898,206
Plan net position	(19,679,467,252)
Net pension liability	$ 5,278,430,954
Plan net position as a percentage of the total pension liability	78.85%

Actuarial Assumptions – The total pension liability was determined by an actuarial valuation as of June 30, 2022, using the following actuarial assumptions, applied to all prior periods included in the measurement:

Wage inflation rate	2.75%
Salary increases	2.75 - 7.75%
Investment rate of return	7.25%
Mortality table	Pub-2010 Healthy Retired, General Disabled Retiree, and General Employee Mortality weighted tables were used for males and females. Mortality rates were adjusted for future mortality improvements using projection scale MP-2020 from 2010.

	Scaling Factor	
Table	Males	Females
Healthy Retirees	105%	105%
Disabled Retirees	104%	104%
Active Members	100%	100%

The actuarial assumptions used in the June 30, 2022, valuation were based on the results of an actuarial experience study for the period July 1, 2015 through June 30, 2020.

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of geometric real rates of return were adopted by the plan's trustees after considering input from the plan's investment consultant and actuary.

For each major asset class that is included in the pension plan target asset allocation as of June 30, 2022, these best estimates are summarized in the following table:

Asset Allocation	Target	Long-Term Expected Real Rate of Return
Total equity	53.0%	5.3%
Fixed income	15.0%	1.3%
Alternatives	5.0%	4.8%
Real assets	15.0%	4.0%
Private equity	12.0%	7.6%
Cash equivalents	0.0%	0.5%
	100.0%	

NOTES TO FINANCIAL STATEMENTS (Continued)

June 30, 2022

NOTE 2: Net Pension Liability (Continued)

Single Discount Rate – A single discount rate of 7.25% was used to measure the total pension liability based on the expected rate of return on pension plan investments. The fiscal year 2022 member and employer contribution rates are 6.75% and 14.75% of active member payroll, respectively. Although not all members contribute, the member and employer rates are scheduled to increase by 0.25% increments ending in fiscal year 2023. The ultimate member and employer rates will be 7% and 15%, respectively. The projection of cash flows used to determine this single discount rate assumed that member and employer contributions will be made in accordance with this schedule. This includes payroll for current T-DROP participants and Return to Work retirees. Based on these assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Regarding the sensitivity of the net pension liability to changes in the single discount rate, the following presents the plan's net pension liability, calculated using a single discount rate of 7.25%, as well as what the plan's net pension liability would be if it were calculated using a single discount rate that is 1% lower or 1% higher than the current rate:

Sensitivity of the Net Pension Liability to the Single Discount Rate

	1% Decrease 6.25%	Current Rate 7.25%	1% Increase 8.25%
Net pension liability	$ 8,391,000,499	$ 5,278,430,954	$ 2,696,128,616

NOTE 3: New Accounting Pronouncement

The Agency implemented GASB Statement No. 87, Leases, in the fiscal year ended June 30, 2022. GASB Statement No. 87 requires recognition of certain lease assets and liabilities for leases that were previously classified as operating leases. GASB Statement No. 87 establishes a single model for lease accounting based on the principle that leases are financing arrangements of the right to use an underlying asset. A lessee is required to recognize a lease liability and an intangible right-to-use lease asset. A lessor is required to recognize a lease receivable and a deferred inflow of resources.

NOTE 4: Required Supplementary Schedules

Detailed historical information about the pension liabilities for which the pension plan's assets are being held and managed and the significant assumptions used to measure these liabilities are required supplementary information. This required supplementary information, prepared in accordance with the parameters of GASB Statement No. 67, is included immediately following the notes to the financial statements.

SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS

For the ten-year period ended June 30, 2022

TOTAL PENSION LIABILITY	2022	2021	2020
Service cost	$ 379,267,685	$ 340,401,007	$ 331,035,218
Interest	1,720,782,101	1,655,575,883	1,608,463,162
Changes in benefit terms			
Difference between actual and expected experience	4,880,583	108,860,237	(24,869,157)
Changes in assumptions		887,447,380	
Benefit payments	(1,374,220,915)	(1,308,163,750)	(1,255,065,793)
Refunds	(10,426,792)	(9,463,375)	(9,592,091)
NET CHANGE IN TOTAL PENSION LIABILITY	720,282,662	1,674,657,382	649,971,339
TOTAL PENSION LIABILITY - BEGINNING OF YEAR	24,237,615,544	22,562,958,162	21,912,986,823
TOTAL PENSION LIABILITY - END OF YEAR (A)	$ 24,957,898,206	$ 24,237,615,544	$ 22,562,958,162
PLAN NET POSITION			
Contributions - employer	$ 501,522,604	$ 472,567,147	$ 446,228,128
Contributions - member	183,315,252	168,129,972	153,105,134
Net investment income	(1,590,291,257)	5,250,953,451	(165,766,491)
Benefit payments	(1,374,220,915)	(1,308,163,750)	(1,255,065,793)
Refunds	(10,426,792)	(9,463,375)	(9,592,091)
Administrative expense	(6,650,604)	(7,326,797)	(8,454,436)
Other	507,446,092		
NET CHANGE IN PLAN NET POSITION	(1,789,305,620)	4,566,696,648	(839,545,549)
PLAN NET POSITION - BEGINNING OF YEAR	21,468,772,872	16,902,076,224	17,741,621,773
PLAN NET POSITION - END OF YEAR (B)	$ 19,679,467,252	$ 21,468,772,872	$ 16,902,076,224
NET PENSION LIABILITY - END OF YEAR (A) - (B)	$ 5,278,430,954	$ 2,768,842,672	$ 5,660,881,938
Plan net position as a percentage of total pension liability	78.85%	88.58%	74.91%
Covered employee payroll	$ 3,320,346,417	$ 3,204,720,806	$ 3,077,558,814
Net pension liability as a percentage of covered employee payroll	158.97%	86.40%	183.94%

SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS

For the ten-year period ended June 30, 2022

2013*

2019	2018	2017	2016	2015	2014
$ 325,464,537	$ 315,864,318	$ 307,786,503	$ 305,086,337	$ 298,134,477	$ 326,999,276
1,551,511,422	1,504,613,059	1,485,759,965	1,433,768,167	1,371,168,271	1,326,709,192
			(469,205,711)		(27,405,705)
119,427,343	(7,365,993)	(76,812,667)	(15,341,738)	123,519,055	(103,017,525)
		1,374,950,899			
(1,205,326,555)	(1,160,738,238)	(1,092,952,357)	(1,035,958,950)	(970,719,484)	(914,250,015)
(9,679,783)	(9,455,405)	(10,874,003)	(10,145,471)	(10,774,122)	(10,485,103)
781,396,964	642,917,741	1,518,652,629	677,408,345	811,328,197	598,550,120
21,131,589,859	20,488,672,118	18,970,019,489	18,292,611,144	17,481,282,947	16,882,732,827
$ 21,912,986,823	$ 21,131,589,859	$ 20,488,672,118	$ 18,970,019,489	$ 18,292,611,144	$ 17,481,282,947
$ 430,864,656	$ 424,488,126	$ 414,954,939	$ 410,358,229	$ 408,230,472	$ 404,920,440
141,885,632	138,766,747	133,109,939	131,100,983	128,555,684	125,225,906
898,384,867	1,824,094,695	2,289,818,591	35,579,657	632,166,951	2,429,334,097
(1,205,326,555)	(1,160,738,237)	(1,092,952,357)	(1,035,958,950)	(970,719,484)	(914,250,015)
(9,679,783)	(9,455,405)	(10,874,003)	(10,145,471)	(10,774,122)	(10,485,103)
(7,134,784)	(9,336,430)	(7,825,595)	(8,059,030)	(8,034,857)	(8,034,236)
248,994,033	1,207,819,496	1,726,231,514	(477,124,582)	179,424,644	2,026,711,089
17,492,627,740	16,284,808,244	14,558,576,730	15,035,701,312	14,856,276,668	12,829,565,579
$ 17,741,621,773	$ 17,492,627,740	$ 16,284,808,244	$ 14,558,576,730	$ 15,035,701,312	$ 14,856,276,668
$ 4,171,365,050	$ 3,638,962,119	$ 4,203,863,874	$ 4,411,442,759	$ 3,256,909,832	$ 2,625,006,279
80.96%	82.78%	79.48%	76.75%	82.20%	84.98%
$ 3,027,154,131	$ 2,986,026,715	$ 2,921,965,125	$ 2,888,392,668	$ 2,873,988,053	$ 2,850,860,174
137.80%	121.87%	143.87%	152.73%	113.32%	92.08%

* ATRS is only required to present those years for which information is available until the full 10-year trend is completed.

SCHEDULE OF CONTRIBUTIONS

For the ten-year period ended June 30, 2022

	2022	2021	2020
Actuarially-determined contribution	$ 493,022,221	$ 474,196,689	$ 450,612,124
Actual contribution	501,522,604	472,567,147	446,228,128
Contribution deficiency (excess)	$ (8,500,383)	$ 1,629,542	$ 4,383,996
Covered employee payroll	$ 3,320,346,417	$ 3,204,720,806	$ 3,077,558,814
Actual contribution as a percentage of covered employee payroll	15.10%	14.75%	14.50%

SCHEDULE OF INVESTMENT RETURNS

For the ten-year period ended June 30, 2022

	2022	2021	2020
Annual money-weighted rate of return	-5.15%	31.82%	-0.96%

SCHEDULE OF CONTRIBUTIONS

For the ten-year period ended June 30, 2022

2013*

2019	2018	2017	2016	2015	2014
$ 447,791,482	$ 422,365,685	$ 423,846,831	$ 437,434,470	$ 474,773,530	$ 485,904,529
430,864,656	424,488,126	414,954,939	410,358,229	408,230,472	404,920,440
$ 16,926,826	$ (2,122,441)	$ 8,891,892	$ 27,076,241	$ 66,543,058	$ 80,984,089
$ 3,027,154,131	$ 2,986,026,715	$ 2,921,965,125	$ 2,888,392,668	$ 2,873,988,053	$ 2,850,860,174
14.23%	14.22%	14.20%	14.21%	14.20%	14.20%

* ATRS is only required to present those years for which information is available until the full 10-year trend is completed.

SCHEDULE OF INVESTMENT RETURNS

For the ten-year period ended June 30, 2022

2013*

2019	2018	2017	2016	2015	2014
5.25%	11.46%	16.09%	0.24%	4.34%	19.27%

* ATRS is only required to present those years for which information is available until the full 10-year trend is completed.

NOTES TO REQUIRED SUPPLEMENTARY INFORMATION

June 30, 2022

NOTE 1: Summary of Significant Information Related to Required Supplementary Schedules

A. Schedule of Contributions

1. Changes in Benefit Terms
   There were no significant changes in benefit terms for the year ended June 30, 2022.

2. Changes in Assumptions
   There were no significant changes in assumptions for the year ended June 30, 2022.

3. Methods and Assumptions Used in Calculations of Actuarially-Determined Contributions

Valuation date:	June 30, 2020
	Actuarially determined contribution rates are calculated as of June 30 in the year which is one year prior to the beginning of the fiscal year in which contributions are reported.

The following actuarial methods and assumptions were used to determine contribution rates reported in the schedule of contributions:

Actuarial cost method	Entry age normal; funding to retirement
Amortization method	Level percentage of payroll
Amortization period	30 years
Asset valuation method	4-year smoothed market for funding purposes ; 20% corridor
Payroll growth	2.75%
Salary increases	2.75 to 7.75% including inflation
Investment rate of return	7.50%
Mortality table	RP-2014 Healthy Annuitant, Disabled Annuitant, and Employee Mortality headcount weighted tables were used for males and females. Mortality rates were adjusted for future mortality improvements using projection scale MP-2017 from 2006.

SCHEDULE OF SELECTED INFORMATION

FOR THE FIVE-YEAR PERIOD ENDED JUNE 30, 2022 (Unaudited)

	For the Year Ended June 30,				
	2022	2021	2020	2019	2018
Total Assets	$ 20,501,229,577	$ 22,005,819,561	$ 17,272,901,062	$ 18,281,516,802	$ 18,088,381,003
Total Deferred Outflows of Resources	685,899		1,310,404		
Total Liabilities	820,378,162	537,941,055	371,416,146	539,895,029	595,753,263
Total Deferred Inflows of Resources	2,070,062		719,096		
Net Position Restricted for Pension Benefits	19,679,467,252		16,902,076,224	17,741,621,773	17,492,627,740
Total Additions (Losses)	(398,007,308)	5,891,652,600	433,570,198	1,471,135,154	2,387,349,568
Total Deductions	1,391,298,311	1,324,955,953	1,273,115,747	1,222,141,121	1,179,530,072

INVESTMENTS

July 7, 2023

Board of Trustees
Arkansas Teacher Retirement System
1400 West Third Avenue
Little Rock, AR 72201

Market Overview

Fiscal year ending June 30, 2022 ended in stark contrast to the year prior. On the heels of exceptional growth across most capital markets, fiscal year 2022 ended with most equity and bond markets in double digit negative territory. The war in Ukraine was a prevailing story, though causes of the capital market turmoil were present prior to Russia's invasion. The lingering pandemic continued to strain global supply chains and inflationary pressures began to surface in late 2021, making the prospects of rate hikes more and more clear. As the war hit mid-year, it exacerbated the already strained supply chain and pushed inflation to levels not seen in over 40 years in the United States. The culmination of events left investors with very few places to hide.

The 2022 fiscal year didn't start off nearly as bad as it ended, though there were indications that markets were on rocky footing early on. While global growth was moving higher, it was at a slower pace as COVID-19 variants Delta and Omicron curbed economic activity and renewed fears as to whether the economy would be strained again by already fractured supply chains. Global inflation pressures began to intensify towards the end of 2021, as energy and commodity prices trended higher and as China and parts of Europe faced shortages in coal and natural gas, which further intensified the supply-demand imbalance. The prospect of tighter monetary policy around the world to combat inflation and lower growth expectations began to weigh on investors. Bond yields began to rise globally, as inflation remained elevated and central banks became incrementally more hawkish. However, despite these concerns, risk assets rose towards the end of the 2021 calendar year.

It wasn't until the second half of the fiscal year that these risks and concerns began to notably impact capital markets. Equities took a tumble out of the gate heading into 2022, as higher interest rates hit the technology sector hard, and markets grappled with the changing inflationary dynamics. It wasn't long into the second half of the year when geopolitical risks took center stage. On February 24th, Russia invaded Ukraine and has maintained a military presence ever since. In response, the G-7 enacted a slew of financial sanctions in an effort to deter Russia from continuing its operation, so far to no avail. And while the U.S. has banned Russian oil and gas imports, the picture in Europe is more complicated given their outsourced energy dependence.

Running parallel to the crisis evolving in Ukraine was the sharp increase in inflation and global central banks' policy tightening response to rein it in. Through the end of the fiscal year, inflation continued to rise, with U.S. CPI hitting 9.1% year-over-year in June, the fastest pace for inflation since 1981. More worrying, however, was that core inflation which excludes food and energy and hence tends to be less volatile than the headline number, had been higher than economists' estimates, suggesting that inflation had become broader based. Similarly, UK annual inflation continued to accelerate at its highest level in 30 years as the consumer price index rose 9.4% in June and Eurozone inflation reached 8.6% year-over-year, largely due to soaring energy and food prices. What had largely been communicated as 'transitory' early on was soon acknowledged as persistent inflation that needed to be addressed.

Major central banks' plans to tighten monetary policy became more urgent as inflation climbed higher. As was expected, the U.S. Federal Reserve (Fed) increased its benchmark interest rate by 25bps in March and formally ended quantitative easing (QE). As inflation persisted, the Fed became more aggressive with a 50bp hike in May followed by a 75bp rise in June. Further, Chair Powell indicated that the FOMC planned to reduce its $8.5 trillion balance sheet beginning in June. Overseas, the Bank of England increased its benchmark interest rate five times since December, with the policy rate sitting at 1.25% at the end of the year. Additionally, the European Central Bank (ECB) ended its emergency quantitative easing program in March and announced that it would accelerate the wind-down of its legacy QE program and potentially stop net purchases in the third quarter if economic data supported the move. As the year came to an end, even central banks started talking openly of the prospect of recession in the major economies. While we cannot be certain of this, the risks are rising sharply.

All in all, fiscal year 2022 is one that many investors would rather forget. With both equity and bond markets declining double digits, most investors felt notable declines from a large portion of their investment portfolios. Global equities, as defined by the MSCI All Country World IMI Index, declined 16.5% for the one-year period ending June 30, 2022. U.S. equity markets declined 14.2%, as measured by the DJ U.S. Total Stock Market Index. Developed international markets fared better, only declining 6.6% in local currency terms; however, the strong dollar created little dispersion for USD investors as the MSCI EAFE declined 17.8% in USD terms. Emerging markets fared the worst, as greater sensitivity to the supply/demand imbalance, inflation and U.S. interest rates drew a 25.3% decline for the year in USD terms. There was also a notable shift towards value securities as interest rates rose, offering a headwind for growth-oriented stocks and in particular the technology sector. The Russell 3000 Value Index declined 7.5%, while the Russell 3000 Growth Index declined by more than double to -19.8%. Similar dispersion was seen across value and growth international equities as well.

As central banks worked to combat persistent inflation, most bond markets saw yields rise. In the U.S., the 10-year Treasury yield doubled from 1.5% to 3.0% by the end of the year and sent bond prices in the opposite direction. The U.S. bond market, as measured by the Bloomberg Aggregate Bond Index, declined by 10.3% over the year. An allocation that typically serves to diversify equity risk was unfortunately less effective over the year. With a risk-off sentiment, high yield bond markets declined 12.8% over the year, as measured by the Bloomberg U.S. Corporate High Yield Index.

We would be remiss not to mention the strength of commodities over the year, one of very few bright spots. As food and energy prices soared, the Bloomberg Commodity Index posted a 24.3% return over the year. And while the impact on most private market returns are yet to be fully known, we expect alternative asset classes, especially those with lower correlations to equity markets, to offer some reprieve from the volatility experienced across public equities and bonds.

It was a tumultuous year, to say the least, and one that left investors with more uncertainty than clarity. Most total return investors experienced negative results over the year, as traditional diversification via core bonds was mostly ineffective to combat the equity market risk. Allocations across alternative asset classes served investors well during the year, offering a strong reminder as to the benefits of diversification.

Overview of ATRS Fund Structure

The ATRS portfolio is well-diversified across several asset classes, including global public equities, fixed income, alternative investments, real assets, and private equity. The asset allocation is a long-term Policy determined through periodic asset-liability studies and assessments of risk and liquidity needs. Within these asset classes, the investments are diversified across investment types, styles, regions and vintage years. A variety of investment firms are employed within each category to minimize manager- and firm-specific risks. We continue to believe the diversification and overall risk level of the portfolio is appropriate given the goals and objectives of the ATRS.

During the 2022 fiscal year there were no asset allocation changes; however, ATRS did review and approve modest enhancements to the alternatives portfolio over the year. After an evaluation of the Opportunistic/Alternative portfolio, the ATRS Board approved some modest strategy enhancements, including replacing the portfolio's insurance linked securities allocation, modifying an alternatives strategy to a broader global macro mandate and building out the portfolio's private credit exposure. The changes are intended to enhance the portfolio's expected risk-adjusted returns via exposure to uncorrelated returns. During the year, the broader asset allocation continued to progress towards its long-term policy, where currently the real assets portfolio ended the year at 12.2% of Total Fund assets, slightly shy of its long-term target of 15.0%.

Aon and the ATRS Investment Team continue to regularly review the portfolio allocation, structure and manager line-up, and evaluate additional types of strategies in order to best position the fund to achieve its investment objectives.

ARTRS
Arkansas Teacher Retirement System

AON

ATRS Performance Overview (annualized returns)

Periods ending 6/30/2022	1 Year		3 Years		5 Years	
	Return	Rank	Return	Rank	Return	Rank
Total Fund	**-3.9%**	**21**	**7.7%**	**19**	**8.0%**	**12**
Performance Benchmark	-7.2	47	7.6	19	7.8	14
Total Equity	**-13.4**	**34**	**6.1**	**45**	**7.1**	**41**
Performance Benchmark	-15.8	45	7.1	32	7.9	30
Total Fixed Income	**-7.5**	--	**0.5**	--	**1.8**	--
Performance Benchmark	-10.9	--	-0.9	--	0.9	--
Total Opportunistic/Alternatives	**0.2**	--	**1.6**	--	**1.0**	--
Custom Alternatives Benchmark	-0.2	--	2.8	--	2.8	--
Total Real Assets	**16.0**	--	**8.1**	--	**7.8**	--
Total Real Assets Benchmark	21.0	--	8.8	--	7.7	--
Total Private Equity	**16.6**	--	**17.7**	--	**17.6**	--
Private Equity Policy	13.9	--	20.5	--	17.6	--

The Total Fund ended the fiscal year with approximately $19.7 billion, representing a decrease of approximately $1.4 billion over the year. Investment losses of approximately $732 million, as well as benefit payments and expenses drove the decline in assets. The 2022 fiscal year was a tough year as both public equities and U.S. fixed income markets suffered double digit losses. The Total Fund declined by 3.9%, net-of-fees, over the fiscal year. Private markets across Private Equity, Real Assets and the Opportunistic/Alternatives asset classes each generated positive investment results to help offset the losses across public markets. On a relative basis, the Total Fund outperformed its Performance Benchmark return by a strong 3.3 percentage points over the year. Positive relative performance was driven both by modest allocation variances from benchmark, as well as strong outperformance from Total Equity. Relative to a peer group of U.S. Public Pension Plans with assets over $1 billion, the Plan ended the year ranking in the top quartile of its peer group. Longer-term performance also remains positive, as the Total Fund returned an annualized 8.0% over the five-year period and 9.3% over the ten-year period, and outperformed its benchmark over both periods. Additionally, the Total Fund ranked in the top quartile of the peer universe over the three-, five- and ten-year periods.

During the year, the Total Equity asset class declined by 13.4%, providing quite a headwind for Total Fund performance. However, the ATRS Total Equity portfolio added a notable 2.4 percentage point gain above its benchmark for the one-year period due to generally strong active management. Longer-term absolute performance remains strong, as Total Equity returned an annualized 7.1% over the trailing 5-year period.

The ATRS fixed income portfolio declined 7.5% over the year, though also notably outperformed the benchmark, the Bloomberg Universal Index, by 3.4 percentage points. The ATRS portfolio's lower interest rate sensitivity than the benchmark, due to exposure to absolute return strategies, was additive to performance as interest rates rose notably over the year. Over the trailing 5- and 10-year periods, fixed income portfolio returns also exceeded those of the benchmark by 1.4 and 0.9 percentage points, respectively.

The opportunistic/alternatives portfolio held up over the year relative to public equity and bond markets with a modest 0.2% return and outperforming its Custom Alternatives Benchmark by 0.4 percentage points. Both global macro strategies generated strong positive results over the fiscal year, in addition to the exposure to alternative risk premia which was beneficial during a volatile year. The insurance linked security (ILS) allocation and the strategies with equity beta detracted from an absolute return basis, though performance relative to benchmarks was mixed. As noted earlier, there have been several enhancements made to this portfolio which will take time to impact performance. Notable strong performers over the year include global macro manager, Graham, which returned 23.6%, as well as alternative risk premia manager, Man Group, which returned 12.1%.

The real assets category, which includes real estate, timber, agriculture, and infrastructure, returned 18.1% during the fiscal year and underperforming its performance benchmark (21.9%). The real estate allocation which is approximately 61% of the portfolio returned 21.2% and trailed its benchmark return of 28.3%. The Infrastructure portfolio, still relatively young, returned 16.4% over the year and outperformed its benchmark (14.1%). Timber and Agriculture returned 12.8% and 16.0%, respectively, and outperformed their benchmarks (8.9% and 7.2%). In aggregate, the real assets portfolio has been additive from both an absolute and relative perspective over the trailing 10-year period.

The ATRS private equity portfolio returned 16.6% on a time-weighted return basis during the fiscal year benefitting the Total Fund's absolute performance. The private equity portfolio also outperformed its benchmark, the broad U.S. equity stock market plus a 2% premium, which returned 13.9% over the one-year period. Over the long-term, the private equity portfolio has exceeded this performance benchmark by an annualized 1.4 percentage points, earning 13.1% since inception (4/1997).

We are pleased to report on the great success of the ATRS portfolio and feel it is well positioned going-forward to achieve its long-term goals.

Sincerely,

Patrick J. Kelly, CFA, CAIA
Partner

Katie Comstock
Associate Partner

INVESTMENT POLICIES AND PROCEDURES

Amended: October 4, 2010 | February 7, 2011 | June 3, 2013 | October 7, 2013 | February 17, 2014 | June 1, 2015
April 21, 2016 | November 13, 2017 | April 1, 2019 | February 3, 2020 | December 7, 2020 | June 7, 2021

STATEMENT OF INVESTMENT POLICY

This Investment Policy has been prepared within the context of applicable Arkansas laws and is intended to allow for sufficient flexibility in the investment process to capture opportunities, yet ensure that both prudence and care are maintained in the execution of the investment program. While safety of principal is given primary consideration, the Arkansas Teacher Retirement System Board of Trustees, hereinafter “Board” may take appropriate levels of risk to earn higher levels of investment return.

The Board has arrived at this policy through careful study of the rates of return and risks associated with various investment strategies in relation to the current and projected liabilities of the Arkansas Teacher Retirement System, hereinafter, “the System”. This policy has been chosen as the most appropriate for achieving the financial objectives of the System. The policy will be reviewed periodically as circumstances dictate.

The Board has adopted a long-term investment horizon so that the chances and duration of investment losses are carefully weighed against the long-term potential for appreciation of assets. The assets of the System will be invested in a manner that provides the safeguards and diversity to which a prudent investor would adhere. All transactions undertaken on behalf of the System will be in the sole interest of the members of the System.

To achieve the overall investment goal of the System, one or more investment consultants may be retained by the Board as investment advisors. The scope of duties, together with the terms and conditions of engagement, of any investment consultant will be set forth in a contract approved by the Board. Throughout this document, investment advisors are referred to as investment consultants.

The System shall manage those assets not specifically allocated to investment managers. No investment shall be made without an investment consultant’s recommendation. The System shall not approve any material changes in any direct investment without first receiving written advice/ recommendation from a third-party investment consultant and, if needed, outside legal counsel, and, without thereafter receiving written approval by the Investment Committee and Board.

Standard of Care

The standard of care for the Board and Executive Director of the assets of the System is: when investing and reinvesting trust assets and in acquiring, retaining, managing and disposing of investments of the trust assets, there shall be exercised the reasonable care, skill, and caution that a prudent investor would use after considering the purposes, terms, distribution requirements, and other circumstances of the trust. Investment and management decisions respecting individual assets shall be evaluated not in isolation but in the context of the trust portfolio as a whole and as a part of an overall investment strategy having risk and return objectives reasonably suited to the trust. The investments of the trust shall be diversified unless the Board reasonably determines that, because of special circumstances, the purposes of the trust are better served without diversifying. The trust assets shall be invested and managed solely in the interest of the members and benefit recipients of the trust. The trust assets shall be invested in a manner to only incur costs that are appropriate and reasonable in relation to the assets and purposes of the investment. Compliance with the standard of care is determined in light of facts and circumstances at the time of action, not in hindsight.

Investment and management functions may be delegated to an investment agent that a prudent trustee of comparable skills could properly delegate under the circumstances. When making such delegation, the Board shall establish the scope and terms of the delegation, consistent with the purposes and terms of the trust, and shall monitor the investment agent performance and compliance with the terms of the delegation. In performing a delegated function, an investment agent owes a duty to the System and the trust to exercise reasonable care to comply with the terms of the delegation. In addition, the Executive Director may delegate certain duties to the System’s investment staff without relieving the Executive Director from the ultimate responsibility.

Each party serving in a fiduciary capacity for the trust shall apply the standard of care set forth herein.

Asset Allocation

The Board is responsible for the prudent investment of funds and to maintain a proper allocation of the System's investment assets. The Board, in conjunction with its investment consultants, shall set and adjust the System's asset allocation ranges as necessary to provide an optimal allocation to obtain its target returns. The general investment consultant shall notify the Executive Director and the Board when an asset liability modeling study should be undertaken. It shall be the goal of the System to maintain the following asset allocation targets and ranges:

Asset Category	Minimum*	Target	Maximum*
Total Equity	48.0	53.0	58.0**
Fixed Income	13.0	15.0	17.0
Opportunistic/Alternatives	N/A	5.0	N/A
Real Assets***	N/A	15.0	N/A
Private Equity	N/A	12.0	N/A
Cash Equivalents	0.0	0.0	5.0

* Due to the illiquid nature of opportunistic/alternatives, real assets, and private equity, it is not prudent to set rebalancing ranges for these asset classes
**Additional allocations to total equity may be made beyond the maximum range to serve as a placeholder for unfunded and uncommitted opportunistic/alternatives, real assets, and private equity
***Real assets includes real estate, timber, agriculture, and infrastructure

Rebalancing

The asset allocation ranges established by the Board represent the Board's judgment of a portfolio mix that provides the greatest risk/return value. Allowing the portfolio to exceed the Board limits strays from the financial discipline, which the Board believes will – over time – provide the appropriate risk-adjusted return to the System.

The Executive Director is responsible for rebalancing the allowable asset classes and the individual portfolios if any of the asset classes falls outside of the designated range. The general investment consultant shall provide guidance and advice to the Executive Director to best achieve the rebalancing.

Rebalancing among individual investment manager portfolios within asset classes may also be necessary to ensure the appropriate level of diversification is achieved by investment style, market capitalization or risk levels (see total asset class guidelines) and/or to take advantage of market conditions, fund manager expertise, opportunities, or other circumstances that could be beneficial to ATRS.

The Executive Director may rebalance across all equity managers, all equity holdings, all fixed income managers, and all fixed income holdings. A Board approved transition manager may be used for rebalancing. Rebalancing including the use of a Board approved transition manager, as needed, may be initiated by the Executive Director after recommendation from the appropriate investment consultant and positive notice to the Board Chair. The Executive Director and general investment consultant will monitor the asset values by classification for each asset manager on a monthly basis, based on month-end data provided by the custodial bank. The Executive Director and general investment consultant shall regularly inform the Board on the rebalancing pacing and strategy.

Whenever the minimum or maximum range of total equity or fixed income has been exceeded, a transfer of funds or other appropriate action will occur to bring the actual allocation within the prescribed range within a time frame determined to be prudent by the Executive Director in consultation with the general investment consultant.

Normal plan cash flows should be used to the extent possible to rebalance. Interest, dividends, and plan contributions should be used to the extent possible to fund asset classes that are below their target. Withdrawals should be made from asset classes that are above their target.

Investment Manager Selection

In order to implement its investment strategy, the System will use individual investment managers. Arkansas Code § 24-3-401 et seq. requires ATRS to always operate under the prudent investor rule. The prudent investor rule requires all investment decisions to be made based on the experience of management, rates of return, appropriate risk, reasonable cost, and all other relevant factors that should be used by prudent investors.

It is the policy of the Board to include, whenever appropriate, qualified minority–owned and women-owned business enterprises in the System's investment manager selection process and to objectively evaluate all qualified investment manager candidates regardless of race, gender or disability.

The Board will evaluate all qualified investment manager candidates with emphasis on demonstrated professional performance, organizational depth, institutional investment management capability, and reasonableness of fee structure regardless of the amount of investment assets under management or the age of the investment management firm.

The Board will use professional consultants that do not use discriminatory practices in the creation and maintenance of their investment manager databases and will require the investment consultants to affirm their use of non-discriminatory practices when recommending investment manager candidates to the Board.

Goals

Recognizing the purpose of the System is to remain actuarially sound and pay member benefits, the overall investment goal is to achieve, over a period of years, the greatest rate of return for the System with due consideration given to preserving capital and its purchasing power, and to maintain an appropriate level of risk consistent with the obligations of a prudent investor. The return of the System should exceed, net of fees, a policy benchmark comprised of the respective asset class benchmarks weighted by the asset class policy targets over a full market cycle (approximately five years). During periods of transition to and from non-marketable and illiquid asset classes such as private equity and real assets, actual allocations may be used over extended periods to reflect these changes in the policy targets. Periodic performance reports will provide a detailed description of the policy benchmark composition over time.

The System's actuary sets an expected return based on the Board's policy decisions. Market cycles may result in the System earning a return materially above or below the actuarial rate of return for extended periods of time. Therefore, the actuarial rate of return will not be used for performance comparison purposes.

Total Equity

The total equity exposure of the portfolio shall be well diversified with broad exposures to small, mid, and large capitalization companies and growth and value style sectors across U.S. and non-U.S. markets. The goal for total equity shall be to achieve a total rate of return that will exceed, net of all fees and costs, the return of the aggregate global equity market as measured by the Morgan Stanley Capital International (MSCI) All Country World Index (ACWI) Investable Market Index (IMI) over a full market cycle (approximately five years). Because the total equity portfolio was previously segregated into domestic and global equity components, the total equity portfolio has a bias to domestic equity relative to the MSCI ACWI IMI. Therefore, to ensure appropriate performance measurement, the benchmark for total equity will be appropriately weighted between the Dow Jones U.S. Total Stock Market Index and the MSCI ACWI IMI Index to reflect the current domestic / global asset mix until the domestic allocation is in line with the global opportunity set as defined by the MSCI ACWI IMI. The manager structure of the total equity portfolio should resemble the weighted average of their respective benchmarks and avoid any material biases due to a concentration of managers or management styles. To achieve this goal, the Board may employ various actively managed and passive mandates. The structure of the equity component will be analyzed annually to ensure proper diversification is achieved.

Fixed Income

The manager structure of the aggregate fixed income portfolio's risk exposure should resemble the aggregate domestic fixed income market as measured by the Barclays U.S. Universal Bond Index. To help achieve this goal, the Board will employ investment managers that invest assets in a broad array of sectors (government, mortgage backed, credits, asset backed, and commercial mortgage backed bonds), maturities, and credit qualities so that the overall portfolio structure is not materially different from that of the domestic and global fixed income markets. To provide a broad base of low-cost diversification and readily available liquidity, the Board may allocate a portion of the fixed income assets to a passive investment portfolio that approximates the return of the broad fixed income market.

The goal for fixed income investments shall be to achieve a total rate of return that will exceed, net of all costs and fees, the return of the Barclays U.S. Universal Bond Index over a full market cycle (approximately five years).

Opportunistic/Alternative Investments

The Opportunistic/Alternatives asset class may include investments in direct hedge funds, hedge fund of funds, commodities, currency mandates, and other alternative strategies that are not closely correlated or related to the traditional asset classes (fixed income, equities, private equity, and real assets). Unique investments that do not fit within the other asset class categories may also be included in the Opportunistic/Alternative category at the Board's discretion.

Because this category may include illiquid investments made through closed end investment partnerships, it may take a period of time to reach and maintain the target allocation of 5%. Assets will be invested in the total equity asset class when the opportunity/alternative allocation is below its long-term target of 5%.

The benchmark for the category will be a weighted average of the benchmarks of the underlying strategies.

The goal of the credit, global macro, and other liquid alternative investments shall be to achieve a total rate of return that will exceed, net of all fees and costs, the return of the appropriate institutional quality hedge fund index over a full market cycle (approximately five years). Appropriate benchmarks will be determined as investments are added to the portfolio.

Real Assets

The Real Asset category may include real estate, timber, agriculture, and infrastructure. While no fixed targets are set, the following general parameters have been identified:

10% Real Estate
2% Timber
1% Agriculture
2% Infrastructure

The total target of the asset class will be 15%. Because this category may include illiquid investments made through closed end investment partnerships, it will take a period of time to reach these targets. Assets will be invested in the total equity asset class until the total target is attained.

The System may initiate investments in real estate as governed by the Real Asset Statement of Investment Policy.
The System's goal for real estate is to not materially exceed the System's approved target asset allocation for total real estate investments as determined by the Board at the beginning of each fiscal year. Should the real estate target asset allocation be exceeded, the Executive Director, working with the Real Estate Consultant, shall develop a pacing and strategy plan to address the over allocation.

ATRS' Real Estate portfolio is benchmarked on a net of fee basis against the NCREIF Fund Index Open-end Diversified Core Equity Index ("NFI-ODCE"). Once ATRS' Real Estate portfolio reaches its full target allocation for a five year period, it is expected to meet or exceed the NFI-ODCE over rolling five year periods.

The System may initiate direct ownership in timberland or indirect investments in fund of funds, partnerships, corporations, or real estate investment trusts ("REITs") investing in investment grade properties of like kind.

The goal of the timberland investments shall be to achieve a total rate of return that will exceed, net of all fees and costs, the return of the NCREIF Timberland Property Index ("NTPI") over a five year rolling period. The Consumer Price Index plus 300 basis points will be used as a secondary measurement to gauge the timber portfolio's performance compared to the opportunity cost of investing in timber.

The goal of the agriculture investments shall be to achieve a total rate of return that will exceed, net of all fees and costs, the return of the NCREIF Farmland Index ("NFI") over a five year rolling period. The Consumer Price Index plus 300 basis points will be used as a secondary measurement to gauge the agriculture portfolio's performance compared to the opportunity cost of investing in agriculture.

The goal of the infrastructure investments shall be to achieve a total rate of return that will exceed, net of all fees and costs, the return of the Consumer Price Index (CPI) plus 5 percentage points over a full market cycle (approximately ten years). The Consumer Price Index plus 5 percentage points will be used as the benchmark to reflect the opportunity cost of investing in infrastructure. Similar infrastructure programs of institutional investors will also be used as a secondary benchmark to the extent such data is made available.

The ATRS Total Real Asset Benchmark is weighted by the allocations based on Net Asset Values across the various sub-categories, and thus defined as Real Estate benchmark, Timber benchmark, Agriculture benchmark and Infrastructure benchmark. The net of fee return for ATRS' Total Real Asset Portfolio is expected to meet or exceed the Total Real Asset Benchmark over rolling five year periods.

Private Equity

The System may initiate investments in private equity as governed by the Private Equity Statement of Investment Policy. Private equity investments may include domestic and foreign private equity partnerships, venture capital, and mezzanine financing partnerships that are intended to diversify the assets and reduce the likelihood of material losses in any individual investment classification. The investment consultant responsible for private equity shall advise the Executive Director and Board on the Private Equity Statement of Investment Policy and the structure of private equity investments best suited for the System.

The System's goal for private equity investments is to achieve a total rate of return that will exceed, net of all costs and fees, the return of the public equity markets, as measured by the Dow Jones U.S. Total Stock Market Index, plus a liquidity premium of 2 percentage points per year over a full market cycle for private equity (approximately ten years).

Cash Equivalents

The System may hold direct ownership in short-term investments or may permit or require managers to hold cash or cash equivalents to meet liquidity needs of the investment manager or of the System.

The System's cash management goal shall be to preserve capital and maintain liquidity.

Arkansas-Related Investments

The System may initiate Arkansas-related mortgage loans, promissory notes, direct real estate investments, or purchase insured certificates of deposit or short term securities of Arkansas financial institutions to meet the goals of the mandated requirements. Arkansas-related investments are categorized according to the appropriate asset class for each investment. In addition, Arkansas related investments include, but are not limited to, investments managed by an Arkansas related manager, Arkansas related investments held by other fund managers, Arkansas timberland, partnerships based in Arkansas, and partnerships holding Arkansas properties.

Commingled or Mutual Funds

If a commingled fund or mutual fund is utilized, the portfolio will be governed by the prospectus or similar document for the fund. In those cases, the System will utilize the prudent investor rule and advice of the investment consultant in selecting and evaluating funds initially and in monitoring them on an on-going basis.

Derivatives

Derivatives may be used to reduce the risk in a portfolio and provide desired market and security level positions as an alternative to purchasing cash securities. Excessive leverage shall not be created through the use of derivatives in a manner that substantially increases the System's portfolio risk. Each investment manager's derivative usage shall be specified in the investment management agreement or specific guidelines.

The use of futures and options shall be matched by cash or cash equivalent securities, and all short futures positions shall be matched by equivalent long security positions, unless otherwise stated in the investment manager guidelines or authorizing fund documents.

Loaning of Securities

The lending agent will evaluate the credit-worthiness of potential borrowers of securities, and will loan securities only to financially sound borrowers. The lending agent will maintain a diversified list of such borrowers in order to mitigate the counterparty risk that is inherent in securities lending.

Collateral levels should be based on the nature of the loaned security and will generally be between 102% and 105% of the market value of the borrowed security. Marking to market will be performed every business day subject to de minimis rules of change in value, and borrowers will be required to deliver additional assets as necessary to maintain over-collateralization of securities loans.

Securities Lending Reinvestment Guidelines

The cash collateral portfolio will be managed on an amortized cost basis (maintain a $1 net asset value) and have investment guidelines that are 2a-7-like in nature (money market fund guidelines) to ensure that only a moderate amount of risk is taken on the reinvestment of the cash collateral. This will control the amount of credit and duration risk that can be taken by the short duration fixed income manager, which will help to mitigate losses due to insufficient collateral relative to the amount on loan. In addition, guidelines for the cash collateral portfolio will be created in conjunction with the lending strategy and with input from the securities lending agent.

The collateral pool should also maintain a reasonable level of overnight liquidity in order to allow for the smooth recall of securities over time.

Investment Manager Reporting

The System will require all investment managers, managing partners, and general partners to provide on at least a quarterly and an annual basis, reporting appropriate for the investment.

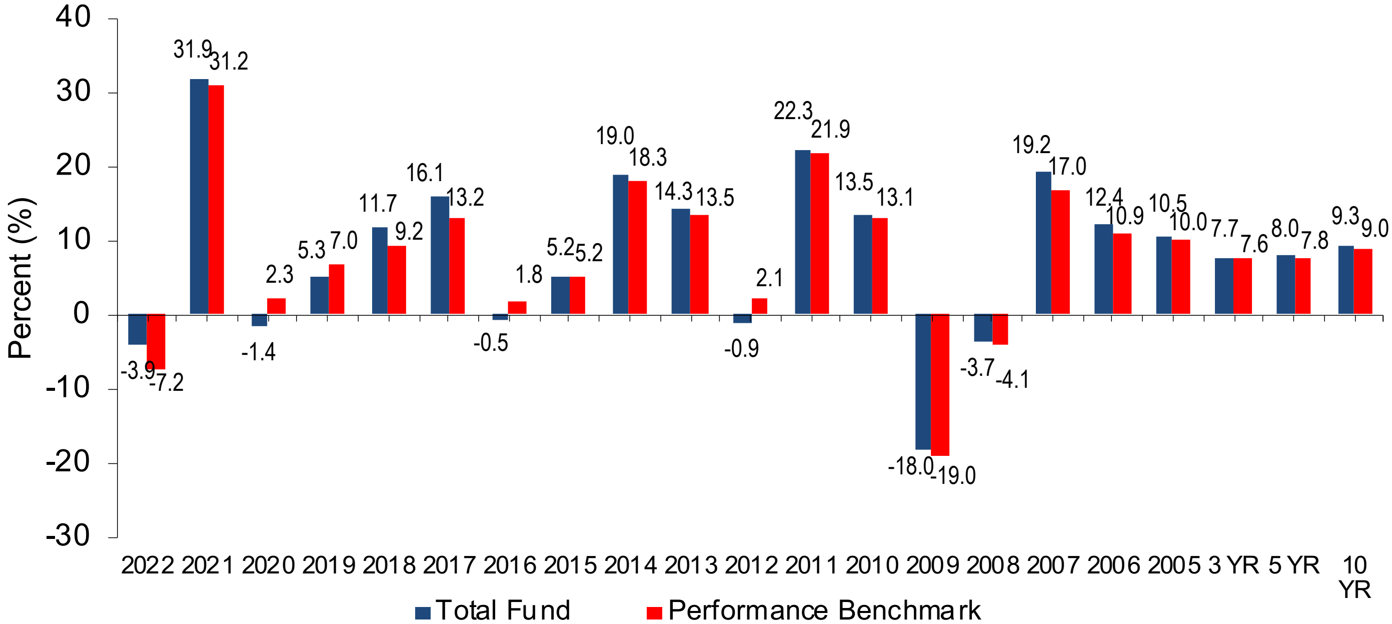
Roles

The Executive Director and investment consultant are jointly responsible for the initial selection of investment managers and any increase or decrease in an investment manager's funding. The Executive Director and investment consultant are jointly responsible for monitoring existing investment managers on performance, stability, and compliance. The Executive Director and investment consultant may also recommend termination of an investment manager when circumstances justify termination. Reasons for termination include, but are not limited to, relative performance, relative stability, costs, strategic allocation of assets, or other relevant factors that a prudent investor would use.

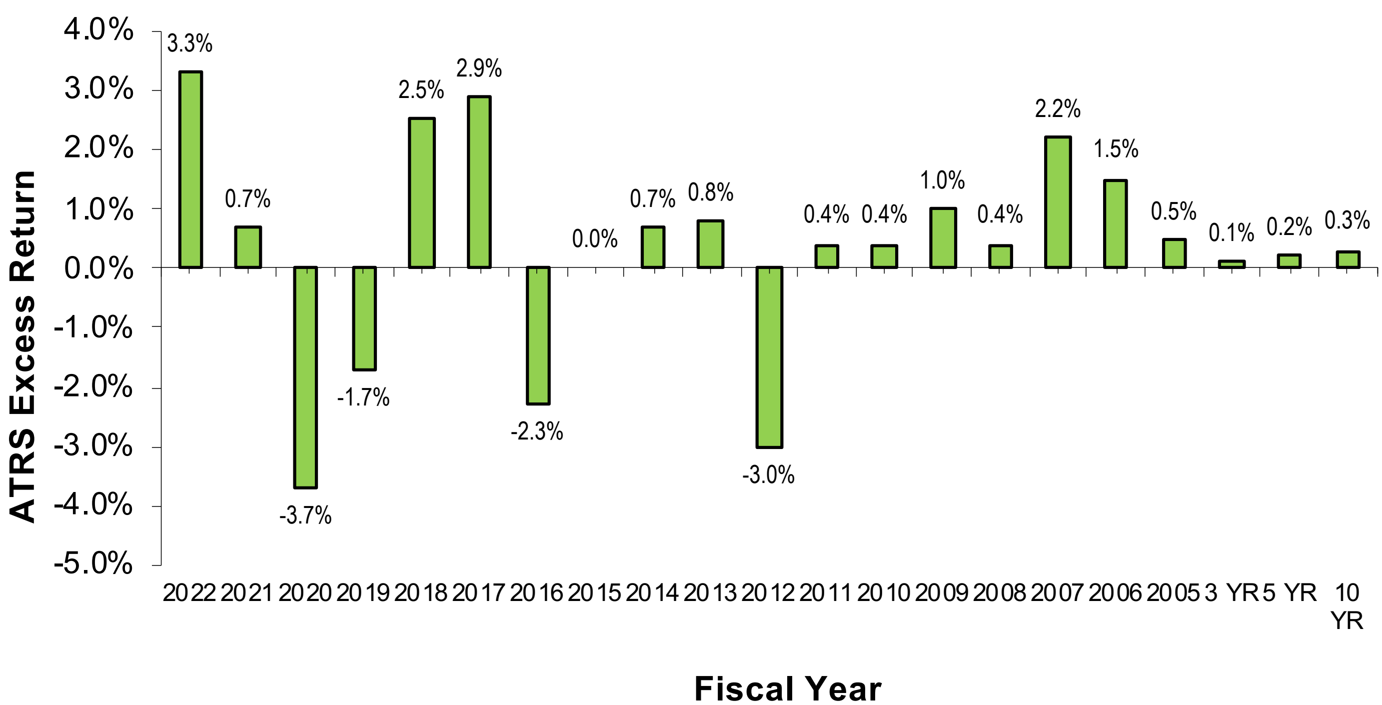
Proxies

The System authorizes the investment manager to vote all proxies related to stocks in which it invests the System's assets. The System expects the investment manager to cast votes solely in the best interest of plan beneficiaries.

ATRS Total Fund Fiscal Year Returns vs. Performance Benchmark: Periods Ending June 30th

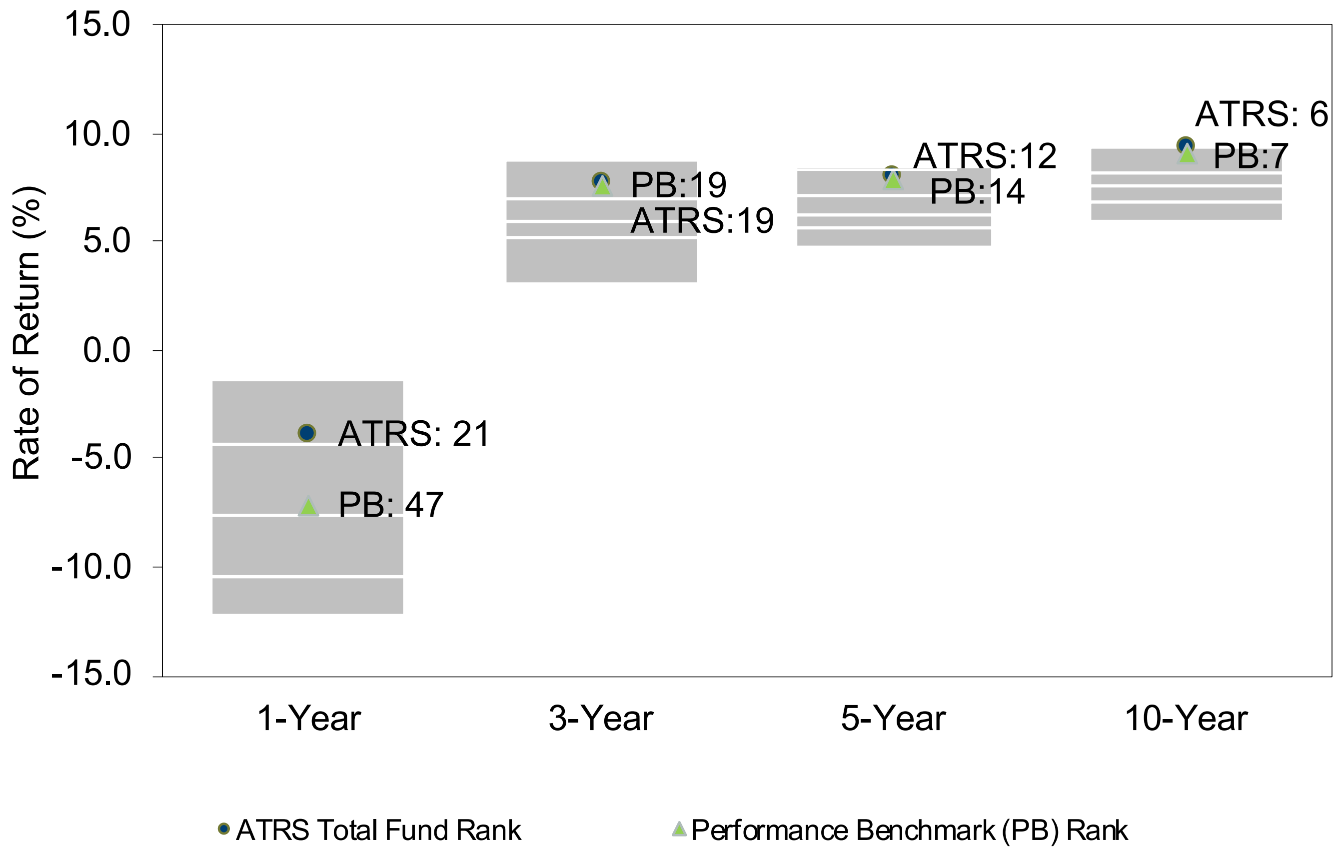


ATRS Total Fund Returns Relative to Performance Benchmark: Periods Ending June 30th



ATRS Total Fund Ranks: Periods Ending June 30, 2022

Universe of U.S. Public Defined Benefit Plan with over $1 billion in AUM



TRADITIONAL ASSETS
Schedule of Investment Results
Returns for Period Ending June 30, 2022

The table below details the rates of return for the System's investment managers over various time periods ending June 30, 2022. The Appendix at the end of this document provides a description of the benchmarks used for each manager as of the end of the fiscal year.

	1-Year	3-Years	5-Years
PUBLIC EQUITY			
Pershing Square Holdings	-17.9	20.8	15.8
Dow Jones U.S. Total Stock Market Index	-14.2	9.6	10.5
Trian Partners	-19.0	1.9	4.2
Trian Co-Investments	-10.9	5.0	4.6
S&P 500 Index	-19.0	1.9	4.2
Jacobs Levy 130/30	12.1	19.1	16.4
Russell 3000 Index	-13.9	9.8	10.6
Kennedy Capital Management	-11.9	8.4	5.7
Russell 2000 Value Index	-16.3	6.2	4.9
Stephens	-25.8	3.9	9.5
Russell 2000 Growth Index	-33.4	1.4	4.8
Allianz Convertibles	-19.8	12.4	13.2
Performance Benchmark	-20.6	10.1	10
Voya Absolute Return	-14.1	6.8	6.9
Performance Benchmark	-15.8	6.2	7.0
SSgA Global Index	-16.2	6.3	7.0
BlackRock MSCI ACWI IMI Fund	-16.2	6.3	7.0
MSCI AC World IMI (Net)	-16.5	6.0	6.7
GMO Global All Country Equity	-19.1	3.6	4.2
T. Rowe Price Global Equity	-28.7	10.0	11.8
Lazard	-25.6	3.7	4.7
MSCI ACWI Index (Net)	-15.8	6.2	7.0
Harris Global Equity	-17.0	6.7	4.5
D.E. Shaw	-13.2	6.3	7.4
MSCI World Index (Net)	-14.3	7.0	7.7
Wellington Global Perspectives	-17.1	5.4	5.4
Performance Benchmark	-21.8	4.4	4.7

TRADITIONAL ASSETS
Schedule of Investment Results (Continued)

The table that follows details the rates of return for the System's investment managers over various time periods ending June 30, 2022.

	1-Year	3-Years	5-Years
FIXED INCOME			
BlackRock	-10.9	-0.7	1.1
Performance Benchmark	-10.9	-0.9	0.9
Reams Core Plus Bond Fund	-10.7	1.7	2.7
SSgA Aggregate Bond Index	-10.4	-1.0	0.9
Barclays Aggregate Index	-10.3	-0.9	0.9
Loomis Sayles	-12.5	1.0	2.4
Performance Benchmark	-11.5	-0.3	1.5
Putnam	-5.1	-0.4	1.3
LIBOR	0.0	0.8	1.3
Wellington Global Total Return	3.8	2.5	3.6
BofA Merrill Lynch 3 Month US T-Bill	0.2	0.6	1.1

ALTERNATIVES
Schedule of Investment Results

The table that follows details the rates of return for the System's investment managers over various time periods ending June 30, 2022.

	1-Year	3-Years	5-Years
OPPORTUNISTIC/ALTERNATIVES			
Anchorage	0.1	5.5	4.8
York	-9.1	19.3	-11.1
Credit Suisse Event Driven	-5.4	3.9	3.5
Capula	6.6	6.3	5.8
Graham	23.6	14.1	10.1
HFRI Macro (Total) Index	7.9	7.7	5.3
Circumference Group Core Value	-10.1	6.5	7.5
Russell 2000 Index	-25.2	4.2	5.2
Aelous Keystone Fund	-8.2	-1.3	-5.7
Nephila Rubik Holdings	-15.1	-7.5	-7.4
FTSE 3 Month T-Bill	0.2	0.6	1.1
Parametric Global Defensive Equity	-5.5	3.5	4.0
Performance Benchmark	-7.8	3.8	4.3
Man Alternative Risk Premia	12.1	2	--
SG Multi Alternative Risk Premia Index	4.0	-1.8	--

REAL ASSETS
Schedule of Investment Results

The table that follows details the rates of return for the System's investment active managers for the period ending June 30, 2022.

Real Estate Manager	Since-Inception IRR	Inception Date
Core & Open End Funds		
Arkansas Investments	8.1%	12/31/2007
JP Morgan Strategic Property Fund	7.4%	2/5/2007
MetLife Commercial Mortgage Income Fund, LP	3.4%	7/1/2019
Prime Property Fund	3.1%	3/31/2022
Prudential PRISA	7.4%	6/30/2005
UBS Trumbull Property Fund	5.8%	3/31/2006
UBS Trumbull Property Income Fund	7.1%	7/3/2017
Closed End Funds		
Almanac Realty Securities V, LP	11.9%	5/12/2008
Almanac Realty Securities VI	9.2%	11/20/2012
Almanac Realty Securities VII	12.6%	4/24/2015
Almanac Realty Securities VIII	16.1%	12/21/2018
Almanac Realty Securities IX	-61.7%	6/13/2022
Blackstone Real Estate Partners Europe VI (EURO Vehicle)	21.1%	11/20/2019
Blackstone Real Estate Partners VII	15.4%	2/6/2012
Calmwater Real Estate Credit Fund III	7.3%	12/27/2017
Carlyle Realty Partners IX	N/M	
Carlyle Realty Partners VII	14.7%	7/15/2014
Carlyle Realty Partners VIII	35.7%	6/29/2018
CBRE Strategic Partners U.S. Opportunity 5	5.4%	8/13/2008
CBRE Strategic Partners U.S. Value 8	11.0%	9/30/2016
CBRE Strategic Partners U.S. Value 9	7.8%	7/20/2020
Cerberus Institutional Real Estate Partners III	13.4%	10/3/2013
FPA Core Plus Fund IV	10.0%	9/10/2018
GLP Capital Partners IV	11.2%	9/28/2021
Harbert European Real Estate Fund IV	4.9%	6/30/2016
Heitman European Property Partners IV	-3.8%	12/15/2008
Kayne Anderson Real Estate Partners V	15.5%	6/15/2018
Kayne Anderson Real Estate Partners VI	-3.8%	6/4/2021
Landmark Real Estate Fund VI	18.5%	6/30/2010
Landmark Real Estate Fund VIII	19.8%	8/2/2017
LaSalle Asia Opportunity Fund IV	32.3%	7/22/2014
LaSalle Asia Opportunity V	10.3%	9/30/2017

REAL ASSETS
Schedule of Investment Results (continued)

The table that follows details the rates of return for the System's investment active managers for the period ending June 30, 2022.

Real Estate Manager	Since-Inception IRR	Inception Date
Closed End Funds (continued)		
LaSalle Asia Opportunity VI	N/M	3/31/2022
LaSalle Income & Growth Fund VI	10.0%	7/16/2013
LaSalle Income & Growth Fund VII	11.5%	6/30/2017
LaSalle Income & Growth Fund VIII	23.0%	2/26/2020
LBA Logistics Value Fund IX	-5.8%	2/22/2022
Lone Star Real Estate Fund IV	11.8%	10/1/2015
Long Wharf Real Estate Partners V	9.3%	11/20/2015
Long Wharf Real Estate Partners VI, L.P.	33.7%	3/30/2020
Mesa West Real Estate Income Fund V	6.8%	11/8/2021
Metropolitan Real Estate Partners Co-Investments Fund, L.P.	10.8%	12/30/2015
O'Connor North American Property Partners II, L.P.	-3.0%	4/10/2008
PGIM Real Estate Capital VII (USD Feeder)	8.9%	1/28/2021
Rockwood Capital Real Estate Partners Fund IX	10.5%	12/27/2012
Rockwood Capital Real Estate Partners Fund XI	16.8%	12/18/2019
Torchlight Debt Opportunity Fund IV	9.6%	7/19/2013
Torchlight Debt Opportunity Fund V	10.5%	6/29/2015
Torchlight Debt Opportunity Fund VI	9.0%	2/12/2018
Torchlight Debt Opportunity Fund VII	5.9%	7/16/2020
Walton Street Real Estate Debt Fund II, L.P.	7.3%	6/28/2019
Westbrook Real Estate Fund IX	7.4%	6/11/2013
Westbrook Real Estate Fund X	11.1%	7/18/2016
Total Real Estate	8.2%	5/28/1997

REAL ASSETS
Schedule of Investment Results (continued)

The table that follows details the rates of return for the System's investment active managers for the period ending June 30, 2022.

Timber & Agriculture	Since-Inception IRR	Inception Date
BTG Timber Separate Account	5.3%	2/18/1998
BTG Pactual Open Ended Core U.S. Timberland Fund	9.9%	12/30/2019
HFMS Farmland Separate Account	6.6%	4/22/2011
UBS Agrivest Core Farmland Fund	5.1%	4/1/2015

Infrastructure	Since-Inception IRR	Inception Date
Antin Infrastructure Partners II, L.P.	13.3%	7/3/2014
AxInfra NA II LP	10.4%	3/1/2021
DIF Infrastructure Fund V, L.P.	8.0%	6/5/2018
Global Energy & Power Infrastructure Fund II	15.0%	12/23/2014
Global Infrastructure Partners III, L.P.	11.0%	5/18/2016
IFM Global Infrastructure Fund (US), L.P.	11.0%	10/1/2018
ISQ Global Infrastructure Fund III	-18.9%	12/30/2021
KKR Global Infrastructure Investors II, L.P.	16.8%	12/18/2014
KKR Diversified Core Infrastructure Fund	0.7%	4/1/2022
Macquarie Infrastructure Partners III, L.P.	16.2%	2/13/2015
Macquarie Infrastructure Partners V, L.P.	23.9%	12/16/2020

ARTRS
Arkansas Teacher Retirement System

PRIVATE EQUITY
Schedule of Investment Results

The table that follows details the rates of return for the System's investment active managers for the period ending June 30, 2022.

	Inception Date	Annualized Internal Rate of Return*
INDIVIDUAL PARTNERSHIPS		
Audax Mezzanine III	5/10/2010	9.80%
Big River - Mezzanine	6/27/2014	17.34%
Blackstone Mezzanine I	12/22/1999	10.16%
DLJ Investment II	11/10/1999	10.35%
Greyrock IV	12/30/2016	10.67%
Greyrock V	4/15/2020	8.18%
Insight Mezzanine I	7/13/2009	6.54%
PRIVATE EQUITY		
21st Century Group I	4/6/2000	-3.75%
Advent GPE VI-A	3/12/2008	16.52%
Alpine Investors VIII	8/13/2021	NMF
Altaris Constellation	7/20/2016	26.03%
Altaris IV	6/30/2017	31.70%
Altus Capital II	6/3/2011	12.80%
American Industrial VI	9/30/2015	22.52%
American Industrial VII	3/29/2019	15.36%
Arlington IV	7/29/2016	26.55%
Arlington V	5/3/2019	47.01%
Arlington VI	4/29/2022	NMF
Atlas Capital II	12/13/2013	20.16%
ATRS-FP PE	4/1/2012	21.35%
Big River - Equity	6/27/2014	14.99%
Big River - Funding	1/31/2017	4.27%
Big River - Holdings Note	8/23/2017	11.05%
Big River - Holdings Note 2023	3/13/2018	5.57%
Big River - Holdings Note 2023-2	9/14/2018	6.50%
Big River - Preferred Equity	8/23/2017	12.51%
Big River - Sr Secured Debt	6/27/2014	14.71%
Bison V	6/30/2016	17.46%
Bison VI	12/23/2021	NMF
Blue Oak Arkansas	3/26/2014	-34.84%
Boston Ventures VII	12/14/2007	3.15%

* 2021 and 2022 vintage year funds' performance is deemed not meaningful (NMF).

PRIVATE EQUITY
Schedule of Investment Results (Continued)

The table that follows details the rates of return for the System's investment active managers for the period ending June 30, 2022.

	Inception Date	Annualized Internal Rate of Return*
PRIVATE EQUITY (continued)		
BV IX	4/7/2017	35.10%
BV VIII	8/15/2014	48.49%
BV X	2/28/2020	56.07%
BV XI	7/1/2022	NMF
Castlelake II	5/4/2012	5.56%
Castlelake III	2/28/2014	6.95%
Clearlake V	1/12/2018	49.58%
Clearlake VI	12/10/2019	45.71%
Clearlake VII	10/29/2021	NMF
Court Square III	7/17/2012	20.77%
CSFB-ATRS 2005-1 Series	5/1/2005	7.79%
CSFB-ATRS 2006-1 Series	8/1/2006	10.24%
Cypress MBP II	6/18/1999	-0.48%
DH Tech I	1/12/2000	0.00%
Diamond State	4/15/2000	5.46%
Diamond State II	1/4/2007	10.77%
DLJ MBP III	7/19/2000	19.36%
Doughty Hanson III	10/20/1997	13.54%
DW Healthcare III	12/21/2011	18.97%
DW Healthcare IV	12/21/2015	24.04%
DW Healthcare V	7/22/2019	3.82%
EnCap IX	12/19/2012	10.04%
EnCap VIII	1/31/2011	0.46%
EnCap X	4/7/2015	16.74%
EnCap XI	3/6/2017	18.81%
FP CF Access	7/31/2019	30.50%
FP CF Access II	2/4/2022	NMF
FP Intnl 2011	2/16/2011	10.05%
FP Intnl 2012	1/31/2012	8.29%
FP Intnl 2013	2/7/2013	7.83%
FP Intnl 2014	1/23/2014	15.19%
FP Intnl 2015	1/23/2015	14.00%

*2021 and 2022 vintage year funds' performance is deemed not meaningful (NMF).

PRIVATE EQUITY
Schedule of Investment Results (Continued)

The table that follows details the rates of return for the System's investment active managers for the period ending June 30, 2022.

	Inception Date	Annualized Internal Rate of Return*
PRIVATE EQUITY (continued)		
FP Intnl 2016	1/21/2016	11.53%
FP Intnl 2017	3/1/2017	24.23%
FP Intnl 2018	2/15/2018	14.28%
FP Intnl 2019	3/27/2019	17.71%
FP Intnl X	3/27/2020	NMF
FP Intnl XI	1/14/2022	NMF
FP Venture Opp	1/7/2022	NMF
FP Venture XIII	2/7/2020	21.22%
FP Venture XIV	1/7/2022	NMF
FP Venture 2008	1/18/2008	18.38%
FP Venture 2009	1/16/2009	17.46%
FP Venture 2010	1/29/2010	18.68%
FP Venture 2011	2/16/2011	36.42%
FP Venture 2012	1/31/2012	23.59%
FP Venture 2013	2/7/2013	27.73%
FP Venture 2014	1/23/2014	26.12%
FP Venture 2015	1/23/2015	19.97%
FP Venture 2016	1/21/2016	30.77%
FP Venture 2017	3/1/2017	33.30%
FP Venture 2018	3/23/2018	38.38%
FP Venture 2019	6/25/2019	36.01%
Greenbriar V	2/22/2021	NMF
GTLA Holdings	8/30/2018	38.63%
Highland Contingent Note	7/20/2018	7.96%
Highland Equity	7/28/2016	-6.65%
HMTF III	3/4/1997	1.85%
HMTF IV	6/18/1998	-6.09%
HMTF V	11/28/2000	17.57%
Insight Equity II	7/13/2009	9.16%
JF Lehman III	8/8/2011	11.58%
JF Lehman IV	10/23/2015	35.61%
JF Lehman V	6/28/2019	7.35%

*2021 and 2022 vintage year funds' performance is deemed not meaningful (NMF).

ARTRS
Arkansas Teacher Retirement System

PRIVATE EQUITY
Schedule of Investment Results (Continued)

The table that follows details the rates of return for the System's investment active managers for the period ending June 30, 2022.

	Inception Date	Annualized Internal Rate of Return*
PRIVATE EQUITY (continued)		
KPS III Supplemental	8/14/2009	22.82%
KPS IV	4/12/2013	24.11%
KPS Mid-Market I	10/15/2019	24.02%
KPS V	10/15/2019	37.44%
Levine Leichtman V	4/30/2013	17.66%
Lime Rock Resources III	7/16/2013	3.15%
LLR III	5/9/2008	16.60%
LLR VI	9/25/2020	NMF
Mason Wells III	5/13/2010	20.55%
NGP IX	2/27/2008	10.85%
NGP X	4/20/2012	-0.09%
NGP XI	9/30/2014	10.03%
NGP XII	10/2/2017	14.55%
Oak Hill I	4/1/1999	10.59%
One Rock II	3/31/2017	22.40%
PineBridge Structured III	12/31/2015	-4.74%
Revelstoke III	10/1/2021	NMF
Riverside IV	12/4/2009	21.27%
Riverside V	5/11/2012	12.33%
Riverside VI	7/3/2018	16.43%
Riverside Value Fund I	3/14/2022	NMF
Second Cinven	4/30/1998	9.30%
Siris III	12/11/2014	13.34%
Siris IV	12/22/2017	23.14%
SK Capital V	7/5/2018	16.38%
SK Capital VI	3/3/2022	NMF
Sycamore Partners II	4/7/2014	3.96%
Sycamore Partners III	12/21/2017	11.49%
TA XI	4/30/2009	26.94%
Tennenbaum VI	2/15/2011	7.29%
Thoma Bravo Discover	1/29/2016	36.80%
Thoma Bravo Discover II	12/20/2017	30.92%

*2021 and 2022 vintage year funds' performance is deemed not meaningful (NMF).

PRIVATE EQUITY
Schedule of Investment Results (Continued)

The table that follows details the rates of return for the System's investment active managers for the period ending June 30, 2022.

	Inception Date	Annualized Internal Rate of Return*
PRIVATE EQUITY (continued)		
Thoma Bravo Discover III	5/29/2020	NMF
Thoma Bravo Discover IV	4/13/2022	NMF
Thoma Bravo Explore I	1/23/2020	33.77%
Thoma Bravo Explore II	5/2/2022	NMF
Thoma Bravo XI	5/1/2014	27.43%
Thoma Bravo XII	4/27/2016	16.85%
Thoma Bravo XIII	9/24/2018	37.37%
Thoma Bravo XIV	5/29/2020	NMF
Thoma Bravo XV	4/13/2022	NMF
Vista Equity III	7/11/2008	28.47%
Vista Foundation II	10/31/2013	15.96%
Vista Foundation III	5/19/2016	26.35%
Wellspring V	7/28/2010	16.13%
Wicks IV	4/29/2011	21.63%
WNG II	6/26/2018	-9.22%

*2021 and 2022 vintage year funds' performance is deemed not meaningful (NMF).

DESCRIPTION OF BENCHMARKS

Total Fund – The Performance Benchmark for the Total Fund reflects a weighted average of the underlying asset class benchmarks, weighted as follows: Opportunistic/Alternatives and Real Assets at the weight of the previous month's ending market values, Fixed Income and Private Equity at their long-term Policy Targets of 15% and 12%, respectively, and Total Equity at its long-term Policy Target of 53% plus the balance of the unfunded or uncommitted assets of the Opportunistic/Alternatives and Real Assets categories. From October 2007 to July 2013, the Performance Benchmark was the performance of the asset class benchmarks as a weighted average of the previous month's ending market values. The historical components of the benchmark are shown in the table below. Returns prior to September 30, 1996, consist of the actual allocations to the seven different asset classes included in the ATRS portfolio over time. The historical benchmarks used for each asset class are noted below.

Date	DJ U.S. Total Stock Market Index	Russell 3000 Index	MSCI ACW ex-US Index	MSCI ACWI	Bloomberg Barclays U.S. Universal Bond Index	Bloomberg Barclays Aggregate Bond Index	Alternative Policy[1]
03/31/2004 – 09/30/2007	40.0%	--	17.5%	--	25.0%	--	17.5%
07/31/2003 – 02/29/2004	40.0%	--	17.5%	--	--	25.0%	17.5%
10/31/2001 – 06/30/2003	--	40.0%	17.5%	--	--	25.0%	17.5%
08/31/1998 – 09/30/2001	--	40.0%	17.0%	--	--	28.0%	15.0%
10/31/1996 – 07/31/1998	--	40.0%	20.0%	--	--	28.0%	12.0%

[1] Currently, the benchmarks for Real Assets and Opportunistic/Alternatives are included in the Total Fund Performance Benchmark at their actual beginning quarter weights. Prior October 1, 2007, private equity, real estate, and other alternatives (timber) were grouped together in one "Alternatives Asset Class." The Alternative Policy for this asset class was comprised of the weighted average of the Real Estate, Private Equity, and Other Alternatives policy benchmarks. Prior to July 31, 2003 the alternative benchmark consisted of 57.0% of the Russell 3000 + a 2% Premium per year, 8.5% of the NCREIF South Timberland Index, 28.5% of the Real Estate Index, 6% of the EnnisKnupp STIF Index. After this date, real estate and private equity benchmarks started to report on a one-quarter lag to align with the returns of their asset classes.

Total Equity – A weighted average of the Dow Jones U.S. Total Stock Market Index and the MSCI All Country World IMI Index based on weights of the underlying investment manager allocations. As of June 1, 2021, the Total Equity Performance Benchmark was comprised of 31.2% DJ U.S. Total Stock Market Index and 68.8% MSCI ACWI IMI

Total Fixed Income – The Bloomberg Barclays U.S. Universal Bond Index as of March 1, 2004.

Total Opportunistic/Alternatives – A custom benchmark consisting of 25% DJ/CS Event-Driven Index, 25% HFR Macro Index, and 50% South Timberland NCREIF Index until June 30, 2013; 60% HFRI Macro Index and 40% DJ/CS Event-Driven Index until July 31, 2015; 56% HFRI Macro Index, 38% DJ/CS Event-Driven Index, and 6% Russell 2000 Index until March 31, 2016; 45% HFRI Macro Index, 30% DJ/CS Event-Driven Index, 5% Russell 2000 Index, and 20% Citigroup 3 Month T-bill until May 31, 2016; 37% HFRI Macro Index, 25% DJ/CS Event-Driven Index, 5% Russell 2000 Index, and 33% Citigroup 3 Month T-bill until May 31, 2017; 28% HFRI Macro Index, 20% DJ/CS Event-Driven Index, 4% Russell 2000 Index, 25% Citigroup 3 Month T-bill, and 23% Parametric Performance Benchmark until May 31, 2018. 22% HFRI Macro Index, 18% DJ/CS Event-Driven Index, 3% Russell 2000 Index, 27% FTSE 3 Month T-bill, 18.50% Parametric Performance Benchmark, and 11.5% SG Multi-Alternative Risk Premia Until June 30, 2018. 20% HFRI Macro Index, 15% DJ/CS Event-Driven Index, 3.5% Russell 2000 Index, 25% FTSE 3 Month T-bill, 16.5% Parametric Performance Benchmark, and 20% SG Multi-Alternative Risk Premia Until August 31, 2018. 17% HFRI Macro Index, 15% DJ/CS Event -Driven Index, 3.5% Russell 2000 Index, 28% FTSE 3 Month T-bill, 16.5% Parametric Performance Benchmark, and 20% SG Multi-Alternative Risk Premia Until November 30, 2018. 15% HFRI Macro Index, 15% DJ/CS Event-Driven Index, 3.5% Russell 2000 Index, 30% FTSE 3 Month T-bill, 16.5% Parametric Performance Benchmark, and 20% SG Multi-Alternative Risk Premia thereafter.

Total Real Assets – A custom benchmark consisting of a weighted average of the net asset values at previous month's end of the subcategories' benchmarks, defined as Real Estate Benchmark, Timber Benchmark, Agriculture Benchmark and Infrastructure Benchmark.

Real Estate – NFI-ODCE - NCREIF Fund Index Open-end Diversified Core Equity Index.

Timber Benchmark – NCREIF Timberland Property Index (NTPI) weighted according to ATRS' regional exposure based on net asset value.

Agriculture Benchmark – NCREIF Farmland Index (NFI) weighted according to ATRS' regional and crop type exposure based on net asset value.

Infrastructure Benchmark – Consumer Price Index (CPI) plus 500 basis points annually.

Total Private Equity – The Dow Jones U.S. Total Stock Market Index + a 2% premium per year.

Cash Equivalents – The Citigroup 90 day T-bill.

Allianz Performance Benchmark – On January 1, 2005, the benchmark for the portfolio was changed to the Merrill Lynch Convertible Bond (All Quality) Index. Prior to January 1, 2005, the performance benchmark for the Allianz (previously Nicholas Applegate) portfolio was the CSFB Convertible Securities Index. Prior to May 1, 2004, the performance benchmark consisted of 90% CSFB Convertible Securities Index and 10% Salomon High Yield Index.

BlackRock Performance Benchmark – The Bloomberg Barclays U.S. Universal Bond Index as of March 1, 2004. Previously it was the Bloomberg Barclays Aggregate Bond Index.

Jacobs Levy Performance Benchmark – On January 1, 2008, the benchmark for the portfolio was changed to the Russell 3000 Index. Prior to January 1, 2008, the portfolio benchmark was the Russell 1000 Growth Index.

Loomis Sayles Performance Benchmark – An Index that splices 65% of the Bloomberg Barclays Capital Government/Credit Index and 35% Bloomberg Barclays Capital High Yield Index.

PIMCO Performance Benchmark – The Bloomberg Barclays U.S. Universal Bond Index as of March 1, 2004. Previously it was the Bloomberg Barclays Capital Aggregate Bond Index.

Wellington Global Performance Benchmark – As of July 1, 2012 the benchmark was changed to MSCI All Country World Small Cap Index. Prior to July 1, 2012, the benchmark was MSCI All Country World Small/Mid Cap Index.

Bloomberg Aggregate Bond Index – A market-value weighted index consisting of the Bloomberg Barclays Corporate, Government and Mortgage-Backed Securities Indices. The Index also includes credit card-, auto- and home equity loan-backed securities, and is the broadest available measure of the aggregate U.S. fixed income market.

Bloomberg Government/Credit Index – The Bloomberg Barclays Government/Credit Index measures the investment return of all medium and larger public issues of U.S. Treasury, agency, investment-grade corporate, and investment-grade international dollar-denominated bonds.

Bloomberg High Yield Index – The Bloomberg Barclays High Yield Index covers the universe of fixed rate, non-investment grade debt. Pay-in-kind (PIK) bonds, Eurobonds, and debt issues from countries designated as emerging markets (e.g., Argentina, Brazil, Venezuela, etc.) are excluded, but Canadian and global bonds (SEC registered) of issuers in non-EMG countries are included.

Bloomberg U.S. Universal Bond Index – A market-value weighted index consisting of the components of the Bloomberg Barclays Aggregate Bond Index, plus EuroDollar bonds, emerging markets bonds, 144A fixed income securities, and U.S. corporate high yield securities.

Citigroup 90 day T-bill Index – Treasury bill rates of return, as reported by Citigroup (Salomon Smith Barney), for bills with a maximum time remaining to maturity of 90 days.

DJ/CS Event-Driven Index – Event driven funds typically invest in various asset classes and seek to profit from potential mispricing of securities related to a specific corporate or market event. Such events can include: mergers, bankruptcies, financial or operational stress, restructurings, asset sales, recapitalizations, spin-offs, litigation, regulatory and legislative changes as well as other types of corporate events. Event driven funds can invest in equities, fixed income instruments (investment grade, high yield, bank debt, convertible debt and distressed), options and various other derivatives. Many event driven fund managers use a combination of strategies and adjust exposures based on the opportunity sets in each subsector.

Dow Jones U.S. Total Stock Market Index – A capitalization-weighted stock index representing all U.S. common stocks traded regularly on the organized exchanges. The Index is the broadest measure of the aggregate U.S. stock market.

FTSE Europe – A tradable index, designed to represent the performance of the 100 most highly capitalized blue chip companies in Europe.

HFR Macro Index – An index representing investment managers which trade a broad range of strategies in which the investment process is predicated on movements in underlying economic variables and the impact these have on equity, fixed income, hard currency and commodity markets.

HFR Distressed/Restructuring Index – An index representing distressed restructuring strategies which employ an investment process focused on corporate fixed income instruments, primarily on corporate credit instruments of companies trading at significant discounts to their value at issuance or obliged (par value) at maturity as a result of either formal bankruptcy proceeding or financial market perception of near term proceedings.

LIBOR Index – London Interbank Offered Rate. A filtered average of the world's most creditworthy banks' interbank deposit rates with maturities between overnight and one full year.

Merrill Lynch Convertible Bond (All Quality) Index – The Merrill Lynch All Convertibles All Qualities Index is a widely used index that measures convertible securities' performance. It measures the performance of U.S. dollar-denominated convertible securities not currently in bankruptcy with a total market value greater than $50 million at issuance.

MSCI All Country World Index – A capitalization-weighted index of stocks representing 46 developed and emerging country markets.

MSCI Europe, Australasia, Far East (EAFE) Non-U.S. Stock Index – A capitalization-weighted index of stocks representing 23 developed and emerging country markets in Europe, Australia, Asia and the Far East.

MSCI World Index – A capitalization-weighted index of stocks representing 23 developed stock markets in Europe, Asia and Canada.

NFI-ODCE Index – NCREIF Fund Index Open-end Diversified Core Equity Index is an index of investment returns reporting on both a historical and current basis the results of 33 open-end commingled funds pursuing a core investment strategy; underlying funds are leveraged with gross and net returns available.

Russell 3000 Index – An index that measures the performance of the 3000 stocks that make up the Russell 1000 and Russell 2000 Indices.

Russell 1000 Index – An index that measures the performance of the largest 1,000 stocks contained in the Russell 3000 Index.

Russell 1000 Value Index – An index that measures the performance of those Russell 1000 companies with lower price-to-book ratios and lower I/B/E/S growth forecasts.

Russell 2000 Index – An index that measures the performance of the smallest 2000 companies contained in the Russell 3000 Index.

Russell 2000 Growth Index – An index that measures the performance of those Russell 2000 companies with greater price-to-book ratios and greater I/B/E/S growth forecasts.

Russell 2000 Value Index – An index that measures the performance of those Russell 2000 companies with lower price-to-book ratios and lower I/B/E/S growth forecasts.

S&P 500 Stock Index – A capitalization-weighted stock index consisting of the 500 largest publicly traded U.S. stocks.

SG Multi Alternative Risk Premia Index – An equally-weighted peer index representing risk premia managers who employ investment programs diversified across multiple asset classes while utilizing multiple risk premia factors.

South Timberland Index – The largest regional subindex of the NCREIF Timberland Index, consisting of timberland properties held in the U.S. South. This includes close to 300 properties with more than 10 million cumulative acres of timberland in the following states: Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, Missouri, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia. Calculations are based on quarterly returns at the individual property level. Performance is reported on an all-cash, unlevered basis, gross of investment management fees.

DESCRIPTION OF UNIVERSES

Total Fund – The Total Fund and its benchmark are ranked in our Public Fund Universe. The universe is calculated based on data provided by BNY Mellon Performance & Risk Analytics, LLC, and includes roughly 90 public pension plans each with assets greater than $1 billion.

Total Equity – The total equity component and its benchmark are ranked in our global equity component universe. The universe is calculated based on data provided by BNY Mellon Performance & Risk Analytics, LLC, and includes over 450 global equity portfolios.

Total Fixed Income – The total fixed income component and its benchmark are ranked in our fixed income component universe. The universe is calculated based on data provided by BNY Mellon Performance & Risk Analytics, LLC, and includes the fixed income asset class returns of approximately 50 public pension plans each with assets greater than $1 billion.

ARTRS
Arkansas Teacher Retirement System

TOP TEN LARGEST HOLDINGS

(By Market Value) As of June 30, 2022

FIXED INCOME

Security Name			Market Value
US TREASURY N/B	2.875	5/15/32	22,864,843.75
US TREASURY N/B	1.5	2/29/24	18,542,595.60
DEXCOM	0.25	11/15/25	17,147,100.00
CLOUDFARE	0.01	8/15/26	17,051,271.00
LIVE NATION ENT	2	2/15/25	16,177,200.00
JAZZ INVT I	2	6/15/26	15,746,675.00
SOUTHWEST AIR	1.25	5/1/25	14,901,262.50
PALO ALTO NET	0.375	6/1/25	14,680,410.00
PIONEER NATURAL	0.25	5/15/25	14,485,400.00
SNAP INC	0.125	3/1/28	14,466,400.00

DOMESTIC/GLOBAL EQUITIES

Security Name	Market Value
PROSUS NV	67,267,869.36
AMAZON.COM INC	65,030,258.80
SCHWAB (CHARLES) CORP	57,849,756.12
ALPHABET INC CL A	57,251,339.46
AIRBUS SE	49,523,534.07
LONDON STOCK EXCHANGE GROUP	46,864,127.04
MASTERCARD INC A	46,218,766.44
T MOBILE US INC	43,623,115.06
ADAMS DIVERSIFIED EQUITY FUND	41,858,457.42
SALESFORCE INC	38,371,800.00

ARKANSAS RELATED

Security Name	Market Value
TIMBERLAND I	335,923,075
HIGHLAND	44,933,063
THE VICTORY BUILDING	32,395,546
AMERICAN CENTER 1 & 2 (PARTNERSHIP)	24,849,465
ARKANSAS TEACHER RETIREMENT BUILDING	4,778,549
ROSE LAW FIRM	4,123,704
ARKANSAS INSURANCE DEPARTMENT BUILDING	2,357,663
BIG RIVER STEEL	1,677,862
1500 W 3RD STREET	645,349
1512 W 3RD STREET	414,631

ACTUARIAL

June 28, 2023

Board of Trustees
Arkansas Teacher Retirement System
1400 West Third Street
Little Rock, Arkansas 72201

Dear Board Members:

The basic funding objective of the Arkansas Teacher Retirement System (ATRS) is to establish and receive contributions which:

- When expressed in terms of the percentage of active member payroll, will remain approximately level from generation to generation; and
- When combined with present assets and future investment return, will be sufficient to meet the financial obligations of ATRS to present and future retirees and beneficiaries.

The progress being made toward the realization of the financing objectives of the System through June 30, 2022 is illustrated in the attached Exhibits 1 and 2. Actuarial funding valuations are performed each year and the most recent funding valuations were completed based upon census data, asset data, and plan provisions as of June 30, 2022. In addition to the funding valuation reports, the actuary produces separate financial reporting information in accordance with Governmental Accounting Standards Board (GASB) Statements No. 67 and No. 68.

The System's administrative staff provides the actuary with data for the actuarial valuations. The actuary relies on the census data after reviewing it for internal and year-to-year consistency. The actuary does not audit census data. The actuary summarizes and tabulates population data in order to analyze longer term trends. Asset information was also accepted without audit. The actuary is not responsible for the accuracy or completeness of any information provided by ATRS.

The figures disclosed in the Supplementary Schedules to the Financial Section were provided by Gabriel, Roeder, Smith & Company, as were the Notes to Trend Data. In addition, Gabriel, Roeder, Smith & Company was responsible for the following schedules found in the Actuarial Section:

Computed Actuarial Liabilities
Determination of Amortization Period as of June 30, 2022
Active Members in Valuation Data
Retirees and Beneficiaries Added to and Removed from Rolls
Short Condition Test
Actuarial Gain (Loss) by Risk Area during the Period June 30, 2021 to June 30, 2022
Summary of Actuarial Assumptions and Methods
Single Life Retirement Values
Probabilities of Retirement for Members
Assumed Duration in T-DROP for Members
Teachers Separations and Individual Pay Increases
Support Employees Separations and Individual Pay Increases
Comments
Schedule of Retired Members by Benefit Type
Schedule of Average Benefit Payments

Assets are valued on a market related basis that recognizes each year's difference between actual and assumed investment return over a closed four-year period.

Actuarial valuations are based upon assumptions regarding future activity in specific risk areas including the rates of investment return and payroll growth, eligibility for the various classes of benefits, and longevity among retired lives. The Board adopts these assumptions after considering the advice of the actuary and other professionals. The assumptions and methods used for funding purposes meet the parameters set by the Actuarial Standards of Practice. Each actuarial valuation takes into account all prior differences between actual and assumed experience in each risk area. The June 30, 2022 valuations were based upon assumptions that were adopted by the ATRS Board in connection with a study of experience covering the 2015-2020 period.

The Arkansas Teacher Retirement System remains stable with an 82.3% funded position (based on the actuarial value of assets) and a 79.7% funded position based upon the market value of assets as of June 30, 2022. The amortization period as of June 30, 2022 is 26 years.

Based upon the results of the June 30, 2022 valuations, we are pleased to report to the Board of Trustees that the Arkansas Teacher Retirement System is meeting its basic financial objective of level percent-of-payroll financing.

Readers desiring a more complete understanding of the actuarial condition of ATRS are encouraged to obtain and read the complete actuarial valuation reports. The complete reports also contain certain very important disclosures mandated by Actuarial Standards of Practice. The material in the Actuarial Section and Financial Sections of this Annual Report contains some, but not all, of the information in the actuarial reports.

Future actuarial measurements may differ significantly from the current measurements presented in this information 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. This information does not contain an analysis of the potential range of such future measurements.

This information 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 information 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.

This information has been prepared by actuaries who have substantial experience valuing public employee retirement systems. Judith A. Kermans, Brian B. Murphy, and Heidi G. Barry 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.

Respectfully submitted,
Gabriel, Roeder, Smith & Company

Judith A. Kermans

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Brian B. Murphy

Brian B. Murphy,
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Heidi G. Barry

Heidi G. Barry,
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EXHIBIT 1

Computed Actuarial Liabilities as of June 30, 2022

Actuarial Present Value of	(1) Total Present Value	Entry Age Actuarial Cost Method	
		(2) Portion Covered by Future Normal Cost Contributions	(3) Actuarial Accrued Liabilities (1)-(2)
Age and service retirement allowances based on total service likely to be rendered by present active members.	$ 10,375,248,142	$ 2,685,258,911	$ 7,689,989,231
Age and service retirement allowances based on total service likely to be rendered by present T-DROP members.	1,933,785,032	37,580,359	1,896,204,673
Vested deferred benefits likely to be paid present active and inactive members.	1,456,546,022	457,916,167	998,629,855
Survivor benefits expected to be paid on behalf of present active members.	178,518,684	67,840,303	110,678,381
Disability benefits expected to be paid on behalf of present active members.	210,177,310	104,078,605	106,098,705
Refunds of Member contributions expected to be paid on behalf of present active members.	23,835,919	171,800,004	(147,964,085)
Benefits payable to present retirees and beneficiaries.	14,043,822,116	0	14,043,822,116
Total	$ 28,221,933,225	$ 3,524,474,349	$ 24,697,458,876
Funding Value of Assets	20,328,281,484	0	20,328,281,484
Liabilities to be Covered by Future Contributions	$ 7,893,651,741	$ 3,524,474,349	$ 4,369,177,392

EXHIBIT 2

Determination of Amortization Period Computed as of June 30, 2022 and June 30, 2021

Computed Contributions for	Percents of Active Member Payroll			
	June 30, 2022			June 30, 2021
	Teachers	Support	Combined	Combined
Normal Cost				
Age & Service Annuities	11.23%	7.50%	10.20%	10.17%
Deferred Annuities	1.50%	2.32%	1.73%	1.73%
Survivor Benefits	0.27%	0.19%	0.25%	0.25%
Disability Benefits	0.41%	0.39%	0.40%	0.41%
Refunds of Member Contributions	0.48%	1.21%	0.68%	0.68%
Total	13.89%	11.61%	13.26%	13.24%
Average Member Contributions	6.62%	5.14%	6.21%	6.17%
Net Employer Normal Cost	7.27%	6.47%	7.05%	7.07%
Unfunded Actuarial Accrued Liabilities			7.95%	7.93%
Employer Contribution Rate (FY 2023 and later)			15.00%	15.00%
Amortization Years			26	32

The calculated amortization period of 26 years is based on anticipated increases in the employer and member contribution rates. The FY 2022 employer and member contribution rates were 14.75% and 6.75%, respectively. The employer and member rates are scheduled to increase to 15% and 7%, respectively, in Fiscal 2023 which is reflected in the above schedule.

The amortization period is the number of years it will take to pay off the unfunded liability of $4.4 billion, assuming contributions remain at the Fiscal 2023 level. Since 2000, the period has varied from a low of 19 years to a high of over 100 years. If experience in FY 2023 is reasonably in line with expectations, the amortization period is likely to increase in the next valuation due to the phase-in of net investment losses.

ARTRS
Arkansas Teacher Retirement System

SCHEDULE OF ACTIVE MEMBER VALUATION DATA

Valuation Date June 30,	Active Members in Valuation		Average Annual Pay	
	Number	Annual Payroll (Millions)	Amount	% Change
2022	**71,378**	**$ 3,199**	**$ 44,811**	**1.8%**
2021	70,098	3,086	44,030	5.1%
2020	70,539	2,954	41,884	4.0%
2019	72,164	2,907	40,285	1.5%
2018	72,341	2,872	39,702	1.8%
2017	72,148	2,814	38,997	1.1%
2016	72,232	2,785	38,557	1.2%
2015	72,919	2,777	38,088	2.7%
2014	74,352	2,758	37,092	1.9%
2013	74,925	2,727	36,400	0.0%

The information above includes members in T-DROP. The schedule does not include retirees who return to work.

SCHEDULE OF RETIREES AND BENEFICIARIES ADDED TO AND REMOVED FROM ROLLS

Year	Estimated Number		Total Retirees	Annual Allowances (Millions)	% Increase in Annual Allowances	Average Annual Allowances
	Added	Removed				
2022	**2,788**	**1,445**	**52,748**	**$ 1,293.75**	**4.1%**	**$ 24,527**
2021	2,852	1,580	51,405	1,242.70	4.0%	24,175
2020	2,811	1,355	50,133	1,194.82	4.2%	23,833
2019	2,849	996	48,677	1,146.74	4.3%	23,558
2018	2,927	1,195	46,824	1,099.35	5.2%	23,478
2017	2,996	999	45,092	1,044.74	6.2%	23,169
2016	3,272	925	43,095	983.87	7.3%	22,830
2015	3,326	1,056	40,748	916.62	11.5% @	22,495
2014	3,156	932	38,478	822.19	7.7%	21,368
2013	3,039	945	36,254	763.76	7.7%	21,067

@ Increased percent due to T-DROP annuities included in 2015.

SHORT CONDITION TEST

ATRS' funding objective is to meet long-term benefit promises through contributions that remain approximately level from year to year as a percent of member payroll. If the contributions to the System are level in concept and soundly executed, the System *will pay all promised benefits when due -- the ultimate test of financial soundness.* Testing for level contribution rates is the long-term test.

A short condition test is one means of checking a system's progress under its funding program. In a short condition test, the plan's present assets (cash and investments) are compared with: 1) member contributions on deposit; 2) the liabilities for future benefits to present retired lives; and 3) the liabilities for service already rendered by members. In a system that has been following the discipline of level percent-of-payroll financing, the liabilities for member contributions on deposit (liability 1) and the liabilities for future benefits to present retired lives (liability 2) will be fully covered by present assets (except in rare circumstances). In addition, the liabilities for service already rendered by members (liability 3) will be partially covered by the remainder of present assets. The larger the funded portion of liability 3, the stronger the condition of the system. Liability 3 being fully funded is unusual, but highly desired.

The schedule below illustrates the history of Liability 3 of the System and is indicative of the ATRS' objective of following the discipline of level percent-of-payroll financing.

Valuation Date June 30,	(1) Member Contribution	(2) Retirees and Beneficiaries	(3) Active and Inactive Members (Employer Financed Portion)	Present Valuation Assets	Portion of Present Values Covered by Present Assets			
					(1)	(2)	(3)	Total
	$ Millions							
2022#	**$1,648**	**$14,044**	**$9,005**	**$20,328**	**100%**	**100%**	**51%**	**82%**
2021#*	1,544	13,596	8,847	19,343	100%	100%	48%	81%
2020#	1,455	12,890	8,007	18,007	100%	100%	46%	81%
2019#	1,377	12,460	7,872	17,413	100%	100%	45%	80%
2018#	1,312	11,851	7,772	16,756	100%	100%	46%	80%
2017#*	1,254	11,337	7,707	16,131	100%	100%	46%	79%
2016	1,184	10,430	7,198	15,239	100%	100%	50%	81%
2015	1,128	9,778	7,230	14,434	100%	100%	49%	80%
2014	1,077	8,777	7,456	13,375	100%	100%	47%	77%
2013#	1,027	8,181	7,514	12,247	100%	100%	40%	73%

* Revised actuarial assumptions or methods.
# Legislated benefit or contribution rate change.

ACTUARIAL GAIN (LOSS) BY RISK AREA

During the Period July 1, 2021 to June 30, 2022

Type of Risk Area	Gain (Loss) in Period $ Millions	Gain (Loss) in Period Percent of Liabilities
ECONOMIC RISK AREAS		
Pay Increases If there are smaller pay increases than assumed, there is a gain. If greater increases, a loss.	$ (43.7)	(0.18)%
Gross Investment Return If there is greater investment return recognition than assumed, there is a gain. If less return recognition, a loss.	(217.6)	(0.91)%
NON-ECONOMIC RISK AREAS		
Retirements If members retire at older ages, there is a gain. If younger ages, a loss.	4.1	0.02%
Disability Retirements If there are fewer disabilities than assumed, there is a gain. If more, a loss.	(0.2)	0.00%
Death-in-Service Benefits If there are fewer than assumed, there is a gain. If more, a loss.	(4.0)	(0.02)%
Withdrawal If more liabilities are released by other separations than assumed, there is a gain. If smaller releases, a loss.	26.2	0.11%
Death After Retirement If there are more deaths than assumed, there is a gain. If fewer, a loss.	35.8	0.15%
ACTUARIAL GAIN (LOSS) DURING PERIOD	$ (199.4)	(0.83)%
BEGINNING OF YEAR ACCRUED LIABILITIES*	$ 23,986.9	100.0%

*Adjusted for change in Assumptions.

SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

An actuarial valuation is based upon an actuarial cost method, an asset valuation method, and actuarial assumptions. These methods and assumptions are chosen by the Board of Trustees after consultation with the Actuary and other advisors.

The Entry Age Actuarial Cost Method of the valuation was used in determining accrued liabilities and normal cost. This method is consistent with the Board's level percent-of-payroll funding objective. With this method, the level percent-of-payroll is determined that will fund a member's retirement benefit over the member's entire working lifetime, from date of hire (Entry Age) to date of exit from the active member population. T-DROP members are treated as active members. Normal cost runs from the date of entry to the date of retirement. Differences in the past between assumed and actual experience become part of unfunded actuarial accrued liabilities and are amortized with level percent-of-payroll contributions. This cost method was first used in the ***June 30, 1986*** valuation.

The asset valuation method is a four-year smoothed market value method in which assumed investment return is recognized immediately each year and differences between actual and assumed investment return are phased-in over a closed four-year period. This asset valuation method is intended to give recognition to the long-term accuracy of market values while filtering out and dampening short-term market swings. This method was first used in the ***June 30, 1995*** valuation. It was modified following the 1997-2002 Experience Study to include an 80% - 120% market value corridor.

The actuarial assumptions used in producing the valuation fall into two broad classes: economic assumptions and demographic assumptions. Economic assumptions refer to long-term rates of investment return, wage growth, covered population growth, and inflation. Demographic assumptions refer to retirement rates, turnover rates, disability rates and mortality rates. The current assumptions are based upon a 2015-2020 study of experience of the Arkansas Teacher Retirement System. The assumptions are reviewed from time to time to keep them reasonably current with expected experience.

Economic Assumptions

The *price inflation* assumption is 2.50%, although no specific Price Inflation is needed for this valuation. It is assumed that the 3% COLA will always be paid.

The *investment return rate* used in the valuation was 7.25% per year, compounded annually (net after administrative expenses). This rate was first used for the June 30, 2021 valuation. The assumed real rate of return over price inflation is 4.75%.

The *wage inflation* assumption is 2.75%. This consists of 2.50% related to pure price inflation and 0.25% related to general economic improvements. This assumption was first used for the June 30, 2017 valuation.

Pay increase assumptions for individual active members are shown in Table VII. Part of the assumption for each service year is for a merit and/or seniority increase, and the other 2.75% recognizes wage inflation. These rates were first used for the *June 30, 2021* valuation.

The Active Member Group (Active, T-DROP, RTW) size is assumed to remain constant at its present level.

Total active member payroll is assumed to increase 2.75% a year, which is the portion of the individual pay increase assumptions attributable to wage inflation. This rate was first used for the ***June 30, 2017*** valuation.

SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS (CONTINUED)

Non-Economic Assumptions

The ***mortality tables*** used were the Pub-2010 General Healthy Retired, General Disabled Retiree and General Employee Mortality amount weighted tables for males and females. Mortality rates were adjusted for future mortality improvements using projection scale MP-2020 from 2010. Related values are shown in Table I. These tables were first used for the ***June 30, 2021*** valuation.

A limited fluctuation credibility procedure was used to determine the appropriate scaling factor of each gender and each member classification (see the 2015-2020 Experience Study), and are shown below:

	Scaling Factor
Healthy Male Retirees	105%
Healthy Female Retirees	105%
Disabled Male Retirees	104%
Disabled Female Retirees	104%
Male Active Members	100%
Female Active Members	100%

The ***probabilities of retirement*** for members eligible to retire are shown in Tables II and III. The rates for full retirement and reduced retirement were first used in the ***June 30, 2021*** valuation.

The ***assumed duration*** of T-DROP for present T-DROP members is shown in Table IV.

The ***probabilities of withdrawal from service, death-in-service*** and ***disability*** are shown for sample ages in Tables V and VI. These rates were first used in the ***June 30, 2021*** valuation.

The ***data about persons now covered and about present assets*** was furnished by the System's administrative staff. Although examined for general reasonableness, the data was not audited by the actuary. Members whose dates of birth were not supplied were assumed to be 40 years old on the valuation date. Members whose salaries were not supplied and that entered T-DROP were assumed to have the group average pay of those with salary data as of the valuation date that entered T-DROP.

TABLE I

Single Life Retirement Values

Sample Attained Ages in 2022	Present Value of $1 Monthly for Life		Present Value of $1 Monthly for Life Increasing 3.0% Annually		Future Life Expectancy (Years)		Percent Dying within Next Year	
	Male	Female	Male	Female	Male	Female	Male	Female
40	$ 159.89	$ 162.44	$ 213.33	$ 218.19	45.27	48.29	0.09%	0.05%
45	155.49	158.74	204.88	210.83	40.03	43.00	0.12%	0.07%
50	149.75	153.88	194.42	201.63	34.93	37.83	0.29%	0.22%
55	142.77	148.03	182.14	190.85	30.06	32.88	0.44%	0.31%
60	133.94	140.35	167.43	177.49	25.36	28.04	0.67%	0.43%
65	123.01	130.34	150.20	161.15	20.90	23.34	0.97%	0.62%
70	109.50	117.58	130.24	141.69	16.68	18.84	1.49%	0.99%
75	93.52	102.01	108.12	119.49	12.80	14.64	2.52%	1.77%
80	75.88	84.29	85.20	95.85	9.39	10.88	4.54%	3.27%
85	58.49	65.92	63.89	72.80	6.62	7.72	8.35%	6.20%
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	
		Male	Female
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

TABLE II

Probabilities of Retirement for Members

Retirement Ages	% of Active Participants Retiring with Unreduced Benefits			
	Education		Support	
	Male	Female	Male	Female
48	8%	7%	8%	8%
49	8%	7%	8%	8%
50	8%	7%	8%	8%
51	8%	7%	8%	8%
52	8%	7%	8%	8%
53	8%	7%	8%	8%
54	8%	7%	8%	8%
55	8%	8%	8%	8%
56	10%	8%	8%	8%
57	10%	10%	8%	11%
58	10%	12%	8%	11%
59	14%	15%	8%	15%
60	17%	18%	13%	15%
61	24%	20%	13%	16%
62	27%	29%	28%	26%
63	27%	26%	25%	20%
64	27%	28%	25%	24%
65	60%	57%	57%	59%
66	60%	57%	47%	49%
67	50%	42%	44%	40%
68	45%	42%	44%	40%
69	45%	42%	44%	40%
70	45%	42%	44%	40%
71	45%	42%	44%	40%
72	45%	42%	44%	40%
73	45%	42%	44%	40%
74	45%	42%	44%	40%
75	100%	100%	100%	100%
Ref	3245	3246	3247	3248

TABLE III

Probabilities of Reduced Retirement for Members

Retirement Ages	% of Active Participants Retiring with Reduced Benefits			
	Education		Support	
	Male	Female	Male	Female
45	1.0%	1.0%	2.0%	3.0%
46	1.0%	1.0%	2.0%	3.0%
47	1.0%	1.0%	2.0%	3.0%
48	1.0%	1.0%	2.0%	3.0%
49	1.0%	1.0%	2.0%	3.0%
50	2.0%	2.0%	3.0%	4.0%
51	3.0%	2.0%	3.0%	4.0%
52	3.0%	3.0%	4.0%	4.0%
53	4.0%	4.0%	4.0%	4.0%
54	5.0%	4.0%	5.0%	4.0%
55	6.0%	5.0%	6.0%	4.0%
56	6.0%	5.0%	7.0%	6.0%
57	8.0%	5.0%	7.0%	6.0%
58	9.0%	6.0%	7.0%	6.0%
59	6.0%	6.0%	7.0%	6.0%
Ref	3249	3250	3251	3252

TABLE IV

Duration of T-DROP for Members

Present T-DROP members are assumed to remain in T-DROP according to the following table:

Entry Age	Assumed Duration Years
50-56	7
57	6
58	5
59+	4

T-DROP PARTICIPATION

It was assumed that members will participate in the T-DROP to the extent that participating in the T-DROP would provide the highest value of benefits.

TABLE V
TEACHERS

Separations from Active Employment Before Age and Service Retirement

Sample Ages in 2022	Percent of Active Members Separating within the Next Year						
	Years of Service	Death*		Disability		Other	
		Male	Female	Male	Female	Male	Female
	0					17.00%	13.00%
	1					13.80%	11.30%
	2					11.30%	10.50%
	3					8.90%	8.30%
	4					6.30%	6.50%
25	5 & Up	0.03%	0.01%	0.02%	0.02%	5.80%	6.50%
30		0.05%	0.02%	0.02%	0.02%	4.20%	4.80%
35		0.07%	0.03%	0.02%	0.03%	2.90%	3.20%
40		0.09%	0.04%	0.04%	0.07%	2.00%	2.10%
45		0.10%	0.06%	0.13%	0.17%	1.70%	1.70%
50		0.14%	0.08%	0.31%	0.37%	1.60%	1.70%
55		0.21%	0.13%	0.61%	0.63%	1.60%	1.70%
60		0.33%	0.20%	0.82%	0.89%	1.50%	1.60%
65		0.47%	0.28%	0.82%	0.89%	1.20%	1.30%
Ref:		2723 x 1.00	2724 x 1.00	1217 x 1	1218 x 1	1364	1365
						1574	1575

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

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Arkansas Teacher Retirement System

TABLE VI
SUPPORT EMPLOYEES

Separations from Active Employment Before Age and Service Retirement

Sample Ages in 2022	Percent of Active Members Separating within the Next Year						
	Years of Service	Death*		Disability		Other	
		Male	Female	Male	Female	Male	Female
	0					54.50%	48.50%
	1					29.90%	27.20%
	2					19.80%	19.00%
	3					15.50%	15.30%
	4					12.00%	12.80%
25	5 & Up	0.03%	0.01%	0.02%	0.01%	10.60%	9.90%
30		0.05%	0.02%	0.05%	0.03%	7.80%	7.00%
35		0.07%	0.03%	0.10%	0.04%	5.70%	5.10%
40		0.09%	0.04%	0.13%	0.08%	4.40%	4.30%
45		0.10%	0.06%	0.21%	0.16%	3.70%	4.00%
50		0.14%	0.08%	0.45%	0.33%	3.50%	3.90%
55		0.21%	0.13%	0.88%	0.61%	3.50%	3.70%
60		0.33%	0.20%	1.36%	0.79%	3.40%	3.20%
65		0.47%	0.28%	1.36%	0.79%	2.70%	2.50%
Ref:		2723 x 1.00	2724 x 1.00	1219 x 1	1220 x 1	1366	1367
						1576	1577

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

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TABLE VII

Individual Pay Increases

EDUCATION

Service	Pay Increase Assumptions for an Individual Member		
	Merit & Seniority	Base (Economic)	Increase Next Year
1	2.50%	2.75%	5.25%
2	2.20%	2.75%	4.95%
3	1.90%	2.75%	4.65%
4	1.80%	2.75%	4.55%
5	1.70%	2.75%	4.45%
6	1.60%	2.75%	4.35%
7	1.50%	2.75%	4.25%
8	1.40%	2.75%	4.15%
9	1.30%	2.75%	4.05%
10	1.25%	2.75%	4.00%
11	1.20%	2.75%	3.95%
12	1.15%	2.75%	3.90%
13	1.10%	2.75%	3.85%
14	1.05%	2.75%	3.80%
15	1.00%	2.75%	3.75%
16	0.95%	2.75%	3.70%
17	0.85%	2.75%	3.60%
18	0.75%	2.75%	3.50%
19	0.65%	2.75%	3.40%
20	0.55%	2.75%	3.30%
21	0.50%	2.75%	3.25%
22	0.45%	2.75%	3.20%
23	0.40%	2.75%	3.15%
24	0.30%	2.75%	3.05%
25	0.20%	2.75%	2.95%
26	0.15%	2.75%	2.90%
27	0.10%	2.75%	2.85%
28	0.25%	2.75%	3.00%
29+	0.00%	2.75%	2.75%
Ref:	931		

SUPPORT

Service	Pay Increase Assumptions for an Individual Member		
	Merit & Seniority	Base (Economic)	Increase Next Year
1	3.00%	2.75%	5.75%
2	2.60%	2.75%	5.35%
3	1.60%	2.75%	4.35%
4	1.45%	2.75%	4.20%
5	1.35%	2.75%	4.10%
6	1.25%	2.75%	4.00%
7	1.20%	2.75%	3.95%
8	1.15%	2.75%	3.90%
9	1.10%	2.75%	3.85%
10	1.05%	2.75%	3.80%
11	1.00%	2.75%	3.75%
12	0.95%	2.75%	3.70%
13	0.90%	2.75%	3.65%
14	0.80%	2.75%	3.55%
15	0.75%	2.75%	3.50%
16	0.70%	2.75%	3.45%
17	0.65%	2.75%	3.40%
18	0.60%	2.75%	3.35%
19	0.50%	2.75%	3.25%
20	0.45%	2.75%	3.20%
21	0.40%	2.75%	3.15%
22	0.35%	2.75%	3.10%
23	0.30%	2.75%	3.05%
24	0.25%	2.75%	3.00%
25	0.25%	2.75%	3.00%
26	0.25%	2.75%	3.00%
27	0.25%	2.75%	3.00%
28	0.40%	2.75%	3.15%
29+	0.00%	2.75%	2.75%
Ref:	932		

COMMENTS

General Financial Objective.

Section 24-7-401(a) of the Arkansas Code provides as follows (emphasis added):

> "6.01. (1) The general financial objective of each Arkansas public employee retirement plan shall be to *establish and receive contributions which, expressed as percents of active member payroll, will remain approximately level from generation to generation of Arkansas citizens.* More specifically, contributions received each year shall be sufficient both to (i) fully cover the costs of benefit commitments being made to members for their service being rendered in such year and (ii) make a level payment which if paid annually over a reasonable period of future years will fully cover the unfunded costs of benefit commitments for service previously rendered....."

Arkansas Teacher Retirement System Status: Based upon the results of June 30, 2022 actuarial valuations, *ATRS is satisfying the financial objective of level-contribution-percent financing.*

The amortization period this year is 26 years, a decrease from last year's period of 32 years. This result is heavily dependent upon member and employer rates increasing in accordance with the following schedule:

	Contribution Rate	
Fiscal Year	Member	Employer
2023 and Later	7.00%	15.00%

On a market value basis, the amortization period is 35 years. The System netted $507.4 million from the settlement of a lawsuit, which helped improve the funded status and lower the amortization period by 6.8 years. While an amortization period of 26 years meets statutory requirements, the ATRS has targeted 18 years in recent legislation. The contribution rate based upon the target amortization period (18 years) would be approximately 17.3% of payroll.

The Arkansas Teacher Retirement System remains stable with an 82.3% funded position as of June 30, 2022. If experience is reasonably in line with expectations in Fiscal Year 2023, the amortization period is likely to increase in the next valuation due to the scheduled phase-in of net investment losses.

The rate of investment return on a market value basis was (7.47)%[#] this year. As of June 30, 2022, the actuarial value of assets exceeded the market value of assets by approximately $649 million. Investment gains and losses that occur each year are smoothed in over a 4-year period. After considering smoothing, the recognized return this year was 6.12%, compared to an assumed 7.25% return for Fiscal Year 2022.

[#] This investment return figure was calculated by the actuary and may not exactly match your investment consultant's figure.

ARTRS
Arkansas Teacher Retirement System

SCHEDULE OF RETIRED MEMBERS BY TYPE OF BENEFIT

Monthly Benefit	No. of Retirees	Type of Retirement*					Option Selected#			
		1	2	3	4	5	Life	Opt. A	Opt. B	Opt. C
$1-250	5,288	4,810	167	102	195	14	4,479	679	50	80
251-500	6,108	5,341	155	125	456	31	5,113	801	98	96
501-750	4,479	3,861	102	113	370	33	3,696	578	135	70
751-1,000	3,412	2,940	66	113	259	34	2,774	446	136	56
1,001-1,250	2,677	2,287	86	61	214	29	2,088	411	131	47
1,251-1,500	2,369	1,991	92	46	221	19	1,812	367	159	31
1,501-1,750	2,109	1,782	102	34	168	23	1,553	337	176	43
1,751-2,000	2,172	1,876	81	30	169	16	1,599	344	184	45
Over $2,000	23,963	22,522	579	180	607	75	18,020	3,516	2,144	283
Total	52,577	47,410	1,430	804	2,659	274	41,134	7,479	3,213	751

* Type of Retirement
1. Normal retirement for age and service
2. Survivor payment - normal or early retirement
3. Survivor payment - death-in-service
4. Disability retirement
5. Survivor payment - disability retirement

Option Selected at Retirement
Life - Straight life annuity
Opt. A - 100% survivor annuity
Opt. B - 50% survivor annuity
Opt. C - annuity for 10 years certain and life thereafter

Excludes Act 793 and Act 808 retirees.

SCHEDULE OF AVERAGE BENEFIT PAYMENTS

Retirement Effective Dates		Service at Retirement						
		0-4[#]	5-9	10-14	15-19	20-24	25-29	30+
07/01/12 - 06/30/13	Average Monthly Benefit	$ 168	$ 272	$ 634	$ 980	$ 1,482	$ 2,453	$ 3,053
	Average Final Salary	$ 40,573	$ 24,799	$ 30,499	$ 36,168	$ 42,688	$ 49,266	$ 51,813
	Number of Active Retirees	50	551	429	301	377	1,038	120
07/01/13 - 06/30/14	Average Monthly Benefit	$ 144	$ 294	$ 626	$ 1,034	$ 1,481	$ 2,553	$ 3,195
	Average Final Salary	$ 41,396	$ 26,223	$ 30,235	$ 37,996	$ 42,612	$ 50,577	$ 54,193
	Number of Active Retirees	42	497	472	336	358	1,060	122
07/01/14 - 06/30/15	Average Monthly Benefit	$ 144	$ 306	$ 684	$ 1,069	$ 1,518	$ 2,540	$ 3,270
	Average Final Salary	$ 40,803	$ 27,540	$ 32,878	$ 38,857	$ 44,433	$ 52,059	$ 56,908
	Number of Active Retirees	64	564	529	375	375	1,106	138
07/01/15 - 06/30/16	Average Monthly Benefit	$ 112	$ 293	$ 669	$ 1,064	$ 1,466	$ 2,522	$ 3,490
	Average Final Salary	$ 38,048	$ 25,892	$ 31,763	$ 37,947	$ 43,044	$ 51,671	$ 60,041
	Number of Active Retirees	48	494	600	389	387	1,122	109
07/01/16 - 06/30/17	Average Monthly Benefit	$ 133	$ 282	$ 682	$ 1,011	$ 1,448	$ 2,530	$ 3,289
	Average Final Salary	$ 38,412	$ 25,606	$ 31,940	$ 36,516	$ 42,814	$ 52,510	$ 57,847
	Number of Active Retirees	53	468	499	393	368	1,012	107
07/01/17 - 06/30/18	Average Monthly Benefit	$ 150	$ 284	$ 681	$ 1,099	$ 1,587	$ 2,548	$ 3,105
	Average Final Salary	$ 38,321	$ 26,581	$ 31,995	$ 39,389	$ 46,070	$ 53,642	$ 52,835
	Number of Active Retirees	62	496	486	375	346	965	113
07/01/18 - 06/30/19	Average Monthly Benefit	$ 145	$ 310	$ 690	$ 1,172	$ 1,564	$ 2,571	$ 3,372
	Average Final Salary	$ 38,105	$ 29,390	$ 32,619	$ 40,560	$ 45,151	$ 53,701	$ 60,369
	Number of Active Retirees	53	482	501	379	366	900	114
07/01/19 - 06/30/20	Average Monthly Benefit	$ 120	$ 284	$ 637	$ 1,104	$ 1,533	$ 2,577	$ 3,108
	Average Final Salary	$ 33,918	$ 27,032	$ 31,591	$ 39,704	$ 44,837	$ 55,241	$ 59,056
	Number of Active Retirees	47	464	496	365	320	882	139
07/01/20 - 06/30/21	Average Monthly Benefit	$ 123	$ 293	$ 656	$ 1,138	$ 1,569	$ 2,642	$ 3,179
	Average Final Salary	$ 33,575	$ 27,101	$ 31,717	$ 39,886	$ 44,936	$ 55,249	$ 58,864
	Number of Active Retirees	48	456	494	364	320	875	139
07/01/21 - 06/30/22	Average Monthly Benefit	$ 126	$ 306	$ 708	$ 1,060	$ 1,565	$ 2,638	$ 3,287
	Average Final Salary	$ 39,879	$ 29,082	$ 33,869	$ 37,765	$ 44,268	$ 55,462	$ 61,593
	Number of Active Retirees	53	438	398	352	342	1,001	131

[#] May include cases where the service was not reported.
The figures in this chart are as of the year of retirement. They have not been updated for changes that occurred after retirement.

STATISTICAL

SCHEDULE OF REVENUE BY SOURCE

Year Ending June 30,	Employer Contributions	% of Annual Covered Payroll	Member Contributions	Investment and Miscellaneous Income	Total
2011	$ 400,330,902	14.7%	$ 139,460,601	$ 2,219,833,337	$ 2,759,624,840
2012	398,822,946	16.3%	117,662,465	(118,654,190)	397,831,221
2013	400,933,872	14.3%	113,900,872	1,695,899,517	2,210,734,261
2014	404,920,441	14.2%	125,225,906	2,429,334,098	2,959,480,445
2015	408,230,472	14.2%	128,555,684	632,166,951	1,168,953,107
2016	410,358,229	14.2%	131,100,983	35,579,657	577,038,869
2017	414,954,939	14.2%	133,109,939	2,289,818,591	2,837,883,469
2018	424,488,126	14.2%	138,766,747	1,824,094,695	2,387,349,568
2019	430,864,656	14.2%	141,885,632	898,384,866	1,471,135,154
2020	446,228,128	14.5%	153,105,134	(165,763,064)	433,570,198
2021	472,567,147	14.5%	168,129,972	5,250,955,481	5,891,652,600
2022	501,522,604	14.5%	183,315,252	(1,082,845,164)	(398,007,308)

SCHEDULE OF EXPENSE BY TYPE

Year Ending June 30,	Benefit Payments	Refunds	Administrative and Other Expenses	Total
2011	$ 731,866,100	$ 8,906,441	$ 7,548,959	$ 748,321,500
2012	791,844,923	9,225,151	7,752,975	808,823,049
2013	846,210,946	11,087,596	7,755,004	865,053,546
2014	914,250,015	10,485,103	8,034,235	932,769,353
2015	970,719,484	10,774,122	8,034,857	989,528,463
2016	1,035,958,950	10,145,471	8,059,030	1,054,163,451
2017	1,092,952,357	10,874,003	7,825,595	1,111,651,955
2018	1,160,738,237	9,455,405	9,336,430	1,179,530,072
2019	1,205,326,555	9,679,783	7,134,783	1,222,141,121
2020	1,255,065,794	9,592,091	8,457,862	1,273,115,747
2021	1,308,163,748	9,463,375	7,328,830	1,324,955,953
2022	1,374,220,915	10,426,792	6,650,448	1,391,298,155

Arkansas Teacher Retirement System

SCHEDULE OF BENEFIT EXPENSES BY TYPE

For The Year Ended June 30,				
Type of Benefit	2022	2021	2020	2019
Age and Service	$1,135,131,535	$1,092,814,070	1,046,397,991	1,008,092,044
Disability	40,631,115	40,710,587	40,420,225	40,330,710
Option	36,681,111	34,124,252	31,767,042	30,013,681
Survivor	12,527,408	12,129,985	11,555,653	11,267,137
Reciprocity	64,615,316	61,382,530	58,429,113	55,891,519
Active Members Death Benefits	681,421	487,669	338,189	278,972
T-DROP	64,370,804	48,309,780	47,978,202	41,550,591
Act 808	1,953,045	2,013,072	2,215,262	2,439,111
Cash Balance Disbursements	15,630,112	13,978,659	13,241,312	13,318,361
Cash and Savings Help Program	1,999,048	2,213,146	2,722,804	2,144,429
Total	$1,374,220,915	$1,308,163,750	$1,255,065,793	$1,205,326,555

SCHEDULE OF BENEFIT EXPENSES BY TYPE — CONTINUED

For The Year Ended June 30,				
Type of Benefit	2018	2017	2016	2015
Age and Service	958,281,765	907,314,702	852,695,640	795,518,171
Disability	39,770,821	38,833,696	37,812,689	36,188,748
Option	28,756,398	26,843,481	24,637,113	23,056,130
Survivor	10,848,118	10,470,562	9,946,290	9,626,726
Reciprocity	52,914,304	49,175,662	45,746,432	41,958,663
Active Members Death Benefits	304,927	474,719	357,921	404,248
T-DROP	44,827,681	42,969,143	52,760,622	50,656,897
Act 808	2,725,690	2,874,444	3,000,785	3,139,880
Cash Balance Disbursements	11,297,546	9,735,670	8,600,786	8,923,390
Cash and Savings Help Program	11,010,987	4,260,278	400,673	1,246,632
Total	$1,160,738,237	$1,092,952,357	$1,035,958,951	$970,719,485

ARTRS
Arkansas Teacher Retirement System

PARTICIPATING EMPLOYERS

Academics Plus Charter School
Alma School District
Alpena School District
Apartment Department of Workforce Services
Arch Ford Education Service Co-Op
Arkadelphia Public Schools
Arkansas Department of Higher Education
Arkansas Activities Association
Arkansas Arts Academy Charter
Arkansas Association Educational Administrators
Arkansas Connections Academy Charter
Arkansas Correctional School
Arkansas Department of Career Education (Rehab)
Arkansas Department of Career Education (Workforce)
Arkansas Department of Commerce
Arkansas Department of Education
Arkansas Department of Education
Arkansas Department of Health
Arkansas Department of Public Safety
Arkansas Easter Seals
Arkansas Educational Tv Network
Arkansas Northeastern College
Arkansas River Education Service Co-Op
Arkansas School Boards Association
Arkansas School For Math, Sciences & Arts
Arkansas School for the Blind
Arkansas School for the Deaf
Arkansas State University
Arkansas State University – Beebe
Arkansas State University – Mid South CC
Arkansas State University – Mt. Home
Arkansas State University – Newport
Arkansas Teacher Retirement System
Arkansas Tech University
Arkansas Virtual Academy Charter
Armorel School District
Ashdown School District
ASU - Three Rivers
Atkins Public Schools
Augusta Public Schools
Bald Knob Public Schools
Barton-Lexa School District
Batesville School District
Bauxite School District
Bay School District
Bearden School District
Beebe Public School District
Benton School District
Bentonville Public Schools
Bergman Public Schools
Berryville Public Schools
Bismarck School District
Black River Technical College
Blevins School District
Blytheville Public Schools
Booneville School District
Boston Mountain Educational Co-Op
Bradford School District
Brinkley Public Schools
Brookland Public Schools
Bryant Public Schools
Buffalo Island Central School District
Cabot Public Schools
Caddo Hills School District
Calico Rock School District
Camden-Fairview School District
Carlisle School District
Cave City School District
Cedar Ridge School District
Cedarville Public School District
Centerpoint School District
Charleston Public Schools
Clarendon School District
Clarksville School District
Cleveland County School District
Clinton Public Schools
Concord School District
Conway Public Schools
Conway Vocational Center
Corning School District
Cossatot Community College – U of A
Cossatot River School District
Cotter Public Schools
County Line Public Schools
Cross County School District
Crossett School District
Crowley'S Ridge Educational Service Co-Op
Cutter Morning Star Public Schools
Danville Public Schools
Dardanelle Public Schools
Dawson Education Service Co-Op
Decatur Public Schools
Deer / Mt. Judea School District
Dequeen Public Schools
Dequeen-Mena Education Service
Dermott School District
Des Arc School District
Dewitt School District
DHS - Divison of Youth Services
Dierks Public Schools
Dover School District
Drew Central School District
Dumas Public Schools
Earle School District
East Arkansas Community College
East End School District
East Poinsett County School District
El Dorado Public Schools
Elkins School District
Emerson-Taylor-Bradley School
England Public School District
E-Stem Public Charter School
Eureka Springs Public Schools
Exalt Academy Charter School
Farmington Public Schools
Fayetteville Public Schools
Flippin School District
Fordyce Public Schools
Foreman Public Schools
Forrest City School District
Fort Smith Public Schools
Fouke School District
Fountain Lake School District
Friendship Aspire – Southeast Pine Bluff
Friendship Aspire Academy – Little Rock
Friendship Aspire Academy – Pine Bluff
Future School of Ft. Smith Charter
Genoa Central School District
Gentry Public Schools
Glen Rose School District
Gosnell Public Schools
Gravette School District
Great Rivers Education Service Co-Op
Green Forest Public Schools
Greenbrier Public Schools
Greene County Tech School District
Greenland School District
Greenwood School District
Gurdon Public Schools
Guy Fenter Education Service Co-Op
Guy-Perkins School District
Haas Hall Academy Charter – Fayetteville
Hackett School District
Hamburg School District

PARTICIPATING EMPLOYERS (Continued)

Hampton School District
Harmony Grove School District
Harmony Grove School District
Harrisburg School District
Harrison School District
Hazen School District
Heber Springs School District
Hector School District
Helena-West Helena Schools
Henderson State University
Hermitage Public School District
Highland Public School District
Hillcrest School District
Hope Academy Of Northwest Arkansas
Hope Public Schools
Horatio School District
Hot Springs School District
Hoxie Public Schools
Huntsville School District
Imboden Area Charter School
Izard County Consolidated
School District
Jackson County School District
Jacksonville Lighthouse Charter School
Jacksonville North Pulaski
School District
Jasper School District
Jessieville Public School District
Jonesboro Public Schools
Jonesboro Vocational Center
Junction City School District
Kipp Delta College Preparatory Charter
Kirby School District
Lafayette County School District
Lake Hamilton School District
Lakeside School District
Lakeside School District
Lamar School District
Lavaca Public Schools
Lawrence County School District
Lead Hill School District
Lee County School District
Lincoln Consolidated School District
Lisa Academy Charter
Little Rock School District
Lonoke School District
Magazine School District
Magnet Cove School District
Magnolia School District
Malvern School District
Mammoth Spring School District
Manila Public Schools
Mansfield School District
Marion School District
Marked Tree School District
Marmaduke School District
Marvell – Elaine School District
Mayflower School District
Maynard School District
Mc Crory School District
Mcgehee Public Schools
Melbourne Public School District
Mena Public Schools
Metropolitan Vocational Center
Midland School District
Mineral Springs School District
Monticello School District
Monticello Vocational Center
Mount Ida Public Schools
Mountain Home Public Schools
Mountain Pine School District
Mountain View School District
Mountainburg Public Schools
Mt. Vernon-Enola School Distri
Mulberry-Pleasant View
Bi-County Public Schools
Nashville School District
National Park Community College
Nemo Vista School District
Nettleton Public Schools
Nevada School District
Newport Special School District
Norfork School District
North Arkansas College
North Central Career Center
North Little Rock School District
Northcentral Arkansas Education
Service Co-Op
Northeast Arkansas Education Co-Op
Northwest Arkansas Classical
Academy Charter
Northwest Arkansas Community College
Northwest Arkansas Education
Service Co-Op
Northwest Technical Institute
Omaha School District
Osceola School District
Ouachita Public Schools
Ouachita River School District
Ozark Mountain School District
Ozark Public Schools
Ozarka College
Ozarks Unlimited Resource Educational
Service Co-Op
Palestine-Wheatley School District
Pangburn School District
Paragould School District
Paris School District
Parkers Chapel School District
Pea Ridge School District
Perryville School District
Phillips Community College – Dewitt
Phillips Community College – U of A
Piggott School District
Pine Bluff School District
Pocahontas Public Schools
Pottsville School District
Poyen School District
Prairie Grove School District
Premier High School of
Little Rock Charter
Premier High School of
North Little Rock Charter
Premier High School of
Springdale Charter
Prescott Public Schools
Pulaski County Special School District
Pulaski Technical College
Quitman Public Schools
Rector School District
Rich Mountain Community College
Rivercrest School District
Riverside School District
Riverside Vocational Technical School
Riverview School District
Rogers Public Schools
Rose Bud School District
Russellville School District
Salem School District
Scholarmade Achievement Place
Scranton School District
Searcy County School District
Searcy School District
Sheridan School District
Shirley School District
Sia Tech Little Rock Charter
Siloam Springs School District
Sloan-Hendrix School District
Smackover-Norphlet School District
South Arkansas Community College
South Arkansas Developmental Center
South Central Service Co-Op
South Conway County School District

PARTICIPATING EMPLOYERS (Continued)

South Pike County School District
Southeast Arkansas College
Southeast Arkansas Education Service Co-Op
Southern Arkansas University
Southern Arkansas University Tech
Southside Bee Branch School District
Southside School District
Southwest Arkansas Education Co-Op
Spring Hill School District
Springdale Public Schools
Star City School District
Strong-Huttig School District
Stuttgart School District
Texarkana School District
The Excel Center Charter at Goodwill
Trumann School District
Two Rivers School District
U of A Community College – Batesville
U of A Community College – Hope
U of A Community College – Morrilton
University of Arkansas – Fayetteville
University of Arkansas – Fort Smith
University of Arkansas – Little Rock
University of Arkansas – Monticello
University of Arkansas – Pine Bluff
University of Arkansas Cooperative Extension
University of Arkansas for Medical Sciences
University of Central Arkansas
Valley Springs Public Schools
Valley View Public Schools
Van Buren School District
Vilonia School District
Viola School District
Waldron Public Schools
Warren School District
Warren Vocational Center
Watson Chapel School District
West Fork School District
West Memphis School District
West Side School District
Western Yell County School District
Westside Consolidated School District
Westside School District
Westwind School for Performing Arts
White County Central Schools
White Hall School District
Wilbur D Mills Education Service Co-Op
Wonderview School District
Woodlawn School District
Wynne Public Schools
Yellville-Summit Public School

Prepared by the Staff of

ARKANSAS TEACHER RETIREMENT SYSTEM

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Arkansas Teacher Retirement System