

# **ARKANSAS TEACHER RETIREMENT SYSTEM**

**December 2, 2019**

1400 West Third Street

**BOARD ROOM**

Little Rock, AR 72201

## **Board of Trustees Meeting**

**12:30 p.m.**

### **Trustees**

Danny Knight, Chair

Dr. Richard Abernathy, Vice Chair

Anita Bell

Lloyd Black

Kathy Clayton

Kelly Davis

Shawn Higginbotham

Bobby G. Lester

Chip Martin

Robin Nichols

Janet Watson

### **Ex Officio Trustees**

Candace A. Franks, State Bank Commissioner

Johnny Key, Education Commissioner

Honorable Andrea Lea, State Auditor

Honorable Dennis Milligan, State Treasurer

**AGENDA**  
**ARKANSAS TEACHER RETIREMENT SYSTEM**  
**BOARD OF TRUSTEES**

**December 2, 2019**  
**12:30 p.m.**  
**1400 West Third Street**  
**Little Rock, AR 72201**

- I. **\*Call to Order/Roll Call.** page 1.
- II. **\*Motion for Excused Absences.**
- III. **\*Adoption of Agenda.** page 2.
- IV. Executive Summary. (Attachment No. 1) page 7.
- V. **\*Approval of Prior Meeting Minutes.**
  - A. **\*October 7, 2019 Minutes.** (Attachment No. 2) page 24.
  - B. **\*June 3, 2019 Minutes - Scriverner's error.** (Attachment No. 3) page 39.
  - C. **\*September 11, 2019 - Scriverner's error.** (Attachment No. 4) page 53.
- VI. Authority to Transact Business.
  - A. **\*Resolution 2019-45.** (Attachment No. 5) page 57.
- VII. Preliminary Active Actuarial Valuation. *Judy Kermans and Brian Murphy of Gabriel, Roeder, Smith and Company* (Attachment No. 6) page 58.
- VIII. Statement of Financial Interest. (Attachment No. 7) page 104.
- IX. **\*Proposed 2020 Board of Trustees Schedule.** (Attachment No. 8) page 122.
- X. Report of Member Interest Waived Under A.C.A. Sec. 24-7-205. No Member interest waived this reporting period.

\* Action Item

2019-11-25 14:39:48.406746

- XI. Report of Employer Interest and Penalties Waived Under A.C.A. Sec. 24-7-411. One (1) Employer penalties and interest was waived this reporting period in the amount of \$168.96. (Attachment No. 9) page 123.
- XII. Manifest Injustice Report. (Attachment No. 10) page 124.
- XIII. **\*Manifest Injustice For Board Approval.**
- A. **\*In Re: MI-2018-006.**
1. **\*Question as to whether a Manifest Injustice exists.**
  2. **\*Question as to waiving the look-back period.**
  3. **\*Question as to billing LRSD for employer contributions.**
  4. **\*Question as to billing LRSD interest from FY 2015 to FY 2020.**
  5. **\*Question as to billing LRSD interest from FY 1997 to FY 2014.**
  6. **\*Question as to future interest.**
- XIV. **\*Member Appeal.** *Martha Miller, General Counsel, and Kevin Odum, Attorney Specialist*
- A. **\*In Re: Benny Tunstall MA-2019-001.** (Attachment No. 11) page 125.
- XV. Audit Committee Report. *Kelly Davis, Audit Committee Chair*
- A. Internal Audit Follow-up Report: Implementation of Legislation Enacted by the 91st General Assembly for the Period December 24, 2017 - April 30, 2019. (Attachment No. 12) page 133.
- B. Internal Audit Report: Board Resolutions Effective July 1, 2018/July 1, 2019. (Attachment No. 13) page 135.
- C. Internal Audit Department Updates.
1. Arkansas Continuity of Operations Program (ACOOOP) Plan Review Scores. (Attachment No. 14) page 143.
  2. Changes in Internal Audit Staff.
- XVI. Investment Committee Report. *Robin Nichols, Investment Committee Chair*
- A. Arkansas Related and Investment Update.
1. List of Fund Closings.
    - a. KPS Special Situations Fund V, L.P., a Private Equity Turnaround Fund that will Invest in Large Manufacturing Companies with Solvable Operating and Financial Difficulties, the Board Authorized Commitment of up to \$30 Million Dollars on September 11, 2019 was Accepted and Closed on October 15, 2019.

\* Action Item



2. **\*Recommendation to Commit up to \$30 Million Dollars in Franklin Park Venture Fund XIII, L.P., (formerly Franklin Park Venture Fund Series 2019) a Fund of Funds Managed by Franklin Park Investing in Venture Capital Private Equity Funds.** (Attachment No. 21) page 250.
  - a. **\*Resolution 2019-43.** (Attachment No. 22) page 259.
3. **\*Recommendation to Commit up to \$30 Million Dollars in Franklin Park International Fund X, L.P. (formerly Franklin Park International Fund 2019), a Fund of Funds Managed by Franklin Park Investing in International Private Equity Funds.** (Attachment No. 23) page 260.
  - a. **\*Resolution 2019-44.** (Attachment No. 24) page 266.
4. **\*ATRS/FP Private Equity Fund, L. P., a Multi-Strategy Fund Focused on Co-Investments and Other Strategies That Will Use Accumulated Recallable Distributions to Fund New Investments in the Near Term.** (Attachment No. 25) page 267.
5. **\*Recommendation to Commit up to \$20 Million Dollars in Thoma Bravo Explorer Fund, L.P., a Private Equity Buyout Fund Focused on U.S. Investments in Small and Lower Middle Market Software Companies, with Imminent Need.** (Attachment No. 26) page 271.
  - a. **\*Resolution 2019-47.** (Attachment No. 27) page 276.

XVII. Operations Committee Report. *Bobby Lester, Operations Committee Chair*

- A. Open Forum for Potential Rule or Law Changes by Committee Members and Board Members Present.
  1. Open Forum.
- B. Update on Current Rule Promulgation.

XVIII. **\*Staff Reports.**

- A. **\*Medical Committee Report. A total of 13 Disability Retirement Applications were Approved.** *Willie Kincade, Director of Operations* (Attachment No. 28) page 278.
- B. Financial Reports. *Curtis Carter, Chief Fiscal Officer*
  1. Financial Statement Report. (Attachment No. 29) page 280.
  2. Travel Report. (Attachment No. 30) page 281.
- C. **\*Contracts.** *Rod Graves, Deputy Director*
  1. Regular Contracts.
  2. **\*Security Monitoring Contracts.** (Attachment No. 31) page 290.

- D. Personnel Report. *Vicky Fowler, Human Resources Director* (Attachment No. 32) page 291.

XIX. Other Business.

- A. Recognition of the Retirement of G. Wayne Greathouse.

- 1. **\*Resolution 2019-46.** (Attachment No. 33) page 292.

XX. **\*Adjourn.**

## EXECUTIVE SUMMARY

TO: Board of Trustees  
FROM: ATRS Staff  
RE: Executive Summary  
DATE: December 2, 2019

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- V. **Authority to Transact Business.** This is an updated Resolution removing the former Assoc. Director of Investments. This is the only change that is made to this existing Resolution. **This is an action item.**
- VI. **Preliminary Active Actuarial Valuation.** This is a standard part of the ATRS Board agenda toward the end of each calendar year. The actuarial valuation for the 2018-2019 fiscal year and the figures cited below are still preliminary, but near completion.
- VII. **Statement of Financial Interest.** This is the reminder that ATRS Trustees must file a Statement of Financial Interest (SFI) by the end of January 2020, for their financial information for calendar year 2019. Included with the portal information are the instructions for completing the SFI, and a blank SFI for your use. Since the SFI may be completed on-line at the Secretary of State's website after creating a user name at the login screen: <https://www.ark.org/sos>, many Trustees prefer to complete the on-line version of the SFI. ATRS staff will assist in any way possible to help you file this information. ATRS staff will also follow-up from time to time with any Trustee who has not filed their Statement of Financial Interest in the latter half of January 2020.
- VIII. **Proposed 2020 Board of Trustee Schedule.** ATRS staff has attached a proposed meeting schedule for 2019. It is subject to changes requested by the Board, and will be posted on the ATRS and State of Arkansas websites when finalized. It follows much the same pattern as in prior years, with Monday meetings to accommodate Trustees who have to travel a long distance to Little Rock. Consideration was given to the NCTR conference, which be held. **This is an action item.**
- IX. **Report of Member Interest Amount Waived Under A.C.A. Sec. 24-7-205.** ATRS waives interest for members when there is a dispute between ATRS and the member as to whether ATRS made a mistake or otherwise did not do all that was required on the member's account. Since ATRS has implemented the actuarial cost method for the purchase of service credit, interest waived is slowly disappearing, as well as the number of members who purchase service credit. No member interest was waived for this reporting period. This is a standard report for information and is not an action item.

**X. Report of Employer Interest and Penalties Waived Under A.C.A. Sec. 24-7-411.** ATRS may also waive employer interest and penalties when reports or payments are late or have issues due to a new bookkeeper, inclement weather, sickness and other situations that justify a waiver. One (1) employer interest and penalties was waived for this reporting period in the amount of \$168.96. This is a standard report for information and is not an action item.

**XI. Manifest Injustice Report.** No Manifest Injustice resolutions have occurred since the previous Manifest Injustice Report. The rule on Manifest Injustice requires reports on Manifest Injustice resolutions to the Board at least two times per year. This is the second report of 2019. This Manifest Injustice report is for information and is not an action item.

**XII. Manifest Injustice for Board Approval.**

**A. In Re: MI-2018-006.** This Manifest Injustice claim involves a member that has been an employee of the Little Rock School District (LRSD) since 1991. For six (6) years, from fiscal year 1995 to fiscal year 2000, the LRSD failed to report the member's employment and did not pay the employer contributions for the noncontributory service. As a result, the member's record is missing six (6) years of noncontributory service. The LRSD has certified the member's salary and service for the years from 1995 to 2000. The manifest injustice committee met and found that a manifest injustice has occurred. A.C.A. 24-7-205(d) allows ATRS to correct an error in a member's record beyond the look-back period in the event of a manifest injustice. However, to correct the member's record, the employer contributions in the amount of \$19,437.47 must be paid to ATRS. A.C.A. 24-7-411(a) requires ATRS to impose an interest penalty that ranges from 6% to 8% for the years in question. A large amount of interest (\$61,928.53) has been assessed as a result of the 25 years that has passed since the initial unreported service. A.C.A. 24-7-411(c) allows the Board to waive interest if the employer delinquency was not the result of intentional nondisclosure, fraud or misrepresentation and that under the circumstances the payment would be unduly penal, or burdensome. Under ATRS Rule 7, the executive director only has authority to waive up to \$1,000 of employer interest per fiscal year. The member contacted the LRSD in June of 2015 to start the process of getting credit for the missing six (6) years of noncontributory service.

This matter is before the Board since the financial impact to ATRS is more than \$10,000. The Board could agree that a manifest injustice does exist and award a modified remedy, or the Board could find a manifest injustice does not exist and award no remedy at all.

**1. Question as to whether a Manifest Injustice exists.**

The executive staff recommendation is that a manifest injustice be found since the member's noncontributory service certified by the LRSD has not been credited by ATRS. **This is an action item.**

**2. Question as to waiving the look-back period.**

The executive staff further recommends the Board waive ATRS rules and laws under A.C.A. 24-7-205(e), including the look-back period, such that the member's service history shall be corrected to include the missing six (6) years of noncontributory service. **This is an action item.**

**3. Question as to billing LRSD for employer contributions.**

The executive staff further recommends that the LRSD be billed by ATRS for amount of \$19,437.47 for the employer contributions from FY 1996 to FY 2000. **This is an action item.**

**4. Question as to billing LRSD interest from FY 2015 to FY 2020.**

The executive staff further recommends that the interest accrued from FY 2015 to FY 2020 in the amount of \$25,989.67 be waived since the efforts to resolve this matter began before the end of FY 2015. **This is an action item.**

**5. Question as to billing LRSD interest from FY 1997 to FY 2014.**

The executive staff further recommends that the interest accrued from FY 1996 to FY 2014 in the amount of \$35,938.86 be at least partially waived. One consideration is to waive \$1,000 per fiscal year (\$19,000), leaving a remaining interest amount of \$16,938.86. **This is an action item.**

**6. Question as to future interest.**

The executive staff further recommends that ATRS bill the LRSD for payment of the unreported employer contributions plus the Board assessed interest with future interest to be assessed if the balance is not paid in full by June 30, 2020. **This is an action item.**

**XIII. Member Appeal**

- A. In Re: Benny Tunstall, MA-2019-001.** This appeal is before the Board of Trustees for consideration. Under Rule 13, the Board has the final authority to accept the Proposed Order, reject the Proposed Order, or accept the Proposed Order as modified by the Board. In addition to the Board making its own findings of fact and conclusions of law, if the Board

rejects the Proposed Order in whole or in part, they may remand the matter back to the Hearing Officer for reconsideration.

Benny Tunstall became a member of ATRS in 1991. Mr. Tunstall currently has 5.25 years of credited service, all contributory. Mr. Tunstall was last employed by an ATRS covered employer, Hillcrest School District, as a teacher beginning August 1, 2016, and ending effective June 30, 2017. On September 2, 2016, Mr. Tunstall filed an application for Social Security Disability benefits, which was approved by the Social Security Administration. On November 1, 2018, ATRS sent Mr. Tunstall a letter notifying him that he was eligible to apply for a full refund of his contributions and interest through the Cash Savings and Help (CASH) program. On November 27, 2018, Mr. Tunstall contacted ATRS by phone to inquire about filing an application for ATRS disability retirement. ATRS staff informed Mr. Tunstall, to be eligible to file an application for disability benefits, he must be an active member. On November 28, 2018, a Staff Determination Letter was issued stating that Benny Tunstall was not eligible to apply for disability retirement benefits at that time because he was not an active member as required by A.C.A. §24-7-704(a)(1)(A). On February 21, 2019, an Executive Director Review was issued which upheld the Staff Determination that Mr. Tunstall's time within which to file an application for disability retirement had expired at the time Mr. Tunstall inquired about filing an application. After filing a manifest injustice claim, on April 25, 2019, ATRS notified Mr. Tunstall that the Manifest Injustice Committee did not find that a manifest injustice existed in his case and advised that he could resume his administrative appeal of the Executive Director Review. On July 9, 2019, Mr. Tunstall notified ATRS that he wanted the administrative appeal to proceed.

Mr. Tunstall argued on appeal that he was unaware of the time to file; that no written notice was provided to him by the district or ATRS relating to the time of filing; that he would be granted disability based on his circumstances if filing occurred according to the Acts of ATRS; and a rational clear thinking individual would have filed for disability if that same individual was able to function normally, and not dealing with the immense pain, financial burdens, and a botched medical procedure.

The Administrative Hearing Officer found that, although it is apparent that Mr. Tunstall has serious medical conditions, ATRS has no legal authority to waive the statutorily imposed deadline set out in A.C.A. § 24-7-704.

Regarding his first point, as Mr. Tunstall has acknowledged, the reason an ATRS application was not filed before his active status ended was because he thought he had to be approved by Social Security first, not because his disability prevented him from doing so. The Hearing Officer

found there is no information in his record to indicate that Mr. Tunstall inquired about the deadline to file for ATRS disability before November 27, 2018. Mr. Tunstall also has stated that it was receipt of the CASH letter in November, 2018, that prompted him to inquire about disability. Regardless of the reason for not filing within the time allowed, the Hearing Officer determined that ATRS staff has no authority to waive the statutory deadline.

Mr. Tunstall's second point implies that ATRS or the Hillcrest School District had an obligation to notify him of the timeframe for filing a claim for ATRS disability. The Hearing Officer ruled that such a legal obligation does not exist. Further, ATRS had no way of knowing that Mr. Tunstall might be eligible for disability.

Mr. Tunstall's third point is that he is indeed disabled and would have been found to be eligible for the benefit had he filed while he was an active member. Perhaps he would have been awarded ATRS disability retirement benefits had he submitted an application within the time allowed by law. But he did not. The Hearing Officer stated that to follow this proposition would render the requirement that a member must be active to be eligible meaningless.

Mr. Tunstall's argues that his medical condition prevented him from pursuing an application for ATRS disability benefits. Mr. Tunstall successfully pursued his Social Security Disability claim during the same period of time he was eligible to file an application for ATRS disability benefits, and presumably could have pursued ATRS disability at the same time. According to his correspondence, it was receipt of the CASH letter that prompted him to investigate the possibility of pursuing ATRS disability retirement, not a lack of capacity.

The Hearing Officer explained ACA§ 24-7-704(a)(1)(C)(ii) is a statute of limitation for filing a claim for ATRS disability benefits. A statute of limitations is a time frame set by legislation where affected parties must take action to enforce rights. See Black's Law Dictionary, 2<sup>nd</sup> Edition. Benny R. Tunstall's claim for benefits is barred by this legislative action because he was not an active member when his claim was initiated.

Benny R. Tunstall's reliance on ACA § 24-7-704-(b) (3) (A) et. seq. is misplaced since he does not meet the qualifying threshold of being an "active" member at the time he initiated the claim. ACA § 24-7-704-(b) (3) (A) states: "A member or retirant may continue to receive a disability retirement benefit under this section when the member or retirant provides the system with a Social Security Administration determination letter finding the member or retirant is disabled within thirty-six (36) months

from: ... (ii) The effective date of disability retirement when the member's or retirant's disability retirement effective date is on or after July 1, 2015." While Mr. Tunstall has been determined disabled by the Social Security Administration, he did not initiate his application for disability with ATRS while he was an active member.

In summary, the Hearing Officer concluded ATRS has no duty to ensure that members are aware of all aspects of ATRS law. Furthermore, there is no legal authority which would allow ATRS to waive this deadline, nor does Mr. Tunstall cite to any legal authority in support of this argument.

The Administrative Hearing Officer recommends that Mr. Tunstall's appeal be denied. ATRS staff agrees with the AHO's recommendation. **This is an action item.**

**XIV. Audit Committee Report. *Kelly Davis, Chair***

- A. **Internal Audit Follow-up Report: Implementation of Legislation Enacted by the 91st General Assembly for the Period December 24, 2017 – April 30, 2019.** The original audit presented December 4, 2017, did not have any findings for legislation implemented prior to December 4, 2017. The Follow-up Audit was to verify the proper implementation of legislation enacted by the 91st General Assembly that had an effective date subsequent to our original audit.
- B. **Internal Audit Report: Board Resolutions Effective July 1, 2018 through July 1, 2019.** The Follow-up Report and the Audit Report are included in their entirety in Audit Committee materials for December 2, 2019. The reports will be addressed individually by an Internal Audit staff member.
- C. **Internal Audit Department Updates.**
  - 1. Arkansas Continuity of Operations Program (ACOO) Plan Review Scores. The Arkansas Continuity of Operations Program (ACOO) is administered by the Department of Information Systems. As a part of ACOOP, each agency is required to develop and maintain a Disaster Recovery Plan to ensure that essential services will continue to be provided after any disruptive event. ACOOP uses a software tool that facilitates the maintenance of standards and consistency of the plans of the various state agencies. The Internal Audit Department is responsible for entering ATRS information into the software tool on a continual basis.

ACOOOP conducted a review of our plan on May 7, 2019. The evaluation is based on criteria and a rating chart from FEMA. ATRS' scores are shown below:

Arkansas Continuity of Operations Program Plan Review.

<b>Scores:</b>		<b>Totals</b>
ACOOOP Plan	98%	42/43
Arkansas Division of Legislative Audit	100%	17/17

2. **Change in Internal Audit Staff.** Mitzi Ferguson retired June 13, 2019; she was in an extra help position. Internal Audit will assess the needs of the Department and will work with Human Resources to find a full-time position that meets our needs.

**XV. Investment Committee Report. Robin Nichols, Chair.**

**A. Arkansas Related and Investment Update.**

**1. List of Fund Closings.**

- a. **KPS Special Situations Fund V, L.P., a Private Equity Turnaround Fund that will Invest in Large Manufacturing Companies with Solvable Operating and Financial Difficulties, the Board Authorized Commitment of up to \$30 Million Dollars on September 11, 2019 was Accepted and Closed on October 15, 2019.** The ATRS full commitment of \$30 million dollars was negotiated, accepted, and closed on October 15, 2019.
- b. **KPS Special Situations Mid-Cap Fund, L.P., a Private Equity Turnaround Fund that will Invest in Middle Market Manufacturing Companies with Solvable Operating and Financial Difficulties, the Board Authorized Commitment of up to \$30 Million Dollars on September 11, 2019 was Accepted and Closed for \$20 Million dollars on October 15, 2019.** Due to very high demand for this fund, ATRS received an allocation of \$20 million dollars that was negotiated, accepted, and closed on October 15, 2019.

2. **Investment Manager Guideline Update.** ATRS has established guidelines for some accounts managed by third party investment managers. These guidelines include information about the investment manager's strategy, benchmark, and type of securities

the investment manager is allowed to trade on behalf of ATRS. The guidelines also include types of investments that the investment manager is not allowed to trade for ATRS. ATRS has monitored direct trading in Indian currency for a period of time and noted very limited trading activity in Indian currency. There are some administrative costs and additional accounting functions associated with ATRS trades in Indian currency and staff believes these costs could be eliminated by restricting trades in Indian currency. Global investment manager guidelines do not specifically restrict trading in Indian currency.

ATRS staff and Aon Hewitt Investment Consulting have been working with global account managers to make the adjustments to the guidelines for global separate accounts to prohibit direct trades in Indian currency. ATRS investment managers may continue to invest in Indian companies as long as the investment is U.S. dollar denominated. The restriction simplifies accounting for investments in India and reduces administrative costs associated with direct trades in Indian currency. The guideline change only applies to separate account managers and does not change ATRS investments in commingled funds or partnerships.

The guideline changes are being finalized and are not complete. Since this is an adjustment to the guidelines for these managers versus a reassignment of duties, this is a change implemented by ATRS staff in consultation with the investment consultant. However, since this is happening about the time of the Investment Committee and Board meetings, this is on the agenda for notice and informational purposes.

**B. General Investment Consultant Report.**

- 1. Preliminary Performance Report for the Month Ending October 31, 2019.** PJ Kelly and Tim Pflugradt of Aon Hewitt Investment Consulting will provide the Board with a preliminary portfolio update for the month ending October 31, 2019.

**C. Real Assets Investment Consultant Report.**

- 1. Performance Report for the Quarter Ending June 30, 2019.** Chae Hong of Aon Hewitt Investment Consulting will provide the Board with a portfolio update for the quarter ending June 30, 2019.

- 2 2020 Real Assets Commitment Pacing (Total Pacing \$330 Million Dollars).** Chae Hong of Aon Hewitt Investment Consulting will present the 2019 Real Assets Commitment Pacing. For calendar year 2019, Aon Hewitt Investment Consulting and ATRS staff are recommending approximately **\$330 million dollars for 2020 real assets pacing.**
  - a. Core Real Estate No New Allocation.** Core real estate funds employ low leverage, low-risk investment strategies that have predictable cash flows. The funds will generally invest in stable, fully leased, modern, multi-tenant properties within strong, diversified metropolitan areas. The ATRS real asset portfolio is within the upper range of the fund's target allocation to this type of real estate investment so no new allocation for core real estate is needed at this time.
  - b. Value Added Real Estate \$180 Million Dollars.** These are funds that invest in properties and make improvements to fairly stable properties but are one step below the core funds in quality. These have slightly more risk but have a better return opportunity.
  - c. Opportunistic Real Estate \$100 Million Dollars.** These are funds that seek to take advantage of distressed opportunities and are higher in the risk profile but with strong managers, Opportunistic Real Estate provides the best return opportunity in real estate.
  - d. Infrastructure \$50 Million Dollars.** Infrastructure funds invest in the fundamental facilities and systems serving a country, city, or area including the services and facilities necessary for its economy to function. Infrastructure funds typically invest in structures such as roads, bridges, tunnels, water systems, sewers systems, electric grids, ports and so forth.
- 3. Recommendation to Commit up to \$50 Million Dollars In Long Wharf Real Estate Partners Fund VI, L.P., a Value Added Real Estate Fund Focused on Acquiring a Diversified Portfolio of Assets at Significant Discounts to Values.** Long Wharf Real Estate Partners VI is a closed-end, value added fund focused on domestic real estate investing. The strategy will be to pursue a diversified portfolio of properties with a focus on acquiring assets at significant discounts to peak values with positive fundamental

trends that offer the opportunity to increase returns through the execution of a value added strategy. The fund will target a 12-15% net IRR. Based in Boston, Long Wharf was originally an arm of the investment giant Fidelity before it spun out as an employee owned entity. Long Wharf's previous 5 funds have averaged an 8.5% net IRR. If approved, this will be the third ATRS investment in the Long Wharf series of funds. The first ATRS Long Wharf investment in Fund III has returned an IRR of 7.4% despite its two year pre-financial crisis inception date. The second ATRS Long Wharf investment in Fund V has a projected 13% IRR.

Since the firm is majority Hispanic owned it is a certified MWBE (Minority and Women Business) Manager.

Both ATRS staff and Aon Hewitt Investment Consulting recommend an investment of up to \$50 million dollars in Long Wharf Real Estate Partners Fund VI, L.P.

#### **D. Private Equity Consultant Report.**

- 1. 2020 Private Equity Pacing Schedule (Total Pacing \$300 Million Dollars).** Michael Bacine and Karl Hartmann of Franklin Park will provide the 2020 pacing schedule for private equity. Typically, ATRS has been pacing up to 2% of its underlying value for private equity for the next calendar year. Based upon assumptions of the projected market value of total assets for the next ten years, Franklin Park and ATRS staff recommend private equity pacing of \$300 million dollars for 2020 in order to maintain a 12% allocation to private equity. The total pacing amount includes a \$30 million dollar allocation to the Franklin Park Venture Capital Fund XIII (formerly the "Franklin Park Venture Fund Series 2019"), and a \$30 million dollar allocation to the Franklin Park International Fund X ("formerly the "Franklin Park International Fund 2019". No new allocation is needed for the ATRS/FP Private Equity Fund (formerly the "Franklin Park Co-Investment Fund") due to the large amount of recallable distributions that have accumulated and can be used for new investments. The ATRS/FP Private Equity Fund will target to invest \$30 million dollars in approximately five or six co-investment deals and possibly one or more next-generation manager funds or other Board approved strategies using recallable distributions. Franklin Park also expects to commit \$210 million dollars in approximately seven funds with buyout, growth, equity, or turnaround strategies. An additional \$30 million dollars will be targeted to invest in a debt/distressed asset fund as well. These targets are subject to availability of quality investments and

prevailing market conditions. Actual amounts may vary as pacing is subject to change over the year according to available investment opportunities.

- a. **Seven Small or Mid Buyout/Growth/Turnaround \$30 Million Dollars Each.** Buyout refers to funds that seek to acquire controlling interests in companies. Growth funds seek a minority interest in successful companies that need additional capital to expand. Turnaround funds invest in troubled or bankrupt companies that require special expertise to become profitable. This is an allocation for seven of these funds at a \$30 million dollar level each for a total of \$210 million dollars.
  - b. **Debt/Distressed Assets \$30 Million Dollars.** These funds lend money at higher interest rates to companies with liquidity needs. These managers also purchase the debt obligations of a company at or below actual value using specialized skills. The purpose of the purchase of debt can be to make interest, get the value from the discount price of the debt, or to obtain the company's equity after a default on the debt. This is an allocation for one of these funds at a \$30 million dollar level.
  - c. **Franklin Park Venture Fund XIII (formerly the Franklin Park Venture Fund Series 2019) \$30 Million Dollars.** This allocation is explained below in item B.
  - d. **Franklin Park International Fund X (formerly Franklin Park International Fund 2019) \$30 Million Dollars.** This item is explained below in item C.
  - e. **ATRS/FP Private Equity Fund (Co-Investment Fund) No New Allocation.** This item is explained below in item D.
2. **Recommendation to Commit up to \$30 Million Dollars in Franklin Park Venture Fund XIII, L.P., (formerly Franklin Park Venture Fund Series 2019) a Fund of Funds Managed by Franklin Park Investing in Venture Capital Private Equity Funds.** Since 2008, ATRS has invested in the traditional annual Franklin Park Venture Fund Series. To provide more flexibility to invest in high quality venture funds when they come to market, Franklin Park is now offering a two-year closed-end venture fund. This new fund will be known as the Franklin Park Venture Capital Fund XIII since it is the firm's thirteenth such fund. It will work in

much the same way as their previous venture funds except that some new limited partners within the fund of funds will pay management fees and carried interest. As in prior versions of this fund, Franklin Park does not charge any fees or carried interest to ATRS on the investment and only recovers its legal and accounting costs to ensure that the fund is set up properly and that appropriate accounting and auditing are performed. As a reminder, Franklin Park acts as the manager of a fund of funds in the venture space since venture is a very volatile segment of private equity. In order to offset some of that risk, Franklin Park acquires an interest in several venture funds and spreads those through its investors to create greater diversity of managers and styles. This is a big win for ATRS due to the availability of a fund of funds without the fee on fee cost that a fund of funds typically requires. Both ATRS staff and Franklin Park recommend that ATRS commit approximately ten percent of the pacing amount, or up to \$30 million dollars, in Franklin Park Venture Capital Fund XIII.

- 3. Recommendation to Commit up to \$30 Million Dollars in Franklin Park International Fund X, L.P. (formerly Franklin Park International Fund 2019), a Fund of Funds Managed by Franklin Park Investing in International Private Equity Funds.** The International Fund has a similar model as the venture fund, except it is a vehicle in which ATRS can obtain exposure to international private equity. The new name reflects that this is the firm's tenth annual international fund. Franklin Park created a fund of funds vehicle to invest in several private equity funds that invest internationally. The fund of funds is used to diversify and reduce risk for ATRS and the other clients of Franklin Park. Again, Franklin Park charges no fee to ATRS and only recovers the cost for legal and accounting fees required to properly operate the fund. This provides ATRS with diverse international private equity opportunities that otherwise would be difficult to obtain. ATRS staff and Franklin Park recommend an ATRS commitment to the Franklin Park International Fund X of up to \$30 million dollars for 2020.
- 4. ATRS/FP Private Equity Fund, L. P., a Multi-Strategy Fund Focused on Co-Investments and Other Strategies That Will Use Accumulated Recallable Distributions to Fund New Investments in the Near Term.** Recallable distributions in this fund have accumulated to more than \$60 million dollars. In recent years, the Board has typically authorized a new investment of up to \$30 million dollars in this fund. Due to the sizable amount of available recallable distributions, no new allocation is needed at this

time. Recallable distributions may only be used by the fund for new investments with the consent of ATRS. ATRS consent for recallable distributions for this fund and other ATRS investments that use the ATRS recallable distribution process is normally obtained by ATRS staff receiving proper notice from the ATRS Board Chair. The consent is normally requested on an as needed basis as investment opportunities for the recallable distributions become available.

A co-investment occurs when ATRS invests directly in a private company alongside a private equity manager. The benefit of private equity co-investment for ATRS is that Franklin Park as the fund manager does not charge management fees or any incentive fees that are also called "carried interest" or "carry". Therefore, the potential for return on co-investments is much greater since no fees are netted from the investment.

The Board approved expanding the strategy of the ATRS/FP Private Equity Fund to include "next generation" fund managers in 2015. A large number of private equity opportunities arise from smaller funds run by managers who are raising their first institutional fund. Additionally, some funds have never included public pension plans and this fund vehicle is better suited to encourage a fund to first allow public pension fund commitments. Often, these funds are formed by skilled and experienced teams that have spun out of large, prosperous firms and have the attributes to be successful on their own and were successful in their original firms. The returns produced by some of these "next generation managers" in their first or their early funds are exceptional. Although the ATRS/FP Private Equity Fund will still retain the ability to invest in these typically smaller but highly successful managers, ATRS will also have opportunities in this space through the Franklin Park Corporate Finance Access Fund which was approved by the Board at the June 2019 meeting.

In some cases the expanded fund strategy would be used to invest in a fund that has a longer track record but is in high demand. These funds often look to investors that have been in their prior funds first when seeking investments for their next fund. The usual ATRS commitment to private equity funds is between \$25 and \$35 million dollars and sometimes these highly sought after funds can only offer ATRS a smaller commitment size due to their prior investors committing most of the capital needed by the fund. The expanded fund strategy allows ATRS investment opportunities in

these funds and other niche strategies managed by highly skilled fund managers.

Franklin Park also makes co-investments for other clients. Until now, ATRS has required Franklin Park to make all co-investments across its client base on a pro-rata basis. Occasionally, the allocation available for a particular co-investment is too small to spread among all clients. Going forward, Franklin Park requests the ability to allocate these smaller co-investments to their clients on a rotating basis.

In summary, Franklin Park will target to invest \$30 million dollars in approximately five or six co-investment deals and one or more next-generation manager funds or other Board approved strategies in this fund. As with the venture and international funds, Franklin Park does not charge ATRS a fee on the ATRS/FP Private Equity Fund and only recovers its legal costs and accounting costs for ensuring the fund is set up properly and has appropriate accounting and auditing performed. Instead of requesting additional capital for expected commitments this year and to simplify the recallable distribution process for this \$30 million dollar tranche of accumulated distributions available for this fund, ATRS staff is requesting authority to provide ATRS consent to Franklin Park to recall up to \$30 million dollars for future investments in this fund.

ATRS staff also requests authority to modify the fund agreements to allow Franklin Park to allocate smaller co-investments to each of their clients on a rotating basis.

5. **Recommendation to Commit up to \$20 Million Dollars in Thoma Bravo Explorer Fund, L.P., a Private Equity Buyout Fund Focused on U.S. Investments in Small and Lower Middle Market Software Companies, with Imminent Need.** Founded in 2007 and based in both Chicago and San Francisco, Thoma Bravo is a very experienced manager that acquires software companies in the U.S. The firm is led by six principals, Orlando Bravo, Scott Crabill, Seth Boro, Holden Spaht, Carl Thoma, and Lee Mitchell. The principals have an average of 24 years each in the private equity industry and an average of 18 years each with the General Partner or its predecessor firm, Thoma Cressey Bravo. ATRS invested in Thoma Bravo Fund XI in 2014, Thoma Bravo Discover Fund in 2015, Thoma Bravo Fund XII in 2016, Thoma Bravo Discover Fund II in 2017, and Thoma Bravo Fund XIII in 2018. The core funds typically invest in large companies while the Discover funds have invested in the lower and middle market. Four of the

general partner's smaller funds raised since 2008 have generated returns greater than 20% net IRR, with three of the four at 30% or greater. The larger Thoma Bravo Fund XIII is still young but is on track to perform very well.

The manager typically pursues a buy and build strategy seeking companies where profitability can be significantly increased. For Thoma Bravo Explorer, the focus will be on small and lower middle market companies. Once operating improvements have been completed for these companies, Thoma Bravo aims to make add-on acquisitions to rapidly grow portfolio companies to increase scale and attractiveness to strategic buyers. The general partner will primarily seek opportunities in the application, infrastructure and security software industries with a secondary focus on technology-enabled service industries. This fund will provide additional investment opportunities in the software industry with a highly sought-after manager for ATRS.

Since the expected closing date for this fund is prior to the next scheduled ALC meeting, Imminent Need is requested in order for ATRS to participate in the closing. Both Franklin Park and ATRS staff recommend an investment in Thoma Bravo Explorer Fund, L.P. with a commitment of up to \$20 million dollars, subject to final due diligence.

**XVI. Operations Committee Report. *Bobby Lester, Chair.***

**A. Open Forum for Potential Rule or Law Changes by Committee Members and Board Members Present.**

- 1. Open Forum.** This is a standard part of the Committee agenda to allow Committee Members and Board Members in attendance to address topics and issues for consideration.

**B. Update on Current Rule Promulgation.**

**XVII. Staff Reports.**

- A. Medical Committee Reports. A Total of 13 Disability Retirement Applications Approved.** The Medical Committee Report is a standard report made by staff on behalf of the Medical Committee approving disability cases. A total of 19 disability applications were received, 13 were approved, 3 were denied, and 3 needed more information. **This is an action item.**

**B. Financial Reports.**

1. **Financial Statement Report.** The ATRS Chief Financial Officer will give the Board summary information for the financial reports for the year ending June 30, 2019. Plan net assets were \$17.7 billion dollars in fiscal year 2019. No action is needed for this information item.
2. **Travel Report.** The ATRS Chief Financial Officer will present a standard travel report showing the expenses for staff and Trustees for fiscal year ending June 30, 2019. Board travel expenses increased slightly in 2019 as compared to fiscal year 2018. Other staff travel also decreased slightly in fiscal year 2019 as compared to fiscal year 2018. No action is needed for this information item.

**C. Contract Review.** Rod Graves, Deputy Director, handles coordinating the ATRS' contracts with the Office of State Purchasing (OSP). The ATRS Board reviews the agency's contracts up for renewal annually as a part of the ATRS contract process. This process provides an opportunity for the Trustees to ask questions about any of the contracts on the list, approve or reject any contract being reviewed as a whole, approve or reject them individually, or ask for more information as needed. Once reviewed by the Board, staff prepares annual contracts and sends the contracts to the vendors for completion. Once the contracts are returned, if required, the contracts are sent to the Arkansas Legislative Council for a legislative review. ATRS contracts are typically for a two year term.

1. **Regular Contracts.** Regular contracts were approved for a two year extension at the February 2019 Board meeting and currently have an expiration date of June 30, 2021.
2. **Security Monitoring Contracts.** The Board approved ATRS staff to use the RFQ process to evaluate and approve securities monitoring firms at the February 2019 meeting. The ATRS Securities Monitoring and Asset Recovery Litigation Policy allows up to six (6) securities monitoring firms. ATRS staff worked with the Office of State Procurement (OSP) and completed the RFQ process by selecting six (6) firms for potential contracts with ATRS. ATRS staff is requesting authority to negotiate and execute contracts with the six (6) firms selected through the RFQ process, if acceptable terms are reached. Based on the Board's decision, OSP will publish the approved vendor list

to their website and ATRS staff can begin the contracting process. **This is an action item.**

- D. Personnel Report.** The personnel report is provided annually for information. ATRS currently has 87 appropriated positions with a cap set at 81. Currently, there are 75 positions filled and 12 are vacant. Ms. Vicky Fowler, the ATRS Human Resources Manager, will be available to answer any questions about this report.

**XVIII. Other Business.**

- A. Recognition of the Retirement of G. Wayne Greathouse.**

**XIX. Adjourn.**

**ARKANSAS TEACHER RETIREMENT SYSTEM  
BOARD OF TRUSTEES**

**Monday, October 7, 2019  
11:00 a.m.  
1400 West Third Street  
Little Rock, AR 72201**

**ATTENDEES**

**Board Members Present**

Danny Knight, Vice Chair  
Dr. Richard Abernathy  
Anita Bell  
Lloyd Black  
Kathy Clayton  
Kelly Davis  
Candace Franks, State Bank Commissioner  
Shawn Higginbotham  
Hon. Andrea Lea\*  
Bobby Lester  
Chip Martin  
Robin Nichols  
Janet Watson

**Board Members Absent**

Johnny Key, Education Commissioner  
Hon. Dennis Milligan

**Reporters Present**

Mike Wickline, AR Dem Gaz

*\*via telephone*

**ATRS Staff Present**

Clint Rhoden, Executive Director  
Rod Graves, Deputy Director  
Curtis Carter, Chief Fiscal Officer  
Dena Dixson, Internal Audit/Risk Mgmt.  
Clementine Infante, Attorney Specialist  
Willie Kincade, Director of Operations  
Manju, Director of Operations  
Martha Miller, General Counsel  
Kevin Odum, Attorney Specialist  
Joseph Sithong, Information Specialist Coordinator  
Brenda West, Internal Audit/Risk Mgmt.

**Guest Present**

Chris Caldwell, Ark. Div. of Legislative Audit  
Jorge Perez, Ark. Div. of Legislative Audit  
Michael Bacine, Franklin Park  
PJ Kelly, AHIC (Aon Hewitt)  
Chae Hong, AHIC (Aon Hewitt)  
Iftikhar Ahmed, AHIC (Aon Hewitt)  
Jon Gilmore, GSG  
Bill H. Stovall, III, WSG Consulting  
Mary Carol Poole, Paschall Strategic Comm.

- I. **Call to Order/Roll Call.** Mr. Danny Knight, Vice Chair, called the Board of Trustee meeting to order at 11:00 a.m. Roll call was taken. Mr. Johnny Key and Hon. Dennis Milligan were absent. Hon. Andrea Lea arrived at 11:02.
  
- II. **Motion to Excuse Absences.**

**Ms. Nichols *moved to excuse* Mr. Key and Hon. Milligan from the October 7, 2019, Board of Trustees meeting. Mr. Lester *seconded the motion*, and the Board *unanimously approved the motion*.**

**III. Adoption of Agenda.**

**Ms. Davis *moved for adoption of the Agenda. Dr. Abernathy seconded the motion, and the Board unanimously approved the motion.***

**IV. Election of Board Chair and Vice Chair.**

**1. Board Chair**

**Mr. Lester *moved for nominate Danny Knight as Chairman of the Board of Trustees. Dr. Abernathy seconded the motion, and the Board unanimously approved the motion.***

**2. Vice Chair**

**Ms. Davis *moved for nominate Dr. Richard Abernathy as Vice Chairman of the Board of Trustees. Mr. Lester seconded the motion, and the Board unanimously approved the motion.***

**V. Executive Summary.** The Executive Summary was provided for reference with no questions or expansions on the written summary.

**VI. Approval of Prior Meeting Minutes.**

**A. June 3, 2019**

**Ms. Nichols *moved for approval of the Minutes of the Board of Trustees meeting of June 3, 2019. Dr. Abernathy seconded the motion, and the Board unanimously approved the motion.***

**B. July 8, 2019 Minutes.**

**Mr. Black *moved for approval of the Minutes of the Board of Trustees meeting of July 8, 2019. Ms. Davis seconded the motion, and the Board unanimously approved the motion.***

**C. September 11, 2019 Minutes.**

**Ms. Watson *moved for approval of the Minutes of the Board of Trustees meeting of September 11, 2019. Ms. Clayton seconded the motion, and the Board unanimously approved the motion.***

- VII. Report of Member Interest Waived Under A. C. A. Section 24-7-205.** Mr. Rhoden presented the member interest amount waived report. ATRS waives interest for members when there is a dispute between ATRS and the member as to whether ATRS made a mistake or otherwise did not do all that was required on the member's account. Since ATRS has implemented the actuarial cost method for the purchase of service credit, interest waived is slowly disappearing, as well as the number of members who purchase service credit. A total of \$51.96 was waived this reporting period.. This was a standard report for information and was not an action item.
- VIII. Report of Employer Interest and Penalties Waived Under A. C. A. Sec. 24-7-411.** Mr. Rhoden presented the employer interest and penalties waived report. ATRS may also waive employer interest and penalties when reports or payments are late or have issues due to a new bookkeeper, inclement weather, sickness and other situations that justify a waiver. A total of \$3,091.04 was waived this reporting period. This was a standard report for information and was not an action item.
- IX. Manifest Injustice Report.** The Manifest Injustice Committee reviewed one (1) claim this reporting period. The rule on Manifest Injustice requires reports to the Board at least two times per year. This is the first report of 2019. If the ATRS Trustees would like a different format or reporting process, just let ATRS staff know. Typically, the Manifest Injustice Report is for information purposes only and is not an action item. However some Manifest Injustice claims will require Board action.
- X. Manifest Injustice for Board Approval.**
- A. In Re: Sandra Ledbetter MI-2018-006.** Sandra Ledbetter has been an employee of the Little Rock School District (LRSD) since 1991. For six (6) years, from fiscal year 1995 to fiscal year 2000, the LRSD failed to report her employment and did not pay the employer contributions for her noncontributory service. As a result, Ms. Ledbetter's record is missing six (6) years of noncontributory service. The LRSD has certified Ms. Ledbetter's salary and service for the years from 1995 to 2000. The manifest injustice committee met and found that a manifest injustice has occurred. A.C.A 24-7-205(d) allows ATRS to correct an error in a member's record beyond the 5 year look-back period in the event of a manifest injustice. However, to correct Ms. Ledbetter's record, the employer contributions in the amount of \$19,437.47 must be paid to ATRS. A.C.A. 24-7-411(a) requires ATRS to impose an interest penalty that ranges from 6% to 8% for the years in question. A

large amount of interest (\$61,928.53) has been assessed as a result of the 20 years that has passed since the initial unreported service. A.C.A. 24-7-411(c) allows the Board to waive interest if the employer delinquency was not the result of intentional nondisclosure, fraud or misrepresentation and that under the circumstances the payment would be unduly penal, or burdensome. Since executive staff only has authority to waive up to \$5,000, ATRS staff has placed this item on the agenda. ATRS has no evidence that the failure to report and remit employer contributions on Ms. Ledbetter's service was the result of an intentional nondisclosure, fraud or misrepresentation. Given that the initial failure to report the service occurred over 20 years ago, the amount of interest due could be considered unduly penal and burdensome. In the past ATRS has waived the interest associated with errors in reporting employer contributions. Executive Staff recommends the waiver of the \$61,928.53 interest due in the effort to finally resolve the errors in Ms. Ledbetter's record.

After extensive discussions, the Board determined that more information was needed and tabled this matter until the December 2, 2019, Board meeting.

**Dr. Abernathy moved to table this matter until the December 2, 2019 and requested more information from Staff. Mr. Black seconded the motion, and the Board unanimously approved the motion.**

- XI. **Investment Committee Report.** Robin Nichols, Chair, gave a report on the Investment Committee meeting.
  - A. **Arkansas Related and Investment Update.** Rod Graves, Deputy Director, gave the Committee a report on Arkansas Related and Investment Update.
    - 1. **List of Fund Closings**
      - a. **DW Healthcare Partners V, LP, a Private Equity Buyout Fund that Invests in Expansion Stage Companies in the Healthcare Sector with Imminent Need, the Board Authorized Commitment of up to \$30 Million Dollars on April 1, 2019 was Accepted and Closed on July 22, 2019.** The ATRS full commitment of

\$30 million dollars was negotiated, accepted, and closed on July 22, 2019.

- b. **Rockwood Capital Real Estate Partners Fund XI, L.P., a Closed End Value Added Real Estate Fund that Invests in Value Added Office, Apartment, Retail, and Hotel Properties Across Multiple Regions in the U.S., the Board Authorized Commitment of up to \$40 Million Dollars on April 1, 2019 was Accepted and Closed on June 14, 2019.** The ATRS full commitment of \$40 million dollars was negotiated, accepted, and closed on June 14, 2019.
- c. **Walton Street Real Estate Debt Fund II, L.P., a Closed End Value Added Real Estate Debt Fund that Invests in a Diversified Portfolio of Higher Yielding Commercial Real Estate Debt Investments, the Board Authorized Commitment of up to \$40 Million Dollars on April 1, 2019 was Accepted and Closed on May 17, 2019.** The ATRS full commitment of \$40 million dollars was negotiated, accepted, and closed on May 17, 2019.
- d. **Franklin Park Venture Fund Series 2019, L.P. a Fund of Funds Managed by Franklin Park Investing in Venture Capital Private Equity Funds, the Transfer of the Commitment of up to \$30 Million Dollars from the Franklin Park Venture Capital Access Fund, L.P. to the Franklin Park Venture Fund Series 2019 Authorized by the Board on June 3, 2019 was Accepted and Closed on June 25, 2019.** The ATRS full commitment of \$30 million dollars was negotiated, accepted, and closed on June 25, 2019.
- e. **Franklin Park Corporate Finance Access Fund, L.P., a Fund of Funds Managed by Franklin Park Investing in Smaller Buyout, Growth, and Turnaround Private Equity Funds, the Transfer of the Commitment of up to \$30 Million Dollars from the ATRS/FP Private Equity Fund to the Franklin Park Corporate Finance Access Fund Authorized by the Board on June 3,**

**2019 was Accepted and Closed on July 31, 2019.** The ATRS full commitment of \$30 million dollars was negotiated, accepted, and closed on July 31, 2019.

f. **JFL Equity Investors V, L.P., a Private Equity Buyout Fund that Invests in the Defense, Aerospace and Maritime Industries and Related Businesses, the Board Authorized Commitment of up to \$30 Million Dollars on June 3, 2019 was Accepted and Closed on June 26, 2019.** The ATRS full commitment of \$30 million dollars was negotiated, accepted, and closed on June 26, 2019.

2. **Programs Being Unwound by the Fund Managers.** The Board approved Franklin Park and Circumference Group to manage funds that include appraisal rights at the February 5, 2018 meeting. Appraisal rights can be used to protect minority shareholders during the conversion of publicly held companies to private equity companies.

Franklin Park was approved to expand the strategy of the existing ATRS/FP Fund to include appraisal rights and Circumference Group was approved to start a new fund, the CG Equity Opportunity Fund. Both funds use committed capital for investment opportunities and the committed capital is only funded when the fund manager identifies an investment opportunity. Since the Board approved these strategies 2018, the opportunity set has been decreasing due to changing economic conditions.

Franklin Park and Circumference Group have recently approached ATRS staff and both firms believe the best course is to unwind the appraisal rights strategies they manage for ATRS due to the changing environment and decreasing opportunity set. Since limited capital had been called for the strategy the unwinding process for Circumference Group was completed in July and the process to unwind the Franklin Park allocation is expected to be completed soon.

**B. General Investment Consultant Report. *Aon Hewitt Investment Consulting.***

1. **Performance Report for the Quarter Ended June 30, 2019.** P.J. Kelly of Aon Hewitt Investment Consulting provided the

Committee with a portfolio update for the quarter ending June 30, 2019. The ATRS fund had a market value of approximately \$17.5 billion dollars. The total fund had a return of 8.5% since inception, underperforming its benchmark of 8.6%. Total equity had a market value of approximately \$9.3 billion dollars. Total equity had a return of 8.2% since inception, underperforming its benchmark of 8.6%.

2. **Preliminary Performance Report for the Month Ended August 31, 2019.** P. J. Kelly of Aon Hewitt Investment Consulting provided the Committee with a preliminary portfolio update for the month ending August 31, 2019. The ATRS fund had a market value of approximately \$17.2 billion dollars. The total fund had a return of 8.4% since inception, underperforming at its benchmark of 8.5%. Total equity had a market value of approximately \$9.1 billion dollars. Total equity had a return of 7.4% since inception, underperforming its benchmark of 7.8%.
3. **Emerging Manager Report for Fiscal Year Ended June 30, 2019.** P.J. Kelly of Aon Hewitt Investment Consulting (AHIC) provided the Board with a report of AHIC's manager research process, including coverage of emerging managers, and provided an update on due diligence activities on emerging managers conducted on behalf of ATRS for the fiscal year ended June 30, 2019.
4. **Recommendation to Commit up to an Additional \$30 Million Dollars in Aeolus Catastrophe Keystone PF Fund, LP, an Opportunistic/Alternative Reinsurance Fund Specializing in Property Catastrophe Insurance Coverage.** This is the fifth recommendation on investing with Aeolus, after a recommendation of up to \$110 million dollars was approved in 2015, a recommendation of up to \$37 million dollars was approved in 2016, a recommendation of up to \$110 million dollars was approved in 2017, and a recommendation of up to \$70 million dollars was approved in 2018.

Aeolus Reinsurance, based in Bermuda, was founded in 2006 by Peter Appel and David Eklund. This firm was seeded by large investors, such as Bank of America and Merrill Lynch, and successfully provided global catastrophic protection to the reinsurance market for several years. In 2011 the founders transformed the firm into Aeolus Capital Management in order to raise capital from other third party investors to provide additional flexibility in deploying capital. The fund, Aeolus Property

Catastrophe Keystone PF Fund, LP, seeks to use highly customized portfolios based on actuarial projections concerning catastrophic events, such as hurricanes, to provide returns that are not usually correlated to other asset classes. The fund is expected to yield a gross return of the Treasury bill rate plus 15%. Reinsurance and retrocession markets underwrite in two seasons, January 1<sup>st</sup> and June 1<sup>st</sup>.

The Board authorized commitment of up to \$110 million dollars in the fund at the October 5, 2015 meeting was for the January underwriting season. The Board authorized commitment of up to \$37 million dollars in the fund at the April 4, 2016 meeting was for the June underwriting season. The Board authorized commitment of up to \$110 million dollars at the November 13, 2017 meeting was split with \$50 million dollars added to the January 2018 underwriting season and \$60 million dollars made available to cover larger than normal holdbacks across the prior tranches to maintain the appropriate ATRS investment allocation to each tranche. The Board authorized commitment of up to \$70 million dollars at the December 17, 2018 meeting was intended to be allocated across the January 2019 and June 2019 tranches or other future renewals.

Both Aon Hewitt Investment Consulting and ATRS staff recommend an additional allocation of up to \$30 million dollars to Aeolus Property Catastrophe Keystone PF Fund, LP. The expected use of the additional allocation is for the January 2020 renewal tranche and other future renewals. Because of hurricanes during the recent underwriting seasons, Aeolus is reserving more funds than usual to deal with any potential claims. The \$30 million dollar additional commitment is needed this year for two reasons. The first reason is to take advantage of the current opportunity for increased expected returns. The premiums that create profits for Aeolus are expected to increase due to claims created by the recent hurricanes. The second reason is the higher than usual level of claims creates a need to reserve additional funds that would normally be released to investors in time for investment in the upcoming January tranche. The additional allocation of \$30 million dollars is intended to deal with the timing issue between reserves for potential claims, and the timing required to fund other upcoming underwriting seasons. Similar to the prior investments in Aeolus, the draft resolution for this additional allocation also allows for recallable distributions.

If approved, the additional funds can be used by ATRS to help reach the recommended allocations for upcoming renewal periods. Investment in reinsurance funds will help ATRS to continue to add diversification to the ATRS portfolio and help reduce the reliance on the traditional stock and bond markets.

**Ms. Nichols moved to adopt Resolution 2019-38, to Commit up to an Additional \$30 Million Dollars in Aeolus Catastrophe Keystone PF Fund, LP, an Opportunistic/Alternative Reinsurance Fund Specializing in Property Catastrophe Insurance Coverage. The Board unanimously adopted the Resolution.**

**C. Real Asset Consultant Report. Aon Hewitt Investment Consulting.**

- 1. Performance Report for the Quarter Ended March 31, 2019.** Chae Hong and Iftikhar Ahmed of Aon Hewitt Investment Consulting provided the Committee with a performance report for the quarter ending March 31, 2019. NCREIF's NPI registered at 1.8% and NFI-ODCE (net) returned 1.2% for the quarter, down 30 bps quarter-over-quarter. NFI-ODCE returns are holding up well despite the maturity of the real estate cycle. Quarterly returns continue to moderate towards the long-term average with net income being a larger driver of the total return. NCREIF Farmland Index returned 0.7% for the quarter, down 220 bps from the prior quarter. Permanent and row crops notches similar performance at approximately 1.3% each. NCREIF Timberland Index returned 0.1% for the quarter. The NTIs trailing one year return was 2.4% and driven primarily by an income return of 3.07% while appreciation returned -0.67%. Regionally, the Northwest remains the NTIs top performer while the U.S. Lakes region lagged.
- 2. Recommendation to Commit up to \$50 Million Dollars in AxInfra NA II LP, an Open-Ended Infrastructure Fund Specializing in U.S. and Canadian Energy and Transportation Assets.** The fund typically seeks to invest in Canadian and U.S. mid-sized assets defined as requiring equity investments of \$15 million dollars to \$75 million dollars in energy assets (such as power generation, renewables, transmission and distribution systems, pipelines, and gas collection), transportation assets (such as roads, bridges,

airports, seaports, and mass transit systems), and social infrastructure assets (such as hospitals, schools, courthouses, and other institutional buildings). The strategy will invest in a mix involving both operations of existing infrastructure assets and new infrastructure assets.

The fund is managed by Axium Infrastructure. Headquartered in Montréal, Canada with offices in Toronto, Vancouver, and New York, Axium is a specialist infrastructure investment firm that has approximately \$2.7 billion dollars in total assets under management across two funds, a closed-ended infrastructure fund and an open-ended infrastructure fund. Axium Infrastructure is an employee owned, independent firm with employees owning 85% of the company and Maxsa Holding (a passive financial investor) owning the remaining 15%. The Axium Infrastructure investment team is led by Pierre Anctil, Stephane Mailhot, Juan Caceres and Thierry Vandal and is comprised of 19 investment professionals and 10 asset management professionals, indicating a good mix of complementary skill sets across investment, finance, and asset management as well as engineering and operational functions.

Both ATRS staff and Aon Hewitt Investment Consulting recommend an investment of up to \$50 million dollars in AxInfra NA II, LP.

**Ms. Nichols *moved to adopt* Resolution 2019-39 to Commit up to \$50 Million Dollars in AxInfra NA II LP, an Open-Ended Infrastructure Fund Specializing in U.S. and Canadian Energy and Transportation Assets. The Board *unanimously adopted the Resolution.***

3. **Recommendation to Rebalance ATRS Timber Holdings Managed by BTG Pactual by Exchanging Certain ATRS Timber Holdings for Shares of the BTG Pactual Open Ended Core US Timberland Fund, LP, a Timber Fund Focused on Long-Term Commercial Timber Properties.** ATRS has invested in timber assets since 1998 through a Timberland Investment Group (TIG). The TIG was originally owned by Wachovia Bank, who sold it to Regions Bank in 2004. Regions Bank sold TIG to BTG Pactual in June of 2013. BTG Pactual is the current owner of TIG and is the company responsible for the management of timber assets owned by

ATRS. Gerrity Lansing is the Head of TIG and David Cassels is the Portfolio Manager.

As part of an effort to diversify geographically, improve liquidity, and increase returns TIG has proposed exchanging a portion of ATRS directly held timber properties for shares of BTG Pactual Open Ended Core US Timberland Fund, LP ("OEF"). The current ATRS timber assets are primarily located in the South. OEF has diversified holdings which include the Pacific Northwest. The Pacific Northwest is expected to provide quality returns and along with other OEF holdings will increase geographic diversity in the ATRS timber portfolio.

If approved ATRS would contribute approximately \$184 million dollars' worth of directly held timber for a similar amount of shares in OEF. The exact dollar amount would be based on upcoming appraisals but the proposed contribution would include all or part of the following properties: Bear Island and GP/Dinwiddle in Virginia, CNC in North and South Carolina, and Gilman II in Florida. Remaining ATRS owned timber properties not exchanged for shares in OEF including the timber assets located in Arkansas, the TKY hardwoods property located in Tennessee and Kentucky, the Four Corners property in Wisconsin, and the Huber property in Tennessee would continue to be held in a separate account for ATRS and managed by BTG Pactual.

The remaining directly held property listed above would have a value of approximately \$148 million dollars. The proposed rebalanced combination of directly held properties, ATRS owned shares of OEF (approximately \$184 million dollars), and any loans associated with timber investments would have a value of approximately \$332 million dollars. This amount is similar to the value of the current ATRS timber portfolio. The proposed rebalancing is intended to add diversification, liquidity, and performance to the ATRS portfolio without directly creating a decrease in the value of the ATRS timber portfolio or increase in TIG management fees.

Both ATRS staff and Aon Hewitt Investment Consulting recommend rebalancing the timber portfolio by exchanging certain ATRS timber holdings for shares of the BTG Pactual Open Ended Core US Timberland Fund, LP.

**Ms. Nichols moved to adopt Resolution 2019-40, to Rebalance ATRS Timber Holdings Managed by BTG Pactual by Exchanging Certain ATRS Timber Holdings for Shares of the BTG Pactual Open Ended Core US Timberland Fund, LP, a Timber Fund Focused on Long-Term Commercial Timber Properties. The Board unanimously adopted the Resolution.**

**D. Private Equity Consultant Report. *Franklin Park***

- 1. Private Equity Portfolio Review for the Quarter Ended June 30, 2019.** Michael Bacine of Franklin Park provided the Committee with a portfolio review for the quarter ending June 30, 2019. The ATRS Legacy Portfolio is in the liquidating stage and has a remaining value of less than 0.1% of the ATRS private equity portfolio with a total IRR of 9.2%. CSFB Portfolio is also liquidating and will continue to see distributions. CSFB has a remaining value of 7.3% of the ATRS private equity portfolio with a net IRR of 8.8%. The Post 2006 Portfolio represents 2/3 of the ATRS private equity portfolio and will continue to grow as more commitments to capital are made. The Post 2006 Portfolio has a net IRR of 15.4%. The total fund had a net IRR of 10.9% for the quarter ended June 30, 2019.
- 2. Emerging Manager Report for Fiscal Year Ended June 30, 2019.** Michael Bacine of Franklin Park provided the Committee with the report of Franklin Park's manager research process, including coverage of emerging managers, and provided an update on due diligence activities on emerging managers conducted on behalf of ATRS for the fiscal year ended June 30, 2019.
- 3. Recommendation to Commit up to \$30 Million Dollars in Clearlake Capital Partners VI, L.P. a Private Equity Fund that Makes Opportunistic Debt and Equity Investments in Middle Market Companies Undergoing Change and/or are in Underserved Industries or Markets in North America.** Based in Santa Monica, California, Clearlake Capital was formed in 2007 by Steve Chang, Jose Feliciano and Behdad Eghbali with sponsorship by Reservoir Capital. As of April 2017, Reservoir no longer has a stake in the general partner. The fund is now managed by Messrs. Feliciano and Eghbali as well as Prashant Mehrota and Colin Leonard (partners) who are supported by

fifteen investment professionals. The partners have an average of over nine years of experience each with the general partner and sixteen years each in the private equity industry.

Clearlake makes both debt and equity investments in companies undergoing significant change or that are in underserved industries or markets. These investment opportunities often involve bankruptcies, restructurings and turnarounds. They may also involve companies that are experiencing legal or regulatory challenges or challenges meeting growth plans. The fund will focus primarily on the industrials and energy, software and technology-enabled services, and consumer sectors.

The Board approved a \$30 million dollar commitment to Clearlake Capital V, L.P. at the September 25, 2017 meeting. Clearlake V is still maturing but on track to perform well. The firm has generated a net IRR in excess of 30% on its previous four funds and is targeting a net return above 20% for Clearlake VI.

Both Franklin Park and ATRS staff recommend an investment of up to \$30 million dollars in Clearlake Capital VI, L.P.

**Ms. Nichols *moved to adopt* Resolution 2019-41, to Commit up to \$30 Million Dollars in Clearlake Capital Partners VI, L.P. a Private Equity Fund that Makes Opportunistic Debt and Equity Investments in Middle Market Companies Undergoing Change and/or are in Underserved Industries or Markets in North America. The Board *unanimously adopted the Resolution.***

- E. **Other Business.** Rod Graves, Deputy Director gave the Committee an update on Big River Steel.
  
- XII. **Operations Committee Report.** Bobby Lester, Chair gave a report on the Operations Committee meeting.
  - A. **Open Forum for Potential Rule or Law Changes by Committee Members and Board Members in Attendance.**
    - 1. Open Forum. None.

**B. Rule Change: Board Policy 1 – Board Governance.**

**Mr. Lester moved to approve Rule Change: Board Policy 1 – Board Governance. The Board unanimously approved the Motion.**

**C. Potential Rule Changes.** A batch of potential rules changes was presented to the Committee. These rules are a continuation of a process to consolidate the current 50 individual rules into 15 more comprehensive rules. The consolidation process includes may cosmetic changes to the rules such as a standard numbering scheme and improved section titles. Along with the consolidation process, rules are modified to include substantive changes due to legislative changes and board actions.

1. **Rule 6 – Membership Rules.**
2. **Rule 7 - Reporting and Eligibility.**
3. **Rule 8 - Purchase and Refunds.**
4. **Rule 9 - Retirement and Benefits.**
5. **Rule 10 - T-DROP and Return to Service.**
6. **Rule 11 - Survivor and Domestic Relations Orders.**

**Mr. Lester moved to approve Pursuing Promulgation of Rule 6, Rule 7, Rule 8, Rule 9, Rule 10, and Rule 11. The Board unanimously approved the Motion.**

**XIII. Staff Reports.**

**A. Medical Committee Reports.** Willie Kincade presented the Medical Committee reports. A total of 54 disability applications were received, 33 were approved, 13 were denied, and 8 needed more information.

**Mr. Lester moved to approve the Medical Committee Reports. Ms. Nichols seconded the motion, and the Board unanimously approved the motion.**

**XIV. Adjourn.**

**Mr. Lester moved to adjourn the Board Meeting. Mr. Knight seconded the motion, and the Board unanimously approved the motion.**

**Meeting adjourned at 12:02 p.m.**

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Clint Rhoden,  
Executive Director

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Mr. Danny Knight, Chair  
Board of Trustees

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Tammy Porter,  
Recorder

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Date Approved

**CORRECTED MINUTES  
ARKANSAS TEACHER RETIREMENT SYSTEM  
BOARD OF TRUSTEES**

**Monday, June 3, 2019**

**11:00 a.m.**

**1400 West Third Street  
Little Rock, AR 72201**

**ATTENDEES**

**Board Members Present**

Jeff Stubblefield, Chair  
Danny Knight, Vice Chair  
Dr. Richard Abernathy  
Anita Bell  
Lloyd Black  
Kelly Davis  
Susannah Marshall, designee for Candace Franks  
Johnny Key\*  
Hon. Andrea Lea  
Bobby Lester  
Jason Brady, designee for Dennis Milligan  
Deborah Thompson  
Janet Watson\*

**Board Members Absent**

Kathy Clayton  
Robin Nichols

**Reporters Present**

Mike Wickline, AR Dem Gaz

*\*via telephone*

**ATRS Staff Present**

Clint Rhoden, Executive Director  
Rod Graves, Deputy Director  
Tammy Porter, Ex. Assistant/Board Secretary  
Curtis Carter, Chief Fiscal Officer  
Dena Dixon, Internal Audit Risk Mgmt.  
Mitzi Ferguson, Internal Audit/Risk Mgmt.  
Vicky Fowler, HR Manager  
Laura Gilson, General Counsel  
Wayne Greathouse, Assoc. Dir. of Investments  
Jerry Meyer, Manager, Real Assets  
Martha Miller, Staff Attorney  
Joseph Sithong, Software Support Analyst  
Leslie Ward, Manager, Private Equity  
Brenda West, Internal Audit/Risk Mgmt.

**Guest Present**

Donna Morey, ARTA  
Chip Martin, Newly Elect BOT  
Jay Wills, APERS  
Duncan Baird, APERS  
PJ Kelly, AHIC  
Katie Comstock, AHIC  
Lura Campbell, ARTA  
Bob Thompson, ARTA

- I. **Call to Order/Roll Call.** Mr. Jeff Stubblefield, Chair, called the Board of Trustee meeting to order at 11:00 a.m. Roll call was taken. Ms. Kathy Clayton and Ms. Robin Nichols were absent.

Mr. Stubblefield reminded the Board about the Trustee Workshop on Friday, July 19, 2019.

Mr. Stubblefield introduced and welcomed Mr. Chip Martin. Mr. Martin is the newly elected Trustee for Position 3 and will take office on July 1, 2019.

Mr. Stubblefield told the Board that Jerry Meyer would give tours of the 2<sup>nd</sup> floor after the Board meeting to see the newly renovated offices.

**II. Motion to Excuse Absences.**

**Mr. Knight *moved to excuse Ms. Clayton and Ms. Nichols from the June 3, 2019, Board of Trustees meeting. Ms. Bell seconded the motion, and the Board unanimously approved the motion.***

**III. Adoption of Agenda.**

**Ms. Thompson *moved for adoption of the Agenda. Mr. Lester seconded the motion, and the Board unanimously approved the motion.***

**IV. Executive Summary.** The Executive Summary was provided for reference with no questions or expansions on the written summary.

**V. Approval of Prior Meeting Minutes.**

**A. June 6, 2016 - Corrected Minutes.**

**Ms. Davis *moved for approval of the Corrected Minutes of the Board of Trustees meeting of June 6, 2016. Auditor Lea seconded the motion, and the Board unanimously approved the motion.***

**B. April 1, 2019 Minutes.**

**Mr. Brady *moved for approval of the Minutes of the Board of Trustees meeting of April 1, 2019. Ms. Bell seconded the motion, and the Board unanimously approved the motion.***

**C. April 29, 2019 Minutes.**

**Mr. Lester *moved for approval of the Minutes of the Board of Trustees meeting of April 29, 2019. Mr. Brady seconded the motion, and the Board unanimously approved the motion.***

**VI. Report of Member Interest Waived Under A. C. A. Section 24-7-205.** Mr. Rhoden presented the member interest amount waived report. ATRS waives

interest for members when there is a dispute between ATRS and the member as to whether ATRS made a mistake or otherwise did not do all that was required on the member's account. Since ATRS has implemented the actuarial cost method for the purchase of service credit, interest waived is slowly disappearing, as well as the number of members who purchase service credit. No member interest was waived for this reporting period. This was a standard report for information and was not an action item.

**VII. Report of Employer Interest and Penalties Waived Under A. C. A. Sec. 24-7-411.** Mr. Rhoden presented the employer interest and penalties waived report. ATRS may also waive employer interest and penalties when reports or payments are late or have issues due to a new bookkeeper, inclement weather, sickness and other situations that justify a waiver. No employer interest and penalties was waived for this reporting period. This was a standard report for information and was not an action item.

**VIII. Compensation for Unused Sick Leave.** Director Rhoden presented with the Board with Resolution 2019-31 regarding compensation for unused sick leave in the calculation of FAS. The Board discussed various issues and made several modification to Resolution 2019-31.

**Ms. Davis moved to amend Resolution 2019-31 by removing the word "SICK" from the title. Dr. Abernathy seconded the motion, and the Board unanimously approved the motion.**

**Mr. Knight moved to amend Resolution 2019-31, eliminating "or T-DROP". Mr. Lester seconded the motion, and the Board unanimously approved the motion**

**Dr. Abernathy moved to adopt Resolution 2019-31, with changes as amended above, for Compensation of Unused Leave in the Claculation of Final Average Salary. Mr. Knight seconded the motion and the Board unanimously adopted the Resolution.**

**IX. Audit Committee Report.** Kelly Davis, Chair, gave a report on the Audit Committee Meeting.

**A. Internal Audit Department Charter.** Mitzi Ferguson discussed the Internal Audit Department Charter. This was approved by the Audit committee and the Board of Trustees on June 6, 2016. However, the approval was not reflected in the Minutes of the June 6, 2016 minutes. The approval of the minutes above corrected the scrivener's error. For

completeness, the Committee was asked to approve the Internal Audit Department Charter.

**Ms. Davis moved to approve Internal Audit Department Charter, and the Board unanimously approved the Motion.**

- B. Audit Committee Charter.** In the April 1, 2019 committee meeting, IA presented the Committee with changes to the Audit Committee Charter. In response to questions from the Committee, IA and the legal department made some additional changes. Those changes were presented to the Committee for approval and presentation to the Board. After discussion, the Committee recommends tabling approval of the Audit Committee Charter until staff can make some changes.

**Auditor Lea moved to approve tabling the Audit Committee Charter. Ms. Marshall seconded the motion and the Board unanimously approved the Motion.**

- C. Reappointment of Audit Committee At-Large Member.** In the April 1, 2019 Board of Trustees meeting, the Board approved extending the service term of At-Large members to include two (2) full four (4) year terms. Ricky Quattlebaum, who is at the end of his first 4-year term, is now eligible to serve an additional full 4-year term. Mr. Quattlebaum's knowledge and experience in accounting and internal auditing have made him invaluable to the Audit Committee and the Internal Audit Department. Therefore, it is requested that his services be retained.

**Ms. Davis moved to approve Reappointment of Audit Committee At-Large Member Ricky Quattlebaum, and the Board unanimously approved the Motion.**

- D. Internal Audit Report: Disability Benefits.** Dena Dixson provided the Committee with the Internal Audit Report regarding disability benefits. The objectives of the audit were to determine eligibility for disability benefits in accordance with ATRS laws, rules and procedures, determine effective date and benefits for disability members were calculated accurately and consistently, to evaluate internal controls surrounding the calculation of disability benefits, and to determine requirements related to Social Security determination and continuation of disability benefits. Ms. Dixson explained each of the findings, along with the recommendation and Staff response. Auditor Lea asked if there was a goal or timeframe to get the findings resolved. Director Rhoden explained findings were put on an action list and will

be addressed before re-review. He also explained that in future audits and findings, a target date will be set.

- E. 2019–2020 Internal Audit Plan.** As required by the International Standards for the Professional Practice of Internal Auditing issued by the Institute of Internal Auditors (IA), and by Arkansas Teacher Retirement Systems (ATRS) Internal Audit Charter, IA submit the following Internal Audit Plan for the Internal Audit Fiscal Year 2020. Projects were identified for this audit plan by using the ATRS risk assessment. As ATRS continues to grow in terms of responsibilities, assets, and membership, there are areas that require regular reviews to ascertain whether the system continues to operate in an effective and efficient, risk-controlled manner. Choices were made in determining which audits to perform first by determining which areas posed greater risks for the system. IA have selected areas of processes for review where failure of the system to adequately perform could have serious consequences for ATRS, its members and stakeholders, and the Board. The proposed audit plan was presented to the Committee. Copies of the Conflict of Interest Statements and Code of Ethics Acknowledgement Statements for Internal Audit staff were also presented to the Committee along with the FY2019 Summary of Work Completed.

***Ms. Davis moved to approve 2019–2020 Internal Audit Plan, and the Board unanimously approved the Motion.***

- X. Investment Committee Report.** Danny Knight, Vice Chair, gave a report on the Investment Committee meeting.
- A. Arkansas Related and Investment Update.** Rod Graves, Deputy Director, gave the Committee a report on Arkansas Related and Investment Update.
- 1. Recommendation to Provide Staff Authority to Negotiate Refinancing of American Center in Nashville, TN.** In December of 2000 ATRS partnered with Cooper Communities, Inc. (Cooper) for the purpose of purchasing American Towers located at 3100 West End, Nashville, TN, for \$71 million dollars. ATRS contributed approximately \$17 million dollars for 80% ownership and Cooper contributed approximately \$4 million dollars for 20% ownership with the balance being debt of approximately \$50 million dollars.

The approximate \$50 million dollar debt at the time of purchase in 2000 was refinanced with AIG in 2006. The terms of the 2006 refinancing included a 15 year loan of \$66 million dollars with a 25 year amortization period and an interest rate of 7.04%. The additional loan amount in 2006 of approximately \$16 million dollars was used for a stream of payments to ATRS totaling approximately \$10 million dollars over time with the remainder being used for tenant improvements and upgrades intended to increase the value of the property.

The 2006 refinancing debt is coming due in the near future and current favorable interest rates make another refinancing economically attractive. The 7.04% interest rate obtained from the refinancing in 2006 was considered to be a good rate at the time but current rates are lower and another refinancing could produce significant savings and another cash payout to ATRS. The 2006 refinancing also contained prepayment penalties which effectively economically prevented refinancing for a period of time. Now that the loan is closer to maturity the prepayment penalty has been reduced and the potential savings from available lower interest rates should help offset any remaining prepayment penalties over time.

The proposed refinancing would result in a payout to ATRS of approximate \$17.6 million dollar as well as an approximate 9% IRR from the 2000 purchase date to the 2019 refinancing. ATRS will realize another 9% IRR from the 2019 refinancing date to the 2029 maturity date assuming historical occupancy and rent growth.

Both Aon Hewitt Investment Consulting and ATRS staff recommend providing staff authority to negotiate and execute the refinancing of American Center.

**Mr. Knight *moved to adopt* Resolution 2019-26, to Provide Staff Authority to Negotiate Refinancing of American Center in Nashville, TN. The Board *unanimously adopted the Resolution.***

2. **List of Fund Closings.**
  - a. **American Industrial Partners Capital Fund VII, L.P., a Private Equity Buyout, Turnaround and Distressed Debt Fund that will Target Middle Market Underperforming Companies in the Industrial Sector,**

**the Board Authorized Commitment of up to \$30 Million Dollars on February 4, 2019 was Accepted and Closed on March 29, 2019.** The ATRS full commitment of \$30 million dollars was negotiated, accepted, and closed on March 29, 2019.

- b. Arlington Capital Partners V, LP, a Private Equity Buyout Fund Specializing in Small to Lower Mid-Market Companies in the U.S. with Imminent Need, the Board Authorized Commitment of up to \$30 Million Dollars on April 1, 2019 was Accepted and Closed on May 3, 2019.** Due to high demand for this fund, ATRS received a smaller allocation by the General Partner than requested. A commitment of \$25 million dollars was negotiated, accepted, and closed on May 3, 2019.
  - c. Blackstone Real Estate Partners Europe VI, SCSp, a Closed End Opportunistic Real Estate Fund that Acquires Distressed and Undermanaged European Properties at Below Market Prices and Executes Business Plans that Seek to Creating Core Real Estate Assets with Imminent Need, the Board Authorized Commitment of up to €44 Million Euros (Approximately the Equivalent of \$50 Million Dollars) on April 1, 2019 was Accepted and Closed on April 30, 2019.** The ATRS full commitment of €44 million euros (approximately the equivalent of \$50 million dollars) was negotiated, accepted, and closed on April 30, 2019.
- 3. Total Equity Rebalancing Update and Recap.**
- a. The Board Authorized Redeployment of the Assets Formerly Managed by Daruma Capital Management to the Existing AllianzGI Structured Alpha Global Equity 350 L.L.C. Fund and the Existing BlackRock MSCI ACWI IMI Index Fund A on April 1, 2019 was Successfully Completed on May 13, 2019.** The Board authorized redeployment of assets formerly managed by Daruma to the existing Allianz GI Structured Alpha Global Equity 350 fund and the existing BlackRock MSCI ACWI IMI fund was successfully completed on May 13, 2019.

- b. **The Board Authorized Redeployment of Assets Managed by Pershing Square Capital Management, L.P., by Closing the Pershing Square International Ltd Fund and Redeploying the Assets to the Existing BlackRock MSCI ACWI IMI Index Fund A on April 1, 2019 was Initiated April 9, 2019.** Due to fund guidelines and redemption notification requirements, the Board authorized redeployment of assets managed by Pershing Square Capital Management in the Pershing Square International fund is expected to be completed by mid-2021.

Rod Graves provided the Committee with an update on Big River Steel (BRS). Mr. Graves reported that Phase II was recently fully financed with ATRS using capital returned from prior BRS related investments to fund the ATRS pro rata portion of Phase II.

**B. General Investment Consultant Report.**

1. **Preliminary Performance Report for for the Quarter Ended March 31, 2019.** PJ Kelly and Katie Comstock of Aon Hewitt Investment Consulting provided the Committee with a preliminary performance report for the quarter ending March 31, 2019. The ATRS fund had a market value of approximately \$17.2 billion dollars. The total fund had a return of 8.5% since inception, performing at its benchmark of 8.5%. Total equity had a market value of approximately \$9.1 billion dollars. Total equity had a return of 7.7% since inception, underperforming its benchmark of 8.2%.
2. **Preliminary Performance Report for the Month Ended April 30, 2019.** P. J. Kelly and Katie Comstock of Aon Hewitt Investment Consulting provided the Committee with a preliminary portfolio update for the month ending April 30, 2019. The ATRS fund had a market value of approximately \$17.4 billion dollars. The total fund had a return of 8.5% since inception, performing at its benchmark of 8.5%. Total equity had a market value of approximately \$9.3 billion dollars. Total equity had a return of 8.6% since inception, underperforming its benchmark of 9.0%.

**C. Real Asset Consultant Report.**

1. **Performance Report for the Quarter Ended December 31, 2018.** Chae Hong of Aon Hewitt Investment Consulting provided the Committee with a performance report for the quarter ending December 31, 2018. NCREIF's NPI registered at 1.4% and NFI-ODCE (net) returned 1.5% for the quarter. In the fourth quarter of 2018, the NFI-ODCE (net) returned 1.5%, down 40 bps quarter-over-quarter. NFI-ODCE returns are holding up well despite the maturity of the real estate cycle. Quarterly returns continue to moderate towards the long-term average with net income being a larger driver of the total return. NCREIF Farmland Index returned 2.9% for the quarter, up 160 bps from the prior quarter. Permanent and row crops notches similar performance at approximately 1.3% each. NCREIF Timberland Index returned 1.0% for the quarter. The NTIs trailing one year return was 3.4% and driven primarily by an income return of 3.2% while appreciated returned 0.7%. Regionally, the Northwest remains the NTIs top performer while the U.S. Lakes region lagged.

**D. Private Equity Consultant Report.**

1. **Private Equity Portfolio Review for the Quarter Ended December 31, 2018.** Michael Bacine of Franklin Park provided the Committee with a portfolio review for the quarter ending December 31, 2018. The ATRS Legacy Portfolio is in the liquidating stage and has a remaining value of less than 0.1% of the ATRS private equity portfolio with a total IRR of 9.2%. CSFB Portfolio is also liquidating and will continue to see distributions. CSFB has a remaining value of 8.4% of the ATRS private equity portfolio with a net IRR of 8.8%. The Post 2006 Portfolio represents 2/3 of the ATRS private equity portfolio and will continue to grow as more commitments to capital are made. The Post 2006 Portfolio has a net IRR of 15.2%. The total fund had a net IRR of 10.8% for the quarter ended December 31, 2018.
2. **Recommendation to Commit up to \$30 Million Dollars in JFL Equity Investors V, L.P., a Private Equity Buyout Fund that Invests in the Defense, Aerospace and Maritime Industries and Related Businesses.** J.F. Lehman & Company, the general partner of JFL Equity Investors IV, was founded in 1992 to provide financial advisory services to companies in the defense and aerospace sectors. The advisory business ended in 1997 when the firm formed its first

institutional private equity partnership. The firm has a history of successful investments in the defense, aerospace and maritime industries primarily in the United States. Based in New York, with satellite offices in Washington, D.C. and London, the firm is led by John Lehman, Louis Mintz, Stephen Brooks and Alexander Harman who average 19 years of experience together. ATRS is currently invested in the firm's third and fourth fund. Similar to the previous four funds, this fund will make control investments in small to lower middle market companies that are either founder-owned or part of a corporate divestiture. The types of companies targeted for acquisition will generally be suppliers to the government or commercial markets and will typically be under-managed, carry excess costs or suffer from insufficient resources.

The general partner's experienced and cohesive management team with its specialized knowledge and relationships in the defense, aerospace and maritime industries as well as its overall solid track record make JFL Equity Investors V an attractive investment. The average performance of the previous three funds is approximately 30% gross IRR. There are some risks in the focus sectors of the fund such as government regulation and dependency on federal and state budgets; however, the team will seek to mitigate those risks by targeting businesses with diverse revenue sources and those in high priority areas of government spending.

Both Franklin Park and ATRS staff recommend an investment in JFL Equity Investors V, L.P. with a commitment of up to \$30 million dollars.

**Mr. Knight *moved to adopt Resolution 2019-27, to Commit up to \$30 Million Dollars in JFL Equity Investors V, L.P., a Private Equity Buyout Fund that Invests in the Defense, Aerospace and Maritime Industries and Related Businesses. The Board unanimously adopted the Resolution.***

3. **Recommendation to Transfer the Commitment of up to \$30 Million Dollars to the Franklin Park Venture Capital Access Fund, L.P. that was Authorized by the Board on December 3, 2018 to the Franklin Park Venture Fund Series 2019, L.P. a Fund of Funds Managed by Franklin Park Investing in Venture Capital Private Equity Funds. In December, the**

Board approved a commitment of up to \$30 million in the Franklin Park Venture Access Fund, L.P., a new vehicle designed to provide more flexibility to invest in high quality venture funds over a multi-year period. ATRS would serve as an anchor in this new fund with special economic terms (no fees or carried interest). At this time, however, it appears that the new fund will not be able to close until much later in the year. In order to take advantage of ongoing opportunities in the venture space this year, ATRS would need to commit to the Franklin Park Venture Fund Series 2019 instead of the Franklin Park Venture Access Fund that was previously approved.

Both Franklin Park and ATRS staff agree with the recommendation to transfer the \$30 million allocation approved by the Board in December to the Franklin Park Venture Capital Access Fund to the Franklin Park Venture Fund Series 2019, L.P.

**Mr. Knight *moved to adopt* Resolution 2019-28, to Transfer the Commitment of up to \$30 Million Dollars to the Franklin Park Venture Capital Access Fund, L.P. that was Authorized by the Board on December 3, 2018 to the Franklin Park Venture Fund Series 2019, L.P. a Fund of Funds Managed by Franklin Park Investing in Venture Capital Private Equity Funds. The Board *unanimously adopted the Resolution.***

4. **Recommendation to Transfer the Commitment of up to \$30 Million Dollars to the ATRS/FP Private Equity Fund that was Authorized by the Board on December 3, 2018 and Closed on March 1, 2019 to the Franklin Park Corporate Finance Access Fund, L.P., a Fund of Funds Managed by Franklin Park Investing in Smaller Buyout, Growth, and Turnaround Private Equity Funds.** In December, the Board approved a commitment of up to \$30 million to the ATRS/FP Private Equity Fund. This fund typically makes co-investments, investments in smaller buyout, growth, and turnaround funds as well as in appraisal rights. The Franklin Park Corporate Finance Access Fund (a fund of funds) was formed recently to allow other small investors to invest in smaller buyout, growth, and turnaround funds going forward. Like the Franklin Park Venture Access Fund, ATRS would essentially be the anchor investor in this fund (with no fees or carried interest) in that we would invest \$30 million through the ATRS/FP Private Equity Fund. Over the years, the ATRS/FP Private Equity Fund has become fairly

complicated with the different types of investments and would become more complicated by adding a fund of funds. In order to simplify accounting and monitoring for the ATRS/FP Private Equity Fund, it was recommended that ATRS invest the previously approved \$30 million directly in the Franklin Park Corporate Finance Access Fund.

Both Franklin Park and ATRS staff agree with the recommendation to transfer the \$30 million allocation approved by the Board in December to the ATRS/FP Private Equity Fund to the Franklin Park Corporate Finance Access Fund.

**Mr. Knight *moved to adopt* Resolution 2019-29, to Transfer the Commitment of up to \$30 Million Dollars to the ATRS/FP Private Equity Fund that was Authorized by the Board on December 3, 2018 and Closed on March 1, 2019 to the Franklin Park Corporate Finance Access Fund, L.P., a Fund of Funds Managed by Franklin Park Investing in Smaller Buyout, Growth, and Turnaround Private Equity Funds. The Board *unanimously adopted the Resolution.***

**XI. Operations Committee Report.** Bobby Lester, Chair gave a report on the Operations Committee meeting.

**A. Open Forum for Potential Rule or Law Changes by Committee Members and Board Members in Attendance.**

1. Open Forum. None.

**B. CASH Program: Extend for FY2020.** The CASH Program expires on June 30, 2019. ATRS staff recommends that the CASH program for fiscal year 2020 be the same as the expiring program except that the age for calculation of the accrued liability be set to the age attained as of June 30, 2019.

**Mr. Lester *moved to adopt* Resolution 2019-30, Extension of ATRS CASH Program for FY2020. The Board *unanimously adopted the Resolution.***

**C. Approval of Rules After Public Comment Period.** Mr. Clint Rhoden told the Committee that the public comment period ended May 20, 2019 for the current batch of Rules submitted to promulgation. There were no public comments. These Rules have also been reviewed by the Joint Retirement

Committee and are on the July calendar for the Arkansas Legislative Committee.

1. **Rule 4: Election of Board of Trustees**
2. **Rule 7: Reporting and Eligibility**
3. **Rule 8: Purchase and Refunds**
4. **Rule 10: T-DROP and Return to Service**
5. **Rule 16: Cash and Savings Help (CASH) Program**

**D. Potential Rule Changes from Rule to Board Policy.** Mr. Clint Rhoden presented Rules 1-1 through 3-11 to the Committee which were removed for the Administrative Procedures Act (APA) in 2005. These Rules have been reformatted and consolidated into Board Policies.

1. **Board Policy 1: Board Governance.** After discussion by Committee members, the Committee tabled this matter for further review and requested additional information be added to the policy by executive staff. Executive staff will bring back to the Committee at the October meeting.

2. **Board Policy 2: Board Objectives.**

**Mr. Lester moved to approve Board Policy 2: Board Objectives. The Board unanimously approved the Motion.**

3. **Board Policy 3: Executive Director.**

**Mr. Lester moved to approve Board Policy 3: Executive Director. The Board unanimously approved the Motion.**

**VIII. Other Business. None**

**XI. Staff Reports.**

**A. Medical Committee Reports.** Willie Kincade presented the Medical Committee reports. A total of 43 disability applications were received, 31 were approved, 4 were denied, and 8 were needed more information for disability benefits.

**Dr. Abernathy moved to approve the Medical Committee Reports. Mr. Lester seconded the motion, and the Board unanimously approved the motion.**

**B. Security Monitoring RFQs.** Director Rhoden gave an update on the security monitoring RFQs.

**XIII.** Mr. Benard Sulliban gave the Board a presentation on proposed legislation for Board Consideration. Mr. Sulliban passed out a handout for the Board to review. A copy of the handout is attached to the minutes.

**XIV. Other Business:**

**A. Recognition of Retiring Trustees.**

**Mr. Knight moved to adopt Resolution 2019-32, Commending Ms. Deborah Thompson for her Service to the Arkansas Teacher Retirement System. Ms. Davis seconded the motion, and the Board unanimously adopted the Resolution.**

**Dr. Abernathy moved to adopt Resolution 2019-33, Commending Mr. Jeff Stubblefield for his Service to the Arkansas Teacher Retirement System. Mr. Lester seconded the motion, and the Board unanimously adopted the Resolution.**

**XV. Adjourn.**

**Mr. Lester moved to adjourn the Board Meeting. Mr. Knight seconded the motion, and the Board unanimously approved the motion.**

**Meeting adjourned at 12:02 p.m.**

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Clint Rhoden,  
Executive Director

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Mr. Danny Knight, Chair  
Board of Trustees

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Tammy Porter,  
Recorder

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Date Approved

**CORRECTED MINUTES  
ARKANSAS TEACHER RETIREMENT SYSTEM  
BOARD OF TRUSTEE MEETING – SPECIAL CALLED MEETING**

**Wednesday, September 11, 2019**

**1:45 p.m.**

**1400 West Third Street  
Little Rock, AR 72201**

**ATTENDEES**

**Board Members Present**

Danny Knight, Acting Chair  
Dr. Richard Abernathy  
Anita Bell  
Lloyd Black  
Kelly Davis  
Candace Franks, State Bank Commissioner  
Andrea Lea, State Auditor  
Bobby Lester  
Chip Martin  
Jason Brady, designee for Dennis Milligan  
Robin Nichols  
Janet Watson

**Board Members Absent**

Kathy Clayton  
Johnny Key, Education Commissioner

\* *via telephone*

**ATRS Staff Present**

Clint Rhoden, Executive Director  
Rod Graves, Deputy Director  
Tammy Porter, Ex. Asst./Board Secretary  
Laura Gilson, General Counsel  
Willie Kincade, Assoc. Director of Operations  
Manju, Director, Information System  
Jerry Meyer, Manager Real Assets  
Martha Miller, Staff Attorney  
Joseph Sithong, Software Support Analyst

**Guest Present**

Jorge Perez, Division of Legislative Audit

- I. **Call to Order/Roll Call.** Mr. Danny Knight, Acting Chair called the Board of Trustees meeting to order at 1:45 p.m. Roll call was taken. Ms. Kathy Clayton and Mr. Johnny Key were absent.
  
- II. **Adoption of Agenda.**  
  
**Mr. Brady moved for adoption of the Agenda. Dr. Abernathy seconded the motion, and the Committee unanimously approved the motion.**
  
- III. **Executive Summary.** The Executive Summary was provided for reference with no questions or expansions on the written summary.

**IV. Investment Committee Report.** Robin Nichols, Chair, gave a report on the Investment Committee meeting.

- A. Recommendation to Commit up to \$30 Million Dollars in KPS Special Situations Fund V, L.P., a Private Equity Turnaround Fund that will Invest in Large Manufacturing Companies with Solvable Operating and Financial Difficulties.** Mr. Michael Bacine of Franklin Park presented the recommendation to the Committee. ATRS invested in KPS III Supplemental in 2009 and in KPS IV in 2013. Both funds have performed very well with each generating a net IRR greater than 21%. The firm which is headquartered in New York and has an office in Frankfurt, Germany has historically made operational turnaround investments in mid-market and large manufacturing companies. Fund V will focus solely on larger companies while another new KPS fund will invest in middle market companies (see item B. below). The fund will target companies with appreciable potential that have identifiable and solvable operating and financial problems. Many of the deals will arise out of bankruptcy and out-of-court proceedings as well as acquisitions of underperforming non-core assets of large companies.

The KPS senior team is led by four principals, Michael Psaros, David Shapiro, Raquel Palmer and Jay Bernstein who have an average tenure of 24 years with the general partner. The principals are supported by mid and junior investment professionals, business development professionals and a portfolio operations group.

Both Franklin Park and ATRS staff recommend an investment of up to \$30 million in KPS Special Situations Fund V, L.P.

***Ms. Nichols moved to adopt Resolution 2019-36, to Commit up to \$30 Million Dollars in KPS Special Situations Fund V, L.P., a Private Equity Turnaround Fund that will Invest in Large Manufacturing Companies with Solvable Operating and Financial Difficulties. The Board unanimously adopted the Resolution.***

- B. Recommendation to Commit up to \$30 Million Dollars in KPS Special Situations Mid-Cap Fund, L.P., a Private Equity Turnaround Fund that will Invest in Middle Market Manufacturing Companies with Solvable Operating and Financial Difficulties.** Mr. Michael Bacine of Franklin Park presented the recommendation to the Committee. This fund will be operated in the same manner as KPS Special Situations Fund V, L.P. described above except that it will focus on middle market companies.

Previous KPS funds invested in both large and mid-sized companies and were highly successful with each type. Due to the robust deal flow in both the large and middle market spaces, the general partner has been able to create two separate teams to focus on specific deal sizes. The general partner will bring to bear the same expertise and resources for both funds, and the terms and economics will be the same as well. Both funds are highly sought-after and the general partner will hold only one closing for each fund in early October.

Both Franklin Park and ATRS staff recommend an investment of up to \$30 million in KPS Special Situations Mid-Cap Fund, L.P.

**Ms. Nichols *moved to adopt* Resolution 2019-37, to Commit up to \$30 Million Dollars in KPS Special Situations Mid-Cap Fund, L.P., a Private Equity Turnaround Fund that will Invest in Middle Market Manufacturing Companies with Solvable Operating and Financial Difficulties. The Board *unanimously adopted the Resolution.***

- V. Executive Session.** A vacancy exists and the Board has asked for this item to be placed on the agenda. The Board has traditionally gone into Executive Session to discuss an appointment to the Board as allowed by the Arkansas Freedom of Information Act.

**Mr. Knight *moved to convene* into Executive Session for the purpose of discussing filling the vacant position on the Board. Ms. Nichols *seconded the motion* and the Board *unanimously approved the motion.***

**Mr. Knight, Acting Chair, called the Executive Session of the Board of Trustee to Order at 1:48 p.m.**

**Mr. Knight, Acting Chair, reconvened the Board of Trustees meeting at 2:10 p.m.**

- VI. Appointment of Trustee to fill Unexpired Term for Member Position No. 6.**

**Dr. Abernathy *moved to approve* the Appointment of Mr. Shawn Higginbotham, to fill the Unexpired Term for Member Position No. 6, on the Board of Trustees. Ms. Watson *seconded the motion* and the Board *unanimously approved the motion.***

- VII. Other Business. None**

**VIII. Adjourn.**

**Mr. Knight *moved to adjourn* the Board of Trustee Meeting. Ms. Watson seconded the *motion*, and the Board Committee *unanimously approved the motion*.**

**Meeting adjourned at 2:17 p.m.**

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Clint Rhoden  
Executive Director

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Mr. Danny Knight, Acting Chair  
Board of Trustees

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Tammy Porter,  
Board Secretary

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Date Approved

**ARKANSAS TEACHER RETIREMENT SYSTEM  
1400 West Third Street  
Little Rock, Arkansas 72201**

**RESOLUTION  
No. 2019-45**

**Authority to Transact Business**

***BE IT RESOLVED***, That effective this 2nd day of December, 2019, **CLINT RHODEN**, Executive Director, **ROD GRAVES**, Deputy Director, and **WILLIE KINCADE**, Associate Director of Operations, each are authorized to execute, acknowledge and deliver such agreements, documents, and instruments as might be necessary or appropriate in connection with the purchase, sale, pledge, transfer, or other transaction of any kind whatsoever involving any investment approved by the Arkansas Teacher Retirement System Board of Trustees or approved by the Investment Committee of said Board; and

***WHEREAS***, This authority shall continue until after the first regular scheduled Board meeting in 2020; and

***FURTHER RESOLVED***, That the execution, acknowledgement and/or delivery of such agreement, document, or instrument by any one of the three (3) named persons shall constitute the valid, binding and enforceable act of the Arkansas Teacher Retirement System by its Board of Trustees.

**Adopted this 2nd day of December 2019.**

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**Mr. Danny Knight, *Chair***  
***Arkansas Teacher Retirement System***



# Arkansas Teacher Retirement System

## Valuation Results as of June 30, 2019

December 2, 2019

Brien B. Murphy, FSA, EA, FCA, MAAA, PhD

Judith A. Kermans, EA, FCA, MAAA

Heidi G. Barry, ASA, FCA, MAAA



# Agenda



**June 30, 2019 Valuation Results**

**1**



**Going Forward**

**2**



**Current Events**

**3**

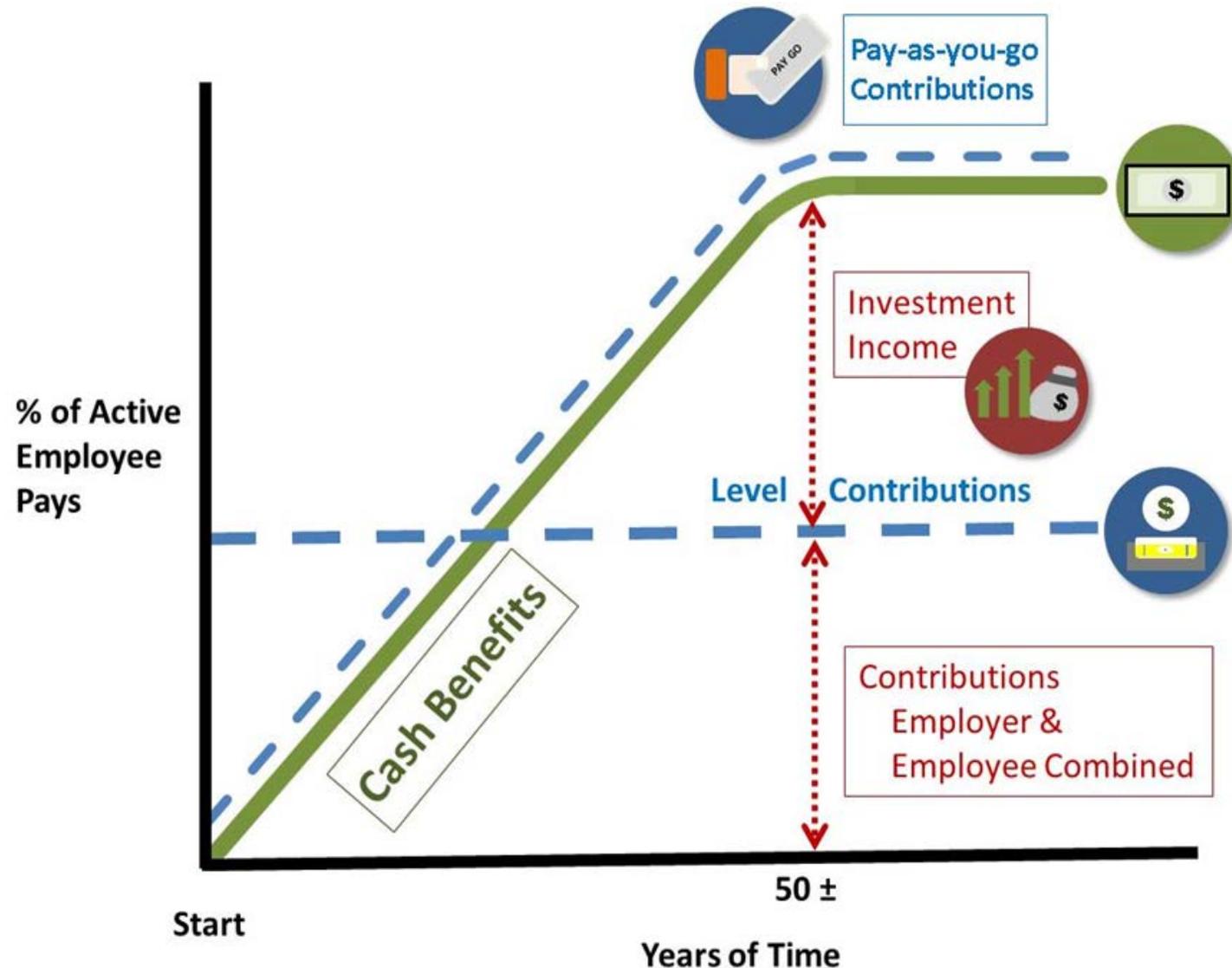
# Funding Objectives

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24-7-401 (a). Fund contributions -- Fund rates.

- (1) The financial objective of the Arkansas Teacher Retirement System is to establish and receive contributions that expressed as percentages of active member payroll will remain approximately level from generation to generation of Arkansas citizens.
- (2) Contributions received each year shall be sufficient:
  - (A) To fully cover the costs of benefit commitments being made to members for their service being rendered in that year; and
  - (B) To make a level payment that if paid annually over a reasonable period of future years will fully cover the unfunded costs of benefit commitments for service previously rendered.

# Financing Increasing Benefit Obligations



# What Is Needed to Meet Objectives?

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Reasonable forecasts of resources and obligations  
(i.e., good assumptions)

Smoothing devices

- Level % of payroll funding method (EANC)
- Market-related asset valuation method

Funding discipline

A sound investment program

# Covered Population Overview



	Number at June 30		% Change
	2019	2018	
Active	68,457	68,645	-0.3%
TDROP	3,707	3,696	0.3%
Inactive	13,033	12,544	3.9%
Retired	48,677	46,824	4.0%
<b>Total</b>	<b>133,874</b>	<b>131,709</b>	<b>1.6%</b>

ATRS receives full employer contributions for Active and TDROP members and for 4,077 retirees who have returned to work.

# Active, TDROP and RTW Members

June 30	Number				Total Payroll	% Change
	Active	TDROP	RTW	Total	\$Millions	
2013	70,660	4,265	4,025	78,950	\$ 2,819	
2014	70,225	4,127	3,845	78,197	2,851	1.1%
2015	68,945	3,974	3,741	76,660	2,874	0.8%
2016	68,368	3,864	3,829	76,061	2,888	0.5%
2017	68,337	3,811	3,881	76,029	2,922	1.2%
2018	68,645	3,696	4,029	76,370	2,986	2.2%
2019	68,457	3,707	4,077	76,241	3,027	1.4%

The actuarial valuation assumes the number of working members will remain constant at the current level and that the payroll will increase at 2.75% per year. In recent years the total number of working members has decreased and the payroll has not increased at the assumed rate. A decreasing population means less contribution income for the Retirement System than expected and can lead to funding difficulties in extreme cases.

# Non-TDRDP Active Members

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		Group Averages			
June 30	Number	Age	Service	Average Earnings	% Change
2013	70,660	45.0	10.2	\$34,920	1.62%
2014	70,225	44.7	10.2	35,673	2.16%
2015	68,945	44.6	10.3	36,717	2.93%
2016	68,368	44.4	10.3	37,235	1.41%
2017	68,337	44.3	10.2	37,707	1.27%
2018	68,645	44.2	10.2	38,477	2.04%
2019	68,457	44.1	10.1	39,065	1.53%

# T-DROP Active Members

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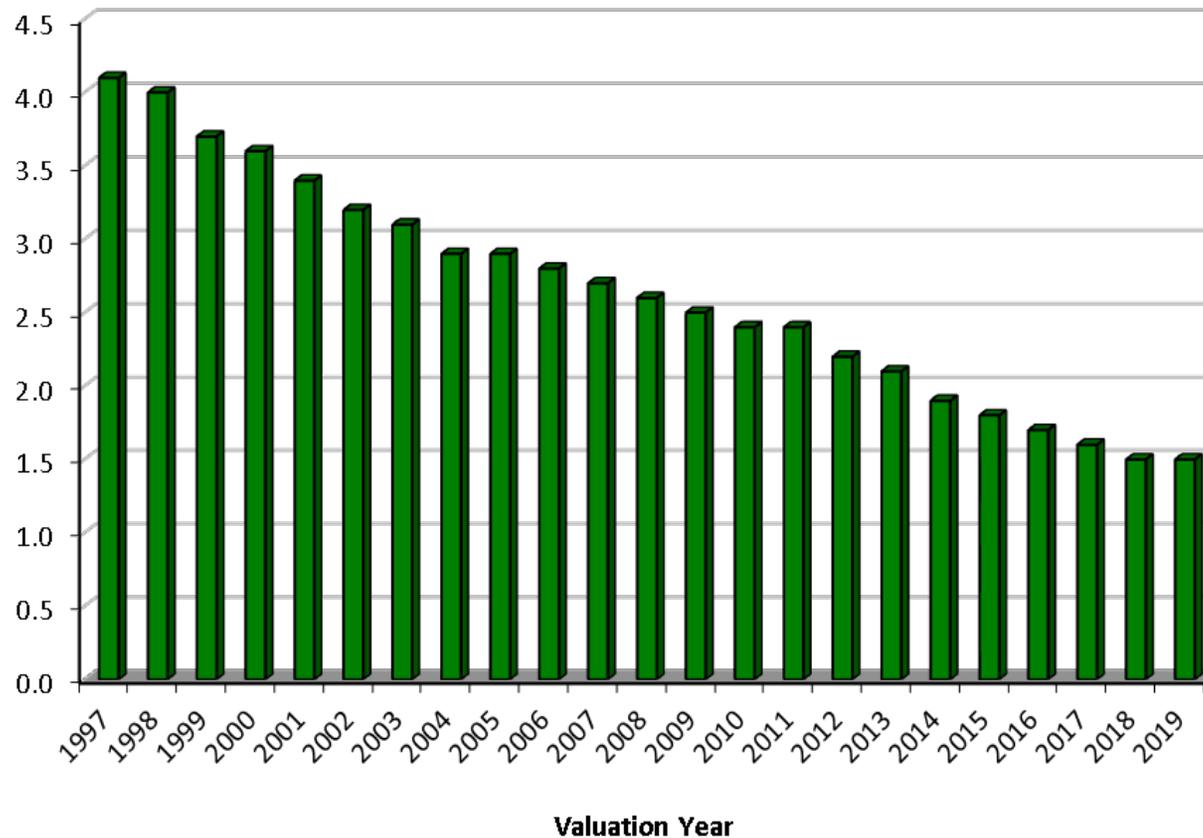
June 30	Number	Payroll		
		Average	\$ Millions	% Change
2013	4,265	\$60,927	\$259.9	
2014	4,127	61,234	252.7	-2.7%
2015	3,974	61,874	245.9	-2.7%
2016	3,864	61,943	239.3	-2.7%
2017	3,811	62,127	236.8	-1.1%
2018	3,696	62,456	230.8	-2.5%
2019	3,707	62,812	232.8	0.9%

# Deferred Vested and Retired Members

June 30	Deferred Members			Retired Members		
	Number	Benefit		Number	Benefit	
		\$ Millions	Average		\$ Millions	Average
2013	13,099	\$63.0	\$4,809	36,254	\$763.8	\$21,067
2014	11,763	60.8	5,168	38,478	822.2	21,368
2015	12,379	66.3	5,353	40,748	916.6	22,495
2016	12,937	72.2	5,577	43,095	983.9	22,830
2017	12,401	72.9	5,877	45,092	1,044.7	23,169
2018	12,544	66.2	5,279	46,824	1,099.3	23,478
2019	13,033	69.5	5,336	48,677	1,146.7	23,558

# Ratio of Actives to Retirees

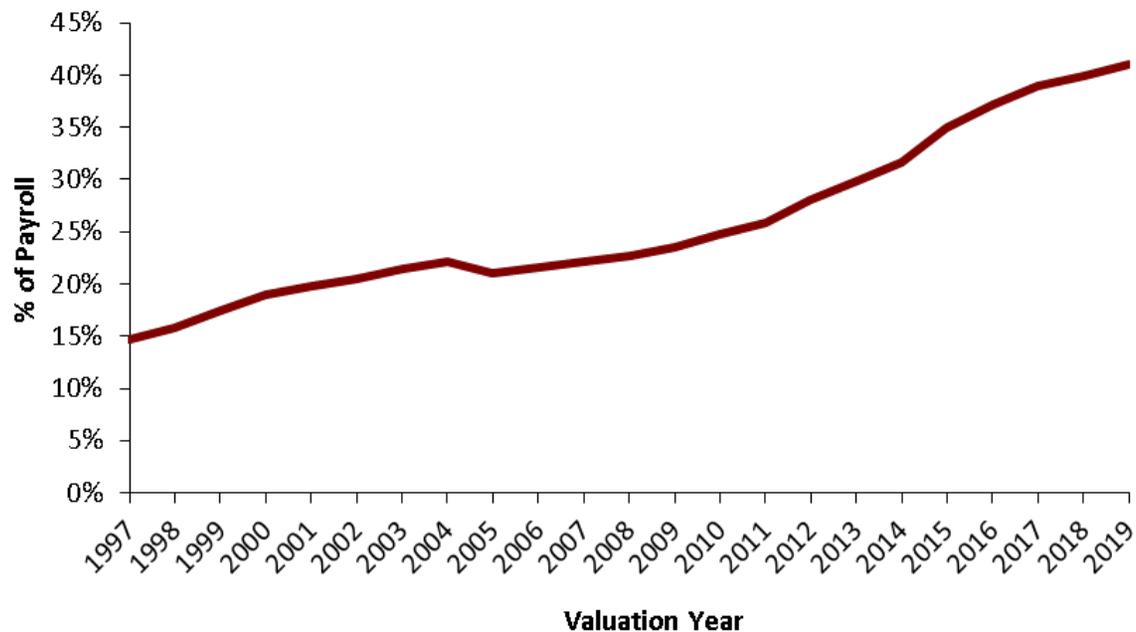
Active Members Per Retired Life \*



\* Members in T-DROP are included with Active members.

# Retirement Benefits as a Percent of Active Member (and T-DROP) Payroll

**Retirement Benefits Being Paid  
as a Percent of Member Payroll \***



*\* Beginning with the June 30, 2011 valuation, includes T-DROP participants and payroll.*

# EXPERIENCE

in FY 2019

The amortization period is 28 years, unchanged from the 28-year period last year

There was an Investment Gain this year based on the Funding Value of Assets

Details of other experience in the Gain/Loss analysis this spring

# Investment Experience

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Under the asset valuation method, investment gains and losses are spread over a 4-year period

This year there was a \$341 million (Market Value) investment loss

25% of the loss was recognized this year and the remaining 75% will be recognized over 3 future years

This year's 25% recognized loss was added to portions of gains and losses from prior years producing a net gain (Funding Value)

# Development of Funding Value of Assets

Year Ended June 30:	2018	2019	2020	2021	2022
A. Funding Value Beginning of Year	\$ 16,131,466,927	\$ 16,756,062,928			
B. Market Value End of Year	17,492,627,740	17,741,621,773			
C. Market Value Beginning of Year	16,284,808,245	17,492,627,740			
D. Non-Investment Net Cash Flow	(606,938,770)	(642,256,050)			
E. Investment Return					
E1. Market Total: B - C - D	1,814,758,265	891,250,083			
E2. Assumed Rate	7.50%	7.50%	7.50%		
E3. Amount for Immediate Recognition	1,187,099,816	1,232,620,118			
E4. Amount for Phased-In Recognition: E1-E3	627,658,449	(341,370,035)			
F. Phased-In Recognition of Investment Return					
F1. Current Year: 0.25 x E4	156,914,612	(85,342,509)	Unknown	Unknown	Unknown
F2. First Prior Year	271,285,424	156,914,612	\$ (85,342,509)	Unknown	Unknown
F3. Second Prior Year	(276,749,871)	271,285,424	156,914,612	\$ (85,342,509)	Unknown
F4. Third Prior Year	(107,015,210)	(276,749,872)	271,285,423	156,914,613	\$ (85,342,508)
<b>F5. Total Recognized Investment Gain</b>	<b>44,434,955</b>	<b>66,107,655</b>	342,857,526	71,572,104	(85,342,508)
G. Funding Value End of Year:					
G1. Preliminary Funding Value End of Year: A+D+E3+F5	<b>16,756,062,928</b>	<b>17,412,534,651</b>			
G2. Upper Corridor Limit: 120% x B	<b>20,991,153,288</b>	<b>21,289,946,128</b>			
G3. Lower Corridor Limit: 80% x B	<b>13,994,102,192</b>	<b>14,193,297,418</b>			
<b>G4. Funding Value End of Year</b>	<b>16,756,062,928</b>	<b>17,412,534,651</b>			
H. Actual/Projected Difference between Market and Funding Value	736,564,812	329,087,122	(13,770,404)	(85,342,508)	-
I. Market Rate of Return	11.36 %	5.19 %			
J. Funding Rate of Return	7.78 %	7.90 %			
K. Ratio of Funding Value to Market Value	95.79 %	98.15 %			

# Results of the 6/30/2019 Valuation

Actuarial Accrued Liabilities for:	\$Millions	
	2019	2018
Age and service retirement allowances based on total service likely to be rendered by <i>present active and TDROP members</i>	\$ 8,316	\$ 8,187
Benefits payable to present retirees and beneficiaries	12,460	11,851
Benefits payable for all other reasons	933	897
<b>Total</b>	<b>\$21,709</b>	<b>\$20,935</b>
Funding Value of Assets	17,413	16,756
Unfunded Actuarial Accrued Liabilities (UAAL)	\$ 4,296	\$ 4,179
% Funded Based on		
Funding Value of Assets	80%	80%
Market Value of Assets	82%	84%

If the UAAL were measured based on the market value of assets, it would be \$3,967 Million.

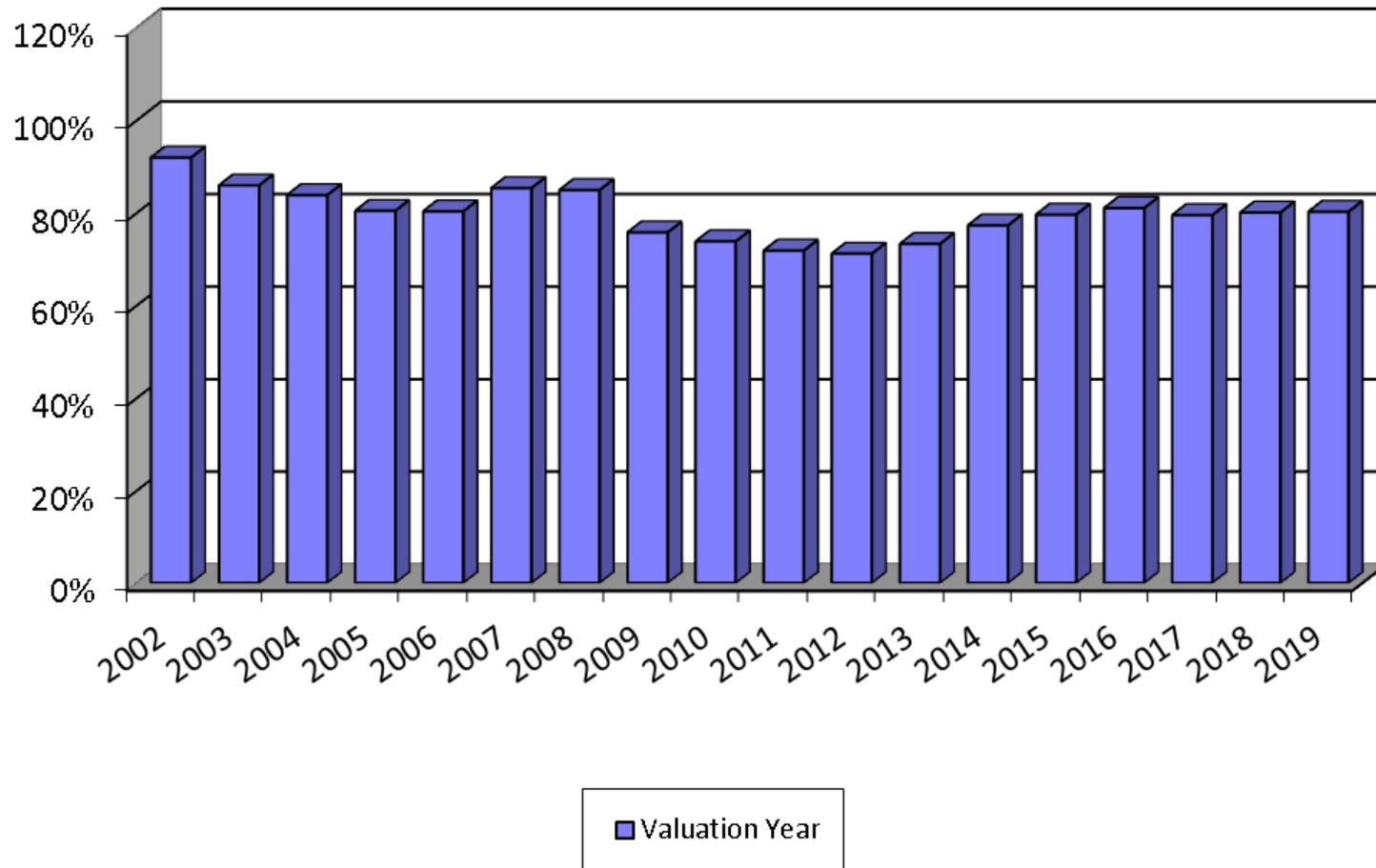
# Results of 6/30/2019 Valuation

	% Payroll	
	2019	2018
1) Employer Normal Cost	6.26%	6.26%
2) UAAL	8.74%	8.74%
3) Employer Contribution Rate	15.00%	15.00%
Amortization Years	28	28

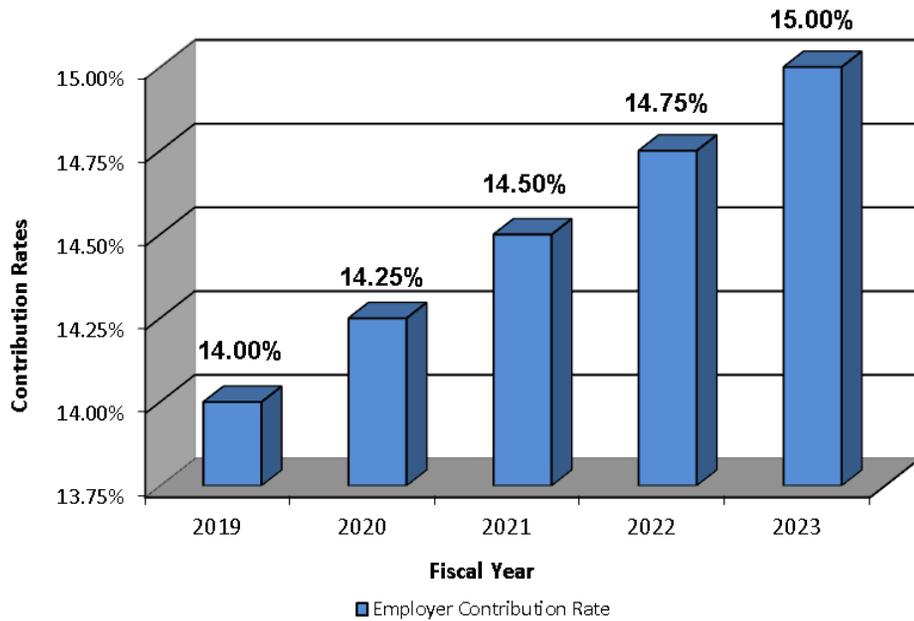
The employer and employee contribution rates each increase by 0.25% per year from FY 2020 through FY 2023 to ultimate levels of 15% and 7% respectively. The increases were taken into account in determining the amortization period. If the Market Value of Assets were used in the calculations instead of the funding value of assets, the resulting amortization period would be 24 years instead of the 28 years that is shown.

# Funded Ratio: Actuarial Value of Assets as Percents of Accrued Liabilities

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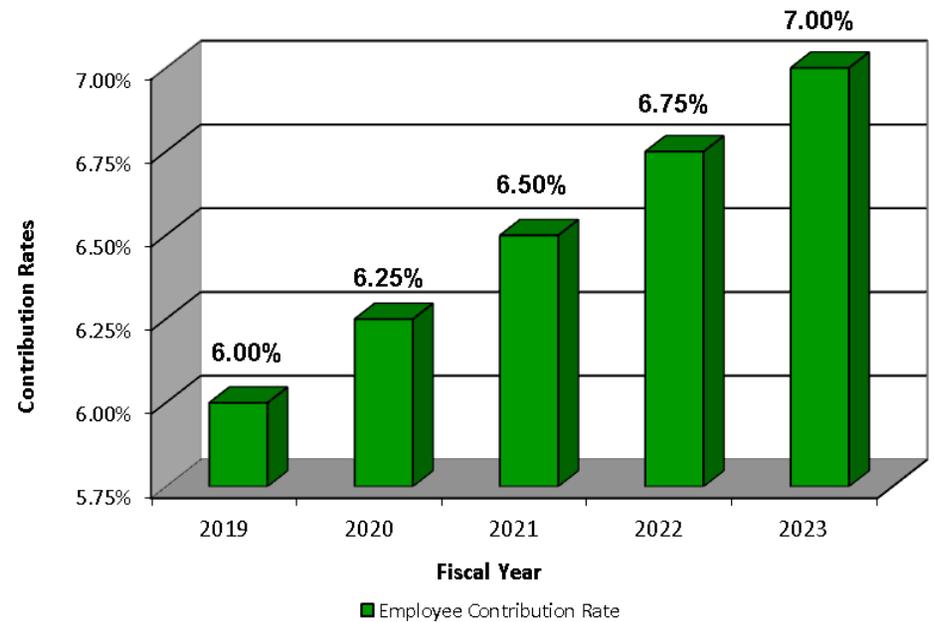


# Future Increases in Contribution Rates



The Employer Contribution Rate is scheduled to increase by 0.25% each year and reach an ultimate rate of 15.0% by FY 2023

The Employee Contribution Rate is scheduled to increase by 0.25% each year and reach an ultimate rate of 7.0% by FY 2023



# Disclosures of Risk

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## Maturity Measures

- Ratio of actives to retired, etc.

## Scenario Testing

- Specify potential future events that differ from assumptions and estimate the effect on future results.

## Stress Testing

- Specify adverse changes in one or a few factors affecting the plans financial condition and assess the impact.

## Stochastic Modeling

- Simulations showing envelope of outcomes that could occur.

## Other

- Sensitivity testing, liability measures under minimal risk investment policy, etc.

# Maturity Measures



	2019	2018	2017	2016	2015
Number of Active and TDROP Participants	72,164	72,341	72,148	72,232	72,919
Number of Terminated Vested Participants	13,033	12,544	12,401	12,937	12,379
Number of Retirees	48,677	46,824	45,092	43,095	40,748
Retiree % of Total Liabilities	57.4%	56.6%	55.9%	55.4%	53.9%
Commentary	Retired participants account for approximately 57% of plan liabilities, a proportion which has been steadily increasing over the past 5 years. This is indicative of a maturing plan. As a plan matures, it becomes more sensitive to investment volatility.				

# Maturity Measures (\$Millions)



	2019	2018	2017	2016	2015
Actuarial Accrued Liability	21,709	20,935	20,298	18,812	18,136
Payroll	2,907	2,872	2,814	2,785	2,777
Ratio of Actuarial Accrued Liability to Payroll	746.8%	728.9%	721.3%	675.5%	653.1%
Duration of the Present Value of Future Benefits	13.82	13.86	13.88	13.39	13.50

## Commentary

As the ratio of actuarial accrued liability to payroll increases, the amortization period becomes increasingly sensitive to the effects of demographic gains and losses, and assumption changes. For example, a 1% demographic gain or loss would correspond to 7.468% of payroll and would affect the amortization period by 3 years based on the 2019 results.

The duration of the present value of future benefits may be used to approximate the sensitivity to a 1% change in the assumed rate of return. For example, the current duration of 13.8 indicates that the present value of future benefits would increase approximately 13.8% if the assumed rate of return were lowered 1%. Such a change could affect the amortization period by 20 years or more.

# Maturity Measures (\$Millions)



	2019	2018	2017	2016	2015
Market Value of Assets	17,742	17,493	16,285	14,559	15,036
Payroll	2,907	2,872	2,814	2,785	2,777
Ratio of Market Value of Assets to Payroll	610.3%	609.1%	578.7%	522.7%	541.4%

## Commentary

The relationship between assets and payroll is a useful indicator of the potential volatility of contributions. The market value of assets is currently 6.1 times the payroll indicating that a return on assets 2% different from assumed would equal approximately 12% of payroll. Such a change could affect the amortization period by approximately 5 years based on 2019 results. While asset smoothing would reduce the effect, asset gains and losses much larger than 2% are common. An increasing level of this maturity measure generally indicates an increasing volatility in the amortization period.



# Additional Maturity Measures (\$Millions)

Valuation Date June 30	(1) Accrued Liabilities (AAL)	(2) Market Value of Assets	(3) Unfunded AAL (1)-(2)	(4) Valuation Payroll	(5) % Change in Payroll	(6) Funded Ratio (2)/(1)	(7) Annuitant Liabilities (AnnLiab)	(8) AnnLiab/AAL (7)/(1)
2009	\$14,019	\$8,847	\$5,172	\$2,318	2.2%	63.1%	\$6,041	43.1%
2010#	\$14,697	\$9,884	\$4,813	\$2,381	2.7%	67.2%	\$6,516	44.3%
2011#*	\$15,521	\$11,895	\$3,626	\$2,728	14.6%	76.6%	\$7,132	46.0%
2012	\$16,139	\$11,484	\$4,655	\$2,714	-0.5%	71.2%	\$7,649	47.4%
2013#	\$16,718	\$12,830	\$3,888	\$2,727	0.5%	76.7%	\$8,181	48.9%
2014	\$17,310	\$14,856	\$2,454	\$2,758	1.1%	85.8%	\$8,777	50.7%
2015	\$18,136	\$15,036	\$3,100	\$2,777	0.7%	82.9%	\$9,778	53.9%
2016	\$18,812	\$14,559	\$4,253	\$2,785	0.3%	77.4%	\$10,430	55.4%
2017#*	\$20,298	\$16,285	\$4,013	\$2,814	1.0%	80.2%	\$11,337	55.9%
2018	\$20,935	\$17,493	\$3,442	\$2,872	2.1%	83.6%	\$11,851	56.6%
2019	\$21,709	\$17,742	\$3,967	\$2,907	1.2%	81.7%	\$12,460	57.4%

# Benefit Change

\* Assumption change

Valuation Payroll includes T-DROP beginning in 2011

# Additional Maturity Measures (\$Millions)

Valuation Date June 30	(9) Liability/ Payroll (1)/(4)	(10) Assets/ Payroll (2)/(4)	(11) Est. Portfolio Std. Dev	(12) Std Dev % of Pay (10)x(11)	(13) Unfunded/ Payroll (3)/(4)	(14) Net External Cash Flow (NECF)	(15) NECF/ Assets (9)/(2)	(16) Portfolio Rate of Return	(17) 10 year Trailing Average
2009	604.8%	381.7%			223.1%	(\$172)	-1.9%	-18.3%	
2010#	617.3%	415.1%			202.2%	(\$203)	-2.1%	14.2%	3.6%
2011#*	569.0%	436.1%			132.9%	(\$201)	-1.7%	22.6%	6.1%
2012	594.7%	423.2%			171.5%	(\$285)	-2.5%	-1.1%	6.6%
2013#	613.1%	470.5%			142.6%	(\$337)	-2.6%	14.9%	8.0%
2014	627.6%	538.6%			89.0%	(\$395)	-2.7%	19.2%	8.2%
2015	653.1%	541.5%			111.6%	(\$445)	-3.0%	4.3%	7.7%
2016	675.5%	522.8%			152.7%	(\$505)	-3.5%	0.2%	6.3%
2017#*	721.3%	578.7%			142.6%	(\$556)	-3.4%	16.0%	6.0%
2018	728.9%	609.0%	12.7%	77.3%	119.9%	(\$607)	-3.5%	11.4%	7.6%
2019	746.8%	610.3%	12.5%	76.3%	136.5%	(\$642)	-3.6%	5.2%	10.4%

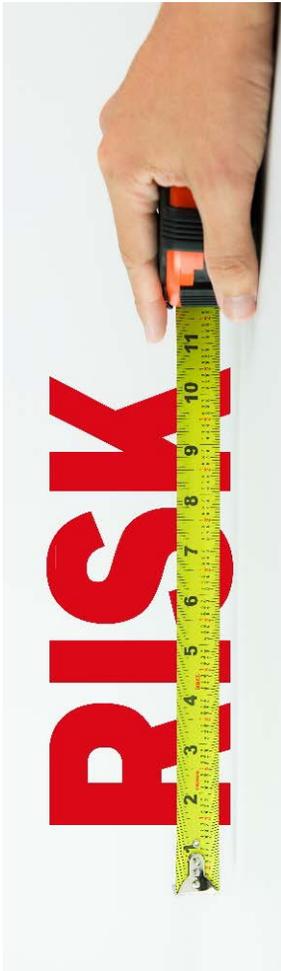
# Benefit Change

\* Assumption change

Valuation Payroll includes T-DROP beginning in 2011

# Footnotes

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

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

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

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

# Footnotes

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

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

(16) and (17) Investment return is probably the largest single risk that most systems face. The year by year return and the 10 year geometric average give an indicator of the realism of the systems assumed return. The averages are of course distorted by the extraordinary events of 2008, and the past is not a predictor of the future. The 2019 average would be 7.46% if 2009 were included in the calculation.

# SCENARIO TESTING





# About Projections

The projections that follow are based upon many assumptions about the future.

Actual future valuation results will take all known future information into account and will differ from the projections -- perhaps materially.

Projected results are very sensitive to the rates of payroll growth and liability growth that are assumed. In the long run, according to theory, both of those figures should approach 2.75%.



# The Future

Let's have a look at projected valuation results and the amortization period for the next few years based on alternate future rates of investment return for 2020.

All scenarios assume a 7.5% return for years after 2020.

All scenarios assume a 15% of pay contribution rate.

Of course, actual experience will determine what actually happens.

# Projected Amortization Years

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Valuation Year	2020	2021	2022
<b>Projection A</b>			
Investment Return	7.5%	7.5%	7.5%
Amortization Years	24	20	19
<b>Projection B</b>			
Investment Return	10%	7.5%	7.5%
Amortization Years	23	18	16
<b>Projection C</b>			
Investment Return	5%	7.5%	7.5%
Amortization Years	25	22	22



# Going Forward

Projections shown indicate that the amortization period will be 24 years in the next valuation if experience is as assumed.

However, with a 24 year period, the UAAL grows in \$ amount each year, although it declines as a % of payroll. This situation is referred to as “negative amortization” and is falling out of favor, particularly in situations where the active contributing population is declining.

“Negative Amortization” in the context of a mortgage is said to occur during any period during which the loan payment is less than the interest due so that the outstanding balance of the loan actually increases, rather than decreases, as one would normally expect.



# Going Forward

Based upon ATRS' assumptions, it takes about an 18 year period to avoid the “negative amortization.”

With reasonably good experience, projections show that we may be there (at 18 years) in 2021, even without a contribution rate increase. A contribution increase to the 17.9% of pay area would get us there now.

# Risk Management

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May involve:

- Reduction in assumed rate of investment return
- Reviewing asset allocation with a goal of reducing the standard deviation of the portfolio return
- Reducing asset-liability mismatch
- Other





# Retirement Worries

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1. 1 in 7 U.S. retirees (ages 65+) live in poverty.
2. 44% of workers who are not saving for retirement say they cannot afford to.
3. Over half (53%) of Americans do not believe their savings and investments will last if they live to be 90 years old.
4. Thirty percent of retirees have mortgage debt — almost double from 1989.
5. About 80% of older adults have at least one chronic disease, and 68% have at least two.
6. Social Security is the primary source of income for retirees but the Social Security Trust Fund is expected to be depleted in 15 years.
7. Less than half of workers (44%) believe that income from Social Security, pensions and annuities will be enough to pay for their basic living expenses in retirement.
8. 45% of working Baby Boomers have less than \$100,000 saved for retirement — 28% have less than \$25,000.
9. Only 13% of Americans say they are very knowledgeable about financial products and investments.
10. 7 in 10 pre-retirees say they aren't well prepared for their retirement.

[www.limra.com](http://www.limra.com)

# Do Pensions Crowd Out Education Funding?

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- No. Public pension funding does not crowd out education spending, according to a study by National Conference on Public Employee Retirement Systems that identifies frequent tax changes as a bigger problem.
- According to the study, the reasons many states and localities feel squeezed when it comes to pension plans and education is because they tend to cut progressive and stable taxes, such as income and property taxes, in good economic times, and then fill the resulting budget gaps with more risky revenue schemes, such as excise taxes and lotteries, instead of building sustainable revenue systems.
- The report examines several recent studies of the impact of pension plans on education spending and includes a state-by-state analysis that compares state expenditures on education and funding with economic and revenue trends.

[https://www.ncpers.org/files/NCPERS\\_peaceful-coexistence\\_revised\\_pages%20for%20web.pdf](https://www.ncpers.org/files/NCPERS_peaceful-coexistence_revised_pages%20for%20web.pdf)

# National Retirement Income Policy ?

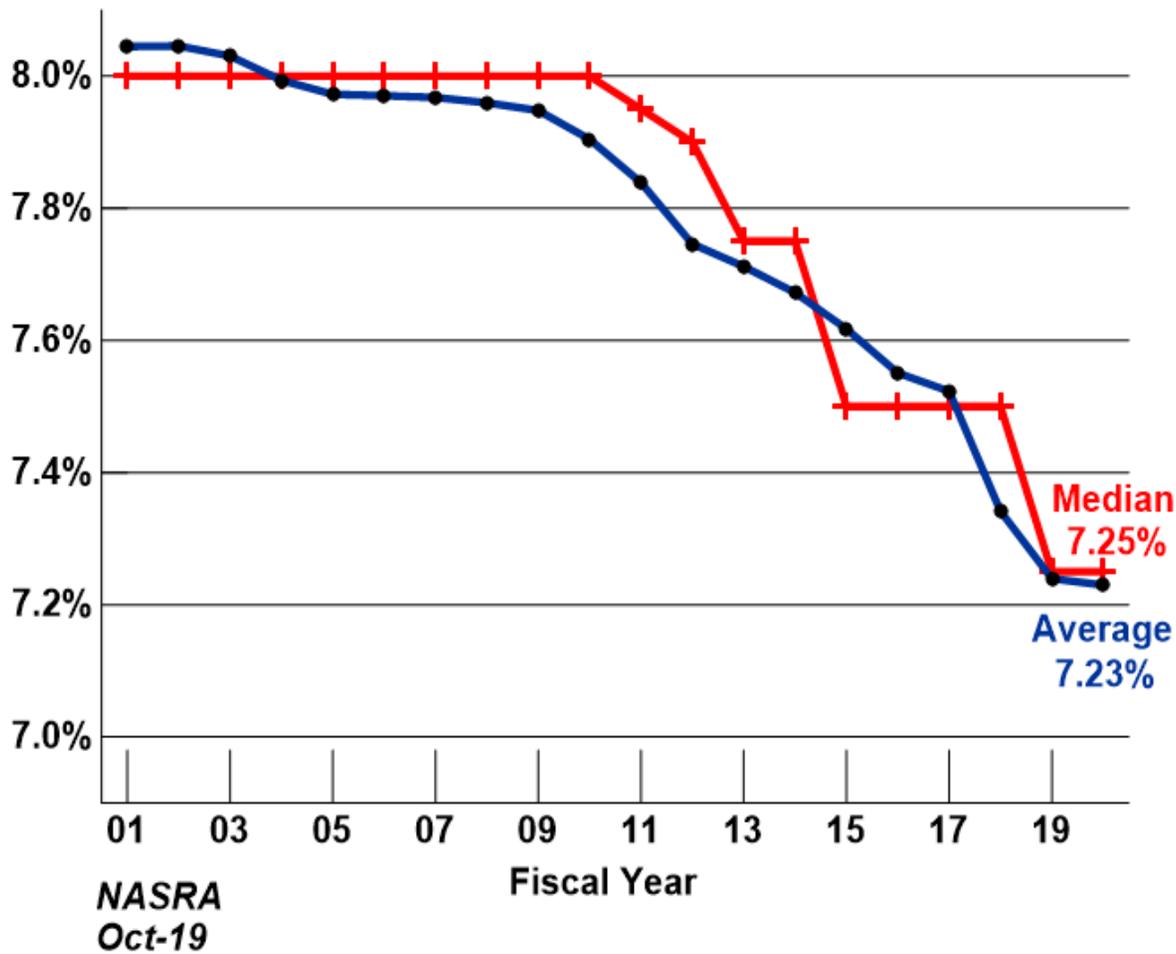
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- On July 11, 2019, the American Academy of Actuaries (AAA) released its issue brief, *National Retirement Policy and Principles*.
- The brief provides potential approaches to the principles of a national retirement policy, including: availability, adequacy, risk allocation, treatment of different income levels, use of incentives, individual choice, cost, portability and leakage.
- Some key highlights include:
  - For the majority of Americans, there is an increasing concern about having adequate and reliable retirement income.
  - Currently, many individuals rely on a combination of Social Security, employer-sponsored retirement plans, and/or personal savings to fund their retirement needs.
  - There is a growing need for the establishment of a comprehensive national retirement policy with guiding principles for the U.S. retirement system.

<https://www.actuary.org/sites/default/files/2019-07/NatRetirePolicy.pdf>

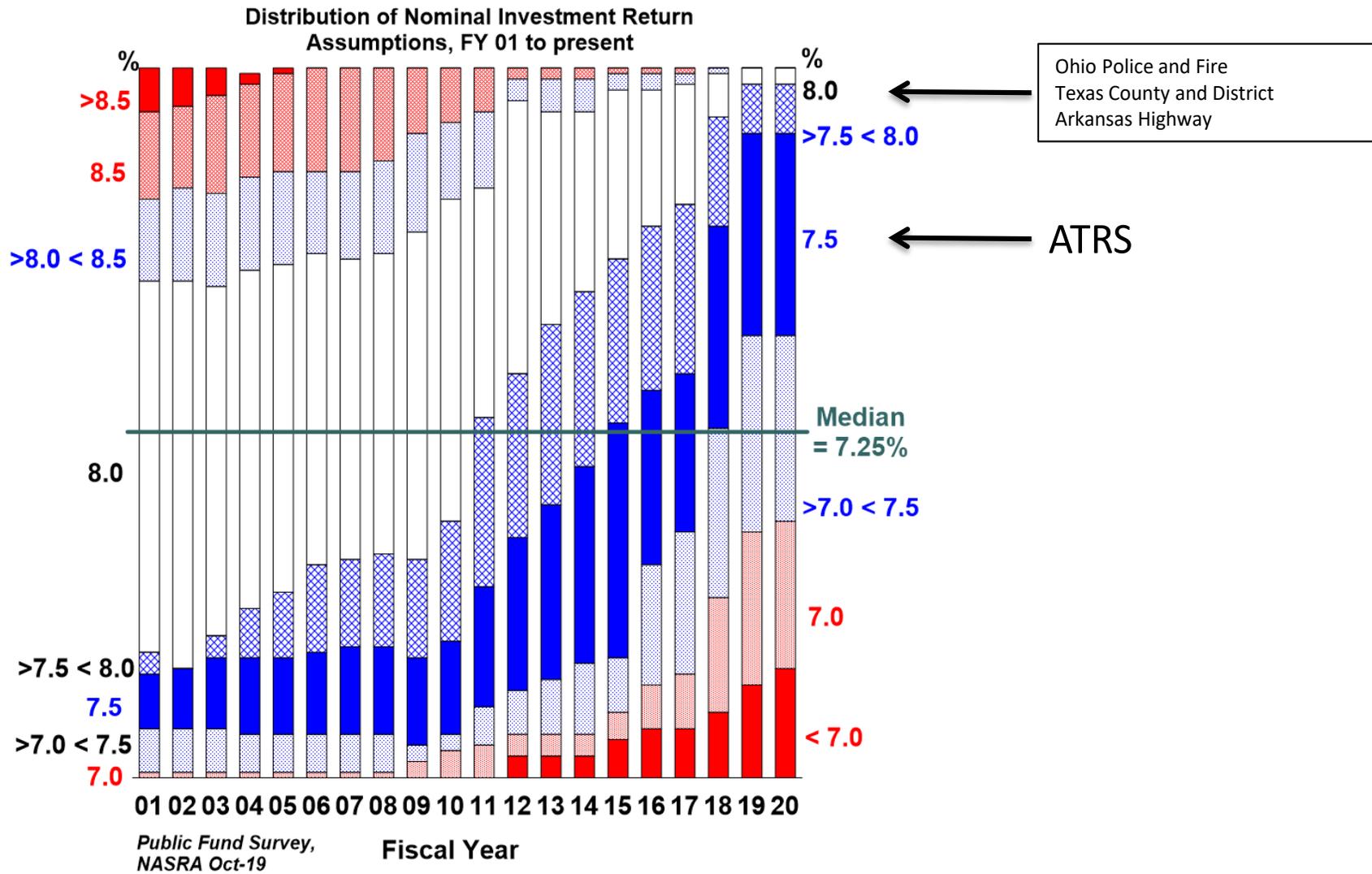
# Investment Return Assumptions Still Dropping

Change in Median and Average Public Pension Plan Investment Return Assumption



- The current median and average assumptions are **7.25%** and **7.23%** respectively
- Downward trend continuing

# Investment Return Assumptions Still Dropping



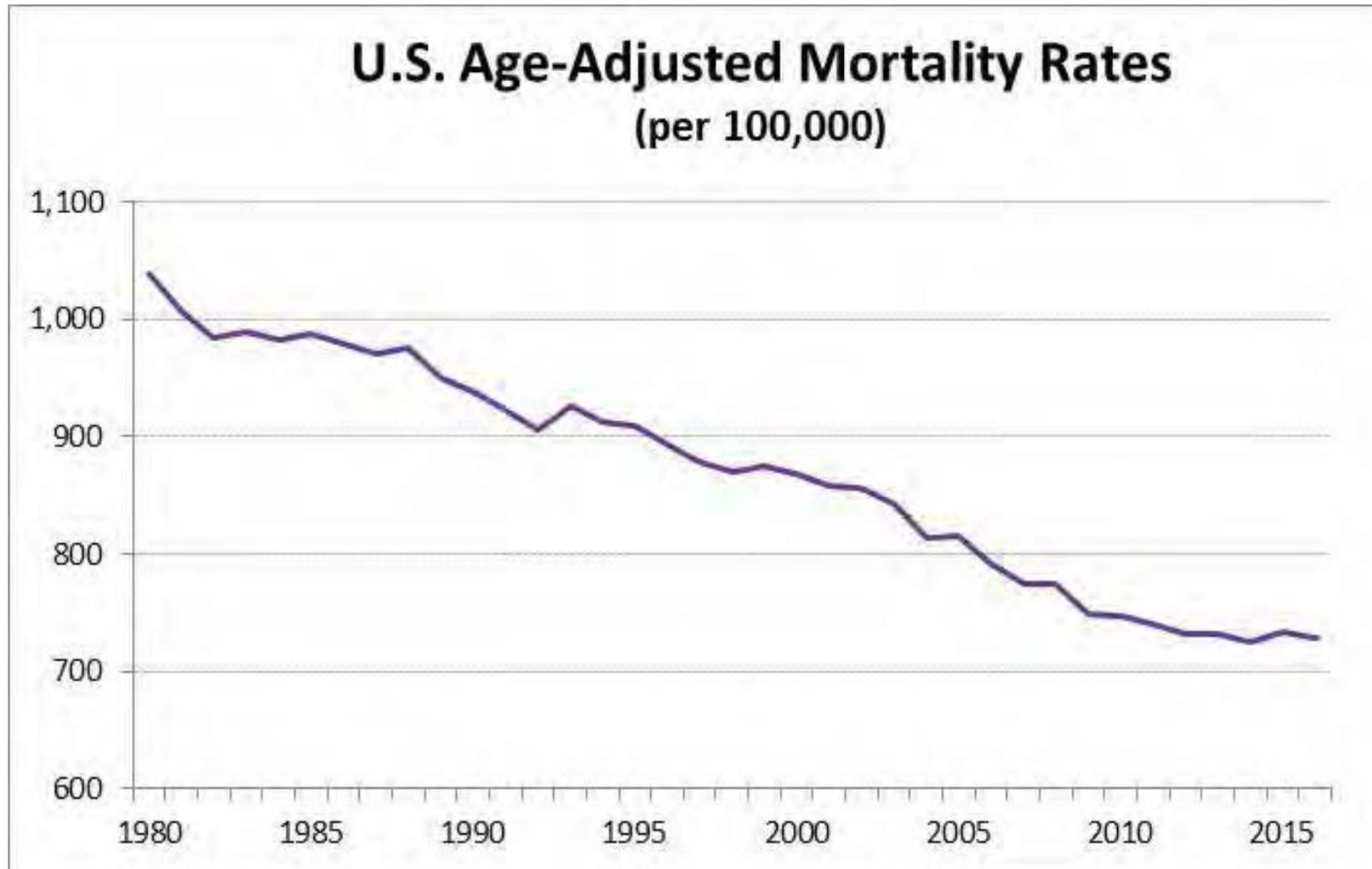
# One of the Reasons

**Treasury Yield Curve Rates 1990-2019**

Date	1 mo.	2 mo.	3 mo.	6 mo.	1 yr.	2 yr.	3 yr.	5 yr.	7 yr.	10 yr.	20 yr.	30 yr.
1/2/1990	N/A	N/A	7.8%	7.9%	7.8%	7.9%	7.9%	7.9%	8.0%	7.9%	N/A	8.0%
1/3/1995	N/A	N/A	6.0%	6.7%	7.2%	7.7%	7.8%	7.9%	7.9%	7.9%	8.1%	7.9%
1/3/2000	N/A	N/A	5.5%	5.8%	6.1%	6.4%	6.4%	6.5%	6.7%	6.6%	6.9%	6.6%
1/3/2005	2.0%	N/A	2.3%	2.6%	2.8%	3.1%	3.3%	3.6%	3.9%	4.2%	4.8%	N/A
1/4/2010	0.1%	N/A	0.1%	0.2%	0.5%	1.1%	1.7%	2.7%	3.4%	3.9%	4.6%	4.7%
1/2/2015	0.0%	N/A	0.0%	0.1%	0.3%	0.7%	1.1%	1.6%	1.9%	2.1%	2.4%	2.7%
1/2/2019	2.4%	2.4%	2.4%	2.5%	2.6%	2.5%	2.5%	2.5%	2.6%	2.7%	2.8%	3.0%
11/8/2019	1.6%	1.6%	1.6%	1.6%	1.6%	1.7%	1.7%	1.7%	1.9%	1.9%	2.3%	2.4%

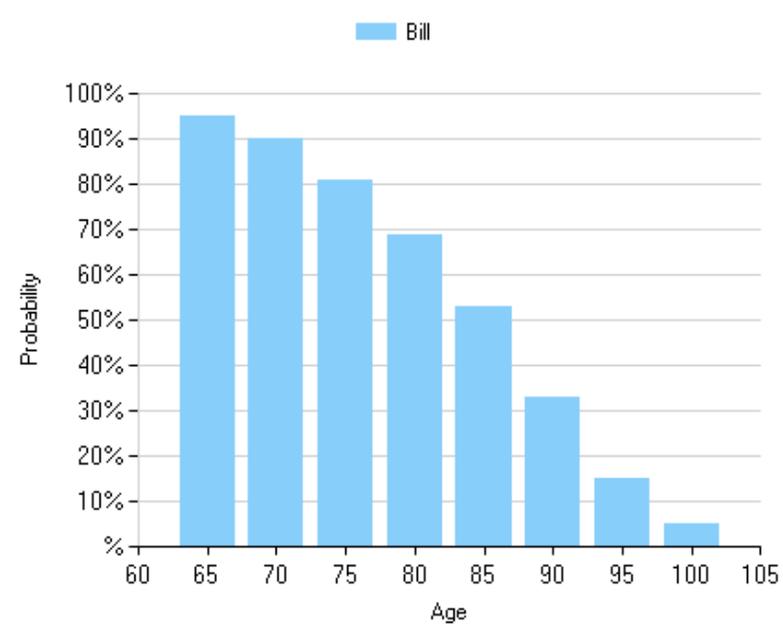
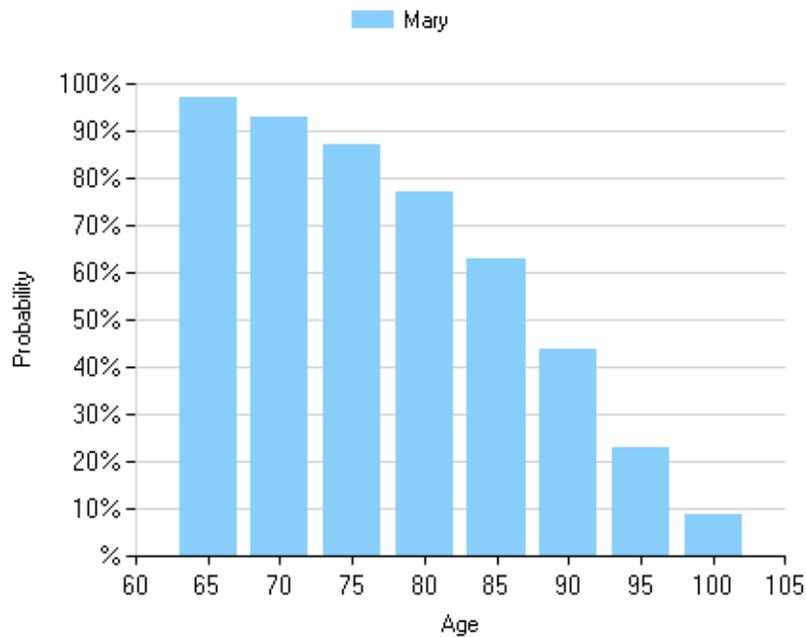
A low risk portfolio could produce returns of 8% or more in the 1990s. Takes a lot more risk to do so today.

# Good News -- We Are Living Longer



# But How Long Will YOU Live?

Retirement Age 60, non-smoker, average health



Try the Actuary's Longevity Illustrator at <https://www.longevityillustrator.org>

# Is Retirement Dying, Evolving, or What ?

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- More Americans are opting to work well into retirement, a growing trend that threatens to upend the old workforce model. “The concept of retirement is evolving,” said Christine Russell, senior manager of retirement at TD Ameritrade. “It’s not just about finances. The value of work is also driving folks to continue working past retirement.”
- One in three Americans who are at least 40 have or plan to have a job in retirement to prepare for a longer life, according to a survey conducted by Harris Poll for TD Ameritrade. About 72% of “unretiree” respondents said that they would return to work once retired to keep mentally fit while 59% said it would be tied to making ends meet.
- Six in 10 “unretirees” are increasing their savings in anticipation of a longer life.
- Unfortunately, many people who are opting to work in retirement are preparing to do so because they are worried about making ends meet in their later years, said Brent Weiss, a co-founder at Baltimore-based financial-planning firm Facet Wealth. He suggested that pre-retirees should speak with a financial adviser to set long-term financial goals. “The most challenging moments in life are getting married, starting a family and ultimately retiring,” Weiss said. “It’s not just a financial decision, but an emotional one. Many people believe they can’t retire.”

[www.USA.com](http://www.USA.com)

# Seven Ways Employers Can Help Employees Prepare for Retirement

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1. Offer a retirement savings plan;
2. Encourage workers to actively engage in retirement planning;
3. Refresh and promote the availability of retirement education and advice;
4. Promote short- and long-term financial security by offering a variety of benefits;
5. Educate pre-retirees about Social Security benefits;
6. Be an aging-friendly employer; and
7. Enable workers to work past age 65 with a flexible transition into retirement.

[https://www.iscebs.org/Documents/PDF/bqpublic/BQ%203Q\\_Collinson.pdf](https://www.iscebs.org/Documents/PDF/bqpublic/BQ%203Q_Collinson.pdf)

# Disclaimers

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- This presentation is intended to be used in conjunction with the June 30, 2019 actuarial valuation report. This presentation should not be relied on for any purpose other than the purpose described in the valuation report.
- This presentation shall not be construed to provide tax advice, legal advice or investment advice.
- Readers are cautioned to examine original source materials and to consult with subject matter experts before making decisions related to the subject matter of this presentation.
- If anything in this presentation or in the full report appears to you to be incorrect or if you need additional information in order to make an informed decision on matters discussed herein, please contact the authors.
- This presentation expresses the views of the authors and does not necessarily express the views of Gabriel, Roeder, Smith & Company.

# STATEMENT OF FINANCIAL INTEREST

**State/District officials file with:**

John Thurston, Secretary of State  
State Capitol, Room 026  
Little Rock, AR 72201  
Phone (501) 682-5070  
Fax (501) 682-3548

**Calendar year covered** \_\_\_\_\_

(Note: Filing covers the previous calendar year)

For assistance in completing  
this form contact:

Arkansas Ethics Commission  
Phone (501) 324-9600  
Toll Free (800) 422-7773

**Is this an amendment?**    Yes    No

Please provide complete information. If the information requested in a particular section does not apply to you, indicate such by noting “**Not Applicable**” in that section. Do not leave any part of this form blank. If additional space is needed, you may attach the information to this document. Do not file this form with the Arkansas Ethics Commission.

## SECTION 1- NAME AND ADDRESS

Name \_\_\_\_\_  
(Last) (First) (Middle)

Address \_\_\_\_\_  
(Street or P.O. Box Number) (City) (State) (Zip Code)

Phone \_\_\_\_\_

Spouse's name \_\_\_\_\_  
(Last) (First) (Middle)

All names under which you and/or your spouse do business: \_\_\_\_\_

## SECTION 2- REASON FOR FILING

- Public Official \_\_\_\_\_  
(office held)
- Candidate \_\_\_\_\_  
(office sought)
- District Judge \_\_\_\_\_  
(name of district)
- City Attorney \_\_\_\_\_  
(name of city)
- State Government: Agency Head/Department Director/Division Director \_\_\_\_\_  
(name of agency/department/division)
- Chief of Staff or Chief Deputy \_\_\_\_\_  
(name of Constitutional Officer, Senate, or House of Representatives)
- Public appointee to State Board or Commission \_\_\_\_\_  
(name of board/commission)
- School Board member \_\_\_\_\_  
(name of school district)
- Candidate for school board \_\_\_\_\_  
(name of school district)
- Public or Charter School Superintendent \_\_\_\_\_  
(name of school district/school)
- Executive Director of Education Service Cooperative \_\_\_\_\_  
(name of cooperative)
- Advertising and Promotion Commission member \_\_\_\_\_  
(name of advertising and promotion commission)
- Research Park Authority Board member under A.C.A. § 14-144-201 et seq. \_\_\_\_\_  
(name of research park authority board)

**SECTION 2- REASON FOR FILING (continued)**

- Appointee to one of the following municipal, county or regional boards or commissions (list name of board or commission):
- Planning board or commission \_\_\_\_\_
  - Airport board or commission \_\_\_\_\_
  - Water or Sewer board or commission \_\_\_\_\_
  - Utility board or commission \_\_\_\_\_
  - Civil Service commission \_\_\_\_\_

**SECTION 3- SOURCE OF INCOME**

List each employer and/or each other source of income from which you, your spouse, or any other person for the use or benefit of you or your spouse receives gross income amounting to more than \$1,000. (You are not required to disclose the individual items of income that constitute a portion of the gross income of the business or profession from which you or you spouse derives income. For example: accountants, attorneys, farmers, contractors, etc. do not have to list their individual clients.) If you receive gross income exceeding \$1,000 from at least one source, the answer N/A is not correct.

- a) Check appropriate box:       More than \$1,000                                       More than \$12,500

\_\_\_\_\_

(name of employer or source of income)

\_\_\_\_\_

(address)

\_\_\_\_\_

(name under which income received)

Provide a brief description of the nature of the services for which the compensation was received \_\_\_\_\_

\_\_\_\_\_

- b) Check appropriate box:       More than \$1,000                                       More than \$12,500

\_\_\_\_\_

(name of employer or source of income)

\_\_\_\_\_

(address)

\_\_\_\_\_

(name under which income received)

Provide a brief description of the nature of the services for which the compensation was received \_\_\_\_\_

\_\_\_\_\_

- c) Check appropriate box:       More than \$1,000                                       More than \$12,500

\_\_\_\_\_

(name of employer or source of income)

\_\_\_\_\_

(address)

\_\_\_\_\_

(name under which income received)

Provide a brief description of the nature of the services for which the compensation was received \_\_\_\_\_

\_\_\_\_\_

**SECTION 4- BUSINESS OR HOLDINGS**

List the name of every business in which you, your spouse or any other person for the use or benefit of you or your spouse have an investment or holding. Individual stock holdings should be disclosed. Figures should be based on fair market value at the end of the reporting period.

a) Check appropriate box:  More than \$1,000  More than \$12,500

(name of corporation, firm or enterprise)

(address)

(name under which investment held)

b) Check appropriate box:  More than \$1,000  More than \$12,500

(name of corporation, firm or enterprise)

(address)

(name under which investment held)

c) Check appropriate box:  More than \$1,000  More than \$12,500

(name of corporation, firm or enterprise)

(address)

(name under which investment held)

d) Check appropriate box:  More than \$1,000  More than \$12,500

(name of corporation, firm or enterprise)

(address)

(name under which investment held)

e) Check appropriate box:  More than \$1,000  More than \$12,500

(name of corporation, firm or enterprise)

(address)

(name under which investment held)

f) Check appropriate box:  More than \$1,000  More than \$12,500

(name of corporation, firm or enterprise)

(address)

(name under which investment held)

**SECTION 5- OFFICE OR DIRECTORSHIP**

List every office or directorship held by you or your spouse in any business, corporation, firm, or enterprise subject to jurisdiction of a regulatory agency of this State, or of any of its political subdivisions.

a) \_\_\_\_\_  
(name of business, corporation, firm, or enterprise)  
\_\_\_\_\_  
(address)  
\_\_\_\_\_  
(office or directorship held)  
\_\_\_\_\_  
(name of office holder)

b) \_\_\_\_\_  
(name of business, corporation, firm, or enterprise)  
\_\_\_\_\_  
(address)  
\_\_\_\_\_  
(office or directorship held)  
\_\_\_\_\_  
(name of office holder)

**SECTION 6- CREDITORS**

List each creditor to whom the value of five thousand dollars (\$5,000) or more was personally owed or personally obligated and is still outstanding. (This does not include debts owed to members of your family or loans made in the ordinary course of business by either a financial institution or a person who regularly and customarily extends credit.)

a) \_\_\_\_\_  
(name of creditor)  
\_\_\_\_\_  
(address of creditor)

b) \_\_\_\_\_  
(name of creditor)  
\_\_\_\_\_  
(address of creditor)

c) \_\_\_\_\_  
(name of creditor)  
\_\_\_\_\_  
(address of creditor)

**SECTION 7- PAST-DUE AMOUNTS OWED TO GOVERNMENT**

List the name and address of each governmental body to which you are legally obligated to pay a past-due amount and a description of the nature of the amount of the obligation.

a) \_\_\_\_\_  
(name of governmental body) (address of governmental body)  
\_\_\_\_\_  
(amount owed) (nature of the obligation)

b) \_\_\_\_\_  
(name of governmental body) (address of governmental body)  
\_\_\_\_\_  
(amount owed) (nature of the obligation)



**SECTION 10- AWARDS**

If you are an employee of a public school district, the Arkansas School for the Blind, the Arkansas School for the Deaf, the Arkansas School for Mathematics, Sciences, and the Arts, a university, a college, a technical college, a technical institute, a comprehensive life-long learning center, or a community college, the law requires you to disclose each monetary or other award over one hundred dollars (\$100) which you have received in recognition of your contributions to education. The information disclosed with respect to each such award should include the source, date, description, and a reasonable estimate of the fair market value.

a) \_\_\_\_\_  
(description of award)

\_\_\_\_\_ (date) \_\_\_\_\_ (fair market value)

\_\_\_\_\_ (source of award)

b) \_\_\_\_\_  
(description of award)

\_\_\_\_\_ (date) \_\_\_\_\_ (fair market value)

\_\_\_\_\_ (source of award)

c) \_\_\_\_\_  
(description of award)

\_\_\_\_\_ (date) \_\_\_\_\_ (fair market value)

\_\_\_\_\_ (source of award)

d) \_\_\_\_\_  
(description of award)

\_\_\_\_\_ (date) \_\_\_\_\_ (fair market value)

\_\_\_\_\_ (source of award)

**SECTION 11- NONGOVERNMENTAL SOURCES OF PAYMENT**

List each nongovernmental source of payment of your expenses for food, lodging, or travel which bears a relationship to your office when you appear in your official capacity when the expenses incurred exceed \$150.

a) \_\_\_\_\_  
(name of person or organization paying expense)

\_\_\_\_\_ (business address)

\_\_\_\_\_ (date of expense) \_\_\_\_\_ \$ \_\_\_\_\_ (amount of expense)

\_\_\_\_\_ (nature of expenditure)

b) \_\_\_\_\_  
(name of person or organization paying expense)

\_\_\_\_\_ (business address)

\_\_\_\_\_ (date of expense) \_\_\_\_\_ \$ \_\_\_\_\_ (amount of expense)

\_\_\_\_\_ (nature of expenditure)

**SECTION 12- DIRECT REGULATION OF BUSINESS**

List any business which employs you and is under direct regulation or subject to direct control by the governmental body which you serve.

a) \_\_\_\_\_  
(name of business)  
\_\_\_\_\_  
(governmental body which regulates or controls)

b) \_\_\_\_\_  
(name of business)  
\_\_\_\_\_  
(governmental body which regulates or controls)

c) \_\_\_\_\_  
(name of business)  
\_\_\_\_\_  
(governmental body which regulates or controls)

d) \_\_\_\_\_  
(name of business)  
\_\_\_\_\_  
(governmental body which regulates or controls)

**SECTION 13- SALES TO GOVERNMENTAL BODY**

List the goods or services sold to the governmental body for which you serve which have a total annual value in excess of \$1,000. List the compensation paid for each category of goods or services sold by you or any business in which you or your spouse is an officer, director, or stockholder owning more than 10% of the stock of the company.

a) \_\_\_\_\_  
(goods or services)  
\_\_\_\_\_  
(governmental body to whom sold)  
\_\_\_\_\_  
(compensation paid)

b) \_\_\_\_\_  
(goods or services)  
\_\_\_\_\_  
(governmental body to whom sold)  
\_\_\_\_\_  
(compensation paid)

c) \_\_\_\_\_  
(goods or services)  
\_\_\_\_\_  
(governmental body to whom sold)  
\_\_\_\_\_  
(compensation paid)

d) \_\_\_\_\_  
(goods or services)  
\_\_\_\_\_  
(governmental body to whom sold)  
\_\_\_\_\_  
(compensation paid)

**SECTION 14- SIGNATURE**

I certify under penalty of false swearing that the above information is true and correct.

\_\_\_\_\_  
Signature

STATE OF ARKANSAS

} ss

COUNTY OF \_\_\_\_\_

Subscribed and sworn before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_ .

(Legible Notary Seal)

\_\_\_\_\_  
Notary Public

My commission expires: \_\_\_\_\_

Note: If faxed, notary seal must be legible (i.e., either stamped or raised and inked) and the original must follow within ten (10) days pursuant to Ark. Code Ann. § 21-8-703(b)(3).

**IMPORTANT**

**Where to file:**

- State or district candidates/public servants file with the Secretary of State.
- Appointees to state boards/commissions file with the Secretary of State.
- County, township, and school district candidates/public servants file with the county clerk.
- Municipal candidates/public servants file with the city clerk or recorder, as the case may be.
- City attorneys file with the city clerk of the municipality in which they serve.
- District judges file with the Secretary of State.
- Members of regional boards or commissions file with the county clerk of the county in which they reside.

**General Information:**

- \* The Statement of Financial Interest should be filed by January 31 of each year.
- \* The filing covers the previous calendar year.
- \* Candidates for elective office shall file the Statement of Financial Interest for the previous calendar year on the first Monday following the close of the period to file as a candidate for elective office unless already filed by January 31. In addition, if the party filing period ends before January 1 of the year of the general election, candidates for elective office shall file a Statement of Financial Interest for the previous calendar year by no later than January 31 of the year of the general election.
- \* Agency heads, department directors, and division directors of state government shall file the Statement of Financial Interest within thirty (30) days of appointment or employment unless already filed by January 31.
- \* Appointees to state boards or commissions shall file the Statement of Financial Interest within thirty (30) days after appointment unless already filed by January 31.
- \* If a person is included in any category listed above for any part of a calendar year, that person shall file a Statement of Financial Interest covering that period of time regardless of whether they have left their office or position as of the date the statement is due.

## INSTRUCTIONS FOR STATEMENT OF FINANCIAL INTEREST

### INTRODUCTION/WHO MUST FILE

Ark. Code Ann. § 21-8-701(a) requires that the following persons file a written Statement of Financial Interest on an annual basis:

- A public official, as defined by Ark. Code Ann. § 21-8-402(17);
- A candidate for elective office;
- A district judge; or city attorney, whether elected or appointed;
- Any agency head, department director, or division director of state government;
- Any chief of staff or chief deputy of a constitutional officer, the Senate, or the House of Representatives;
- Any public appointee to any state board or commission (who possesses regulatory authority or is authorized to receive or disburse state or federal funds);<sup>1</sup>
- All persons who are elected members of a school board or who are candidates for a position on a school board;
- All public and charter school superintendents;
- All executive directors of education service cooperatives;
- Any person appointed to a municipal, county or regional (i) planning board or commission, (ii) airport board or commission, (iii) water or sewer board or commission, (iv) utility board or commission, or (v) civil service commission;
- Any member of an advertising and promotion commission; and
- Any member of a research park authority board under Ark. Code Ann. § 14-144-201 et seq.

The Arkansas Ethics Commission, which enforces this statute, has prepared these instructions, along with the office of the Secretary of State, whose office maintains the records, to assist persons required to file these statements. If you have any questions concerning the reporting requirements or how to fill out your Statement of Financial Interest, call or write either the **Arkansas Ethics Commission**, Post Office Box 1917, Little Rock, Arkansas 72203-1917, tel. (501) 324-9600 or the **Secretary of State, Elections Division**, State Capitol, Room 026, Little Rock, Arkansas 72201, tel. (501) 682-5070.

When preparing the Statement of Financial Interest, please **print or type the information**. You must also sign the Statement in Section 13 and your signature must be attested to before a Notary Public.

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<sup>1</sup> Pursuant to Ark. Code Ann. § 21-8-701(a)(5)(B), a public appointee to a state board or commission which is not charged by law with the exercise of regulatory authority and which receives or disburses state or federal funds only in the form of mileage reimbursement for members attending meetings of the board or commission is not required file a written Statement of Financial Interest.

## **TIME FOR FILING/PERIOD COVERED**

Pursuant to Ark. Code Ann. § 21-8-701(c)(1)(A), a Statement of Financial Interest for the previous calendar year "shall be filed by January 31, of each year, except that a candidate for elective office shall file the Statement of Financial Interest for the previous calendar year on the first Monday following the close of the period to file as a candidate for elective office." Pursuant to Ark. Code Ann. § 21-8-705, if the party filing period under Ark. Code Ann. § 7-7-203 ends before January 1 of the year of the general election, a candidate for elective office shall file a Statement of Financial Interest for the previous calendar year no later than January 31 of the year of the general election in addition to the Statement of Financial Interest required under Ark. Code Ann. § 12-8-701.

Moreover, an agency head, department director, or division director of state government and any public appointee to a state board or commission authorized or charged by law with the exercise of regulatory authority or authorized to receive or disburse state or federal funds shall file a Statement of Financial Interest for the previous calendar year within thirty (30) days after appointment or employment. Incumbent officeholders who filed a Statement of Financial Interest for the previous calendar year by January 31 of the year in which an election is held are not required to file an additional Statement of Financial Interest upon becoming a candidate for reelection or election to another office during the year. Ark. Code Ann. § 21-8-701(c)(2). If a person required to file a Statement of Financial Interest leaves his or her office or position during a particular calendar year, he or she shall still be required to file a Statement of Financial Interest covering that part of the year which he or she held the office or position. Ark. Code Ann. § 21-8-701(c)(1)(B).

## **WHERE TO FILE**

Pursuant to Ark. Code Ann. § 21-8-703, the Statement of Financial Interest shall be filed as follows:

- (1) State or district public servants (including appointees to state boards/commissions) and candidates for state or district public office are required to file the statement with the Secretary of State;
- (2) County, township, or school district public servants and candidates for county, township, or school district public office are required to file the statement with the county clerks;
- (3) Municipal public servants and candidates for municipal office are required to file the statement with the city clerk or recorder;
- (4) City attorneys, whether elected or appointed, are required to file the statement with the city clerk of the municipality within which they serve;
- (5) Members of regional boards or commissions are required to file the statement with the county clerk of the county in which they reside; and
- (6) District judges are required to file the statement with the Secretary of State.

## **SPECIFIC REPORTING INSTRUCTIONS**

### **SECTION 1 (Name and Address)**

Answer each of these questions or indicate "Not Applicable". List all names under which you and/or your spouse do business.

### **SECTION 2 (Reason for Filing)**

Check the box applicable to you and provide the office/position held or name of the board, commission or school district in the appropriate space.

### **SECTION 3 (Sources of Income)**

The term "gross income" is intended to be comprehensive. It refers to all income from whatever source derived, including but not limited to compensation for services, fees, commissions, and income derived from business interests. Report each employer and/or each other source of income from which you, your spouse, or any other person for the use or benefit of you or your spouse receives gross income exceeding \$1,000 on an annual basis. Include your governmental income from the office or position which requires your filing of this form. You are required to use the gross amount received as income. Thus, you must compute your total income from any particular source without first deducting expenses.

You are not required to list the individual items of gross income that constitute a portion of the income of the business or profession from which you or your spouse derives income. (For example: Accountants, attorneys, farmers, contractors, etc. do not have to list their individual clients.) If more than one source/employer/entity compensated you during the past year, you are required to list each source of income greater than \$1,000. If you or your spouse received speaking honoraria, you must report, under the request for "source", the sponsor of each event for which a payment was made for your speech or appearance, as well as the date and dollar category ("more than \$1,000.00" or "more than \$12,500.00"). The term "honoraria", as used herein, means a payment of money or any thing of value for an appearance, speech, or article. NOTE: Food, lodging, and travel provided to a public servant in connection with an appearance would not constitute honoraria if the public servant is appearing in his or her official capacity and the appearance bears a relationship to the public servant's office or position. Section 10 of the Statement of Financial Interest addresses the reporting of payment for such food, lodging, and travel.

You must also provide a brief description of the nature of the services for which the income was received, as well as the name under which the income was received. For example:

<b>Source</b>	<b>Description</b>	<b>Amount</b>
State of Arkansas (address) John Doe	Executive Dir.	More than \$12,500.00
University of Arkansas (address) John M. Doe	Teaching	More than \$12,500.00
450 Main Street, Little Rock, Arkansas John M. Doe	Rent Income	More than \$12,500.00
Ark. Med. Society Annual Meeting (address) John Doe	Speaking fee Oct. 2, Little Rock	More than \$1,000.00
Star National Bank Star, Arkansas John or Jane Doe	Interest Income	More than \$1,000.00
City of Mayberry (address) Jane Doe	Spouse income	More than \$12,500.00
Ark. Bar Association Annual Meeting (address) Jane Doe	Speaking Fee  Spouse, June 12 Hot Springs	More than \$1,000.00

#### **Section 4 (Business or Holdings)**

In this section, list the name of every business in which you, your spouse or any other person for the use or benefit of you or your spouse have an investment or holding. Stocks, bonds, stock options and other securities held by you or your spouse must be reported. Figures for these items, as well as all other holdings or accounts, should be based on fair market value at the end of the reporting period.

For **securities, stocks, or bonds**, you must disclose each security held in your portfolio which exceeds the \$1,000.00 threshold. If securities are held through an investment firm, the firm will normally provide periodic statements from which you may obtain the information required to be disclosed. If you own different types of securities issued by the same authority, such as U. S. Treasury obligations or bonds, it is not necessary to provide an itemized list of each security worth over \$1,000.00. Rather, you may simply report the aggregate value of the securities issued by the same authority and identify the type of securities.

In the case of **mutual funds or similar investments**, you need not disclose specific stocks held in a widely diversified investment trust or mutual fund as long as the holdings of the trust or fund are a matter of public record and you have no ability to exercise control over the specific holdings. If you have such control, you must disclose each holding exceeding the threshold level of \$1,000.00, whether or not you exercise the control. Otherwise, you may simply disclose the name, address, etc. of the authority through which your mutual fund is invested (e.g., IDS), the category of the fund and the category of the appropriate amount (e.g., "more than \$1,000.00").

In the case of **bank accounts**, if the total of accounts (including certificates of deposit) deposited in a particular bank exceeds \$1,000.00, list each institution holding more than \$1,000.00. If no particular bank holds more than \$1,000.00, you need not report any bank accounts. All accounts at one institution, including those for your spouse, may be combined as one entry. Thus, for example, you may report a checking account, savings account, certificate of deposit, and IRA in Smith First National Bank of Arkansas by checking the gross total of the accounts (e.g., "more than \$1,000.00") and stating "Smith First National Bank of Arkansas" with its address. You need not list each account. If you are listed on an account purely for custodial reasons, and you do not assert any ownership rights to the assets in the account (for example, if you are a joint tenant with an elderly relative), you need not list the account.

For any business interest, if you or your spouse has an interest in a proprietorship, partnership, or corporation that is actively engaged in a trade or business, you must disclose the name and address of each interest. It is not necessary to provide an itemized list of the assets of the business. For example, you need only categorize the total value of your interest (e.g., "more than \$12,500.00") and not items such as "office equipment." This includes each asset held in trust for you or your spouse which has a value greater than \$1,000.00. Holdings of a trust for which you or your spouse are merely an administrator and for which you have no beneficial interest need not be reported.

## **Section 5 (Office or Directorship)**

You must report your nongovernmental offices and directorships held by you or your spouse in any business, corporation, firm, or enterprise subject to the jurisdiction of a regulatory agency of this State, or any of its political subdivisions. For each such business, provide the name of the business, its address, the office or directorship held and the name of the person (either you or your spouse) who holds the office or directorship. A "regulatory agency", as

defined by Ark. Code Ann. § 21-8-301(1), means any "state board, commission, department, or officer authorized by law to make rules or to adjudicate contested cases except those in the legislative or judicial branches."

### **Section 6 (Creditors)**

You must report the name and address of each creditor to whom the value of \$5,000.00 or more is personally owed and outstanding at the end of the reporting period. All information regarding a single creditor may be reported in a single entry. If you have more than one liability owed to the same creditor, add up the items of credit to determine if the \$5,000.00 threshold has been met. The identity of the creditor is the name of the person or organization to which the liability is owed (e.g., "Bob Smith, 1000 Elm Street, Little Rock, Arkansas").

You do not need to include debts owed to members of your family. You may also exclude loans made in the ordinary course of business by either a financial institution or a person who regularly and customarily extends credit. This exclusion applies to such items as a mortgage secured by real property which is your personal residence, credit extended to purchase personal items such as furniture or appliances, credit card debts, and car loans, provided the credit does not exceed the value of the item purchased.

Debts not incurred in the ordinary course of business include, but are not limited to, such items as legal judgments, judgment liens, money borrowed from individuals, other than family members, who are not normally in the business of lending money, and tax liens owed to any governmental agency.

### **Section 7 (Past-Due Amounts Owed to Government)**

You must report the name and address of each governmental body to which you are legally obligated to pay a past-due amount and a description of the nature and amount of the obligation. Such debts include, but are not limited to tax liens owed to any governmental agency or other legally obligated debts in which you may be in default to a governmental body.

### **Section 8 (Guarantor, Co-Maker)**

The law requires you to provide the name and address of each guarantor or co-maker, other than a member of your family, who has guaranteed a debt which is still outstanding. The \$5,000.00 threshold of Section 6 does not apply here. To the extent that you have a guarantor or co-maker of any of your outstanding debts, the guarantor or co-maker must be disclosed. There is no exception for debts incurred in the ordinary course of business. This requirement also includes debts arising, extended or refinanced after January 1, 1989.

This requirement extends to situations where you have co-signed a loan to assist another person in obtaining credit, unless the person is a member of your family.

## Section 9 (Gifts)

The law requires you to identify the source, date, description, and a reasonable estimate of the fair market value of each gift of more than one hundred dollars (\$100.00) received by you or your spouse during the reporting period or more than two hundred and fifty dollars (\$250.00) received by your dependent children during the reporting period. A gift is any "payment, entertainment, advance, services, or anything of value" unless consideration of equal or greater value has been given therefor. The value of an item shall be considered to be less than one hundred dollars (\$100) if the public servant reimburses the person from whom the item was received any amount over one hundred dollars (\$100) and the reimbursement occurs within ten (10) days from the date the item was received. All types of gifts must be reported. Items such as food, lodging, and travel are considered gifts unless they are received when you are appearing in your official capacity and the appearance bears a relationship to your office or position. [Note: The reporting of food, lodging, and travel received by a public servant who is appearing in his or her official capacity at an event which bears a relationship to his or her office or position is addressed in Section 10 below.]

A gift can be a tangible item, such as a watch, or an intangible item, such as a hunting or fishing trip. A gift does not include (1) informational material; (2) receiving food, lodging, or travel which bears a relationship to the public servant's office and when appearing in an official capacity; (3) gifts which are not used and returned to the donor within 30 days; (4) gifts from a family member listed in Ark. Code Ann. § 21-8-402(5)(B)(iv), unless the family member is acting as an agent for a person not covered by the exception; (5) campaign contributions; (6) devises or inheritances; (7) anything with a value of \$100 or less; (8) wedding presents and engagement gifts; (9) a monetary or other award presented to an employee of a public school district, the Arkansas School for the Blind, the Arkansas School for the Deaf, the Arkansas School for Mathematics, Sciences, and the Arts, a university, a college, a technical college, a technical institute, a comprehensive life-long learning center, or a community college in recognition of the employee's contribution to education; (10) tickets to charitable fundraising events held within this state by a non-profit organization which is exempt from taxation under Section 501(c)(3) of the Internal Revenue Code; (11) a personalized award, plaque, or trophy with a value of one hundred fifty dollars (\$150) or less; (12) an item which appointed or elected members of a specific governmental body purchase with their own personal funds and present to a fellow member of that governmental body in recognition of public service; (13) food or beverages provided at a conference scheduled event that is part of the program of the conference; (14) food or beverages provided in return for participation in a bona fide panel, seminar, speaking engagement at which the audience is a civic, social, or cultural organization or group; (15) a monetary or other award publicly presented to an employee of state government in recognition of his or her contributions to the community and State of Arkansas when the presentation is made by the employee's supervisor or peers, individually or through a non-profit organization which is exempt from taxation under Section 501(c) of the Internal Revenue Code, and the employee's receipt of the award would not result in or create the appearance of the employee using his or her position for private gain, giving preferential treatment to any person, or losing independence or impartiality (This exception shall not apply to an award presented to an employee of state government by a person having economic interests which may be affected by the performance or nonperformance of the employee's duties or responsibilities.); and (16)

anything of value provided by a political party under Ark. Code Ann. § 7-1-101 or § 7-7-205 when serving as the host of the following events to all attendees as part of attendance at the event: (A) the official swearing-in, inaugural, and recognition events of constitutional officers and members of the general assembly; and (B) an official event of a recognized political party so long as all members of either house of the General Assembly affiliated with the recognized political party are invited to the official event.

In reporting a gift, you must report the source, the date it was received, a reasonable estimate of its fair market value, and a brief description. In that regard, the Ethics Commission has issued opinions concerning the "fair market value" of such items as transportation on a private aircraft. A group of items received from the same source at the same time would be considered one gift and the separate values should be added together. As an example, if you receive a tie and tie clip (valued \$50.00) along with a pair of golf shoes (valued at \$75) from one donor, this should be reported and described in Section 9, as the receipt of a gift, "tie, tie clip and shoes." The value would be \$125.00. Similarly, food and beverages provided you in connection with lodging should be aggregated to ascertain if the threshold reporting level has been reached. If you are unsure if the value should be aggregated for purposes of reporting, you may wish to contact the Arkansas Ethics Commission for an opinion.

In accordance with Ark. Code Ann. § 21-8-804, certain designated officials are authorized to accept gifts, grants, and donations of money or property on behalf of the State of Arkansas, the Arkansas Senate, the Arkansas House of Representatives, and the Arkansas Supreme Court. In addition, the designated officials are authorized to accept donations of money for the purpose of hosting official swearing-in and inaugural events of the constitutional officers, Senate, House of Representatives, and Supreme Court justices, the official recognition event for the President Pro Tempore, and the official recognition event for the Speaker of the House. The public official accepting the gift, grant, or donation of money or property on behalf of an appropriate entity is not required to disclose same on his or her Statement of Financial Interest. Instead, public servants are required to report such gifts, grants, or donations of money or property to the Ethics Commission on a quarterly basis on a separate disclosure form prepared for such purposes.

### **Section 10 (Awards)**

If you are an employee of a public school district, the Arkansas School for the Blind, the Arkansas School for the Deaf, the Arkansas School for Mathematics, Sciences, and the Arts, a university, a college, a technical college, a technical institute, a comprehensive life-long learning center, or a community college, the law requires you to disclose each monetary or other award over one hundred dollars (\$100) which you have received in recognition of your contributions to education. The information disclosed with respect to each such award should include the source, date, description, and a reasonable estimate of the fair market value.

### **Section 11 (Nongovernmental Sources of Payment)**

Payments for food, lodging, or travel are not considered a gift in situations where a public servant is appearing in his or her official capacity and the appearance bears a relationship to the

public servant's office or position. However, Section 11 requires that each nongovernmental source of payment of expenses for such food, lodging, or travel be listed when the expenses paid by that source exceed \$150.00. [Note: The reporting of money or things of value received when you are not appearing in an official capacity or the appearance does not bear a relationship to your office or position is addressed in Section 3 ("Sources of Income") or Section 9 ("Gifts).] In this regard, you must list the name and business address of the person or organization which has paid your expenses, the date, nature, and amount of the expenses unless such person or organization was compensated by the governmental body for which the public servant serves. Thus, you must disclose in this section, lodging or travel received in connection with such activities as speaking engagements, conferences, or fact finding events related to your official duties.

Section 11 requires the disclosure of each nongovernmental source of payment when the expenses paid in connection with a particular appearance exceed \$150.00. Thus, if one source provides lodging and food and the total amount paid exceeds \$150.00, that source must be reported in this section.

The **organization** is the source of payment. It should be the name of the sponsor actually paying or providing the expenses. The **date of expenses** should be the inclusive dates of all travel provided. If the travel all occurred on one day, report that day. Otherwise, list the starting and ending dates of each trip provided (i.e., "May 1 - 5, 1997").

It is permissible to extend the duration of a trip at your own expense, accepting return travel from the sponsor. However, to avoid suggesting that travel was accepted for a longer period of time than was actually the case, you should indicate any time not spent at the sponsor's expense on either the line requesting the "date" or "nature" of expenses. For example, using the dates listed above, you could report "May 1 - 5, 1997. May 3 - 4 on personal business, expenses paid by me."

## **Section 12 (Direct Regulation of Business)**

The law requires you to list any business by whom you are employed if the business is under direct regulation or subject to direct control by the governmental body which you serve. You must report the employment by listing the name of this business/employer and provide the governmental body which regulates or controls aspects of the business. Such a business relationship typically exists if your private employer is subject to any rules or regulations of a governmental body or if a governmental body adjudicates contested cases of fact involving your private employer. For example, if you work as a licensed dentist, the appropriate regulatory governing body may be the State Board of Dental Examiners.

Whether your business is under direct regulation or subject to direct control by a governing body is often a question of fact. If you are unsure, you should contact the Arkansas Ethics Commission or, if you know, the agency you suspect may regulate part or all of your activities.

### **Section 13 (Sales to Governmental Body)**

The law requires you to report certain business relationships with the government if a significant sale of goods or services occurs. Specifically, you must set out in detail the goods or services sold having a total annual value in excess of \$1,000.00 sold to the governmental body for which you serve or are employed and the compensation paid for each category of goods or services by you or any business in which you or your spouse is an officer, director, stockholder owning more than ten percent (10%) of the stock, owner, trustee, or partner.

### **Section 14 (Signature)**

Under the law, each person, required to file a Statement of Financial Interest must prepare the statement under penalty of false swearing and sign such form attesting to the truth and accuracy of the information set forth on the form. Ark. Code Ann. § 21-8-702. If a person who is required to file a Statement of Financial Interest is called to active duty in the armed forces of the United States, the statement may be completed by the spouse of the person. If the Statement of Financial Interest is completed by the spouse, under this exception, the spouse's signature shall be sufficient for the requirement of Ark. Code Ann. § 21-8-702.

**REVISED 12/2017**

# 2020 Board of Trustees Meeting Schedule

**Arkansas Teacher Retirement System  
1400 West Third Street  
Little Rock, AR 72201**

Meeting Date*	Audit Committee	Investment Committee	Operations Committee	Board of Trustees
February 3, 2020	8:30 a.m.*	9:00 a.m.*	10:30 a.m.*	11:00 a.m.*
April 6, 2020	8:30 a.m.*	9:00 a.m.*	10:30 a.m.*	11:00 a.m.*
June 1, 2019	8:30 a.m.*	9:00 a.m.*	10:30 a.m.*	11:00 a.m.*
October 5, 2019	8:30 a.m.*	9:00 a.m.*	10:30 a.m.*	11:00 a.m.*
December 7, 2019	8:30 a.m.*	9:00 a.m.*	10:30 a.m.*	11:00 a.m.*

**NCTR Trustee Workshop: TBD**

**NCTR 98<sup>th</sup> Annual Conference: October 10-13, 2020, La Jolla, California**

**\*Dates and times are subject to change. Meeting times may be adjusted earlier or later than scheduled, depending upon time needed for the previous meeting.**

**All meetings will be held on the Third Floor, Room 300, of the Arkansas Teacher Retirement System Building unless noted otherwise.**

**800-666-2877 toll free  
501-682-1517 local  
501-682-2359 fax**





**BEFORE THE ARKANSAS TEACHER RETIREMENT SYSTEM**

IN THE MATTER OF  
BENNY TUNSTALL

)  
)

ATRS CASE NO. 2019-MA-001

**ORDER**

On this \_\_\_\_ day of December, 2019, the proposed Order and Recommendation of the Administrative Hearing Officer regarding the appeal of Mr. Benny Tunstall is presented to the Arkansas Teacher Retirement System (ATRS) Board of Trustees, which is attached hereto and made part of this Order as if set out word for word herein.

After review by the Board of Trustees, the ATRS Board of Trustees hereby accepts and affirms the hearing officer's Proposed Order and Recommendation.

**IT IS SO ORDERED.**

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**MR. DANNY KNIGHT, Chairman**  
**ATRS Board of Trustees**

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**BEFORE THE  
ARKANSAS TEACHER RETIREMENT SYSTEM**

IN THE MATTER OF  
BENNY TUNSTALL

ATRS NO. 2019-MA-001

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**PROPOSED ORDER**

**INTRODUCTION**

On the 12th day of September 2019 at 10:00 am, this matter came before the undersigned for hearing at the offices of the Arkansas Teacher Retirement System, 1400 West Third Street, Little Rock, Arkansas 72201, 1<sup>st</sup> Floor Conference Room. Benny R. Tunstall was present. The ATRS was represented by its staff attorney, Martha Miller. Anne Marie Berandi testified on behalf of ATRS, and Benny R. Tunstall testified on his own behalf. From the sworn testimony of the witnesses, exhibits introduced, statements of the parties, and other matters of fact and law known and made known to the Hearing Officer, the following Findings of Fact and Conclusions of Law and Proposed Order are entered herein:

**FINDINGS OF FACT**

1. Benny Tunstall became a member of ATRS in 1991. **Exhibit A.**
2. Mr. Tunstall currently has 5.25 years of credited service, all contributory. **Exhibit B.**
3. Mr. Tunstall was last employed by an ATRS covered employer, Hillcrest School District, as a teacher beginning August 1, 2016, and ending effective June 30, 2017. **Exhibits B,**

**C, and D.**

4. On September 2, 2016, Mr. Tunstall filed an application for Social Security Disability benefits.
5. On October 29, 2018, a hearing was conducted on the Social Security Disability claim, and, on November 30, 2018, a Decision was issued by the Social Security Administration approving Mr. Tunstall's application for Social Security Disability. **Exhibit E.**
6. On November 1, 2018, ATRS sent Mr. Tunstall a letter notifying him that he was eligible to apply for a full refund of his contributions and interest through the Cash Savings and Help (CASH) program. **Exhibit F.**
7. On November 27, 2018, Mr. Tunstall contacted ATRS by phone to inquire about filing an application for ATRS disability retirement. ATRS staff informed Mr. Tunstall, to be eligible to file an application for disability benefits, he must be an active member.  
**Exhibits G-1 and G-2.**
8. On November 28, 2018, a Staff Determination Letter was issued stating that Benny Tunstall was not eligible to apply for disability retirement benefits at that time because he was not an active member as required by A.C.A. §24-7-704(a)(1)(A). **Exhibit H.**
9. On December 26, 2018, ATRS received a request for review of the Staff Determination dated November 28, 2018. **Exhibit I.**
10. On February 13, 2019, ATRS received a letter from Mr. Tunstall dated February 6, 2019, along with a copy of the Social Security Disability opinion letter in support of his request for review. **Exhibits E and J.**
11. On February 21, 2019, the Executive Director Review was issued which upheld the Staff Determination that Mr. Tunstall's time within which to file an application for disability

retirement had expired at the time Mr. Tunstall inquired about filing an application.

**Exhibit K.**

12. On March 20, 2019, ATRS received Benny Tunstall's notice of appeal of the Executive Director Review. **Exhibit L.**
13. On April 1, 2019, ATRS received a request from Mr. Tunstall for a Manifest Injustice Claim Review under ATRS Rule 17. **Exhibit M.** The appeal of the Executive Director Review was suspended pending review of the Manifest Injustice Claim.
14. On April 25, 2019, ATRS notified Mr. Tunstall that the Manifest Injustice Committee did not find that a manifest injustice existed in his case and advised that he could resume his administrative appeal of the Executive Director Review. **Exhibit N.**
15. Additional correspondence was exchanged. **Exhibits O and P.**
16. On July 9, 2019, Mr. Tunstall notified ATRS that he wanted the administrative appeal to proceed. **Exhibit Q.**

**CONCLUSIONS OF LAW**

The question to be decided here is not whether Benny Tunstall is disabled and no longer able to do the job he was doing at the Hillcrest School District. Rather, the question posed by this appeal is whether he met the statutorily established rules to qualify to receive disability benefits under the law governing the Arkansas Teacher Retirement System. The facts are essentially undisputed.

Disability retirement benefits are available to *active* members of the Arkansas Teacher Retirement System who have five (5) or more years of actual service and who become totally and permanently incapable of performing his or her job duties. A.C.A. §24-7-704(a)(1)(A). A member is considered active under this section for an additional fiscal year following the last

fiscal year that the member earned at least a quarter of a year service credit. A.C.A. §24-7-704(a)(1)(C)(ii).

Benny Tunstall was last employed by an ATRS covered employer at the end of the 2016-2017 school year. For ATRS disability eligibility purposes, he remained "active" until June 30, 2018. After that date, he was no longer eligible to receive ATRS disability retirement based upon his inability to perform his job as a teacher at the Hillcrest School District.

Mr. Tunstall states in his February 6, 2019, letter (**Exhibit J**) that the deadline for filing an application for disability retirement should be waived in this case because he:

- A. Was unaware of the time to file
- B. No written notice was provided to me by the district and or ARTRS relating to the time of filling (*sic*).
- C. Would be granted disability based on my circumstances if filling (*sic*) occurred according to the ACTS of ARTRS.
- D. A rational clear thinking individual would have filed for disability if that same individual was able to function normally, and not dealing with the immense pain, fininicial (*sic*) burdens, and a botched medical procedure.

**(Exhibit J, page 2.)**

Although it is apparent that Mr. Tunstall has serious medical conditions, ATRS has no legal authority to waive the statutorily imposed deadline set out in A.C.A. § 24-7-704.

Regarding his first point, as Mr. Tunstall has acknowledged, the reason an ATRS application was not filed before his active status ended was because he thought he had to be approved by Social Security first, not because his disability prevented him from doing so. (**Exhibits G-1 and G-2**). There is no information in his record to indicate that Mr. Tunstall inquired about the deadline to file for ATRS disability before November 27, 2018. He also has

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stated that it was receipt of the CASH letter in November, 2018, that prompted him to inquire about disability. See **Exhibit J**. Regardless of the reason for the not filing within the time allowed, ATRS staff has no authority to waive the statutory deadline.

Mr. Tunstall's second point implies that ATRS or the Hillcrest School District had an obligation to notify him of the timeframe for filing a claim for ATRS disability. Such a legal obligation does not exist. Further, ATRS had no way of knowing that Mr. Tunstall might be eligible for disability.

Mr. Tunstall's third point is that he is indeed disabled and would have been found to be eligible for the benefit had he filed while he was an active member. Perhaps he would have been awarded ATRS disability retirement benefits had he submitted an application within the time allowed by law. But he did not. To follow this proposition would render the requirement that a member must be active to be eligible meaningless.

Mr. Tunstall's argues that his medical condition prevented him from pursuing an application for ATRS disability benefits. Mr. Tunstall successfully pursued his Social Security Disability claim during the same period of time he was eligible to file an application for ATRS disability benefits, and presumably could have pursued ATRS disability at the same time. According to his correspondence, it was receipt of the CASH letter that prompted him to investigate the possibility of pursuing ATRS disability retirement, not a lack of capacity.

ACA § 24-7-704(a)(1)(C)(ii) is a statute of limitation for filing a claim for ATRS disability benefits. A statute of limitations is a time frame set by legislation where affected parties must take action to enforce rights. See Black's Law Dictionary, 2<sup>nd</sup> Edition. Benny R. Tunstall's claim for benefits is barred by this legislative action because he was not an active member when his claim was initiated.

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Benny R. Tunstall's reliance on ACA § 24-7-704-(b) (3) (A) et. seq. is misplaced since he does not meet the qualifying threshold of being an "active" member at the time he initiated the claim.

In summary, ATRS has no duty to ensure that members are aware of all aspects of ATRS law. Furthermore, there is no legal authority which would allow ATRS to waive this deadline, nor does Mr. Tunstall cite to any legal authority in support of this argument.

### CONCLUSION

Benny R. Tunstall did not file a timely application for ATRS disability retirement benefits while he was considered an "active member" under Arkansas law, and ATRS has no authority to waive this requirement and permit him to file an application as an inactive member. The application for disability benefits should be denied.

Respectfully submitted

A. Watson Bell 9-30-19

A. Watson Bell      Date

Hearing Officer ABA#78017

### CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing was served via email and U.S. Postal Service on September 30, 2019, upon the following:

Laura M. Gilson  
General Counsel  
Arkansas Teacher Retirement System  
1400 West Third Street  
Little Rock, Arkansas 72201

laurag@artrs.gov

Mr. Benny Tunstall  
1212 Highland  
Pocahontas, AR 72455  
coachalla2000@gmail.com

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1400 West Third Street  
Little Rock, Arkansas 72201  
martham@artrs.gov

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A. Watson Bell



**INTERNAL AUDIT FOLLOW-UP REPORT  
IMPLEMENTATION OF LEGISLATION ENACTED BY THE 91<sup>st</sup> GENERAL ASSEMBLY  
FOR THE PERIOD DECEMBER 24, 2017 – APRIL 30, 2019**

**December 2, 2019**

## **Introduction**

The Arkansas General Assembly convenes for regular session during odd-numbered years. The 91<sup>st</sup> General Assembly met from January 9, 2017, through sine die adjournment May 1, 2017. Arkansas Teacher Retirement System (ATRS) had a twenty-one bill package including the Agency's appropriation bill for the 2018 state fiscal year. Additionally, seven more Acts affecting ATRS were passed by the General Assembly and signed by the Governor. Acts become effective 90 days after the General Assembly adjourns unless the Act has an emergency clause specifying a specific effective date. The 2017 Acts without emergency clauses became effective August 1, 2017.

ATRS staff is responsible for developing and implementing policies and procedures for enacting new legislation. Scheduled implementation for many of the Acts was subsequent to our initial audit issued December 4, 2017, thereby necessitating this follow-up audit.

Attachment A to this report provides a listing of the legislation affecting ATRS that was enacted by the 91<sup>st</sup> General Assembly, along with the status of implementation by ATRS.

## **Objectives**

The objective of the follow-up audit was to verify the proper implementation of legislation enacted by the 91<sup>st</sup> General Assembly that had an effective date subsequent to our initial audit.

## **Scope and Methodology**

This follow-up was conducted for the period December 4, 2017 – April 30, 2019. To accomplish our objective, we reviewed changes in policies, procedures, forms, form letters, and computer programming. Additionally, we conducted interviews as we deemed necessary.

## **Findings and Recommendations**

The objective of a system of internal controls is to provide management with reasonable, but not absolute, assurance that transactions are executed in accordance with policies and guidelines and are recorded properly. Our findings and recommendations are provided to assist management in implementing internal controls that ensure proper procedures are implemented and followed, and should not be used for any other purpose.

As a result of our audit procedures, we concluded that laws enacted by the 91<sup>st</sup> General Assembly that affect ATRS were properly implemented.

**INTERNAL AUDIT REPORT:**

**Board Resolutions**

Effective July 1, 2018 through July 1, 2019

**December 2, 2019**

## Introduction

The Arkansas Teacher Retirement System (ATRS) Board of Trustees (board) adopted in their November 13, 2017 meeting an actuarial assumed rate of return of seven and a half percent (7.5%) and RP-2014 fully generational mortality tables. Both were recommended by ATRS actuaries, Gabriel, Roeder and Smith & Company, after their completion of a five year experience study of ATRS actuarial assumptions. The assumptions adopted by the board necessitated various changes to ATRS member benefits and contribution rates in order to maintain financial strength and quality sustainability.

Seventeen resolutions were passed by the Arkansas Teacher Retirement System (ATRS) Board of Trustees that affected member benefits and became effective July 1, 2018 through July 1, 2019.

Resolution 2017-32 established the contributory multiplier for a member's first ten years of service credit, for service earned after July 1, 2018 as one and three quarters percent (1.75%). Contributory multiplier for all service earned prior to July 1, 2018 shall remain at the standard multiplier rate of two and fifteen hundredths percent (2.15%). Non-contributory multiplier for service earned after July 1, 2018 as one percent (1%). Non-contributory service for all service earned prior to July 1, 2018 shall remain at the standard multiplier rate of one and thirty nine hundredths percent (1.39%). A member who reaches ten years of credited service the standard multiplier rate for contributory service of two and fifteen hundredths percent (2.15%), non-contributory service of one and thirty nine hundredths percent (1.39%). Reciprocal service counts as years of service to obtain the ten years of credited service needed to receive the standard multiplier rate.

Resolution 2017-33 established the calculation of the final average salary for both retirement and T-Drop calculations as the average salary paid to a member by a participating employer of five years of credited service producing the highest annual average. A benchmark was set for all active members with credited service in ATRS in at least three separate fiscal years and with a full year of service in at least three fiscal years as of June 30, 2018. This benchmark is a fixed final average salary calculated as the average salary paid to a member by a participating employer of three years of credited service producing the highest annual average and using the anti-spiking formula as if the member were retiring or entering T-Drop as of June 30, 2018. At retirement or T-Drop, the member will receive the higher of their benchmark final average salary or the five year final average salary calculation.

Resolution 2017-38 establishes interest payable on a Cash Balance Account (CBA) beginning July 1, 2018 as 2.50% for the first fiscal year of participation, 2.75% for the second year of participation, 3.00% for the third fiscal year of participation, 3.25% for the fourth fiscal year of participation, 3.50% for the fifth fiscal year of participation, and 4.00% for the sixth, seventh and eighth year of participation. Resolution 2018-11 gives the CBA member's an initiative interest rate of one percent in addition to the regular CBA interest rate payable on all CBA account balances that are held by ATRS on June 30, 2019. CBA accounts interest is compounded monthly.

Resolution 2017-30 established member's contribution rate for fiscal year 2019 through fiscal year 2023. For fiscal year 2020, member contribution rate was increased to six and a quarter percent (6.25%). Resolution 2019-07 reaffirmed member contribution rate for fiscal year 2020 as six and a quarter

percent (6.25%). Resolution 2017-40 established employer contribution rate for fiscal year 2019 through fiscal year 2023. For fiscal year 2020, employer contribution rate was increased to fourteen and a quarter percent (14.25%). Resolution 2019-06 reaffirmed employer contribution rate for fiscal year 2020 as fourteen and a quarter percent (14.25%). Employer's contributions are paid on salaries of active members, Teacher Deferred Retirement Option Plan (T-Drop) members, Post 10 year T-Drop members and working retirees. Resolution 2019-08 established employer contribution rate for outsourced positions for fiscal year 2020 as two percent (2%).

Resolution 2017-31 adjusts the multiplier for non-contributory service to one and a quarter percent (1.25%) for fiscal year 2020 and each fiscal year thereafter. Resolution 2017-37 modified the T-Drop annuitization factors using RP-2014 mortality table with applicable interest rates established for fiscal year 2018 through 2023. Interest rate established for fiscal year 2020 is six percent (6%).

Resolution 2017-34 removes the benefit stipend of \$75 from the base amount of current retirees and option beneficiaries beginning fiscal year 2019. The base amount is the benefit payable at retirement plus any one-time increases granted by legislation after the member's effective date of retirement excluding cost-of-living increases. This resolution also reduces the benefit stipend from \$75 to \$50 effective fiscal year 2020. Retirees and option beneficiaries' cost-of-living increase for fiscal year 2020 and subsequent years shall be used to reduce their benefit stipend from \$75 to \$50.

Resolution 2017-35 set the T-Drop interest rate for fiscal year 2019 and all subsequent fiscal years thereafter at a fixed rate of three percent (3%). The board may adjust the three percent (3%) interest rate by providing an incentive interest rate if the estimated ATRS rate of return is two percent (2%) greater than the actuarial assumed rate of return (7.5%). The incentive rate of return plus the fixed rate of return (3%) shall not exceed six percent (6%). Resolution 2018-09 awarded T-Drop participants with an incentive rate of interest of three percent (3%), giving them a total of six percent (6%) interest payable on their June 30, 2019 T-Drop balance. T-Drop participants receive interest June 30<sup>th</sup> of each fiscal year.

Resolution 2017-36 established the Post 10-year T-Drop plan interest rate at a minimum of four percent (4%) and a maximum of six percent (6%). The interest rate for a fiscal year must be two percent (2%) less than the estimated rate of return for the calendar year ended before the applicable fiscal year begins. The board may provide an incentive interest rate in addition to the maximum six percent (6%) if the ATRS estimated rate of return is two percent (2%) higher than ATRS assumed rate of return (7.5%). The incentive rate of return plus the fixed rate of return (6%) shall not exceed seven and a half percent (7.5%). Resolution 2018-10 awarded 10-year T-Drop participants an incentive rate of interest of one percent (1%), giving them a total of seven percent (7%) interest payable on their June 30, 2019 10-year T-Drop balance. Ten-year T-Drop participants receive interest June 30<sup>th</sup> of each fiscal year.

## Objectives

Our objectives in conducting this audit were as follows:

1. Verifying that the Arkansas Teacher Retirement System (ATRS) Board Resolutions affecting member benefits were made according to the resolution, ATRS laws and procedures.
2. Verifying that ATRS Board Resolutions affecting member benefits were made accurately and timely to the member's account.
3. Evaluate the internal controls surrounding ATRS Board Resolutions affecting member benefits including review procedures.

## Scope and Methodology

Our audit covered board resolutions that affected member benefits and became effective July 1, 2018 through July 1, 2019. To accomplish the objective of verifying the resolutions were implemented according to the resolution, ATRS laws and procedures, we gathered the following populations and selected samples using a random number generator.

For resolution 2017-32, to accomplish our objectives for verifying the resolution was implemented according to the resolution, ATRS laws and procedures, and member retirement benefits were calculated accurately and timely, we obtained a listing of all members who retired effective July 1, 2019 with less than ten years of service. From this listing, a sample of thirty (30) was selected. The selected members benefit calculation was analyzed for the correct multiplier being applied to the calculation of member's benefit.

For resolution 2017-33, to accomplish our objectives for verifying the resolution was implemented according to the resolution, ATRS laws and procedures, and member retirement benefits were calculated accurately and timely, we obtained a listing of all members who retired effective July 1, 2019. From this listing, a sample of thirty (30) was selected. The selected member's benefit calculation was analyzed for the application of the higher of the member's benchmarked three year final average salary or the member's five year final average salary.

For resolution 2017-38 and 2018-11, to accomplish our objective for verifying the resolution was implemented according to the resolution, ATRS laws and procedures, and member CBA accounts were credited with correct amount of interest, we obtained a listing of all active CBA accounts on June 30, 2019. From this listing, a sample of thirty (30) was selected. The selected member's CBA accounts were analyzed for the correct amount of interest was credited on June 30, 2019.

For resolutions 2017-30, 2019-07, 2017-40, 2019-06, and 2019-08, we obtained a listing of all ATRS employers. From this list, a sample of thirty (30) was selected. The selected employer's was analyzed for the correct submission of employer contributions of fourteen and a quarter percent (14.25%) on

active member, T-Drop member, and working retiree reported salaries, member contributions of six and a quarter percent (6.25%) on active contributory member's reported salaries, and employer contribution of two percent (2%) on reported outsourcing salaries for July and August 2019. The sample did not include any employers under the Arkansas Administrative Statewide Information System (AASIS). There are twelve ATRS employers whose payroll is processed through AASIS. Internal Audit selected two of these employers to analyze their submission of employer and member contributions for July and August 2019.

Resolution 2017-31 will be tested and covered in Internal Audit's follow-up report for the Implementation of Board Resolutions effective July 1, 2019. At the time of this report, there was not a sufficient population to obtain a sample and test.

For resolution 2017-37, we obtained a listing of all members retiring out of T-Drop effective July 1, 2019 who annuitized some of their T-Drop balance. A T-Drop retiree may annuitize 25%, 50%, 75% or 100% of their T-Drop account at retirement. From this list, a sample of thirty (30) was selected. The selected member's T-Drop benefit calculation was analyzed for the annuitization factor being based on interest rate of six percent (6%).

For resolution 2017-34 to accomplish our objective for verifying the benefit stipend was removed from retirees and option beneficiaries' base amount, and the retiree or beneficiary's benefit was reduced by \$25 through their cost-of-living increase, benefit recipients were broken down into three categories. All retirees and option beneficiaries who were on the payroll June 30, 2001 received the benefit stipend. For benefits effective July 1, 2001, a retiree had to have a minimum of five years of service to receive the benefit stipend. Benefits effective July 1, 2008, a retiree was required to have a minimum of ten years of service to receive the benefit stipend. We obtained a listing of retirees for each group and a listing of all option beneficiaries, a sample of thirty (30) was selected for each group. The selected retirees and option beneficiaries' July 1, 2019 benefit was analyzed for the recipient receiving the correct cost-of-living increase.

For resolution 2017-35 and 2018-09, we obtained a listing of all T-Drop members who received interest on their June 30, 2019 T-Drop balance. From this listing, a sample of thirty (30) was selected. The selected T-Drop member's interest credited to their T-Drop account on June 30, 2019 was analyzed for receiving six percent (6%) interest.

For resolution 2017-36 and 2018-10, we obtained a listing of all Post 10-year T-Drop members who received interest on their June 30, 2019 Post 10-year T-Drop balance. From this listing, a sample of thirty (30) was selected. The selected T-Drop member's interest credited to their Post 10-year T-Drop account on June 30, 2019 was analyzed for receiving seven percent (7%) interest.

In order to evaluate the internal controls over the implementation of board resolutions affecting member benefits, we conducted interviews with the Director of Internal Affairs, the Director of Operations, and the Director of Information Technology.

## Findings and Recommendations

The objectives of a system of internal controls are to provide management with reasonable, but not absolute, assurance that transactions are executed in accordance with policies and guidelines and are recorded properly. Our findings and recommendations are provided to assist management in implementing internal controls that ensure proper procedures are implemented and followed, and should not be used for any other purpose.

**Finding 1:** Arkansas Teacher Retirement Information System program for calculating benefits did not take reciprocal years of service into consideration when determining if a member met the ten year requirement for the higher multiplier as defined in Resolution 2017-32. Member Services discovered this issue. They are recalculating reciprocal member benefits for members with less than ten years of service in ATRS. Programming has been updated to include reciprocal years of service in the formula for determining a member's benefit multiplier.

**Recommendation:** The finding has been resolved. There are no recommendations.

### *Response:*

*Member Services has coordinated with our Data Processing Department to correct this matter. Member accounts that contain less than ten years of service in ATRS and reciprocal service has been established were tested and recalculated as a result of new programming. We feel confident that PROD is performing correctly and taking reciprocal years into consideration when determining the appropriate multipliers.*

**Finding 2:** ATRS does not have any written procedures or tracking mechanism for implementing board resolutions.

**Recommendation:** Develop written procedures for implementing board resolutions. Develop a tracking system that assigns, tracks, and has management and Executive Director to sign off on the implementation of a board resolution. The tracking system should include check list as guidance for implementation.

### *Response:*

*ATRS senior staff has implemented procedures to train staff concerning compliance with laws and regulations. Once laws and resolutions have been declared and interpreted by ATRS Board and Administration, information is disseminated to management and staff for training and implementation. The applicable laws, policies, and procedures are communicated via email, mail (memorandums), workshops, school visits, meetings, website, and Executive Director Updates. ATRS also provides members and staff with an Annual Planner in the month of April that identifies recent changes in policies, laws, and timelines.*

*Department managers, data processing, and support staff makes an assessment to identify the training needs, analyze each departments role, functions, staff requirements, training, and any necessary programming and resources. Standard operating procedures and action plans are developed and shared with staff through coordination with Internal Audit and management. Training*

*material, delivery of method, and facilitators are discussed and the master training calendar is updated. Training is executed, reevaluated for quality control, and the implementation is initiated in accordance with the required effective date(s) of the act or rule.*

### **Conclusion**

Board resolutions that affect member benefits and become effective July 1, 2018 through July 1, 2019 have been implemented accurately and timely according to the resolution, laws, and policies. However, written procedures and a tracking system for implementing resolutions needs to be developed.

# ATRS Board Resolution Checklist

	Number	DP	Website	Member Services	Payroll	Reporting	Membership	Members	Employers
<b>Resolution</b>									
<b>Programming</b>									
<b>Resolution Effective Date</b>									
<b>Applicable Law(s)</b>									
<b>Method of Communication</b>									
Email									
Correspondence									
Workshops									
School Visits									
Meetings									
EDUs									
<b>Form Change(s)</b>									
<b>Examples</b>									

142 Approved \_\_\_\_\_  
Executive Director

\_\_\_\_\_ Date

Arkansas Continuity of Operations Program Plan Review			Comments
			SD1060861
Date of Review	5/7/2019		
Plan Reviewer	Aaron Brown		
Agency Name	Teacher Retirement System		
Lead Planner	Dena Dixson		
Plan Name	Teacher Retirement System	<b>Totals</b>	
ACOO Plan Score	98%	42	43
ADLA Score	100%	17	17
<p>To ensure your evaluation is as accurate as possible, please verify that all documents listed under "Supporting Documents" section are added to the Table of Contents located under "Design my Plan."</p>		FEMA	ADLA
<b>Table of Contents</b>			
Is there a table of contents?		Yes	
<b>Functions</b>			
Are there an appropriate number of functions?		Yes	
Is each function description clear?		Yes	
Has function priority been established?		Yes	
Are there job descriptions for critical functions?		Yes	
Have external dependencies been assigned?		Yes	
<b>Locations</b>			
Is there one or more close alternate locations entered?		Yes	Yes
Is there one or more distant alternate locations entered?		Yes	Yes
Is there an offsite storage location listed?		Yes	Yes
Is access to the alternate locations and offsite storage location listed?		Yes	Yes
Is there an alternative IT processing site including address, name and contact information for those with access to key or codes?		Yes	Yes
If the alternative IT processing site is not in control of the entity, has the entity included a signed Memorandum of Understanding (MOU) updated every 2 years?		Yes	Yes
<b>Tests</b>			
Is there a plan test report showing at least 2 tests per year?		Yes	
Is there a lessons learned/areas for improvement list included?		Yes	Yes
Has the plan been tested in the past 12 months?		Yes	Yes
<b>Employees</b>			
Have a reasonable amount of employees been entered?		Yes	

SD1060861

Please verify the sites and their location types as most site terms are used by IT. Control sites are where a agency temporary relocates to during a disaster.

Please ensure that testing is conducted for 2019 year as well. Testing overall was in great shape!

<b>Lead Planner</b>	Dena Dixson		
<b>Plan Name</b>	Teacher Retirement System	<b>Totals</b>	
<b>ACOP Plan Score</b>	98%	42	43
<b>ADLA Score</b>	100%	17	17
Does each employee have contact information?	Yes		
Does each employee have an emergency contact with information?	Yes		
<b>Teams</b>			
Are there teams with positions and tasks in the plan?	Yes		
Is there an IT recovery team listed for each critical application?	Yes	Yes	
Does each team have positions?	Yes		
Does each position have employees?	Yes		
Do tasks address initial response?	Yes		
Do tasks address the steps of IT system recovery?	Yes	Yes	
Have teams been assigned to the function?	Yes		
<b>Call list</b>			
Is every employee on a call list?	Yes		
<b>Reporting Structure</b>			
Has a reporting structure been entered?	Yes		
<b>Succession Plans</b>			
Is there an orders of succession document?	Yes		
<b>Resource Assignments</b>			
Is there a list of vital records needed to support critical functions?	Yes	Yes	
Is there a list of critical software including priority of restoration?	Yes	Yes	
Is there a list of critical vendors including contact information?	Yes		
Is there a list of supplies needed to support critical functions?	Yes		
Is there a detailed list of system hardware requirements for critical applications?	Yes	Yes	
Is there a list of essential equipment needed to support essential functions?	Yes	Yes	
<b>Additional Elements of a Viable COOP</b>			
Is there a multi-hazard response plan?	Yes		
Is there a map of the facility and an evacuation route?	No		Please provide a map with an overhead of the agency, or a blueprint, with a fire escape route.
Is there an office manual/manual procedures included?	Yes	Yes	
Are there pandemic flu policies/considerations documents?	Yes		
Is there a devolution document ?	Yes		
Is there a media statement?	Yes		
Is there procedure documentation for restoring IT systems?	Yes	Yes	
Is there procedure documentation for critical functions?	Yes	Yes	
Is there a cross training plan addressing critical functions?	Yes		



Arkansas Teacher Retirement System | October 31, 2019

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## Monthly Investment Review

*All information presented in this report should be considered preliminary.*

*Finalized data will be available on the next Quarterly Investment Report after the close of the quarter.*

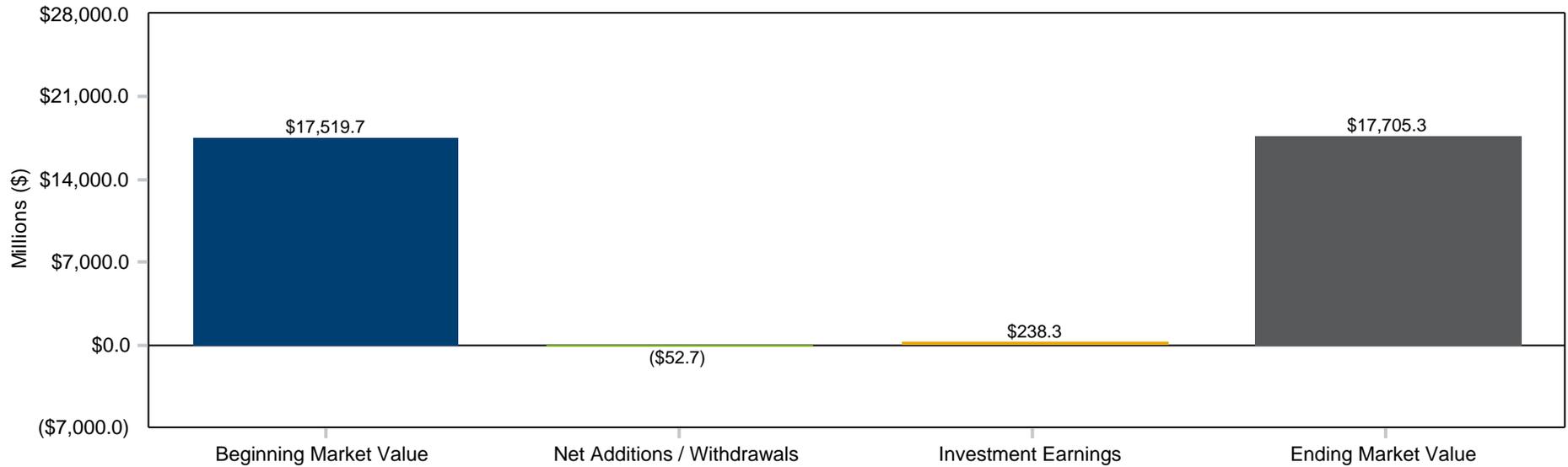
As of October 31, 2019

## Market Environment

	Performance(%)						
	1 Month	Fiscal YTD	Year To Date	1 Year	3 Years	5 Years	10 Years
Dow Jones U.S. Total Stock Market Index	2.1	3.3	22.6	13.4	14.4	10.3	13.6
S&P 500 Index	2.2	3.9	23.2	14.3	14.9	10.8	13.7
Russell 1000 Index	2.1	3.6	23.1	14.2	14.7	10.5	13.7
Russell 1000 Value Index	1.4	2.8	19.5	11.2	10.5	7.6	12.0
Russell 1000 Growth Index	2.8	4.3	26.8	17.1	18.9	13.4	15.4
Russell 2000 Index	2.6	0.2	17.2	4.9	11.0	7.4	12.3
Russell 2000 Value Index	2.4	1.8	15.5	3.2	8.6	6.2	11.1
Russell 2000 Growth Index	2.8	-1.4	18.6	6.4	13.2	8.4	13.4
MSCI AC World IMI (Net)	2.8	2.6	19.1	12.0	11.1	7.0	8.9
MSCI AC World ex USA IMI (Net)	3.6	1.8	15.4	10.9	7.9	4.0	5.2
MSCI EAFE Index (Net)	3.6	2.5	16.9	11.0	8.5	4.3	5.4
MSCI Emerging Markets Index (Net)	4.2	-0.2	10.4	11.9	7.4	2.9	3.8
Blmbg. Barc. U.S. Universal Index	0.3	2.5	9.2	11.4	3.6	3.5	4.1
Blmbg. Barc. U.S. Aggregate	0.3	2.6	8.8	11.5	3.3	3.2	3.7
Blmbg. Barc. U.S. Government	0.1	2.5	7.7	11.0	2.7	2.7	3.0
Blmbg. Barc. Credit Bond Index	0.6	3.6	13.3	14.9	4.8	4.4	5.3
Blmbg. Barc. U.S. Mortgage Backed Securities	0.4	1.7	6.0	8.9	2.5	2.7	3.1
Blmbg. Barc. U.S. Corp: High Yield	0.3	1.6	11.7	8.4	6.0	5.2	7.8
Citigroup 90-Day T-Bill	0.2	0.7	2.0	2.3	1.6	1.0	0.5

**Total Plan Asset Summary**

**Change in Market Value  
From October 1, 2019 to October 31, 2019**



**Summary of Cash Flow**

Total Fund	1 Month	Fiscal YTD	1 Year
Beginning Market Value	17,519,721,882	17,586,476,970	16,778,599,075
+ Additions / Withdrawals	-52,682,646	-307,312,699	-676,129,773
+ Investment Earnings	238,263,580	426,138,545	1,602,833,514
= Ending Market Value	17,705,302,816	17,705,302,816	17,705,302,816

As of October 31, 2019

## Asset Allocation & Performance

	Allocation			Performance(%)								
	Market Value (\$)	%	Policy(%)	1 Month	Fiscal YTD	Year To Date	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
<b>Total Fund</b>	<b>17,705,302,816</b>	<b>100.0</b>	<b>100.0</b>	<b>1.3</b>	<b>2.4</b>	<b>13.6</b>	<b>9.5</b>	<b>10.3</b>	<b>7.9</b>	<b>9.5</b>	<b>8.5</b>	<b>04/01/1986</b>
Performance Benchmark				1.4	2.6	14.2	10.7	9.7	7.6	9.5	8.6	
<b>Total Equity</b>	<b>9,478,462,220</b>	<b>53.5</b>	<b>54.7</b>	<b>2.5</b>	<b>2.4</b>	<b>21.0</b>	<b>12.7</b>	<b>12.2</b>	<b>8.1</b>	<b>10.8</b>	<b>8.1</b>	<b>07/01/2015</b>
Total Equity Performance Benchmark				2.6	2.8	20.2	12.4	12.2	8.1	10.8	8.6	
<b>Fixed Income</b>	<b>2,748,992,198</b>	<b>15.5</b>	<b>15.0</b>	<b>0.3</b>	<b>1.9</b>	<b>7.3</b>	<b>8.5</b>	<b>4.6</b>	<b>3.8</b>	<b>4.8</b>	<b>5.5</b>	<b>07/01/1992</b>
Performance Benchmark				0.3	2.5	9.2	11.4	3.6	3.5	4.1	5.7	
<b>Opportunistic/Alternatives</b>	<b>1,007,331,202</b>	<b>5.7</b>	<b>5.8</b>	<b>-0.4</b>	<b>0.8</b>	<b>4.4</b>	<b>0.4</b>	<b>1.5</b>	<b>2.1</b>		<b>3.6</b>	<b>05/01/2011</b>
Custom Alternatives Benchmark				0.0	0.5	5.4	4.0	2.9	1.4		1.8	
<b>Real Assets</b>	<b>2,124,815,471</b>	<b>12.0</b>	<b>12.5</b>									
Real Estate	1,341,208,326	7.6										
Timber	282,178,667	1.6										
Agriculture	198,252,818	1.1										
Infrastructure	303,175,661	1.7										
Private Equity	2,227,857,735	12.6	12.0									
Cash	117,843,988	0.7	0.0									

**\*Preliminary Results**

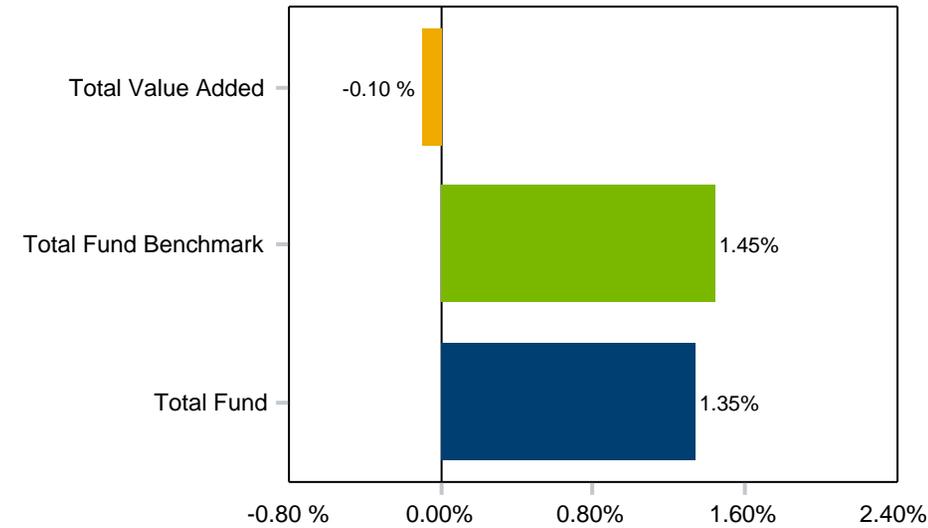
\*Policy % is the interim target used for benchmarking purposes. See page 17 for long-term targets. Beginning July 1, 2013, an updated Investment Policy was adopted which includes the new Real Assets category, which includes Real Estate, Timber, Agriculture and Infrastructure.

\*Real Assets and Private Equity are valued on a quarterly basis and reported on a quarter lag. Market values have been adjusted for the current month's cash flows. Updated results for these portfolios are not yet available and will be included in the quarterly performance report.

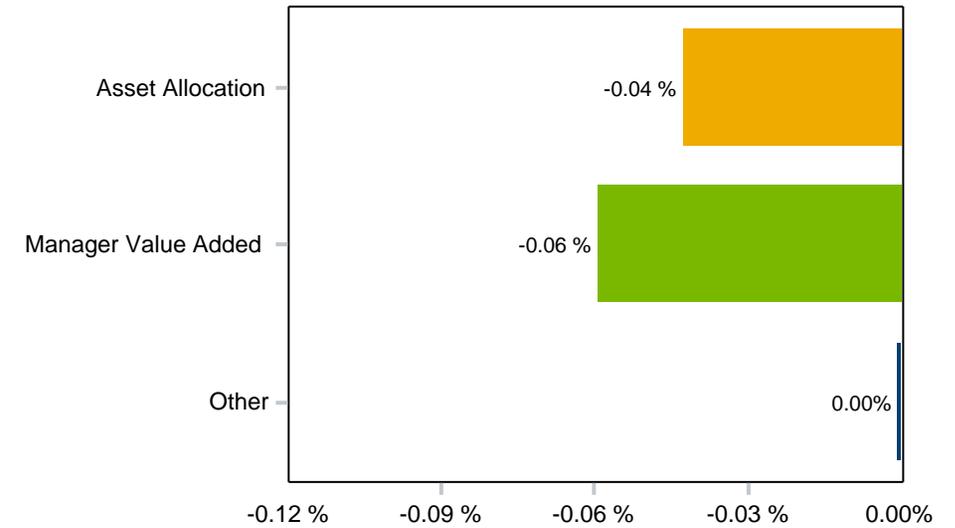
\*The inception of the Total Equity asset class was July 1, 2015. Performance prior to July 2015 represents the weighted average of the U.S. Equity and Global Equity asset class monthly returns. For historical performance of the U.S. Equity and Global Equity asset classes please see page 21 of this report.

Total Fund Attribution

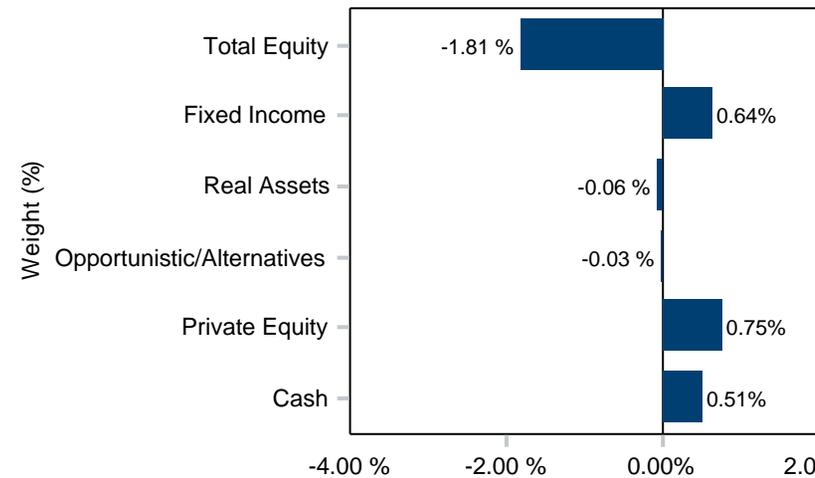
Total Fund Performance



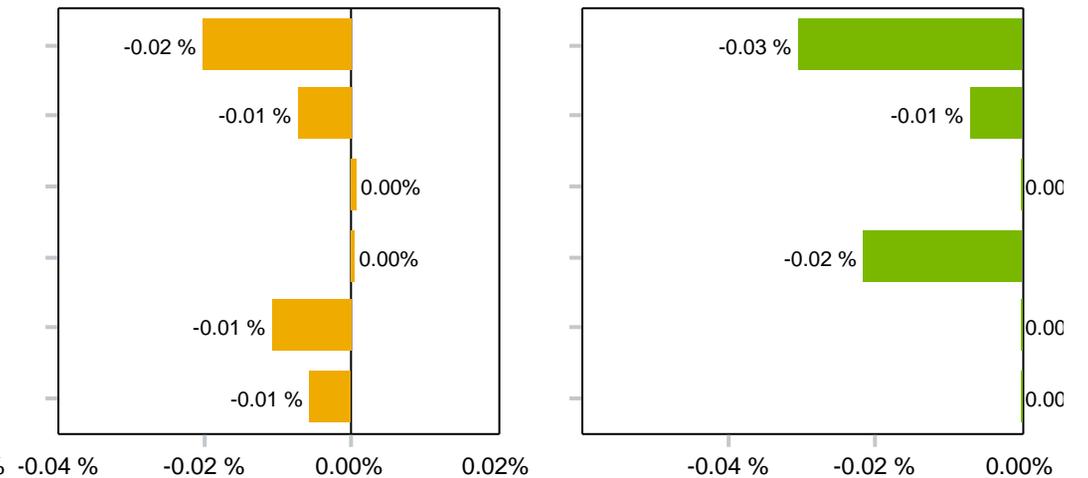
Total Value Added: -0.10 %



Total Asset Allocation: -0.04 %



Total Manager Value Added: -0.06 %



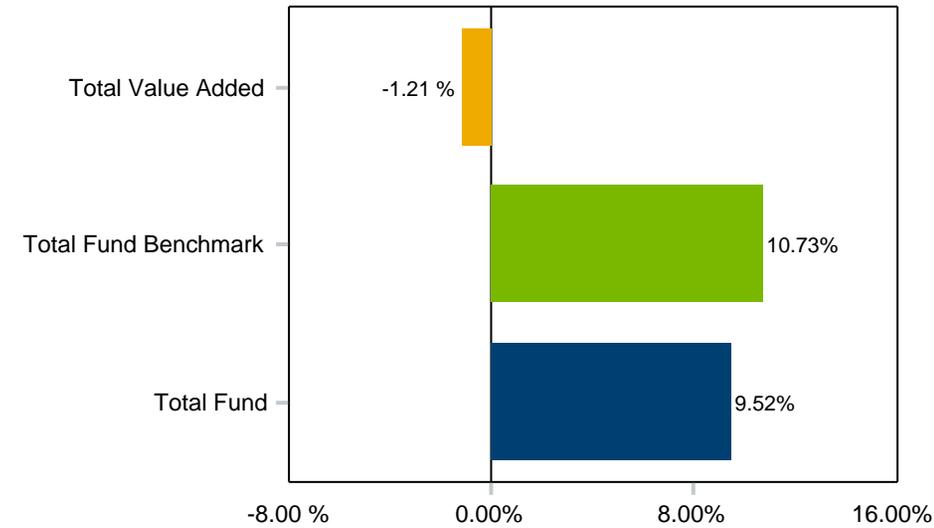
Average Active Weight

Asset Allocation Value Added

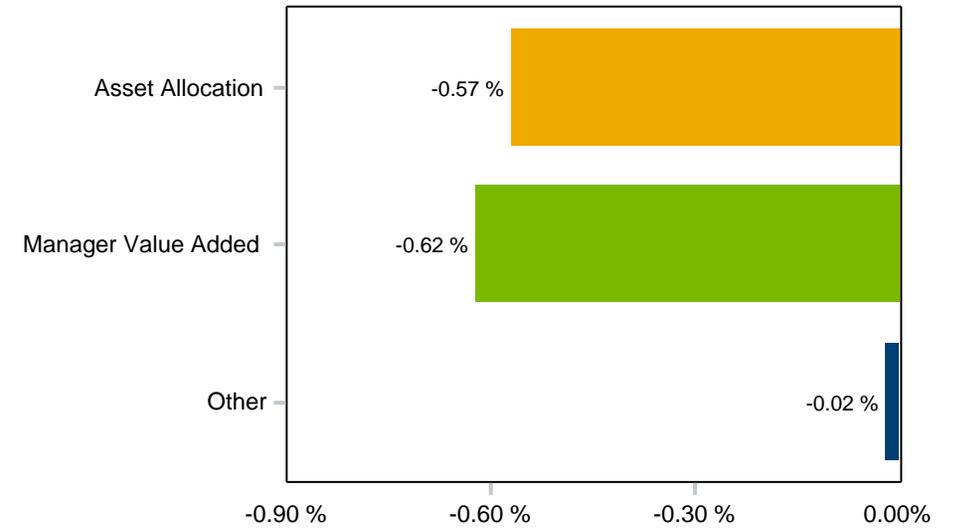
Manager Value Added

Total Fund Attribution

Total Fund Performance

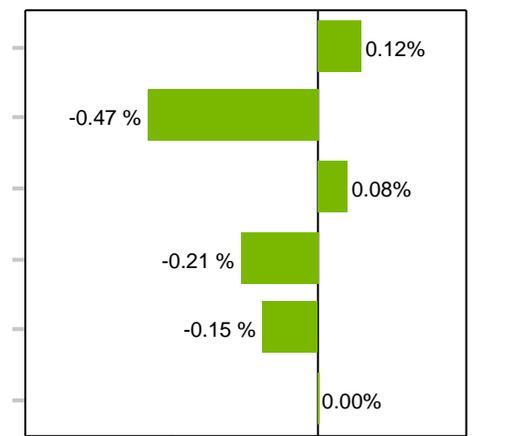
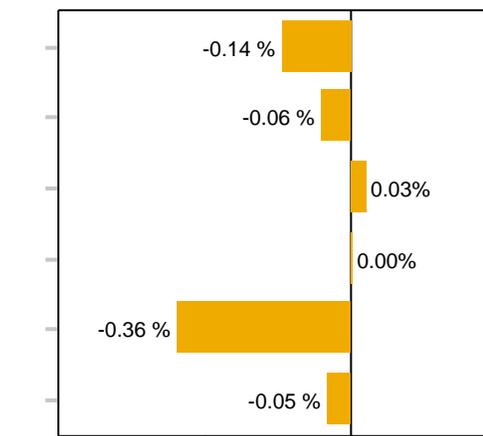
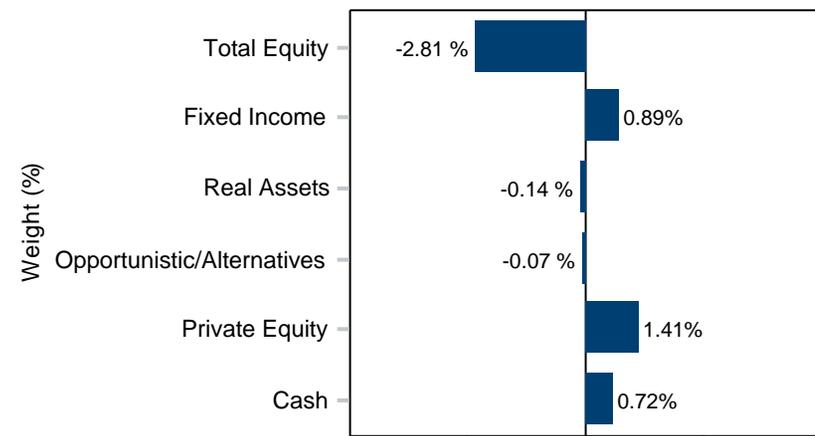


Total Value Added: -1.21 %



Total Asset Allocation: -0.57 %

Total Manager Value Added: -0.62 %



Average Active Weight

Asset Allocation Value Added

Manager Value Added

As of October 31, 2019

## Asset Allocation & Performance

	Allocation		Performance(%)							
	Market Value (\$)	%	1 Month	Fiscal YTD	Year To Date	1 Year	3 Years	5 Years	Since Inception	Inception Date
<b>Total Equity</b>	<b>9,478,462,220</b>	<b>100.0</b>	<b>2.5</b>	<b>2.4</b>	<b>21.0</b>	<b>12.7</b>	<b>12.2</b>	<b>8.1</b>	<b>8.1</b>	<b>07/01/2015</b>
Total Equity Performance Benchmark			2.6	2.8	20.2	12.4	12.2	8.1	8.6	
Jacobs Levy 130/30	642,181,464	6.8	1.8	3.7	22.6	10.8	15.7	14.1	10.1	01/01/2008
Russell 3000 Index			2.2	3.3	22.7	13.5	14.5	10.3	8.6	
Allianz Structured Alpha U.S. 250	184,868,539	2.0	2.6	4.8	27.2	18.1	16.4	12.7	17.9	05/01/2009
S&P 500 Index			2.2	3.9	23.2	14.3	14.9	10.8	15.0	
Allianz Structured Alpha Global 500	868,839,256	9.2	3.5	4.3	26.7	19.2	14.1		14.5	10/01/2015
MSCI AC World IMI (Net)			2.8	2.6	19.1	12.0	11.1		10.6	
Allianz Structured Alpha Global 350	458,761,650	4.8	3.3	3.8	24.3	17.1	12.7		13.1	12/01/2016
MSCI AC World IMI (Net)			2.8	2.6	19.1	12.0	11.1		11.0	
Kennedy Capital Management	541,676,027	5.7	2.8	1.8	18.5	5.7	7.9	5.7	12.0	01/01/1994
Russell 2000 Value Index			2.4	1.8	15.5	3.2	8.6	6.2	9.5	
Stephens	406,581,981	4.3	-0.2	-5.6	16.2	4.1	15.2	8.6	9.5	08/01/2006
Russell 2000 Growth Index			2.8	-1.4	18.6	6.4	13.2	8.4	9.0	
Voya Absolute Return	556,338,989	5.9	2.5	2.3	18.3	11.0	10.5	8.3	10.2	10/01/2008
Performance Benchmark Voya Absolute Return			2.7	2.7	19.4	12.6	11.3	8.4	10.3	
Allianz (Nicholas Applegate)	608,003,791	6.4	2.0	1.9	20.1	15.8	14.3	8.5	9.9	12/01/1998
Performance Benchmark			1.6	1.7	16.4	12.4	11.2	7.2	7.6	
Pershing Square International	90,384,094	1.0	-4.2	0.1	35.8	30.4	13.7	0.7	9.0	07/01/2008
Dow Jones U.S. Total Stock Market Index			2.1	3.3	22.6	13.4	14.4	10.3	10.2	
Pershing Square Holdings	131,681,755	1.4	-4.1	5.5	44.9	30.6	11.5	-5.3	1.4	01/01/2013
Dow Jones U.S. Total Stock Market Index			2.1	3.3	22.6	13.4	14.4	10.3	13.6	
SSgA Global Index	911,002,641	9.6	2.8	2.7	19.5	12.5	11.4	7.4	6.1	04/01/2008
MSCI AC World IMI (Net)			2.8	2.6	19.1	12.0	11.1	7.0	5.8	
BlackRock MSCI ACWI IMI Fund	327,038,530	3.5	2.8	2.7	19.0	12.0	11.2	7.3	8.0	07/01/2011
MSCI AC World IMI (Net)			2.8	2.6	19.1	12.0	11.1	7.0	7.6	

15 Preliminary Results

The inception of the Total Equity asset class was July 1, 2015. Performance prior to July 2015 represents the weighted average of the U.S. Equity and Global Equity asset class monthly returns. For historical performance of the U.S. Equity and Global Equity asset classes please see page 21 of this report.

As of October 31, 2019

## Asset Allocation & Performance

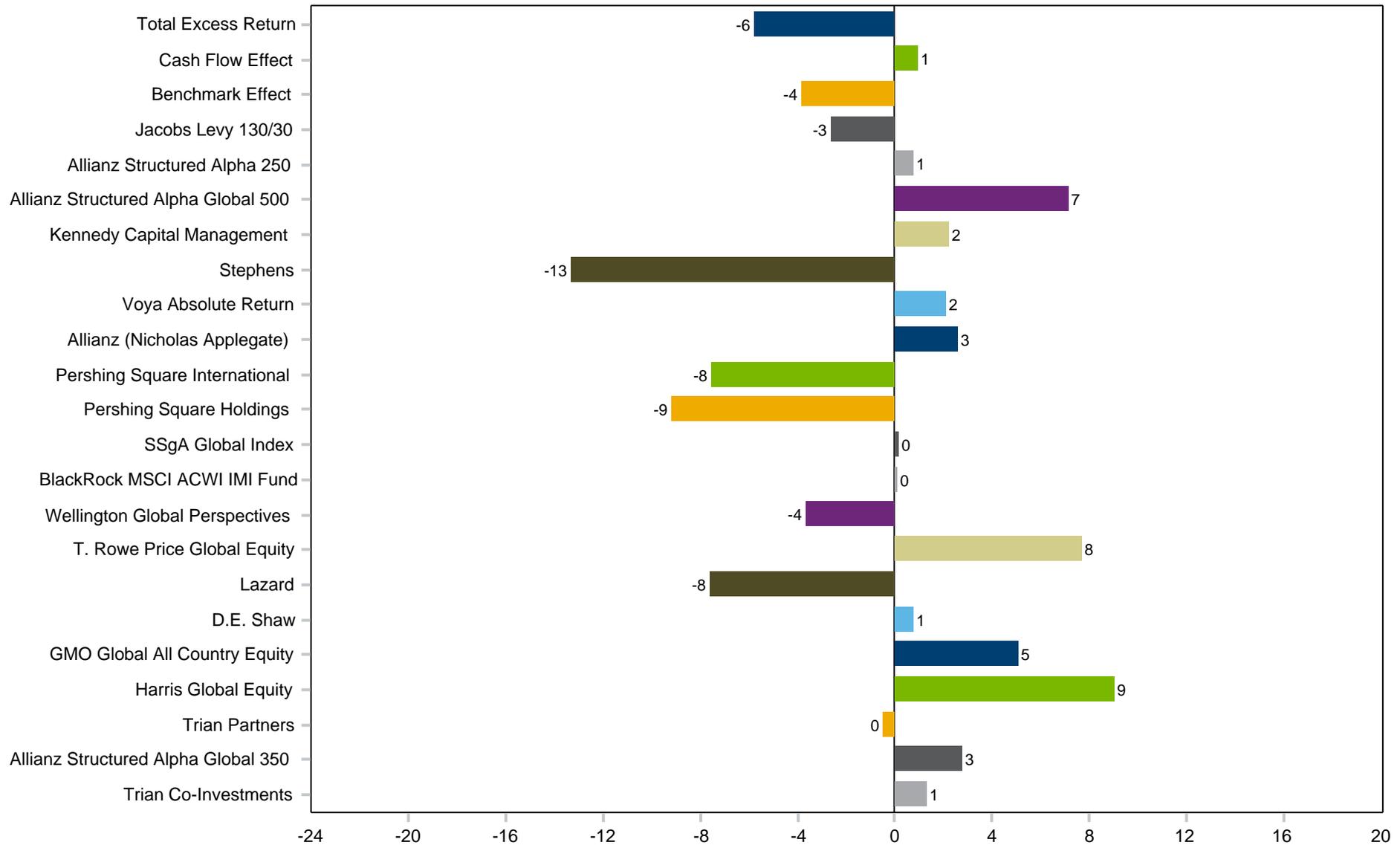
	Allocation		Performance(%)							
	Market Value (\$)	%	1 Month	Fiscal YTD	Year To Date	1 Year	3 Years	5 Years	Since Inception	Inception Date
Wellington Global Perspectives	537,320,862	5.7	2.2	1.1	15.2	6.1	10.3	7.1	13.4	07/01/2009
Performance Benchmark			2.9	1.6	16.8	8.0	9.3	6.6	11.0	
T. Rowe Price Global Equity	919,735,269	9.7	3.5	2.5	24.7	18.0	17.4	12.9	12.8	08/01/2009
MSCI AC World Index (Net)			2.7	2.7	19.4	12.6	11.3	7.1	9.3	
MSCI AC World Index Growth (Net)			3.2	3.5	24.3	17.0	14.3	9.4	10.8	
Lazard	558,396,475	5.9	1.5	-0.2	16.4	12.9	10.5	6.8	8.6	08/01/2009
MSCI AC World Index (Net)			2.7	2.7	19.4	12.6	11.3	7.1	9.3	
D.E. Shaw	708,018,784	7.5	2.7	2.6	17.4	9.8	11.8	9.0	10.9	09/01/2009
MSCI World Index (Net)			2.5	3.1	20.6	12.7	11.9	7.6	9.5	
GMO Global All Country Equity	424,824,847	4.5	3.9	3.3	18.1	12.2	9.6	5.3	3.8	07/01/2014
MSCI AC World Index (Net)			2.7	2.7	19.4	12.6	11.3	7.1	6.3	
MSCI AC World Index Value (Net)			2.2	1.9	14.5	8.2	8.4	4.7	3.9	
Harris Global Equity	458,557,365	4.8	4.4	3.9	21.0	10.8	8.9	6.5	5.1	06/01/2014
MSCI World Index (Net)			2.5	3.1	20.6	12.7	11.9	7.6	7.0	
MSCI World Value (Net)			2.1	2.6	15.8	8.5	8.7	5.2	4.6	
Triam Partners	70,084,719	0.7	1.5	4.9	24.4	17.4	10.2		8.8	11/01/2015
S&P 500 Index			2.2	3.9	23.2	14.3	14.9		12.2	
Triam Co-Investments	74,094,119	0.8	3.9	12.2	32.7	24.4			6.8	01/01/2017
S&P 500 Index			2.2	3.9	23.2	14.3			13.6	

152 Preliminary Results

The inception of the Total Equity asset class was July 1, 2015. Performance prior to July 2015 represents the weighted average of the U.S. Equity and Global Equity asset class monthly returns. For historical performance of the U.S. Equity and Global Equity asset classes please see page 21 of this report.

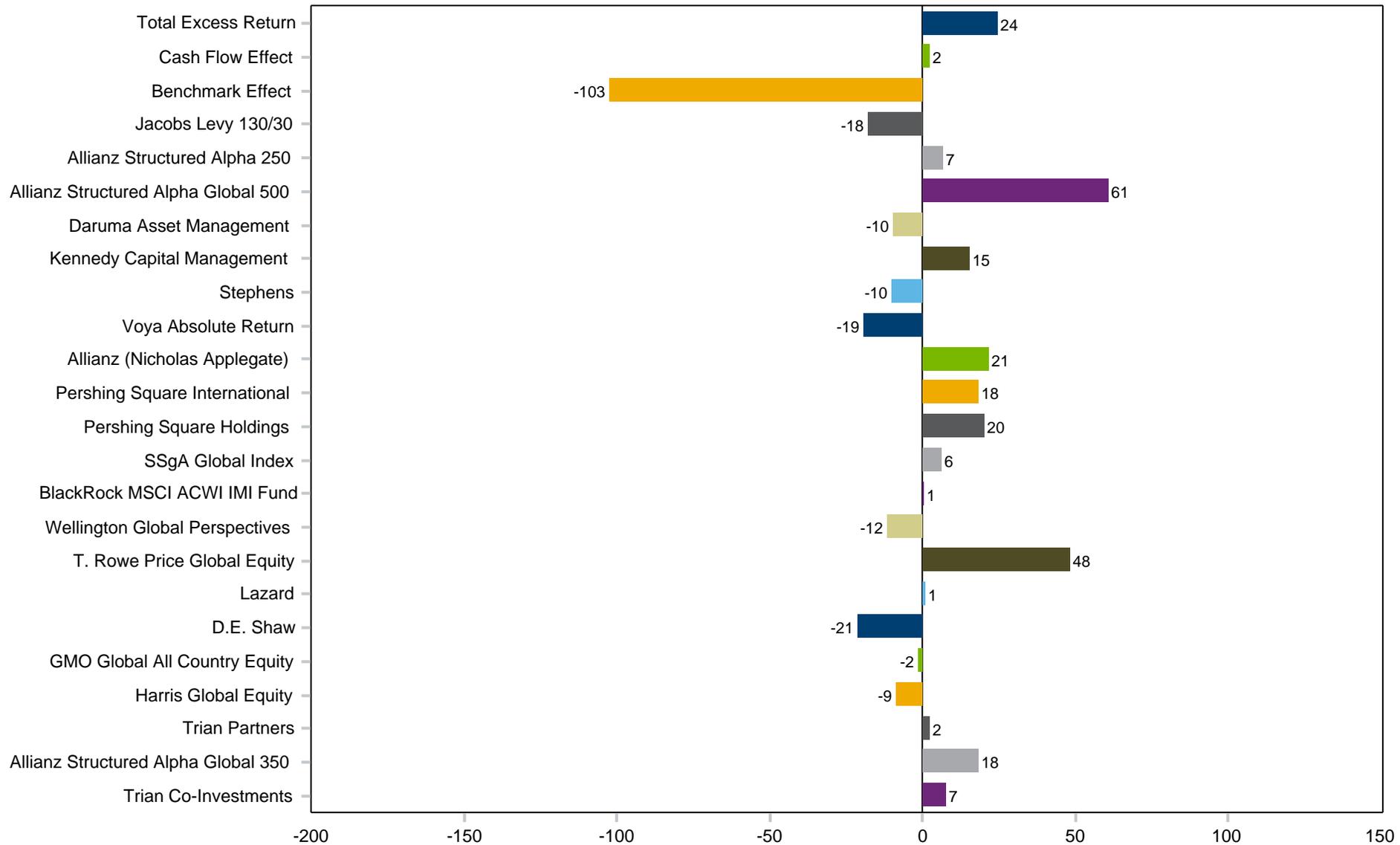
Asset Class Attribution

1 Month



Asset Class Attribution

1 Year



As of October 31, 2019

## Asset Allocation & Performance

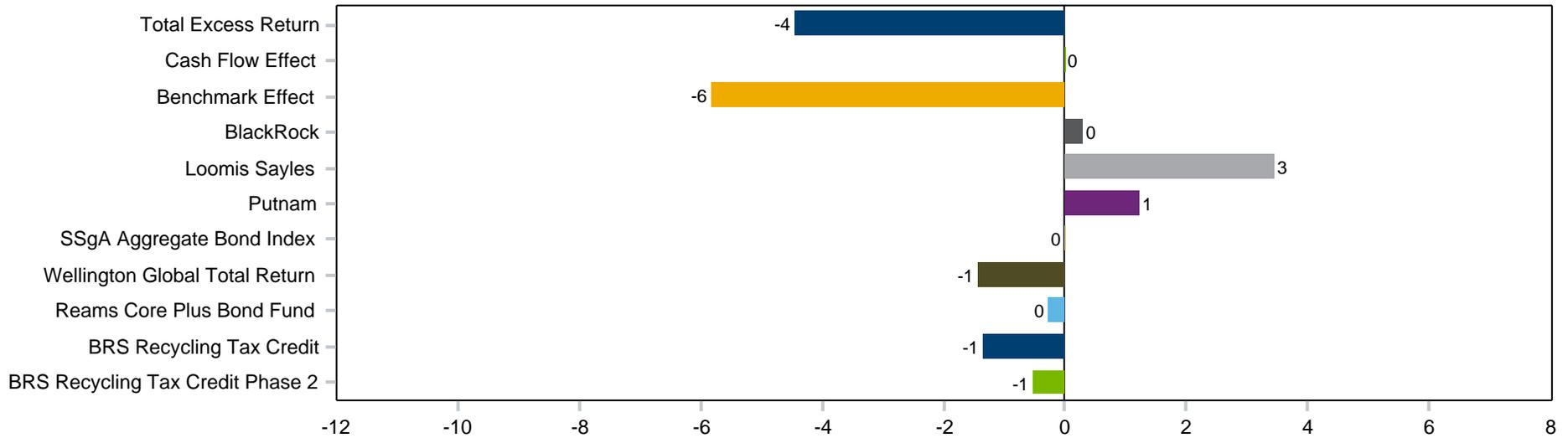
	Allocation		Performance(%)							
	Market Value (\$)	%	1 Month	Fiscal YTD	Year To Date	1 Year	3 Years	5 Years	Since Inception	Inception Date
<b>Fixed Income</b>	<b>2,748,992,198</b>	<b>100.0</b>	<b>0.3</b>	<b>1.9</b>	<b>7.3</b>	<b>8.5</b>	<b>4.6</b>	<b>3.8</b>	<b>5.5</b>	<b>07/01/1992</b>
Performance Benchmark			0.3	2.5	9.2	11.4	3.6	3.5	5.7	
<b>BlackRock</b>	<b>416,153,453</b>	<b>15.1</b>	<b>0.3</b>	<b>2.5</b>	<b>9.1</b>	<b>11.4</b>	<b>3.4</b>	<b>3.5</b>	<b>4.6</b>	<b>10/01/2003</b>
Performance Benchmark			0.3	2.5	9.2	11.4	3.6	3.5	4.4	
<b>Loomis Sayles</b>	<b>431,248,773</b>	<b>15.7</b>	<b>0.5</b>	<b>1.7</b>	<b>8.9</b>	<b>9.1</b>	<b>5.2</b>	<b>4.3</b>	<b>8.2</b>	<b>09/01/2008</b>
Performance Benchmark			0.3	2.5	10.7	11.2	4.5	4.1	5.8	
<b>Putnam</b>	<b>375,300,000</b>	<b>13.7</b>	<b>0.3</b>	<b>2.0</b>	<b>7.3</b>	<b>5.6</b>	<b>4.8</b>	<b>2.7</b>	<b>3.2</b>	<b>08/01/2008</b>
LIBOR			0.2	0.8	2.3	2.7	1.9	1.3	0.9	
<b>SSgA Aggregate Bond Index</b>	<b>550,340,567</b>	<b>20.0</b>	<b>0.3</b>	<b>2.6</b>	<b>8.9</b>	<b>11.5</b>	<b>3.3</b>	<b>3.3</b>	<b>3.6</b>	<b>06/01/2010</b>
Blmbg. Barc. U.S. Aggregate			0.3	2.6	8.8	11.5	3.3	3.2	3.6	
<b>Wellington Global Total Return</b>	<b>343,217,175</b>	<b>12.5</b>	<b>0.1</b>	<b>1.0</b>	<b>3.7</b>	<b>4.0</b>	<b>3.5</b>	<b>2.5</b>	<b>2.2</b>	<b>06/01/2014</b>
ICE BofAML 3 Month U.S. T-Bill			0.2	0.8	2.0	2.4	1.6	1.0	0.9	
<b>Reams Core Plus Bond Fund</b>	<b>363,700,622</b>	<b>13.2</b>	<b>0.3</b>	<b>2.4</b>	<b>8.8</b>	<b>12.6</b>	<b>3.6</b>	<b>3.6</b>	<b>3.4</b>	<b>06/01/2014</b>
Blmbg. Barc. U.S. Aggregate			0.3	2.6	8.8	11.5	3.3	3.2	3.2	
BRS Recycling Tax Credit	192,000,000	7.0								
BRS Recycling Tax Credit Phase 2	77,031,608	2.8								

\*Preliminary Results

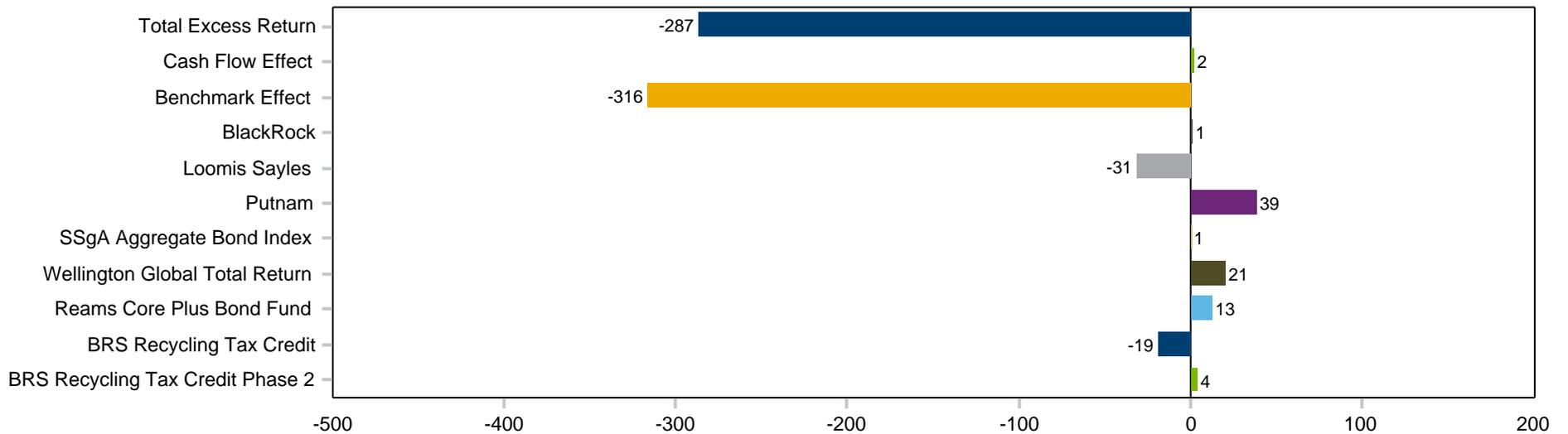
\*The BRS Recycling Tax Credit represents an annual income stream of \$16 million dollars over the next 14 years, which ATRS purchased for approximately \$162 million. The value shown above represents the year-end market value in accordance with GASB Statement 72, representing the 14 years of annual income, and has been incorporated into Total Fixed Income and Total Fund performance.

Asset Class Attribution

1 Month



1 Year



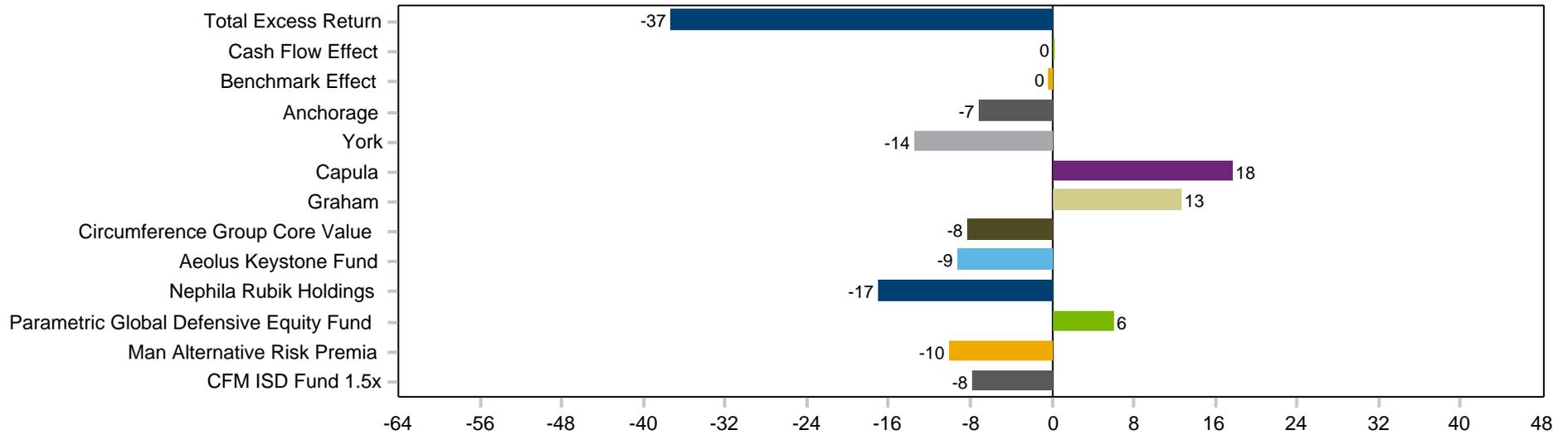
As of October 31, 2019

## Asset Allocation & Performance

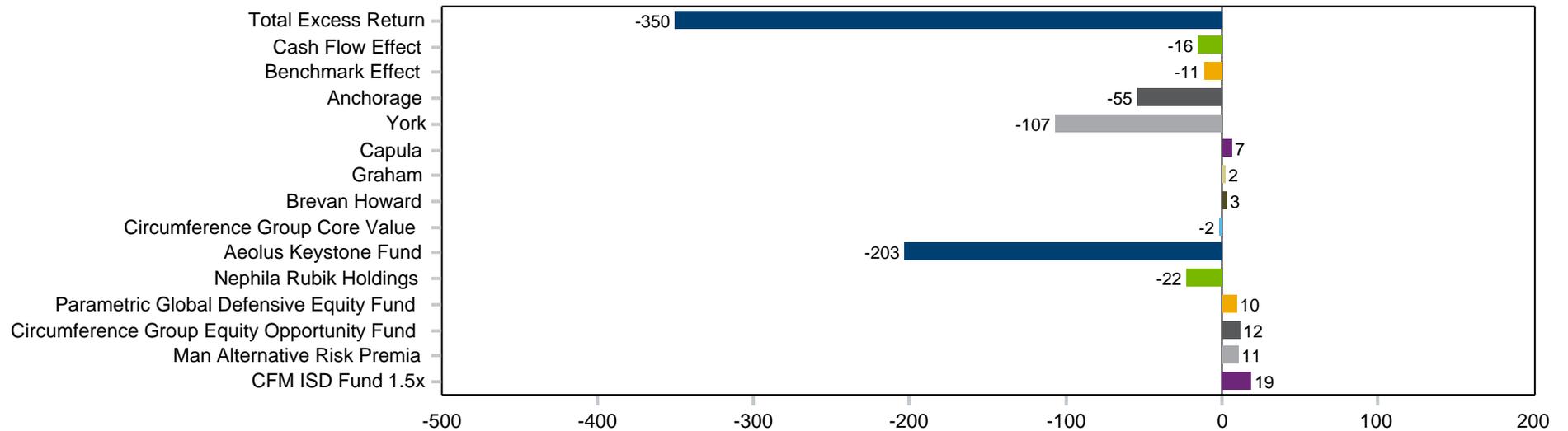
	Allocation		Performance(%)							
	Market Value (\$)	%	1 Month	Fiscal YTD	Year To Date	1 Year	3 Years	5 Years	Since Inception	Inception Date
<b>Opportunistic/Alternatives</b>	<b>1,007,331,202</b>	<b>100.0</b>	<b>-0.4</b>	<b>0.8</b>	<b>4.4</b>	<b>0.4</b>	<b>1.5</b>	<b>2.1</b>	<b>3.6</b>	<b>05/01/2011</b>
Custom Alternatives Benchmark			0.0	0.5	5.4	4.0	2.9	1.4	1.8	
<b>Anchorage</b>	<b>73,505,445</b>	<b>7.3</b>	<b>-1.2</b>	<b>-5.0</b>	<b>-2.8</b>	<b>-4.9</b>	<b>1.8</b>	<b>1.7</b>	<b>4.7</b>	<b>05/01/2011</b>
Credit Suisse Event Driven			-0.2	-1.7	5.7	1.9	3.4	0.8	1.9	
HFRI ED: Distressed/Restructuring Index			-0.3	-2.0	2.7	-1.5	3.8	2.2	3.2	
<b>York</b>	<b>63,137,105</b>	<b>6.3</b>	<b>-2.3</b>	<b>-8.7</b>	<b>-6.8</b>	<b>-12.3</b>	<b>1.6</b>	<b>-0.8</b>	<b>2.7</b>	<b>05/01/2011</b>
Credit Suisse Event Driven			-0.2	-1.7	5.7	1.9	3.4	0.8	1.9	
HFRI ED: Distressed/Restructuring Index			-0.3	-2.0	2.7	-1.5	3.8	2.2	3.2	
<b>Capula</b>	<b>82,643,261</b>	<b>8.2</b>	<b>1.1</b>	<b>1.9</b>	<b>5.9</b>	<b>6.1</b>	<b>5.9</b>	<b>6.5</b>	<b>6.0</b>	<b>05/01/2011</b>
HFRI Macro (Total) Index			-1.1	0.6	5.5	5.2	1.3	1.1	0.2	
<b>Graham</b>	<b>62,149,217</b>	<b>6.2</b>	<b>1.0</b>	<b>2.9</b>	<b>14.2</b>	<b>5.5</b>	<b>2.9</b>	<b>3.4</b>	<b>2.4</b>	<b>05/01/2011</b>
HFRI Macro (Total) Index			-1.1	0.6	5.5	5.2	1.3	1.1	0.2	
<b>Circumference Group Core Value</b>	<b>28,854,097</b>	<b>2.9</b>	<b>-0.3</b>	<b>1.7</b>	<b>8.6</b>	<b>5.3</b>	<b>10.8</b>		<b>8.7</b>	<b>08/01/2015</b>
Russell 2000 Index			2.6	0.2	17.2	4.9	11.0		7.1	
<b>Aeolus Keystone Fund</b>	<b>282,521,678</b>	<b>28.0</b>	<b>-0.2</b>	<b>3.3</b>	<b>2.8</b>	<b>-6.6</b>	<b>-6.4</b>		<b>-2.1</b>	<b>12/01/2015</b>
FTSE 3 Month T-Bill			0.2	0.7	2.0	2.3	1.6		1.3	
Eurekahedge ILS Advisers Index			0.8	2.8	1.6	-3.1	-2.5		-0.8	
<b>Nephila Rubik Holdings</b>	<b>43,820,447</b>	<b>4.4</b>	<b>-3.6</b>	<b>-0.3</b>	<b>2.2</b>	<b>-2.4</b>	<b>-4.8</b>		<b>-3.8</b>	<b>06/01/2016</b>
FTSE 3 Month T-Bill			0.2	0.7	2.0	2.3	1.6		1.4	
Eurekahedge ILS Advisers Index			0.8	2.8	1.6	-3.1	-2.5		-1.4	
<b>Parametric Global Defensive Equity Fund</b>	<b>169,786,289</b>	<b>16.9</b>	<b>1.8</b>	<b>2.4</b>	<b>10.9</b>	<b>8.6</b>			<b>5.3</b>	<b>06/01/2017</b>
Performance Benchmark			1.5	1.8	10.8	7.9			5.4	
MSCI AC World Index			2.8	2.9	19.9	13.2			8.7	
<b>Man Alternative Risk Premia</b>	<b>99,921,856</b>	<b>9.9</b>	<b>-2.2</b>	<b>1.1</b>	<b>5.3</b>	<b>4.3</b>			<b>0.4</b>	<b>06/01/2018</b>
SG Multi Alternative Risk Premia Index			-1.2	0.8	3.5	3.0			0.5	
<b>CFM ISD Fund 1.5x</b>	<b>100,991,808</b>	<b>10.0</b>	<b>-1.9</b>	<b>-0.3</b>	<b>3.5</b>	<b>4.9</b>			<b>1.9</b>	<b>07/01/2018</b>
SG Multi Alternative Risk Premia Index			-1.2	0.8	3.5	3.0			0.9	

Asset Class Attribution

1 Month



1 Year



Asset Allocation as of 10/31/2019									Values in \$1,000	
	Total Equity	U.S. Bond	Real Estate	Private Equity	Cash	Total	Percent of Total	Interim Policy	Long-Term Target	
Jacobs Levy 130/30	\$642,181.5	--	--	--	--	\$642,181.5	3.63%			
Allianz Structured Alpha U.S. 250	\$184,868.5	--	--	--	--	\$184,868.5	1.04%			
Allianz Structured Alpha Global 500	\$868,839.3	--	--	--	--	\$868,839.3	4.91%			
Allianz Structured Alpha Global 350	\$458,761.6	--	--	--	--	\$458,761.6	2.59%			
Kennedy Capital Management	\$541,676.0	--	--	--	--	\$541,676.0	3.06%			
Stephens	\$406,582.0	--	--	--	--	\$406,582.0	2.30%			
Voya Absolute Return	\$556,339.0	--	--	--	--	\$556,339.0	3.14%			
Allianz (Nicholas Applegate)	\$608,003.8	--	--	--	--	\$608,003.8	3.43%			
Pershing Square International	\$90,384.1	--	--	--	--	\$90,384.1	0.51%			
Pershing Square Holdings	\$131,681.8	--	--	--	--	\$131,681.8	0.74%			
SSgA Global Index	\$911,002.6	--	--	--	--	\$911,002.6	5.15%			
BlackRock MSCI ACWI IMI Fund	\$327,038.5	--	--	--	--	\$327,038.5	1.85%			
Wellington Global Perspectives	\$537,320.9	--	--	--	--	\$537,320.9	3.03%			
T. Rowe Price Global Equity	\$919,735.3	--	--	--	--	\$919,735.3	5.19%			
Lazard	\$558,396.5	--	--	--	--	\$558,396.5	3.15%			
D.E. Shaw	\$708,018.8	--	--	--	--	\$708,018.8	4.00%			
GMO Global All Country Equity	\$424,824.8	--	--	--	--	\$424,824.8	2.40%			
Harris Global Equity	\$458,557.4	--	--	--	--	\$458,557.4	2.59%			
Triam Partners	\$70,084.7	--	--	--	--	\$70,084.7	0.40%			
Triam Partners Co-Investments	\$74,094.1	--	--	--	--	\$74,094.1	0.42%			
Capital Guardian & Knight Vinke	\$71.1	--	--	--	--	\$71.1	0.00%			
<b>Total Equity</b>						<b>\$9,478,462.2</b>	<b>53.53%</b>	<b>54.67%</b>	<b>53.00%</b>	
BlackRock	--	\$416,153.5	--	--	--	\$416,153.5	2.35%			
Loomis Sayles	--	\$431,248.8	--	--	--	\$431,248.8	2.44%			
Putnam	--	\$375,300.0	--	--	--	\$375,300.0	2.12%			
SSgA Aggregate Bond Index	--	\$550,340.6	--	--	--	\$550,340.6	3.11%			
Wellington Global Total Return	--	\$343,217.2	--	--	--	\$343,217.2	1.94%			
Reams Core Plus Bond Fund	--	\$363,700.6	--	--	--	\$363,700.6	2.05%			
BRS Recycling Tax Credit	--	\$192,000.0	--	--	--	\$192,000.0	1.08%			
BRS Recycling Tax Credit Phase 2	--	\$77,031.6	--	--	--	\$77,031.6	0.44%			
<b>Total Fixed Income</b>						<b>\$2,748,992.2</b>	<b>15.53%</b>	<b>15.00%</b>	<b>15.00%</b>	
Anchorage	--	--	--	\$73,505.4	--	\$73,505.4	0.42%			
Capula	--	--	--	\$82,643.3	--	\$82,643.3	0.47%			
Graham	--	--	--	\$62,149.2	--	\$62,149.2	0.35%			
York	--	--	--	\$63,137.1	--	\$63,137.1	0.36%			
Circumference Group Core Value	--	--	--	\$28,854.1	--	\$28,854.1	0.16%			
Aeolus Keystone Fund	--	--	--	\$282,521.7	--	\$282,521.7	1.60%			
Nephila Rubik Holdings	--	--	--	\$43,820.4	--	\$43,820.4	0.25%			
Parametric Global Defensive Equity	--	--	--	\$169,786.3	--	\$169,786.3	0.96%			
Man Alternative Risk Premia	--	--	--	\$99,921.9	--	\$99,921.9	0.56%			
CFM ISD Fund 1.5x	--	--	--	\$100,991.8	--	\$100,991.8	0.57%			
<b>Total Opportunistic/Alternatives</b>						<b>\$1,007,331.2</b>	<b>5.69%</b>	<b>5.81%</b>	<b>5.00%</b>	
<b>Real Estate</b>			\$1,341,208.3			\$1,341,208.3	7.58%			
<b>Timber</b>			\$282,178.7			\$282,178.7	1.59%			
<b>Agriculture</b>			\$198,252.8			\$198,252.8	1.12%			
<b>Infrastructure</b>			\$303,175.7			\$303,175.7	1.71%			
<b>Total Real Assets</b>						<b>\$2,124,815.5</b>	<b>12.00%</b>	<b>12.52%</b>	<b>15.00%</b>	
<b>Total Private Equity</b>				\$2,227,857.7		\$2,227,857.7	12.58%	12.00%	12.00%	
<b>Total Cash</b>					\$117,844.0	\$117,844.0	0.67%	0.00%	0.00%	
<b>Total Fund</b>	<b>\$9,478,462.2</b>	<b>\$2,748,992.2</b>	<b>\$2,124,815.5</b>	<b>\$3,235,188.9</b>	<b>\$117,844.0</b>	<b>\$17,705,302.8</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	

\*Note: The market values for the Real Assets and Private Equity investments shown above are lagged one quarter and adjusted for the current quarter's cash flows. Market values and allocation percentages may not add to the sum total due to rounding.

Asset Allocation as of 10/31/2019				Values in \$1,000			
	Real Estate	Percent of Real Estate	Percent of Total Fund		Real Estate	Percent of Real Estate	Percent of Total Fund
Almanac Realty Securities Fund V	\$817.0	0.06%	0.00%	LaSalle Income & Growth Fund VI	\$6,771.2	0.50%	0.04%
Almanac Realty Securities Fund VI	\$5,279.6	0.39%	0.03%	LaSalle Income & Growth Fund VII	\$12,530.0	0.93%	0.07%
Almanac Realty Securities Fund VII	\$13,009.0	0.97%	0.07%	Lone Star Real Estate Fund IV	\$9,883.6	0.74%	0.06%
Almanac Realty Securities Fund VIII	\$1,547.8	0.12%	0.01%	Long Wharf Real Estate Partners V	\$25,815.3	1.92%	0.15%
American Center	\$49,453.2	3.69%	0.28%	Metropolitan RE Co-Investments	\$12,351.1	0.92%	0.07%
AR Insurance	\$6,991.9	0.52%	0.04%	Met Life Commercial Mtg Inc Fund	\$49,347.4	3.68%	0.28%
AR Teachers Retirement Building	\$5,086.7	0.38%	0.03%	New Boston Fund VII	\$126.1	0.01%	0.00%
Blackstone Real Estate Partners VII	\$27,047.7	2.02%	0.15%	O'Connor NAPP II	\$10,544.4	0.79%	0.06%
Carlyle Realty Partners VII	\$15,228.9	1.14%	0.09%	Olympus	\$355.4	0.03%	0.00%
Carlyle Realty VIII	\$5,391.0	0.40%	0.03%	PRISA	\$272,018.5	20.28%	1.54%
CBREI SP U.S. Opportunity V	\$10,158.7	0.76%	0.06%	Recoveries Land	\$84.0	0.01%	0.00%
CBREI SP VIII	\$22,349.8	1.67%	0.13%	Rockwood Capital RE Partners IX	\$8,338.4	0.62%	0.05%
Cerberus Institutional RE Partners III	\$14,221.6	1.06%	0.08%	Rose Law Firm	\$4,620.3	0.34%	0.03%
Chenal Retirement Village	\$1,900.0	0.14%	0.01%	Texarkana DHS	\$1,806.3	0.13%	0.01%
Calmwater	\$19,209.1	1.43%	0.11%	Torchlight Debt Opportunity Fund IV	\$5,522.1	0.41%	0.03%
Fletcher Properties	\$1,301.0	0.10%	0.01%	Torchlight Debt Opportunity Fund V	\$10,717.7	0.80%	0.06%
FPA Core Plus IV	\$18,042.7	1.35%	0.10%	Torchlight Debt Opportunity Fund VI	\$5,670.1	0.42%	0.03%
Harbert European Real Estate	\$28,517.6	2.13%	0.16%	UBS Trumbull Property Fund	\$219,709.7	16.38%	1.24%
Heitman European Property IV	\$2,657.2	0.20%	0.02%	UBS Trumbull Property Income Fund	\$52,143.6	3.89%	0.29%
JP Morgan Strategic Property Fund	\$280,568.8	20.92%	1.58%	Victory	\$32,830.3	2.45%	0.19%
Kayne Anderson V	\$14,196.9	1.06%	0.08%	Walton Street Real Estate Debt II	\$1,933.7	0.14%	0.01%
Landmark Fund VI	\$3,128.5	0.23%	0.02%	West Mphs. DHS	\$2,372.0	0.18%	0.01%
Landmark Real Estate VIII	\$6,528.7	0.49%	0.04%	Westbrook IX	\$15,103.6	1.13%	0.09%
LaSalle Asia Opportunity Fund IV	\$3,704.8	0.28%	0.02%	Westbrook Real Estate Fund X	\$15,065.9	1.12%	0.09%
LaSalle Asia Opportunity Fund V	\$9,209.5	0.69%	0.05%				
<b>Total Real Estate</b>					<b>\$1,341,208.3</b>	<b>100.00%</b>	<b>7.58%</b>

\*Note: The market values for the real estate investments shown above are lagged one quarter and adjusted for the current quarter's cash flows. Market values and allocation percentages may not add to the sum total due to rounding.

Asset Allocation as of 10/31/2019				Values in \$1,000			
	Private Equity	Percent of Private Equity	Percent of Total Fund		Private Equity	Percent of Private Equity	Percent of Total Fund
Arlington Capital IV	\$24,961.1	1.12%	0.14%	Insight Equity II	\$27,597.6	1.24%	0.16%
Arlington Capital V	\$160.7	0.01%	0.00%	Insight Mezzanine I	\$3,748.2	0.17%	0.02%
Advent GPE VI	\$6,346.5	0.28%	0.04%	JF Lehman III	\$34,002.8	1.53%	0.19%
Altus Capital II	\$9,135.1	0.41%	0.05%	JF Lehman IV	\$20,436.7	0.92%	0.12%
American Industrial Partners VI	\$20,687.5	0.93%	0.12%	KPS III	\$591.5	0.03%	0.00%
American Industrial Partners VII	\$368.9	0.02%	0.00%	KPS IV	\$17,719.5	0.80%	0.10%
Altaris Constellation Partners	\$19,913.1	0.89%	0.11%	Levine Leichtman V	\$16,738.8	0.75%	0.09%
Altaris Health Partners IV	\$11,978.4	0.54%	0.07%	Lime Rock III	\$25,786.2	1.16%	0.15%
Atlas Capital II	\$14,267.7	0.64%	0.08%	LLR III	\$9,006.7	0.40%	0.05%
Audax Mezzanine III	\$3,774.5	0.17%	0.02%	Mason Wells III	\$10,331.6	0.46%	0.06%
Big River - Equity	\$327,000.0	14.68%	1.85%	NGP IX	\$1,116.1	0.05%	0.01%
Big River - Equity (Phase 2)	\$58,295.6	2.62%	0.33%	NGP X	\$9,842.1	0.44%	0.06%
Big River - Holdings Note 2023	\$12,871.4	0.58%	0.07%	NGP XI	\$26,849.6	1.21%	0.15%
Big River - Holdings Note 3/16/23	\$5,397.4	0.24%	0.03%	NGP XII	\$11,964.7	0.54%	0.07%
Bison V	\$13,725.7	0.62%	0.08%	One Rock Capital Partners II	\$17,474.0	0.78%	0.10%
Boston Ventures VII	\$16,818.1	0.75%	0.09%	PineBridge	\$15,621.4	0.70%	0.09%
Boston Ventures IX	\$15,373.1	0.69%	0.09%	Riverside IV	\$3,537.8	0.16%	0.02%
BV VIII	\$23,440.9	1.05%	0.13%	Riverside V	\$24,687.9	1.11%	0.14%
Castlelake II	\$17,382.9	0.78%	0.10%	Riverside VI	\$3,637.6	0.16%	0.02%
Castlelake III	\$17,687.7	0.79%	0.10%	Siris III	\$15,571.1	0.70%	0.09%
Clearlake V	\$23,092.8	1.04%	0.13%	Siris IV	\$9,083.7	0.41%	0.05%
Court Square III	\$40,879.6	1.83%	0.23%	SK Capital V	\$8,050.8	0.36%	0.05%
CSFB-ATRS 2005-1 Series	\$50,659.4	2.27%	0.29%	Sycamore Partners II	\$17,718.4	0.80%	0.10%
CSFB-ATRS 2006-1 Series	\$95,420.2	4.28%	0.54%	Sycamore Partners III	\$2,634.0	0.12%	0.01%
Diamond State Ventures II	\$6,043.4	0.27%	0.03%	TA XI	\$21,206.1	0.95%	0.12%
Doughty Hanson Tech I	\$447.1	0.02%	0.00%	Tennenbaum VI	\$12,721.8	0.57%	0.07%
DW Healthcare III	\$20,349.0	0.91%	0.11%	Thoma Bravo Discover	\$12,707.4	0.57%	0.07%
DW Healthcare IV	\$28,510.4	1.28%	0.16%	Thoma Bravo Discover II	\$5,523.8	0.25%	0.03%
DW Healthcare V	\$2,013.8	0.09%	0.01%	Thoma Bravo XI	\$24,967.0	1.12%	0.14%
EnCap IX	\$15,657.7	0.70%	0.09%	Thoma Bravo XII	\$35,205.1	1.58%	0.20%
EnCap VIII	\$14,124.1	0.63%	0.08%	Thoma Bravo XIII	\$10,706.6	0.48%	0.06%
EnCap X	\$26,446.0	1.19%	0.15%	Vista Equity III	\$5,055.2	0.23%	0.03%
EnCap XI	\$6,457.3	0.29%	0.04%	Vista Foundation II	\$15,651.5	0.70%	0.09%
Franklin Park Series	\$627,910.4	28.18%	3.55%	Vista Foundation III	\$24,074.7	1.08%	0.14%
GCG	\$18,786.3	0.84%	0.11%	Wellspring V	\$19,026.6	0.85%	0.11%
GTLA Holdings	\$20,000.0	0.90%	0.11%	Wicks IV	\$22,075.1	0.99%	0.12%
Highland	\$68,013.1	3.05%	0.38%	WNG II	\$791.2	0.04%	0.00%
<b>Total Private Equity</b>					<b>\$2,227,857.7</b>	<b>100.00%</b>	<b>12.58%</b>

\*Note: The market values for the private equity investments shown above are lagged one quarter and adjusted for the current quarter's cash flows.  
Market values and allocation percentages may not add to the sum total due to rounding.

## Arkansas Teacher Retirement System

## Appendix

## Description of Benchmarks

Total Fund - The Performance Benchmark for the Total Fund reflects a weighted average of the underlying asset class benchmarks, weighted as follows: Opportunistic/Alternatives and Real Assets at the weight of the previous month's ending market values, Fixed Income and Private Equity at their long-term Policy Targets of 15% and 12%, respectively, and Total Equity at its long-term Policy Target of 50% plus the balance of the unfunded or uncommitted assets of the Opportunistic/Alternatives and Real Assets categories. These targets can be found on page 14 of the this report. 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 Arkansas Teacher Retirement System over time. The historical benchmarks used for each asset class are noted below.

Date	DJ Total Stock Market Index	Russell 3000 Index	MSCI ACW ex-U.S. Index	MSCI All Country World Index	BC Universal Bond Index	BC Aggregate Bond Index	Alternative Policy*
03/2004-9/2007	40.0 %	—	17.5 %	—	25.0 %	—	17.5 %
06/2003-02/2004	40.0	—	17.5	—	—	25.0 %	17.5
10/2001-07/2003	—	40.0 %	17.5	—	—	25.0	17.5
08/1998-09/2001	—	40.0	17.0	—	—	28.0	15.0
10/1996-07/1998	—	40.0	20.0	—	—	28.0	12.0

\*Historically, the Alternative Policy was comprised of the weighted averages of the Private Equity, Real Estate, and 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 Southeast Timberland Index, 28.5% of the Real Estate Index, 6% of the EnnisKnupp STIF Index.

## Arkansas Teacher Retirement System

### Appendix

Total Equity -A weighted average of the Dow Jones U.S. Total Stock Market Index and the MSCI All Country World IMI Index based on weights of the underlying investment manager allocations. As of October 1, 2019, the Total Equity Performance Benchmark was comprised of 29.5% DJ U.S. Total Stock Market Index and 70.5% MSCI ACWI IMI.

Fixed Income - The Barclays Capital Universal Bond Index as of March 1, 2004.

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

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

Real Estate-The NCREIF Index.

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

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

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

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

Cash Equivalentents - The Citigroup 90 day T-bill.

## Arkansas Teacher Retirement System

### Appendix

#### Description of Benchmarks

FTSE 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.

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

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

Bloomberg Barclays Mortgage Index - A market value-weighted index consisting of the mortgage pass-through securities of Ginnie Mae (GNMA), Fannie Mae (FNMA) and Freddie Mac (FHLMC).

MSCI All Country World ex-U.S. Index - A capitalization-weighted index consisting of 22 developed and 23 emerging countries, but excluding the U.S. Covers approximately 85% of global equity opportunity set outside of the U.S.

MSCI All Country World Index - A capitalization-weighted index of stocks representing 46 stock markets in Europe, Australia, the Far East, the Middle East, Latin America and North America.

MSCI All Country World IMI Index - A capitalization-weighted index representing large and small cap stock from 46 stock markets in Europe, Australia, the Far East, the Middle East, Latin America and North America.

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

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.

NCREIF Index - The National Council of Real Estate Investment Fiduciaries (NCREIF) Net Property Index is an unlevered, market-value weighted Index consisting of \$128 billion in domestic institutional real estate assets. The Index is representative of the national real estate market, across all property types and regions.

Nicholas Applegate 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 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.

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.

As of October 31, 2019

## Arkansas Teacher Retirement System

### Appendix

BlackRock Performance Benchmark - The Barclays Capital Universal Bond Index as of March 1, 2004.

Voya Absolute Return Performance Benchmark - As of December 1, 2015 the benchmark was changed to MSCI All Country World Index. Prior to December 1, 2015, the benchmark was the S&P 500 Stock Index.

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.

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

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

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

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

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

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

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.

HFR Macro Index - Macro: 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. Managers employ a variety of techniques, both discretionary and systematic analysis, combinations of top down and bottom up theses, quantitative and fundamental approaches and long and short term holding periods. Primary investment thesis is predicated on predicted or future movements in the underlying instruments.

HFR Distressed/Restructuring Index - Distressed Restructuring Strategies 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. Distressed Strategies employ primarily debt (greater than 60%) but also may maintain related equity exposure.

Parametric Performance Benchmark - 50% MSCI All Country World Index and 50% Citigroup 90 day T-Bill Index as of June 1, 2017.

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

## Arkansas Teacher Retirement System

## Appendix

## Historical U.S. Equity and Global Equity composite returns

<b>As of June 30, 2015</b>	<b>1 Year</b>	<b>3 Years</b>	<b>5 Years</b>	<b>10 Years</b>	<b>Since Inception</b>	<b>Inception Date</b>
U.S. Equity	6.7	18.1	16.4	9.4	10.5	04/01/1986
Dow Jones U.S. Total Stock Market Index	7.2	17.6	17.5	8.3	-	
Global Equity	1.8	14.6	12.1	-	2.5	11/01/2007
MSCI AC World Index (Net)	0.7	13.0	11.9	6.4	2.1	

In June 2015, the ATRS Board approved the combination of the U.S. and Global equity asset classes to a single Total Equity asset class. Total Equity performance reporting began in July 2015. In the table above, we show the historical returns for the U.S. Equity and Global Equity asset classes since inception through June 2015. Performance for the Total Equity asset class prior to July 2015 represents a weighted average of the U.S. Equity and Global Equity historical performance.

## Notes

- The rates of return contained in this report are shown on an after-fees basis unless otherwise noted. They are geometric and time-weighted. Returns for periods longer than one year are annualized.
- Universe percentiles are based upon an ordering system in which 1 is the best ranking and 100 is the worst ranking.
- Due to rounding throughout the report, percentage totals displayed may not sum to 100%. Additionally, individual fund totals in dollar terms may not sum to the plan total.
- All information presented in this report should be considered preliminary. Finalized data will be available on next Quarterly Investment Report after the close of the quarter.

## Disclaimer

Past performance is not necessarily indicative of future results.

Unless otherwise noted, performance returns presented reflect the respective fund's performance as indicated. Returns may be presented on a before-fees basis (gross) or after-fees basis (net). After-fee performance is net of each respective sub-advisors' investment management fees and include the reinvestment of dividends and interest as indicated on the notes page within this report or on the asset allocation and performance summary pages. Actual returns may be reduced by AHIC's investment advisory fees or other trust payable expenses you may incur as a client. AHIC's advisory fees are described in Form ADV Part 2A. Portfolio performance, characteristics and volatility also may differ from the benchmark(s) shown.

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# Arkansas Teachers Retirement System Second Quarter 2019 Real Assets Performance Review

PROPRIETARY & CONFIDENTIAL

December 2019

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## Agenda

<b>Section 1</b>	<b>Executive Summary</b>
Section 2	Market Overview
Section 3	Real Assets Portfolio Update
Section 4	Glossary

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## Real Assets Markets Performance and Overview

### MARKET RETURN SUMMARY

As of 6/30/2019	Quarter	1 year	3 years	5 years	10 years
<b>NFI-ODCE (Net)</b>	0.8%	5.5%	6.6%	8.8%	8.9%
<b>NPI</b>	1.5%	6.5%	6.9%	8.8%	9.3%
<b>NCREIF Timberland Index</b>	1.0%	3.0%	3.3%	4.6%	4.0%
<b>NCREIF Farmland Index</b>	0.7%	5.7%	6.3%	8.0%	11.1%

*Note: Please see Glossary for Index Definitions*

- In the second quarter of 2019, the NFI-ODCE (net) returned 0.8%, down 40 basis points quarter-over-quarter. NFI-ODCE returns are struggling, due to the maturity of the real estate cycle. Quarterly returns have begun to shift away from the long-term average with the lack of appreciation being a larger driver of the total return
- The NCREIF Timberland Index (“NTI”) returned 1.0% for the quarter. The NTI’s trailing one-year return was 3.0% and driven primarily by an income return of 2.96% while appreciation returned 0.00%. Regionally, the Northwest remains the NTI’s top performer while the Northeast region lagged
- The NCREIF Farmland Index returned 0.7%, the same as the prior quarter. Permanent and row crops notched similar performance at approximately 0.93% and 0.62% respectively. For the trailing one-year, permanent crops returned 7.01% compared to row crops’ 4.82%

## Portfolio Funding Status and Composition

As of June 30, 2019	ATRS' Portfolio \$ in Millions
Number of Investments	63
Total Commitments	\$3,480.5
Unfunded Commitments	\$601.5
Total Paid-In Capital	\$3,165.7
Total Distributions	\$2,589.9
Net Asset Value	\$2,142.8
Gross Asset Value	\$2,724.3
DPI*	0.8x
TVPI*	1.5x
Since Inception IRR*	7.3%
<i>*Active and Liquidated</i>	

PORTFOLIO COMPOSITION TO TARGETS (As of 6/30/2019)		
	Target	Actual Funded
<b>Target Real Asset Allocation</b>	15%	12.2%
<b><u>Portfolio Style Composition</u></b>		
<b>Real Estate</b>	10%	7.8%
<b>Core*</b>	50%-70%	71.3%
<b>Non-Core</b>	30%-50%	28.7%
<i>Value-Added**</i>	N/A	15.2%
<i>Opportunistic**</i>	N/A	13.6%
<b>Agriculture</b>	1%	1.1%
<b>Timber</b>	2%	1.5%
<b>Infrastructure</b>	2%	1.7%
<b>Leverage</b>	50%	21.3%

\* Includes Arkansas Investments

\*\* No stated targets

- As of the second quarter of 2019, the real assets portfolio stands at 12.2% of ATRS' total assets
- Recent infrastructure and real estate commitments will help the portfolio continue to move towards its target allocation irrespective of the liquidating investments
- In general, the portfolio is in compliance with its Statement of Investment Policy leverage, geographic region, and property type diversification; there is a slight overweight to core real estate, but a significant amount of noncore commitments have yet to be drawn

## ATRS' Real Assets Performance

### ATRS TOTAL REAL ASSETS RETURN SUMMARY

As of 6/30/2019	Quarter	1 Year Ending	3 Year Ending	5 Year Ending	10 Year Ending
<b>Total Real Assets Portfolio</b>	1.7%	5.7%	7.0%	8.3%	7.8%
<b>Real Assets Benchmark*</b>	0.9%	5.1%	5.9%	7.7%	7.3%

- The table shows the returns for ATRS' Total Real Assets Portfolio and the Real Assets Benchmark. ATRS outperformed the real assets benchmark by 80 basis points for the second quarter and has outperformed over longer term periods

## ATRS' Real Estate Performance

### ATRS TOTAL REAL ESTATE RETURN SUMMARY

As of 6/30/2019	Quarter	1 Year Ending	3 Year Ending	5 Year Ending	10 Year Ending
<b>Total Real Estate</b>	0.5%	4.6%	7.0%	9.1%	9.0%
<b>NFI-ODCE (Net)</b>	0.8%	5.5%	6.6%	8.8%	8.9%

- The table shows the time-weighted, net of fee returns for ATRS' Total Real Estate Portfolio and the NFI-ODCE benchmark. ATRS underperformed the benchmark for the quarter and 1 year periods by 30 basis points and 90 basis points respectively. However, ATRS' portfolio is outperforming over all other time periods
- There are a number of Non-Core Funds that have entered the J-curve and performance is expected to have a more meaningful impact as newer funds move out of the J-Curve and investments are realized
- For the quarter, PRISA was the primary driver of the real estate return with a 1.3% total return, while UBS TPF has dragged with a -3.9% total return

## ATRS' Timberland and Agriculture Performance

As of 6/30/2019	Quarter	1 Year Ending	3 Year Ending	5 Year Ending	10 Year Ending
<b>Total Timberland</b>	7.7%	6.8%	4.3%	4.4%	3.2%
<b>Timberland Property Benchmark*</b>	1.1%	1.6%	2.1%	3.8%	2.6%
<b>Total Agriculture</b>	1.0%	3.0%	3.3%	4.4%	N/A
<b>Agriculture Benchmark*</b>	0.5%	4.7%	4.2%	4.9%	N/A
<b>CPI + 500 BPS</b>	2.0%	6.7%	7.2%	6.5%	6.8%

- The timber portfolio outperformed the benchmark over the quarter, returning a 7.7%. The portfolio outperforms over the longer term periods
  - The positive performance can be attributed to a combination of factors. Four appraisals for five properties booked during the quarter experienced an increase in value. Also, and compounding the increase in appraisal unit value, there was an increase in inventory volume on one property attributable to a transition in data management to a new, more accurate stand-based system
- The agriculture portfolio overperformed the benchmark over the quarter, returning a 1.0%. The portfolio underperforms over the trailing one, three and five-year time periods
- Both the Timber Property and Agriculture benchmarks are reported gross of fees. If ATRS managers were to account for fees, the portfolio would look better in comparison

## ATRS' Infrastructure Performance

As of 6/30/2019

Asset Class	Total Commitment (\$)	Unfunded Commitment (\$)	Total Paid-In (\$)	Total Distributions (\$)	Net Asset Value (\$)	Total Value (\$)	DPI	TVPI	Net IRR
<b>Total Infrastructure</b>	345,413,930	65,176,923	290,693,143	65,163,301	301,724,121	366,887,422	0.22x	1.26x	13.49%

- ATRS' Infrastructure portfolio has been slowly moving out of the J-Curve and performance has been showing solid results to date
- First Reserve Energy Infrastructure Fund II is currently driving portfolio performance; the fund is achieving a 31.57% Net IRR

## ATRS' Real Assets Portfolio Highlights

- Commitment activity update
  - ATRS made commitments to the following
    - Blackstone Real Estate Partners Europe VI: \$50 million
    - Rockwood Capital Real Estate Partners Fund XI: \$40 million
    - Walton Street Real Estate Debt Fund II: \$40 million
  - ATRS entered the queue for a partial redemption of UBS TPF

## Significant Events

- Metropolitan: Margaret McKnight, a Managing Director for the fund, recently resigned after 13 years with the firm. Radhika Cobb has recently joined the investments team in a principal capacity, having previously worked on the Real Asset investment team at Hamilton Lane where they were responsible for sourcing and evaluating investment opportunities on behalf of various pension, endowment, Taft Hartley and corporate plan separate accounts.

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## Agenda

Section 1	Executive Summary
<b>Section 2</b>	<b>Market Overview</b>
Section 3	Real Assets Portfolio Update
Section 4	Glossary

# United States Real Estate Market Update (2Q19)

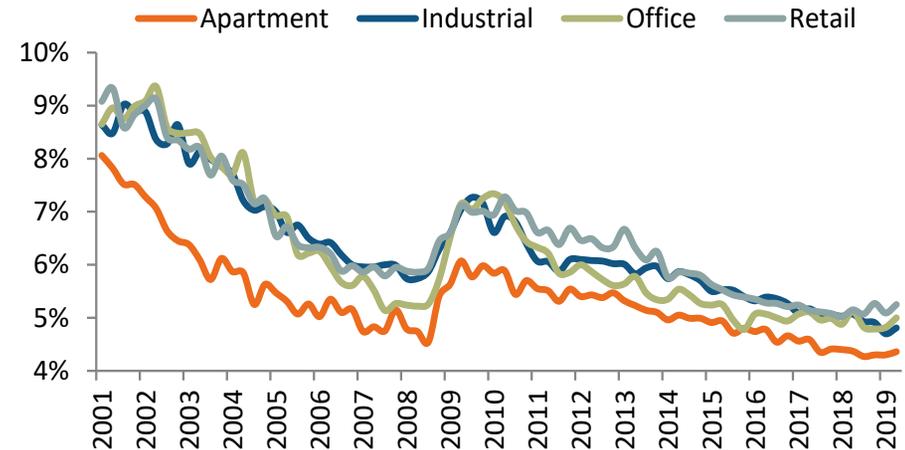
## General

- The S&P 500 produced a gross total return of 4.3% during the quarter. The MSCI US REIT index produced a return of 1.3%. Consumer Sentiment remained flat at 98.2, but rose subsequent to quarter-end.
- Macro indicators for U.S. real estate continue to be positive; GDP grew at an annualized rate of 2.3% in the second quarter and headline CPI rose by 1.8% YoY, below the Fed's 2% target. As of quarter-end, the economy has now experienced 105 consecutive months of job growth. The Federal Reserve has paused its tightening of monetary policy, and cut the effective federal funds rate, which was 2.13% at quarter-end.

## Commercial Real Estate

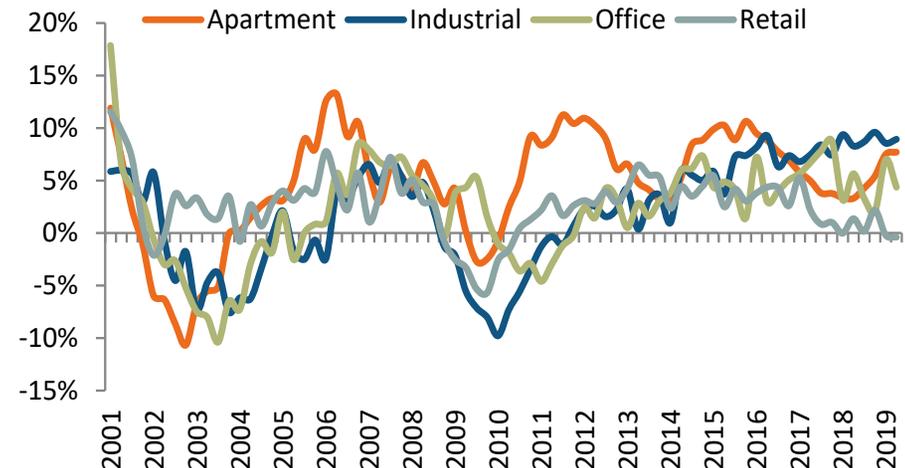
- Private real estate market carrying values remained flat over the quarter. Transaction cap rates (5.3%) compressed 5 bps during the quarter, while current valuation cap rates expanded across property sectors, apartments (+6 bps), industrial (+11 bps), office (+18 bps), and retail (+16 bps).
- NOI growth by sector continued to deviate during the quarter, with the industrial and apartments sector continuing to outpace the other traditional property types. While the industrial sector has faced increasing supply, it continues to benefit from outsized demand tailwinds (e-commerce and economic growth). On the other hand, retail experienced negative 40 bps of NOI growth during the quarter.
- In the second quarter of 2019, \$23 bn of aggregate capital was raised by real estate funds. In 2018, private equity real estate funds raised \$236 bn which is an increase of 9% YoY. However, transaction volume declined during the 1<sup>st</sup> quarter by 18% year over year to \$28 bn.
- 10-year treasury bond yields dropped 40 bps to 2.0% during the quarter, and, subsequent to quarter-end, have dropped further to 1.7%. A combination of expansionary fiscal policy and tightening monetary policy have led to increasing short-term interest rates and an inversion of the yield curve.

### Current Value Cap Rates by Property Type



Source: NCREIF

### 4 Qtr Rolling NOI Growth



Source: NCREIF

## United States Property Matrix (2Q19)

### INDUSTRIAL

- In 2Q19, industrial properties were the highest returning sector at 3.4% and outperformed the NPI by 191 bps.
- Transaction volumes reached \$19.1 billion in the second quarter of the year, a 4.0% year-over-year decrease. Individual asset sales were up 13.6% year-over-year, while portfolio sales drove the decline in year-over-year volume (-31.5%).
- The industrial sector continued to experience steady NOI growth of 8.9% over the past year, increasing from the prior periods TTM growth of 8.6% in 1Q19. Market rent growth is expected to decelerate compared to the recent phenomenal pace, but still remains strong.
- Vacancy declined 40 bps to 3.1%, close to all-time historic lows. E-commerce continues to drive demand.
- Industrial cap rates compressed approximately 12 bps from a year ago, to 4.8%. Industrial fundamentals still top all property sectors.

### MULTIFAMILY

- The apartment sector delivered a 1.4% return during the quarter, underperforming the NPI by 9 bps.
- Transaction volume in the second quarter of 2019 reached \$45.6 billion, an increase of 25.3% year-over-year. This volume continues to make multifamily the most actively traded sector for the eighth straight quarter.
- Cap rates increased to 4.4%, expanding 9 bps year-over-year. Robust job growth and improving wages have supported healthy operating fundamentals.
- Steady demand for the sector continues to keep occupancy above 94.3%, over a 1.0% increase from a year ago. Delayed deliveries from construction labor bottlenecks have created a gap between permitting activity and starts volume.

### OFFICE

- The office sector returned 1.7% in 2Q19, 15 bps above the NPI return over the period.
- Transaction volumes increased by 36.4% year-over-year in Q2. Annual sales volumes equaled \$39.5 billion for the quarter. Single asset transactions accounted for 77% of volume.
- Occupancy growth within the office sector has improved, increasing 1.0% year-over-year. Office continues to be the highest vacancy property type at close to 9.8%.
- NOI growth of 4.4% in the last year is a positive as the sector continues to benefit from positive job growth. Sun Belt and tech-oriented West Coast office fundamentals are healthiest.
- Office cap rates compressed slightly from a year ago to approximately 4.8% in the second quarter. Office-using job growth is positive, though decelerating as expected.

### RETAIL

- As of 2Q19, the retail sector delivered a quarterly return of -0.1%, performing 162 bps below the NPI.
- Transaction volumes totaled \$16.9 billion in the second quarter, down 22.7% year-over-year.
- Cap rates have expanded approximately 25 bps within the sector over the last year. Strong fundamental headwinds continue to effect the retail landscape.
- NOI growth has been negative for five consecutive quarters. NOI has declined 40 bps over the past year. Retail is expected to continue to suffer from the shift towards e-commerce.
- Retail vacancy rates declined 74 bps over the past year to 6.8%. Many big box stores have closed as the need for retail space shrinks, translating to a negative outlook for rent growth

## Global Real Estate Market Update (2Q19)

- Global investment activity during the second quarter of 2019 continues to slow, and YoY transaction activity has decreased.

- Geopolitical uncertainty and its potential impacts on the global real estate markets has remained a principal concern for investors. However, global commercial real estate is still positioned to steadily perform in 2019. Despite compressing yields, broad decreases in risk-free rates has increased the value of real estate yields. Capital values and rents are expected to increase during the year. However, full-year global investment volumes are expected to decline by 5-10%, especially in the office and retail sectors.

- In the second quarter, investment volumes in the Americas to decline YoY, led by the U.S., Brazil, and Mexico.

- Asia-Pacific cross-border investment activity slightly decreased in the second quarter. Despite this, Asia-Pacific has shown the best first-half of the year performance on record. This growth was driven by robust activity in China and Singapore.

- In EMEA, the decline in investment volume is largely attributable to uncertainty over Brexit in the UK and ongoing structural changes in the retail sector.

- In the office sector, leasing activity continued to increase through the second quarter of 2019. The U.S office market continued to perform well, driven by demand from the technology and co-working industries. Europe's net absorption outperformed the 10 year average, led by performance in Madrid. In Asia Pacific's office market gross leasing volumes witnessed a 30% year-over year decline due to limited availability of space, economic uncertainty and trade tensions. Globally, aggregate rental growth for prime office locations is expected to stay positive in 2019 and office vacancy is expected to continue to fall.

- In the retail sector, the U.S. net absorption declined by 45% YoY in the second quarter. Strengthening labor markets and wage growth in Europe has positively impacted consumer spending, and retailers continue to focus on rightsizing their store portfolios. Asia Pacific retailers are focusing their efforts on providing unique products and targeting niche consumer segments. Australia is experiencing challenging retailer market pressures and rising incentives leading to modest rental growth.

- The multifamily market in the U.S. has continued to see growth in demand and declines in vacancy rates. There has been an increase in construction activity which is likely to lead to some near-term supply headwinds. Investment activity in European multifamily markets was lower due to rent control regulation leading to investor caution.

- The global industrial market continued to perform well during the quarter, with vacancy rates in the U.S. and Asia Pacific at all-time lows, as demand continues to be robust. U.S. rental rates are expected to increase, driven by robust leasing momentum. Demand has been strong in the European logistics market as well, however, a slight deceleration in the rate of growth suggests the sector may be entering a stage of stabilization.

Global Total Commercial Real Estate Volume - 2018 - 2019

\$ US Billions	Q2 2019	Q2 2018	% Change		% Change	
			Q2 19 - Q2 18	H1 2019	H1 2018	H1 19 - H1 18
Americas	120	114	5%	214	221	-3%
EMEA	67	79	-15%	126	158	-20%
Asia Pacific	257	211	22%	433	428	1%
<b>Total</b>	<b>444</b>	<b>404</b>	<b>10%</b>	<b>773</b>	<b>807</b>	<b>-4%</b>

Source: Real Capital Analytics, Inc., Q2' 19

Global Outlook - GDP (Real) Growth % pa, 2019-2021

	2019	2020	2021
<b>Global</b>	<b>3.2</b>	<b>3.2</b>	<b>3.0</b>
<b>Asia Pacific</b>	<b>4.5</b>	<b>4.5</b>	<b>4.6</b>
Australia	1.9	2.5	2.6
China	6.2	6.0	5.8
India	6.6	6.7	7.0
Japan	1.0	0.3	0.9
<b>North America</b>	<b>2.2</b>	<b>1.8</b>	<b>1.8</b>
US	2.3	1.8	1.8
<b>MENA*</b>	<b>2.6</b>	<b>2.9</b>	<b>3.1</b>
<b>European Union</b>	<b>1.4</b>	<b>1.4</b>	<b>1.5</b>
France	1.3	1.3	1.4
Germany	0.6	0.9	1.2
UK	1.2	1.2	1.5

\*Middle East North Africa

Source: Bloomberg

Note: 2021 projections are not yet available for certain regions

# Infrastructure Market Update (2Q19)

## General

- Eighteen funds reached a final close in Q2 2019, securing US\$19.0bn in aggregate capital. For the 12 months ending Q2 2019, this represents a 13% drop in the number of funds holding a final close yet an increase of US\$32.2bn in aggregate capital raised.
- Deal value for the quarter was up 123% in comparison to last quarter (est. aggregate value of US\$681bn) for a 9% increase in the number of deals. Average deal size increased by 104% quarter-over-quarter.

## Europe

- Notable secondary trades that closed in the quarter included the US\$3.6bn sale of a c.50% stake in Gatwick Airport to France's Vinci Airports, the US\$2.5bn sale of the National Grid's remaining 25% stake in the gas distribution company Cadent Gas, and the US\$1.5bn sale of the DCT Gdansk container port.
- Renewable energy deal flow in Europe was dominated by a large number of small to mid cap transactions primarily in the solar PV and onshore wind sectors. The largest reported deal in the quarter was Ancala's 50% stake acquisition in HS Orka (US\$0.3bn), Iceland's largest private electricity generator.

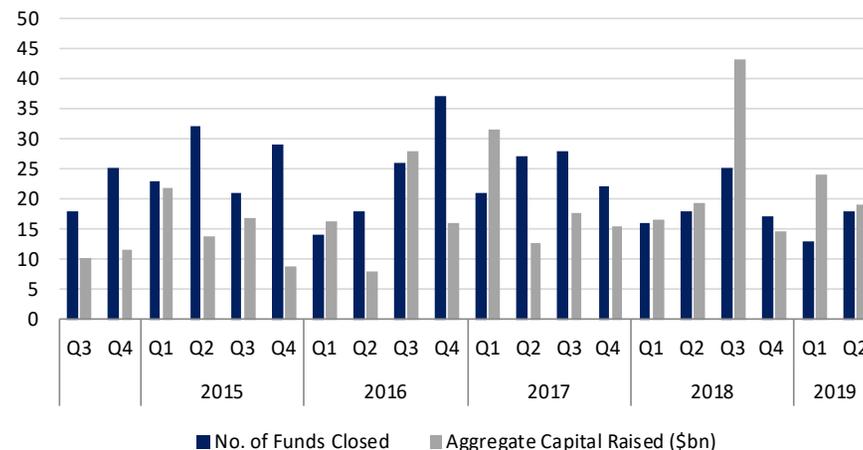
## North America

- Deal flow was dominated by a number of transactions, notably the US\$3.6bn acquisition of Oryx Midstream, a Permian-focused crude oil gathering and transportation firm, by Stonepeak Infrastructure Partners, EQT's US\$2.5bn sale of an 80% stake in DCLI, a marine and domestic chassis provider in North America, and the financial close for the c. US\$2bn Ottawa Light Rail Stage 2.
- In the renewables space, the US offshore wind market gathered pace with New Jersey selecting Ørsted to construct a 1.1GW offshore wind project to support the state goal target of 3.5GW by 2030.

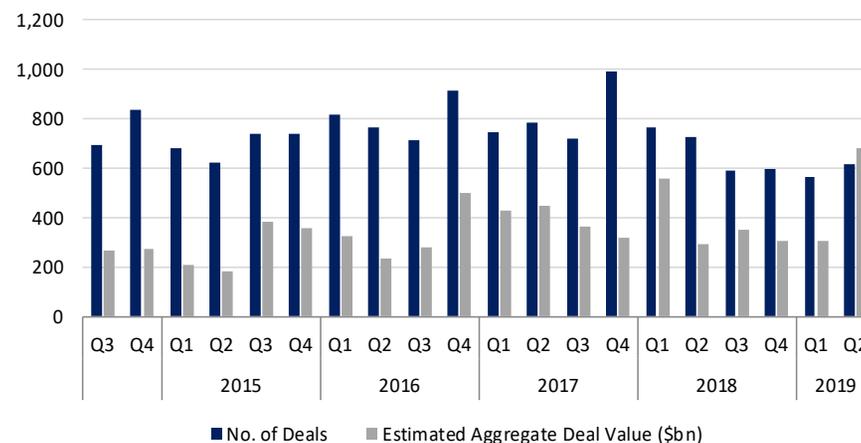
## Asia Pacific

- Deal flow was dominated a number of transactions in renewable energy including the financial close for the 640MW (US\$4bn) Yunlin offshore wind farm in Taiwan and the 300MW (US\$0.9bn) Yangjiang Shapa offshore wind farm in China.
- In other sectors, notable transactions were the financial closes for the US\$6.7bn Hangzhou-Shaoxing-Taizhou 269km high speed rail line in China and PPP concession for US\$3.1bn Cross River Rail line in Brisbane, Australia.

## Unlisted Infrastructure Fundraising



## Infrastructure Deals Completed

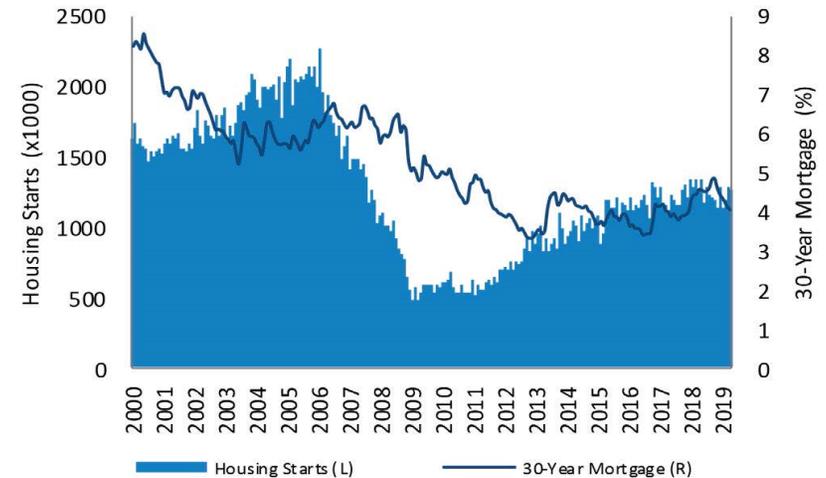


# Timberland Market Update (2Q19)

## Timberland Markets

- US timberland markets remained tepid with an ongoing supply surplus; housing demand remains below long-term trends with housing starts ending 2Q19 at the same level as in 2Q18 - 1.2M; historically low mortgage rates have yet to spur housing starts as high debt levels and challenges of affordability continue to impact Americans. (FIGURE 1)
- The US-China trade war continued, impacting US log and lumber exports; exports of both softwood logs and lumber dropped significantly, 34% and 25%, respectively. China is a major export market for US logs and lumber exports, and despite representing only a small portion of the US market, it has had an outsized (negative) impact on prices.
- Pacific Northwest log prices remained weak with slower domestic housing demand and weaker export demand. In the US South, timber prices were generally weaker due to increased harvesting from drier weather, and more generally due to the ever-persistent supply overhang. (FIGURE 2)
- In Oceania, Australian softwood log exports increased 8.8%, primarily driven by Chinese demand, while New Zealand continued to improve its market share of China's softwood imports from 41% to 43%. The China market for Australian softwood logs is expected to slow in the second half of 2019 as China's log inventories remain at high levels.

**FIGURE 1: Annual US Housing Starts, Seasonally Adjusted Annual Rate, and 30-year Mortgage Rates**



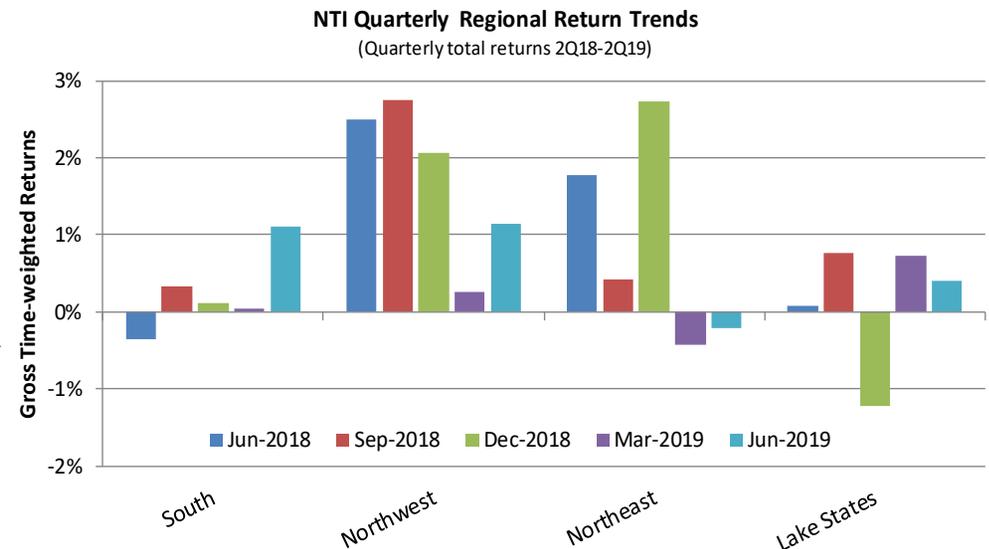
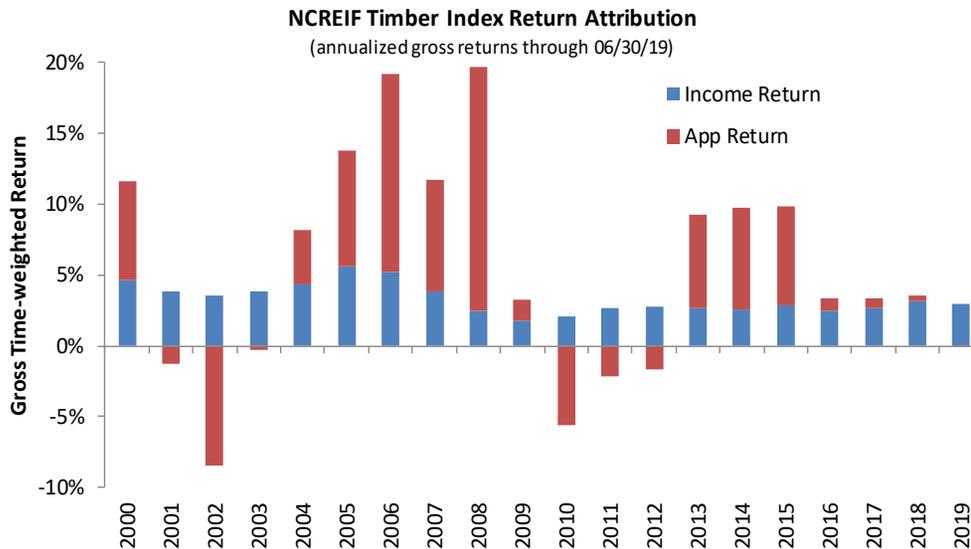
**FIGURE 2: Douglas-fir and Mixed Whitewood Log Prices (monthly)**



# Timberland Market Update (2Q19)

## Timberland Performance

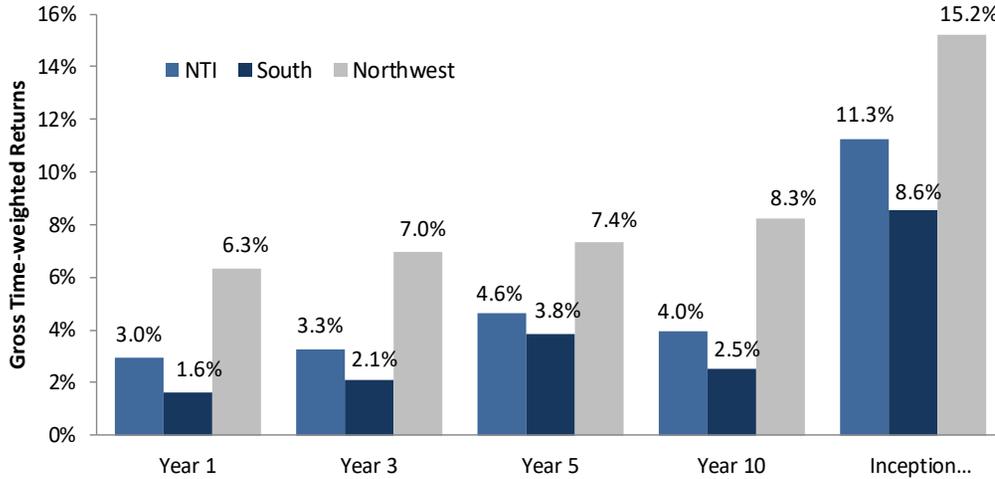
- The NCREIF Timberland Index (“NTI”) returned 1.0% for the quarter, up from 0.1% from last quarter and 0.5% from 2Q18
  - The return consisted of a 0.6% income return and a 0.5% appreciation return.
- The trailing twelve-month return was 2.9%, which continued to be driven entirely by the income return as appreciation over the past 12-months has been limited.
- The Northwest regained its spot as the top performing region for the quarter with a total return of 1.2%, followed by the South’s total return of 1.1%. The Northeast remained negative with a -0.2% return as the trade war continues to impact hardwood exports; the Lake States returned a modest 0.4% total return.
- Timberland values were effectively flat for the quarter, with no change in the NTI’s total value per acre; on a regional basis there were not any notable changes in value with a slight (60 bps) increase in the Northwest’s value, no change to the South or Lake States, and a slight 2% decrease to the value of Northeast’s timberland.



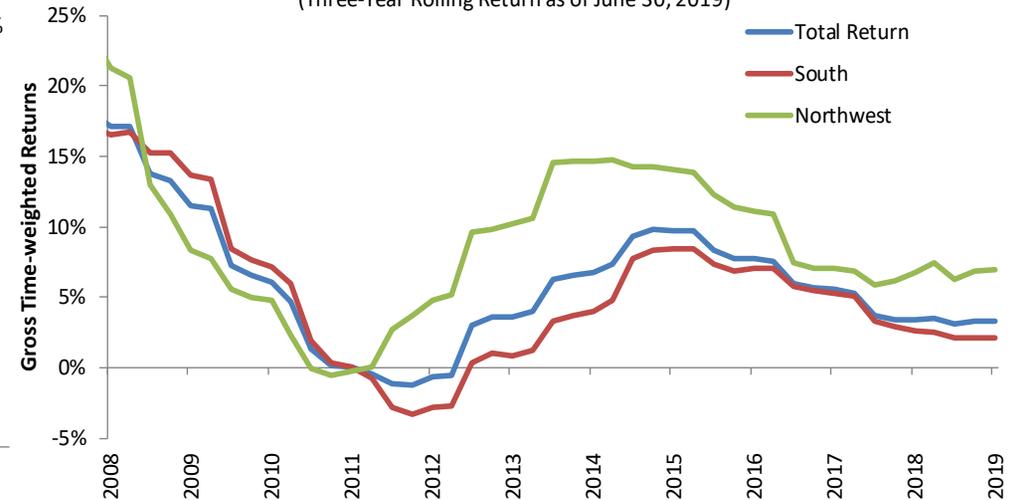
# Timberland Market Update (2Q19)

## Timberland Performance

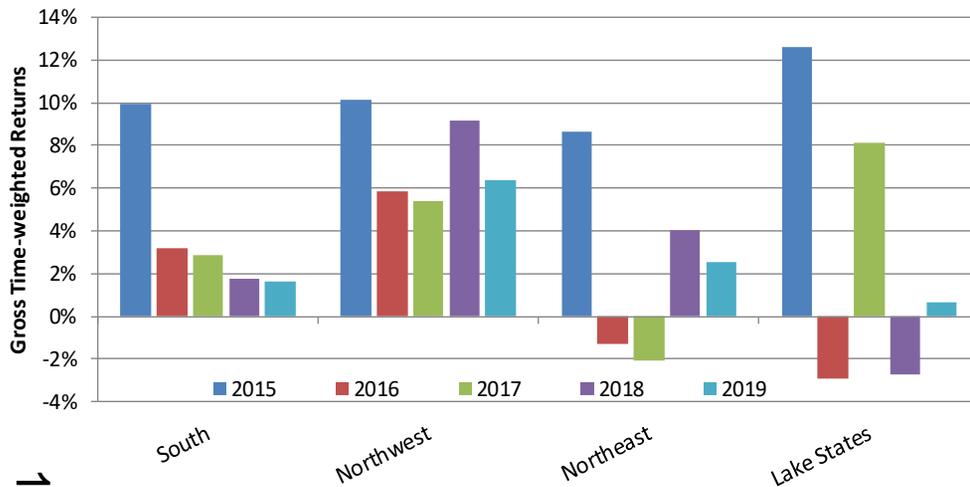
**NCREIF Timber Index Regional Returns**  
(Time-weighted returns as of 06/30/19)



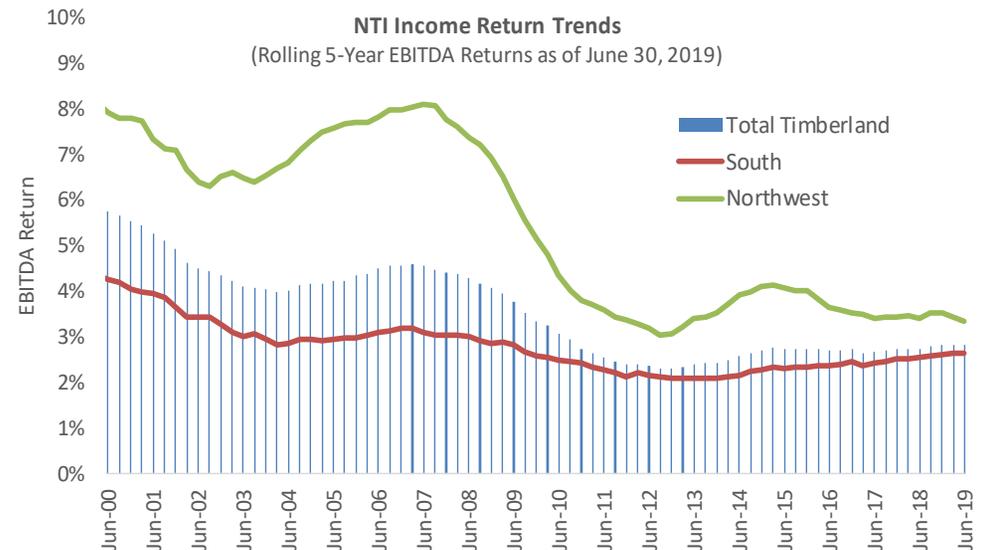
**Total Returns by Region**  
(Three-Year Rolling Return as of June 30, 2019)



**NTI Annual Regional Return Trends**  
(12-Month annualized total returns ending 2Q 2019)



**NTI Income Return Trends**  
(Rolling 5-Year EBITDA Returns as of June 30, 2019)

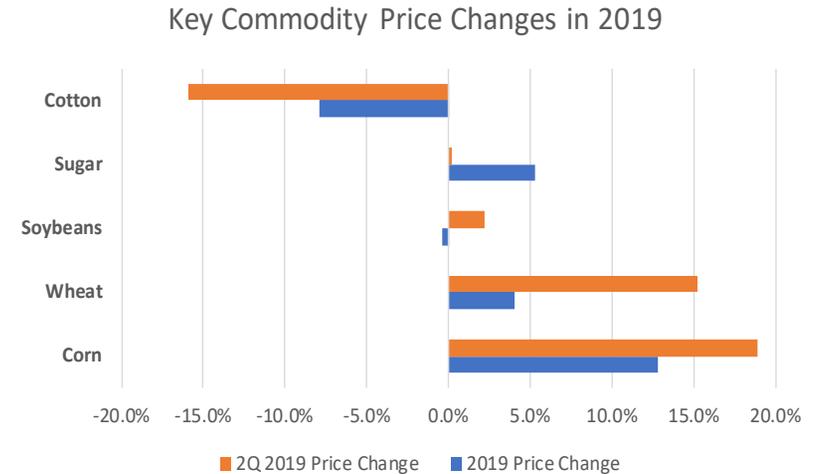


# Farmland Market Update (2Q19)

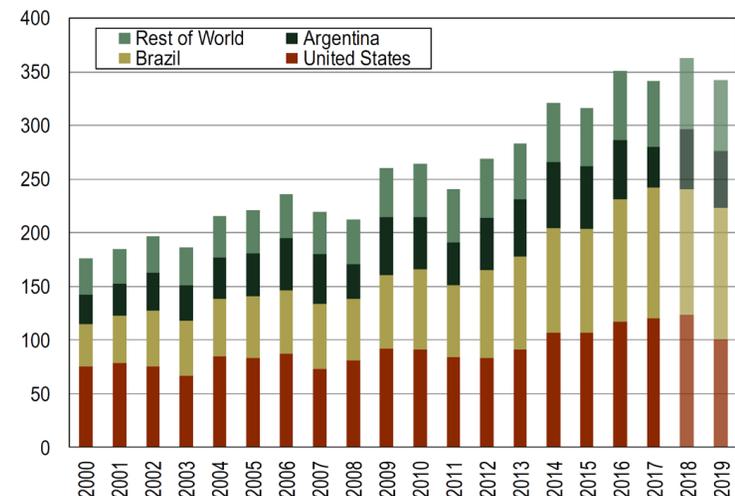
## Farmland Markets

- Uncertainty continued to impact global agricultural markets during the quarter, driven by trade relations, weather conditions, and the African swine fever (“ASF”).
- Global commodity prices remained relatively flat with the exception of a few major crops including corn, wheat, and almonds, which experienced strong price gains. (FIGURE 1)
- The ongoing, and unresolved, trade war between the U.S. and China coupled with lower Chinese feed (soybean) demand (due to the ASF) kept soybean prices in check. Brazil continues to benefit as China continues to redirect its soybean demand to Brazilian growers; soybean prices should remain relatively stable. However, global production is expected to drop 6% due to the uncertainty with Chinese demand. (FIGURE 2)
- A significant revision in almond production forecasts, primarily weather related issues, led to a price rally during the quarter, bolstered by continued strong global demand.
- Brazilian oilseed exports are down for the year despite picking up US market share as Chinese purchases are down due to the adverse impact of the (ASF) on Chinese hogs.
- In Australia, commodity prices were relatively strong for most row crops, but growers remained cautious with planting and selling decisions given significant drought-related production risks. This has helped bolster prices for producers with strong water access.

**FIGURE 1: Key Commodity Prices 2Q19**



**FIGURE 2: Annual Global Soybean Production Estimates**



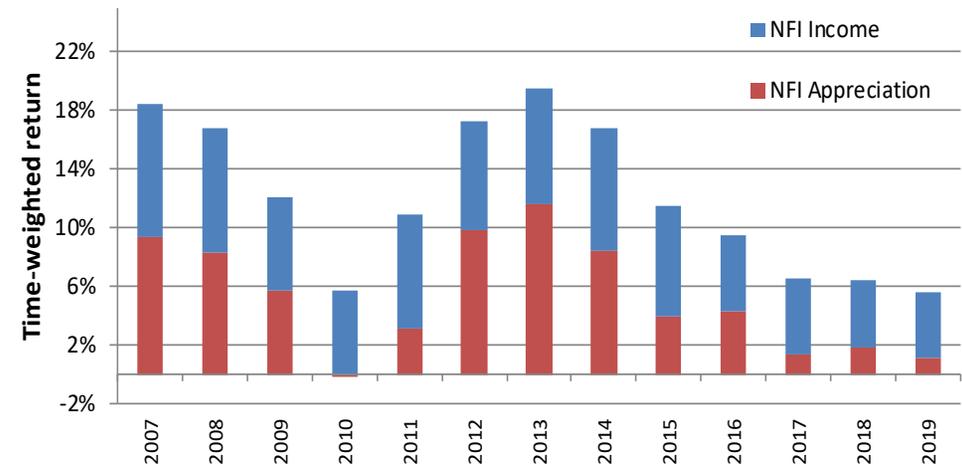
# Farmland Market Update (2Q19)

## Farmland Performance

- The NCREIF Farmland Index (“NFI”) returned 0.7% for the quarter, decreasing 215 basis points from the prior quarter. The total return consisted of a 0.5% income return and a 0.2% appreciation return.
- Row crops drove the NFI’s quarterly return generating a 1.4% return during the quarter, while Permanent crops posted a -0.4% return for the quarter in the face of continuing pressure from softening valuations.
- The trailing twelve-month period (“TTM”) total farmland return was 6.1% through 2Q19, down from 7.1% for the same TTM period beginning 1Q18.
- The TTM total return was comprised of a 4.5% income return and 1.5% appreciation.
- Permanent crops total return for the TTM was 6.5% consisting of a 6.2% income return and a 0.3% appreciation return.
- Row crops total return for the TTM period was 5.9% and consisted of a 3.5% income return and a 2.4% appreciation return.
- Total returns for the two farm types have continued to converge since the NFI’s inception, with annualized returns for permanent crops of 12.1% and 10.2% for row crops.

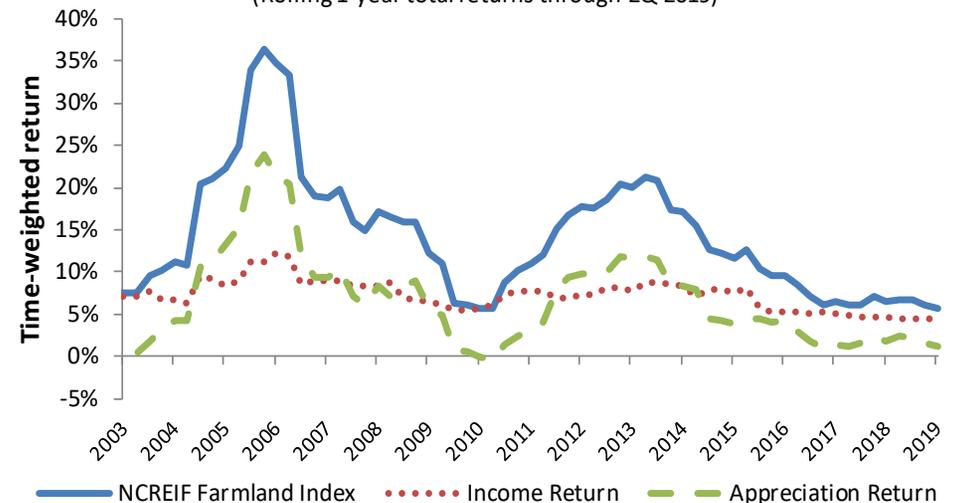
## NCREIF Farmland Index Performance Attribution

(Trailing 12-month Return Attribution as of 2Q 2019)



## NCREIF Farmland Index Performance

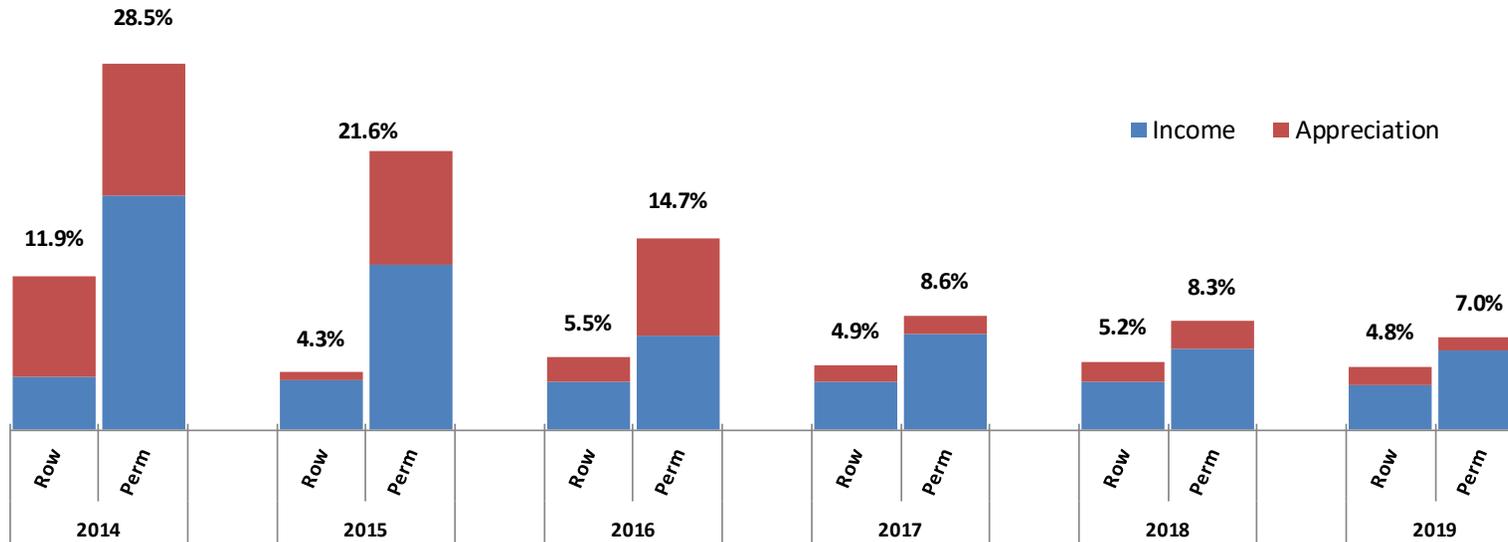
(Rolling 1-year total returns through 2Q 2019)



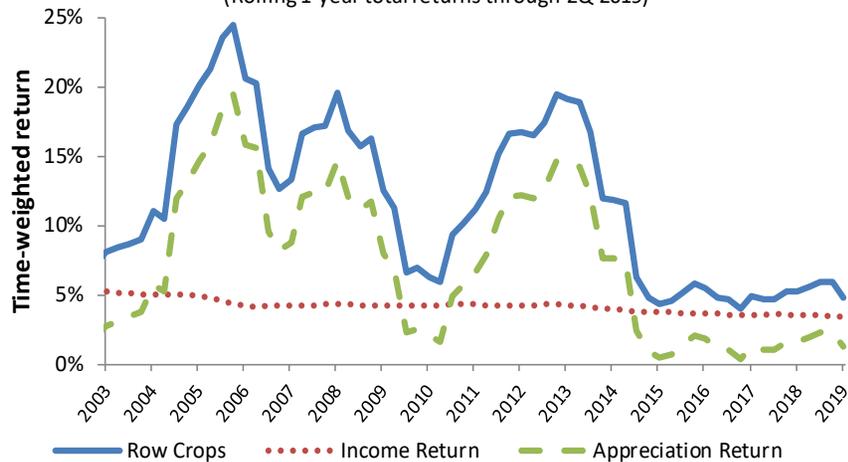
# Farmland Market Update (2Q19)

## Farmland Performance

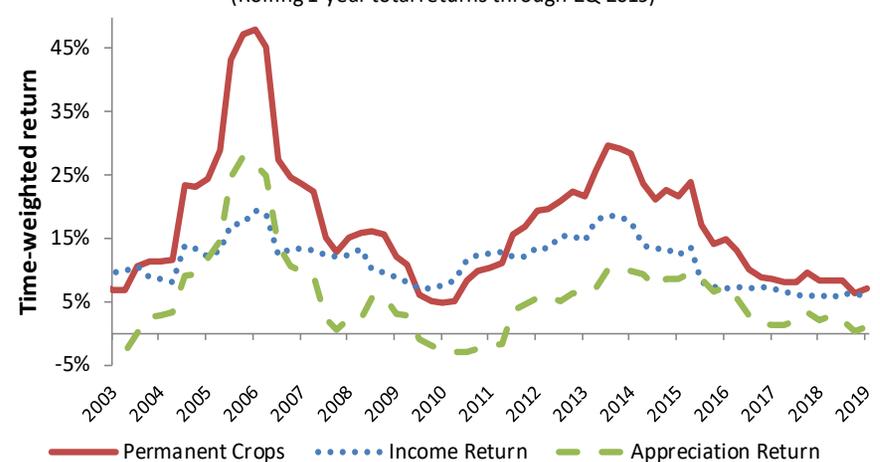
**NCREIF Farm Type Performance Attribution**  
(Trailing Twelve Month time-weighted returns as of 2Q 2019)



**NCREIF Row Crop Performance**  
(Rolling 1-year total returns through 2Q 2019)



**NCREIF Permanent Crop Performance**  
(Rolling 1-year total returns through 2Q 2019)



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## Agenda

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<b>Section 2</b>	Market Overview
<b>Section 3</b>	<b>Real Assets Portfolio Update</b>
Section 4	Glossary

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# ATRS' Portfolio Overview

As of 6/30/2019	Quarter	1 Year Ending	3 Year Ending	5 Year Ending	10 Year Ending
<b>Total Real Assets Portfolio</b>	1.7%	5.7%	7.0%	8.3%	7.8%
<b>Real Assets Benchmark*</b>	0.9%	5.1%	5.9%	7.7%	7.3%

As of June 30, 2019	ATRS' Portfolio \$ in Millions
Number of Investments	63
Total Commitments	\$3,480.5
Unfunded Commitments	\$601.5
Total Paid-In Capital	\$3,165.7
Total Distributions	\$2,589.9
Net Asset Value	\$2,142.8
Gross Asset Value	\$2,724.3
DPI*	0.8x
TVPI*	1.5x
Since Inception IRR*	7.3%
<i>*Active and Liquidated</i>	

As of June 30, 2019	Market Value (\$ millions)	Current Allocation (%)	Target (%)
ATRS Total Assets	\$17,584.4		
<b>Real Assets Portfolio:</b>	<b>2,142.8</b>	<b>12.2%</b>	<b>15%</b>
<b>Real Estate</b>	<b>1,376.9</b>	<b>7.8%</b>	<b>10%</b>
Core*	981.1	71.3%	50-70%
Non-Core	395.8	28.7%	30-50%
Value-Added**	208.8	15.2%	N/A**
Opportunistic**	186.9	13.6%	N/A**
<b>Agriculture</b>	<b>198.6</b>	<b>1.1%</b>	<b>1%</b>
<b>Timber</b>	<b>265.5</b>	<b>1.5%</b>	<b>2%</b>
<b>Infrastructure</b>	<b>301.7</b>	<b>1.7%</b>	<b>2%</b>
Unfunded Commitments	601.5	3.4%	
<b>Market Value + Unfunded</b>	<b>2,744.3</b>	<b>15.6%</b>	

\* Includes Arkansas Investments

\*\* No stated targets

# ATRS' Real Estate Performance: Core Portfolio

As of 6/30/2019

Fund Name	Vintage Year	Total Commitment (\$)	Unfunded Commitment (\$)	Total Paid-In (\$)	Total Distributions (\$)	Net Asset Value (\$)	Total Value (\$)	DPI	TVPI	Net IRR
Arkansas Investments	2007	142,694,200	0	144,624,546	160,784,013	126,845,641	287,629,654	1.11x	1.99x	9.28%
JPMorgan Strategic Property Fund	2006	170,000,000	0	170,000,000	60,422,716	284,465,031	344,887,747	0.36x	2.03x	6.76%
MetLife Commercial Mortgage Income Fund, LP	2018	50,000,000	50,000,000	0	0	0	0	N/A	N/A	N/A
Prudential Property Investment Separate Account	2005	170,000,000	0	212,936,320	125,451,857	274,335,507	399,787,364	0.59x	1.88x	6.56%
UBS Trumbull Property Fund	2005	170,000,000	0	199,152,820	108,438,212	242,496,944	350,935,156	0.54x	1.76x	5.81%
UBS Trumbull Property Income Fund	2016	50,000,000	0	50,000,000	2,704,502	52,996,275	55,700,777	0.05x	1.11x	6.19%
<b>Total Core</b>		<b>752,694,200</b>	<b>50,000,000</b>	<b>776,713,686</b>	<b>457,801,300</b>	<b>981,139,397</b>	<b>1,438,940,698</b>	<b>0.59x</b>	<b>1.85x</b>	<b>6.85%</b>

## Time Weighted Returns:

As of 6/30/2019 Partnership Name	Quarter	1 Year Ending	3 Year Ending	5 Year Ending	10 Year Ending
Arkansas Investments	1.1%	5.2%	17.1%	13.5%	9.8%
JPMorgan Strategic Property Fund	0.9%	4.4%	6.1%	8.1%	8.8%
MetLife Commercial Mortgage Income Fund, LP	N/A	N/A	N/A	N/A	N/A
Prudential Property Investment Separate Account	1.3%	6.9%	7.2%	9.4%	9.7%
UBS Trumbull Property Fund	-3.9%	-0.7%	3.6%	6.3%	7.3%
UBS Trumbull Property Income Fund	1.2%	5.9%	N/A	N/A	N/A
<b>Total Core &amp; Open-End Portfolio</b>	<b>-0.2%</b>	<b>4.0%</b>	<b>7.0%</b>	<b>8.6%</b>	<b>8.6%</b>
NFI-ODCE (Net)	0.8%	5.5%	6.6%	8.8%	8.9%

Note: Arkansas Investments are included in Core portfolio

# ATRS' Real Estate Performance: Value-Add Portfolio

As of 6/30/2019

Fund Name	Vintage Year	Total Commitment (\$)	Unfunded Commitment (\$)	Total Paid-In (\$)	Total Distributions (\$)	Net Asset Value (\$)	Total Value (\$)	DPI	TVPI	Net IRR
Almanac Realty Securities Fund V, L.P.	2008	50,000,000	0	54,264,528	78,900,245	1,901,232	80,801,477	1.45x	1.49x	11.78%
Almanac Realty Securities Fund VI, L.P.	2012	30,000,000	0	18,829,376	17,865,609	8,071,851	25,937,460	0.95x	1.38x	12.03%
Almanac Realty Securities Fund VII, L.P.	2015	30,000,000	9,622,682	23,728,883	7,077,176	23,501,932	30,579,108	0.30x	1.29x	13.69%
Almanac Realty Securities Fund VIII, L.P.	2018	30,000,000	28,513,470	1,486,530	0	1,231,257	1,231,257	0.00x	0.83x	-43.40%
Calmwater Fund III	2017	30,000,000	14,027,922	26,058,117	10,854,294	16,672,397	27,526,691	0.42x	1.06x	7.06%
CBRE Strategic Partners U.S. Value 8, L.P.	2016	25,000,000	3,940,872	21,059,128	1,214,981	23,341,517	24,556,498	0.06x	1.17x	11.57%
Fidelity Real Estate Growth Fund III	2008	30,000,000	0	26,910,386	35,676,792	0	35,676,792	1.33x	1.33x	7.36%
FPA Core Plus Fund IV, L.P.	2018	30,000,000	15,900,000	14,100,000	246,500	13,714,813	13,961,313	0.02x	0.99x	-1.36%
Harbert European Real Estate Fund IV	2016	25,009,965	1,730,606	23,985,080	964,124	28,517,570	29,481,695	0.04x	1.23x	9.46%
JPMorgan Special Situations Property Fund	2006	50,000,000	0	50,000,000	64,229,336	0	64,229,336	1.28x	1.28x	2.96%
LaSalle Income & Growth Fund VI	2013	20,000,000	952,381	19,047,619	20,745,195	7,577,273	28,322,468	1.09x	1.49x	12.31%
LaSalle Income & Growth Fund VII	2017	20,000,000	5,533,212	17,770,879	7,528,508	13,539,378	21,067,886	0.42x	1.19x	12.92%
LaSalle Income & Growth Fund VIII	2018	50,000,000	50,000,000	0	0	0	0	N/A	N/A	N/A
Long Wharf Real Estate Partners V	2015	30,000,000	-0	31,494,655	11,262,210	25,986,701	37,248,911	0.36x	1.18x	10.67%
New Boston Real Estate Investment Fund VII	2008	10,000,000	0	9,668,685	7,813,037	261,149	8,074,186	0.81x	0.84x	-2.66%
Rockwood Capital Real Estate Partners Fund IX, L.P.	2012	30,000,000	4,081,464	27,422,960	28,148,713	11,302,278	39,450,991	1.03x	1.44x	13.87%
Rockwood Capital Real Estate Partners Fund XI	2019	40,000,000	40,000,000	0	0	0	0	N/A	N/A	N/A
Walton Street Real Estate Debt Fund II, LP	2019	40,000,000	38,000,000	2,000,000	0	2,046,879	2,046,879	0.00x	1.02x	3.54%
Westbrook Real Estate Fund IX, L.P.	2012	40,000,000	3,603,488	45,969,698	43,240,049	16,425,606	59,665,655	0.94x	1.30x	11.14%
Westbrook Real Estate Fund X, L.P.	2015	25,000,000	12,812,420	16,121,633	3,921,054	14,755,683	18,676,737	0.24x	1.16x	12.90%
<b>Total Value Added</b>		<b>635,009,965</b>	<b>228,718,517</b>	<b>429,918,156</b>	<b>339,687,823</b>	<b>208,847,516</b>	<b>548,535,340</b>	<b>0.79x</b>	<b>1.28x</b>	<b>7.31%</b>

# ATRS' Real Estate Performance: Opportunistic Portfolio

As of 6/30/2019

Fund Name	Vintage Year	Total Commitment (\$)	Unfunded Commitment (\$)	Total Paid-In (\$)	Total Distributions (\$)	Net Asset Value (\$)	Total Value (\$)	DPI	TVPI	Net IRR
Blackstone Real Estate Partners VII, L.P.	2011	50,000,000	6,997,801	62,871,607	72,752,550	30,819,986	103,572,536	1.16x	1.65x	16.78%
Blackstone Real Estate Partners Europe VI	2019	49,095,200	50,041,200	0	0	0	0	N/A	N/A	N/A
Carlyle Realty Partners VII, L.P.	2014	30,000,000	16,780,491	27,237,283	17,844,957	17,930,385	35,775,342	0.66x	1.31x	12.42%
Carlyle Realty Partners VIII, L.P.	2018	25,000,000	21,176,421	3,845,953	3,690	3,288,463	3,292,153	0.00x	0.86x	-27.13%
CB Richard Ellis Strategic Partners U.S. Opportunity Fund V, L.P.	2008	50,000,000	1,643,033	48,619,340	55,685,358	10,710,904	66,396,262	1.15x	1.37x	5.20%
Cerberus Institutional Real Estate Partners III, L.P.	2012	30,000,000	7,307,395	39,123,764	37,326,064	14,929,310	52,255,374	0.95x	1.34x	10.59%
DLJ Real Estate Capital Partners II, L.P.	1999	112,725,609	0	115,482,666	179,444,842	0	179,444,842	1.55x	1.55x	19.11%
Doughty Hanson & Co European Real Estate Limited Partnership Number One	1999	26,068,792	0	34,359,852	91,947,138	0	91,947,138	2.68x	2.68x	28.48%
Heitman European Property Partners IV	2009	50,000,000	2,299,444	34,448,111	24,292,222	2,657,190	26,949,412	0.71x	0.78x	-4.07%
Kayne Anderson Real Estate Partners V, L.P.	2018	25,000,000	13,750,000	11,457,799	0	10,696,857	10,696,857	0.00x	0.93x	-7.88%
Landmark Real Estate Partners VI, L.P.	2010	40,000,000	4,909,392	35,090,608	51,468,186	3,512,473	54,980,659	1.47x	1.57x	19.29%
Landmark Real Estate Partners VIII, L.P.	2017	25,000,000	21,212,646	6,611,028	2,900,778	5,087,629	7,988,407	0.44x	1.21x	22.39%
LaSalle Asia Opportunity Fund IV	2014	30,000,000	11,080,298	26,115,903	34,956,737	3,704,819	38,661,556	1.34x	1.48x	31.61%
LaSalle Asia Opportunity Fund V	2016	30,000,000	23,808,144	7,023,597	1,667,948	8,140,315	9,808,263	0.24x	1.40x	16.66%
Lone Star Real Estate Fund IV, L.P.	2015	24,260,817	5,204,622	20,812,524	18,188,468	10,823,961	29,012,429	0.87x	1.39x	17.76%
Metropolitan Real Estate Partners Co-Investments Fund, L.P.	2015	20,000,000	867,124	19,103,946	12,308,401	14,061,832	26,370,234	0.64x	1.38x	15.26%
O'Connor North American Property Partners II	2008	50,000,000	5,000,000	58,159,478	40,059,427	10,544,406	50,603,833	0.69x	0.87x	-2.61%
Olympus Real Estate Fund III, L.P.	2000	100,000,000	0	112,839,568	98,504,479	355,396	98,859,875	0.87x	0.88x	-3.67%
Torchlight Debt Opportunity Fund II	2007	55,000,000	0	55,000,000	47,309,259	521,337	47,830,596	0.86x	0.87x	-1.81%
Torchlight Debt Opportunity Fund III	2008	30,000,000	0	33,493,596	49,863,151	0	49,863,151	1.49x	1.49x	13.72%
Torchlight Debt Opportunity Fund IV	2013	30,000,000	0	32,937,974	36,834,371	9,114,665	45,949,036	1.12x	1.40x	10.39%
Torchlight Debt Opportunity Fund V	2015	25,000,000	5,000,000	20,001,134	2,463,027	22,375,828	24,838,855	0.12x	1.24x	11.92%
Torchlight Debt Opportunity Fund VI, LP	2017	25,000,000	17,490,710	7,684,224	174,934	7,632,756	7,807,690	0.02x	1.02x	3.59%
Westbrook Real Estate Fund II, L.P.	1997	75,000,000	0	80,737,536	120,795,230	0	120,795,230	1.50x	1.50x	13.42%
Westbrook Real Estate Fund III, L.P.	1998	100,000,000	0	112,862,649	147,939,777	0	147,939,777	1.31x	1.31x	8.79%
Westbrook Real Estate Fund IV, L.P.	2000	109,242,960	0	115,556,652	190,913,983	0	190,913,983	1.65x	1.65x	20.65%
Westbrook SHP, LLC (Sunstone Hotel Investors, LLC)	1999	40,000,000	0	40,000,000	44,660,669	0	44,660,669	1.12x	1.12x	2.47%
<b>Total Opportunistic</b>		<b>1,256,393,378</b>	<b>214,568,722</b>	<b>1,161,476,792</b>	<b>1,380,305,647</b>	<b>186,908,513</b>	<b>1,567,214,160</b>	<b>1.19x</b>	<b>1.35x</b>	<b>10.25%</b>

# ATRS' Timberland, Agriculture, and Infrastructure Performance

As of 6/30/2019

Fund Name	Vintage Year	Total Commitment (\$)	Unfunded Commitment (\$)	Total Paid-In (\$)	Total Distributions (\$)	Net Asset Value (\$)	Total Value (\$)	DPI	TVPI	Net IRR
BTG Timber Separate Account	1998	316,000,000	24,891,933	323,216,032	315,072,909	265,506,538	580,579,447	0.97x	1.80x	5.23%
<b>Total Timber</b>		<b>316,000,000</b>	<b>24,891,933</b>	<b>323,216,032</b>	<b>315,072,909</b>	<b>265,506,538</b>	<b>580,579,447</b>	<b>0.97x</b>	<b>1.80x</b>	<b>5.23%</b>
HFMS Farmland Separate Account	2011	125,000,000	18,172,892	133,658,887	26,831,779	144,293,935	171,125,714	0.20x	1.28x	5.59%
UBS Agrivest Core Farmland Fund	2013	50,000,000	0	50,000,000	4,994,249	54,342,005	59,336,253	0.10x	1.19x	4.72%
<b>Total Agriculture</b>		<b>175,000,000</b>	<b>18,172,892</b>	<b>183,658,887</b>	<b>31,826,027</b>	<b>198,635,940</b>	<b>230,461,967</b>	<b>0.17x</b>	<b>1.25x</b>	<b>5.40%</b>

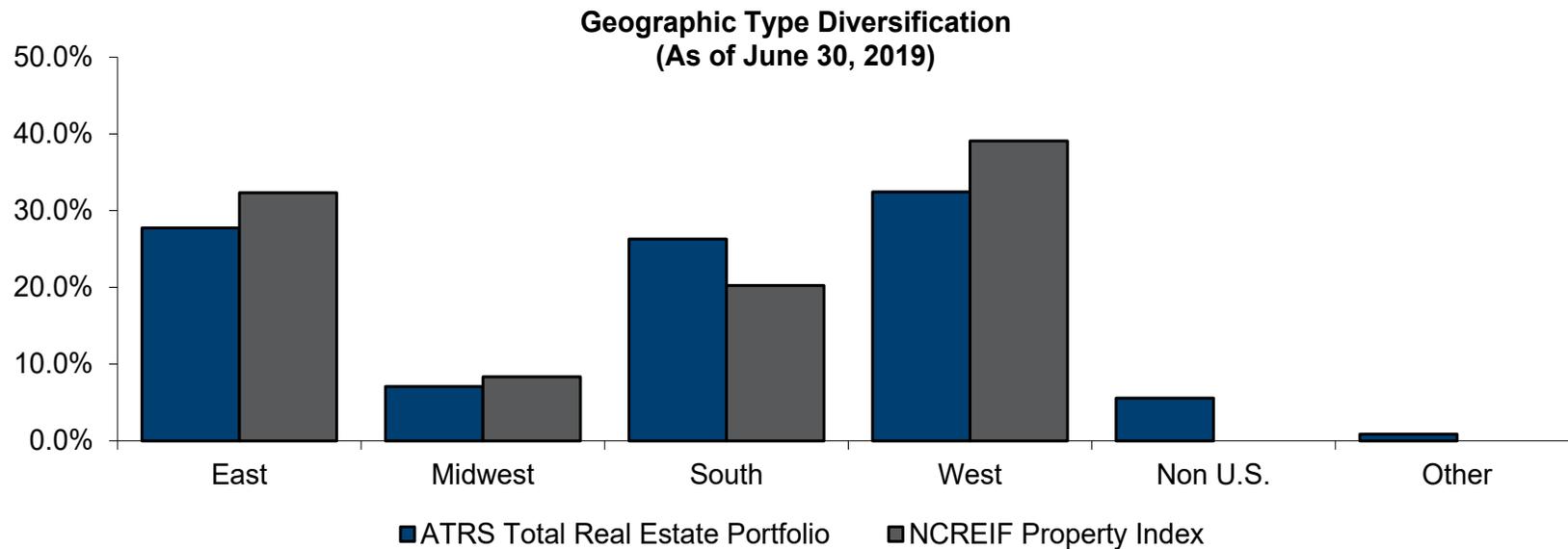
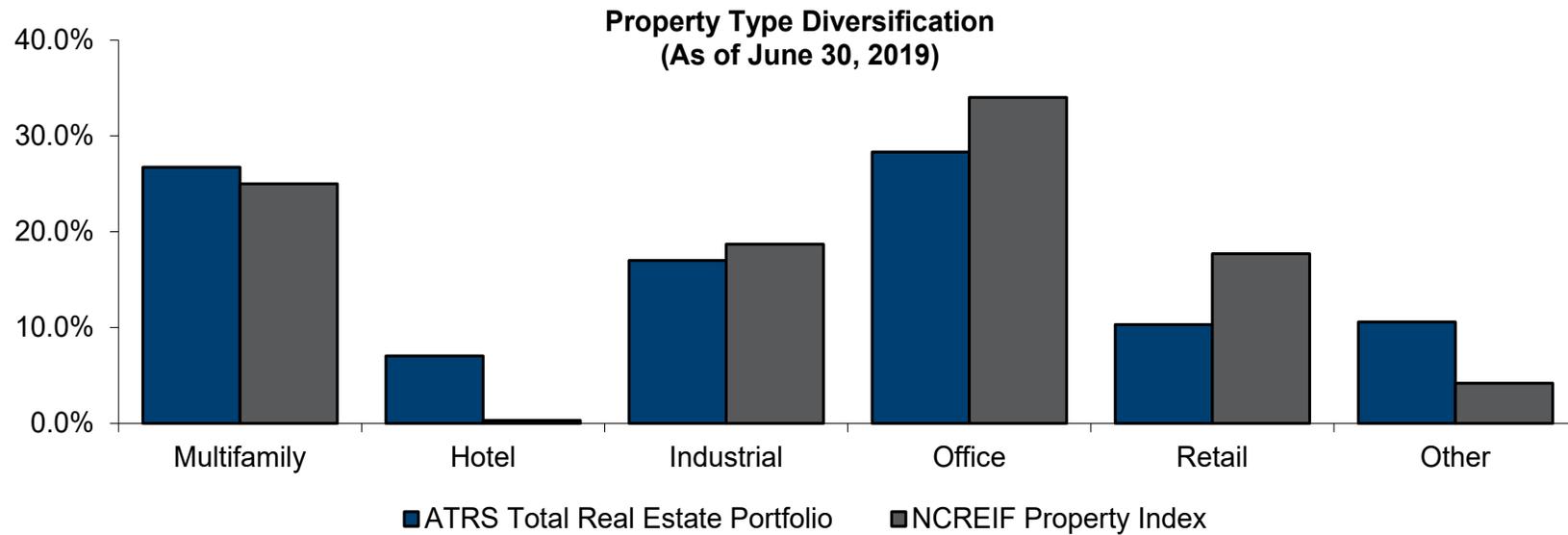
Fund Name	Vintage Year	Total Commitment (\$)	Unfunded Commitment (\$)	Total Paid-In (\$)	Total Distributions (\$)	Net Asset Value (\$)	Total Value (\$)	DPI	TVPI	Net IRR
Antin Infrastructure Partners II, L.P.	2014	47,647,600	5,413,548	35,754,093	6,458,777	48,584,397	55,043,174	0.18x	1.54x	11.56%
DIF Infrastructure Fund V	2018	47,766,330	28,358,953	18,169,962	634,634	18,244,995	18,879,630	0.03x	1.04x	5.24%
First Reserve Energy Infrastructure Fund II, L.P.	2014	50,000,000	6,233,086	48,779,553	27,081,537	39,781,962	66,863,499	0.56x	1.37x	31.57%
Global Infrastructure Partners III, L.P.	2016	50,000,000	13,652,455	39,561,657	2,993,571	41,125,762	44,119,333	0.08x	1.12x	7.68%
IFM Global Infrastructure (US), L.P.	2017	50,000,000	0	50,000,000	299,038	54,487,622	54,786,659	0.01x	1.10x	9.64%
KKR Global Infrastructure Investors II, L.P.	2015	50,000,000	4,065,019	51,930,903	8,404,516	55,902,097	64,306,613	0.16x	1.24x	11.55%
Macquarie Infrastructure Partners III, L.P.	2013	50,000,000	7,453,861	46,496,975	19,291,229	43,597,286	62,888,515	0.41x	1.35x	13.02%
<b>Total Infrastructure</b>		<b>345,413,930</b>	<b>65,176,923</b>	<b>290,693,143</b>	<b>65,163,301</b>	<b>301,724,121</b>	<b>366,887,422</b>	<b>0.22x</b>	<b>1.26x</b>	<b>13.49%</b>

## Portfolio Performance Detail: By Vintage Year

As of 6/30/2019

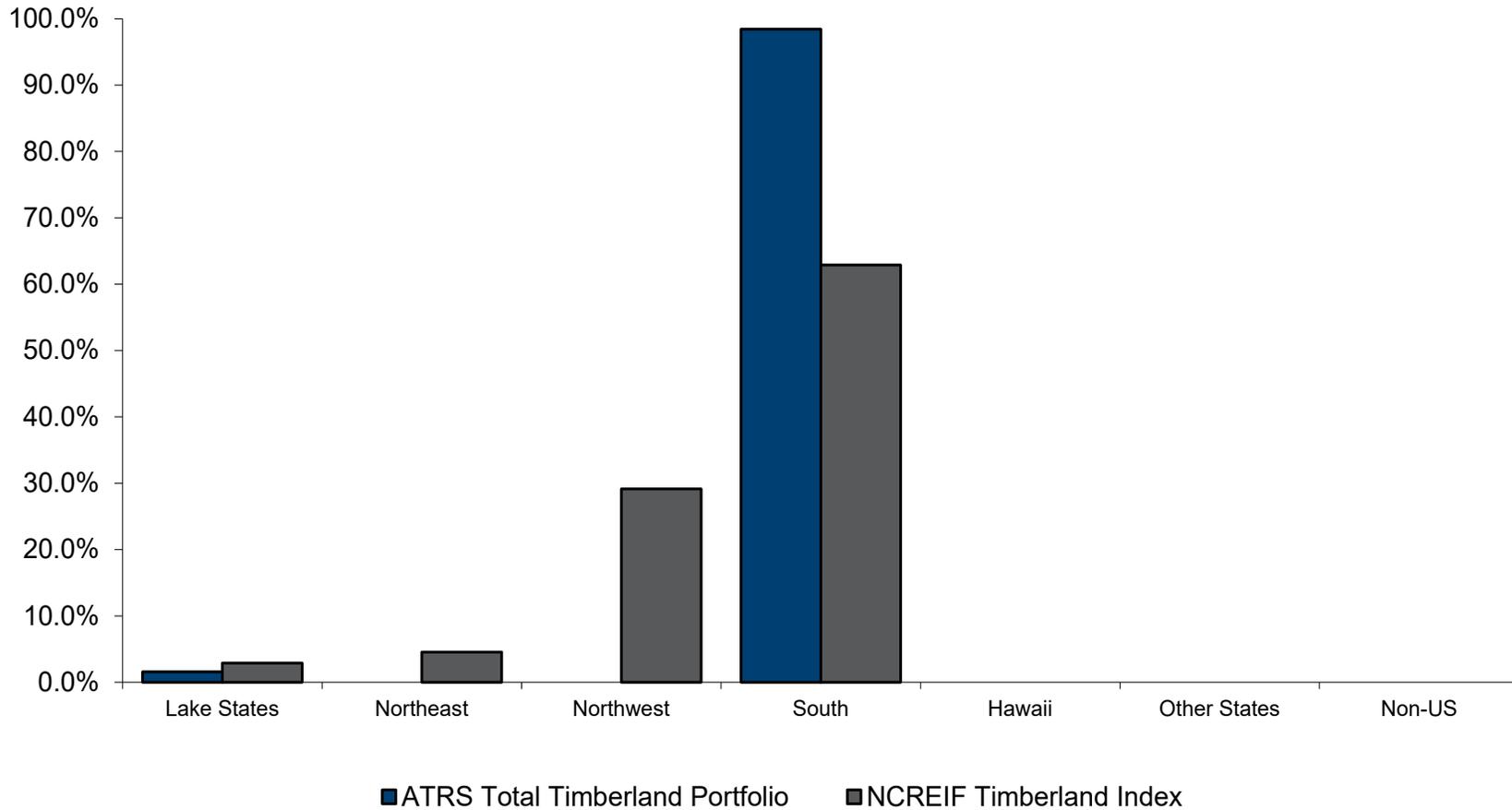
Vintage Year (ATRS)	Total Commitment	Unfunded Commitment	Total Paid-In	Total Distributions	Net Asset Value as of 6/30/2019	Total Value	DPI	TVPI	Net IRR
1997	75,000,000	0	80,737,536	120,795,230	0	120,795,230	1.50x	1.50x	13.42%
1998	416,000,000	24,891,933	436,078,681	463,012,686	265,506,538	728,519,224	1.06x	1.67x	5.61%
1999	178,794,401	0	189,842,518	316,052,650	0	316,052,650	1.66x	1.66x	15.90%
2000	209,242,960	0	228,396,220	289,418,462	355,396	289,773,858	1.27x	1.27x	8.51%
2005	340,000,000	0	412,089,139	233,890,069	516,832,451	750,722,520	0.57x	1.82x	6.20%
2006	220,000,000	0	220,000,000	124,652,052	284,465,031	409,117,083	0.57x	1.86x	6.09%
2007	197,694,200	0	199,624,547	208,093,272	127,366,978	335,460,250	1.04x	1.68x	6.90%
2008	220,000,000	6,643,033	231,116,013	267,998,010	23,417,691	291,415,701	1.16x	1.26x	5.19%
2009	50,000,000	2,299,444	34,448,111	24,292,222	2,657,190	26,949,412	0.71x	0.78x	-4.07%
2010	40,000,000	4,909,392	35,090,608	51,468,186	3,512,473	54,980,659	1.47x	1.57x	19.29%
2011	175,000,000	25,170,693	196,530,494	99,584,329	175,113,921	274,698,250	0.51x	1.40x	8.61%
2012	130,000,000	14,992,348	131,345,799	126,580,434	50,729,045	177,309,480	0.96x	1.35x	11.70%
2013	150,000,000	8,406,242	148,482,568	81,865,043	114,631,228	196,496,271	0.55x	1.32x	9.23%
2014	157,647,600	39,507,423	137,886,832	86,342,008	110,001,563	196,343,571	0.63x	1.42x	17.45%
2015	204,260,817	37,571,868	183,193,678	63,624,853	167,408,034	231,032,887	0.35x	1.26x	13.14%
2016	180,009,965	43,132,077	141,629,462	9,545,127	154,121,439	163,666,566	0.07x	1.16x	8.62%
2017	150,000,000	58,264,490	108,124,247	21,757,551	97,419,781	119,177,333	0.20x	1.10x	11.97%
2018	257,766,330	207,698,844	49,060,244	884,825	47,176,385	48,061,210	0.02x	0.98x	-2.96%
2019	129,095,200	128,041,200	2,000,000	0	2,046,879	2,046,879	0.00x	1.02x	3.54%
<b>Grand Total(s):</b>	<b>3,480,511,473</b>	<b>601,528,987</b>	<b>3,165,676,695</b>	<b>2,589,857,008</b>	<b>2,142,762,026</b>	<b>4,732,619,033</b>	<b>0.82x</b>	<b>1.49x</b>	<b>7.32%</b>

## Portfolio Diversification – Real Estate



# Portfolio Diversification – Timberland

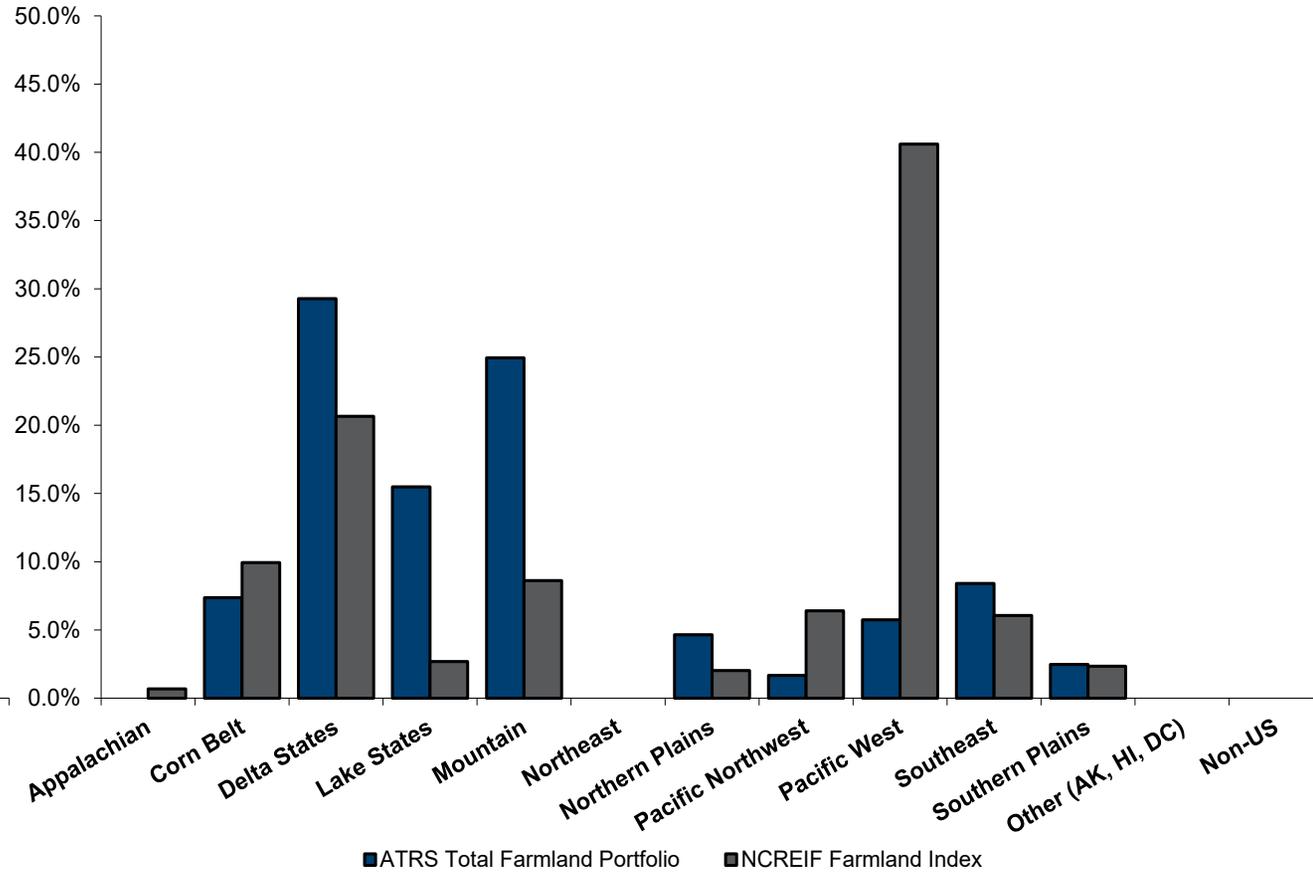
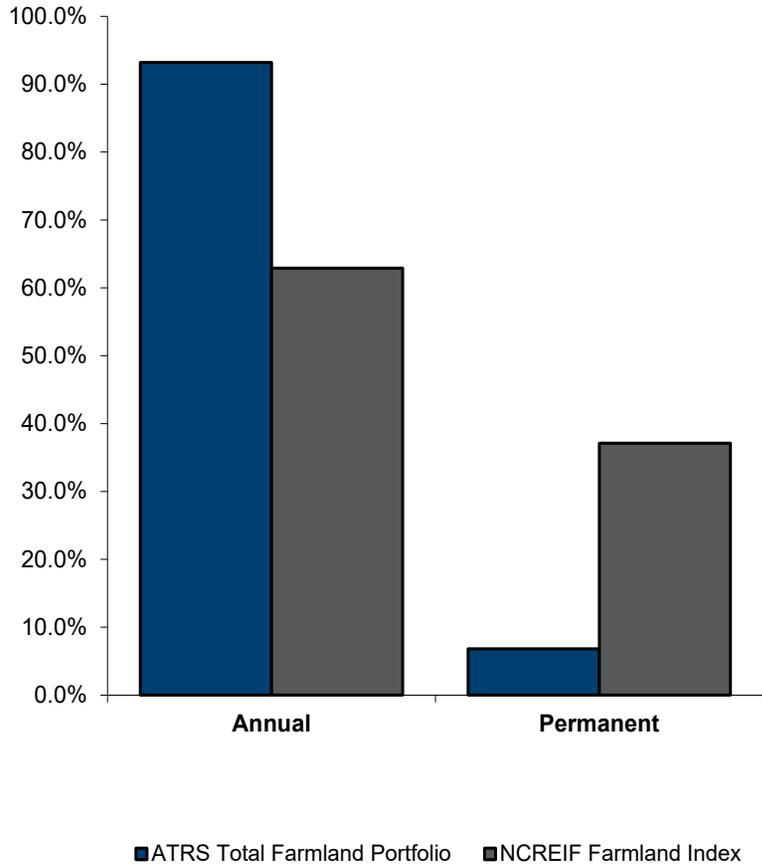
**Geographic Type Diversification  
(As of June 30, 2019)**



# Portfolio Diversification – Agriculture

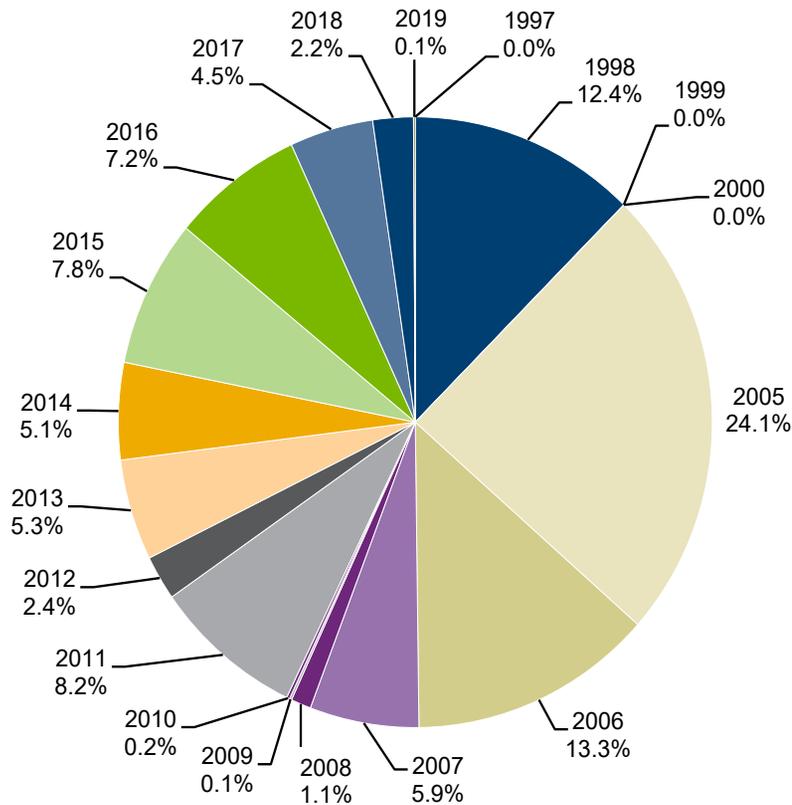
**Crop Type Diversification  
(As of 6/30/2019)**

**Geographic Type Diversification  
(As of June 30, 2019)**

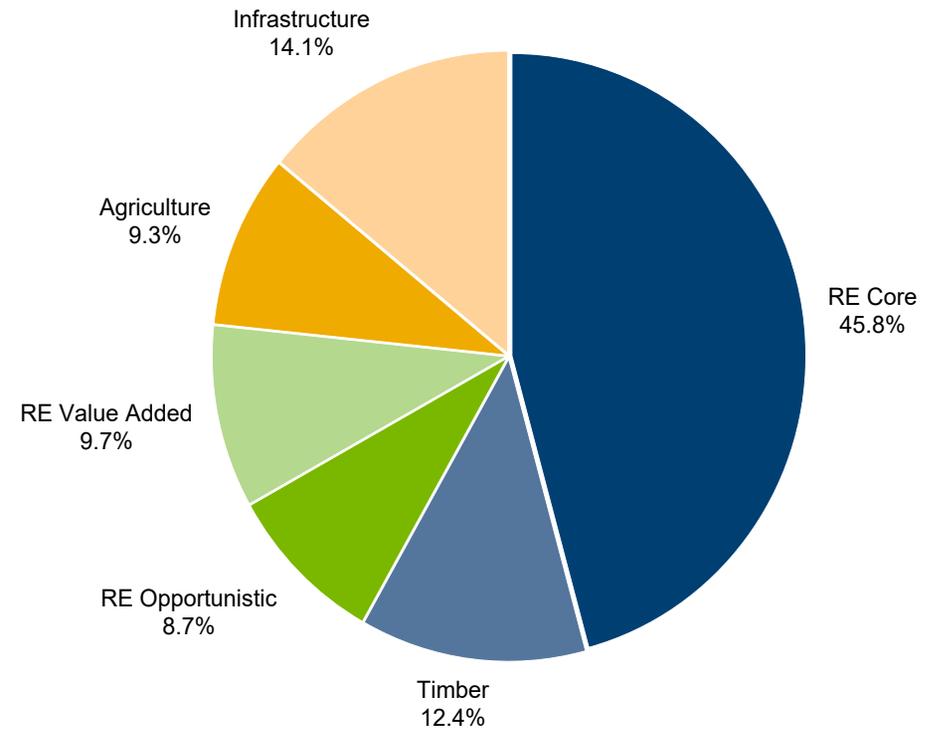


# Portfolio Diversification (cont'd)

**Vintage Year Diversification by Net Asset Value  
(As of 6/30/2019)**



**Style Diversification by Net Asset Value  
(As of 6/30/2019)**



Note: Arkansas Investments are included in Core portfolio

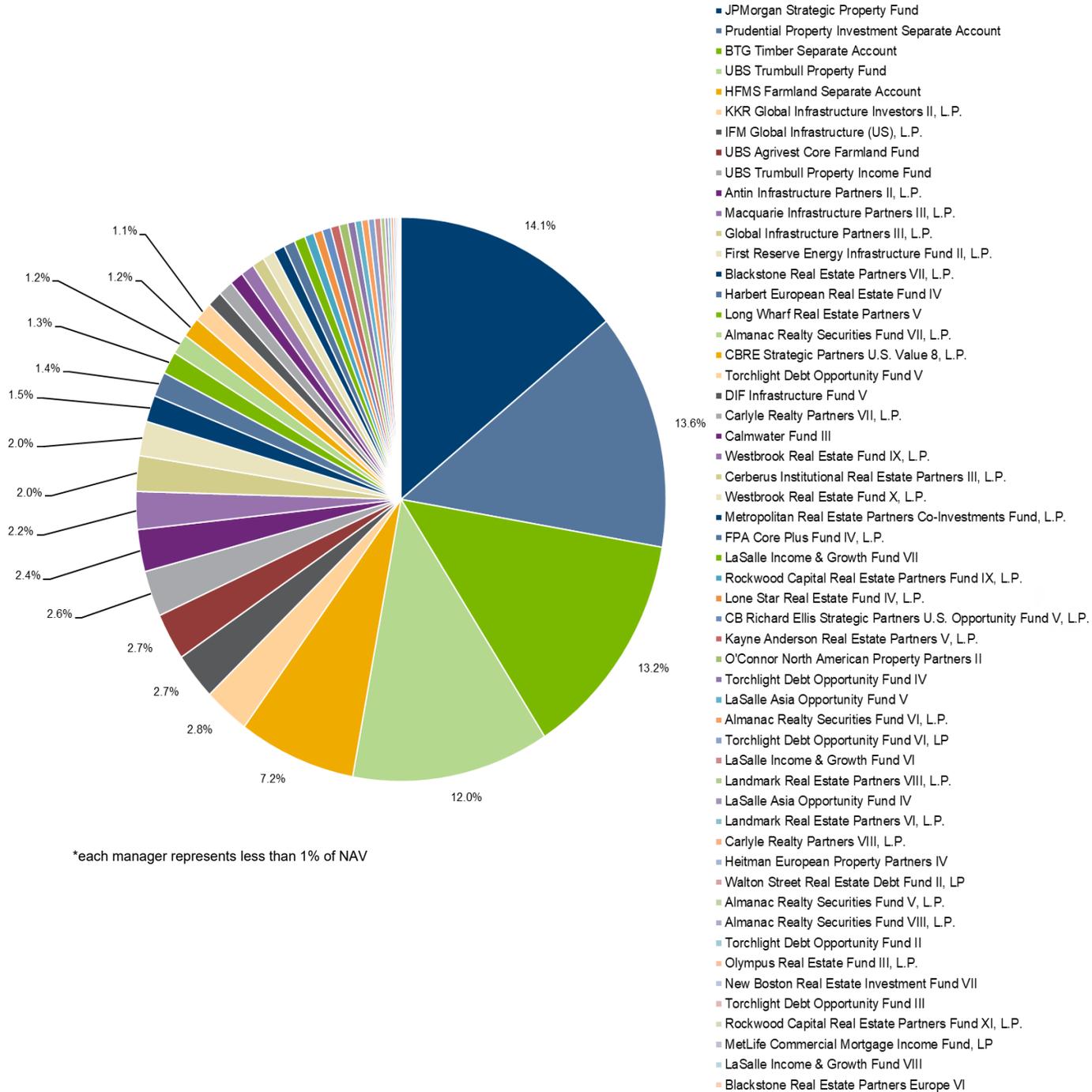
## Portfolio Funding Summary

Partnership Name	Funded Commitment (\$)	Unfunded Commitment (\$)	Total Commitment (\$)
Almanac Realty Securities Fund V, L.P.	50,000,000	0	50,000,000
Almanac Realty Securities Fund VI, L.P.	30,000,000	0	30,000,000
Almanac Realty Securities Fund VII, L.P.	20,377,318	9,622,682	30,000,000
Almanac Realty Securities Fund VIII, L.P.	1,486,530	28,513,470	30,000,000
Antin Infrastructure Partners II, L.P.	42,234,052	5,413,548	47,647,600
Blackstone Real Estate Partners Europe VI	0	50,041,200	49,095,200
Blackstone Real Estate Partners VII, L.P.	43,002,199	6,997,801	50,000,000
BTG Timber Separate Account	291,108,067	24,891,933	316,000,000
Calmwater Fund III	15,972,078	14,027,922	30,000,000
Carlyle Realty Partners VII, L.P.	13,219,509	16,780,491	30,000,000
Carlyle Realty Partners VIII, L.P.	3,823,579	21,176,421	25,000,000
CB Richard Ellis Strategic Partners U.S. Opportunity Fund V, L.P.	48,356,967	1,643,033	50,000,000
CBRE Strategic Partners U.S. Value 8, L.P.	21,059,128	3,940,872	25,000,000
Cerberus Institutional Real Estate Partners III, L.P.	22,692,605	7,307,395	30,000,000
DIF Infrastructure Fund V	19,407,377	28,358,953	47,766,330
First Reserve Energy Infrastructure Fund II, L.P.	43,766,914	6,233,086	50,000,000
FPA Core Plus Fund IV, L.P.	14,100,000	15,900,000	30,000,000
Global Infrastructure Partners III, L.P.	36,347,545	13,652,455	50,000,000
Harbert European Real Estate Fund IV	23,279,359	1,730,606	25,009,965
Heitman European Property Partners IV	47,700,556	2,299,444	50,000,000
HFMS Farmland Separate Account	106,827,108	18,172,892	125,000,000
JPMorgan Strategic Property Fund	170,000,000	0	170,000,000
Kayne Anderson Real Estate Partners V, L.P.	11,250,000	13,750,000	25,000,000
IFM Global Infrastructure (US), L.P.	50,000,000	0	50,000,000
KKR Global Infrastructure Investors II, L.P.	45,934,981	4,065,019	50,000,000
Landmark Real Estate Partners VI, L.P.	35,090,608	4,909,392	40,000,000
Landmark Real Estate Partners VIII, L.P.	3,787,354	21,212,646	25,000,000

## Portfolio Funding Summary (cont'd)

Partnership Name	Funded Commitment (\$)	Unfunded Commitment (\$)	Total Commitment (\$)
LaSalle Asia Opportunity Fund IV	18,919,702	11,080,298	30,000,000
LaSalle Asia Opportunity Fund V	6,191,856	23,808,144	30,000,000
LaSalle Income & Growth Fund VI	19,047,619	952,381	20,000,000
LaSalle Income & Growth Fund VII	14,466,788	5,533,212	20,000,000
LaSalle Income & Growth Fund VIII	0	50,000,000	50,000,000
Lone Star Real Estate Fund IV, L.P.	19,056,195	5,204,622	24,260,817
Long Wharf Real Estate Partners V	30,000,000	0	30,000,000
Macquarie Infrastructure Partners III, L.P.	42,546,139	7,453,861	50,000,000
MetLife Commercial Mortgage Income Fund, LP	0	50,000,000	50,000,000
Metropolitan Real Estate Partners Co-Investments Fund, L.P.	19,132,876	867,124	20,000,000
New Boston Real Estate Investment Fund VII	10,000,000	0	10,000,000
O'Connor North American Property Partners II	45,000,000	5,000,000	50,000,000
Olympus Real Estate Fund III, L.P.	100,000,000	0	100,000,000
Prudential Property Investment Separate Account	170,000,000	0	170,000,000
Rockwood Capital Real Estate Partners Fund IX, L.P.	25,918,536	4,081,464	30,000,000
Rockwood Capital Real Estate Partners Fund XI, L.P.	0	40,000,000	40,000,000
Torchlight Debt Opportunity Fund II	55,000,000	0	55,000,000
Torchlight Debt Opportunity Fund III	30,000,000	0	30,000,000
Torchlight Debt Opportunity Fund IV	30,000,000	0	30,000,000
Torchlight Debt Opportunity Fund V	20,000,000	5,000,000	25,000,000
Torchlight Debt Opportunity Fund VI, LP	7,509,290	17,490,710	25,000,000
UBS Agrivest Core Farmland Fund	50,000,000	0	50,000,000
UBS Trumbull Property Fund	170,000,000	0	170,000,000
UBS Trumbull Property Income Fund	50,000,000	0	50,000,000
Walton Street Real Estate Debt Fund II, LP	2,000,000	38,000,000	40,000,000
Westbrook Real Estate Fund IX, L.P.	36,396,512	3,603,488	40,000,000
Westbrook Real Estate Fund X, L.P.	12,187,580	12,812,420	25,000,000
	<b>2,194,196,927</b>	<b>601,528,985</b>	<b>2,794,779,912</b>

# Manager Diversification



# Management Fees

ATRS Sub-Asset Class	ATRS Style	Partnership Name	Current Quarter Management Fees as of 6/30/2019	YTD Management Fees
Real Estate	Core	JPMorgan Strategic Property Fund	(619,391.90)	(1,233,447.83)
Real Estate	Core	MetLife Commercial Mortgage Income Fund, LP	0.00	0.00
Real Estate	Core	Prudential Property Investment Separate Account	(543,754.89)	(1,083,756.23)
Real Estate	Core	UBS Trumbull Property Fund	(431,052.86)	(910,700.68)
Real Estate	Core	UBS Trumbull Property Income Fund	(102,658.70)	(206,509.13)
<b>Subtotal: Core</b>			<b>(1,696,858.35)</b>	<b>(3,434,413.87)</b>
Real Estate	Opportunistic	Blackstone Real Estate Partners Europe VI	0.00	0.00
Real Estate	Opportunistic	Blackstone Real Estate Partners VII, L.P.	(171,426.00)	(260,778.00)
Real Estate	Opportunistic	Carlyle Realty Partners VII, L.P.	(64,438.00)	(128,876.00)
Real Estate	Opportunistic	Carlyle Realty Partners VIII, L.P.	(86,781.00)	(173,562.00)
Real Estate	Opportunistic	CB Richard Ellis Strategic Partners U.S. Opportunity Fund V, L.P.	0.00	(31,250.00)
Real Estate	Opportunistic	Cerberus Institutional Real Estate Partners III, L.P.	(22,813.00)	(47,812.00)
Real Estate	Opportunistic	Heitman European Property Partners IV	(60,097.88)	(89,627.41)
Real Estate	Opportunistic	Kayne Anderson Real Estate Partners V, L.P.	(109,375.00)	(218,750.00)
Real Estate	Opportunistic	Landmark Real Estate Partners VI, L.P.	(15,358.00)	(31,823.00)
Real Estate	Opportunistic	Landmark Real Estate Partners VIII, L.P.	(62,091.00)	(124,591.00)
Real Estate	Opportunistic	LaSalle Asia Opportunity Fund IV	(13,313.00)	(28,677.00)
Real Estate	Opportunistic	LaSalle Asia Opportunity Fund V	(78,533.00)	(155,085.00)
Real Estate	Opportunistic	Lone Star Real Estate Fund IV, L.P.	(9,401.00)	(21,744.00)
Real Estate	Opportunistic	Metropolitan Real Estate Partners Co-Investments Fund, L.P.	(30,417.75)	(63,352.72)
Real Estate	Opportunistic	O'Connor North American Property Partners II	(17,666.00)	(35,332.00)
Real Estate	Opportunistic	Olympus Real Estate Fund III, L.P.	0.00	0.00
Real Estate	Opportunistic	Torchlight Debt Opportunity Fund II	0.00	0.00

# Management Fees (cont'd)

ATRS Sub-Asset Class	ATRS Style	Partnership Name	Current Quarter Management Fees as of 6/30/2019	YTD Management Fees
Real Estate	Opportunistic	Torchlight Debt Opportunity Fund III	0.00	0.00
Real Estate	Opportunistic	Torchlight Debt Opportunity Fund IV	(23,423.00)	(55,611.00)
Real Estate	Opportunistic	Torchlight Debt Opportunity Fund V	(75,000.00)	(150,000.00)
Real Estate	Opportunistic	Torchlight Debt Opportunity Fund VI, LP	(79,688.00)	(159,376.00)
<b>Subtotal: Opportunistic</b>			<b>(919,821.63)</b>	<b>(1,776,247.13)</b>
Real Estate	Value Added	Almanac Realty Securities Fund V, L.P.	(6,702.00)	(13,800.00)
Real Estate	Value Added	Almanac Realty Securities Fund VI, L.P.	(15,110.00)	(30,225.00)
Real Estate	Value Added	Almanac Realty Securities Fund VII, L.P.	(62,525.00)	(122,095.00)
Real Estate	Value Added	Almanac Realty Securities Fund VIII, L.P.	(93,493.00)	(185,959.00)
Real Estate	Value Added	Calmwater Fund III	(74,866.75)	(143,694.85)
Real Estate	Value Added	CBRE Strategic Partners U.S. Value 8, L.P.	(52,386.00)	(100,165.00)
Real Estate	Value Added	FPA Core Plus Fund IV, L.P.	(25,612.00)	(47,318.00)
Real Estate	Value Added	Harbert European Real Estate Fund IV	(83,119.53)	(165,134.99)
Real Estate	Value Added	LaSalle Income & Growth Fund VI	(17,525.78)	(34,858.96)
Real Estate	Value Added	LaSalle Income & Growth Fund VII	(75,190.11)	(129,503.47)
Real Estate	Value Added	LaSalle Income & Growth Fund VIII	0.00	0.00
Real Estate	Value Added	Long Wharf Real Estate Partners V	(112,192.00)	(223,150.91)
Real Estate	Value Added	New Boston Real Estate Investment Fund VII	0.00	(5,637.00)
Real Estate	Value Added	Rockwood Capital Real Estate Partners Fund IX, L.P.	(70,015.32)	(138,119.84)
Real Estate	Value Added	Rockwood Capital Real Estate Partners Fund XI	0.00	0.00
Real Estate	Value Added	Walton Street Real Estate Debt Fund II, LP	(17,328.00)	(17,328.00)
Real Estate	Value Added	Westbrook Real Estate Fund IX, L.P.	(50,098.00)	(102,030.00)
Real Estate	Value Added	Westbrook Real Estate Fund X, L.P.	(60,460.00)	(107,429.00)
<b>Subtotal: Value Added</b>			<b>(816,623.49)</b>	<b>(1,566,449.02)</b>
<b>Subtotal: Real Estate</b>			<b>(3,433,303.47)</b>	<b>(6,777,110.02)</b>

## Management Fees (cont'd)

ATRS Sub-Asset Class	ATRS Style	Partnership Name	Current Quarter Management Fees as of 6/30/2019	YTD Management Fees
Agriculture		HFMS Farmland Separate Account	(427,328.43)	(851,678.55)
Agriculture		UBS Agrivest Core Farmland Fund	(135,982.45)	(271,993.34)
<b>Subtotal:</b>			<b>(563,310.88)</b>	<b>(1,123,671.89)</b>
<b>Subtotal: Agriculture</b>			<b>(563,310.88)</b>	<b>(1,123,671.89)</b>
Infrastructure		Antin Infrastructure Partners II, L.P.	(79,357.88)	(156,799.99)
Infrastructure		DIF Infrastructure Fund V	11,327.15	11,327.15
Infrastructure		First Reserve Energy Infrastructure Fund II, L.P.	(169,726.00)	(339,089.00)
Infrastructure		Global Infrastructure Partners III, L.P.	(208,195.00)	(410,377.00)
Infrastructure		IFM Global Infrastructure (US), L.P.	(102,251.04)	(200,350.27)
Infrastructure		KKR Global Infrastructure Investors II, L.P.	(151,664.00)	(254,716.00)
Infrastructure		Macquarie Infrastructure Partners III, L.P.	(110,401.93)	(235,354.25)
<b>Subtotal:</b>			<b>(810,268.70)</b>	<b>(1,585,359.36)</b>
<b>Subtotal: Infrastructure</b>			<b>(810,268.70)</b>	<b>(1,585,359.36)</b>
Timber		BTG Timber Separate Account	(573,445.28)	(1,113,731.27)
<b>Subtotal:</b>			<b>(573,445.28)</b>	<b>(1,113,731.27)</b>
<b>Subtotal: Timber</b>			<b>(573,445.28)</b>	<b>(1,113,731.27)</b>

# Compliance Matrix

Property Type	NFI-ODCE	Target/Constraint	Minimum	Maximum	Actual	Compliant?
Office	34.0%	NFI-ODCE +/- 50%	17.0%	50.0%	31.1%	Yes
Retail	17.7%	NFI-ODCE +/- 50%	8.9%	26.6%	16.0%	Yes
Industrial	18.7%	NFI-ODCE +/- 50%	9.4%	28.1%	12.0%	Yes
Multifamily	25.0%	NFI-ODCE +/- 50%	12.5%	37.5%	26.4%	Yes
Lodging/Hotel	0.3%	NFI-ODCE +/- 50%	0.2%	0.5%	3.9%	No
Other1	4.2%	NFI-ODCE +/- 50%	2.1%	6.3%	10.7%	No
Geography - Real Estate	NFI-ODCE	Target/Constraint	Minimum	Maximum	Actual	Compliant?
West	39.1%	NFI-ODCE +/- 50%	19.6%	58.7%	32.3%	Yes
East	32.3%	NFI-ODCE +/- 50%	16.2%	48.5%	27.4%	Yes
Midwest	8.4%	NFI-ODCE +/- 50%	4.2%	12.6%	7.2%	Yes
South	20.3%	NFI-ODCE +/- 50%	10.2%	30.5%	26.5%	Yes
Other2,3	0.0%	n/a	n/a	n/a	0.3%	Yes
Non-U.S.	0.0%	n/a	0.0%	40.0%	6.4%	Yes
Geography - Timber	NCREIF Timberland	Target/Constraint	Minimum	Maximum	Actual	Compliant?
Lake States	2.9%	NCREIF Timberland +/- 50%	1.5%	4.4%	1.7%	Yes
Northeast	4.6%	NCREIF Timberland +/- 50%	2.3%	6.9%	0.0%	No
Northwest	29.0%	NCREIF Timberland +/- 50%	14.5%	43.5%	0.0%	No
South	62.9%	NCREIF Timberland +/- 50%	31.5%	94.4%	98.3%	No
Geography - Agriculture	NCREIF Farmland	Target/Constraint	Minimum	Maximum	Actual	Compliant?
Appalachian	0.7%		0.0%	50.0%	0.0%	Yes
Corn Belt	10.1%		0.0%	50.0%	7.4%	Yes
Delta States	21.0%		0.0%	50.0%	29.3%	Yes
Lake States	2.6%		0.0%	50.0%	15.5%	Yes
Mountain	8.7%		0.0%	50.0%	25.0%	Yes
Northeast	0.0%		0.0%	50.0%	0.0%	Yes
Northern Plains	2.0%		0.0%	50.0%	4.5%	Yes
Pacific Northwest	6.2%		0.0%	50.0%	1.7%	Yes
Pacific West	40.2%		0.0%	50.0%	5.8%	Yes
Southeast	6.1%		0.0%	50.0%	8.4%	Yes
Southern Plains	2.4%		0.0%	50.0%	2.4%	Yes
Other	0.0%		0.0%	50.0%	0.0%	Yes
Non-U.S.	0.0%		0.0%	50.0%	0.0%	Yes
Manager	Target/Constraint		Minimum	Maximum	Max	Compliant?
			0.0%	30.0%	14.2%	Yes
Style	Target/Constraint		Minimum	Maximum	Actual	Compliant?
Core			50.0%	70.0%	71.3%	No
Non-Core			30.0%	50.0%	28.7%	No

## Agenda

Section 1	Executive Summary
Section 2	Market Overview
Section 3	Real Assets Portfolio Update
<b>Section 4</b>	<b>Glossary</b>

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## Glossary of Terms

- Catch-up - The provision that dictates how cash flows from the fund will be allocated between the investors and the manager in order for the manager to receive their performance fee. This allocation of cash flows occurs once the investors have collected their capital and preferred return
- Core - The most conservative institutional real estate investing style
- Core-Plus - A style whereby investments have a slightly higher level of risk and expected return than Core, primarily through use of leverage
- Development - The construction of buildings from breaking the ground through building completion. This may also include entitlement of the land and the pursuit of permits prior to construction
- DPI – Distributions to Paid In; the ratio of distributions from investments to total invested capital
- First Closing - The point at which a manager receives and executes the subscription documents and can begin drawing capital from investors
- Final Closing - The final date at which new investors can subscribe to a fund
- Internal Rate of Return (IRR) - A method of measuring the performance of a portfolio from inception through a particular point in time. This method weights returns according to the dollars invested at each point in time. Hence, this is known as dollar-weighted return. This is a better measure when the manager controls when dollars must be invested and is the most commonly used method of real estate performance evaluation; Gross IRR is gross of fee and Net IRR is net of fee
- NFI-ODCE – 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
- NPI – NCREIF Property Index is a quarterly time series composite total rate of return measure of investment performance of a very large pool of individual commercial real estate properties acquired in the private market for investment purposes only; it is reported unlevered and gross of fee

## Glossary of Terms (Cont'd)

- FTSE-NAREIT Equity REIT – An unmanaged capitalization-weighted index of all equity real estate investment trusts
- FTSE EPRA/NAREIT Global REIT – An unmanaged market-weighted total return index, which consists of many companies from Global markets whose floats are larger than \$100 million and derive more than half of their revenue from property-related activities
- Opportunistic - A style that is the riskiest form of real estate investing. The name derives from when such funds were formed after the early 1990s real estate market crash to take advantage of opportunities in unwanted properties. Such investments include ground-up development, highly-leveraged purchases, or transactions involving highly complicated legal or environmental situations
- Pre-Specified Deals – Investments that are purchased for a fund before its final close. The assets are typically warehoused on a line of credit
- Promote (Carried Interest) -The performance fee a manager receives once the investors have received their return of capital and the preferred return (return promised by the manager)
- RVPI – Residual Value to Paid In; the ratio of the residual value of an investment to total invested capital
- Time-Weighted Return - A method of measuring the performance of a portfolio over a particular period of time. Effectively, it is the return of one dollar invested in the portfolio at the beginning of the measurement period. This is a better return measure when the manager does not control when the dollars must be invested
- TVPI – Total value to paid-in ratio; the ratio of total value from an investment, including distributions, to total invested capital
- Value-Added - A style that represents moderate-risk real estate. A manager typically increases the future value of the investment by undertaking activities such as leasing, improving an existing building, or taking some risk through operating intensive assets, such as hotels or self-storage
- Vintage Year - The year in which a fund has its final closing. Typically coincides with the year a fund begins making investments

## Glossary of Terms (Cont'd)

- NCREIF Timberland Index- The National Council of Real Estate Investment Fiduciaries (NCREIF) Timberland Index is a quarterly time series composite return measure of investment performance of a large pool of individual timber properties acquired in the private market for investment purposes only.
- NCREIF Farmland Index- The National Council of Real Estate Investment Fiduciaries (NCREIF) Farmland Index is a quarterly time series composite return measure of investment performance of a large pool of individual agricultural properties acquired in the private market for investment purposes only.

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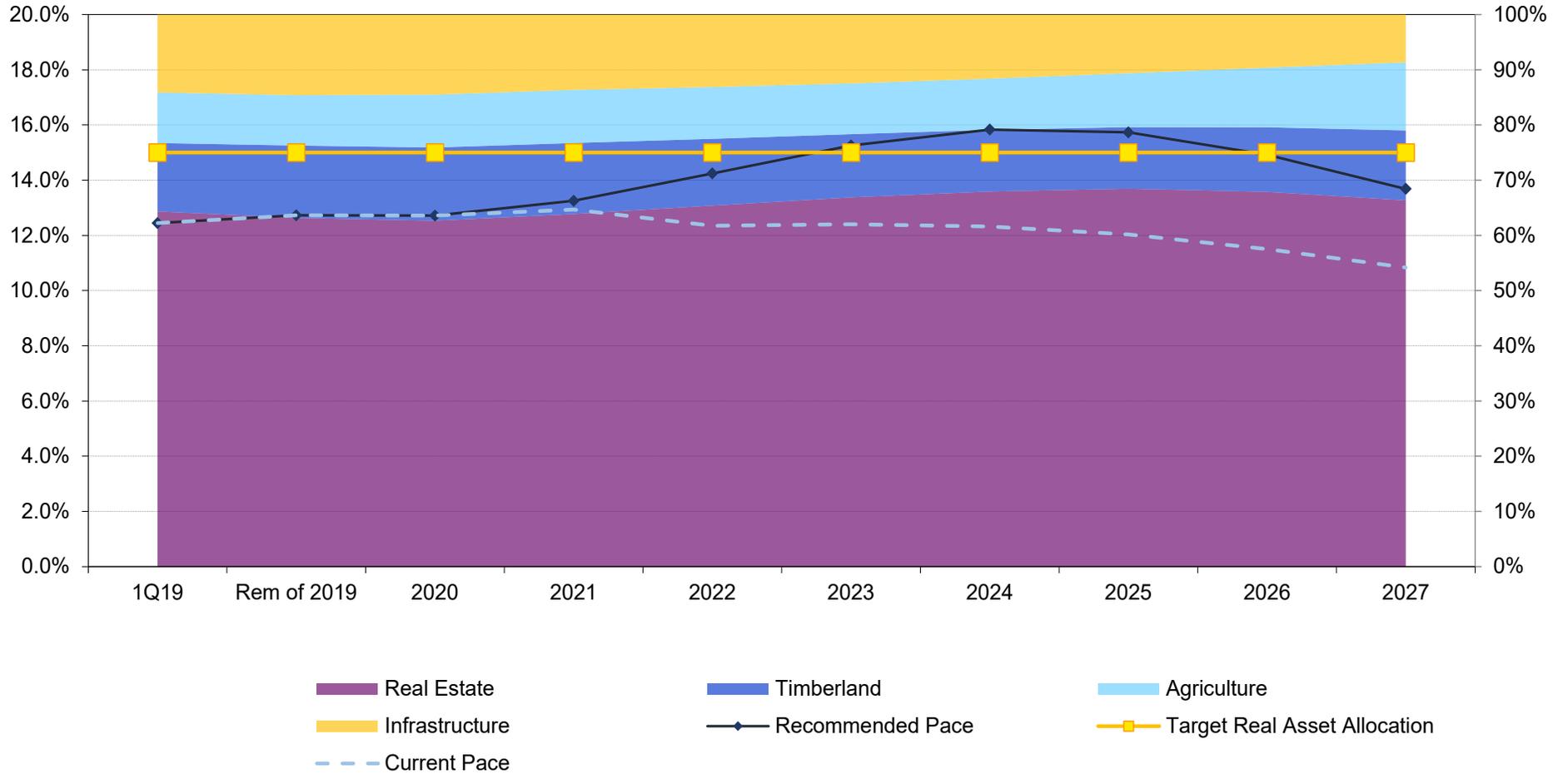
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## Arkansas Teacher's Retirement System 2020 Annual Planning

PROPRIETARY & CONFIDENTIAL  
November 2019

# Real Assets 2020 Pacing

## ATRS Real Assets Pacing



# Real Assets 2020 Pacing Commitment Overview

	Complete 2019	2020	2021	2022	2022 Forecasted Allocations	
<b>Opportunistic ( &lt; 50% )</b>	\$49	\$100	\$100	\$50	14%	15%-25% Target
<b>Value-Added ( &lt; 50% )</b>	\$80	\$180	\$180	\$150	22%	
<b>Core ( 50-70% )</b>	\$0	\$0	\$0	\$170	64%	50%-70% Target
<b>Real Estate Total</b>		<b>\$280</b>	<b>\$280</b>	<b>\$370</b>	<b>100%</b>	
<b>Infrastructure ( 2% )</b>	\$50	\$50	\$50	\$50	2%	
<b>Agriculture ( 1% )</b>	\$0	\$0	\$0	\$0	1%	
<b>Timberland ( 2% )</b>	\$0	\$0	\$0	\$0	2%	
<b>Real Assets Total</b>		<b>\$50</b>	<b>\$50</b>	<b>\$50</b>		

## 2020 Investment Themes

- **KEY INVESTMENT THEMES FOR 2020 INCLUDE:**
  - Better position Core Real Estate portfolio for current market conditions
    - Continue to search for real estate debt opportunities
    - UBS TPF partial redemption to be reallocated in 2022
  - Increase exposure to the non-traditional Real Estate property classes
    - Focus on value add strategies for cash yields
  - Continue to search for complementary Infrastructure investments



Real Estate InDetail

## **Long Wharf Real Estate Partners VI, L.P.**

A diversified value-add fund

July 2019

*Trade Secret and Confidential*

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## EXECUTIVE SUMMARY

### OVERVIEW

Date	Rating	Previous Rating
July 2019	Buy	Buy

Long Wharf Capital LLC (“Long Wharf” or the “Sponsor” or the “Manager”) is forming Long Wharf Real Estate Partners VI (the “Fund”), a \$400 million closed-end commingled fund that will be comprised of various property types executing value-add business plans and located across various submarkets in all regions of the US. Using up to 65% leverage, the targeted performance of the Fund is a 12%-15% net IRR range over an eight-year fund life.

*Strategy:* Acquire 25 to 30 mid-sized class B and A- properties mostly in secondary and suburban markets, but including primary and CBD markets. The Fund may invest in all property types, with likely over-weights to office (~40%-50%) and retail (~20%). The Manager follows a bottom-up approach focusing on all-in cost basis compared to replacement cost and acquisition cost of other properties within the submarket. Business plans may be lease-up of vacancy, rolling in-place lease expirations to current market, and more capex-heavy renovation and repositioning. The Fund will also likely do ground-up development in multiple property types up to its 20% limit.

#### Sponsor:

<b>HQ Location</b>	Boston, MA	<b>Parent</b>	Long Wharf Capital
<b>Ownership</b>	100% partner-owned	<b>Founded</b>	2011
<b>Employees</b>	22	<b>AUM</b>	\$1.7 billion gross (\$811 million equity)
<b>Organization</b>	Private market real estate investment management company		

#### Performance (as of Mar 31, 2019):

Vehicle	Vintage	Invested Equity (M)	Fair Market Value		% Realized		Projected Life-of-Fund Net IRR
			Net IRR	Net Equity Multiple	Transactions	DPI	
Fidelity Real Estate Growth Fund	2001	\$320	17.5%	1.5x	100%	1.5x	17.5%
Fidelity Real Estate Growth Fund II	2003	\$626	-8.2%	0.7x	100%	0.7x	-8.2%
Fidelity Real Estate Growth Fund III	2007	\$875	7.4%	1.3x	100%	1.3x	7.4%
Long Wharf Real Estate Partners IV	2012	\$272	12.4%	1.4x	55%	1.0x	12.9%
Long Wharf Real Estate Partners V	2015	\$416	10.8%	1.2x	17%	0.2x	13.0%

#### Portfolio Characteristics:

<b>Structure</b>	Closed-end fund	<b>Risk Segment</b>	Enhanced Return/Value-Add
<b>Size</b>	\$400 million	<b>Sponsor Commitment</b>	\$5 million (1.25% of fund)
<b>Target Return</b>	15%-19% gross; 12%-15% net IRR	<b>Leverage</b>	65% LTV max
<b>Term</b>	8 years from Final Close	<b>Investment Period</b>	3 years from Final Close
<b>Avg Deal Size</b>	\$10-\$20 million equity	<b>Typical Business Plan</b>	Ranges from 3 to 5 years

#### Fees:

<b>Management Fee</b>	1.5% on Committed during the Investment Period; 1.5% on invested thereafter	<b>Incentive Fee</b>	20% subject to a 9% preferred return and a 50/50 catch-up.
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#### Status/Timing:

\$290 million raised to date. First Close was November 2018; Final Close to be held within 15 months (Feb 2020).

## COMPARATIVE ADVANTAGES

### 1. Alignment

Fund investors have a particularly strong alignment with this Sponsor in the outcome of the Fund.

- The firm's sole source of revenue is this fund series.
- Twelve of the 22 professionals comprising the firm invest personally into the GP co-invest.
- Every employee of the firm participates in the carried interest of the funds whether or not they have contributed to the GP co-invest.
- The firm is privately owned and financially backstopped by two co-founding Managing Partners who are actively engaged as the Key Persons of the Fund and members of its Investment Committee.

### 2. In-Place Network

The strategy is executed by allocating to joint venture operating partners. According to the Manager, approximately 70% of its investments have been sourced through existing relationships, some going back 20-30 years. Since 2011 the Manager has utilized 26 different partners and also maintains on-going relationships with lenders, other property owners, and brokers, all of whom may source opportunities. Because the strategy focuses on smaller sized assets and sometimes in tertiary markets, a portion of the network constituents are local and less capitalized by competing fund sponsors, thereby providing Long Wharf investors relatively unique access to such operators.

### 3. MBE

The company is majority owned by Michael Elizondo, and as a Hispanic American citizen that ownership qualifies the firm as a Minority Business Enterprise. For some investors, investing some specified minimum amount of the portfolio with firms with such a designation is required per policy. This is a suitable candidate for that mission.

## POTENTIAL ISSUES AND CONCERNS

### 1. Key Person Risk

Considering the firm is relatively small, any unplanned loss of senior experience would be impactful to fund LPs, and in this case especially with respect to Mike Elizondo. He is the majority owner of the two owners, oversees the management of the company, and is actively engaged as the senior-most person in the day-to-day investment analysis and acquisition decisions.

**Discussion:** The Key Person provision is adequate for the circumstance. If during the Investment Period, either owner, Mike Elizondo or Jeff Gandel fail to devote substantially all business time to Long Wharf, the period automatically suspends, and any reinstatement goes to an LP vote requiring a majority.

### 2. Strategy Weightings

The general approach to investing is value-oriented, heavily driven by acquisition cost basis. In instances where secular trends result in diminished long-term demand it potentially sets up for a value trap where properties are cheaper for a reason that cannot be fully cured by the property level business plan. Several of the Sponsor's historical over-weights, suburban office and strip center retail, are susceptible and have in fact challenged the track record relative to diversified peers over-weighting to apartments and industrial and CBD office and street retail. The historical over-weights remain the go-forward intended over-weights for this Fund.

**Discussion:** The Manager has extensive real estate experience and has made adjustments to the fund strategy over

its 18 years as a fund sponsor, but in general remains unwilling to acquire at pricing it deems over-paying under the assumption above-average rent/demand growth will eventually justify the price. For acquisitions it does make, the low cost basis could provide better relative performance if local market supply/demand conditions required under-cutting market rents.

### 3. Mixed Relative Track Record

Relative to same vintage non-core fund peers, the five funds comprising the track record range from second quartile to fourth quartile and average collectively just slightly below median.

**Discussion:** On an absolute basis, only one of the five funds has lost capital, the most GFC-affected vintage. Three of the four funds producing positive returns have achieved or are projected to achieve their targeted return.

### 4. Less Efficient Execution

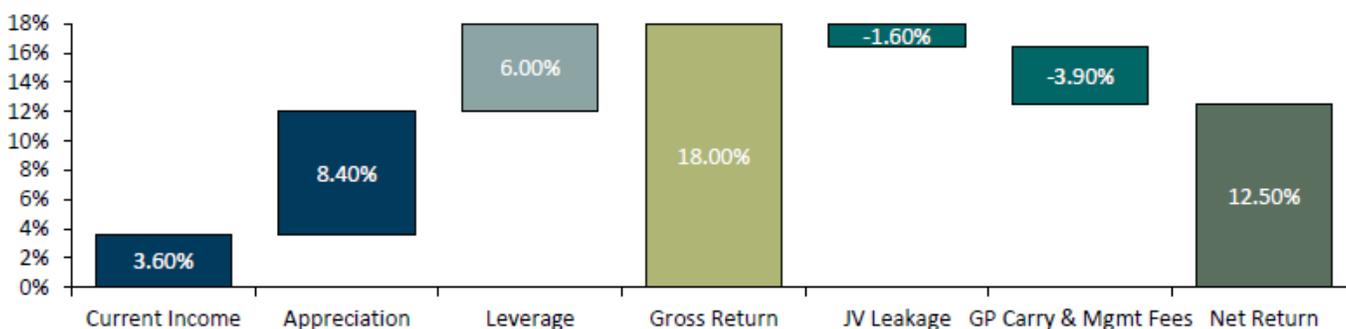
Allocating to promoted operating partners can cost a fund LP roughly 100 bps to 200 bps at the targeted return. Meaning, for example, an 18% deal level gross IRR after a typical operating partner promote totaling 150 bps provides the fund vehicle a 16.5% gross IRR, and then a fund LP pays fund fees of about 350 bps in this case, creating 500 bps of fee leakage. An 18% type risk level is required to produce a 13% return. This fund strategy aims primarily at traditional property types that can alternatively be accessed through vertically integrated operator-sponsors with no double promote required.

**Discussion:** Many such operator-sponsors are specialists to a property type and further often stay within a limited set of MSAs or within a region. While large institutional investors can capitalize these vehicles for tactical non-core exposures to various vintages, smaller investors making a single non-core commitment can get broader more diversified exposure through a single Long Wharf fund commitment and save the costs and time/attention associated with running a multi-fund portfolio.

## STRATEGY

### OVERVIEW

To produce a levered 12%-15% net IRR executing through promoted operating partners, the Manager underwrites to 16% to 21% property level gross IRRs. The following chart is a pro-forma attribution for the low end of the fund target range which is what the prior two funds are on track to produce:



The target return of 12% to 15% is a pretty wide range, but overall assumes about 70% of the fund's unlevered returns come from appreciation and 30% from income. To target such numbers the Manager generally focuses on smaller property sizes to decrease institutional competition, acquires at deep discounts to replacement cost, spec develops near its 20% limit, and minimizes hold period, with realized investments in the prior two funds averaging a 3-year hold period.

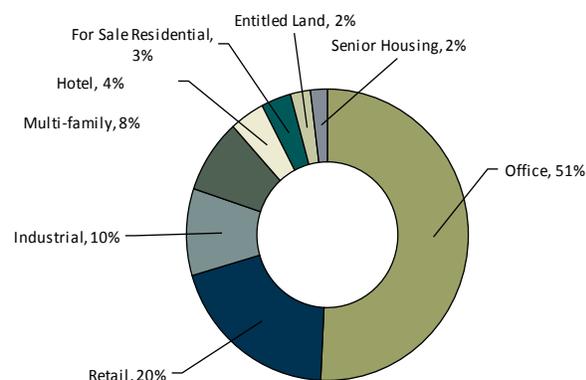
The chart at right breaks out all the various property types comprising the prior two funds that are most representative of the go-forward strategy for Fund VI:

Manager’s primary targets for achieving low acquisition pricing are:

- Suburban office with vacancy and/or lease expirations.
- Under-leased retail requiring repositioning capex.

The Manager over-weights the SE and SW regions, comprising 65% of the prior two funds.

- Particularly Texas MSAs (35%) and the Atlanta vicinity (15%), its two largest concentrations historically, and consistent with its most active operating partner footprints.



### USE OF OPERATING PARTNERS

The Sponsor business model is to act as generalist and allocator, utilizing operating partners for sourcing, property type expertise, and local sub-market experience. Operators typically provide 5%-15% of the equity in any transaction and receive fees for services provided (may include development, capex and TI related construction, property management, leasing, accounting) and a carried interest of profits above a hurdle, and may also receive a sourcing/acquisition fee, as much as 50-80 bps of gross transaction value from this particular Manager.

To execute the two Long Wharf funds, the Manager has utilized 26 different partners across 46 transactions. The following chart lists the Sponsor’s top three partners in terms of percent of deals done to date:

% of Deals	Operator	HQ Location	Property Type Expertise	Services
25%	TPA Group	Atlanta	Office and Industrial, Apartment, Resi and master-planned communities	Development, construction, marketing, leasing, property management, accounting
10%	Lincoln Property Co	Dallas	Office, Industrial, Retail, Medical Facilities, Data Centers	Development, construction, property management, asset management, brokerage, acquisition due diligence, facilities advisory, accounting
6%	Goff Capital	Ft Worth	Office, Hospitality, Apartment	Investment & asset management, development, leasing, property management

Long Wharf’s typical JV agreements provide it control over major decisions and a unilateral ability to sell after a period of time, typically 36 months.

### INVESTMENT GUIDELINES

Based on Aggregate Commitments:

- 20% max in any one investment;
- 30% max in a single metro area;
- 25% max in speculative ground-up development;
  - Defined as less than 75% pre-leased;
- 60% max in office properties;
- 50% max in any one of apartments, industrial, or retail;
- 30% max in any one property type not already addressed;
- No investments via entity level capital;
- No investments outside the US.

## LEVERAGE

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Overall, the targeted use of leverage is 60%-65%; and the cap is 65% LTV.

- This 65% cap includes property level and fund-level debt and guarantees.
- No cap for single properties.

Floating rate property level senior financing is expected for the majority of borrowing.

- ~90% of Fund V is floating, with about half of that rate hedged.
- Currently paying a 4.95% weighted cost of debt.

To the extent possible, the Manager avoids recourse debt.

- When partial recourse, repayment guaranties and completion guaranties, are required by lenders, operating partners provide.

Cross-collateralization is limited to 20% of Aggregate Commitments.

- Intended to be an option for the Manager in instances of a portfolio acquisition.

The Manager does not plan to use conduit lenders rather it will continue to use banks, life insurers and debt funds as lenders.

## SEED ASSETS AND PIPELINE

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The Fund has only closed on one asset since its First Close in November 2018.

- \$18.2 million of equity (\$52.8 million gross) in a 93% occupied power center in Raleigh;
- Sold by DDR as a non-strategic holding; Attractive going in cap rate and cost basis of 75% of estimated replacement cost;
- Opportunity/Risk: Significant lease expirations during the expected Fund hold; overall WALT of 31 months.
- Overview provided as **Exhibit A**.

Current pipeline report provided as **Exhibit B**.

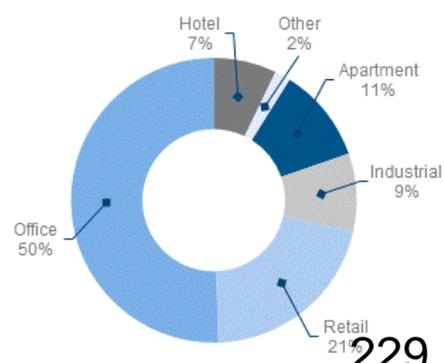
## SPONSOR

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Background: Fidelity Investments formed an institutional real estate group in 1993 to invest in direct private market deals as well as real estate public securities (REITS, REIT bonds, and later CMBS). Initial activity was through separate accounts until it entered the fund-sponsorship business in 2001. Fidelity balance sheet provided sponsor co-invest capital and the firm provided shared infrastructure to the real estate group. The firm raised three funds in its flagship series from 2001 to 2007. In 2009 Fidelity chose to shut down the business, facilitating the group's exit and re-formation as an independent company by 2011 and provided a \$20 million fund commitment. The group's four Managing Directors responsible for investing and asset management, Michael Elizondo, John Barrie, Jeff Tapley, and Jeff Gandel comprised the new entity ownership and its Executive Committee and its Investment Committee.

As of today:

- Ownership:
  - Michael Elizondo 68% and Jeff Gandel 32%.
  - Minority co-owner Jeff Tapley left in 2013 and John Barrie left in 2015.
- AUM:
  - \$811 million equity, including \$200 million in unfunded commitments; \$1.7 billion gross.
  - The chart at right breaks out equity AUM by property type:



- Staffing:
  - 2 owners and 20 employees in Boston HQ.
  - Functional Areas: Acquisitions (7 people), Asset Management (6 people), Investor Relations (3 people), Accounting & Reporting (6 people).
  - Bios of the firm's senior people provided as **Exhibit C**.

## CLIENT BASE

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Comprised of predominantly US tax-exempt institutions<sup>1</sup>.

- Public pensions (66%), corporate pensions (14%), health insurance companies (14%), E&Fs and HNWs (6%).

## TURNOVER, COMPENSATION AND RETENTION

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Turnover:

- Over the past 5 years, turnover has not been as issue as it was earlier in the formation of the company. In the recent 5 years, only 3 people with acquisition and asset management responsibilities have left. Over that time, the two departures in the acquisitions area at the director and associate levels were backfilled with two new hires at the associate level. Asset management has not required new hiring.
- Of note, another of the four original co-owners and Managing Directors, John Barrie, left in 2015. At that time his primary day-to-day responsibilities were as administrative manager of the firm (corporate functions) and he was a voting member of Investment Committee. He left for an opportunity as COO of a regional vertically integrated developer/owner/operator. The ownership interest was purchased by Messrs. Elizondo and Gandel. Responsibilities were split up and taken over by the two owners and Tammy Plotkin, Controller and Managing Director in operations.

Compensation:

- Every professional participates in the carried interest. That is a somewhat unique benefit to working and staying at the firm. The allocation is about 75% to owners plus all senior executives including the 12 individuals contributing to the GP co-invest, and 25% designated to the remainder of the firm professionals across all functions.

Retention:

- Allocations of carried interest to those contributing through the GP are subject to incremental vesting over the Investment Period. For those awarded participation without capital at risk, they are simply unvested, receiving the award upon payment by the Fund, or forgoing the award if they leave the firm.

## COMPLIANCE / LITIGATION DISCLOSURES

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Compliance disclosures by the Manager include the following:

- The firm underwent a routine on-site SEC exam very recently, completed in June 2019, and expects any findings within 180 days.
- Neither the firm nor any senior member of the firm have been reported to or investigated by any regulatory authority within the past ten years.
- No threatened or pending litigation involving the firm, affiliates or senior professionals<sup>2</sup>.

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<sup>1</sup> Current investors held out as references are Wilshire Private Markets, Strategic Investment Group, Franklin Real Asset Advisors, and Illinois Municipal Retirement Fund. Additionally, current Townsend principals provided historical insights from the years they were engaged by investors to represent them on Fidelity fund LPACs.

<sup>2</sup> Past litigation disclosed is a settled HR matter from 2011 involving a former Associate Director suing her employer for gender discrimination, and 4 years later filing a breach of contract against her former employer for retaliatory behavior as a poor job reference. The Manager discloses it as a settled matter after paying settlement amounts in both instances characterized as immaterial to the firm as a whole.

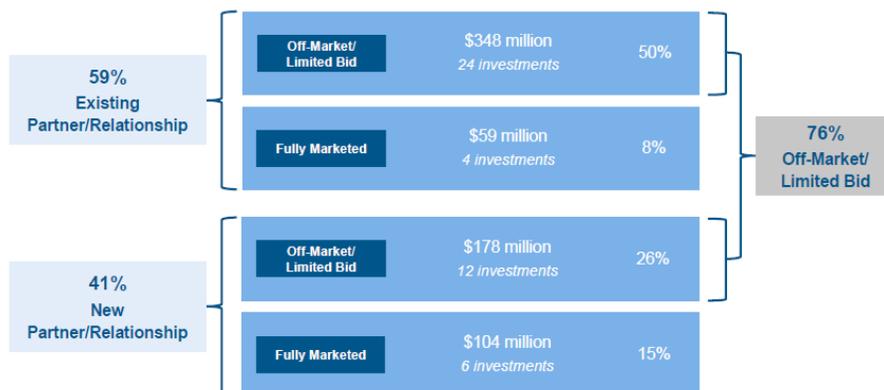
## INVESTMENT PROCESS

### OVERVIEW

The overall process is typical of a diversified allocator. For this particular Manager, similar to its prior two funds, the process is outlined as follows:

**Sourcing:** Through the Manager’s network of operating partners brokers, lenders, and other owners.

**Acquisitions:** 2-3 members of the firm’s 7-person acquisition team lead a prospective deal thru due diligence and required IC approvals. Members are generalists with respect to property types, but otherwise specialize according to their experience in particular markets and/or with particular operating partners.



**Asset Management:** 6-person team responsible for working with the operator to oversee execution of the specific IC-approved business plans.

### INVESTMENT COMMITTEE

The IC evaluates every potential acquisition and disposition, any refinancings and/or major variances to business plans.

- Five of six member approvals required.
- Each of the two owners has a veto right.
- IC member bios are **Exhibit C**.

Member	Firm Title	Responsibility	Years of Experience	Years with Firm
Michael Elizondo	Managing Partner	Acquisitions/Firm Management	36	24
Jeffrey Gandel	Managing Partner	IR/Marketing/Firm Management	27	24
Philip Murphy	Managing Director	Acquisitions	23	12
Justin Smith	Managing Director	Acquisitions	26	20
John Owens	Managing Director	Asset Management	23	19
Tammy Plotkin	Managing Director	Operations/Accounting/Compliance	23	12

### LP ADVISORY COMMITTEE

The GP will select members of the LPAC at its discretion based on relationship, size of investments, and expected participation in LPAC meetings/discussions. The LPAC for Fund V consisted of 8 voting members.<sup>3</sup> Any voting matters require a majority for consent/approval.

### VALUATIONS

- Using industry standard FMV methodology, Long Wharf internally values each asset on a quarterly basis.
- Fund financials, valuations, and valuation policy, are audited annually by PwC.

### USE OF PLACEMENT AGENT

The Sponsor is not engaging a placement agent for this fundraise.

<sup>3</sup> ArkTRS, Franklin Real Asset Advisors, GCM Grosvenor, Illinois Municipal Retirement Fund, Municipal Fire & Police of Iowa, San Diego City, Strategic Investment Group, and Utah School Trust Fund.

## FUND STRUCTURE

### OVERVIEW

Closed-end fund to be organized as a Delaware limited partnership.

- Sponsor/ Manager: Long Wharf Capital, LLC.
  - Registered investment advisor with the SEC since 2011
- Fund legal structure chart provided as **Exhibit D**.

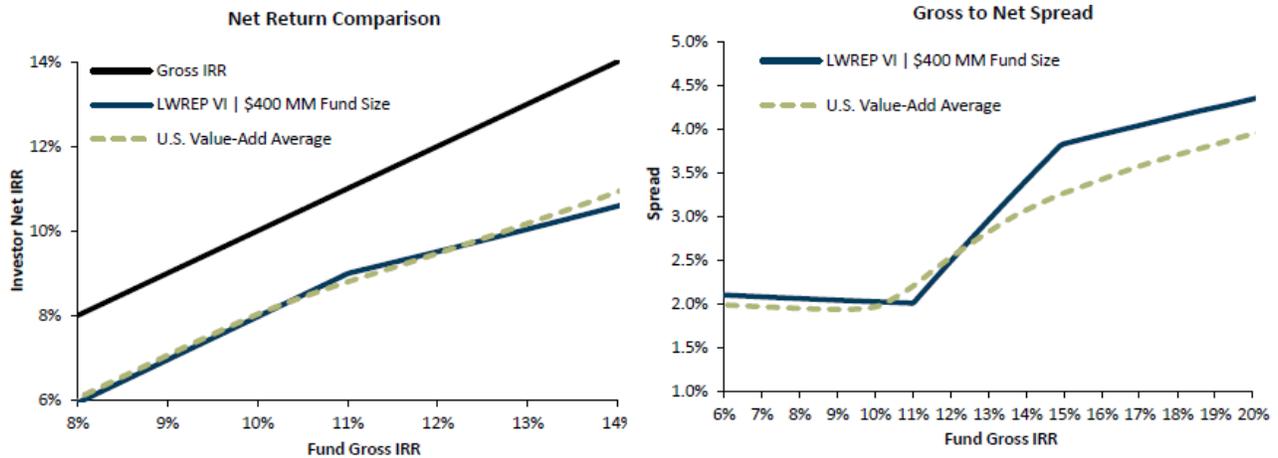
### REVIEW OF TERMS & CONDITIONS

Key Terms		Townsend Comment	
<b>Target Return:</b>	12%-15% net	Neutral	Given the fund fee structure, requires 15%-19% gross IRRs. Wide range; reflective of a broad all-encompassing strategy.
<b>Fund Size:</b>	\$400 million target	Neutral	\$550 million cap
<b>Sponsor Commitment:</b>	\$5 million	Neutral	Made up of personal investments from 12 of the firm's 22 professionals.
<b>Investment Period:</b>	3 years from Final Close	Neutral	Final Close expected in Feb 2020.
<b>Term:</b>	8 years from Final Close	Neutral	
<b>Key Person Provision:</b>	Triggered during the Investment Period if either Mike Elizondo or Jeff Gandel cease to devote all business time/attention to the firm.	Neutral	Suspends any further new investing; Any resumption requires an LP majority approval.
<b>No-Fault Remedies:</b>	GP/Manager can be removed by 70% of unaffiliated LP capital; Investment Period can be terminated by 85% of LP capital in initial two years, and by 75% of LP capital thereafter.	Neutral	Standard provisioning
Fees and Distribution Waterfall			
<b>Organizational Expenses:</b>	Fund pays up to the larger of \$1.2 million or 30 bps of Commitments.		
<b>Investment Management Fee:</b>	1.5% on Committed during the Investment Period; 1.5% on Invested thereafter.		
<b>Incentive Fee/Waterfall Distribution:</b>	20% of total profits subject to a 9% preferred return compounded annually, and a 50/50 catch-up. Fully-Pooled (requires all contributions/payments to be returned before GP receives any carry).		
<b>Clawback:</b>	Triggered if GP carried interest distributions (i) exceed 20% of cumulative net profit, or (ii) fall below a return of capital plus a complete preferred return.  Clawback is post-tax, which is not LP-friendly but standard, backed by a guarantee from the Investment Manager.		

### FEE AND EXPENSE ANALYSIS

The Fund fees are within industry range. Though 1.5% on Committed defines the end high of the range for value-add funds, in this case it is applied to a relatively smaller fund size of \$400M, and to a Manager that does not have scale or other business lines to subsidize its staffing expenses via other revenue sources. The charts below illustrate

the expected net IRR and gross-to-net spread across a range of gross IRR outcomes, and compares the structure to a market average, sampling 98 U.S. value-add peer offerings currently available or recently closed.



**PERFORMANCE** (as of March 31, 2019)

**SUMMARY**

The Manager’s attributable fund track record is comprised of 5 funds, starting in 2001 with the Fidelity series, and including the most relevant sub-set of the Manager’s historical track record spanning the period of execution as Long Wharf, which started in 2011.

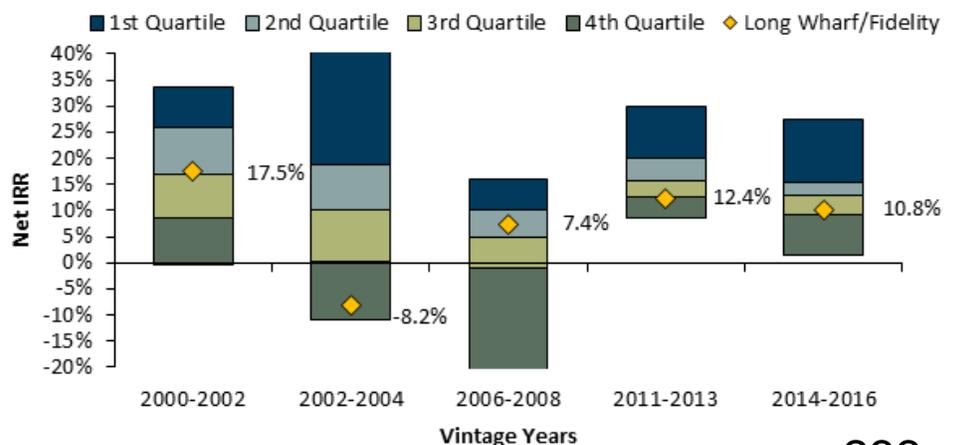
Vehicle	Vintage	Invested Equity (M)	Number of Investments	Fair Market Value			% Realized		Projected Life-of-Fund Net IRR
				Net IRR	Net Equity Multiple	Quartile Ranking by Net IRR / Multiple	Transactions	DPI	
Fidelity Real Estate Growth Fund	2001	\$320	30	17.5%	1.5x	2Q / 3Q	100%	1.5x	17.5%
Fidelity Real Estate Growth Fund II	2003	\$626	49	-8.2%	0.7x	4Q / 4Q	100%	0.7x	-8.2%
Fidelity Real Estate Growth Fund III	2007	\$875	33	7.4%	1.3x	2Q / 2Q	100%	1.3x	7.4%
Long Wharf Real Estate Partners IV	2012	\$272	22	12.4%	1.4x	3Q / 3Q	55%	1.0x	12.9%
Long Wharf Real Estate Partners V	2015	\$416	24	10.8%	1.2x	3Q / 3Q	17%	0.2x	13.0%

The Manager’s initial 3 funds were more development heavy (~65%) than its current fund strategy and targeted even higher returns than the current target which ranges from 12% all the way up to 15% net. The Manager’s higher risk profile did not fare well in the extreme GFC conditions and based on lessons learned the Manager adjusted its strategy to a 20% limit on development, a lower leverage cap, and an overall moderated risk/return profile.

**RELATIVE TO VINTAGE PEERS**

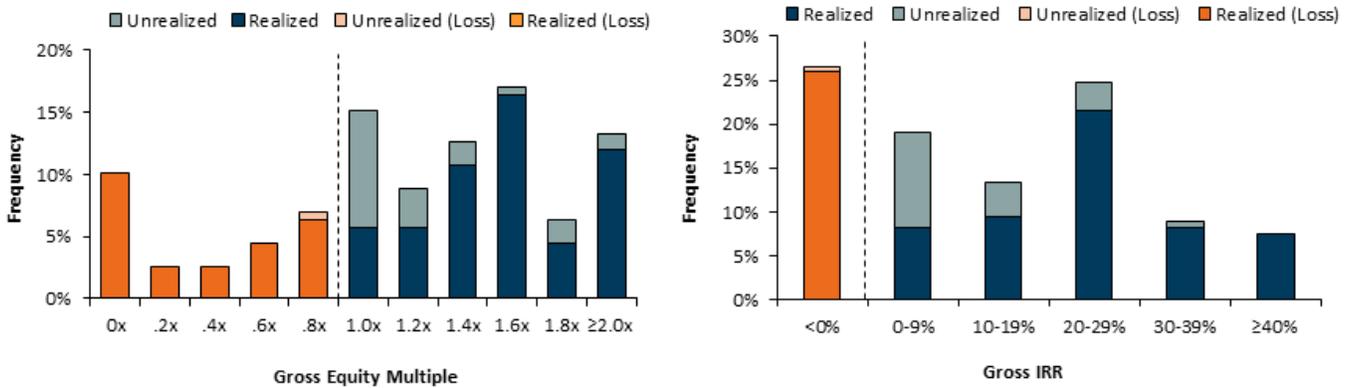
The following illustrates performance relative to same vintage peers.

- It includes the higher risk opportunity funds in the peer set for the Fidelity funds, comparing to 343 peer funds;
- And narrows the peer set for Long Wharf fund performance to value-add only, comparing to 204 peers.

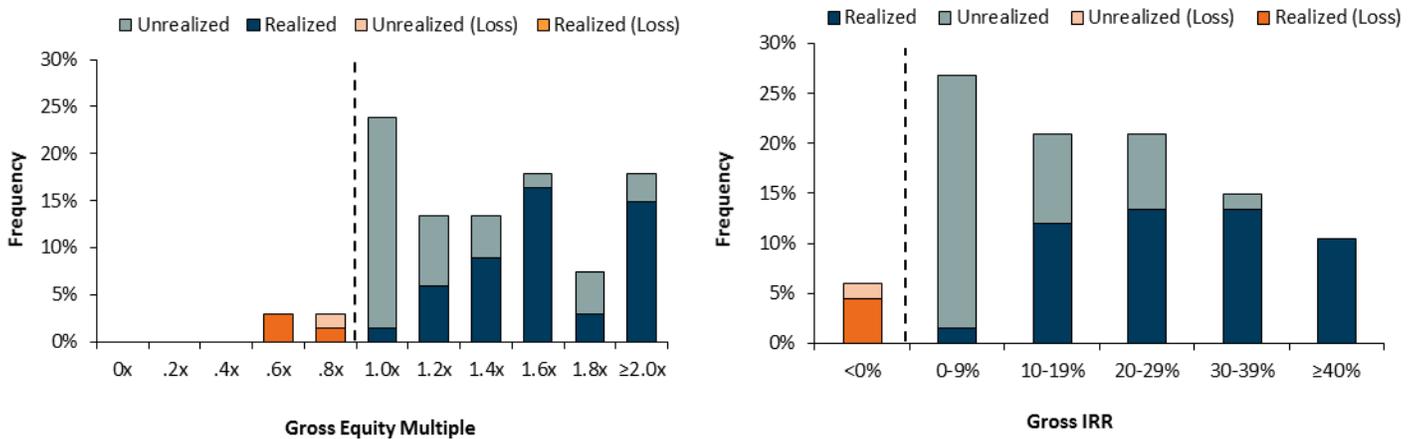


## DISPERSION OF RETURNS

The range of property level returns that rolled up to the fund-level result for LPs is very wide for the Manager's initial 3 funds, consistent with the higher risk/return profile chosen by the Manager during the years 2001 to 2009, and reflective of results impacted by an extreme negative market condition.



The following charts illustrate the more relevant go-forward sub-set. It is skewed somewhat by the much larger percentage of recent and unrealized transactions, but nonetheless illustrates the marked adjustments made by the Manager to moderate its risk/return profile to achieve target returns with greater consistency.

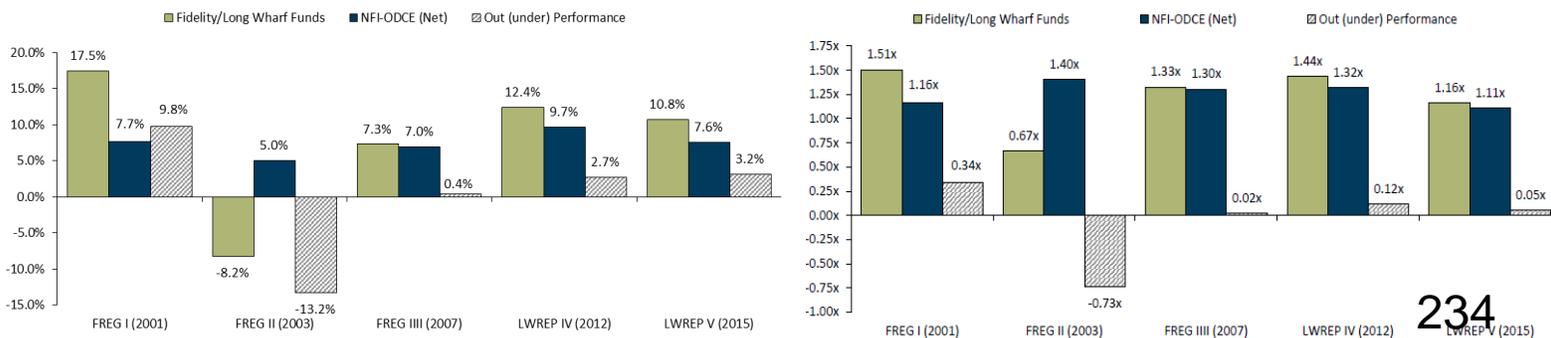


**Exhibit E** provides a deal-by-deal property level gross return for the most relevant sub-set of the track record.

- 46 transactions comprising Funds IV and V
- Spans 2011 to date (1Q19)
- ~35% realized

## BENCHMARK PREMIUM

The following charts illustrate the Sponsor's excess return to a typical real estate benchmark, assuming Sponsor fund net cash flows are instead invested into and out of the value weighted NFI-ODCE.



**EXHIBIT A**  
**Seed Asset**



**Off-market acquisition of 93% occupied, 96% leased, 320,629 sf power center in rapidly growing suburb of Raleigh, NC**

- Apex is one of fastest growing suburbs in country with 7.5% housing growth this coming year

**Historically well occupied center in metro's #1 retail market (per Green Street)**

- Apex retail market is extension of top performing Cary submarket (2nd highest rents and highest occupancy in metro)
- Center had been 95%+ occupied since 2012 (same year new highway extended to area) before dipping to 93% last year
- Submarket is 3.5% vacant and 1.3MM sf of retail within 1-mile radius is 1.5% vacant

**Purchase price of \$52.75MM or \$164/sf is ~75% of replacement cost**

**9.0% going-in cap in institutional growth market**

- 14% average cash-on-cash and 95% of return coming through cash flow

**Strategy: Renew and extend key tenants, re-tenant underperformers, and sell with stable cash flow stream to core buyers**

- Extend WALT following major rollover in 2021 and 2022
- Sell theater in year two and existing ground lease pads in year four
- Additional upside from four undeveloped pads (not included in UW)

**90/10 JV with Collett Capital, an investment affiliate of long-standing south-east shopping center owner/operator**

- Prior JV's with Apollo, Silvercap, Vestapoint; Partner on International Drive Value Center (LREP V)

**Proceeding with MetLife as lender: 65% LTC L + 2.65%, 5-year term and I/O**

Total Costs	Hold Period	Prop UIRR	Prop LIRR	Prop EM	LWC Investment	Yr 6 Stab. YOC	LWC LIRR	LWC EM	LWC Proceeds	LWC Profit
\$57,700,000	60 Months	9.7%	15.8%	1.69x	\$18,175,500	9.1%	14.7%	1.63x	\$29,549,427	\$11,373,927

## EXHIBIT B

### Pipeline

	Investment	Sector	Market	Projected LREP VI Equity	Description
	<b>Beaver Creek Crossings</b>	Retail	Raleigh, NC	\$18.2	▪ Acquisition of 96% leased, 321,000 sf retail center within Raleigh, NC metro; renew and extend key tenants, re-tenant underperformers and sell stable cash flow stream to core buyers ( <i>closed 6/13/19</i> )
	<b>Sarasota 75 Industrial Center</b>	Industrial	Sarasota, FL	\$18.0	▪ Acquisition of 275,000 sf industrial building and 46 acres of land adjacent to I-75 in Sarasota, FL; downsize existing building to 182,000 sf and build up to 425,000 sf of new space across three buildings
	<b>Southern California Light Industrial Port.</b>	Industrial	Southern California	\$15.3	▪ Acquisition of three light industrial buildings totaling 239,000 sf in Southern California; reposition and lease-up vacant Miramar building and roll up below market rents at fully-leased Carlsbad and Sylmar buildings
	<b>Phoenix Industrial Portfolio</b>	Industrial	Phoenix, AZ	\$20.0	▪ Acquisition of value-added light industrial properties in Phoenix metro: lease-up and roll rents to market
	<b>Seattle Multifamily</b>	Multifamily	Seattle, WA	\$21.4	▪ Acquisition of 96% occupied, 220-unit multifamily property near Tacoma, WA; renovate units and roll rents to market
	<b>Dallas Office</b>	Office	Dallas, TX	\$34.3	▪ Development of 50% pre-leased, 250,000 sf office building with structured parking in Legacy submarket of Dallas, TX
	<b>San Antonio Multifamily</b>	Multifamily	San Antonio, TX	\$15.6	▪ Off-market acquisition of 326-unit multifamily property in northern San Antonio, TX; implement capital improvement plan and roll rents to market
			<b>TOTAL</b>	<b>\$142.8</b>	

## EXHIBIT C

### Bios

#### **Michael L. Elizondo-Executive Managing Director & Founding Partner**

Michael is a Managing Director of Long Wharf Real Estate Partners. In this role, he is responsible for the strategic direction and investment strategy of the firm. Prior to the founding of Long Wharf, Michael was the Executive Managing Director of the Fidelity Real Estate Group, where he spent over 16 years. In addition to being responsible for the overall strategy of the group, he was directly involved in over 55 value-added investments with a gross real estate value of more than \$2.5 billion.

Prior to joining Fidelity in 1995, Michael was a Principal at Colony Capital. At Colony, he was responsible for managing, originating, structuring, and consummating various types of real estate transactions, including portfolio acquisitions of performing, sub-performing, and non-performing debt, REO assets, single asset acquisitions, and development joint ventures. Michael began his real estate career in 1983 leasing, developing and owning many projects with Trammell Crow Company. He later became a Partner, Managing Director and Executive Vice President of Trammell Crow Company in Southern California. He has 36 years of experience in real estate investment management.

Michael earned his B.B.A. in Finance and Economics from Emory University and his M.B.A. from Harvard University.

#### **Jeffrey S. Gandel, Managing Director & Founding Partner**

Jeff is a Managing Director of Long Wharf Real Estate Partners, with primary responsibility for fund development, capital raising and investor relations. He is also a member of Long Wharf's Investment Committee and works closely with the acquisition, asset management and finance teams on portfolio management and capital markets activities. Previously, Jeff was a Managing Director of the Fidelity Real Estate Group and a member of the group's Investment Committee. He worked at Fidelity Investments for over 16 years where he developed investment vehicles and raised institutional capital for a wide range of real estate strategies, including value-added private equity funds, high yield real estate debt portfolios and U.S. and global real estate equity securities accounts.

Prior to joining Fidelity in 1995, Jeff was an Associate in the Investment Banking Group at Merrill Lynch, working with general partners to structure and raise capital for real estate and private equity funds. Jeff has 27 years of experience in the real estate and alternative investments markets.

Jeff earned his B.A. in Economics from Tufts University.

#### **Justin C. Smith, Managing Director**

Justin is a Managing Director within the Acquisitions group at Long Wharf Real Estate Partners. In this role, he is responsible for sourcing, underwriting and closing value-added real estate investments and is a member of the Investment Committee. Prior to Long Wharf, Justin was a Director at the Fidelity Real Estate Group involved in new acquisitions. Since joining Fidelity in 1999, Justin has worked on investments in all primary U.S. markets in a broad array of sectors – including student housing, multifamily, retail, office, land and for-sale housing – and deal structures such as joint venture equity, preferred equity, and participating and traditional mezzanine debt.

Prior to Fidelity, he was a Financial Associate at Boston Partners Asset Management and an Analyst for State Street.

Justin earned his B.S. in Finance from Boston College and is a CFA charter holder.

### **John J. Owens, Managing Director**

John is a Managing Director within the Asset Management group at Long Wharf Real Estate Partners, where he leads the group and its fair market valuation process and is a member of the Investment Committee. Previously, John was the Director of Asset Management at the Fidelity Real Estate Group, where he was in charge of the asset management team and was also involved in a wide array of new investments in the office, medical office, senior housing, multifamily and industrial sectors.

Prior to joining Fidelity in 1999, John was an Associate in the Capital Markets Group of Aldrich, Eastman & Waltch, where he was responsible for supporting asset sales and financings.

John earned his B.S. in Finance from Binghamton University and his M.S.F. from Boston College. He is a CFA charter holder.

### **Tammy Plotkin, Managing Director**

Tammy is a Managing Director at Long Wharf Real Estate Partners. In this role, she is responsible for the management and oversight of the fund, partnership and corporate accounting, as well as the performance and financial reporting. Tammy is also responsible for the administration and management of the company's information and technologies platform. She is also a member of the Investment Committee. Previously, Tammy was the Director of Finance for the Fidelity Real Estate Group.

Prior to joining Fidelity in 2007, Tammy was a Controller at Centro Watt which specialized in the ownership, management and development of commercial real estate. Prior to Centro, Tammy was an Assistant Controller with Heritage Property Investment Trust, a publicly traded real estate investment trust.

Tammy earned her B.S. in Business Administration from the University of Hartford and has 19 years of accounting experience in the real estate industry.

### **Philip Murphy, Managing Director**

Phil has been a member of the team since 2011 and is responsible for sourcing, underwriting, and acquiring value-added real estate investments. Phil replaced John Barrie (departed in 2015) on the firm's investment committee, bringing a broad array of market/sector experience throughout his 23 years in the industry. Phil's previous experience includes positions at Fidelity Investments, Aspen Square Management, and Deutsche Bank Securities.

Phil earned his MBA from Babson College and his BA from Leeds University (UK). He is also a LEED Accredited Professional.

**EXHIBIT D**

**Legal Structure**

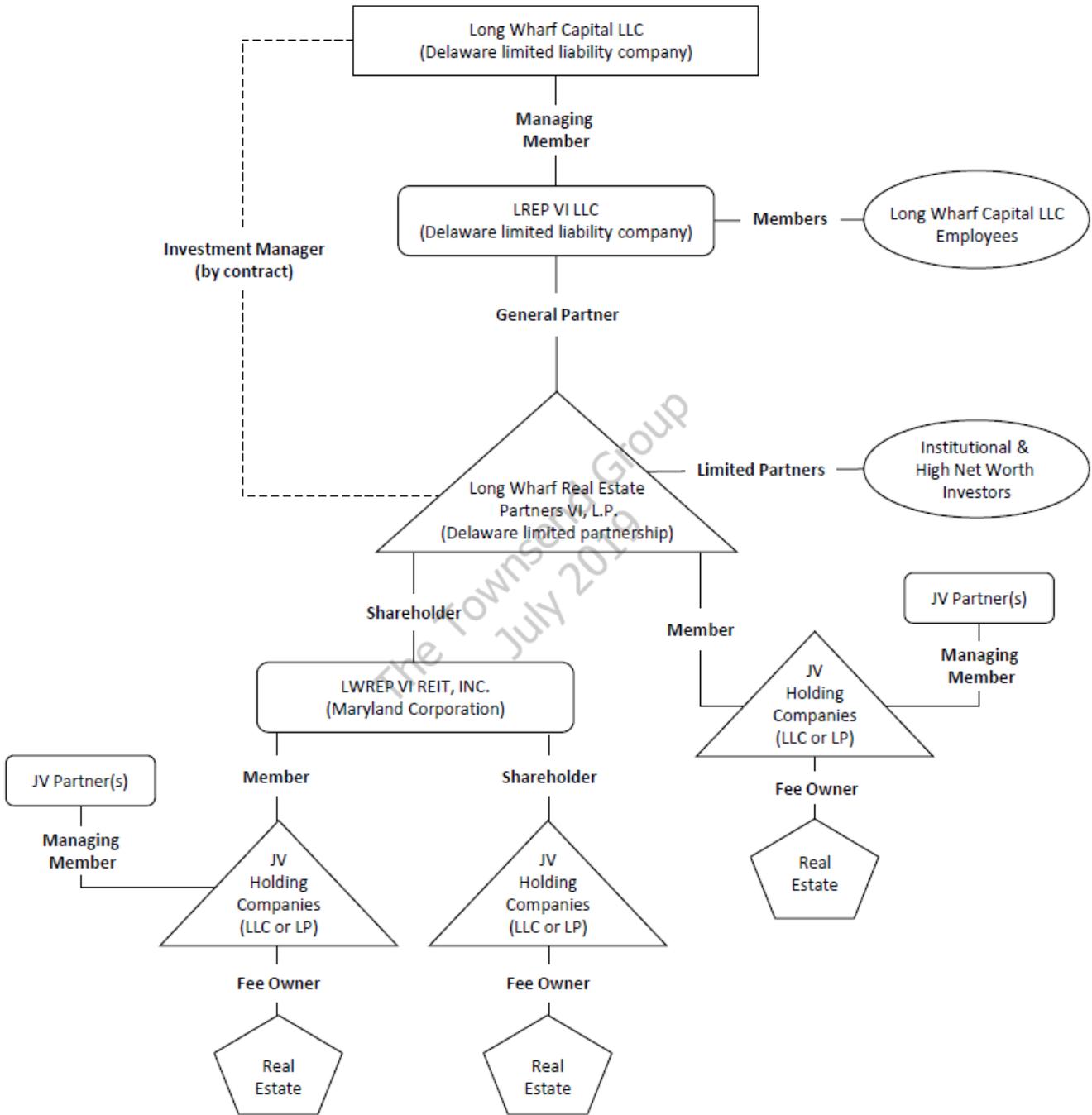


EXHIBIT E

Deal-by-Deal Performance

Deal Level Information											Projected Returns <sup>8</sup>		Fair Market Value Returns <sup>9</sup>	
Investment	Fund	Deal Descriptor / Business Plan	Property Type	Location	Sale Date or Modeled Sale Date		Total Transaction Size <sup>15</sup>	Fund Equity <sup>16</sup>	Realized Proceeds to Fund Equity <sup>7</sup>	Realized & Projected Proceeds to Fund Equity <sup>18</sup>	Gross Equity Multiple	Gross IRR	Gross Equity Multiple	Gross IRR
					Acquisition Date	Modeled Sale Date								
<b>REALIZED INVESTMENTS</b>														
Park 1200	LREP4	Reposition	Industrial	Westminster, CO	11/12	12/16	36,999,325	14,500,250	35,816,323	35,816,323	2.5x	31.3%	2.5x	31.3%
Willowbrook Plaza	LREP4	Operate	Retail	Houston, TX	12/12	06/15	35,637,549	9,450,250	33,537,644	33,537,644	3.5x	65.2%	3.5x	65.2%
Atlanta TPA Portfolio	LREP4	Reposition	Office	Atlanta, GA	12/12	11/17	12,939,023	4,994,829	14,197,646	14,197,646	2.8x	38.9%	2.8x	38.9%
Richardson Office Campus	LREP4	Operate	Office	Richardson, TX	01/13	09/14	76,208,218	18,171,682	32,160,578	32,160,578	1.8x	59.1%	1.8x	59.1%
Moss Pointe	LREP4	Reposition	Multi-family	Savannah, GA	03/14	12/16	16,447,680	4,679,420	10,007,795	10,007,795	2.1x	32.4%	2.1x	32.4%
Sawgrass Lake Center	LREP4	Operate	Office	Sawgrass, FL	03/14	03/18	51,333,022	14,422,204	24,317,033	24,317,033	1.7x	15.5%	1.7x	15.5%
Southeast GP Portfolio	LREP4	Operate	Office	Sawgrass, FL & Richardson, TX	03/14	03/18	88,164,881	2,448,673	5,897,002	5,897,002	2.4x	35.4%	2.4x	35.4%
1050 Northgate	LREP4	Operate	Office	San Rafael, CA	11/14	08/18	14,650,000	5,102,400	9,575,500	9,575,500	1.9x	20.9%	1.9x	20.9%
Atlanta Industrial Portfolio	LREP4	Development	Industrial	Atlanta, GA	01/15	12/17	40,118,387	14,141,005	21,780,647	21,780,647	1.5x	25.0%	1.5x	25.0%
Nashville Industrial Portfolio	LREP4	Operate	Industrial	Nashville, TN	02/15	06/17	48,176,361	13,050,000	29,051,830	29,051,830	2.2x	50.2%	2.2x	50.2%
The Yard	LREP4	Reposition	Office	San Diego, CA	05/15	11/18	18,407,622	7,475,737	12,637,115	12,949,615	1.7x	16.7%	1.7x	16.8%
133 West 52nd Street	LREP4	Reposition	Office	New York, NY	09/15	03/18	46,743,492	18,681,723	16,661,022	16,661,022	0.9x	-4.6%	0.9x	-4.6%
Westmont Village Apartments	LREP5	Reposition	Multi-family	Westmont, IL	10/15	12/18	56,870,213	20,209,901	33,331,355	33,556,355	1.7x	18.3%	1.7x	18.3%
Sugarloaf Office Portfolio	LREP5	Operate	Office	Duluth, GA	11/15	12/18	34,280,184	11,020,845	16,767,810	16,872,810	1.5x	16.1%	1.5x	16.1%
Augusta Grove	LREP5	Development	Industrial	Greenville, SC	10/16	08/18	15,712,566	5,393,002	8,816,221	9,063,721	1.7x	32.9%	1.7x	33.0%
520 North Central	LREP5	Reposition	Office	Glendale, CA	02/17	04/18	22,730,940	9,227,354	12,903,132	12,903,132	1.4x	32.9%	1.4x	32.9%
<b>PARTIALLY REALIZED / UNREALIZED</b>														
Village at Camp Bowie	LREP4	Reposition	Retail	Fort Worth, TX	10/13	04/19	55,208,330	18,425,000	18,525,060	24,792,152	1.3x	6.1%	1.3x	6.2%
2800 Alexandria Tech Center	LREP4	Reposition	Office	Alexandria, VA	06/14	12/20	28,445,448	10,441,163	0	11,964,067	1.1x	2.2%	1.0x	0.0%
Woodpark Plaza	LREP4	Operate	Retail	Spring, TX	07/14	05/19	20,752,886	5,506,290	2,149,230	11,399,439	2.1x	17.0%	2.0x	16.2%
Atlanta Residential Portfolio	LREP4	Mezzanine Debt r	r Sale Resident	Atlanta, GA	07/14	08/19	43,731,926	6,960,621	9,537,782	10,699,246	1.5x	19.3%	1.5x	19.5%
Katella Office Campus	LREP4	Reposition	Office	Los Alamitos, CA	12/14	12/20	46,429,728	15,611,309	0	21,109,780	1.4x	5.5%	1.2x	4.6%
195 Montague	LREP4	Reposition	Office	Brooklyn, NY	12/14	12/19	89,872,163	26,220,785	2,240,000	35,276,220	1.3x	6.9%	1.2x	5.6%
Riverwalk at Millennium	LREP4	Reposition	Multi-family	Conshohocken, PA	01/15	06/19	84,385,000	21,702,650	4,232,846	28,285,880	1.3x	6.9%	1.2x	6.0%
Atlanta Residential Portfolio II	LREP4	Mezzanine Debt r	r Sale Resident	Atlanta, GA	05/15	01/20	68,307,732	11,356,512	9,626,514	21,109,158	1.9x	21.6%	1.6x	18.5%
Interstate Corporate Center	LREP4	Reposition	Office	Norfolk, VA	09/15	09/19	29,709,692	8,140,500	8,122,824	17,688,154	2.2x	27.0%	2.0x	26.3%
The Slade	LREP4	Reposition	Multi-family	Tampa, FL	11/15	12/19	64,514,430	20,982,798	0	32,575,999	1.6x	12.9%	1.0x	0.0%
The Forum	LREP5	Operate	Office	San Antonio, TX	10/15	06/21	65,250,000	22,109,470	3,837,666	42,600,870	1.9x	13.5%	1.5x	12.6%
West End Portfolio	LREP5	Operate	Office	Dallas, TX	11/15	06/23	54,836,360	20,141,364	0	25,644,577	1.3x	3.7%	0.9x	-3.7%
Georgia 400 Center	LREP5	Operate	Office	Alpharetta, GA	12/15	12/19	84,600,000	31,294,500	2,667,647	49,453,536	1.6x	14.1%	1.5x	14.0%
Evolve Corporate Center	LREP5	Operate	Office	Wayne, PA	02/16	06/19	46,000,000	14,596,645	2,475,300	28,301,725	1.9x	23.0%	1.9x	23.9%
The Hotel at Avalon	LREP5	Development	Lodging	Alpharetta, GA	05/16	01/20	110,200,000	22,500,859	6,672,414	56,754,405	2.5x	31.8%	2.1x	31.9%
Austin Office Portfolio	LREP5	Operate	Office	Austin, TX	05/16	04/19	35,813,579	11,001,231	2,475,000	21,234,587	1.9x	27.3%	1.9x	27.3%
International Plaza III	LREP5	Operate	Office	Dallas, TX	08/16	10/21	84,810,377	19,765,012	852,075	33,561,708	1.7x	11.0%	1.0x	1.6%
333 Centennial	LREP5	Reposition	Industrial	Louisville, CO	07/17	12/19	35,485,714	12,150,000	0	19,662,840	1.6x	21.7%	1.1x	8.4%
Peter's Landing	LREP5	Reposition	Retail	Huntington Beach, CA	08/17	08/21	51,782,123	16,494,100	0	26,877,567	1.6x	13.7%	1.1x	7.5%
Edison at Arrowood	LREP5	Development	Office	Charlotte, NC	09/17	03/21	24,700,000	10,188,000	0	17,308,715	1.7x	18.0%	1.0x	0.0%
The Luminary	LREP5	Development	Office	Dallas, TX	09/17	01/21	57,104,129	18,947,303	0	30,136,646	1.6x	16.3%	1.0x	0.0%
Stadium Crossings	LREP5	Reposition	Retail	Anaheim, CA	12/17	12/21	54,603,378	17,398,600	2,760,300	27,546,696	1.6x	13.9%	1.2x	15.2%
Gateway Logistics Center	LREP5	Development	Industrial	Irving, TX	01/18	01/21	76,250,000	28,975,000	0	48,221,335	1.7x	20.8%	1.3x	29.4%
Centreport Office Center	LREP5	Operate	Office	Fort Worth, TX	02/18	02/22	16,912,342	5,450,000	429,234	9,269,271	1.7x	15.8%	1.1x	7.4%
M-K-T	LREP5	Reposition	Retail	Houston, TX	05/18	05/21	93,400,000	29,421,000	208,550	46,286,169	1.6x	17.6%	1.0x	1.0%
Arlo Westchase	LREP5	Operate	Multi-family	Houston, TX	05/18	05/22	46,400,000	19,101,250	166,500	28,144,431	1.5x	10.6%	1.0x	0.9%
5003 Stout	LREP5	Reposition	Industrial	San Antonio, TX	06/18	06/21	8,824,021	3,000,000	53,689	4,798,909	1.6x	18.8%	1.2x	22.4%
Buckhead Tower	LREP5	Operate	Office	Atlanta, GA	08/18	11/19	101,345,715	28,800,000	0	40,366,843	1.4x	29.8%	1.0x	0.0%
International Drive Value Center	LREP5	Operate	Retail	Orlando, FL	11/18	11/21	29,600,000	9,669,500	306,000	14,654,275	1.5x	16.6%	1.0x	2.6%
Newport on the Levee	LREP5	Reposition	Retail	Newport, KY	12/18	12/23	114,947,000	29,217,600	0	57,920,047	2.0x	15.8%	1.0x	0.0%

## Appendix

### Rating Rationale

<i>Strategy</i>	Historically over-weighting to suburban office and retail strip centers, at times not consistent with Townsend macro view which had emphasized over-weights to industrial and apartments and other retail types such as grocery-anchored and street retail. Suitable with appropriate client-specific portfolio fit, where Long Wharf adds diversification to a portfolio otherwise without much weighting to such exposures.
<i>Sponsor</i>	Well-aligned; Now owned/managed by two remaining Managing Partners after two of the initial four co-founders have left, increasing Key Person risk.
<i>Investment Process</i>	Very institutional and typical for smaller-to-mid sized diversified allocator to JV operating partners.
<i>ESG Policy &amp; Practices</i>	Standard practices for the asset class where energy efficiency is a standard asset management objective and targeted LEED certifications are included in property level objectives. Long Wharf highlights its commitment by being a signatory to the United Nations backed Principles of Responsible Investment.
<i>Fund Structure</i>	Appropriate.
<i>Performance</i>	Recent two funds sponsored as Long Wharf, which are most indicative of the go-forward strategy, are projected to meet targeted returns. Inclusive of the initial funds that had a differing focus, and relative to vintage peers, performance is mixed.
<i>Operational Due Diligence</i>	Satisfactory according to AON due diligence team's work in 2015 resulting in a "Pass" rating, plus updated/recent information provided in 2019 through the standard investment DDQ and process. SEC-registered since 2011. Sponsor is currently awaiting findings if any from a routine onsite SEC exam just completed in June 2019.
<i>Terms &amp; Conditions</i>	Overall fair and within industry standard.
<i>Overall</i>	Within the context of prospective clients' Minority Business Enterprise manager program, Long Wharf Fund VI is rated as a Buy. Note that in the absence of this objective, Townsend believes alternative diversified value-add managers could represent stronger investment opportunities. Townsend would like to highlight potential issues and concerns referenced within this document, particularly the platform and key man risk, historic mixed performance, as well as historic litigation.

### Investment Rating Explanation

The comments and assertions reflect Townsend views of the specific investment product, its strengths and weaknesses in general and in the context of Townsend's *View of the World* and same vintage alternative choices.

- **Buy** - Suitable for institutional investors that have a portfolio construction need. Appropriate overall risk profile given the strategy and targeted returns.
- **Qualified** - Suitable for institutional capital. In addition to customary risks, contains one or more heightened risks that should be weighed against an investor's preferences, risk tolerances, and portfolio construction needs.

*About Townsend Group – An Aon Company*

*Founded in 1983, The Townsend Group provides custom real asset solutions that help clients worldwide achieve their unique investment goals. As an Aon company, The Townsend Group is now part of one of the top three outsourced chief investment officer (OCIO) providers in the world measured by global assets under management. Aon's Investment organization, including Townsend, manages more than \$130 billion of worldwide assets under management and has advised on more than \$240 billion of real estate assets.*

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Skylight Office Tower  
1660 West Second Street, 4<sup>th</sup> Floor  
Cleveland, Ohio 44113

## Memorandum

**To:** Arkansas Teacher Retirement System (“ATRS”)  
**From:** Chae Hong  
**CC:** PJ Kelly; Jack Dowd  
**Date:** December 2, 2019  
**Re:** Long Wharf Real Estate Partners VI, LP – Commitment Recommendation

---

### Background and Recommendation

Long Wharf Capital LLC is forming Long Wharf Real Estate Partners VI (the “Fund”), a \$400 million closed-end commingled fund that will be comprised of various property types executing value-add business plans and located across various submarkets in all regions of the US. Using up to 65% leverage, the targeted performance of the Fund is a 12%-15% net IRR range over an eight-year fund life.

AHIC is satisfied with the strategy of the Fund and its appropriateness for ATRS’s Emerging Manager goals. Additionally, in the context of the Emerging Manager goals we believe that the merits of this offering outweigh its risks. An InDetail is attached for reference. We recommend that ATRS invest \$50 million in the Fund to fulfill ATRS’ 2020 Value Added real estate allocation, in accordance with the previously approved 2020 ATRS Real Asset Pacing Schedule.

**ARKANSAS TEACHER RETIREMENT SYSTEM**  
**1400 West Third Street**  
**Little Rock, Arkansas 72201**

**RESOLUTION**  
**No. 2019-42**

**Approving Investment in Long Wharf Real Estate Partners VI,  
L.P.**

**WHEREAS**, the Board of Trustees (Board) of the Arkansas Teacher Retirement System (ATRS) is authorized to invest and manage trust assets for the benefits of its plan participants; and

**WHEREAS**, the ATRS Board has reviewed the recommendation of its real assets investment consultant, Aon Hewitt Investment Consulting, Inc, along with the recommendation of the Investment Committee and ATRS staff regarding a potential investment in **Long Wharf Real Estate Partners VI, L.P.**, a real estate fund whose strategy will be to pursue a diversified portfolio of properties with a focus on acquiring assets at significant discounts to peak and replacement values.

**THEREFORE, BE IT RESOLVED**, that the ATRS Board approves an investment of up to **\$50 million dollars (\$50,000,000.00)** in **Long Wharf Real Estate Partners VI, L.P.** The total investment amount is to be determined by the real assets consultant and ATRS staff based upon the allocation available to ATRS and the overall investment objectives set by the ATRS Board; and

**FURTHER, BE IT RESOLVED**, that the ATRS staff is hereby authorized to take all necessary and proper steps to implement this investment, if acceptable terms are reached.

**Adopted this 2nd day of December 2019.**

---

**Mr. Danny Knight, Chair**  
**Arkansas Teacher Retirement System**



# Arkansas Teacher Retirement System 2020 Investment Plan

December 2, 2019

## 2019 Actual Commitments vs. Plan

ATRS committed \$285 million in 2019 vs. the original plan of \$275 million

### ATRS Commitments

<b>Investment</b>	<b>Strategy</b>	<b>Region</b>	<b>ATRS Commitment</b>
American Industrial VII	Mid Market Industrial Buyouts	U.S.	\$30m
Arlington V	Mid Market Government Services Buyouts	U.S.	\$25m
DW Healthcare V	Small/ Lower Mid Healthcare Buyouts	U.S.	\$30m
JF Lehman V	Mid Market Defense/ Aerospace Buyouts	U.S.	\$30m
KPS V	Large Industrial Buyout/ Turnaround	U.S.	\$30m
KPS Mid Market	Mid Market Industrial Buyout/ Turnaround	U.S.	\$20m
Clearlake VI	Value Oriented Growth/ Buyout	U.S.	\$30m (pending)
FP International 2019	Buyout/ Growth/ Turnaround	Non-U.S.	\$30m
FP Venture 2019	Early/ Late/ Growth	U.S./ Non-U.S.	\$30m
FP CF Access	Buyout/ Growth/ Turnaround	U.S.	\$30m
<b>Total</b>			<b>\$285m</b>

### Due Diligence Activities

<b>Activity</b>	<b># of Funds (3Q18 LTM)</b>	<b># of Funds (3Q19 LTM)</b>	<b>% of Funds Reviewed (3Q19 LTM)</b>
Preliminary Reviews	688	811	100%
Manager Meetings	352	317	39%
Due Diligence Analyses	137	119	15%
ATRS Funds Closed	5	7	<1%

*\*Excludes FP Vehicles*



## Policy

ATRS' Objective, Guidelines and Constraints are outlined below

---

### Objectives

- Achieve a target 12% allocation to private equity
- Generate a long-term return of 200 bps over the Dow Jones U.S. Total Stock Market index (+410 bps as of 6/30/19)

---

### Guidelines

- Achieve a target 12% allocation to private equity (13.0% as of 6/30/19)
- Target 80-100% of PE commitments to Corporate Finance strategies, including buyout, turnaround, growth capital and private debt funds (85.2% as of 6/30/19)
- Target 0-20% of PE commitments to Venture Capital strategies (14.8% as of 6/30/19)

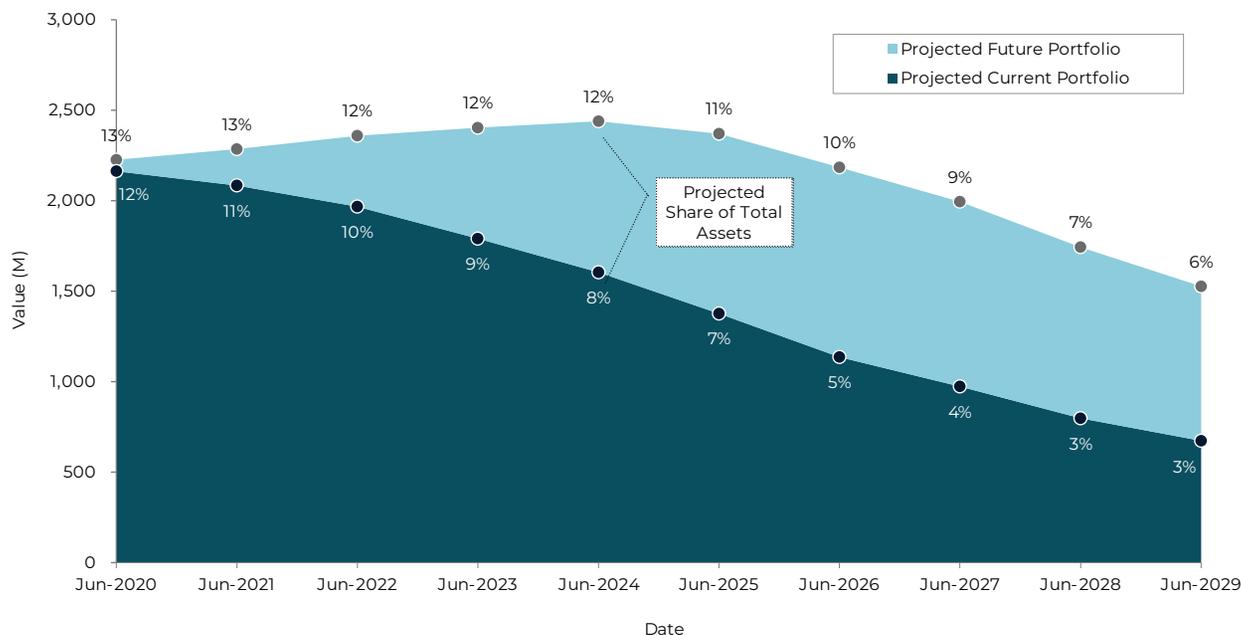
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### Constraints

- Individual commitments should be at least \$10 million
  - A commitment can be no more than 15% of the total amount raised by a primary fund
  - No more than 35% of new private equity commitments can be invested with any one fund manager
-

# Investment Pacing

To reach and maintain a 12% allocation to PE, \$300 million should be committed annually



## Methodology

- Franklin Park’s pacing model approximates the amount of capital that an investor should commit each year to reach its target allocation over a specified horizon
- The model is based on historical industry cash flow rates generated from Thomson One Private Equity’s database

## Assumptions

- Average of the prior 8 quarters as of 6/30/19 (\$17.0B) was used as the beginning portfolio value
- 3.6% annual net growth rate for total assets as provided by Aon Hewitt
- 12% target allocation to private equity
- Existing private equity portfolio data as of 6/30/19
- Future commitments allocated 80% to corporate finance equity funds, 10% to private debt funds, and 10% to venture capital funds

## Commitment Plan

It is recommended that ATRS allocate the planned 2020 commitments to approximately 10 funds/ vehicles

### ATRS Commitments

<b>Investment</b>	<b>Strategy</b>	<b>Region</b>	<b>ATRS Commitment</b>
Direct Fund	Buyout/ Growth/ Turnaround	U.S.	\$30m
Direct Fund	Buyout/ Growth/ Turnaround	U.S.	\$30m
Direct Fund	Buyout/ Growth/ Turnaround	U.S.	\$30m
Direct Fund	Buyout/ Growth/ Turnaround	U.S.	\$30m
Direct Fund	Buyout/ Growth/ Turnaround	U.S.	\$30m
Direct Fund	Buyout/ Growth/ Turnaround	U.S.	\$30m
Direct Fund	Buyout/ Growth/ Turnaround	U.S.	\$30m
Direct Fund	Buyout/ Growth/ Turnaround/ Debt	U.S.	\$30m
FP International X	Buyout/ Growth/ Turnaround	Non-U.S.	\$30m
FP Venture XIII	Global Venture Capital Fund Vehicle	U.S./ Non-U.S.	\$30m
<b>Total</b>			<b>\$300m</b>



## Recommendation

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Maintain current policy targets and investment guidelines

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Seek to commit \$300 million in 2020

---

Allocate the planned commitments to approximately 10 funds/ vehicles

---



Arkansas Teacher Retirement System  
Franklin Park Venture Capital Fund XIII, L.P.

December 2, 2019

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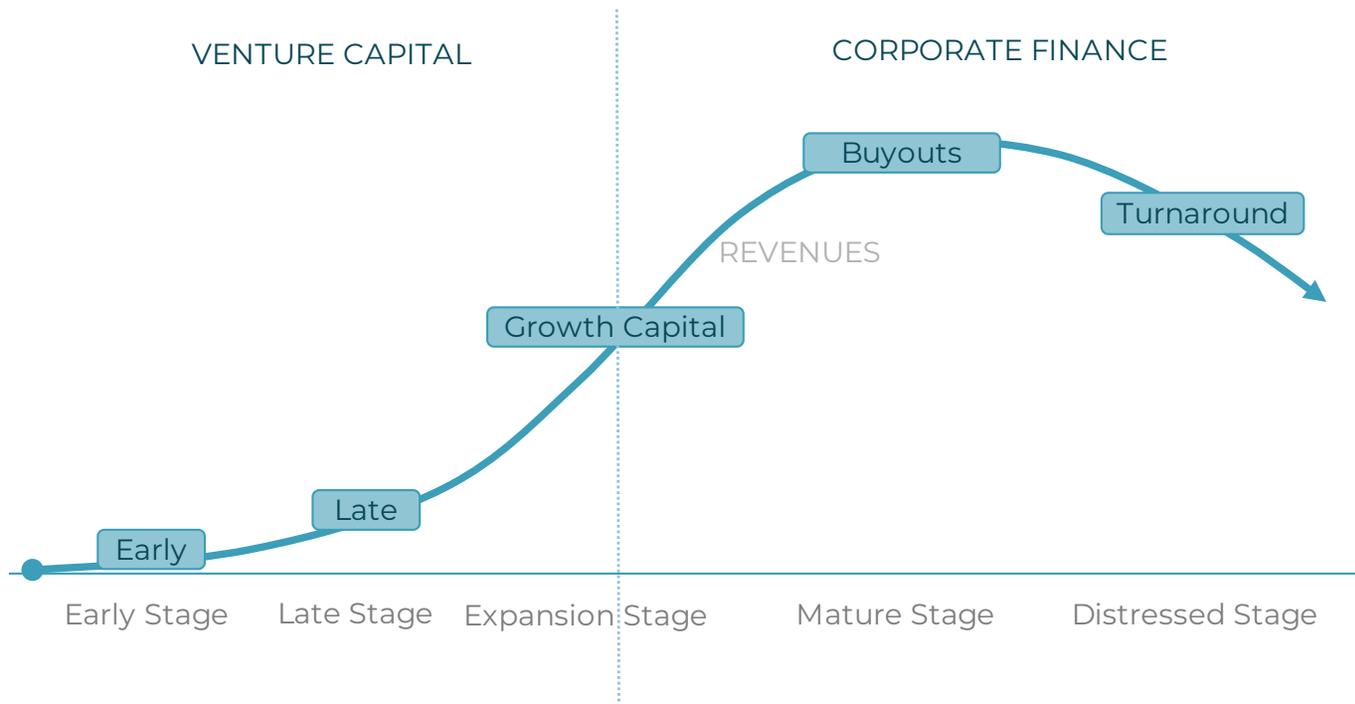
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# Venture Capital Overview

The expected return and risk level for venture capital is high and access to the best funds is challenging



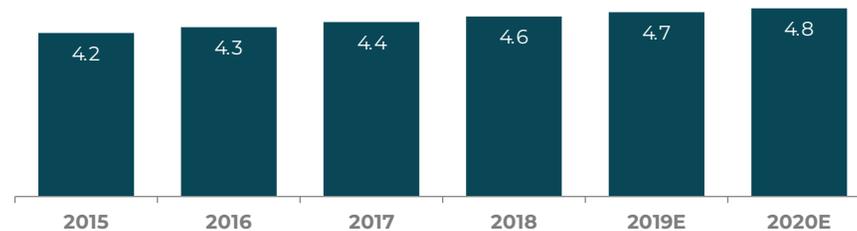
# Opportunity in the Technology Sector

There are several attractive long term trends that drive opportunity in the technology sector

## Mobile Ubiquity

- Companies can reach hundreds of millions or billions of customers instantly

# of Mobile Phone Users (in billions)

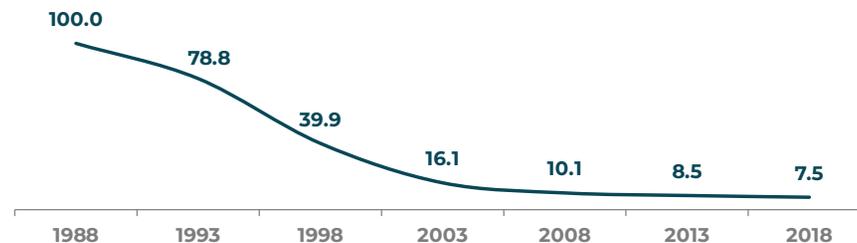


Source: Statista 2019

## Cloud Computing

- Declining cost of technology has reduced start-up costs

Consumer Price Index for IT, Hardware and Services

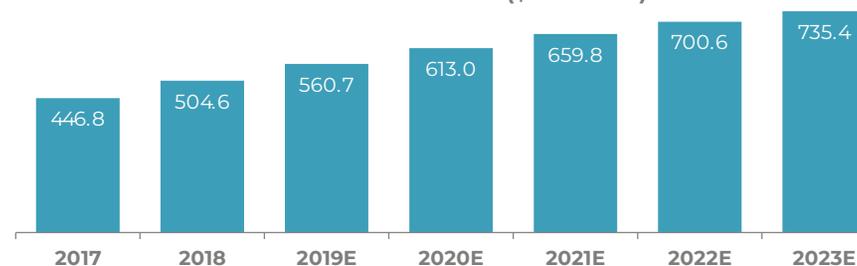


Source: U.S. Bureau of Labor Statistics, June 2018

## E-commerce

- Opportunity for significant revenue generation online

U.S. E-Commerce Sales (\$ in billions)



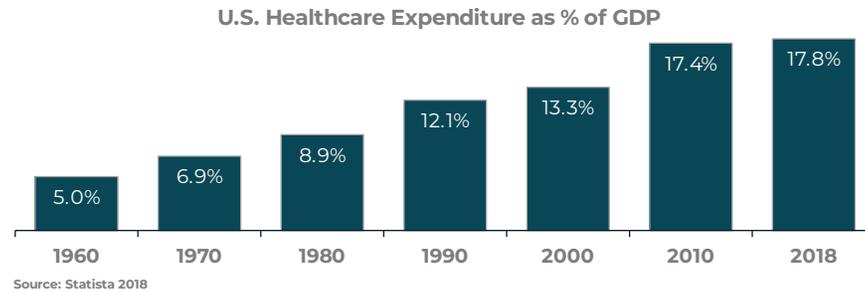
Source: Statista 2019

# Opportunity in the Healthcare Sector

There are also several attractive long term trends that drive opportunity in the healthcare sector

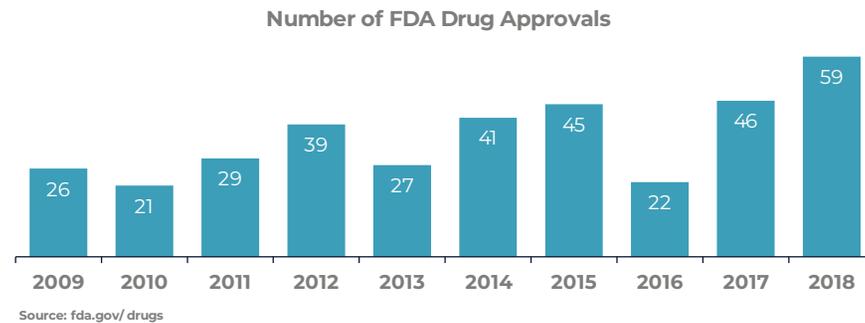
## Growing Market

- The U.S. healthcare market is sizable and growing at a fast pace



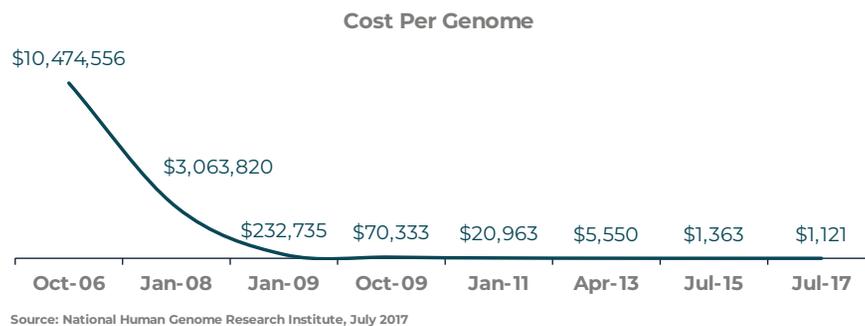
## Drug Approvals

- Record number of drugs have been approved in recent years



## Declining Costs

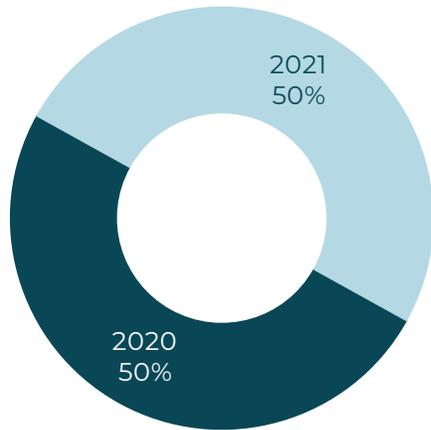
- Improving technology has reduced costs associated with biotech



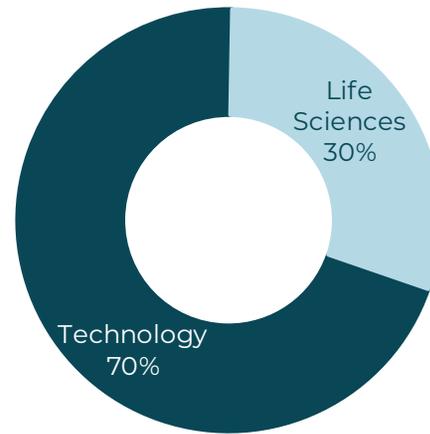
# Portfolio Diversification

The portfolio is expected to be diversified by vintage, sector, stage and geography

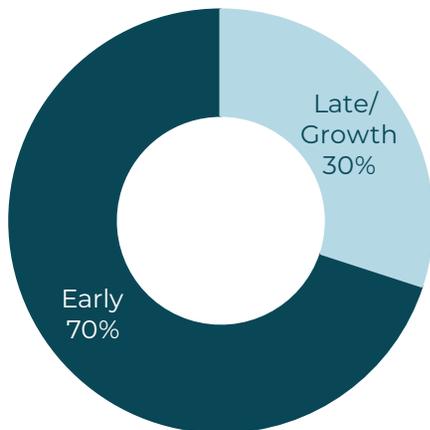
**Diversification By Vintage**



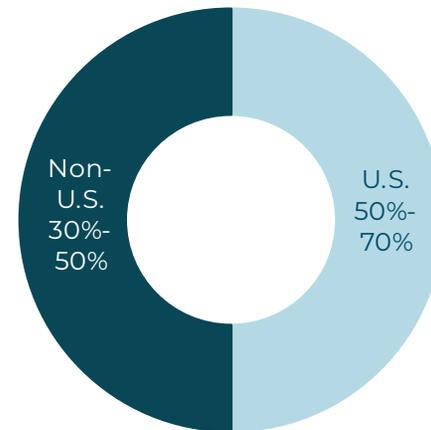
**Diversification By Sector**



**Diversification By Stage**



**Diversification By Geography**



*The charts above are hypothetical for illustrative purposes only, and the diversification of the portfolio will depend on opportunities available in the market.*

# Sponsor Relationships

Existing relationships with whom we believe are some of the most compelling sponsors in the target universe

## Early Stage Technology



## Growth Equity



## Multi-Stage Healthcare



## Non-U.S. VC/ Growth Equity



## Historical Performance

ATRS has committed \$305 million to 12 prior Franklin Park venture capital vehicles raised since 2008

VEHICLE	ATRS COMMITMENT	CONTRIBUTED	DISTRIBUTED	REMAINING	TVPI	NET IRR
FPV 2008	\$30.0	\$29.7	\$35.9	\$28.3	2.2x	15.6%
FPV 2009	25.0	24.3	32.7	29.6	2.6x	19.1%
FPV 2010	25.0	15.7	9.1	23.2	2.1x	14.7%
FPV 2011	25.0	23.9	17.7	81.0	4.1x	35.6%
FPV 2012	25.0	21.6	11.5	36.7	2.2x	21.1%
FPV 2013	20.0	16.9	6.4	29.3	2.1x	24.9%
FPV 2014	25.0	22.8	3.1	35.7	1.7x	18.7%
FPV 2015	25.0	21.2	0.4	28.2	1.3x	16.7%
FPV 2016	25.0	13.6	0.3	16.2	1.2x	15.2%
FPV 2017	25.0	6.1	0.0	6.4	1.1x	7.3%
FPV 2018	25.0	4.8	0.0	4.5	0.9x	NMF
FPV 2019	30.0	3.3	0.0	3.3	1.0x	NMF
<b>Total</b>	<b>\$305.0</b>	<b>\$204.0</b>	<b>\$117.1</b>	<b>\$322.4</b>	<b>2.2x</b>	<b>20.8%</b>

*Data in the table is as of June 30, 2019 and represents only ATRS' interests in each vehicle; \$ in millions. The returns presented are net of underlying private fund manager fees, transaction expenses and carried interest charges, as well as expenses incurred by the Franklin Park Venture Fund Series vehicles. Past results are not necessarily indicative of future performance. There can be no assurance that investments recommended by Franklin Park will realize the rates of return indicated in this presentation. Wherever there is potential for profit, there is also potential for loss.*

## Proposal

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Consider committing \$30 million to Franklin Park Venture Capital Fund XIII, L.P. (“FP VC XIII”)

---

ATRS (and other existing FP clients) will pay no management fees or carried interest in FP VC XIII

---

Early 2020 target closing

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Franklin Park plans to raise additional capital for FP VC XIII from other LPs that will pay market terms

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**ARKANSAS TEACHER RETIREMENT SYSTEM  
1400 West Third Street  
Little Rock, Arkansas 72201**

**RESOLUTION  
No. 2019-43**

**Approving Investment in Franklin Park Venture Capital Fund XIII,  
L.P.**

**WHEREAS**, the Board of Trustees (Board) of the Arkansas Teacher Retirement System (ATRS) is authorized to invest and manage trust assets for the benefits of its plan participants; and

**WHEREAS**, the ATRS Board has reviewed the recommendation of its private equity consultant, Franklin Park Associates, LLC, along with the recommendation of the Investment Committee and ATRS staff regarding a potential investment in **Franklin Park Venture Capital Fund XIII, L.P.** (formerly Franklin Park Venture Fund Series 2019, L.P.), a fund of funds formed to build a diversified portfolio of top-tier venture capital funds.

**THEREFORE, BE IT RESOLVED**, that the ATRS Board approves an investment of up to **\$30 million dollars (\$30,000,000.00)** in **Franklin Park Venture Capital Fund XIII, L.P.** The total investment amount is to be determined by the private equity consultant and ATRS staff based upon the allocation available to ATRS and the overall investment objectives set by the ATRS Board; and

**FURTHER, BE IT RESOLVED**, that the ATRS staff is hereby authorized to take all necessary and proper steps to implement this investment, if acceptable terms are reached.

**Adopted this 2nd day of December 2019.**

---

**Mr. Danny Knight, Chair**  
**Arkansas Teacher Retirement System**



Arkansas Teacher Retirement System  
Franklin Park International Fund X, L.P.

December 2, 2019

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By accepting this Presentation the Recipient agrees to be bound by the foregoing obligations and limitations.

# Opportunity

Franklin Park seeks select opportunities in non-U.S. markets

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## Market Criteria

- Acceptable country risk
- Sufficient liquidity – private equity deal volume, active exit market
- Pockets of inefficiency

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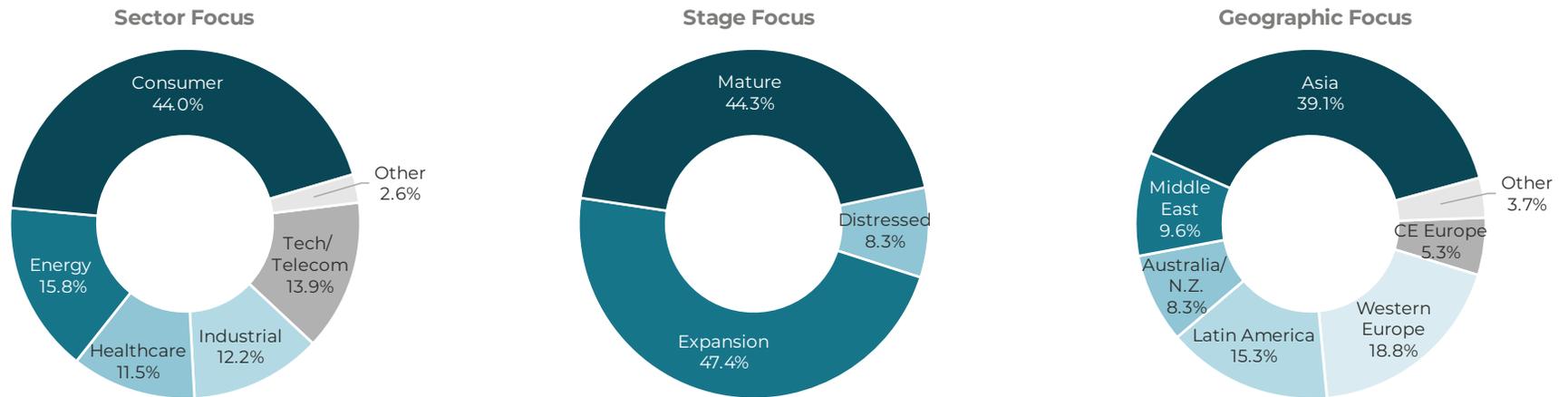
## Strategy Criteria

- Seek to at least double earnings over a 5-year holding period
  - Cheap deal pricing relative to earnings growth
- 

Underweight	Neutral	Overweight
<ul style="list-style-type: none"><li>• Pan-Asian</li><li>• Pan-European</li><li>• India (growth equity)</li><li>• ROW (Africa, Latin America)</li></ul>	<ul style="list-style-type: none"><li>• Europe (small/ lower mid-market buyout)</li><li>• Japan/ S. Korea (small/ lower mid-market buyout)</li><li>• Canada (small/ lower mid-market buyout)</li><li>• Indonesia (growth equity)</li></ul>	<ul style="list-style-type: none"><li>• China (growth equity/ buyout)</li><li>• Australia (small/ lower mid-market buyout)</li><li>• Europe (turnaround)</li><li>• Australia (turnaround)</li></ul>

# International Funds - Exposures

Activity is weighted towards expansion and mature consumer companies across Asia and Europe



Note: Chart data is based on the unrealized value of the underlying portfolio funds' holdings as of June 30, 2019 for Franklin Park International Fund Series 2011-2018 (FPI). Values are based on the respective FPI Fund's interest in the underlying portfolio funds. Values reported in currencies other than USD have been converted to USD as of June 30, 2019.

## Historical Performance

ATRS has committed \$225 million to 9 prior Franklin Park international vehicles raised since 2011

VEHICLE	ATRS COMMITMENT	CONTRIBUTED	DISTRIBUTED	REMAINING	TVPI	NET IRR
FPI 2011	\$25.0	\$21.9	\$12.3	\$19.5	1.4x	8.9%
FPI 2012	25.0	16.4	6.3	14.9	1.3x	8.9%
FPI 2013	20.0	12.9	0.9	16.1	1.3x	9.5%
FPI 2014	25.0	14.3	4.7	17.5	1.6x	20.9%
FPI 2015	25.0	13.1	0.4	14.4	1.1x	8.0%
FPI 2016	25.0	13.1	0.3	15.0	1.2x	11.1%
FPI 2017	25.0	7.9	0.0	8.6	1.1x	9.9%
FPI 2018	25.0	4.4	0.0	3.9	0.9x	NMF
FPI 2019	30.0	0.0	0.0	0.0	n/a	NMF
<b>Total</b>	<b>\$225.0</b>	<b>\$104.0</b>	<b>\$24.9</b>	<b>\$109.9</b>	<b>1.3x</b>	<b>10.6%</b>

*Data in the table is as of June 30, 2019 and represents only ATRS' interests in each vehicle; \$ in millions. The returns presented are net of underlying private fund manager fees, transaction expenses and carried interest charges, as well as expenses incurred by the Franklin Park International Fund Series vehicles. Past results are not necessarily indicative of future performance. There can be no assurance that investments recommended by Franklin Park will realize the rates of return indicated in this presentation. Wherever there is potential for profit, there is also potential for loss.*

## Proposal

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Consider committing \$30 million to Franklin Park International Fund X, L.P.  
("FP International X")

---

ATRS will pay no management fees or carried interest in FP International X

---

Early 2020 target closing

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**ARKANSAS TEACHER RETIREMENT SYSTEM**  
**1400 West Third Street**  
**Little Rock, Arkansas 72201**

**RESOLUTION**  
**No. 2019-44**

**Approving Investment in Franklin Park International Fund X, L.P.**

*WHEREAS*, the Board of Trustees (Board) of the Arkansas Teacher Retirement System (ATRS) is authorized to invest and manage trust assets for the benefits of its plan participants; and

*WHEREAS*, the ATRS Board has reviewed the recommendation of its private equity consultant, Franklin Park Associates, LLC, along with the recommendation of the Investment Committee and ATRS staff regarding a potential investment in **Franklin Park International Fund X, L.P.** (formerly Franklin Park International Fund 2019, L.P.), a fund of funds formed to build a well-diversified portfolio of private equity funds targeting less efficient international private equity markets.

*THEREFORE, BE IT RESOLVED*, that the ATRS Board approves an investment of up to **\$30 million dollars (\$30,000,000.00)** in **Franklin Park International Fund X, L.P.** The total investment amount is to be determined by the private equity consultant and ATRS staff based upon the allocation available to ATRS and the overall investment objectives set by the ATRS Board; and

*FURTHER, BE IT RESOLVED*, that the ATRS staff is hereby authorized to take all necessary and proper steps to implement this investment, if acceptable terms are reached.

**Adopted this 2nd day of December 2019.**

---

**Mr. Danny Knight, *Chair***  
**Arkansas Teacher Retirement System**



Arkansas Teacher Retirement System  
ATRS/FP Private Equity Fund, L.P.

December 2, 2019

## Overview

ATRS/ FP Private Equity Fund, L.P. (“ATRS/ FP”) has invested in three investment types

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### Co-Investments

- Direct investments in portfolio companies alongside established PE fund managers
- Core exposure in the vehicle, accounting for 82% of current value

---

### Funds

- Commitments to Corporate Finance funds (small/ mid market & next generation funds)
- ATRS is now mostly getting exposure to these investments through a separate commitment to Franklin Park Corporate Finance Access Fund, L.P.
- ATRS/ FP may still make select commitments to next generation funds

---

### Appraisal Rights

- Investments in Appraisal Rights opportunities
  - Going forward, no new investments are being made in this strategy
-

## ATRS/FP Portfolio Summary

As of March 31, 2019, ATRS/ FP had committed \$305.6 million to 47 investments

SUMMARY	COMMITTED	CONTRIBUTED	DISTRIBUTED	REMAINING	TVPI	NET IRR
ATRS	\$293.8	\$202.0	\$83.1	\$199.4	1.4x	14.5%

INVESTMENTS	#	COMMITTED	INVESTED	REALIZED	UNREALIZED	ROI
CO-INVESTMENTS	31	\$178.2	\$168.4	\$85.2	\$163.4	1.5x
FUNDS	14	119.0	27.0	0.4	29.2	1.1x
APPRAISAL RIGHTS	2	8.4	8.4	0.9	6.6	0.9x
<b>Total</b>	<b>47</b>	<b>\$305.6</b>	<b>\$203.9</b>	<b>\$86.5</b>	<b>\$199.2</b>	<b>1.4x</b>

## Proposal

---

Continue making co-investments through ATRS/ FP, along with select commitments to next generation funds

---

Allow \$30 million of previously distributed proceeds from exits to be recycled into new co-investments (no new commitment is necessary)

---

Allow co-investments with <\$5 million available to ATRS/ FP to be allocated prudently to Franklin Park's clients with co-investment appetite

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Preliminary Recommendation Report  
Thoma Bravo Explorer, L.P.





### Executive Summary

Fund	Thoma Bravo Explorer, L.P. (the "Fund")
General Partner	Thoma Bravo (the "General Partner")
Report Date	November 2019
Fundraising	The General Partner is targeting capital commitments of \$1.0 billion. The General Partner is targeting a first close in January 2020 and a final close later in Q1 2020.
Source	The Fund was sourced directly from the General Partner.
Key Terms	<p>The following terms are from prior similarly sized Thoma Bravo funds. Specific terms for the Fund have not yet been provided by the General Partner and may differ from those presented below.</p> <p>Management Fee: In prior similarly sized funds, the General Partner charged annual management fees of 2.0% of commitments during the six-year investment period. Thereafter, management fees were equal 2.0% of net invested capital. Management fees were offset by 100% of transaction fee income.</p> <p>Carried Interest: In prior similar sized funds, after the limited partners receive cumulative distributions equal to 100% of aggregate capital contributions on realized investments, the General Partner was entitled to 20% of the Fund's profits. The General Partner was not entitled to receive any distributions of carried interest until such time as a 120% fair value test was satisfied or limited partners received distributions equal to their capital contributions. The prior funds had a clawback provision.</p> <p>Termination Provisions: In prior similarly sized funds, in a for cause event, a majority in interest of the limited partners were required for the removal of the General Partner. An 80% interest of the limited partners could dissolve the funds without cause.</p> <p>Key Person: TBD</p>
Investment Strategy	The Fund is being formed to invest in software and technology enabled services companies in the small and lower middle market. The Fund will generally focus on investments of up to \$150 million in companies with revenues ranging from \$30 million to \$150 million.
Management Team	Based in San Francisco and Chicago, Thoma Bravo was formed in 2007 and is led by six Managing Partners, Carl Thoma, Orlando Bravo, Lee Mitchell, Scott Crabill, Seth Boro and Holden Spaht. The team dedicated to the Fund will include Carl Press, a Principal, two VPs and two Associates. Biographies for the Managing Partners and Mr. Press are summarized in Appendix I.



Track Record

Thoma Bravo has raised five prior funds, Thoma Bravo IX-XIII (the “Core Funds”), and two annex funds (“SOF I” and “SOF II”), which co-invest with the Core Funds. Additionally, in 2016 and 2018, Thoma Bravo formed funds (“Discover I” and “Discover II”) to focus on smaller software transactions given the increasing focus of the Core Funds on larger deals. Summary performance information is provided below for the Core Funds and the Discover funds, as of June 30, 2019 (\$ millions).

Aggregate Performance Summary

Fund (Vintage)	Fund Size	ROI	DPI	TVPI	Net IRR
Fund IX (2008)	822.5	TBD	3.7x	3.8x	44.7%
Fund X (2012)	1,274.5	3.1x	2.2x	2.6x	37.7%
SOF I (2013)	418.4	TBD	1.6x	2.2x	31.1%
Fund XI (2014)	3,662.0	2.7x	0.7x	2.2x	25.5%
SOF II (2015)	1,064.9	TBD	0.3x	1.9x	21.4%
Fund XII (2016)	7,603.9	1.4x	0.0x	1.3x	13.9%
Discover I (2016)	1,074.0	1.9x	0.4x	1.7x	31.3%
Discover II (2018)	2,438.5	1.1x	0.0x	0.9x	NMF
Fund XIII (2018)	12,594.7	1.0x	0.0x	1.0x	NMF

*Net of fees and carried interest expenses. Source (Fund X-XIII, Discover I-II): Franklin Park’s database. Source (Fund IX, SOF I-II): Preqin*

Investment Evaluation

1. **The Fund’s strategy is compelling.** The Fund will target buy and build investments in small and middle market software businesses where profitability can be significantly increased. Once operating improvements have been completed, Thoma Bravo seeks to execute add-on acquisition strategies to rapidly grow portfolio companies to increase scale and attractiveness to strategic buyers.
2. **The General Partner’s overall track record is attractive.** The prior funds, which invested predominantly in middle market and large cap software and technology-enabled services companies, have generated attractive returns.

Further, the General Partner’s track record with funds sized around \$1.0 billion and less is impressive. The Fund will raise approximately \$1.0 billion. Four of the nine funds raised since 2008 are smaller funds and each have generated a net IRR of 20% or greater, with three of the four generating a net IRR of 30% or greater.

3. **There are some risks with the Fund’s dedicated team.** First, the General Partner is in the process of building out the Fund’s dedicated team. Second, with five years of tenure and ten years of private equity investment experience, Mr. Press’ experience is moderate.



However, the General Partner will leverage the following:

- Thoma Bravo's strong brand and reputation in the software sector should provide advantages in sourcing investment opportunities.
- Thoma Bravo's broader internal resources, including other Thoma Bravo investment professionals, the Director of Capital Markets and the firm's Operating Partners, will support to Fund's dedicated team.

Further, the Managing Partners will oversee the Fund's investment process and approve all investment decisions. The Managing Partners have worked together at Thoma Bravo and predecessor firms for the last 13 years and average 18 years of private equity investment experience.

4. Thoma Bravo's recent growth in assets under management and investment pace raises concerns. Since 2008, the firm has raised substantially larger sized funds and deployed significant amounts of capital in software transactions. This is partly due to the Core Funds evolution to focus predominantly on large transactions, which require greater equity investments.

**Recommendation** Franklin Park plans to complete the following due diligence prior to issuing a formal recommendation to commit up to \$20 million to the Fund:

- Investment Due Diligence: detailed analysis of the track record, finalization of reference calls, and completion of meetings/calls with the team.
- Operational Due Diligence: assessment of the General Partner's back office and reporting capabilities.
- Legal Due Diligence: comprehensive review of the legal agreement and negotiation of satisfactory terms for the Fund.

## Appendix I Principals' Biographies

**Carl D. Thoma, Managing Partner**, is a co-founder of Thoma Bravo and each of its predecessor firms. He began his career with First Chicago Equity Group. In 1980, he established Golder, Thoma & Co. with Stanley Golder. He received an MBA from the Stanford Graduate School of Business and a BA from Oklahoma State University.

**Orlando Bravo, Managing Partner**, joined Thoma Bravo's predecessor firm shortly after its formation from the Mergers & Acquisitions group of Morgan Stanley & Co. based in New York. Mr. Bravo received an MBA degree from the Stanford Graduate School of Business, a law degree from Stanford Law School and undergraduate degrees in Economics and Political Science from Brown University.

**Lee M. Mitchell, Managing Partner**, participated in forming both Thoma Bravo and its predecessor firm, and previously was a partner in Golder, Thoma, Cressey, Rauner, which he joined in 1994 after a career in law, business and investment management. He previously was the CEO a privately held communications company and has served as chairman of the Chicago Stock Exchange. Mr. Mitchell is a graduate of Wesleyan University and the University of Chicago Law School.

**S. Scott Crabill, Managing Partner**, joined Thoma Bravo's predecessor firm in 2002 from Summit Partners. Previously, he worked at J.H. Whitney & Co., at Hewlett-Packard as a product manager and at Alex. Brown & Sons in corporate finance and in mergers and acquisitions. Mr. Crabill earned a BS degree in Industrial Engineering from Stanford University and an MBA degree from the Stanford Graduate School of Business.

**Seth J. Boro, Managing Partner**, joined Thoma Bravo's predecessor firm after receiving an MBA from the Stanford Graduate School of Business. He previously was part of the investment team at Summit Partners and also worked as an analyst with investment bank Credit Suisse in Toronto. Mr. Boro earned his undergraduate degree from Queen's University School of Business, Kingston, Ontario, Canada.

**P. Holden Spaht, Managing Partner**, joined Thoma Bravo's predecessor firm from Morgan Stanley, where he had been with the investment bank's corporate finance department in San Francisco and, previously, with its private equity investment firm, Morgan Stanley Capital Partners, in London. He previously worked at Thomas H. Lee Partners and at the Morgan Stanley Real Estate Fund. Mr. Spaht has an AB degree in Economics from Dartmouth College and an MBA from the Harvard Business School.

**Carl Press, Principal**, joined Thoma Bravo in 2015. Previously, he was a technology investor at HighBar Partners, an Associate in the Special Situations Group at Oaktree Capital Management, and an Analyst at UBS Investment Bank. Mr. Press holds an MBA from The Wharton School of the University of Pennsylvania and a BS degree in Electrical Engineering from the University of Illinois at Urbana-Champaign.

**ARKANSAS TEACHER RETIREMENT SYSTEM**  
**1400 West Third Street**  
**Little Rock, Arkansas 72201**

**RESOLUTION**  
**No. 2019-47**

**Approving Investment in Thoma Bravo Explorer Fund, L.P. with  
Imminent Need**

**WHEREAS**, the Board of Trustees (Board) of the Arkansas Teacher Retirement System (ATRS) is authorized to invest and manage trust assets for the benefits of its plan participants; and

**WHEREAS**, the ATRS Board has reviewed the recommendation of its private equity consultant, Franklin Park, LLC, along with the recommendation of the Investment Committee and ATRS staff regarding a potential investment in **Thoma Bravo Explorer Fund, L.P.**, a private equity buyout fund focused on small and lower middle market software companies; and

**WHEREAS**, the ATRS Board approves an investment of up to **\$20 million dollars (\$20,000,000)**, in **Thoma Bravo Explorer Fund, L.P.** and the Board, after its review of the timing of the period in which the general partner of **Thoma Bravo Explorer Fund, L.P.** will accept investors for this fund, has determined that there is an imminent need to immediately enter into the partial equity ownership agreement since the anticipated closing to participate in this fund will occur prior to the next scheduled meeting of the Arkansas Legislative Council. The Board also deems it financially appropriate to enter into the partial equity ownership agreement and concludes that to forego the opportunity to promptly implement its investment directives under the prudent investor rule would be inconsistent with its fiduciary duty of care to the members and annuitants.

**NOW, THEREFORE, BE IT RESOLVED**, that the ATRS Board approves an investment of up to **\$20 million dollars (\$20,000,000)** in **Thoma Bravo Explorer Fund, L.P.** and agrees to immediately move to close and subscribe the approved ATRS limited partnership investment interest in **Thoma Bravo Explorer Fund, L.P.** The total investment amount is to be determined by the private equity consultant and ATRS staff based upon the allocation available to ATRS and the overall investment objectives set by the ATRS Board; and

**FURTHER, BE IT RESOLVED**, that the ATRS staff is hereby authorized to take all necessary and proper steps to implement this investment using the Imminent Need process, if acceptable terms are reached.

**Adopted this 2nd day of December, 2019.**

---

**Mr. Danny Knight, *Chair***  
**Arkansas Teacher Retirement System**

SUMMARY OF DISABILITY APPLICATIONS SUBMITTED  
FOR CONSIDERATION BY THE MEDICAL COMMITTEE

The Medical Committee met in executive session in the first floor conference room at 1:00 p.m. on October 2, 2019. Those members present were Dr. Eddie Phillips, Dr. Hoyte Pyle, and Dr. Jim Morse. Anne Marie Lehman Berardi of the Teacher Retirement System was also in attendance.

A total of ten disability applications were considered. Of the ten applicants, six were approved. Two were denied. Two had more information requested.

Respectfully Submitted,



Eddie Phillips, CMO  
Medical Committee Chairman

Respectfully Submitted,



Anne Marie Lehman Berardi  
Retirement Benefits Counselor

SUMMARY OF DISABILITY APPLICATIONS SUBMITTED  
FOR CONSIDERATION BY THE MEDICAL COMMITTEE

The Medical Committee met in executive session in the first floor conference room at 9:39 a.m. on November 6, 2019. Those members present were Dr. Eddie Phillips, Dr. Hoyte Pyle, and Dr. Jim Morse. Anne Marie Lehman Berardi of the Teacher Retirement System was also in attendance.

A total of nine disability applications were considered. Of the nine applicants, seven were approved. One was denied. One had more information requested.

Respectfully Submitted,



Eddie Phillips, CMO  
Medical Committee Chairman

Respectfully Submitted,



Anne Marie Lehman Berardi  
Retirement Benefits Counselor

ARKANSAS TEACHER RETIREMENT SYSTEM  
FINANCIAL COMPARISON

PLAN NET POSITION

	<u>June 30, 2019</u>	<u>June 30, 2018</u>	<u>Percentage Change</u>
<b>ASSETS</b>			
Cash and cash equivalents	256,387,142	318,615,761	
Accounts receivable	97,493,073	104,194,468	
Investments	17,457,160,225	17,159,991,217	
Invested securities lending	469,822,525	506,400,659	
Equipment (net of accumulated depreciation)	149,770	177,916	
Other assets	<u>72,877</u>	<u>73,942</u>	
<b>TOTAL ASSETS</b>	<u>18,281,085,612</u>	<u>18,089,453,963</u>	1.06%
<b>LIABILITIES</b>			
Securities lending collateral	469,786,940	506,308,705	
Investment principal payable	60,879,610	81,447,942	
Survivor benefits for minors	227,543	238,734	
Other payables	<u>8,569,746</u>	<u>8,830,843</u>	
<b>TOTAL LIABILITIES</b>	<u>539,463,839</u>	<u>596,826,223</u>	-9.61%
<b>NET POSITION HELD IN TRUST FOR PENSION BENEFITS</b>	<u>17,741,621,773</u>	<u>17,492,627,740</u>	1.42%

CHANGES IN PLAN NET POSITION

	<u>For the Year Ended</u>		<u>Percentage Change</u>
	<u>June 30, 2019</u>	<u>June 30, 2018</u>	
<b>ADDITIONS</b>			
Contributions	<u>572,750,288</u>	<u>563,254,873</u>	1.69%
Investment income			
Interest and dividends	130,866,590	112,560,844	
Gain / (loss) on investments	864,868,006	1,117,478,755	
Gain / (loss) on market valuation	(57,884,136)	630,378,550	
Real estate operating income	7,671,704	7,596,033	
Securities lending activity	4,421,291	5,075,453	
Other investment income	<u>1,182,214</u>	<u>1,247,762</u>	
Total investment income	951,125,669	1,874,337,397	
Less investment expense	<u>52,740,802</u>	<u>50,242,703</u>	
Net income from investing activities	<u>898,384,867</u>	<u>1,824,094,694</u>	
<b>TOTAL ADDITIONS</b>	<u>1,471,135,155</u>	<u>2,387,349,567</u>	-38.38%
<b>DEDUCTIONS</b>			
Benefits	1,205,326,555	1,160,738,237	
Refunds	9,679,783	9,455,405	
Administrative expenses	<u>7,134,784</u>	<u>9,336,430</u>	
<b>TOTAL DEDUCTIONS</b>	<u>1,222,141,122</u>	<u>1,179,530,072</u>	3.61%
<b>CHANGE IN NET PLAN POSITION</b>	248,994,033	1,207,819,495	
<b>NET POSITION - BEGINNING OF YEAR</b>	<u>17,492,627,740</u>	<u>16,284,808,245</u>	
<b>NET POSITION - END OF YEAR</b>	<u>17,741,621,773</u>	<u>17,492,627,740</u>	1.42%

**Board Member Travel Report for the Year Ended June 30, 2019**

Board Member	Date		Destination/Conference	Lodging	Meals	Mileage	Registration Fees	Common Carrier (Airfare)	Taxi/Car Rental	Parking	Miscellaneous	Total Expense	Overall Total
	from:	to:											
Bell, Anita	7/22/2018	8/1/2018	Berkeley, CA - NCTR Annual Workshop	1,366.96	11.56	15.12	2,400.00	502.60	68.39		25.00	4,389.63	9,548.74
	10/5/2018	10/10/2018	Washington, DC - NCTR Annual Conference	1,749.95	58.49	15.12	1,250.00	332.60	33.19			3,439.35	
	10/1/2018	10/1/2018	October board meeting			10.08						10.08	
	6/1/2018	9/30/2018	Internet Reimbursement Jun 2018 - Sept 2018								248.02	248.02	
	10/25/2018	10/25/2018	October board meeting #2			10.08						10.08	
	10/30/2018	10/31/2018	Board Interviews			20.16						20.16	
	12/3/2018	12/3/2018	December board meeting			10.08						10.08	
	2/4/2019	2/4/2019	February board meeting			10.08						10.08	
	10/1/2008	11/30/2018	Internet Reimbursement Oct 2018 - Nov 2018								124.00	124.00	
	12/1/2018	2/28/2019	Internet Reimbursement Dec 2018 - Feb 2019								124.73	124.73	
	4/1/2019	4/1/2019	April board meeting			10.08						10.08	
	6/3/2019	6/3/2019	June board meeting			10.08						10.08	
	6/9/2019	6/13/2019	Philadelphia, PA - Franklin Park Conference	625.78	29.13	14.70		403.00	39.76		30.00	1,142.37	
Black, Lloyd	10/5/2018	10/10/2018	Washington, DC - NCTR Annual Conference	1,749.95	99.40	9.24	1,250.00	490.60	48.00			3,647.19	3,700.95
	10/1/2018	10/1/2018	October board meeting			6.72						6.72	
	10/25/2018	10/25/2018	October board meeting #2			6.72						6.72	
	10/30/2018	10/31/2018	Board Interviews			13.44						13.44	
	12/3/2018	12/3/2018	December board meeting			6.72						6.72	
	2/4/2019	2/4/2019	February board meeting			6.72						6.72	
	4/1/2019	4/1/2019	April board meeting			6.72						6.72	
	6/3/2019	6/3/2019	June board meeting			6.72						6.72	
Clayton, Kathy	10/1/2018	10/1/2018	October board meeting			41.16						41.16	246.96
	10/25/2018	10/25/2018	October board meeting #2			41.16						41.16	
	10/30/2018	10/31/2018	Board Interviews			82.32						82.32	
	2/4/2019	2/4/2019	February board meeting			41.16						41.16	
	4/1/2019	4/1/2019	April board meeting			41.16						41.16	
Davis, Kelly	7/22/2018	7/25/2018	Berkeley, CA - NCTR Annual Workshop	926.04	32.07	2.94	2,400.00	895.00			50.00	4,306.05	5,977.27
	10/24/2018	10/25/2018	October board meeting #2		21.25	123.90						145.15	
	10/30/2018	10/31/2018	Board Interviews		13.94	123.90						137.84	
	12/2/2018	12/3/2018	December board meeting		14.50	123.90						138.40	
	2/3/2019	2/4/2019	February board meeting		14.43	123.90						138.33	
	1/1/2018	12/31/2018	Internet Reimbursement Jan 2018 - Dec 2018								580.10	580.10	
	3/31/2019	4/1/2019	April board meeting		26.59	123.90						150.49	
	6/2/2019	6/3/2019	June board meeting		12.71	123.90						136.61	
	1/1/2019	5/31/2019	Internet Reimbursement Jan 2019 - May 2019								244.30	244.30	
												0.00	
Knight, Danny	10/5/2018	10/10/2018	Washington, DC - NCTR Annual Conference	1,749.95	105.32	12.60	1,250.00	419.60	57.80	52.32		3,647.59	3,684.55
	10/1/2018	10/1/2018	October board meeting			9.24						9.24	
	10/25/2018	10/25/2018	October board meeting #2			9.24						9.24	
	2/4/2019	2/4/2019	February board meeting			9.24						9.24	
	6/3/2019	6/3/2019	June board meeting			9.24						9.24	
												0.00	
Lester, Bobby	10/1/2018	10/1/2018	October board meeting			13.44						13.44	94.08
	10/25/2018	10/25/2018	October board meeting #2			13.44						13.44	
	10/30/2018	10/31/2018	Board Interviews			26.88						26.88	
	12/3/2018	12/3/2018	December board meeting			13.44						13.44	
	2/4/2019	2/4/2019	February board meeting			13.44						13.44	
	6/3/2019	6/3/2019	June board meeting			13.44						13.44	
												0.00	

Nichols, Robin	7/22/2018	7/25/2018	Berkeley, CA - NCTR Annual Workshop	1,543.40	127.25	65.94	2,400.00	537.10	156.48	54.00		4,884.17	
	10/6/2018	10/10/2018	Washington, DC - NCTR Annual Conference	1,399.96	64.25	65.94	1,250.00	458.00	50.00	45.00	50.00	3,383.15	
	9/30/2018	10/1/2018	October board meeting	110.40	15.00	112.14				14.00		251.54	
	5/1/2018	8/31/2018	Internet Reimbursement May 2018 - Aug 2018								261.97	261.97	
	10/25/2018	10/25/2018	October board meeting #2			112.14						112.14	
	10/30/2018	10/31/2018	Board Interviews	108.10	15.00	112.14						235.24	
	12/2/2018	12/3/2018	December board meeting	108.10	20.00	112.14						240.24	
	2/3/2019	2/4/2019	February board meeting	108.10	20.00	112.14				14.00		254.24	
	9/1/2018	10/31/2018	Internet Reimbursement Sept 2018 - Oct 2018								134.98	134.98	
	3/31/2019	4/1/2019	April board meeting	108.10	20.00	112.14				14.00		254.24	
11/1/2018	2/28/2019	Internet Reimbursement Nov 2018 - Feb 2019								274.96	274.96		
											0.00	10,286.87	
Stubblefield, Jeff	7/22/2018	7/25/2018	Berkeley, CA - NCTR Annual Workshop		26.89	5.88	2,400.00	895.00	78.68		50.00	3,456.45	
	9/30/2018	10/1/2018	October board meeting		4.38	115.08						119.46	
	10/25/2018	10/25/2018	October board meeting #2			115.08						115.08	
	10/30/2018	10/31/2018	Board Interviews			115.08						115.08	
	12/3/2018	12/3/2018	December board meeting			115.08						115.08	
	2/3/2019	2/4/2019	February board meeting		8.52	115.08						123.60	
	3/31/2019	4/1/2019	April board meeting			115.08						115.08	
	6/2/2019	6/3/2019	June board meeting	102.36		115.08						217.44	
											0.00	4,377.27	
Thompson, Deborah	10/5/2018	10/10/2018	Washington, DC - NCTR Annual Conference	1,749.95	81.23	10.50	1,250.00	441.40	17.81	36.00	50.00	3,636.89	
	7/22/2018	7/25/2018	Berkeley, CA - NCTR Annual Workshop	1,543.40	122.33	175.98	2,400.00	552.60			50.00	4,844.31	
	9/30/2018	10/1/2018	October board meeting		13.00	160.44						173.44	
	10/30/2018	10/31/2018	Board Interviews			160.44						160.44	
	10/24/2018	10/25/2018	October board meeting #2	108.10	20.00	160.44						288.54	
	1/1/2018	5/31/2018	Internet Reimbursement Jan 2018 - May 2018								398.35	398.35	
	12/2/2018	12/3/2018	December board meeting	108.10	25.75	160.44						294.29	
	2/3/2019	2/4/2019	February board meeting	99.24	20.00	160.44						279.68	
	3/31/2019	4/1/2019	April board meeting	108.10	15.00	160.44						283.54	
	6/10/2019	6/13/2019	Philadelphia, PA - Franklin Park Conference	938.67	61.95			575.50	29.25	24.00	60.00	1,689.37	
	6/2/2019	6/3/2019	June board meeting	108.10	20.00	160.44						288.54	
	8/1/2018	5/31/2019	Internet Reimbursement Aug 2018 - May 2019								718.00	718.00	
											0.00	13,055.39	
Watson, Janet	10/1/2018	10/1/2018	October board meeting			14.70						14.70	
	10/25/2018	10/25/2018	October board meeting #2			14.70						14.70	
	10/30/2018	10/31/2018	Board Interviews			29.40						29.40	
	12/3/2018	12/3/2018	December board meeting			14.70						14.70	
											0.00	73.50	
<b>BOARD TOTALS FY19</b>				<b>\$ 16,520.81</b>	<b>\$ 1,139.94</b>	<b>\$ 4,324.74</b>	<b>\$ 18,250.00</b>	<b>\$ 6,503.00</b>	<b>\$ 579.36</b>	<b>\$ 253.32</b>	<b>\$ 3,474.41</b>	<b>\$ 51,045.58</b>	<b>\$ 51,045.58</b>
<b>BOARD TOTALS FY18</b>				<b>\$ 10,177.83</b>	<b>\$ 762.84</b>	<b>\$ 3,850.98</b>	<b>\$ 15,365.00</b>	<b>\$ 4,233.92</b>	<b>\$ 471.97</b>	<b>\$ 255.72</b>	<b>\$ 2,425.53</b>	<b>\$ 37,543.79</b>	<b>\$ 37,543.79</b>
Increase/(Decrease) from Prior Year				<b>\$ 6,342.98</b>	<b>\$ 377.10</b>	<b>\$ 473.76</b>	<b>\$ 2,885.00</b>	<b>\$ 2,269.08</b>	<b>\$ 107.39</b>	<b>\$ (2.40)</b>	<b>\$ 1,048.88</b>	<b>\$ 13,501.79</b>	<b>\$ 13,501.79</b>
Increase/(Decrease) Percentage				<b>62.3%</b>	<b>49.4%</b>	<b>12.3%</b>	<b>18.8%</b>	<b>53.6%</b>	<b>22.8%</b>	<b>-0.9%</b>	<b>43.2%</b>	<b>36.0%</b>	<b>36.0%</b>

Senior Staff & Staff Travel Report for the Year Ended June 30, 2019														
Staff	Date		Destination/Conference	Registration Fees	Common Carrier(Air)	Lodging	Meals	Taxi/Car Rental	Parking	Private Car Mileage	Other Travel Exp	Non-Travel Reimbursement	Total Expense	Overall Total
	from:	to:												
Hopkins, George	8/1/2018	8/3/2018	Boston, MA - Insulet Hearing ***reimbursable***		533.60	611.16	30.00	51.90	29.43				1,256.09	
		9/4/2018	Boston, MA - Insulet Hearing ***reimbursed***		-533.60	-611.16	-30.00	-51.90	-29.43				-1,256.09	
	10/12/2018	10/16/2018	Boston, MA - State Street Hearing ***reimbursable***		631.60	1,249.80	115.00	42.00	70.85				2,109.25	
		11/5/2018	Boston, MA - State Street Hearing ***reimbursed***		-631.60	-1,249.80	-115.00	-42.00	-70.85				-2,109.25	
													0.00	0.00
Carter, Curtis	8/2/2018	8/3/2018	Little Rock, AR - Fraud Conference	175.00									175.00	
	10/21/2018	10/24/2018	Savannah, GA - P2F2 Conference	500.00	409.60	658.71	90.47	44.06	56.68	5.04	25.00		1,789.56	
													0.00	1,964.56
Fowler, Vicky	6/20/2019	6/20/2019	Little Rock, AR - CAHRA manager & Supervisor conference	95.00									95.00	
													0.00	95.00
Gilson, Laura	2/19/2019	2/23/2019	Tempe, AZ - NAPPA Winter Seminar	555.00	267.60	1,022.08	133.76	20.98		5.04	60.00		2,064.46	
	1/16/2019	1/17/2019	Hot Springs, AR - Litigation Ihrie vs Kroger							94.08			94.08	
	6/24/2019	6/29/2019	San Diego, CA / Houston, TX - NAPPA conference	895.00	459.00	1,193.23	264.99	78.48		4.62			2,895.32	
													0.00	5,053.86
Graves, Rod	7/22/2018	7/24/2018	New York, NY - Deposition, Bernstein Litowitz ***reimbursable***		1,077.60			41.06	42.51				1,161.17	
		9/4/2018	New York, NY - Deposition, Bernstein Litowitz ***reimbursed***		-1,077.60			-41.06	-42.51				-1,161.17	
	7/29/2018	8/1/2018	San Francisco, CA - Deposition, Bernstein Litowitz ***reimbursable***		781.60		40.00	105.20	56.68				983.48	
		9/24/2018	San Francisco, CA - Deposition, Bernstein Litowitz ***reimbursed***		-781.60		-40.00	-105.20	-56.68				-983.48	
	8/23/2018	8/25/2018	Newport Beach, CA - Bernstein Litowitz ***reimbursable***		603.60			48.35	42.51				694.46	
		9/4/2018	Newport Beach, CA - Bernstein Litowitz ***reimbursed***		-603.60			-48.35	-42.51				-694.46	
	11/15/2018	11/15/2018	Osceola, AR - Big River Steel meeting							135.24			135.24	
	2/13/2019	2/13/2019	Osceola, AR - Big River Steel meeting							143.22			143.22	
	2/28/2019	3/2/2019	Newport Beach, CA - Bernstein Litowitz ***reimbursable***		516.00	438.61	31.13	43.35	42.51				1,071.60	
		3/25/2019	Newport Beach, CA - Bernstein Litowitz ***reimbursed***		-516.00	-438.61	-31.13	-43.35	-42.51				-1,071.60	
	4/15/2019	4/17/2019	New York, NY - Kaplan Fox mediation ***reimbursable***		574.00	587.62	22.86	73.72	42.51				1,300.71	
		5/1/2019	New York, NY - Kaplan Fox mediation ***reimbursed***		-574.00	-587.62	-22.86	-73.72	-42.51				-1,300.71	
	4/24/2019	4/27/2019	New York, NY - Kessler Topaz ***reimbursable***		494.00	881.43	37.20	106.22	56.68				1,575.53	
	5/15/2019	New York, NY - Kessler Topaz ***reimbursed***		-494.00	-881.43	-37.20	-106.22	-56.68				-1,575.53		
5/8/2019	5/8/2019	Osceola, AR - Big River Steel meeting							141.96			141.96		
													0.00	420.42
Hatcher, Everette	7/20/2018	7/20/2018	CAIA Level II Exam	1,250.00									1,250.00	
	11/6/2018	11/8/2018	Philadelphia, PA - Westbrook advisors meeting		39.00	214.11	38.00	32.47					323.58	
													0.00	1,573.58
Kincade, Willie	9/4/2018	9/4/2018	Crossett, AR - ARTA meeting							107.52			107.52	
	9/10/2018	9/10/2018	Hope, AR - ARTA meeting							97.44			97.44	
	9/20/2018	9/20/2018	Pine Bluff, AR - Jefferson County RTA							36.96			36.96	
	10/9/2018	10/9/2018	Benton, AR - ARTA state convention							20.16			20.16	
	1/21/2019	1/21/2019	Paragould, AR - ARTA meeting							125.58			125.58	
	3/7/2019	3/11/2019	Hope, Texarkana, AR - ARTA							216.72			216.72	
													0.00	604.38
Odom, Kevin	2/7/2019	2/8/2019	Little Rock, AR - AR Bar Association meeting	345.00									345.00	
													0.00	345.00

Senior Staff & Staff Travel Report for the Year Ended June 30, 2019

Staff	Date		Destination/Conference	Registration Fees	Common Carrier(Air)	Lodging	Meals	Taxi/Car Rental	Parking	Private Car Mileage	Other Travel Exp	Non-Travel Reimbursement	Total Expense	Overall Total
	from:	to:												
Rhoden, Clint	10/14/2018	10/16/2018	Boston, MA - State Street Hearing ***reimbursable***		795.60	501.28	72.57	57.61	21.80				1,448.86	
		11/5/2018	Boston, MA - State Street Hearing ***reimbursed***		-795.60	-501.28	-72.57	-57.61	-21.80				-1,448.86	
	11/1/2018	11/1/2018	Little Rock, AR - Arkansas Digital Government Summit	25.00									25.00	
	12/12/2018	12/15/2018	New York, NY - Labaton Suchrow ***reimbursable***		457.60	1,001.94	99.00	85.65	43.60	5.04			1,692.83	
		1/28/2019	New York, NY - Labaton Suchrow ***reimbursed***		-457.60	-1,001.94	-99.00	-85.65	-43.60	-5.04			-1,692.83	
	12/19/2018	12/19/2018	El Dorado, AR - ARTA Meeting							96.60			96.60	
	1/9/2019	1/9/2019	Batesville, AR - ARTA Meeting							78.54			78.54	
	2/7/2019	2/7/2019	Hot Springs, AR - AASBO Conference							33.60			33.60	
	3/13/2019	3/13/2019	Prescott, AR - ARTA Meeting							68.04			68.04	
	3/14/2019	3/14/2019	Marion, AR - ARTA Meeting							110.04			110.04	
	4/9/2019	4/9/2019	Heber Springs, AR - Cleburne County ARTA							52.92			52.92	
	4/17/2019	4/17/2019	Newport, AR - ARTA meeting							75.60			75.60	
	4/19/2019	4/19/2019	Hot Springs, AR - ARTA meeting							34.02			34.02	
	4/22/2019	4/22/2019	Warren, AR - Bradley Co. ARTA							74.76			74.76	
	4/29/2019	4/29/2019	Jacksonville, AR - ARTA meeting							15.12			15.12	
	4/30/2019	4/30/2019	Harrison, AR - ARTA area VII meeting							115.92			115.92	
	5/2/2019	5/2/2019	Conway, AR - ARTA area VI meeting							25.20			25.20	
	5/7/2019	5/7/2019	Magnolia, AR - ARTA area IV meeting							105.42			105.42	
	5/8/2019	5/8/2019	Paragould, AR - ARTA area III meeting							125.16			125.16	
	5/9/2019	5/9/2019	Stuttgart, AR - ARTA area V meeting							47.46			47.46	
	5/14/2019	5/14/2019	Searcy, AR - ARTA area III meeting							43.68			43.68	
	5/16/2019	5/16/2019	Fort Smith, AR - ARTA area meeting							133.56			133.56	
	6/12/2019	6/14/2019	Chicago, IL - 2019 Chief Officers Summit	650.00		525.96			144.00	494.34			1,814.30	
	6/2/2019	Fayetteville, AR - AEA Summer Conference							158.76			158.76		
	6/6/2019	Eureka Springs, AR - Cooperative Meeting							162.96			162.96		
									0.00			0.00	3,396.66	
Ward, Leslie	6/10/2019	6/13/2019	Philadelphia, PA - Franklin Park conference		374.01	312.89	68.75	63.00	14.17				832.82	
													0.00	832.82
West, Brenda	8/2/2018	8/3/2018	Little Rock, AR - Fraud Conference	175.00									175.00	
													0.00	175.00
<b>SENIOR STAFF TOTALS FY19</b>				<b>4,665.00</b>	<b>1,549.21</b>	<b>3,926.98</b>	<b>595.97</b>	<b>238.99</b>	<b>214.85</b>	<b>3,185.28</b>	<b>85.00</b>	<b>0.00</b>	<b>14,461.28</b>	<b>14,461.28</b>
<b>SENIOR STAFF TOTALS FY18</b>				<b>\$ 5,880.00</b>	<b>\$ 8,251.97</b>	<b>\$ 6,346.27</b>	<b>\$ 1,000.46</b>	<b>\$ 409.88</b>	<b>\$ 154.17</b>	<b>\$ 6,752.54</b>	<b>\$ 50.00</b>	<b>\$ 47.61</b>	<b>\$ 28,892.90</b>	<b>\$ 28,892.90</b>
<b>DIFFERENCE</b>				<b>\$ (1,215.00)</b>	<b>\$ (6,702.76)</b>	<b>\$ (2,419.29)</b>	<b>\$ (404.49)</b>	<b>\$ (170.89)</b>	<b>\$ 60.68</b>	<b>\$ (3,567.26)</b>	<b>\$ 35.00</b>	<b>\$ (47.61)</b>	<b>\$ (14,431.62)</b>	<b>\$ (14,431.62)</b>
<b>PERCENT OF INCREASE/DECREASE</b>				<b>-20.66%</b>	<b>-81.23%</b>	<b>-38.12%</b>	<b>-40.43%</b>	<b>-41.69%</b>	<b>39.36%</b>	<b>-52.83%</b>	<b>70.00%</b>	<b>-100.00%</b>	<b>-49.95%</b>	<b>-49.95%</b>

Senior Staff & Staff Travel Report for the Year Ended June 30, 2019														
Staff	Date		Destination/Conference	Registration Fees	Common Carrier(Air)	Lodging	Meals	Taxi/Car Rental	Parking	Private Car Mileage	Other Travel Exp	Non-Travel Reimbursement	Total Expense	Overall Total
	From:	to:												
Brown, Ruby	1/14/2019	2/4/2019	N Little Rock, Bryant, Plummerville, AR							58.80			58.80	
	2/19/2019	2/19/2019	Malvern, AR							38.64			38.64	
													0.00	97.44
Ellis, Greg	8/27/2018	8/30/2018	Prescott & Hope, AR			316.68	131.37			126.00			574.05	
	9/4/2018	9/7/2018	Gentry, AR			253.08	129.83			203.28			586.19	
	9/10/2018	9/13/2018	Mena, AR			319.46	132.68			115.08			567.22	
	9/17/2018	9/21/2018	Searcy, AR			249.44	172.24			44.52			466.20	
	9/24/2018	9/27/2018	Cedarville, AR			263.67	134.70			152.46			550.83	
	10/1/2018	10/5/2018	Wynne, Ar			429.20	118.49			114.24			661.93	
	10/8/2018	10/11/2018	Gurdon, AR			313.92	130.11			131.46			575.49	
	10/15/2018	10/19/2018	Harrison, AR			408.28	172.81			111.72			692.81	
	10/22/2018	10/24/2018	Harrison, AR			192.78	96.69			110.04			399.51	
	10/29/2018	11/2/2018	Batesville, AR			432.40	170.33			86.52			689.25	
	11/5/2018	11/8/2018	Batesville, AR			324.30	131.31			84.84			540.45	
	11/13/2018	11/16/2018	Danville & Havana, AR			321.48	130.07			150.78			602.33	
	11/26/2018	11/30/2018	Bergman & Lead Hill, AR			411.52	173.53			174.72			759.77	
	12/3/2018	12/6/2018	Magnolia, AR			325.35	132.06			119.28			576.69	
	12/10/2018	12/14/2018	Magnolia, AR			433.80	171.21			120.96			725.97	
	1/7/2019	1/11/2019	Ozark, AR			370.85	170.13			206.64			747.62	
	1/14/2019	1/16/2019	Camden, Sparkman, AR			230.18	92.65			97.86			420.69	
	1/22/2019	1/25/2019	Gravette, AR			316.68	131.04			236.88			684.60	
	1/28/2019	1/31/2019	Gravette, AR			316.68	131.11			236.88			684.67	
	2/4/2019	2/8/2019	Forrest City, AR			433.80	166.79			86.94			687.53	
	2/11/2019	2/14/2019	Forrest City, AR			325.35	129.86			84.42			539.63	
	2/28/2019	2/28/2019	Lavaca, AR			260.54	133.50			140.70			534.74	
	3/4/2019	3/8/2019	Paragould, AR			428.68	175.94			140.70			745.32	
	3/11/2019	3/14/2019	Paragould, AR			321.51	123.84			136.50			581.85	
	3/26/2019	3/28/2019	Mountainburg, AR			169.36	86.86			157.08			413.30	
	4/1/2019	4/5/2019	Maynard, Pochontas, AR			449.24	165.33			155.40			769.97	
	4/8/2019	4/11/2019	Mammoth Spring, AR			279.18	130.06			131.88			541.12	
	4/15/2019	4/17/2019	Charleston, AR			182.06	95.54			133.98			411.58	
	4/22/2019	4/25/2019	Marmaduke, AR			321.51	129.09			178.92			629.52	
	4/29/2019	5/3/2019	Van Buren, AR			346.19	169.78			252.84			768.81	
	5/6/2019	5/9/2019	Van Buren, AR			282.95	130.80			123.90			537.65	
	5/13/2019	5/16/2019	Van Buren, AR			282.95	132.60			123.90			539.45	
5/20/2019	5/22/2019	Van Buren, AR			173.64	94.82			123.06			391.52		
6/10/2019	6/10/2019	Hot Springs, AR							46.20			46.20		
												0.00	19,644.46	
Ferguson, Mitzi	8/2/2018	8/2/2018	Little Rock, AR - Fraud Conference	125.00									125.00	
													0.00	125.00

Senior Staff & Staff Travel Report for the Year Ended June 30, 2019

Staff	Date		Destination/Conference	Registration Fees	Common Carrier(Air)	Lodging	Meals	Taxi/Car Rental	Parking	Private Car Mileage	Other Travel Exp	Non-Travel Reimbursement	Total Expense	Overall Total
	From:	to:												
Hendrix, Brent	8/27/2018	8/28/2018	Mountain Home, AR			105.56	61.63						167.19	
	9/4/2018	9/6/2018	Jonesboro, AR			211.12	76.08						287.20	
	9/10/2018	9/12/2018	Harrison, AR			212.60	73.02						285.62	
	9/17/2018	9/20/2018	Mountain View, AR			311.09	129.87						440.96	
	9/24/2018	9/26/2018	Crossett, AR			144.62	91.45						236.07	
	10/1/2018	10/4/2018	El Dorado, AR			320.16	113.83						433.99	
	10/8/2018	10/10/2018	Stuttgart, AR			186.14	80.78						266.92	
	10/15/2018	10/19/2019	Fayetteville, AR			423.16	183.90						607.06	
	10/22/2018	10/26/2018	Crossett, AR			289.24	153.01						442.25	
	10/29/2018	10/30/2018	Crossett, AR			72.31	37.49						109.80	
	11/26/2018	11/29/2018	Fayetteville, AR			317.37	122.94						440.31	
	12/3/2018	12/6/2018	Fayetteville, AR			317.37	108.38						425.75	
	12/10/2018	12/13/2018	Paragould, AR			318.09	105.16						423.25	
	1/28/2019	1/30/2019	Newport, AR			177.36	90.87						268.23	
	2/4/2019	2/5/2019	Newport, AR			88.68	45.77						134.45	
	2/11/2019	2/13/2019	Helena, AR			190.08	74.17						264.25	
	2/25/2019	2/28/2019	Lake Village, AR			221.37	92.75						314.12	
	3/4/2019	3/5/2019	Lake Village, AR			73.79	44.68						118.47	
	3/11/2019	3/14/2019	Jonesboro, AR			320.07	67.16						387.23	
	3/25/2019	3/29/2019	West Memphis, AR			298.36	113.40						411.76	
	4/1/2019	4/2/2019	West Memphis, AR			74.59	33.47						108.06	
	4/8/2019	4/12/2019	Jonesboro, AR			426.76	133.84						560.60	
	4/15/2019	4/16/2019	Jonesboro, AR			106.69	51.55						158.24	
	4/22/2019	4/25/2019	Fayetteville, AR			320.79	127.03						447.82	
	4/29/2019	5/2/2019	Helena, AR			285.12	109.15						394.27	
	5/6/2019	5/7/2019	Clinton, AR			91.92	55.29						147.21	
5/13/2019	5/17/2019	Fort Smith, AR			431.48	154.01						585.49		
6/11/2019	6/12/2019	Hot Springs, AR								55.44			55.44	
													0.00	8,922.01
Hilton, Sheila	9/13/2018	9/13/2018	Harrisburg, AR - Bookkeeper workshop							82.74			82.74	
	10/11/2018	10/11/2018	Pine Bluff, AR - Bookkeeper workshop							36.96			36.96	
	10/25/2018	10/25/2018	Helena, AR - Bookkeeper workshop							88.62			88.62	
	3/14/2019	3/14/2019	Beebe, AR - Bookkeeper training							11.76			11.76	
	4/4/2019	4/4/2019	Branch, AR - Bookkeeper training							103.32			103.32	
	4/11/2019	4/11/2019	Walnut Ridge, AR - Bookkeeper training							92.82			92.82	
	4/18/2019	4/18/2019	Camden, AR - Bookkeeper training							89.88			89.88	
	5/9/2019	5/9/2019	Farmington, AR - Bookkeeper training							160.44			160.44	
	5/16/2019	5/16/2019	Harrison, AR - Bookkeeper training							106.68			106.68	
	6/13/2019	6/13/2019	Monticello, AR - Bookkeeper training							76.44			76.44	
6/27/2019	6/27/2019	Melbourne, AR - Bookkeeper training							86.10			86.10		
													0.00	935.76
Infante, Clementine	2/7/2019	2/8/2019	Little Rock, AR - AR Bar Association meeting	275.00									275.00	
													0.00	275.00
Meadowcroft, Virginia	9/10/2018	9/11/2018	Texarkana, AR			105.09	36.60			120.12			261.81	
	9/24/2018	9/25/2018	Harrison, AR			106.03	35.56			115.92			257.51	
	10/1/2018	10/2/2018	Mountain Home, AR			105.10	42.22			119.70			267.02	
	10/8/2018	10/9/2018	Batesville, AR			70.53	32.86			73.08			176.47	

Senior Staff & Staff Travel Report for the Year Ended June 30, 2019														
Staff	Date		Destination/Conference	Registration Fees	Common Carrier(Air)	Lodging	Meals	Taxi/Car Rental	Parking	Private Car Mileage	Other Travel Exp	Non-Travel Reimbursement	Total Expense	Overall Total
	from:	to:												
	10/22/2018	10/23/2018	Fayetteville, AR			105.79	38.46			158.34			302.59	
	10/29/2018	10/29/2018	Hot Springs, AR							46.62			46.62	
	11/5/2018	11/6/2018	Rogers, AR			104.20	46.52			175.56			326.28	
	11/13/2018	11/14/2018	Van Buren, AR			102.58	18.86						121.44	
	12/17/2018	12/17/2018	Beebe, AR							21.42			21.42	
	1/17/2019	1/14/2019	Little Rock, N. Little Rock, AR							9.24			9.24	
	1/22/2019	1/22/2019	Bryant, AR							15.54			15.54	
	2/4/2019	2/4/2019	Plumerville, AR							36.12			36.12	
	2/25/2019	2/26/2019	Mena, AR			101.91	37.84			111.72			251.47	
	3/11/2019	3/12/2019	Pocahontas, AR			104.59	34.76			110.88			250.23	
	3/25/2019	3/26/2019	Brookland & Jonesboro, AR			105.56	41.58			110.46			257.60	
	4/1/2019	4/2/2019	Harrisburg, Jonesboro, AR			106.69	35.96			103.74			246.39	
	4/15/2019	4/19/2019	Russellville, Bentonville, Rogers, AR			107.63	40.41			61.74			209.78	
													0.00	3,057.53
Meyer, Jerry	7/18/2018	7/18/2018	West Memphis, AR - WMDHS Inspection							106.26			106.26	
	9/26/2018	9/26/2018	White Hall, AR - Highland Pellets							34.02			34.02	
	12/11/2018	12/11/2018	Rison, AR - Wilson Sawmill							49.56			49.56	
	1/4/2019	1/4/2019	Marked Tree, AR - Hamilton Agri Due Diligence							113.40			113.40	
	3/4/2019	3/6/2019	Nashville, TN - Building Inspections			417.60	103.55		39.34	290.64			851.13	
	6/20/2019	6/20/2019	Texarkana, AR - TXDHS inspection							118.02			118.02	
													0.00	1,272.39
Oglesby, Teresa	8/28/2018	8/30/2018	Greer's Ferry, Heber Springs, AR			210.42	83.31						293.73	
	9/10/2018	9/11/2018	Texarkana, Hope, AR			97.96	45.29						143.25	
	9/17/2018	9/18/2018	Nashville, Blevins, AR			108.96	47.78						156.74	
	9/24/2018	9/27/2018	Harrison, Eureka Springs, AR			291.54	125.00						416.54	
	10/1/2018	10/3/2018	Mountain Home, Flippin, AR			210.20	90.63						300.83	
	10/8/2018	10/10/2018	Batesville & Highland, AR			225.90	85.58						311.48	
	10/15/2018	10/19/2018	Fayetteville, AR			404.96	167.12						572.08	
	10/22/2018	10/25/2018	Fayetteville & Farmington, AR			303.72	128.38						432.10	
	11/5/2018	11/7/2018	Rogers, Pea Ridge, AR			212.98	88.94						301.92	
	11/26/2018	11/27/2018	El Dorado, AR			106.72	50.77						157.49	
	12/10/2018	12/11/2018	Monticello, AR			106.96	46.92						153.88	
	1/28/2019	1/30/2019	Forest City, Palestine, AR			215.75	86.44						302.19	
	2/11/2019	2/12/2019	Helena, AR			95.04	46.78						141.82	
	2/25/2019	2/26/2019	Mena, AR			106.49	49.78						156.27	
	3/11/2019	3/12/2019	Pocahontas & Jonesboro, AR			106.69	45.78						152.47	
	3/25/2019	3/28/2019	Brookland & Jonesboro, AR			320.07	129.34						449.41	
	4/1/2019	4/2/2019	Harrisburg, Jonesboro, AR			106.69	55.71						162.40	
	4/8/2019	4/9/2019	Blytheville, AR			112.37	49.03						161.40	
	4/15/2019	4/16/2019	Russellville, Hector, AR			101.47	51.02						152.49	
	5/13/2019	5/14/2019	West Fork, Fayetteville, AR			106.93	52.78						159.71	
	5/14/2019	5/16/2019	Berryville & West Fork, AR			174.90	74.71						249.61	
	5/16/2019	5/17/2019	Berryville, AR			118.32	36.98						155.30	
													0.00	5,483.11
Stevenson, Frederick	8/27/2018	8/30/2018	Pine Bluff, AR							146.58			146.58	
	9/4/2018	9/5/2018	Pine Bluff, AR							73.50			73.50	
	9/10/2018	9/13/2018	Texarkana, AR			321.57	120.45			149.52			591.54	

Senior Staff & Staff Travel Report for the Year Ended June 30, 2019

Staff	Date	Destination/Conference	Registration Fees	Common Carrier(Air)	Lodging	Meals	Taxi/Car Rental	Parking	Private Car Mileage	Other Travel Exp	Non-Travel Reimbursement	Total Expense	Overall Total
	9/17/2018	9/20/2018	Nashville, Hope, Mineral Springs, AR		326.88	114.72			165.48			607.08	
	9/25/2018	9/27/2018	Stuttgart, AR						142.80			142.80	
	10/1/2018	10/4/2018	Osceola, AR		316.68	118.39			194.04			629.11	
	10/8/2018	10/10/2018	Batesville, AR		216.20	82.86			88.62			387.68	
	10/15/2018	10/19/2018	Fayetteville, AR		423.16	151.79			170.94			745.89	
	10/22/2018	10/25/2018	Fayetteville, Springdale, Stuttgart, AR		211.58	83.14			217.98			512.70	
	10/29/2018	11/1/2018	Hot Springs, Malvern, AR						137.34			137.34	
	11/5/2018	11/7/2018	Rogers, Bentonville, AR		212.98	87.51			182.28			482.77	
	11/13/2018	11/16/2018	Van Buren & Conway, AR		102.58	32.55			184.38			319.51	
	11/26/2018	11/28/2018	El Dorado & Strong, AR		208.86	84.69			117.60			411.15	
	12/3/2018	12/3/2018	Pine Bluff, AR						36.96			36.96	
	12/10/2018	12/12/2018	Monticello, AR		209.30	83.31			82.32			374.93	
	12/14/2018	12/19/2018	Hot Springs, Beebe, England, AR						114.24			114.24	
	1/8/2019	1/11/2019	Conway, AR						112.14			112.14	
	1/14/2019	1/17/2019	N. Little Rock, Conway, AR						87.36			87.36	
	1/22/2019	1/25/2019	Bryant, Conway, Fordyce, AR						157.92			157.92	
	1/28/2019	1/30/2019	Forrest City, Marianna, AR		216.90	83.46			106.26			406.62	
	2/4/2019	2/6/2019	Plumerville, N Little Rock, Little Rock						52.50			52.50	
	2/11/2019	2/12/2019	West Helena, AR		97.31	44.83			99.54			241.68	
	2/19/2019	2/19/2019	Malvern, AR						31.92			31.92	
	2/25/2019	2/27/2019	De Queen, Horatio, AR		145.44	84.24			135.24			364.92	
	3/5/2019	3/13/2019	Alexander, Bryant, Malvern, AR						84.42			84.42	
	3/25/2019	3/28/2019	West Memphis, AR		323.61	122.26			114.24			560.11	
	4/1/2019	4/5/2019	West Memphis, Blytheville, AR		427.94	154.23			164.64			746.81	
	4/8/2019	4/10/2019	Blytheville, AR		215.66	86.17			157.08			458.91	
	4/15/2019	4/16/2019	Russellville, AR		107.16	45.94			66.36			219.46	
	4/18/2019	4/19/2019	Bentonville, AR		95.34	48.11			179.76			323.21	
	4/22/2019	4/25/2019	Pearcy, AR						198.24			198.24	
	4/29/2019	5/1/2019	Pearcy, AR						148.68			148.68	
	5/6/2019	5/7/2019	Star City, AR		108.10	48.76			75.60			232.46	
	5/13/2019	5/16/2019	Pine Bluff, AR						144.06			144.06	
	5/20/2019	5/21/2019	Vilonia, AR						57.12			57.12	
									0.00			0.00	10,342.32
Taylor, Elizabeth	9/5/2018	10/3/2018	Little Rock, N Little Rock, Jacksonville, AR						56.70			56.70	
	10/19/2018	10/31/2018	Conway, Little Rock, Jacksonville, Hot Springs, AR						125.16			125.16	
	11/8/2018	12/17/2018	N Little Rock, Little Rock, Bauxite, Hot Springs, AR						150.36			150.36	
	1/7/2019	1/15/2019	Conway, AR						174.30			174.30	
	1/16/2019	1/17/2019	Conway, AR						53.34			53.34	
	1/31/2019	1/31/2019	Mayflower, AR						19.32			19.32	
	2/5/2019	3/7/2019	Benton, NLR, LR, Bryant, Alexander, AR						76.86			76.86	
	3/11/2019	3/12/2019	Benton, Bryant, AR						9.24			9.24	
	4/3/2019	4/4/2019	Hot Springs, AR						48.72			48.72	
	4/8/2019	4/15/2019	Maumelle, Little Rock, Sherwood, AR						55.02			55.02	
	4/25/2019	5/21/2019	Little Rock, Sherwood, N Little Rock, Vilonia, AR						92.82			92.82	
									0.00			0.00	861.84
Willis, Otis	10/22/2018	10/22/2018	Wynne, AR						88.20			88.20	
	11/26/2018	11/26/2018	El Dorado, AR						92.40			92.40	

Senior Staff & Staff Travel Report for the Year Ended June 30, 2019														
Staff	Date		Destination/Conference	Registration Fees	Common Carrier(Air)	Lodging	Meals	Taxi/Car Rental	Parking	Private Car Mileage	Other Travel Exp	Non-Travel Reimbursement	Total Expense	Overall Total
	from:	to:												
	12/3/2018	12/3/2018	Pine Bluff, AR							36.96			36.96	217.56
Yant, Misty	2/6/2019	2/6/2019	Hot Springs, AR - AASBO Conference							42.00			42.00	42.00
<b>STAFF TOTALS FY19</b>				\$ 400.00	\$ -	\$ 26,598.19	\$ 10,908.51	\$ -	\$ 39.34	\$ 13,330.38	\$ -	\$ -	\$ 51,276.42	\$ 51,276.42
<b>STAFF TOTALS FY18</b>				\$ 1,115.00	\$ -	\$ 28,927.88	\$ 11,294.00	\$ -	\$ 24.00	\$ 11,672.64	\$ -	\$ -	\$ 53,033.52	\$ 53,033.52
<b>DIFFERENCE</b>				\$ (715.00)	\$ -	\$ (2,329.69)	\$ (385.49)	\$ -	\$ 15.34	\$ 1,657.74	\$ -	\$ -	\$ (1,757.10)	\$ (1,757.10)
<b>PERCENT OF INCREASE/DECREASE</b>				-64.13%	#DIV/0!	-8.05%	-3.41%		63.92%	14.20%			-3.31%	-3.31%

Bernstein Litowitz Berger & Grossmann

Bleichmar Fonti & Auld

Cohen Milstein Sellers & Toll

Kaplan Fox & Kilscheimer

Kessler Topaz Meltzer & Check

Labaton Sucharow

TO: ATRS Board of Trustees  
Mr. Clint Rhoden, Executive Director

FROM: Vicky Fowler, Human Resources Manager

Date: December 2, 2019

RE: Personnel Report

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ATRS currently has a total of 87 appropriated positions with a cap set at 81. There are 75 positions filled and 12 vacant.

#### Breakdown of current vacancies

- 7 due to Internal Promotion
- 2 due to Termination
- 2 due to Retirement
- 1 due to Death of employee

#### Position Activity for December 1, 2017 to November 19, 2018.

- 12 Positions advertised
- 719 Applications received
- 40 Applicants interviewed
- 10 Positions filled
- 2 Positions pending interview process

The ATRS Human Resources Manager will be available to answer any questions regarding this report.

**ARKANSAS TEACHER RETIREMENT SYSTEM  
1400 West Third Street  
Little Rock, Arkansas 72201**

**RESOLUTION  
No. 2019-46**

**Commending Mr. G. Wayne Greathouse for his Service  
to the  
Arkansas Teacher Retirement System**

**WHEREAS**, Mr. G. Wayne Greathouse has served the Arkansas Teacher Retirement System for 32 years; and

**WHEREAS**, Mr. Greathouse served faithfully through the years in many roles including Associate Director of Investments, Senior Investment Officer, and Interim Executive Director; and

**WHEREAS**, Mr. Greathouse's service to the Arkansas Teacher Retirement System provided valuable service to the System by means of his knowledge, integrity, wisdom, and dedication; and

**WHEREAS**, Mr. Greathouse's guidance, leadership, and vision will be missed by the System.

**NOW, THEREFORE, BE IT RESOLVED** by the Board of Trustees of the Arkansas Teacher Retirement System to adopt this Resolution and authorize the transmittal of the Resolution to Mr. Greathouse as an expression of sincere appreciation for his leadership, wisdom, and dedicated service to the State of Arkansas and the members of the Arkansas Teacher Retirement System.

**Adopted this 2nd day of December 2019**

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**DANNY KNIGHT, Chair**  
**Arkansas Teacher Retirement System Board**