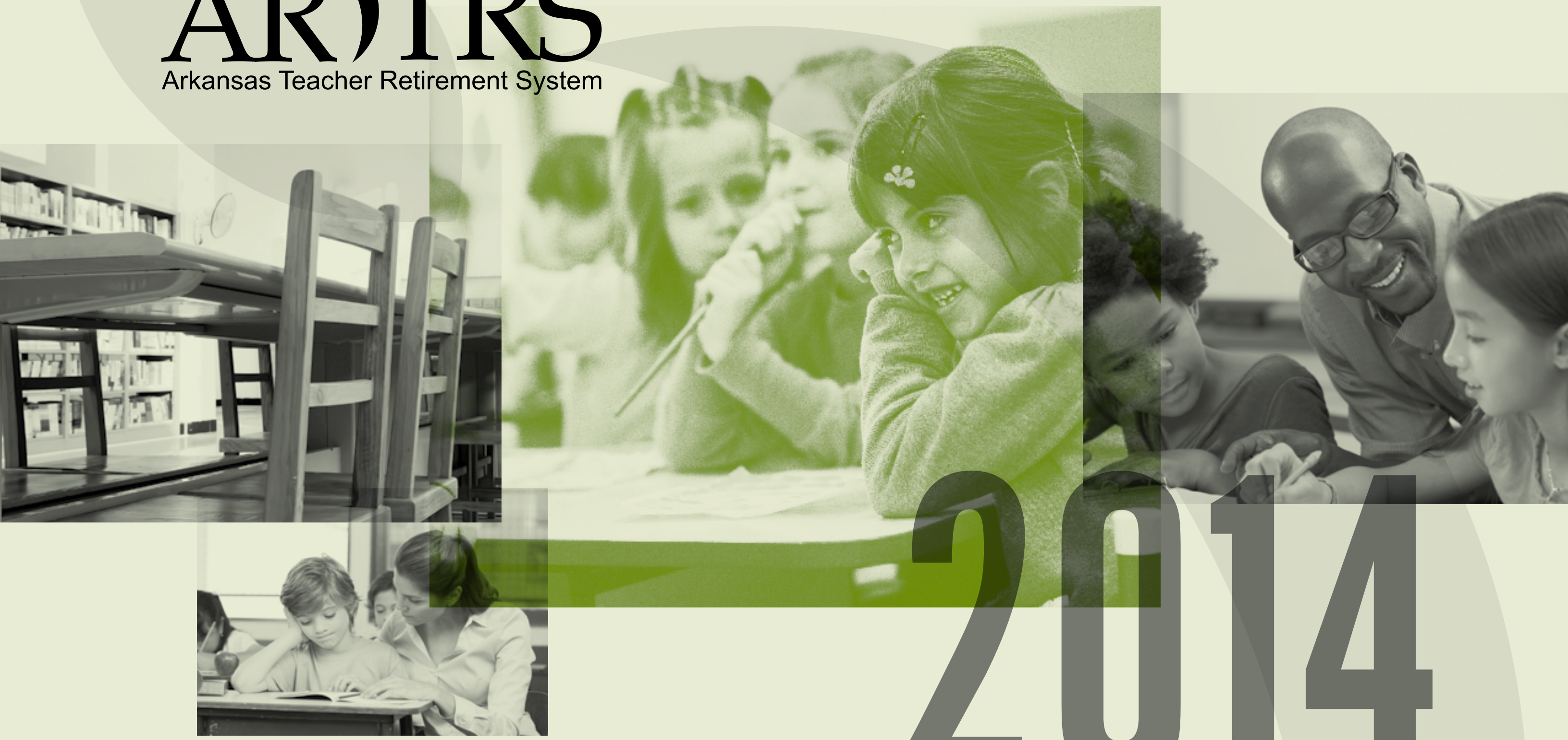
ARTRS
Arkansas Teacher Retirement System



# 2014
# COMPREHENSIVE ANNUAL FINANCIAL REPORT

GEORGE HOPKINS, EXECUTIVE DIRECTOR
A PENSION TRUST FUND OF THE STATE OF ARKANSAS

Prepared by the Staff of Arkansas Teacher Retirement System

1400 West Third Street • Little Rock, AR 72201

(501) 682-1517 • 1-800-666-2877 • www.artrs.gov

Arkansas Teacher Retirement System

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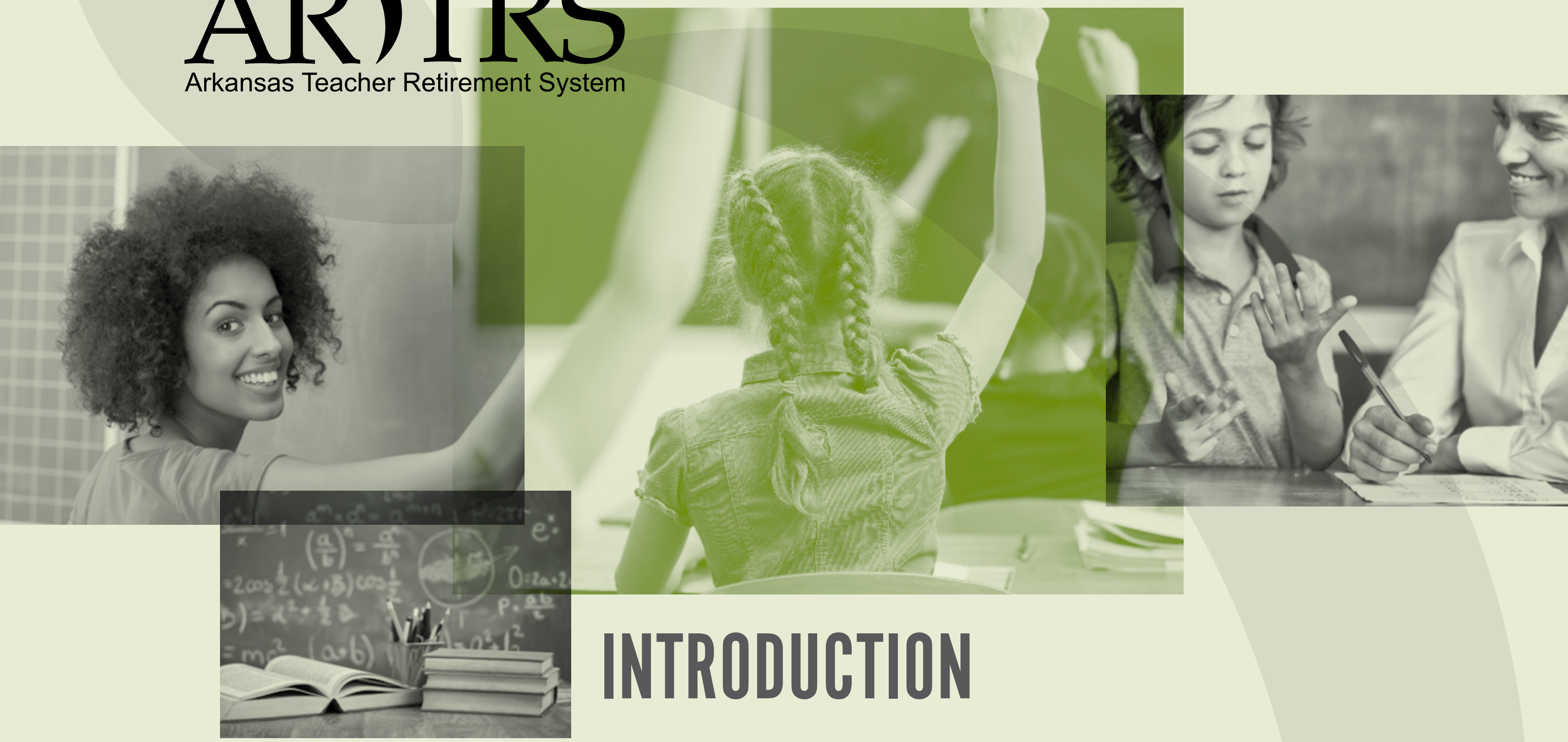


# INTRODUCTION

# LETTER OF TRANSMITTAL

ARTRS
Arkansas Teacher Retirement System

February 27, 2015

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 Comprehensive Annual Financial Report (CAFR) for the fiscal year ended June 30, 2014. The ATRS CAFR 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 2014 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, Chapter 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 336 participating employers.

***Investments***

Performance across capital markets was strong during fiscal year 2014, with non-U.S. markets slightly underperforming those in the U.S. Throughout the year, markets overcame several potential hurdles including U.S. debt ceiling disputes, slower than expected GDP growth, and the winding down process for the U.S. Federal Reserve's large asset purchasing program (often known as quantitative easing). Within the U.S., economic indicators show signs of continuing improvement. While the global outlook is still uncertain and corrections should be anticipated, markets have shown momentum and resiliency, with economists generally seeing more improvement ahead.

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, the target allocation to equities has been lowered from 55% to 50%, and investments in infrastructure have been added to the real assets allocation. These target allocation alignments are designed to further stabilize the portfolio and match the ATRS assets to its liabilities.

Over the long term, ATRS's investment approach has proved beneficial. For example, over the 10-year period ending December 31, 2014, ATRS ranked in the top 4% and in the top 7% for the trailing three-year period in the universe of large public pension funds. 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.

Arkansas Teacher Retirement System

# LETTER OF TRANSMITTAL

***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 2014 contributions totaled about $530 million dollars ($405 million employer and $125 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 toward a one-to-one ratio, and is now just over a two-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 has recovered well since the financial crisis in 2008 and 2009. ATRS had a 19.27% actuarially determined return as compared to its 8% 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). This means the returns above 8% will be smoothed in through fiscal year 2017. ATRS remains a stable 77% funded and improved its funded level from last fiscal year. Amortization required to fund the unfunded accrued actuarial liability (UAAL) decreased from over 70 years to 39 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's independent general investment consultant and real asset consultant is AON Hewitt Investment Consultants (formerly known as Hewitt EnnisKnupp), 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 and Company, headquartered in Southfield, MI. The System also uses the services of 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,

George Hopkins
Executive Director

# BOARD OF TRUSTEES

ARTRS
Arkansas Teacher Retirement System

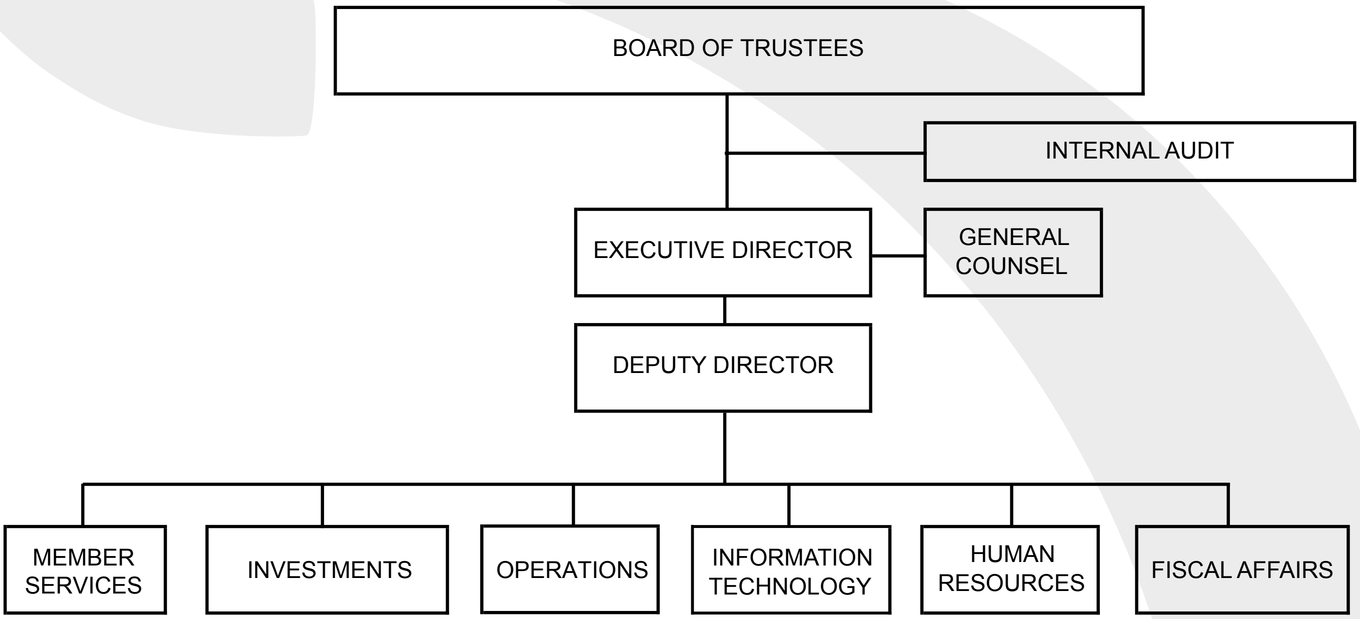
## Member and Retirant Trustees



## Ex Officio Trustees

ARTRS
Arkansas Teacher Retirement System

# ORGANIZATIONAL CHART




## Administrative Staff

**George Hopkins**
*Executive Director*

**Gail Bolden**
*Deputy Director*

**Mitzi Ferguson, CPA**
*Associate Director of Fiscal Affairs*

**Vicky Fowler**
*Human Resources Manager*

**Laura Gilson**
*General Counsel*

**G. Wayne Greathouse**
*Associate Director of Investments*

**Mullahalli Manjunath**
*Associate Director of Information Technology*

**Michael Ray**
*Member Services Administrator*

**Clint Rhoden**
*Associate Director of Operations*

**Brenda West, CPA**
*Internal Auditor*

# PROFESSIONAL CONSULTANTS

Arkansas Teacher Retirement System

## Actuary

**Gabriel Roeder Smith & Company**
Southfield, MI

## Legal Counsel

**Gill, Ragon, Owen & Sherman**
Little Rock, AR

**Ice Miller**
Indianapolis, IN

**Kutak Rock, LLP**
Scottsdale, AZ

**Mitchell, Williams, Selig, Gates & Woodyard, PLLC**
Little Rock, AR

**Rose Law Firm, PA**
Little Rock, AR

**Williams & Anderson**
Little Rock, AR

## Securities Monitoring Counsel

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

**Kaplan, Fox & Kilsheimer**
New York, NY

**Kessler, Topaz, Meltzer & Check, LLC**
Radnor, PA

**Labaton Sucharow, LLP**
New York, NY

**Nix, Patterson & Roach, LLP**
Daingerfield, TX

## Investment Consultant

**Aon Hewitt Investment Consulting**
Chicago, IL

## Custodian

(Domestic and International)

**State Street Fund Services Toronto, Inc.**
Toronto, Ontario

**State Street Public Fund Services**
Boston, MA

## Public Markets

**Allianz Global Investors Capital**
New York, NY

**BlackRock**
**Account Management Group**
New York, NY

**Daruma Asset Management, Inc.**
New York, NY

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

**GMO, Inc.**
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

**Relational Investors, LLC**
San Diego, CA

**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

**State Street Specialized Trust Services**
Kansas City, MO

**Stephens Investment Management**
Houston, TX

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

**Voya Investment Management (fka ING)**
Chicago, IL

**Wellington Management Co., LLP**
Boston, MA

## Private Equity

**Franklin Park**
General Consultant – Private Equity
Bala Cynwyd, PA

**21st Century Group I**
Dallas, TX

**Advent International Corporation**
Boston, MA

**Altus Capital Partners**
Westport, CT

**Atlas Holdings, LLC**
Greenwich, CT

**Audax**
New York, NY

**Blackstone Mezzanine Partners**
New York, NY

**Boston Ventures VIII & BV III**
Boston, MA

**Castlelake II & III**
Minneapolis, MN

**Court Square Capital Partners III, LP**
New York, NY

**The Cypress Group**
New York, NY

**DLJ Merchant Banking Partners III**
**DLJ Investment Partners II**
New York, NY

**Diamond State Ventures**
**Diamond State Ventures II**
Little Rock, AR

**Doughty Hanson & Company III**
**Doughty Hanson & Company Technology**
London, England

**DW Healthcare**
Park City, UT

**EnCap Investments, LP**
Houston, TX

**Grosvenor Capital Management (fka Credit Suisse)**
**Customized Fund Investment Group**
New York, NY

**Hicks Muse Tate & Furst Equity Fund III**
**Hicks Muse Tate & Furst Equity Fund IV**
**Hicks Muse Tate & Furst Equity Fund V**
Dallas, TX

**Insight Equity II**
**Insight Mezzanine I**
Southlake, TX

**J.F. Lehman & Company**
New York, NY

**KPS Supplemental III**
New York, NY

**LLR Equity Partners III**
Philadelphia, PA

**Levine Leichtman III**
Beverly Hills, CA

**Lime Rock Resources III**
Westport, CT

**Mason Wells**
Milwaukee, WI

**Natural Gas Partners IX**
**NGP Natural Resources X**
Irving, TX

**Oak Hill Capital Partners**
New York, NY

**Riverside Partners Fund IV, LP**
**Riverside Partners Fund V, LP**
Boston, MA

**Sycamore Partners III**
New York, NY

**TA XI**
Boston, MA

**Tennenbaum**
Santa Monica, CA

**Thoma Braro XI**
San Francisco, CA

# PROFESSIONAL CONSULTANTS

**VISTA Equity Partners**
San Francisco, CA

**Wellspring Capital Management, LLC**
New York, NY

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

## Real Assets

**Almanac Realty Securities**
New York, NY

**Blackstone Real Estate Partners**
New York, NY

**CB Richard Ellis Strategic Partners, LP**
Los Angeles, CA

**The Carlyle Group**
Washington, DC

**Cerberus**
New York, NY

**DLJ Real Estate II, LP**
New York, NY

**Doughty Hanson & Co. European Real Estate Fund**
London, England

**Heitman Capital Management, LLC**
Chicago, IL

**J.P. Morgan Strategic Property Fund**
**J.P. Morgan Special Situation Fund**
New York, NY

**Landmark Partners**
Simsbury, CT

**Long Wharf Real Estate Partners, LLC**
Boston, MA

**New Boston Fund VII**
Boston, MA

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

**Olympus Real Estate Corporation**
Addison, TX

**Prudential Real Estate Investors**
Madison, NJ

**Rockwood Capital Real Estate Partners**
New York, NY

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

**UBS Realty Investors**
Hartford, CT

**Westbrook Partners, LLC**
**Westbrook Funds II-V**
**Westbrook Funds IX**
New York, NY

### Farm Managers

**Halderman Farm Management**
Wabash, IN

**UBS Agnvest**
Dallas, TX

### Timberland

**BTG Pactual Timberland Investment Group**
Atlanta, GA

## Direct Real Estate Partnerships

**CRI – Cooper Real Estate Investment**
Rogers, AR

**Lindsey Management, Co. Inc.**
Fayetteville, AR

**UBS Realty Services**
Dallas, TX

## Alternative Investments

### Hedge Funds

**Anchorage Capital Group, LLC**
New York, NY

**Breven Howard US, LLC**
New York, NY

**Capula Investment US, LP**
Greenwich, CT

**Graham Capital Management, LP**
Rowayton, CT

**York Capital Management**
New York, NY

Arkansas Teacher Retirement System

# FINANCIAL

Arkansas Teacher Retirement System

## Statement of Plan Net Position

As of June 30, 2014

| | |
|---|---|
| **ASSETS** | |
| Cash and cash equivalents | $ 227,530,036 |
| | |
| Receivables | |
| Member contributions | 8,835,710 |
| Employer contributions | 28,619,421 |
| Investment principal | 32,055,091 |
| Accrued investment income | 12,564,868 |
| Other receivables | 208,466 |
| Total Receivables | 82,283,556 |
| | |
| Investments, at fair value | |
| US Government obligations | 10,132,100 |
| Domestic equities | 2,559,532,226 |
| International equities | 805,210,265 |
| Commingled funds | 6,360,576,478 |
| Corporate bonds | 642,911,945 |
| Asset and mortgage-backed securities | 20,223,718 |
| Conventional mortgages | 5,863,030 |
| Alternative investments | 4,069,649,494 |
| Limited partnerships | 33,603,168 |
| Real estate | 83,924,532 |
| Investment derivative instruments | 89,519 |
| Total Investments | 14,591,716,475 |
| | |
| Securities lending collateral | 685,242,332 |
| Capital assets, net of accumulated depreciation | 254,837 |
| Other assets | 96,824 |
| | |
| **TOTAL ASSETS** | 15,587,124,060 |
| | |
| **LIABILITIES** | |
| Accrued expenses and other liabilities | 14,846,484 |
| Compensated absences payable | 416,836 |
| Post employment benefit liability | 2,402,071 |
| Investment principal payable | 27,453,599 |
| Securities lending obligations | 685,728,402 |
| | |
| **TOTAL LIABILITIES** | 730,847,392 |
| | |
| **NET POSITION RESTRICTED FOR PENSION BENEFITS** | $14,856,276,668 |

*THE ACCOMPANYING NOTES ARE AN INTEGRAL PART OF THESE FINANCIAL STATEMENTS.*

## Statement of Changes In Plan Net Position

For The Year Ended June 30, 2014

| | |
|---|---|
| **ADDITIONS** | |
| Contributions | |
| Member | $ 125,225,906 |
| Employer | 404,920,440 |
| Total Contributions | 530,146,346 |
| | |
| Investment income | |
| From investing activities: | |
| Net appreciation (depreciation) in fair value of assets | 2,353,330,159 |
| Interest | 51,157,458 |
| Dividends | 53,657,455 |
| Real estate operating income | 8,327,656 |
| Total investment income (loss) | 2,466,472,728 |
| Less investment expense | 40,707,696 |
| Net investment income (loss) | 2,425,765,032 |
| | |
| From securities lending activities: | |
| Securities lending gross income | 3,959,261 |
| Less securities lending expense | 639,748 |
| Net securities lending income (loss) | 3,319,513 |
| | |
| Other income | 249,552 |
| | |
| TOTAL ADDITIONS (LOSSES) | 2,959,480,443 |
| | |
| **DEDUCTIONS** | |
| Benefits | 914,250,015 |
| Refunds of contributions | 10,485,104 |
| Administrative expenses | 8,034,235 |
| | |
| TOTAL DEDUCTIONS | 932,769,354 |
| | |
| **CHANGE IN NET POSITION RESTRICTED FOR PENSION BENEFITS** | 2,026,711,089 |
| | |
| NET POSTION – BEGINNING OF YEAR | 12,829,565,579 |
| | |
| NET POSITION – END OF YEAR | $14,856,276,668 |

*THE ACCOMPANYING NOTES ARE AN INTEGRAL PART OF THESE FINANCIAL STATEMENTS.*



# Notes to Financial Statements

June 30, 2014

## 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 employees of any school or other educational agency participating in ATRS. 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 Education are ex-officio 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 administrators, of which one must be a superintendent; 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.

On June 30, 2014, the number of participating employers was as follows:

| | |
|---|---|
| Public schools | 255 |
| State colleges and universities | 40 |
| State agencies | 11 |
| Other/privatized | 30 |
| Total | 336 |

On June 30, 2014, ATRS's membership consisted of the following:

| | |
|---|---|
| Retirees or beneficiaries currently receiving benefits | 38,478 |
| T-DROP participants | 4,127 |
| Inactive plan members (not receiving benefits) | 11,763 |
| Active members | |
| Fully vested | 47,908 |
| Non-vested | 22,317 |
| Total | 124,593 |

Members are eligible for full retirement benefits at age 60 with five or more years of credited service or at any age with 28 or more years of credited service. Members with 25 years of credited service who have not attained age 60 may receive an annuity reduced by 5/12 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 (effective April 1, 1998, computed using highest three years salary) and (2) the number of years of service.

## Notes to Financial Statements

June 30, 2014

## 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 81 of 1999, effective July 1, 1999, requires all new members to be contributory and allowed active members as of July 1, 1999, until July 1, 2000, to make an irrevocable choice to be contributory or noncontributory. Act 93 of 2007 allows any noncontributory member to make an irrevocable election to become contributory on July 1 of each fiscal year.

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 years of actual service. The amount for contributory members will be up to $10,000 and up to $6,667 for noncontributory members. The amount will be prorated for members who have both contributory and noncontributory service. Members with 15 or more years of contributory service will receive the full $10,000.

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 by 3%.

Act 1096 of 1995 created a teacher deferred retirement option plan (T-DROP) for members with 30 or more years of service credits. Act 1590 of 1999 allows for participation in the T-DROP after 28 years of credited service with a reduction of 6% for each year under 30 years. 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 election to enter T-DROP is irrevocable, and additional service credit cannot be accumulated. During participation in T-DROP, ATRS will credit the member account with plan deposits and interest. The plan deposits are the member's normal retirement benefit reduced by 1% for each year of service. For members who entered T-DROP prior to September 1, 2003, the reduction is 1/2 of 1% (.5%) for contributory service and 3/10 of 1% (.3%) for noncontributory service for each year above 30 years of service. 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 that is also set annually by the Board of Trustees. When T-DROP participation ceases, the member may receive the T-DROP distribution as a lump-sum cash payment or an annuity or may roll it over into another tax-deferred account. A member may also elect to defer all or part of the distribution into a T-DROP cash balance account held by ATRS.

## 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 to carry on specific activities or attaining certain objectives in accordance with special regulations, restrictions, or limitations. The following types of funds are recognized in the accompanying financial statements.

### Fiduciary Funds

***Trust and Agency Funds*** – Trust and Agency Funds are used to report resources held by ATRS 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 Agency Funds. The specific activity accounted for at ATRS includes the following:

Arkansas Teacher Retirement System Fiduciary Pension Trust Fund



# Notes to Financial Statements

June 30, 2014

## 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, contributions and other revenues are recognized when they are earned, and benefits paid, refunds, and other expenses are recognized when due and payable in accordance with the provisions of law.

ATRS adopted Statement of Governmental Accounting Standards (GASB Statement) no. 67, *Financial Reporting for Pension Plans* that replaces the requirements of GASB Statement no. 25, *Financial Reporting for Defined Benefit Pension Plans and Note Disclosures for Defined Contribution Plans* and GASB Statement no. 50, *Pension Disclosures*, as they relate to pension plans that are administered through trusts or similar arrangements meeting certain criteria. The requirements of this Statement will improve the usefulness of pension information included in financial reports for decision-making, assessment of accountability, and transparency by providing enhanced note disclosures and schedules of required supplementary information. GASB Statement no. 67 is effective for financial statements for fiscal years beginning after June 15, 2013 (i.e., fiscal year 2014).

## E. Federal Income Tax Status

During the year ended June 30, 2014, 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, all certificates of deposit and short-term instruments with maturities at purchase of 90 days or less, and short-term investment fund (STIF) accounts. 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 instruments. The STIF accounts had an average weighted maturity of 90 days or less. All short-term investments are stated at fair value.

## G. Capital Assets

Capital assets purchased and in the custody of ATRS 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). Infrastructure or public domain fixed assets (such as roads, bridges, tunnels, curbs and gutters, streets and sidewalks, drainage systems, and lighting systems) are also capitalized. Gifts or contributions are generally recorded in the accounts at fair market value at the time received. 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 |
| Buildings and building improvements | 20-50 |
| Infrastructure | 10-30 |
| Land improvements | 10-40 |
| Intangibles | 4-99 |
| Other capital assets | 4-20 |

# Notes to Financial Statements

June 30, 2014

## G. Capital Assets (continued)

Capital asset activity for the year ended June 30, 2014, was as follows:

| | Beginning Balance | Additions | Retirements | Ending Balance |
|---|---|---|---|---|
| Fiduciary activities: | | | | |
| Equipment | $ 1,958,227 | $ 52,643 | $ 23,643 | $ 1,987,277 |
| Less accumulated depreciation: | 1,733,367 | 22,716 | 23,643 | 1,732,440 |
| Fiduciary activities, net | $ 224,910 | $ 29,927 | $ 0 | $ 254,837 |

## H. Deposits and Investments

### Deposits

Deposits are carried at cost and consist of cash in bank, cash in State Treasury, and cash on deposit with investment managers. At June 30, 2014, these totals were $30,305,277, $1,979,889, and $195,244,795, respectively. State Treasury Management Law governs the management of funds held in the State Treasury (cash in 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 financial institution, ATRS will not be able to recover deposits or collateral securities that are in the possession of an outside party. ATRS's deposit policy is to place deposits in collateralized or insured accounts to manage the risk that deposits may not be returned. As of June 30, 2014, $1,614,004 of ATRS's bank balance of $30,328,268 was held in foreign bank accounts and was exposed to custodial credit risk.

### 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. The Code also states ATRS shall seek to invest no less than 5% and no more than 10% of the ATRS portfolio in Arkansas-related investments, as long as the system's responsibility to invest in accordance with the prudent investor rule is not limited or impaired.

# Notes to Financial Statements

June 30, 2014

## H. Deposits and Investments (continued)

### Investments (continued)

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 |
|---|---|---|---|
| Domestic Equity | 15.0% | 20.0% | 25.0%** |
| Global Equity | 25.0% | 30.0% | 35.0% |
| Fixed Income | 15.0% | 20.0% | 25.0% |
| Alternatives | N/A* | 5.0% | N/A* |
| Real Assets*** | N/A* | 15.0% | N/A* |
| Private Equity | N/A* | 10.0% | 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 domestic equity may be made beyond the maximum range to serve as a placeholder for unfunded and uncommitted alternatives, private equity, and real assets allocations.
***Real assets include real estate, timber, agriculture, and infrastructure.

Investments are reported at fair value. Fair value is determined using pricing services, when available; historical costs adjusted for market trends; independent third party appraisals; and independent brokers and industry experts. Publicly traded alternative investments are valued based on quoted market prices. When not readily available, alternative investment securities are valued based on good faith determination of the General Partner. Given the inherent nature of investments, it is reasonably possible that changes in the value of those investments will occur in the near term and that such changes could materially affect the amounts reported in the Statement of Plan Net Position.

## Notes to Financial Statements

June 30, 2014

## H. Deposits and Investments (continued)

### Investments (continued)

As of June 30, 2014, ATRS had the following investments and securities lending collateral:

| Investment Type | Fair Value |
|---|---|
| U.S. Government obligations | $ 10,132,100 |
| Domestic equities | 2,559,532,226 |
| International equities | 805,210,265 |
| Commingled funds | 6,360,576,478 |
| Corporate bonds | 642,911,945 |
| Asset-backed securities | 20,223,718 |
| Conventional mortgages | 5,863,030 |
| Alternative investments | 4,069,649,494 |
| Limited partnerships | 33,603,168 |
| Real estate | 83,924,532 |
| Investment derivatives | 89,519 |
| Total investments | 14,591,716,475 |
| Securities Lending Collateral | |
| Quality D short-term investment pool* | 685,242,332 |
| Total | $15,276,958,807 |

*Cash collateral received totaled $685,728,402. The amount reported in the GASB 40 footnote above is the market value of the collateral received at June 30, 2014.

As of June 30, 2014, none of the system's investments (other than those issued or explicitly guaranteed by the U.S. Government) were in any one organization that represented 5% or more of the pension plan's net position.

Rate of Return – For the year ended June 30, 2014, the annual money-weighted rate of return on pension plan investments, net of pension plan investment expense, was 19.27%. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

Interest Rate Risk – Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of investments. Also, investments can be highly sensitive to changes in interest rates due to their terms or characteristics. ATRS does not have a formal investment policy that limits investment maturities as a means of managing its exposure to fair value losses arising from increased interest rates.



## Notes to Financial Statements

June 30, 2014

## H. Deposits and Investments (continued)

### Investments (continued)

The summary below indicates that 89% of ATRS's investment maturities are one year or longer.

| | | Investment Maturities (In Years) | | | |
|---|---|---|---|---|---|
| **Investment Type** | **Fair Value** | **Less than 1** | **1-5** | **6-10** | **More than 10** |
| Cash and cash equivalents | $ 195,244,795 | $ 195,244,795 | | | |
| U.S. Government obligations | 10,132,100 | | $ 10,132,100 | | |
| Commingled funds | 1,725,400,086 | 57,972,048 | 904,695,201 | $ 697,995,330 | $ 64,737,507 |
| Corporate bonds | 642,911,945 | 33,779,158 | 249,325,831 | 186,173,866 | 173,633,090 |
| Asset-backed securities | 20,223,718 | | 14,828,566 | 5,395,152 | |
| Conventional mortgages | 5,863,030 | | 5,863,030 | | |
| Totals | $ 2,599,775,674 | $ 286,996,001 | $1,184,844,728 | $ 889,564,348 | $238,370,597 |
| **Securities Lending Collateral** | | | | | |
| Quality D short-term investment pool | $ 685,242,332 | $ 666,993,645 | $ 18,248,687 | | |

**Asset-Backed Securities** – As of June 30, 2014, ATRS held asset-backed securities with a fair value of $20,223,718. 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. At June 30, 2014, ATRS held no asset-backed securities that were considered highly sensitive to changes in interest rates.

**Corporate Bonds** – As of June 30, 2014, ATRS held corporate bonds with a fair value of $209,976,987. Corporate bonds are debt instruments that are issued by private corporations. They 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. At June 30, 2014, ATRS held no corporate bonds that were considered highly sensitive to changes in interest rates.

**Convertible Corporate Bonds** – As of June 30, 2014, ATRS held convertible bonds with a fair value of $432,934,958. 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 offer lower coupon rates and promised yields to maturity than do nonconvertible bonds. A variable coupon varies directly with movements in interest rates. At June 30, 2014, ATRS held no convertible corporate bonds that were considered highly sensitive to changes in interest rates.

**Credit Risk** – Credit risk of investments is the risk that the issuer or other counterparty will not meet its obligation. This credit risk is measured by the credit quality of investments in debt securities as described by nationally recognized statistical rating organizations. ATRS does not have a formal investment policy for credit risk.

# Notes to Financial Statements

June 30, 2014

## H. Deposits and Investments (continued)

### Investments (continued)

ATRS's exposure to credit risk as rated by Standard and Poor's (S&P) and Moody's Investors Service as of June 30, 2014, was as follows:

| Standard and Poor's | | Moody's Investors Service | |
|---|---|---|---|
| Rating | Fair Value | Rating | Fair Value |
| AAA | $ 19,355,973 | Aaa | $ 26,600,949 |
| AA | 13,790,720 | Aa | 3,349,089 |
| A | 59,551,092 | A | 28,928,897 |
| BBB | 130,279,117 | Baa | 103,409,278 |
| BB | 137,586,572 | Ba | 81,106,249 |
| B | 72,311,645 | B | 52,000,781 |
| CCC or below | 11,390,905 | Caa or below | 1,214,438 |
| Not Rated | 2,155,509,650 | Not Rated | 2,303,165,993 |
| Total | $ 2,599,775,674 | Total | $ 2,599,775,674 |
| Securities Lending Cash Collateral | | | |
| Not Rated | $ 685,242,332 | Not Rated | $ 685,242,332 |

**Custodial Credit Risk** – Custodial credit risk for investments is the risk that, in the event of failure of the counterparty to a transaction, ATRS 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 ATRS's name, and are held by either the counterparty or the counterparty's trust department or agent but not in ATRS's name. ATRS does not have a formal investment policy for custodial credit risk. At June 30, 2014, $119,489 of ATRS investments was exposed to custodial credit risk.

**Concentration of Credit Risk** – Concentration of credit risk is the risk of loss attributed to the magnitude of ATRS's investment in a single issuer (not including investments issued or guaranteed by the U.S. Government, investments in mutual funds, or external investment pools). ATRS does not have a formal investment policy for concentration of credit risk. None of ATRS's investments in any one issuer (other than those issued or guaranteed by the U.S. Government) represented more than 5% of total investments.

**Foreign Currency Risk** – Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment. ATRS does not have a formal investment policy for foreign currency risk.

## Notes to Financial Statements

June 30, 2014

## H. Deposits and Investments (continued)

### Investments (continued)

ATRS's exposure to foreign currency risk for investments and deposits at June 30, 2014, was as follows:

| Currency | | Fair Value | Investments: Fixed Income | Investments: Equities | Investments: Forward Contracts | Cash Deposits |
|---|---|---|---|---|---|---|
| Australian Dollar | AUD | $ 31,833,491 | $ 3,036,582 | $ 29,693,469 | $ (924,410) | $ 27,850 |
| Brazilian Real | BRL | 20,356,396 | 6,885,468 | 13,470,928 | | |
| British Pound Sterling | GBP | 217,748,167 | 953,625 | 215,759,059 | 298,791 | 736,692 |
| Canadian Dollar | CAD | 13,100,521 | | 13,020,295 | | 80,226 |
| Chilean Peso | CLP | 1,620,154 | 1,620,154 | | | |
| Columbian Peso | COP | 1,496,661 | 1,496,661 | | | |
| Danish Krone | DKK | 4,931,048 | | 4,930,945 | | 103 |
| Emirati Dirham | AED | 6,013,772 | | 6,013,772 | | |
| Euro | EUR | 163,054,532 | 5,531,860 | 163,199,508 | (5,692,706) | 15,870 |
| Hong Kong Dollar | HKD | 68,439,024 | | 68,436,163 | (16,354) | 19,215 |
| Indian Rupee | INR | 3,512,142 | 2,971,177 | | | 540,965 |
| Indonesian Rupiah | IDR | 6,660,688 | | 6,660,688 | | |
| Israeli Shekel | ILS | 183 | | | | 183 |
| Japanese Yen | JPY | 108,347,752 | | 109,931,035 | (1,837,284) | 254,001 |
| Mexican Peso | MXN | 30,009,705 | 12,513,539 | 19,414,099 | (1,937,055) | 19,122 |
| New Taiwan Dollar | TWD | 8,110,572 | | 8,110,572 | | |
| Norwegian Krone | NOK | 4,578,242 | | 4,572,075 | | 6,167 |
| Phillipine Peso | PHP | 5,211,918 | 5,211,918 | | | |
| Polish Zloty | PLN | 2,141,064 | | 2,141,064 | | |
| South African Rand | ZAR | 2,076,209 | | 2,076,209 | | |
| South Korean Won | KRW | 10,932,409 | | 11,031,242 | | (98,833) |
| Swedish Krona | SEK | 36,053,311 | | 36,041,019 | | 12,292 |
| Swiss Franc | CHF | 62,828,750 | | 86,822,780 | (23,994,180) | 150 |
| Turkish Lira | TRY | 3,885,345 | | 3,885,345 | | |
| Totals | | $812,942,056 | $40,220,984 | $805,210,267 | $(34,103,198) | $1,614,003 |

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.

# Notes to Financial Statements

June 30, 2014

## H. Deposits and Investments (continued)

### Investments (continued)

**Forward Currency Contracts** – 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 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 in the statement of changes in plan net position. At June 30, 2014, ATRS had outstanding forward exchange currency contracts to purchase foreign currencies with contract amounts of $5,394,915 and market values of $5,420,927, resulting in a net gain of $26,012. Outstanding forward exchange currency contracts to sell foreign currencies with contract amounts of $39,587,632 had market values of $39,524,125, resulting in a net gain of $63,507.

**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, and forward foreign currency exchange. 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. As of June 30, 2014, ATRS held rights and warrants with a fair value of $4,850 and $26,666, respectively.



## Notes to Financial Statements

June 30, 2014

# H. Deposits and Investments (continued)

### Investments (continued)

The fair value balances and notional amounts of derivative instruments outstanding at June 30, 2014, classified by type, and the changes in fair value of such derivative instruments for the year then ended, as reported in the 2014 financial statements, are as follows:

| | Changes in Fair Value | | Fair Value at June 30, 2014 | | | |
|---|---|---|---|---|---|---|
| | Classification | Amount | Classification | Amount | Notional | |
| **Fiduciary funds** | | | | | | |
| Investment derivative instruments: | | | | | | |
| Foreign currency forwards | Investment revenue | $ (2,958) | Investments | $ (2,958) | AUD | 979,403 |
| | Investment revenue | 63 | Investments | | BRL | |
| | Investment revenue | (146) | Investments | | CAD | |
| | Investment revenue | (10,387) | Investments | (10,387) | CHF | 21,781,000 |
| | Investment revenue | (801,427) | Investments | 99,573 | EUR | 6,973,312 |
| | Investment revenue | (18,746) | Investments | (11,953) | GBP | 386,462 |
| | Investment revenue | 4 | Investments | (1) | HKD | 126,751 |
| | Investment revenue | (6,416) | Investments | (3,649) | JPY | 186,126,030 |
| | Investment revenue | (7,118) | Investments | (7,118) | MXN | 25,129,420 |
| | Investment revenue | 9,416 | Investments | 26,012 | USD | 5,394,915 |
| | | $ (837,715) | | $ 89,519 | | |
| Rights | Investment revenue | $ (10,283) | Investments | $ 4,850 | | $ 17,622 |
| Warrants | Investment revenue | $ 2,641,806 | Investments | $ 26,666 | | $ 154,560 |

**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 and have the same securities redelivered 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. As of June 30, 2014, the liquidity pool had an average duration of 37.40 days and an average weighted final maturity of 103.71 days for USD collateral. The duration pool had an average duration of 41.80 days and an average weighted final maturity of 1,770.33 days for USD collateral. Because the loans were terminable at will, their duration did not generally 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.



## Notes to Financial Statements

June 30, 2014

# H. Deposits and Investments (continued)

### Investments (continued)

**Securities Lending Transactions (continued)** – The Custodian indemnified ATRS by agreeing to purchase replacement securities, or return cash collateral in the event a borrower failed to return a loaned security or failed to pay the trust funds 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, 2014, the fair value of the cash collateral exceeded the net asset value (NAV) by $486,070.

# I. Contributions and Reserves

### Contributions

ATRS's funding policy provides for periodic employer contributions at statutorily established rates based on annual actuarial valuations. The employer contribution rate was 14% for the fiscal year ending June 30, 2014. Contributory members are required to contribute 6% 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.

### Reserves

In accordance with the provisions of Ark. Code Ann. § 24-7-405, ATRS must maintain reserve accounts showing net assets available for benefits. At June 30, 2014, the reserve accounts were funded at a level that complied with the code provisions.

The reserve balances at June 30, 2014, are as follows:

| | Total |
|---|---|
| Members' deposit account reserve | $9,042,395,389 |
| Employers' accumulation account reserve | (3,346,283,776) |
| Retirement reserve | 8,494,545,203 |
| Teacher deferred retirement option plan account reserve | 565,595,031 |
| Survivor benefit account reserve | 89,774,642 |
| Income – expense account reserve | 10,250,179 |
| Total | $14,856,276,668 |

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.

# Notes to Financial Statements

June 30, 2014

## I. Contributions and Reserves (continued)

### Reserves (continued)

**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.

## J. Net Pension Liability

The components of the net pension liability of the participating employers at June 30, 2014, were as follows:

| | |
|---|---|
| Total pension liability | $17,481,282,947 |
| Plan net position | (14,856,276,668) |
| Net pension liability | $ 2,625,006,279 |
| Plan net position as a percentage of the total pension liability | 84.98% |

Actuarial Assumptions – The total liability was determined by an actuarial valuation as of June 30, 2014, using the following actuarial assumptions, applied to all prior periods included in the measurement:

| | |
|---|---|
| Wage inflation rate | 3.25% |
| Salary increases | 3.25 – 9.10% |
| Investment rate of return | 8.00% |

Mortality rates were based on the RP-2000 Mortality Table for Males and Females projected 25 years with Scale AA (95% for men and 87% for women).

The actuarial assumptions used in the June 30, 2014, valuation were based on the results of an actuarial experience study for the period July 1, 2005 through June 30, 2010.

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's target asset allocation as of June 30, 2014, these best estimates are summarized in the following table:

## Notes to Financial Statements

June 30, 2014

## J. Net Pension Liability (continued)

| Asset Allocation | Target | Long-Term Expected Real Rate of Return |
|---|---|---|
| Domestic Equity | 20.00% | 4.7% |
| Global Equity | 30.00% | 5.0% |
| Fixed Income | 20.00% | 2.0% |
| Alternatives | 5.00% | 5.0% |
| Real Assets | 15.00% | 4.6% |
| Private Equity | 10.00% | 6.6% |
| Cash Equivalents | 0.00% | 1.2% |
| | 100.00% | |

Single Discount Rate – A single discount rate of 8.0% was used to measure the total pension liability. This single discount rate was based on the expected rate of return on pension plan investments of 8.0%. The projection of cash flows used to determine this single discount rate assumed that plan member contributions will be made at the current contribution rate and that employer contributions will be 14% of payroll. 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 8.00%, 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:

**Sensitivity of the Net Pension Liability to the Single Discount Rate**

| | 1% Decrease 7.00% | Current Rate 8.00% | 1% Increase 9.00% |
|---|---|---|---|
| Net Pension Liability | $4,696,376,842 | $2,625,006,279 | $882,285,198 |

## NOTE 2: Other Post Employment Benefits (OPEB)

GASB 45, Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions (OPEB), requires that OPEB expense of fiduciary funds be recognized on the accrual basis in the fund financial statements. The 2014 liability of $2,402,071 is a prorated amount from the Department of Finance and Administration based on a state-wide actuarial study. The amount allocated to ATRS is based on budgeted employees of ATRS and is composed of (1) the annual required contribution (ARC), which is the normal cost and 1/30 of the unfunded actuarial accrued liability (UAAL), (2) one year's interest on the net OPEB, (3) adjustments to the ARC to offset the effect of actuarial amortization of past under or over contributions, (4) minus actual contributions. The State of Arkansas 2014 CAFR will contain the complete OPEB footnote required by GASB 45.

## NOTE 3: 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.

Arkansas Teacher Retirement System

## Schedule of Changes in Net Pension Liability and Related Ratios

For the 10-year period ended June 30, 2014

*(EXPRESSED IN MILLIONS)*

| | 2014 | 2013* | 2012* | 2011* | 2010* | 2009* | 2008* | 2007* | 2006* | 2005* |
|---|---|---|---|---|---|---|---|---|---|---|
| TOTAL PENSION LIABILITY | | | | | | | | | | |
| Service cost | $326,999,276 | | | | | | | | | |
| Interest | 1,326,709,192 | | | | | | | | | |
| Changes in benefit terms | (27,405,705) | | | | | | | | | |
| Difference between actual and expected experience | (103,017,525) | | | | | | | | | |
| Changes in assumptions | 0 | | | | | | | | | |
| Benefit payments | (914,250,015) | | | | | | | | | |
| Refunds | (10,485,103) | | | | | | | | | |
| NET CHANGE IN TOTAL PENSION LIABILITY | 598,550,120 | | | | | | | | | |
| TOTAL PENSION LIABILITY – BEGINNING OF YEAR | 16,882,732,827 | | | | | | | | | |
| TOTAL PENSION LIABILITY – END OF YEAR (A) | $17,481,282,947 | | | | | | | | | |
| PLAN NET POSITION | | | | | | | | | | |
| Contributions – employer | $404,920,440 | | | | | | | | | |
| Contributions – member | 125,225,906 | | | | | | | | | |
| Net investment income | 2,429,334,097 | | | | | | | | | |
| Benefit payments | (914,250,015) | | | | | | | | | |
| Refunds | (10,485,103) | | | | | | | | | |
| Administrative expense | (8,034,236) | | | | | | | | | |
| Deferred retirement option distributions | 0 | | | | | | | | | |
| Other | 0 | | | | | | | | | |
| NET CHANGE IN PLAN NET POSITION | 2,026,711,089 | | | | | | | | | |
| PLAN NET POSITION – BEGINNING OF YEAR | 12,829,565,579 | | | | | | | | | |
| PLAN NET POSITION – END OF YEAR (B) | $14,856,276,668 | | | | | | | | | |
| NET PENISON LIABILITY – END OF YEAR (A) – (B) | $2,625,006,279 | | | | | | | | | |
| Plan net position as a percentage of total pension liability | 84.98% | | | | | | | | | |
| Covered employee payroll | $2,850,860,174 | | | | | | | | | |
| Net pension liability as a percentage of covered employee payroll | 92.08% | | | | | | | | | |

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

Arkansas Teacher Retirement System



## Schedule of Contributions

For the 10-year period ended June 30, 2014

*(EXPRESSED IN MILLIONS)*

| | 2014 | 2013* | 2012* | 2011* | 2010* | 2009* | 2008* | 2007* | 2006* | 2005* |
|---|---|---|---|---|---|---|---|---|---|---|
| Actuarially determined contribution | $485,904,529 | | | | | | | | | |
| Actual contribution | 404,920,440 | | | | | | | | | |
| Contribution deficiency (excess) | $80,984,089 | | | | | | | | | |
| Covered employee payroll | $2,850,860,174 | | | | | | | | | |
| Actual contribution as a percentage of covered employee payroll | 14.20% | | | | | | | | | |

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

ARTRS Arkansas Teacher Retirement System

## Schedule of Investment Returns

For the 10-year period ended June 30, 2014

*(EXPRESSED IN MILLIONS)*

| | “Annual money-weighted rate of return” |
|---|---|
| 2005* | |
| 2006* | |
| 2007* | |
| 2008* | |
| 2009* | |
| 2010* | |
| 2011* | |
| 2012* | |
| 2013* | |
| 2014 | 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, 2014

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

### A. Changes in benefit terms

There was a benefit change recognized during the year reflecting an increase in the T-DROP reduction factor from 0.6% to 1.0%.

### B. Changes in assumptions

There were no significant changes in assumptions for the year ended June 30, 2014.

### C. Method and assumptions used in calculations of actuarially determined contributions

Valuation date: June 30, 2014

The actuarially determined contribution rates are calculated as of June 30 of every 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 |
| Amortization method | Level percentage of payroll, closed |
| Amortization period | 30 years |
| Asset valuation method | 4-year smoothed market for funding purposes; 20% corridor |
| Wage inflation | 3.25% |
| Salary increases | 3.25% to 9.10%, including inflation |
| Investment rate of return | 8.00% |
| Retirement age | Experience-based table of rates that are specific to the type of eligibility condition. Last updated for the 2011 valuation pursuant to an experience study for the period July 1, 2005 - June 30, 2010. |
| Mortality | RP-2000 Mortality Table for males and females projected 25 years with scale AA (95% for men and 87% for women) |



## Schedule of Selected Information

For the five-year period ended June 30, 2014

| For the Year Ended June 30, | 2014 | 2013 | 2012 | 2011 | 2010 |
|---|---|---|---|---|---|
| **Total Assets** | $15,587,124,060 | $13,661,085,708 | $12,308,539,664 | $13,084,936,822 | $10,840,633,691 |
| **Total Liabilities** | 730,847,392 | 831,520,129 | 824,654,155 | 1,190,059,483 | 957,059,693 |
| **Net Position Restricted for Pension Benefits** | 14,856,276,668 | 12,829,565,579 | 11,483,885,509 | 11,894,877,339 | 9,883,573,998 |
| **Total Additions (Losses)** | 2,959,480,443 | 2,210,733,616 | 397,831,220 | 2,759,624,841 | 1,756,313,878 |
| **Total Deductions** | 932,769,354 | 865,053,546 | 808,823,050 | 748,321,500 | 715,948,536 |

ARTRS
Arkansas Teacher Retirement System

# INVESTMENTS

ARTRS
Arkansas Teacher Retirement System

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February 18, 2015

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

***Market Overview***

As we entered the 2014 fiscal year, market sentiment was largely influenced by potential actions of the U.S. Federal Reserve (Fed). The Fed's comments in May 2013 of plans to begin tapering its large asset purchasing program, referred to as QE (Quantitative Easing), sent markets into a quick frenzy. However, the Fed's reassurance of continued support as long as it was needed, including the actual tapering beginning later than expected, sent markets climbing to start the 2014 fiscal year. Investors" nerves were also tested on the uncertainty surrounding the succession of Federal Reserve Chairman Ben Bernanke, as he announced his intentions to step down at the end of his term. Janet Yellen's nomination and ultimate appointment appeared to provide markets comfort, which elevated equity markets even higher. Despite a host of events with the potential to stall markets, including the government shutdown, disputes over the debt ceiling, and the actual start of winding down QE, positive sentiment persisted, and markets continued their climb upwards in the first half of the fiscal year. There was some hesitation in this upward march due to challenging winter weather conditions in early 2014, concerns surrounding slower GDP growth, and geopolitical uncertainties, specifically the tensions between Russia and Ukraine. However, it wasn't enough to prevent most equity markets to continue their move upwards. The year ended with a strong quarter as economic data showed signs of improvement and central banks around the globe continued to provide stimulus support.

The "risk-on" mentality and resiliency to negative news throughout the year produced extremely strong equity market returns. Global equity markets continued to add to the now five-year rally with the support of stimulus from central banks across the globe and the slow, yet mostly steady, improvement in economic data. Domestic equity markets trended up over the year, posting a 25.0% return. Developed international equity markets performed similarly, with a return of 23.6%. Emerging equity markets, being more sensitive to the tapering news and economic data, were among the weaker equity market performers, although still posted a return of 14.3% over the year. The broad U.S. fixed income market was fairly steady, but also posted a positive, albeit modest, return of 3.5%. The modest change in the yield on the 10-Year U.S. Treasury masked the volatility experienced over the period. The 10-Year yield ended the year at 2.5%, mostly unchanged from the start of the period, although it spiked to 3.0% on two separate occasions reacting to news out of the Federal Open Market Committee meetings.

***Overview of ATRS Fund Structure***

The ATRS portfolio continues to be well diversified across several asset classes, including U.S. equity, global equity, 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. The latest asset-liability study, completed in April 2012, supported a 20% allocation to fixed income and an 80% allocation across public equities, alternatives, real assets (including real estate, timber, agriculture, and infrastructure), and private equity. Within these asset classes, the investments are further 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.

At the start of the 2014 fiscal year, the System adopted a modified asset allocation that effectively re-organized the existing ATRS investments into better like-performing buckets. ATRS added the "Real Assets" category to the Investment Policy, which now includes Real Estate, Timber, Agriculture, and Infrastructure. The "Total Other Alternatives" asset class has been renamed "Opportunistic/Alternatives" and going forward will house alternative investment funds and other opportunistic investments. All other asset classes remained the same. The Investment Policy Statement has been updated to reflect the changes noted above and provides additional detail on the composition, parameters, and objectives of the newly defined asset classes. Additionally, a Real Assets Investment Policy was created that provides additional guidelines on Real Estate, Timber, Agriculture, and Infrastructure. The new Policy took effect in the first quarter of fiscal year 2014, and therefore there is one year's worth of performance through June 2014.

**Aon Hewitt | Retirement and Investment**
200 E. Randolph Street, Suite 1500 | Chicago, IL 60601
**t** 1.312.381.1200 | **f** 1.312.381.1366 | aonhewitt.com
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Additionally, throughout the 2014 fiscal year, there were modest adjustments made to the underlying structure of the ATRS investment portfolio. In aggregate, there were five new investment managers hired across U.S. equity, global equity, and fixed income. Four of the strategies that were added replaced existing strategies due to adverse organizational and personnel changes at those firms. Aside from the aforementioned manager changes, the investment structure remained largely unchanged. We 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 for continued growth and downside protection.

## ATRS Performance Overview (Annualized Returns)

| | 1 Year Ending 6/30/14 | | 3 Year Ending 6/30/14 | | 5 Year Ending 6/30/14 | |
|---|---|---|---|---|---|---|
| | Return | Rank | Return | Rank | Return | Rank |
| **Total Fund** | **19.0%** | **7** | **10.4%** | **29** | **13.3%** | **25** |
| Performance Benchmark | 18.3 | 16 | 11.1 | 7 | 13.6 | 18 |
| **Total U.S. Equity** | **25.6** | **28** | **14.3** | **91** | **19.8** | **28** |
| DJ U.S. Total Stock Market Index | 25.0 | 48 | 16.4 | 27 | 19.4 | 42 |
| **Total Global Equity** | **25.3** | **34** | **10.4** | **63** | **14.3** | **61** |
| MSCI ACW Index | 22.9 | 54 | 10.3 | 64 | 14.3 | 62 |
| **Total Fixed Income** | **6.1** | **48** | **5.0** | **48** | **7.8** | **30** |
| Performance Benchmark | 5.2 | 73 | 4.2 | 79 | 5.6 | 85 |
| **Total Opportunistic/Alternatives** | **10.2** | **–** | **7.2** | **–** | **–** | **–** |
| Custom Alternatives Benchmark | 6.3 | – | 3.0 | – | – | – |
| **Total Real Assets*** | **9.0** | **–** | **–** | **–** | **–** | **–** |
| Total Real Assets Benchmark | 11.4 | – | – | – | – | – |
| **Total Private Equity*** | **20.6** | **–** | **15.1** | **–** | **13.1** | **–** |
| Private Equity Policy | – | – | 16.9 | – | 24.4 | – |

*ATRS private market investment and benchmark returns are reported on a one-quarter lagged basis.

The System's Total Fund assets grew by approximately $1.8 billion over the 2014 fiscal year, ending the year with $14.6 billion in assets. The growth in assets was primarily due to strong investment earnings over the year which amounted to $2.4 billion. The Total Fund returned 19.0% over the year, benefiting from the strong public equity returns over the period. On a relative basis, the Total Fund outperformed its Performance Benchmark and ranked in the top decile of the Public Fund Universe for the year. Longer-term performance is also strong, as the Total Fund returned an annualized 10.4% over the three-year period and 13.3% over the five-year period, and ranked in the top quartile of the Public Fund Universe over both time periods.

The U.S. equity asset class posted an exceptional 25.6% return during the 2014 fiscal year and outperformed the broad U.S. market's return of 25.0%, as represented by the Dow Jones U.S. Total Stock Market Index. Active management was mostly favorable during the year, with small cap manager, Kennedy Capital Management, and activist manager, Relational Investors, providing the greatest relative performance by outperforming their benchmarks by 6.9 and 16.6 percentage points, respectively. During the year, ATRS added the Allianz Structured Alpha 500 fund to the U.S. equity portfolio. The fund is similar to the existing Allianz Structured Alpha 250 fund, but seeks a greater return through higher levels of tracking error. The Allianz Structured Alpha 250 fund has produced excess returns over the one-, three-, and five-year periods, and we expect similar results from the new strategy as well. Total U.S. equity's long-term performance continues to be favorable, returning an annualized 19.8% over the five-year period and outperforming its performance benchmark. Additionally, the U.S. equity asset class has performed well relative to peers, ranking 28th in the BNY Mellon Performance & Risk Analytics' Public Fund U.S. equity asset class universe over both the one- and five-year time periods.

The global equity asset class also provided strong returns over the fiscal year, returning 25.3% and outperforming its benchmark by 2.4 percentage points. With the exception of a single manager, which was terminated at the beginning of the fiscal year, each active manager outperformed their respective benchmarks. At the end of the fiscal year, ATRS hired two active global equity strategies, GMO Global All Country Equity and Harris Global Equity, to replace the terminated manager and to gain additional active risk within the asset class. Both managers provide strong diversification benefits to the ATRS equity portfolio and are experienced with proven track records. Longer-term performance is also favorable, as global equity returned an annualized 10.4% and 14.3% over the three- and five-year periods, respectively, and performed in line with its performance benchmark.

Arkansas Teacher Retirement System

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Total fixed income returned 6.1% during the fiscal year and outperformed its performance benchmark by 0.9 percentage points. The fixed income asset class includes several core-plus and opportunistic strategies that have performed well over the one-year period. Loomis Sayles provided the greatest contribution to total fixed income's outperformance with a 12.0% return over the year relative to its benchmark return of 6.8%. Two investment managers were hired at the end of the fiscal year to replace two strategies managed by Western Asset Management which were previously closed. Wellington Global Total Return II, an absolute return strategy, and the Reams Core Plus Bond fund were funded in May 2014. Over the long term, total fixed income has outperformed its performance benchmark, returning an annualized 5.0% and 7.8% over the trailing three- and five-year periods, respectively. Additionally, total fixed income has ranked in the top half of the BNY Mellon Performance & Risk Analytics' Public Fund Fixed Income peer group over the one-, three-, and five-year periods.

The opportunistic/alternatives asset class returned 10.2% during the fiscal year and meaningfully outperformed its performance benchmark by 3.9 percentage points. The hedge fund managers are well diversified and have performed well, as all but one outperformed its benchmark over the year. We continue to identify and evaluate additional active alternative strategies for this asset class with the objective of improving the risk/return characteristics of the System's investments.

Total real assets returned 9.0% during the fiscal year, modestly lagging its performance benchmark return of 11.4%. As a reminder, the real assets category was created at the beginning of the fiscal year and now includes real estate, timber, agriculture, and infrastructure. Real estate, comprising nearly 75% of the real assets category, drove the returns over the year. Real estate returned 12.1% during the fiscal year and trailed the NCREIF ODCE Index return of 12.7%. Approximately 65% of ATRS's real estate portfolio is invested in core investments, characterized as high quality and typically more conservative properties, which has been a meaningful driver of relative performance. Over the three-year period, total real estate returned an annualized 9.9%. The timber portfolio returned a -1.1% over the fiscal year compared to 7.7% for the NCREIF Timberland Index. However, over the five-year period, the timber portfolio returned 0.4% relative to the Index return of 0.9%. The housing downturn was the primary reason for the timber industry's poor five-year return. The agriculture portfolio is in the portfolio construction stage with only 75% of the outstanding commitment invested, resulting in performance figures that are not as meaningful. That being said, the total agriculture returned 11.0% compared to the NCREIF Agriculture Index of 12.8% for the fiscal year. Infrastructure commitments have yet to be invested, hence no performance is available.

The System's private equity investments posted a strong absolute return during fiscal year 2014 of 20.6%. Due to the long-term nature of private equity, performance benchmark returns are not shown for periods less than three-years. While the private equity portfolio has modestly underperformed its benchmark over the three- and five-year periods, it has posted double-digit, positive returns of 15.1% and 13.1%, respectively, and is positioned to do well going forward.

Overall, we continue to have confidence in the ATRS portfolio structure. It is a pleasure to be of service to the ATRS.

Sincerely,

Patrick J. Kelly

Patrick J. Kelly, CFA, CAIA
Partner

## Investment Policies and Procedures

***Amended October 4, 2010***
***Amended February 7, 2011***
***Amended June 3, 2013***
***Amended October 7, 2013***
***Amended February 17, 2014***

## 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.

### *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.

# Investment Policies and Procedures (continued)

### *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* |
|---|---|---|---|
| Domestic Equity | 15.0 | 20.0% | 25.0%** |
| Global Equity | 25.0 | 30.0 | 35.0 |
| Fixed Income | 15.0 | 20.0 | 25.0 |
| Opportunistic/Alternatives | N/A | 5.0 | N/A |
| Real Assets*** | N/A | 15.0 | N/A |
| Private Equity | N/A | 10.0 | 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 domestic 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. 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 domestic equity, global 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.

## Investment Policies and Procedures (continued)

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.

### *Domestic Equity*

The goal for domestic equity investments shall be to achieve a total rate of return that will exceed, net of all fees and costs, the return of the aggregate domestic equity market as measured by the Dow Jones U.S. Total Stock Market Index over a full market cycle (approximately five years).

### *Global Equity*

The goal for global equity investments 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 over a full market cycle (approximately five years).

### *Total Equity*

The total equity exposure of the portfolio is designed to be viewed in aggregate and shall be well diversified with broad exposures to small, mid, and large capitalization companies, growth and value style sectors, as well as U.S. and non-U.S. markets. The manager structure of the combined equity portfolio (domestic and global) 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 components 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).

## Investment Policies and Procedures (continued)

### *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 the target allocation of 5%. Assets will be invested in the U.S. equity asset class until the total target is attained.

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 U.S. 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's 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's 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 weighted according to ATRS's regional exposure based on Net Asset Value.

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 weighted according to ATRS's regional and crop type exposure based on Net Asset Value.

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 five percentage points over a full market cycle (approximately 10 years). The Consumer Price Index plus five 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.

## Investment Policies and Procedures (continued)

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's 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 two percentage points per year over a full market cycle for private equity (approximately 10 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.



## Investment Policies and Procedures (continued)

***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***

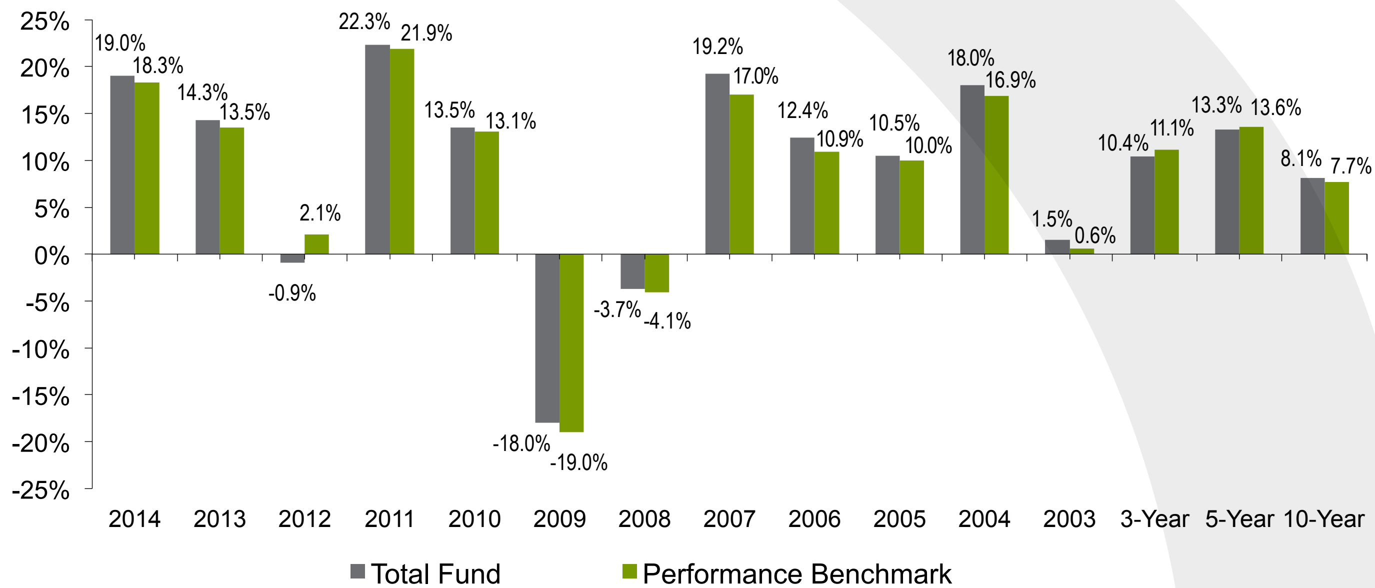
The Executive Director and investment consultant are jointly responsible for the initial selection of investment managers and any increase or decrease in an investment manager's funding. The Executive Director and investment consultant are jointly responsible for monitoring existing investment managers 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***

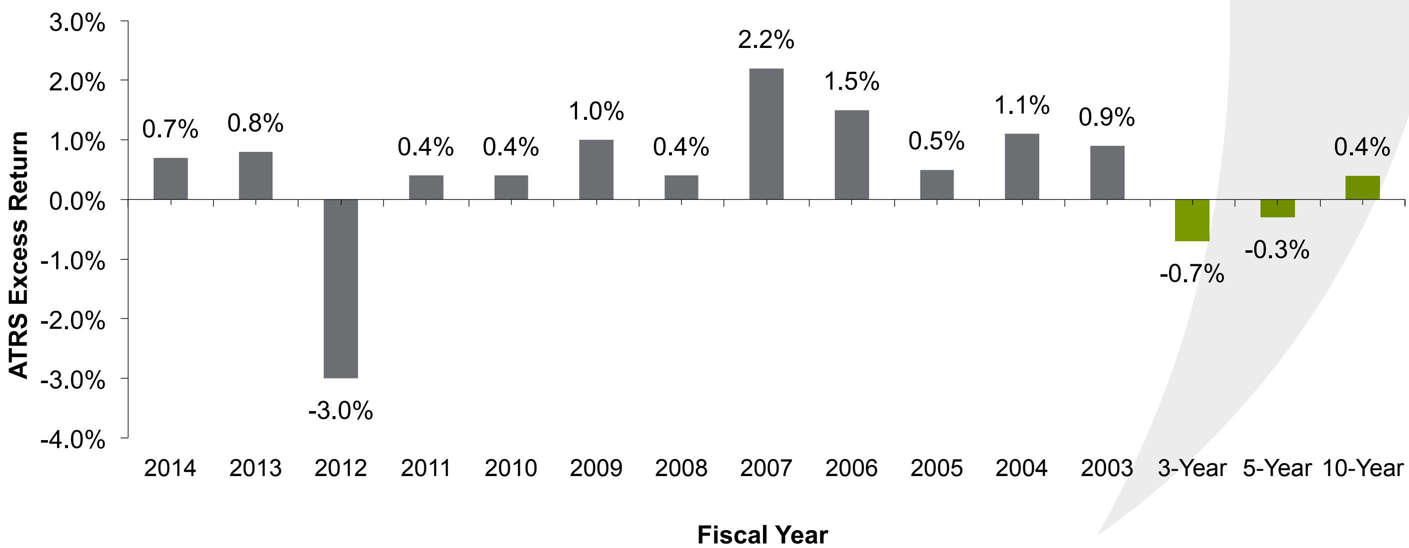
The System authorizes the investment manager to vote all proxies related to stocks in which it invests the System's assets. The System expects the investment manager to cast votes solely in the best interest of plan beneficiaries.

## Total Return by Fiscal Year

**FY Returns vs. Performance Benchmark**




**Total Return Relative to Performance Benchmark**



Arkansas Teacher Retirement System

## Traditional Assets
## Schedule of Investment Results

Returns for Period Ending June 30, 2014

The table below details the rates of return for the System's investment managers over various time periods ending June 30, 2014. 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 |
|---|---|---|---|
| **LARGE CAP U.S. EQUITY** | | | |
| Allianz Structured Alpha 250 | 28.1 | 18.0 | 22.3 |
| Allianz Structured Alpha 500* | – | – | – |
| *S&P 500 Index* | *24.6* | *16.6* | *18.8* |
| **SMALL CAP VALUE U.S. EQUITY** | | | |
| Daruma Asset Management | 21.5 | 11.8 | 21.3 |
| *Russell 2000 Index* | *23.6* | *14.6* | *20.2* |
| Kennedy Capital Management | 29.4 | 18.6 | 24.6 |
| *Russell 2000 Value Index* | *22.5* | *14.6* | *19.9* |
| **SMALL CAP GROWTH U.S. EQUITY** | | | |
| Stephens | 18.4 | 13.1 | 20.3 |
| Voya Investment Management | 23.0 | 15.3 | 22.1 |
| *Russell 2000 Growth Index* | *24.7* | *14.5* | *20.5* |
| **ALL CAP U.S. EQUITY** | | | |
| BlackRock U.S. Equity Index Fund | 25.1 | 16.5 | – |
| Pershing Square International | 29.1 | 15.2 | 20.6 |
| Pershing Square Holdings | 30.4 | – | – |
| *Dow Jones U.S. Total Stock Market Index* | *25.0* | *16.4* | *19.4* |
| Jacobs Levy | 25.5 | 15.8 | 20.6 |
| *Performance Benchmark* | *25.2* | *16.5* | *19.3* |
| Jacobs Levy 130/30 | 24.3 | 15.6 | 20.6 |
| *Russell 3000 Index* | *25.2* | *16.5* | *19.3* |
| Voya Absolute Return | 26.9 | 17.2 | 19.3 |
| Relational Investors | 41.2 | 18.4 | 22.3 |
| *S&P 500 Index* | *24.6* | *16.6* | *18.8* |
| **CONVERTIBLES** | | | |
| Allianz | 23.1 | 12.8 | 17.2 |
| *Performance Benchmark* | *24.4* | *12.6* | *16.5* |

*Funded December 2013

## 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, 2014.

| | 1-Year | 3-Years | 5-Years |
|---|---|---|---|
| **GLOBAL EQUITY** | | | |
| SSgA Global Index | 23.8 | 10.8 | 15.2 |
| BlackRock MSCI ACWI IMI Fund | 23.9 | 10.8 | – |
| *MSCI AC World IMI (Net)* | *23.4* | 10.4 | 14.8 |
| GMO Global All Country Equity* | – | – | – |
| T. Rowe Price Global Equity | 32.0 | 12.9 | – |
| Lazard | 23.3 | 8.2 | – |
| *MSCI AC World Index (Net)* | *22.9* | 10.3 | – |
| Harris Global Equity* | – | – | – |
| D.E. Shaw | 25.6 | 13.7 | – |
| *MSCI World Index (Net)* | *24.0* | 11.8 | – |
| Wellington Global Perspectives | 33.1 | 16.5 | 22.6 |
| *Performance Benchmark* | *26.0* | 11.0 | 17.5 |
| **FIXED INCOME** | | | |
| BlackRock | 5.2 | 4.4 | 6.6 |
| PIMCO** | 5.2 | 4.4 | 6.9 |
| Reams Core Plus Bond Fund*** | – | – | – |
| *Performance Benchmark* | *5.2* | 4.2 | 5.6 |
| SSgA Aggregate Bond Index | 4.3 | 3.7 | – |
| *Barclays Aggregate Index* | *4.4* | 3.7 | – |
| Loomis Sayles | 12.0 | 9.0 | 13.5 |
| *Performance Benchmark* | *6.8* | 6.0 | 8.2 |
| Putnam | 3.7 | 2.4 | 5.6 |
| *LIBOR* | *0.3* | 0.3 | 0.4 |
| Wellington Global Total Return*** | – | – | – |

* Funded June 2014

** Terminated subsequent to fiscal year end

*** Funded May 2014

## Alternatives
## 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, 2014.

| | 1-Year | 3-Years | 5-Years |
|---|---|---|---|
| **OPPORTUNISTIC/ALTERNATIVES** | | | |
| Anchorage | 18.9 | 12.0 | – |
| York | 22.4 | 13.2 | – |
| *Credit Suisse Event Driven* | *14.1* | *6.6* | – |
| Capula | 7.9 | 5.1 | – |
| Graham | 2.7 | 0.0 | – |
| Brevan Howard | -4.3 | – | – |
| *HFRI Macro (Total) Index* | *1.5* | *-0.5* | – |

## Real Assets
## Schedule of Investment Results

The table that follows details the rates of return for the System's investment managers for the period ending June 30, 2014.

| Real Estate Manager | Since-Inception IRR | Inception Date |
|---|---|---|
| **Core & Open End Funds** | | |
| Arkansas Investments | 8.00% | 12/31/2007 |
| JP Morgan Strategic Property Fund | 5.78% | 3/31/2007 |
| JP Morgan Special Situation Property Fund | 0.78% | 3/31/2007 |
| Prudential PRISA | 4.79% | 6/30/2005 |
| UBS Trumbull Property Fund | 5.30% | 3/31/2006 |
| **Closed End Funds** | | |
| Almanac Realty Securities Fund V | 12.10% | 5/12/2008 |
| Almanac Realty Securities Fund VI | 18.74% | 11/6/2012 |
| Blackstone Real Estate Partners VII, L.P. | 27.18% | 12/31/2011 |
| Carlyle Realy Partners VII | N/A | 6/30/2014 |
| CB Richard Ellis Strategic Partners U.S. Opportunity Fund V | 0.28% | 8/13/2008 |
| Cerberus Institutional Real Estate Partners III | 2.89% | 9/30/2013 |
| DLJ Real Estate Capital Partners II* | 19.30% | 12/15/1999 |
| Doughty Hanson European Real Estate | 28.45% | 7/29/1999 |
| Fidelity Real Estate Growth Fund III | 4.23% | 1/16/2008 |
| Heitman European Property Partners IV | 7.51% | 10/6/2008 |
| Landmark Real Estate Partners VI | 28.29% | 5/19/2010 |
| Lasalle Asia Opportunity Fund IV | N/A | 6/30/2014 |
| LaSalle Income & Growth Fund VI | 4.33% | 4/19/2013 |
| New Boston Real Estate Investment Fund VII | -5.84% | 10/9/2008 |
| O'Connor North American Property Partners II | -6.91% | 4/10/2008 |
| Olympus Real Estate Fund III* | -3.66% | 8/15/2000 |
| Rockwood Capital Real Estate Partners Fund IX, L.P. | 17.96% | 6/8/2012 |

*In liquidation phase

## Real Assets
## Schedule of Investment Results (continued)

| Real Estate Manager | Since-Inception IRR | Inception Date |
|---|---|---|
| **Closed End Funds (continued)** | | |
| Torchlight Debt Opportunity Fund II | -5.20% | 11/2/2007 |
| Torchlight Debt Opportunity Fund III | 12.14% | 12/12/2008 |
| Torchlight Debt Opportunity Fund IV | 5.26% | 7/8/2013 |
| Westbrook Real Estate Fund II* | 13.42% | 5/28/1997 |
| Westbrook Real Estate Fund III* | 8.79% | 9/1/1998 |
| Westbrook Real Estate Fund IV* | 20.65% | 12/31/2000 |
| Westbrook Real Estate Fund IX, L.P. | 12.01% | 10/24/2012 |
| Westbrook SHP, LLC (Sunstone Hotel Investors, LLC) | 2.47% | 11/15/1999 |
| **Total Real Estate** | **7.57%** | **5/28/1997** |

*In liquidation phase

| Timber & Agriculture | Since-Inception IRR | Vintage Year |
|---|---|---|
| **TIMBER** | | |
| RTG Timber Separate Account | 5.5% | 1998 |
| **AGRICULTURE** | | |
| HFMS Farmland Separate Account | 9.8% | 2011 |
| UBS Agrivest Core Farmland Fund | N/A | *2013* |

## Private Equity
## Schedule of Investment Results

The table that follows details the rates of return for the System's investment managers for the period ending June 30, 2014.

| | Inception Date | Annualized Internal Rate of Return |
|---|---|---|
| **INDIVIDUAL PARTNERSHIPS** | | |
| Mezzanine | | |
| Audax Mezzanine III | 5/10/2010 | 7.8% |
| Blackstone Mezzanine I | 12/22/1999 | 10.2% |
| DLJ Investment Partners II | 11/10/1999 | 10.6% |
| Insight Mezzanine I | 7/13/2009 | 8.1% |
| **PRIVATE EQUITY** | | |
| 21st Century Group I | 4/6/2000 | -5.2% |
| Advent GPE VI-A | 3/12/2008 | 19.4% |
| Altus Capital II | 6/3/2011 | -7.8% |
| Atlas Capital II** | 12/13/2013 | NMF |
| Boston Ventures VII | 12/14/2007 | 12.0% |
| Castlelake II | 5/4/2012 | 21.9% |
| Castlelake III** | 2/28/2014 | NMF |
| Court Square III | 7/17/2012 | -2.5% |

**2013 and 2014 vintage year funds' performance is deemed not meaningful (NMF).

ARTRS
Arkansas Teacher Retirement System

## Private Equity
## Schedule of Investment Results (continued)

| | Inception Date | Annualized Internal Rate of Return |
|---|---|---|
| **PRIVATE EQUITY** (continued) | | |
| CSFB-ATRS 2005-1 Series | 5/1/2005 | 7.6% |
| CSFB-ATRS 2006-1 Series | 8/1/2006 | 8.7% |
| Cypress MBP II | 6/18/1999 | -0.9% |
| DH Tech I | 1/12/2000 | -18.0% |
| Diamond State | 4/15/2000 | 5.0% |
| Diamond State II | 1/4/2007 | 10.0% |
| DLJ MBP III | 7/19/2000 | 19.5% |
| Doughty Hanson III | 10/20/1997 | 13.3% |
| DW Healthcare III | 12/21/2011 | 13.2% |
| EnCap IX* | 12/19/2012 | NMF |
| EnCap VIII | 1/31/2011 | 12.9% |
| FP Co-Investment Fund I | 4/1/2012 | 17.8% |
| FP Intnl 2011 | 2/16/2011 | -0.7% |
| FP Intnl 2012 | 1/31/2012 | -16.6% |
| FP Intnl 2013* | 2/7/2013 | NMF |
| FP Intnl 2014* | 1/23/2014 | NMF |
| FP Venture 2008 | 1/18/2008 | 19.5% |
| FP Venture 2009 | 1/16/2009 | 30.4% |
| FP Venture 2010 | 1/29/2010 | 18.0% |
| FP Venture 2011 | 2/16/2011 | 27.6% |
| FP Venture 2012 | 1/31/2012 | 14.0% |
| FP Venture 2013* | 2/7/2013 | NMF |
| FP Venture 2014* | 1/23/2014 | NMF |
| HMTF III | 3/4/1997 | 1.7% |
| HMTF IV | 6/18/1998 | -6.3% |
| HMTF V | 11/28/2000 | 17.6% |
| Insight Equity II | 7/13/2009 | 7.9% |
| JF Lehman III | 8/8/2011 | 15.4% |
| KPS III Supplemental | 8/14/2009 | 14.8% |
| KPS IV* | 4/12/2013 | NMF |
| Levine Leichtman V* | 4/30/2013 | NMF |
| Lime Rock III* | 7/16/2013 | NMF |
| LLR III | 5/9/2008 | 13.7% |
| Mason Wells III | 5/13/2010 | -7.2% |
| NGP IX | 2/27/2008 | 15.1% |
| NGP X | 4/20/2012 | 11.3% |
| Oak Hill I | 4/1/1999 | 10.6% |
| Riverside IV | 12/4/2009 | 12.4% |
| Riverside V* | 5/11/2012 | NMF |
| Second Cinven | 4/30/1998 | 9.3% |
| Sycamore Partners II* | 4/7/2014 | NMF |

*2013 and 2014 vintage year funds' performance is deemed not meaningful (NMF).

## Private Equity
## Schedule of Investment Results (continued)

| | Inception Date | Annualized Internal Rate of Return |
|---|---|---|
| **PRIVATE EQUITY** (continued) | | |
| TA XI | 4/30/2009 | 17.2% |
| Tennenbaum VI | 2/15/2011 | 11.4% |
| Thoma Bravo XI* | 5/1/2014 | NMF |
| Vista Equity III | 7/11/2008 | 31.8% |
| Vista Foundation II* | 10/31/2013 | NMF |
| Wellspring V | 7/28/2010 | -10.8% |
| Wicks IV | 4/29/2011 | 10.3% |

*2013 and 2014 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, Real Assets and Private Equity at the weight of the previous month's ending market values, Global Equity and Fixed Income at their long-term Policy Targets of 30% and 20%, respectively, and Domestic Equity at its long-term Policy Target of 20% plus the balance of the unfunded or uncommitted assets of the Opportunistic/ Alternatives, Real Assets, and Private Equity 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 | Barclays U.S. Universal Bond Index | 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 Private Equity, 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.*

## Description of Benchmarks (continued)

**Total U.S. Equity** – The Dow Jones U.S. Total Stock Market Index.

**Total Global Equity** – The MSCI All Country World Index.

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

**Total Opportunistic/Alternatives** – A custom benchmark consisting of 60% HFRI Macro Index and 40% DJ/CS Event-Driven Index. Prior to July 2013, it was a composite of 25% DJ/CS Event-Driven Index, 25% HFR Macro Index, and 50% South Timberland NCREIF Index.

**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's regional exposure based on net asset value.

**Agriculture Benchmark** – NCREIF Farmland Index (NFI) weighted according to ATRS's 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 Barclays U.S. Universal Bond Index as of March 1, 2004. Previously it was the 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 Barclays Capital Government/Credit Index and 35% Barclays Capital High Yield Index.

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

**Barclays Aggregate Bond Index** – A market-value weighted index consisting of the 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.

## Description of Benchmarks (continued)

**Barclays Government/Credit Index** – The 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.

**Barclays High Yield Index** – The 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.

**Barclays U.S. Universal Bond Index** – A market-value weighted index consisting of the components of the 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 ex-U.S. Index** – A capitalization-weighted index of stocks representing 48 developed and emerging country markets, excluding the U.S. market.

**MSCI All Country World Index** – A capitalization-weighted index of stocks representing 48 developed and emerging country markets.

**MSCI Europe, Australasia, Far East (EAFE) Non-U.S. Stock Index** – A capitalization-weighted index of stocks representing 21 developed and emerging country markets in Europe, Australia, Asia, and the Far East.

## Description of Benchmarks (continued)

**MSCI World Index** – A capitalization-weighted index of stocks representing 22 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 3,000 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 2,000 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.

**Russell Mid Cap Value Index** – An index that measure the performance of those Russell 1000 companies with lower price-to-book ratios and lower forecasted growth values.

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

**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 60 public pension plans each with assets greater than $1 billion.

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

**Total Global Equity** – The total global 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 200 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 45 public pension plans each with assets greater than $1 billion.

## Ten Largest Holdings

(By Market Value)
As of June 30, 2014

### Fixed Income

| Security Name | Due Date | Market Value |
|---|---|---|
| MICRON TECHNOLOGY INC 3% | 11/15/43 | $12,734,453.18 |
| GILEAD SCIENCES 1.625% | 5/1/16 | 10,679,850.01 |
| INTEL CORP 3.25% | 8/1/39 | 10,172,787.50 |
| OMNICARE INC 3.50% | 2/15/44 | 8,057,737.50 |
| SANDISK CORP .50% | 10/15/20 | 7,485,873.50 |
| LENNAR CORP 3.25% | 11/15/21 | 7,457,062.49 |
| TESLA MOTORS INC .25% | 3/1/19 | 6,791,428.60 |
| FORD MTR CO DEL 4.25% | 11/15/16 | 6,723,707.47 |
| MICROCHIP TECHNOLOGY INC 2.125% | 12/15/37 | 6,572,567.20 |
| SALIX PHARMACEUTICALS LTD 1.50% | 3/15/19 | 6,350,725.54 |

## Ten Largest Holdings

(By Market Value)
As of June 30, 2014

### Domestic/Global Equities

| Security Name | Market Value |
|---|---|
| APPLE INC | $34,736,304.67 |
| GENERAL AMERICAN INVESTORS CO | 24,356,551.23 |
| INVESTOR AB | 22,756,818.29 |
| VISA INC – CLASS A SHARES | 22,126,657.08 |
| FIRST PACIFIC CO | 21,552,705.09 |
| BOEING CO | 21,031,118.98 |
| MICROSEMI CORP | 18,745,406.77 |
| GENERAL MOTORS CO | 18,451,181.11 |
| PACIRA PHARMACEUTICALS INC | 18,201,415.97 |
| EURAZEO | 17,544,138.90 |



## Ten Largest Holdings

(By Market Value)

As of June 30, 2014

### Arkansas Related

| Security Name | Market Value |
|---|---|
| TIMBERLAND I | $362,406,422 |
| AMERICAN CENTER 1 & 2 (PARTNERSHIP) | 33,603,168 |
| THE VICTORY BUILDING | 30,296,009 |
| WOODLAND HEIGHTS | 16,800,000 |
| SOUTHCENTER SHOPPING CENTER | 12,500,000 |
| ARKANSAS INSURANCE DEPARTMENT BUILDING | 5,910,000 |
| RETIREMENT VILLAGE PROPERTY | 5,900,000 |
| ROSE LAW FIRM | 4,080,000 |
| ARKANSAS TEACHER RETIREMENT BUILDING | 3,234,164 |
| WEST MEMPHIS DHS BUILDING | 2,310,150 |

ARTRS
Arkansas Teacher Retirement System

# ACTUARIAL

## Actuary's Certification Letter

GRS
Gabriel Roeder Smith & Company
Consultants & Actuaries

One Towne Square
Suite 800
Southfield, MI 48076-3723

248.799.9000 phone
248.799.9020 fax
www.gabrielroeder.com

March 3, 2015

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, 2014, is illustrated in the attached Exhibits 1 and 2. The valuation process develops contribution rates that are sufficient to fund the plan's current cost (i.e., the cost assigned by the valuation method to the year of service about to be rendered), as well as to fund unfunded actuarial accrued liabilities as a level percent of active member payroll. The actuarial valuations are performed each year, and the most recent valuations were completed based upon census data, asset data, and plan provisions as of June 30, 2014.

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. Member data was not otherwise audited by the actuary. The actuary summarizes and tabulates population data in order to analyze longer-term trends. Asset information was accepted without further audit. We are not responsible for the accuracy or completeness of the data 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
Employer Contribution Rate Computed as of June 30, 2014
Active Members in Valuation Data
Retirees and Beneficiaries Added to and Removed from Rolls
Short Condition Test
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

GRS
Gabriel Roeder Smith & Company
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Board of Trustees
March 3, 2015
Page 2

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. Each actuarial valuation takes into account all prior differences between actual and assumed experience in each risk area and adjusts the contribution rates as needed. The June 30, 2014, valuations were based upon assumptions that were recommended in connection with a study of experience covering the 2005-2010 period.

The Arkansas Teacher Retirement System remains stable with a 77.3% funded position as of June 30, 2014. The amortization period as of June 30, 2014, is 39 years. Unless there is an investment loss in Fiscal Year 2015, the amortization period is likely to fall below 30 years in the next valuation. Based on the June 30, 2014, valuation, an employer contribution rate of 14.9% would be needed to return the amortization period to 30 years. In order to obtain a full understanding of the actuarial condition of the Retirement System, it is necessary to read and understand the entire actuarial valuation report.

**Based upon the results of the June 30, 2014, 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. The contribution rate is currently not sufficient to amortize the unfunded liability over a 30-year period. However, unless there is an investment loss in Fiscal Year 2015, the amortization period is likely to fall below 30 years in the next valuation.**

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

To the best of our knowledge, this report is complete and accurate and was made in accordance with standards of practice promulgated by the Actuarial Standards Board of the American Academy of Actuaries. The actuarial assumptions used for the valuation produce results which, individually and in the aggregate, are reasonable.

This report has been prepared by actuaries who have substantial experience valuing public employee retirement systems. Judith Kermans and Brian Murphy are Members of the American Academy of Actuaries (MAAA) and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Respectfully submitted,

Judith A. Kermans, EA, MAAA, FCA

Brian B. Murphy, FSA, MAAA, FCA

JAK/BBM:mrb

Arkansas Teacher Retirement System

## Exhibit 1
## Computed Actuarial Liabilities

As of June 30, 2014

| Actuarial Present Value of | (1) Total Present Value | Entry Age Actuarial Cost Method (2) Portion Covered by Future Normal Cost Contributions | Entry Age Actuarial Cost Method (3) Actuarial Accrued Liabilities (1)-(2) |
|---|---|---|---|
| Age and service retirement allowances based on total service likely to be rendered by present active members. | $ 7,365,985,562 | $1,976,006,279 | $ 5,389,979,283 |
| Age and service retirement allowances based on total service likely to be rendered by present T-DROP members. | 2,358,659,926 | 39,680,035 | 2,318,979,891 |
| Vested deferred benefits likely to be paid present active and inactive members. | 1,145,486,824 | 395,332,387 | 750,154,437 |
| Survivor benefits expected to be paid on behalf of present active members. | 115,536,050 | 40,787,337 | 74,748,713 |
| Disability benefits expected to be paid on behalf of present active members. | 194,558,845 | 100,515,678 | 94,043,167 |
| Refunds of member contributions expected to be paid on behalf of present active members. | 14,926,310 | 109,527,125 | (94,600,815) |
| Benefits payable to present retirees and beneficiaries. | 8,684,234,779 | 0 | 8,684,234,779 |
| Lump sum death benefits payable to present retirees and beneficiaries. | 92,778,136 | 0 | 92,778,136 |
| Total | $19,972,166,432 | $2,661,848,841 | $17,310,317,591 |
| Applicable Assets | 13,374,765,500 | 0 | 13,374,765,500 |
| Liabilities to be covered by future contributions | $ 6,597,400,932 | $2,661,848,841 | $ 3,935,552,091 |

# Exhibit 2
# Employer Contribution Rate Computed as of June 30, 2014

For the fiscal year ending June 30, 2016

| | Percents of Active Member Payroll | | | |
|---|---|---|---|---|
| **Computed Contributions for** | **Teachers** | **Support** | **Combined** | **Prior Year** |
| Normal Cost | | | | |
| Age & Service Annuities | 9.59% | 7.17% | **8.85%** | 8.84% |
| Deferred Annuties | 1.61% | 2.13% | **1.77%** | 1.77% |
| Survivor Benefits | 0.19% | 0.16% | **0.18%** | 0.18% |
| Disability Benefits | 0.47% | 0.42% | **0.45%** | 0.45% |
| Refunds of Member Contributions | 0.38% | 0.80% | **0.51%** | 0.51% |
| Total | 12.24% | 10.68% | **11.76%** | 11.75% |
| Average Member Contributions | 5.30% | 4.07% | **4.92%** | 4.86% |
| Net Employer Normal Cost | 6.94% | 6.61% | **6.84%** | 6.89% |
| Unfunded Actuarial Accrued Liabilities | | | **7.16%** | 7.11% |
| **Employer Contribution Rate** | | | **14.00%** | 14.00% |
| **Amortization Years** | | | **39.1** | 69.9 |

The amortization period is the number of years it will take to pay off the unfunded liability of $3.9 billion assuming that the employer contribution rate remains at the 14% of payroll level. Since 2000, the period has varied from a low of 19 years to a high of over 100 years. Unless there is an investment loss in Fiscal Year 2015, the amortization period is likely to fall below 30 years in the next valuation.



## Schedule of Active Member Valuation Data

| | Active Members in Valuation# | | Average Annual Pay | |
|---|---|---|---|---|
| Valuation Date June 30 | Number | Annual Payroll (Millions) | Amount | % Change |
| **2014** | **74,352** | **$2,758** | **$37,092** | **1.9%** |
| 2013 | 74,925 | 2,727 | 36,400 | 0.0% |
| 2012 | 75,627 | 2,714 | 35,891 | 1.0% |
| 2011 | 76,780 | 2,728 | 35,534 | 7.7% |
| 2010 | 72,208 | 2,381 | 32,980 | 0.5% |
| 2009 | 70,655 | 2,318 | 32,804 | 1.5% |
| 2008 | 70,172 | 2,268 | 32,319 | 2.1% |
| 2007 | 69,226 | 2,191 | 31,645 | 3.0% |
| 2006 | 67,710 | 2,080 | 30,714 | 3.0% |
| 2005 | 65,793 | 1,962 | 29,826 | 7.8% |

# Beginning with the June 30, 2011 valuation, active member information includes T-DROP participation.

## Schedule of Retirees and Beneficiaries Added To and Removed From Rolls

| | Estimated Number | | | | | |
|---|---|---|---|---|---|---|
| Year | Added | Removed | Total Retirees | Annual Allowances (Millions) | % Increase in Annual Allowances | Average Annual Allowances |
| **2014** | **3,156** | **932** | **38,478** | **$822.19** | **7.7%** | **$21,368** |
| 2013 | 3,039 | 945 | 36,254 | 763.76 | 7.7% | 21,067 |
| 2012 | 2,932 | 871 | 34,160 | 709.17 | 7.9% | 20,760 |
| 2011 | 2,394 | 882 | 32,099 | 657.08 | 7.2% | 20,470 |
| 2010 | 2,588 | 819 | 30,587 | 612.77 | 8.5% | 20,034 |
| 2009 | 2,721 | 704 | 28,818 | 564.59 | 9.5% | 19,591 |
| 2008 | 1,703 | 513 | 26,801 | 515.56 | 6.4% | 19,237 |
| 2007 | 2,017 | 559 | 25,611 | 484.55 | 7.7% | 18,920 |
| 2006 | 1,958 | 485 | 24,153 | 449.77 | 8.4% | 18,622 |
| 2005 | 1,822 | 570 | 22,680 | 415.04 | 7.5% | 18,300 |
| 2004 | 1,685 | 528 | 21,428 | 386.23 | 7.3% | 18,025 |
| 2003 | 1,621 | 548 | 20,271 | 360.00 | 7.7% | 17,759 |
| 2002 | 1,989 | 568 | 19,199 | 334.15 | 8.1% | 17,404 |

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

# Short Condition Test

ATRS's 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.

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***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; 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.

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.

| Val. Date June 30 | (1) Member Contrb. | (2) Retirees and Benef. | (3) Active and Inactive Members (Employer Financed Portion) | Present Valuation Assets | Portion of Present Values Covered by Present Assets | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | (1) | (2) | (3) | Total |
| | ------------ | $ Millions | -------------- | | | | | |
| 2005 | $ 586 | $ 4,276 | $ 6,111 | $ 8,817 | 100% | 100% | 65% | 80% |
| 2006 | 630 | 4,617 | 6,376 | 9,332 | 100% | 100% | 64% | 80% |
| 2007# | 679 | 4,960 | 6,690 | 10,519 | 100% | 100% | 73% | 85% |
| 2008# | 732 | 5,544 | 7,058 | 11,319 | 100% | 100% | 71% | 85% |
| 2009 | 790 | 6,041 | 7,188 | 10,617 | 100% | 100% | 53% | 76% |
| 2010# | 848 | 6,516 | 7,333 | 10,845 | 100% | 100% | 47% | 74% |
| 2011*# | 929 | 7,132 | 7,460 | 11,146 | 100% | 100% | 41% | 72% |
| 2012 | 981 | 7,649 | 7,509 | 11,484 | 100% | 100% | 38% | 71% |
| 2013# | 1,027 | 8,181 | 7,514 | 12,247 | 100% | 100% | 40% | 73% |
| 2014 | 1,077 | 8,777 | 7,456 | 13,375 | 100% | 100% | 47% | 77% |

* *Revised actuarial assumptions or methods.*

\# *Legislated benefit or contribution rate change.*



# Summary of Actuarial Assumptions and Methods

| | |
|---|---|
| Valuation Date | June 30, 2014 |
| Actuarial Cost Method | Entry Age |
| Amortization Method | Level percent of payroll |
| Remaining Amortization Period | 39 years |
| Asset Valuation Method | 4-year smoothing 80%/120% corridor |
| Actuarial Assumptions: | |
| Investment Rate of Return | 8.0% |
| Projected Salary Increase | 3.25% to 9.10% |
| Cost-of-Living Adjustments | 3% Simple |
| Includes Wage Inflation at | 3.25% |

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 actuarial cost method is called the Entry Age Actuarial Cost Method. 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. 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 in conjunction with the 2002 valuation to include a corridor. Assets were set to market value in 2012 to reduce future volatility.

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 2005-2010 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 investment return rate*** used in making the valuation was 8.0% per year, compounded annually (net after administrative expenses). This rate of return is not the assumed real rate of return. The real rate of return over wage inflation is defined to be the portion of investment return which is more than the wage inflation rate. Considering wage inflation recognition of 3.25%, the 8.0% rate translates to an assumed real rate of return over wage inflation of 4.75%. This rate was first used for the June 30, 2011, valuation. The assumed real rate of return over price inflation would be higher – on the order of 5% to 5.25%.

## Summary of Actuarial Assumptions and Methods (continued)

***Pay increase assumptions*** for individual active members are shown on Tables IV and V. Part of the assumption for each age is for a merit and/or seniority increase, and the other 3.25% recognizes wage inflation. These rates were first used for the ***June 30, 2011*** valuation. No specific ***Price Inflation*** is needed for this valuation. However, the wage inflation and interest rate assumptions would be compatible with a price inflation assumption of 2.75%. It is assumed that the 3% COLA will always be paid.

The Active Member Group size is assumed to remain at its present level.

***Total active member payroll*** is assumed to increase 3.25% 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, 2011*** valuation.

***Non-Economic Assumptions***

***The mortality table*** used was the RP-2000 Mortality table for males and females projected 25 years with scale AA (95% for men and 87% for women). Mortality rates were adjusted to include a small margin for future mortality improvement as described in the table named above. This table was first used for the ***June 30, 2011*** valuation. For disabled lives, the mortality table used was the 1983 Group Annuity Mortality Table, the mortality table set forward five years. The set forward of five years was first used for the ***June 30, 2002*** valuation.

***The probabilities of retirement*** for members eligible to retire are shown on Tables II and III. The rates for full retirement were first used in the ***June 30, 2011*** valuation. The rates for reduced retirement were first used in the ***June 30, 2002*** valuation.

***The probabilities of withdrawal*** from service, death in service, and disability are shown for sample ages on Tables IV and V. These rates were first used in the ***June 30, 2011*** 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.

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Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as: plan experience differing from that anticipated by the economic and 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 (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of the actuary's assignment, the actuary did not perform an analysis of the potential range of such future measurements.



## Table I

## Single Life Retirement Values

| Sample Attained Ages | Present Value of $1.00 Monthly for Life | | Present Value of $1 Monthly for Life Increasing 3.0% Annually | | Future Life Expectancy (years) | | Percent Dying within Next Year | |
|---|---|---|---|---|---|---|---|---|
| | Men | Women | Men | Women | Men | Women | Men | Women |
| 40 | $147.45 | $148.74 | $192.83 | $195.36 | 43.26 | 45.92 | 0.08% | 0.04% |
| 45 | 144.24 | 145.78 | 186.54 | 189.56 | 38.45 | 41.03 | 0.10% | 0.07% |
| 50 | 139.69 | 141.63 | 178.19 | 181.91 | 33.65 | 36.18 | 0.13% | 0.10% |
| 55 | 133.32 | 135.93 | 167.28 | 172.06 | 28.89 | 31.39 | 0.21% | 0.19% |
| 60 | 124.93 | 128.62 | 153.79 | 160.06 | 24.28 | 26.77 | 0.43% | 0.39% |
| 65 | 114.53 | 119.62 | 137.94 | 146.03 | 19.92 | 22.41 | 0.85% | 0.74% |
| 70 | 102.19 | 109.01 | 120.09 | 130.24 | 15.89 | 18.36 | 1.45% | 1.28% |
| 75 | 87.25 | 96.62 | 99.84 | 112.72 | 12.15 | 14.64 | 2.53% | 2.00% |
| 80 | 70.65 | 82.27 | 78.66 | 93.60 | 8.86 | 11.25 | 4.76% | 3.35% |
| 85 | 54.64 | 66.59 | 59.29 | 73.90 | 6.25 | 8.29 | 8.83% | 5.80% |
| Ref: | 472 x 0.95 | 473 x 0.87 | 472 x 0.95 | 473 x 0.87 | | | | |

| Sample Attained Ages | Benefit Increasing 3.0% Yearly | Portion of Age 60 Lives Still Alive | |
|---|---|---|---|
| | | Men | Women |
| 60 | $100.00 | 100% | 100% |
| 65 | 115.00 | 97% | 97% |
| 70 | 130.00 | 92% | 93% |
| 75 | 145.00 | 84% | 86% |
| 80 | 160.00 | 71% | 76% |
| Ref | | 472 x 0.95 | 473 x 0.87 |

# Table II

## Probabilities of Retirement for Members

| Retirement Ages | % of Active Participants Retiring with Unreduced Benefits | | | |
|---|---|---|---|---|
| | Education | | Support | |
| | Male | Female | Male | Female |
| 48 | 59% | 55% | 25% | 25% |
| 49 | 67% | 25% | 54% | 22% |
| 50 | 11% | 7% | 3% | 9% |
| 51 | 7% | 6% | 5% | 7% |
| 52 | 7% | 6% | 8% | 7% |
| 53 | 7% | 8% | 9% | 8% |
| 54 | 8% | 8% | 9% | 8% |
| 55 | 9% | 9% | 6% | 10% |
| 56 | 11% | 10% | 10% | 9% |
| 57 | 11% | 12% | 10% | 10% |
| 58 | 11% | 12% | 16% | 14% |
| 59 | 14% | 16% | 16% | 27% |
| 60 | 16% | 16% | 11% | 13% |
| 61 | 15% | 15% | 10% | 14% |
| 62 | 30% | 26% | 29% | 22% |
| 63 | 24% | 22% | 21% | 18% |
| 64 | 22% | 20% | 25% | 20% |
| 65 | 37% | 43% | 46% | 40% |
| 66 | 43% | 41% | 38% | 36% |
| 67 | 35% | 34% | 37% | 35% |
| 68 | 31% | 33% | 39% | 28% |
| 69 | 25% | 33% | 26% | 34% |
| 70 | 37% | 40% | 33% | 34% |
| 71 | 41% | 30% | 34% | 33% |
| 72 | 32% | 34% | 41% | 31% |
| 73 | 44% | 36% | 32% | 34% |
| 74 | 30% | 30% | 29% | 34% |
| 75 | 100% | 100% | 100% | 100% |
| Ref | 2013 | 2014 | 2015 | 2016 |

## Table III

## Probabilities of Reduced Retirement for Members

| Retirement Ages | % of Active Participants Retiring with Reduced Benefits | | | |
|---|---|---|---|---|
| | Education | | Support | |
| | Male | Female | Male | Female |
| 50 | 2% | 2% | 2% | 2% |
| 51 | 2% | 2% | 2% | 2% |
| 52 | 3% | 3% | 3% | 3% |
| 53 | 4% | 4% | 4% | 4% |
| 54 | 4% | 4% | 4% | 4% |
| 55 | 6% | 6% | 6% | 6% |
| 56 | 9% | 5% | 9% | 5% |
| 57 | 9% | 5% | 9% | 5% |
| 58 | 9% | 5% | 9% | 5% |
| 59 | 9% | 5% | 9% | 5% |
| Ref | 826 | 825 | 826 | 825 |

## 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 | 6 |
| 57 | 5 |
| 58 | 4 |
| 59+ | 3 |

Retirees are assumed to have entered T-DROP at the time that is to their greatest financial advantage, based on the schedule above.

# Table IV

## Teachers
## Separations from Active Employment Before Age and Service Retirement and Individual Pay Increases

| Sample Ages | Service | Percent of Active Members Separating Within the Next Year | | | | | |
|---|---|---|---|---|---|---|---|
| | | Death | | Disability | | Other | |
| | | Men | Women | Men | Women | Men | Women |
| | 0 | | | | | 25.30% | 18.00% |
| | 1 | | | | | 13.80% | 11.30% |
| | 2 | | | | | 10.60% | 9.10% |
| | 3 | | | | | 8.40% | 8.40% |
| | 4 | | | | | 5.00% | 6.60% |
| 25 | 5 & Up | 0.01% | 0.01% | 0.05% | 0.05% | 3.50% | 4.00% |
| 30 | | 0.02% | 0.01% | 0.05% | 0.04% | 3.60% | 4.30% |
| 35 | | 0.03% | 0.02% | 0.04% | 0.05% | 2.80% | 2.90% |
| 40 | | 0.04% | 0.02% | 0.08% | 0.09% | 2.30% | 2.10% |
| 45 | | 0.05% | 0.03% | 0.18% | 0.16% | 1.90% | 1.80% |
| 50 | | 0.07% | 0.05% | 0.40% | 0.39% | 2.90% | 2.20% |
| 55 | | 0.11% | 0.10% | 0.73% | 0.69% | 3.60% | 2.60% |
| 60 | | 0.22% | 0.20% | 0.96% | 0.86% | 3.10% | 2.30% |
| 65 | | 0.43% | 0.38% | 1.00% | 0.90% | 2.50% | 1.80% |
| Ref: | | 472 x 0.48 | 473 x 0.44 | 737 x 1 | 738 x 1 | 718<br>1192 | 719<br>1193 |

| Age | Pay Increase Assumptions for an Individual Member | | |
|---|---|---|---|
| | Merit & Seniority | Base (Economic) | Increase Next Year |
| 20 | 5.10% | 3.25% | 8.35% |
| 25 | 4.10% | 3.25% | 7.35% |
| 30 | 3.10% | 3.25% | 6.35% |
| 35 | 2.10% | 3.25% | 5.35% |
| 40 | 1.40% | 3.25% | 4.65% |
| 45 | 0.90% | 3.25% | 4.15% |
| 50 | 0.46% | 3.25% | 3.71% |
| 55 | 0.12% | 3.25% | 3.37% |
| 60 | 0.00% | 3.25% | 3.25% |
| 65 | 0.00% | 3.25% | 3.25% |
| Ref: | 388 | | |

Arkansas Teacher Retirement System

## Table V

## Support Employees
## Separations from Active Employment Before Age and Service Retirement and Individual Pay Increases

| Sample Ages | Service | Percent of Active Members Separating Within the Next Year | | | | | |
|---|---|---|---|---|---|---|---|
| | | Death | | Disability | | Other | |
| | | Men | Women | Men | Women | Men | Women |
| | 0 | | | | | 47.50% | 46.80% |
| | 1 | | | | | 27.30% | 24.90% |
| | 2 | | | | | 18.90% | 17.00% |
| | 3 | | | | | 15.30% | 13.20% |
| | 4 | | | | | 10.80% | 10.40% |
| 25 | 5 & Up | 0.01% | 0.01% | 0.05% | 0.04% | 11.10% | 9.50% |
| 30 | | 0.02% | 0.01% | 0.10% | 0.05% | 9.00% | 7.20% |
| 35 | | 0.03% | 0.02% | 0.10% | 0.05% | 6.90% | 5.40% |
| 40 | | 0.04% | 0.02% | 0.12% | 0.07% | 5.40% | 4.90% |
| 45 | | 0.05% | 0.03% | 0.20% | 0.16% | 4.30% | 4.40% |
| 50 | | 0.07% | 0.05% | 0.55% | 0.34% | 3.90% | 3.60% |
| 55 | | 0.11% | 0.10% | 0.88% | 0.59% | 3.50% | 3.00% |
| 60 | | 0.22% | 0.20% | 0.98% | 0.76% | 2.80% | 2.50% |
| 65 | | 0.43% | 0.38% | 1.00% | 0.80% | 2.30% | 2.00% |
| Ref: | | 472 x 0.48 | 473 x 0.44 | 739 x 1 | 740 x 1 | 720<br>1194 | 721<br>1195 |

| Age | Pay Increase Assumptions for an Individual Member | | |
|---|---|---|---|
| | Merit & Seniority | Base (Economic) | Increase Next Year |
| 20 | 5.85% | 3.25% | 9.10% |
| 25 | 4.97% | 3.25% | 8.22% |
| 30 | 3.93% | 3.25% | 7.18% |
| 35 | 3.33% | 3.25% | 6.58% |
| 40 | 2.65% | 3.25% | 5.90% |
| 45 | 1.29% | 3.25% | 4.54% |
| 50 | 0.35% | 3.25% | 3.60% |
| 55 | 0.00% | 3.25% | 3.25% |
| 60 | 0.00% | 3.25% | 3.25% |
| 65 | 0.00% | 3.25% | 3.25% |
| Ref: | 389 | | |

## Actuarial Gain (Loss) by Risk Area

During the Period July 1, 2013 to June 30, 2014

| Type of Risk Area | Gain(Loss) in Period<br>$ Millions | <br>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. | $100.9 | 0.60% |
| Gross Investment Return. ***If there is greater investment*** return recognition than assumed, there is a gain. If less return recognition, a loss. | 558.6 | 3.34% |
| **NON-ECONOMIC RISK AREAS** | | |
| Retirements. ***If members retire at older*** ages, there is a gain. If younger ages, a loss. | 53.9 | 0.32% |
| Disability Retirements. ***If there are fewer disabilities*** than assumed, there is a gain. If more, a loss. | (0.5) | 0.00% |
| Death-in-Service Benefits. ***If there are fewer*** than assumed, there is a gain. If more, a loss. | (1.8) | (0.01)% |
| Withdrawal. ***If more liabilities are released by other*** separations than assumed, there is a gain. If smaller releases, a loss. | 1.3 | 0.01% |
| Death After Retirement. ***If there are more deaths*** than assumed, there is a gain. If fewer, a loss. | 4.8 | 0.03% |
| **ACTUARIAL GAIN (LOSS) DURING PERIOD** | $717.2 | 4.29% |
| **BEGINNING OF YEAR ACCRUED LIABILITIES** | $16,718.1 | 100.0% |



## Comments

***General Financial Objective***. Section 24-3-103 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, 2014 actuarial valuations, ***ATRS is satisfying the financial objective of level-contribution-percent financing.***

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The amortization period this year is 39 years, a decrease from last year's period of 70 years. The decrease occurred primarily due to investment gains, with the annual market rate of return being 19.17%# compared to an assumed rate of 8.0%. Investment gains and losses that occur each year are smoothed in over a 4-year period. As of June 30, 2014, the market value of assets exceeded the actuarial value of assets by approximately $1.5 billion.

The Arkansas Teacher Retirement System remains stable with a 77.3% funded position as of June 30, 2014. Unless there is an investment loss in Fiscal Year 2015, the amortization period is likely to fall below 30 years in the next valuation. Based on the June 30, 2014, valuation, an employer contribution rate of 14.9% would be needed to return the amortization period to 30 years.

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

## Schedule of Retired Members By Type of Benefit

| Monthly Benefit | No. of Retirees | Type of Retirement* 1 | 2 | 3 | 4 | 5 | Option Selected# Life | Opt. A | Opt. B | Opt. C |
|---|---|---|---|---|---|---|---|---|---|---|
| $1-250 | 4,288 | 3,806 | 103 | 107 | 250 | 22 | 3,545 | 572 | 44 | 127 |
| 251-500 | 4,633 | 3,883 | 91 | 154 | 468 | 37 | 3,821 | 610 | 81 | 121 |
| 501-750 | 3,020 | 2,526 | 61 | 78 | 320 | 35 | 2,430 | 398 | 103 | 89 |
| 751-1,000 | 2,188 | 1,780 | 74 | 49 | 248 | 37 | 1,695 | 320 | 114 | 59 |
| 1,001-1,250 | 1,846 | 1,456 | 61 | 38 | 260 | 31 | 1,405 | 282 | 112 | 47 |
| 1,251-1,500 | 1,673 | 1,340 | 73 | 26 | 200 | 34 | 1,225 | 283 | 125 | 40 |
| 1,501-1,750 | 1,750 | 1,455 | 55 | 35 | 181 | 24 | 1,305 | 284 | 128 | 33 |
| 1,751-2,000 | 1,811 | 1,522 | 50 | 36 | 181 | 22 | 1,304 | 322 | 140 | 45 |
| Over $2,000 | 16,993 | 16,041 | 311 | 131 | 458 | 52 | 12,557 | 2,456 | 1,656 | 324 |
| **Total** | **38,202** | **33,809** | **879** | **654** | **2,566** | **294** | **29,287** | **5,527** | **2,503** | **885** |

** 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.

Arkansas Teacher Retirement System

# Schedule of Average Benefit Payments

| Retirement Effective Dates July 1, 2004 to June 30, 2014 | | Service at Retirement 0-4# | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30+ |
|---|---|---|---|---|---|---|---|---|
| 07/01/04 - 06/30/05 | Average Monthly Benefit | $ 117 | $ 245 | $ 451 | $ 851 | $ 1,413 | $ 2,085 | $ 2,561 |
| | Average Final Salary | $ 21,778 | $ 17,230 | $ 21,509 | $ 31,146 | $ 38,529 | $ 42,106 | $ 39,786 |
| | Number of Active Retirees | 44 | 384 | 239 | 215 | 136 | 562 | 242 |
| 07/01/05 - 06/30/06 | Average Monthly Benefit | $ 178 | $ 249 | $ 486 | $ 796 | $ 1,472 | $ 2,146 | $ 2,860 |
| | Average Final Salary | $ 23,915 | $ 17,531 | $ 24,252 | $ 29,291 | $ 39,726 | $ 43,432 | $ 42,735 |
| | Number of Active Retirees | 44 | 371 | 263 | 207 | 150 | 633 | 290 |
| 07/01/06 - 06/30/07 | Average Monthly Benefit | $ 193 | $ 269 | $ 489 | $ 810 | $ 1,470 | $ 2,168 | $ 2,791 |
| | Average Final Salary | $ 30,693 | $ 19,693 | $ 24,448 | $ 29,479 | $ 40,437 | $ 44,736 | $ 43,192 |
| | Number of Active Retirees | 31 | 447 | 251 | 215 | 157 | 665 | 251 |
| 07/01/07 - 06/30/08 | Average Monthly Benefit | $ 299 | $ 290 | $ 526 | $ 954 | $ 1,440 | $ 2,303 | $ 2,778 |
| | Average Final Salary | $ 25,406 | $ 20,153 | $ 25,808 | $ 36,169 | $ 41,295 | $ 45,077 | $ 42,414 |
| | Number of Active Retirees | 12 | 402 | 187 | 187 | 180 | 518 | 217 |
| 07/01/08 - 06/30/09 | Average Monthly Benefit | $ 162 | $ 248 | $ 532 | $ 902 | $ 1,378 | $ 2,399 | $ 2,949 |
| | Average Final Salary | $ 24,871 | $ 22,873 | $ 26,844 | $ 33,190 | $ 40,876 | $ 47,821 | $ 46,900 |
| | Number of Active Retirees | 47 | 360 | 265 | 235 | 235 | 654 | 245 |
| 07/01/09 - 06/30/10 | Average Monthly Benefit | $ 169 | $ 234 | $ 545 | $ 939 | $ 1,519 | $ 2,473 | $ 3,115 |
| | Average Final Salary | $ 31,970 | $ 21,380 | $ 26,941 | $ 34,607 | $ 44,270 | $ 47,853 | $ 49,724 |
| | Number of Active Retirees | 54 | 415 | 335 | 252 | 249 | 827 | 192 |
| 07/01/10 - 06/30/11 | Average Monthly Benefit | $ 157 | $ 274 | $ 568 | $ 1,019 | $ 1,584 | $ 2,543 | $ 3,031 |
| | Average Final Salary | $ 29,025 | $ 25,410 | $ 28,010 | $ 37,744 | $ 45,054 | $ 49,358 | $ 50,203 |
| | Number of Active Retirees | 47 | 471 | 295 | 246 | 248 | 764 | 135 |
| 07/01/11 - 06/30/12 | Average Monthly Benefit | $ 160 | $ 262 | $ 588 | $ 994 | $ 1,537 | $ 2,529 | $ 3,122 |
| | Average Final Salary | $ 31,339 | $ 24,705 | $ 29,042 | $ 37,456 | $ 44,664 | $ 50,784 | $ 51,737 |
| | Number of Active Retirees | 47 | 558 | 423 | 295 | 350 | 879 | 150 |
| 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 |

*# May include cases where the service was not reported.*
** May not match page 62. Page 62 also includes new retirees with retirement dates prior to July 1, 2013.*

The figures in this chart are figures that are relevant to one specific year of retirement. They have not been updated for certain changes in COLAs that occurred after retirement.

# STATISTICAL



## Schedule of Revenue by Source

| Year Ending June 30, | Employer Contributions: Employer Contributions | Employer Contributions: % of Annual Covered Payroll | Member Contributions | Investment and Miscellaneous Income | Total |
|---|---|---|---|---|---|
| 2005 | 286,442,709 | 14.5% | 86,102,842 | 779,443,553 | 1,151,989,104 |
| 2006 | 311,713,735 | 15.0% | 92,005,600 | 1,173,286,760 | 1,577,006,095 |
| 2007 | 331,891,210 | 14.1% | 100,093,372 | 1,892,393,365 | 2,324,377,947 |
| 2008 | 350,319,504 | 15.4% | 108,872,293 | (477,579,443) | (18,387,646) |
| 2009 | 359,061,671 | 15.5% | 111,654,256 | (1,996,871,185) | (1,526,155,258) |
| 2010 | 389,296,432 | 16.4% | 115,931,733 | 1,291,307,143 | 1,796,535,308 |
| 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 | 2,210,733,616 |
| 2014 | 404,920,441 | 14.2% | 125,225,906 | 2,429,334,098 | 2,959,480,445 |

## Schedule of Expense by Type

| Year Ending June 30, | Benefit Payments | Refunds | Administrative and Other Expenses | Total |
|---|---|---|---|---|
| 2005 | 451,978,547 | 4,413,077 | 6,454,762 | 462,846,386 |
| 2006 | 507,641,961 | 6,207,622 | 5,991,755 | 519,841,338 |
| 2007 | 545,220,337 | 5,179,850 | 5,854,557 | 556,254,744 |
| 2008 | 587,319,942 | 6,462,122 | 6,676,667 | 600,458,731 |
| 2009 | 635,878,958 | 6,409,016 | 6,913,865 | 649,201,839 |
| 2010 | 701,562,784 | 7,156,354 | 7,229,398 | 715,948,536 |
| 2011 | 731,866,100 | 8,906,441 | 7,548,959 | 748,321,500 |
| 2012 | 791,844,923 | 9,225,151 | 7,752,975 | 808,023,049 |
| 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 |



# Schedule of Benefit Expenses by Type

| | For the Year Ending June 30, | | | | |
|---|---|---|---|---|---|
| **Type of Benefit** | **2014** | **2013** | **2012** | **2011** | **2010** |
| Age and Service | $739,571,020 | $683,699,899 | $631,087,685 | $584,859,307 | $543,347,733 |
| Disablility | 34,639,050 | 33,164,746 | 31,316,331 | 30,034,768 | 28,795,197 |
| Option | 21,341,913 | 19,925,200 | 18,501,555 | 16,873,271 | 15,896,678 |
| Survivor | 9,025,326 | 8,699,159 | 8,486,669 | 7,793,789 | 7,433,950 |
| Reciprocity | 38,031,351 | 34,346,675 | 31,166,875 | 27,854,621 | 25,041,796 |
| Active Members Death Benefits | 493,957 | 326,748 | 380,913 | 410,871 | 499,993 |
| T-DROP | 54,408,232 | 59,031,639 | 67,060,580 | 59,949,242 | 76,416,162 |
| Act 808 | 3,249,162 | 3,516,979 | 3,844,317 | 4,090,231 | 4,131,275 |
| Cash and Savings Help Program | 7,271,797 | | | | |
| Cash Balance Disbursements | 6,218,208 | 3,499,902 | | | |
| Total | $914,250,015 | $846,210,947 | $791,844,923 | $731,866,100 | $701,562,784 |

# Schedule of Participating Employers

As of June 30, 2014

Academics Plus Charter School
Alma School District
Alpena School District
AR Association Edu Admin
AR Dept Of Economic Dev
AR Dept Of Education
AR Dept Of Higher Ed
AR Educational TV
AR Northeastern College
AR River Ed Srvs Coop
AR School Boards Ins Trust
AR School For The Blind
AR School For The Deaf
AR State University
AR State University, Beebe
AR State University, Mtn. Home
AR State University, Newport
AR Teacher Ret Sys
AR Tech University
Arch Ford Coop
Ark Correctional School
Ark Easter Seals
Ark Virtual Academy Charter
Arkadelphia School District
Arkansas Activities Association
Armorel School District
Ashdown School District
Atkins School District
Augusta School District
Bald Knob School District
Barton-Lexa School District
Batesville School District
Bauxite School District
Bay School District
Bearden School District
Beebe School District
Benton Co School Of Arts Charter
Benton School District
Bentonville School District
Bergman School District
Berryville School District
Bismarck School District
Black River Technical Col
Blevins School District
Blytheville School District
Booneville School District
Boston Mts Ed Coop
Bradford School District
Brinkley School District
Brookland School District
Bryant School District
Buffalo Island Central
Cabot School District
Caddo Hills School District
Calico Rock School District
Camden-Fairview School District
Carlisle School District
Cave City School District
Cedar Ridge School District
Cedarville School District
Centerpoint School District
Charleston School District
Clarendon School District
Clarksville School District
Cleveland Co School District
Clinton School District
College Of The Ouachitas
Concord School District
Conway School District
Conway Voc Ctr
Corning School District
Cossatot River School District
Cotter School District
County Line School District
Covenant Keepers College Prep Charter
Craighead Co School District Exe Council
Cross Co School District
Crossett School District
Crowleys Ridge Coop
Crowleys Ridge Tech Inst
Cutter Morning Star
Danville School District
Dardanelle School District
Dawson Educational Service Coop
Decatur School District
Deer/Mt. Judea School District
Dept Of Career Education (Rehab Ser)
Dept Of Career Education (Workforce)
De Queen School District
De Queen-Mena Ed Coop
Dermott School District
Des Arc School District
Dewitt School District
DHS – Divison Of Youth Services
Dierks School District
Dollarway School District
Dover School District
Drew Central School District
Dumas School District
Earle School District
East AR Comm College
East End School District
East Poinsett School District
El Dorado School District
Elkins School District
Emerson-Taylor-Bradley School District
England School District
E-Stem Public Charter School
Eureka Springs School District
Exalt Academy Charter
Farmington School District
Fayetteville School District
First Student
Flippin School District
Fordyce School District
Foreman School District
Forrest City School District
Fort Smith School District
Fouke School District
Fountain Lake School District
Genoa Central School District
Gentry School District
Glen Rose School District
Gosnell School District
Gravette School District
Great Rivers Ed Coop
Green Forest School
Greenbrier School District
Greene Co Tech School
Greenland School District
Greenwood School District
Gurdon School District
Guy-Perkins School District
Haas Hall Academy Charter
Hackett School District
Hamburg School District
Hampton School District
Harmony Grove School – Benton
Harmony Grove School – Camden
Harrisburg School District
Harrison School District
Hartford School District
Hazen School District
Heber Springs School District
Hector School District
Helena-West Helena School District
Henderson State University
Hermitage School District
Highland School District
Hillcrest School District
Hope School District
Horatio School District
Hot Springs School District
Hoxie School District
Hughes School District
Huntsville School District
Imboden Area Charter School
Izard Co Cons School
Jackson County School District
Jacksonville Lighthouse Charter
Jasper School District
Jessieville School District
Jonesboro School District
Jonesboro Voc Ctr
Junction City School District
Kipp Delta College Prep Charter
Kirby School District
Lafayette Co School District
Lake Hamilton School District
Lakeside School District – Hot Springs

## Schedule of Participating Employers (continued)

As of June 30, 2014

Lakeside School District – Lake Village
Lamar School District
Lavaca School District
Lawrence Co School District
Lead Hill School District
Lee County School District
Lincoln School District
Lisa Academy Charter
Lisa Academy – North Little Rock Charter
Little Rock Prep 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 School District
Mansfield School District
Marion School District
Marked Tree School District
Marmaduke School District
Marvell School District
Mayflower School District
Maynard School District
McCrory School District
McGehee School District
Melbourne School District
Mena School District
Metropolitan Voc Ctr
Midland School District
Mid-So Comm Col
Mineral Springs
Monticello School District
Monticello Voc Ctr
Mount Ida School District
Mountain Home School District
Mountain Pine School District
Mountain View School District
Mountainburg School District
Mt Vernon-Enola School District
Mulberry School District
Nashville School District
Natl Park Comm College
Nemo Vista School District
Nettleton School District
Nevada School District
Newport School District
Norfork School District
Norphlet School District
North Arkansas College
North Central Career Center
North Central Educational Coop
North Little Rock School District
Northeast AR Educational Coop
Northwest AR Comm College
Northwest AR Ed Svc Coop
Northwest Tech Inst
NW AR Clasical Academy
Omaha School District
Osceola School District
Ouachita River School District
Ouachita School District
Ozark Mountain School District
Ozark School District
Ozark Unlimited Res Coop
Ozarka College
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 Com Col-DeWitt
Phillips Comm Col-UA
Piggott School District
Pine Bluff Lighthouse Charter
Pine Bluff School District
Pocahontas School District
Pottsville School District
Poyen School District
Prairie Grove School
Premier HS of Little Rock
Prescott School District
Pulaski Co School District
Pulaski Technical Col
Quest Middle School – Pine Bluff
Quitman School District
Rector School District
Rich Mtn Comm College
River Valley Tech (Voc) Center
Riverside School District
Riverside Vo-Tech School
Riverview School District
Rogers School District
Rose Bud School District
Russellville School District
Salem School District
Scranton School District
Searcy County School District
Searcy School District
Sheridan School District
Shirley School District
SIATech Little Rock
Siloam Springs School District
Sloan-Hendrix School District
Smackover School District
So AR Developmental Ctr
So AR University – East Camden
So AR University –Magnolia
South AR Comm College
South Central Svc Coop
South Conway Co School District
South Mississippi Co School District
South Pike County School District
Southeast Ark Ed Coop
Southeast Ark Tech Col
Southside School District – Batesville
Southside School District – Bee Branch
Southwest Ark Ed Coop
Spring Hill School District
Springdale School District
Star City School District
Stephens School District
Strong School District
Stuttgart School District
Texarkana School District
Texarkana Voc Ctr
Trumann School District
Two Rivers School District
U Of AR Com Col – Batesville
U Of AR Com Col – Hope
U Of AR Com Col – Morrilton
U Of AR Cooperative Extension
U Of AR Cossatot Com Col
U Of AR Medical Sciences
U Of AR School Math, Science
U Of AR – Fayetteville
U Of AR – Fort Smith
U Of AR – Little Rock
U Of AR – Monticello
U Of AR – Pine Bluff
University Of Central AR
Valley Springs School District
Valley View School District
Van Buren School District
Vilonia School District
Viola School District
Waldron School District
Warren School District
Warren Voc Ctr
Watson Chapel School District
West Fork School District
West Memphis School District
West Side School District – Greers Ferry
Western AR Educational Coop
Western Yell Co School District
Westside School District – Hartman
Westside School District – Jonesboro
White Co Central School District
White Hall School District
Wilbur D Mills Ed Svs
Wonderview School District
Woodlawn School District
Wynne School District
Yellville-Summit School District