

ASPRS

ARKANSAS STATE POLICE
RETIREMENT SYSTEM



Annual Comprehensive Financial Report
for Fiscal Year 2024

Arkansas State Police Retirement System Annual Comprehensive Financial Report

For Fiscal Year 2024

Table of Contents

Introduction

A Brief History of ASPRS	5
System Highlights	6
Troop Headquarters	7
Letter from the Chair of the ASPRS board, and Executive Secretary	8
Professional Service Providers	10
Board of Trustees	10
Senior Staff	10

Financial Section

Management’s Discussion and Analysis	11
Basic Financial Statements	12
Statement of Fiduciary Net Position.....	12
Statement of Changes in Fiduciary Net Position.....	13
Notes to the Financial Statements	14
Note 1: Plan Description.....	14
Note 2: Summary of Significant Accounting Policies.....	15
Note 3: Deposits and Investments.....	15
Note 4: Legally Required Reserves.....	28
Note 5: Net Pension Liability.....	29
Note 6: Deferred Retirement Option Plan	30
Required Supplementary Information	30
Schedule of the Net Pension Liability.....	31
Schedule of Investment Returns.....	31
Schedule of Changes in the Net Pension Liability and Related Ratios.....	32

Investments Section

Investment Overview	35
Capital Markets Commentary.....	35
Investment Results	36
Schedule of Comparative Investment Results by Year.....	37
Schedule of Comparative Annualized Investment Results.....	38
Domestic Equity.....	39
International Equity.....	40
Fixed Income.....	41
Private Markets.....	42
Real Assets.....	42
Investment Managers.....	43
Schedule of Manager Distribution.....	44

Schedule of Brokerage Commissions	45
Schedule of Investment Fees	45

Actuarial Section

Actuary's Certification Letter.	47
Summary of Actuarial Assumptions*	50
Supplementary Information.	51
Actuarial Data.	52
Single Life Retirement Values	52
Separations from Active Employment Before Retirement	53
Active Members in Actuarial Valuation	53
Tier One and Tier Two Participants	53
Probabilities of Retirement for Members Eligible to Retire	54
Short Condition Test.	55
Ten-Year Comparative Statement	55
Derivation of Experience (Gain/Loss).	56
Gains/Losses by Risk Area.	57

Statistical Section

The System.	59
Schedule of Revenues by Source	59
Chart of Revenues by Source	59
Schedule of Investment Return Rate	60
Chart of Investment Return Percentage Rate	60
Schedule of Expenses by Type	61
Chart of Expenses by Type	61
Schedule of Benefit Expenses by Type	62
Chart of Benefit Expenses by Type (Percentages)	62
Membership.	63
Members	63
Chart of Memberships by Type	63
Schedule of Retired Members by Type of Benefit	64
Chart of Retired Members and Beneficiaries by Type of Benefit (Percentages)	64
Chart of Members by Status in System	65



ASPRS

ARKANSAS STATE POLICE
RETIREMENT SYSTEM

INTRODUCTION



A Brief History of ASPRS

With the passage of Act 311 on March 19, 1951, the Arkansas General Assembly created the Arkansas State Police Retirement System (ASPRS or the System). The System provides for the retirement of police officer employees of the Arkansas State Police, within the Department of Public Safety.

In the beginning, all ASPRS members participated in a contributory plan whereby employers and employees made contributions to the System. However, in 1977, Act 793 was signed by then Governor David Pryor. This legislation offered a choice to employees who were currently under the contributory plan. They could remain under the contributory plan or change over to the new non-contributory plan in which only employers make contributions to the System. This choice was offered to employees who were ASPRS members at some previous time and returned to work on or after January 1, 1978; however, anyone joining the System on or after, January 1, 1978, who was not previously an ASPRS member is automatically covered under the new non-contributory plan.

Act 1071 of 1997 created the Tier Two Benefit Plan for the State Police Retirement System (Tier II) for all officers hired on or after April 3, 1997. Members of the plan in effect before April 3, 1997 (Tier I) had one year from April 3, 1997 to elect participation in Tier II.

Act 1242 of 2009 merged the investable assets of ASPRS with those of the Arkansas Public Employees Retirement System. All authority over investment of the merged assets was granted to the Board of Trustees of the Arkansas Public Employees Retirement System (APERS Board). Investment schedules contained herein reflect the market values accruing to each system.

This annual financial report, which covers the period from July 1, 2023 through June 30, 2024, provides comprehensive information about the System including a description of the retirement plan; investment policies and objectives; financial statements; an actuarial report; and historical and statistical information on active members, annuitants, and benefit payments.

Introduction

System Highlights

(for the fiscal year ended June 30, 2024)

Active Members

(excludes DROP participants)

	Tier I	Tier II
Number	7	520
Average Age	53.4	38.5
Average Years' Service	26.0	11.3
Average Annual Salary	\$ 113,754	\$ 74,514

Inactive Vested Members

Number 121

Members Who Retired or Entered DROP in Fiscal 2024

	Age & Service	Disability
Retired Members	41	0
Average Age	55.67	n/a
Average Credited Years' Service	21.62	n/a
Average Monthly Benefit	\$ 2,548	n/a

Total Retirees & Beneficiaries

(includes DROP participants, disability recipients, and death-in-service beneficiaries)

Retired Members and Beneficiaries	789
Average Monthly Benefit	\$ 3,414

Troop Headquarters

Troop “A” 501-618-8282
1 State Police Plaza Drive, Little Rock, AR 72209
Captain Jeff Sheeler - Commander

Troop “B” 870-523-2701
3200 Highway 367 North, Newport, AR 72112
Captain Todd Shaw - Commander

Troop “C” 870-935-7302
2216 Browns Lane Access Rd, Jonesboro, AR 72403
Captain John Carter - Commander

Troop “D” 870-633-1454
3205 North Washington, Forrest City, AR 72335
Captain Phillip Hydron - Commander

Troop “E” 870-247-1483
6816 Princeton Pike, Pine Bluff, AR 71602
Captain David Williams - Commander

Troop “F” 870-226-3713
1237 North Myrtle, Warren, AR 71671
Captain Rick Neill - Commander

Troop “G” 870-777-4641
2501 North Hazel, Hope, AR 71801
Captain Brady Gore - Commander

Troop “H” 479-783-5195
5728 Kelley Highway, Fort Smith, AR 72914
Captain Chris Goodman - Commander

Troop “I” 870-741-3455
5196 US 65 South, Harrison, AR 72601
Captain Wesley Smithee - Commander

Troop “J” 479-754-3096
2700 West Main, Clarksville, AR 72830
Captain Kyle Drown - Commander

Troop “K” 501-767-8550
200 Karen Street, Hot Springs, AR 71901
Captain Scott Joe - Commander

Troop “L” 479-751-6663
1120 W Monroe Ave, Lowell, AR 72745
Captain Jeffrey Plouch - Commander

Introduction

December 1, 2024

Board of Trustees
Arkansas State Police Retirement System
Little Rock, AR 72201

To the Members of the Arkansas State Police Retirement System (ASPRS):

We are pleased to present the Arkansas State Police Retirement System Annual Comprehensive Financial Report for the Fiscal Year Ended June 30, 2024. The report is designed to provide a clear and concise picture of the financial condition of the Arkansas State Police Retirement System.

Accounting System

The Fiscal Year 2024 Annual Report has been prepared to conform to the accounting principles generally accepted in the United States.

The accrual basis of accounting is used to record the assets, liabilities, revenues, and expenses of the ASPRS trust fund. Revenues are recognized in the accounting period in which they are earned, without regard to date of collection, and expenses are recorded when incurred, regardless of when payment is made. Investments are reported at market values determined by the custodial agent. The agent's determination of market value includes, among other things, using pricing services or prices quoted by independent brokers at current exchange rates.

Financial Information

ASPRS is responsible for establishing and maintaining adequate internal control over financial reporting. ASPRS' internal control over financial reporting is designed to provide reasonable assurance that transactions are executed in accordance with management's general or specific authorization and are recorded as necessary to maintain accountability for assets and to permit the preparation of financial statements in accordance with generally accepted accounting principles.

Funding

ASPRS is funded through contributions from the state and investment income. The general financial objective of ASPRS is to establish and receive contributions which, expressed as a percent of active member payroll, will remain approximately level from generation to generation.

Investments

Act 1242 of 2009 effectively merged the ASPRS investment program with that of Arkansas Public Employee Retirement System (APERS) and granted the APERS Board investment authority over ASPRS funds, even though ASPRS and APERS remain separate retirement systems with unique pension plans.

The APERS Board has implemented an investment policy mandating the investment of funds in line with the authority and limitations outlined in Arkansas Code Annotated § 24-2-601 et seq., which includes fiduciary responsibilities under the "prudent investor rule." These laws permit the Board to create an Investment Policy Statement based on specific criteria and delegate investment authority to professional consultants. They also define the responsibilities for fund investment, reflecting the acceptable degree of risk.

The Investment Policy Statement also guides management in asset investment. By diversifying the investment portfolio, the fund aims to reduce overall risks while enhancing returns. A summary of asset allocation is available in the Investments Section.

Investment managers are tasked with executing the investment policy in line with statutory authority and APERS Board policies, while maintaining discretion within those guidelines. Compliance by current investment managers is continuously monitored by the investment consultant and ASPRS staff. The list of investment managers is available in the Investments Section.

For fiscal year 2024, the fund achieved a 10.42% rate of return. Each quarter, the investment consultant provides a performance summary compared to established benchmarks and comparable funds. A comparative analysis of return rates can be found in the Investments Section. The investment fund adopts a long-term perspective, and over the past 20 years, the fund has achieved an annualized rate of return of 7.56%.

Actuarial Analysis

A pension plan is considered well-funded when it possesses sufficient assets to fulfill future obligations to participants. A higher funding level results in a greater ratio of accumulated assets to actuarial accrued liability, assuring participants that sufficient assets exist to pay all promised benefits. ASPRS' statutory funding objective is to meet long-term benefit promises through contributions that remain relatively stable as a percentage of member payroll. According to the actuarial firm, "if the contributions to the system are level in concept and soundly executed, ASPRS will pay all promised benefits when due—the ultimate test of financial soundness." ASPRS follows the APERS Actuarial Funding Policy targeting a funding level of 100%.

As of June 30, 2024, the actuarial accrued liability of ASPRS was \$570 million, with a funding value of assets amounting to \$449 million. Based on the funding value of assets, ASPRS' funded status was 79% for fiscal year 2024. A detailed discussion of funding and actuarial measures is available in the Actuarial Section of this report.

Professional Services

ASPRS retains independent consultants to perform professional services that are essential to the trust fund's long-term strength and stability. Actuarial services are provided by Gabriel, Roeder, Smith & Company (GRS); investment consulting is provided by Callan, LLC and Stephens, Inc.; and the annual financial audit is conducted by Arkansas Legislative Audit in accordance with A.C.A. § 24-2-702.

Acknowledgments

This report is the result of the combined efforts of the ASPRS' staff under the direction of the ASPRS Board of Trustees. Its purpose is to provide complete and reliable information as a basis for making management decisions, determining compliance with legal provisions, and determining responsible stewardship over the assets contributed by the members and employers.

Respectfully,



Kyle Drown, Chair
Arkansas State Police Retirement System
Board of Trustees



Amy Fecher, Executive Secretary
Arkansas State Police Retirement System
Board of Trustees

Introduction

Board of Trustees

Captain Kyle Drown - Chair

Clarksville, Active Tier I Member
Expiration of Term - July 1, 2029

Captain Scott Joe – Vice Chair

Hot Springs, Active Tier II Member
Expiration of Term - July 1, 2026

Mr. John Allison

Conway, State Police Commissioner
Expiration of Term - July 1, 2024

Mr. Andy Babbit

Little Rock, Designee of the Chief Fiscal Officer
for the State of Arkansas
Expiration of Term - Ex-Officio

Ms. Denise Bugos

Bentonville, Citizen-at-Large
Expiration of Term - July 1, 2026

Mr. Donny Underwood

Marion, Citizen-at-Large
Expiration of Term - July 1, 2021

Senior Staff

Amy Fecher

Executive Secretary

Carlos Borromeo

Deputy Director of Investments and Finance

Jason Willett

Chief Fiscal Officer

Allison Woods

Deputy Director of Benefits

Ashley Golleher

Deputy Director of Operations

Laura Gilson

General Counsel

Phillip Norton

Director of Information Technology

Jennifer Taylor

Director of Benefits Administration

Jacobia Bates

Director of Public Affairs

Patty Shipp

Assurance Officer

Usha Doolabh

Manager, Investments

Jon Aucoin

Manager, Digital Services

Cheryl Wilburn

Manager, Benefits Operations

Tammy Shadwick

Manager, Human Resources

Shelly George

Manager, Employer Reporting

Brooke Hollowoa

Director of Communications

Professional Service Providers

Custodial Bank

The Bank of New York Mellon

Pittsburgh, PA 15258

Actuary

Gabriel, Roeder, Smith & Co.

Southfield, MI 48076

Investment Consultant

Callan Associates, Inc.

Chicago, IL 60602

ASPRS

ARKANSAS STATE POLICE
RETIREMENT SYSTEM

FINANCIAL



Management's Discussion and Analysis

This discussion and analysis of the Arkansas State Police Retirement System (ASPRS or the System) provides an overview of the System's financial activities for the fiscal year ended June 30, 2024. It is intended to be used in conjunction with the Letter from the Chair of the ASPRS Board and Executive Secretary, and ASPRS financial statements and notes, which begin on page 12 of this report.

This Annual Comprehensive Financial Report reflects the activities of the Arkansas State Police Retirement System as reported in the Statement of Fiduciary Net Position (page 12) and the Statement of Changes in Fiduciary Net Position (page 13). These statements are presented on an accrual basis and reflect all Trust Fund activities as incurred.

The Notes to Financial Statements are an integral part of the financial statements and include additional information essential to understanding the basic financial statements.

The Required Supplementary Information following the Notes to the Financial Statements provide historical information and additional details considered useful in evaluating the condition of the plan. Investment data in the Financial section is presented at fair value. See the Actuarial section of this report for a detailed discussion of the actuarial value of assets and liabilities and the funded ratio.

Financial Highlights

ASPRS net position restricted for pension benefits increased by \$37.2 million during FY2024. On June 30, 2024 total plan assets were \$466.7 million. These assets exceeded total liabilities of \$27.2 million, resulting in a net position restricted for pension benefits of \$439.5 million.

Total additions for the System increased by \$13.6 million in FY2024. The primary reasons for this increase in FY2024 additions was the increase in net investment income of \$8 million and the increase of \$5.6 million in total contributions. ASPRS had a solid year with investments with a return of 10.42% in FY2024.

The Statement of Fiduciary Net Position

The Statement of Fiduciary Net Position (see page 12) reports the pension trust fund's assets, liabilities, and resulting net position at the end of the fiscal year such that:

Assets – Liabilities = Net Position

It is a snapshot of the financial position of the pension trust fund at that specific time.

The Statement of Changes in Fiduciary Net Position

The Statement of Changes in Fiduciary Net Position (see page 13) reports the pension trust fund's financial transactions that have occurred during the fiscal year such that:

Additions – Deductions = Net Change in Net Position

It supports the change that has occurred to the prior year's net position value on the Statement of Fiduciary Net Position.

Notes to the Financial Statements

The notes to the financial statements are provided as an integral component of the financial statements to help explain in narrative form some of the more complex or less obvious elements to the statements. Further, the notes provide additional information that is essential for a comprehensive understanding of the System's financial condition and the results of its operations.

Note 1 provides a general description of the System, including information regarding membership and employers.

Note 2 summarizes significant accounting policies, including the basis of accounting, management's use of estimates, and other accounting policies.

Note 3 describes deposits and investment risk.

Note 4 provides information regarding legally required reserves.

Note 5 provides information regarding the System's net pension liability.

Note 6 describes the System's Deferred Retirement Option Plan.

Financial

Basic Financial Statements

Statement of Fiduciary Net Position

(as of June 30, 2023 and 2024)

ASSETS	2024	2023
Cash and Cash Equivalents	\$24,851,474	\$ 22,088,548
Receivables	\$2,504,661	1,717,356
Investments, At Fair Value		
Government Securities	18,145,585	16,323,556
Corporate Securities	195,262,847	174,356,094
International Securities	109,813,700	105,648,373
Core Plus Bond Fund	25,438,017	24,020,567
Real Estate	41,794,869	44,494,314
Diversified Strategies	10,434,294	8,124,653
Timberland	13,109,751	7,472,186
Commercial Loans	24,156	30,758
Total Investments at Fair Value	414,023,220	380,470,501
Securities Lending Collateral Investments, At Fair Value	25,330,373	22,777,621
TOTAL ASSETS	466,709,728	427,054,026
LIABILITIES		
Accounts Payable and Accrued Expenses	608,869	579,557
Investment Purchases Payable	1,262,108	1,360,770
Securities Lending Liability	25,334,078	22,778,585
TOTAL LIABILITIES	27,205,055	24,718,912
NET POSITION RESTRICTED FOR PENSION BENEFITS	\$439,504,672	\$402,335,114

Statement of Changes in Fiduciary Net Position

(for years ended June 30, 2023 and 2024)

ADDITIONS	2024	2023
Contributions		
Employer	\$ 11,012,463	\$ 10,197,986
Plan Member	8,021	54,311
Supplemental	11,427,008	6,952,517
Court	674,665	312,345
Drivers' License Reinstatement Fees	1,547,229	1,629,988
Motor Vehicle Title Fees	4,915,733	4,838,091
Total Contributions	<u>29,585,119</u>	<u>23,985,238</u>
Investment Income		
Interest	4,311,169	3,675,642
Dividends	3,495,127	3,693,477
Investment Gain/Loss	31,512,280	22,494,777
Security Lending Income	1,502,471	1,357,777
Real Estate Income	1,474,081	2,429,194
Total Investment Income	<u>42,295,128</u>	<u>33,650,867</u>
Less: Investment Expense	3,073,210	2,440,363
Net Investment Income	<u>39,221,918</u>	<u>31,210,504</u>
Other Additions	499	4,033
Total Additions	<u>68,807,536</u>	<u>55,199,775</u>
DEDUCTIONS		
Benefit Payments	31,410,879	34,560,932
Administrative Expenses	227,099	244,479
Total Deductions	<u>31,637,978</u>	<u>34,805,411</u>
NET INCREASE (DECREASE)	<u>37,169,558</u>	<u>20,394,364</u>
Net Position Restricted for Pension Benefits		
Beginning of Year	402,335,114	381,940,750
End of Year	<u>\$ 439,504,672</u>	<u>\$402,335,114</u>

Notes to the Financial Statements

Note 1: Plan Description

General Information

ASPRS is a single-employer, defined benefit pension plan that was established on March 19, 1951 with the passage of Act 311 of 1951. The System provides for the retirement of police officers employed by the Arkansas State Police. The laws governing the operations of ASPRS are set forth in Arkansas Code Annotated (A.C.A.), Title 24, Chapters 2 and 6. Act 1071 of 1997 created a Tier II benefit plan for all police officers hired on or after April 3, 1997.

Effective July 1, 2009, Act 1242 of 2009 transferred the assets of ASPRS to the Arkansas Public Employees' Retirement System (APERS) to hold in trust for ASPRS. Act 1242 of 2009 also states that the Arkansas State Police Trust Fund shall not be treated as segregated funds but shall be commingled with the assets of APERS strictly for investment purposes and that the assets of ASPRS and APERS shall be invested as determined by the Board of Trustees of the Arkansas Public Employees' Retirement System (APERS Board).

Act 1242 of 2009 also created the Arkansas State Police Officers' Tier II Deferred Retirement Option Plan (DROP), and it changed the composition of the Board of Trustees of the State Police Retirement System (ASPRS Board).

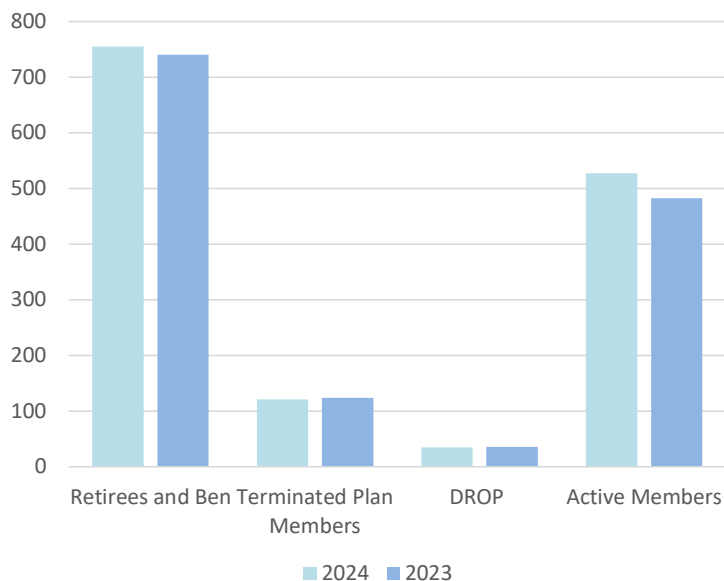
Arkansas Code Annotated § 24-6-204 states that the membership of the ASPRS Board shall be composed of seven members as follows:

- One active member enrolled in the Tier I benefits program,
- One active, vested member enrolled in the Tier II benefits program,
- The State Police Commissioner who shall be appointed by the Governor,
- The Chief Fiscal Officer of State or his or her designee, and
- Three citizens at large who shall be appointed by the Governor.
- The members of the ASPRS Board are listed on page 10 of this report.

Membership

The membership as of the June 30 end of fiscal years 2023 and 2024 were as follows:

Members	2024	2023
Retirees and Beneficiaries Receiving Benefits	755	740
Terminated plan members entitled to but not yet receiving benefits	121	123
DROP Participants	34	35
Active Plan Members (Excludes DROP Participants)	527	482
	<u>1,437</u>	<u>1,380</u>



Contributions

As of June 30 in both 2023 and 2024, there were no contributory members of ASPRS. Plan member contributions presented in the financial statements are related to service purchase payments. Contribution provisions are established by state law and may be amended only by the Arkansas General Assembly. Beginning with fiscal year 2022, the statutory employer contribution rate was increased to 26% by Act 415 of the 2021 legislative session.

Additional Revenue

Act 1071 of 1997 provides for a transfer from insurance premium taxes to the State Police Retirement Fund (the ASPRS fund). The ASPRS fund received \$11.43 million of Act 1071 funds in fiscal year 2024 and \$6.95 million in fiscal year 2023. Additional funds are collected from motor vehicle title fees in accordance with Act 718 of 2011. The ASPRS fund received \$4.92 million of Act 718 funds in fiscal year 2024 and \$4.84 million in fiscal year 2023.

Benefits

Benefit provisions are established by state law and found at Arkansas Code Annotated Title 24, Subchapter 6. They may be amended only by the Arkansas General Assembly. Members are eligible for full retirement benefits after meeting minimum age and service requirements. The normal retirement benefit, paid on a monthly basis, is determined based on a formula that uses the member's final average salary and the number of years of credited service.

Increases after Retirement

Retirees will receive a cost of living adjustment (COLA) increase in their benefit each July 1. Eligibility for the COLA requires being retired from July 1 for a full 12 months.

Note 2: Summary of Significant Accounting Policies

Basis of Accounting

The System's accounts and records are maintained using fund accounting principles, and its financial statements are prepared using the accrual basis of accounting. Expenses are recorded when the liability is incurred, revenues are recorded in the accounting period in which they are earned and become measurable, and investment purchases and sales are recorded as of their trade dates. Member and employer contributions are established by statute as a percentage of salaries and are recognized when due, pursuant to legal requirements. Benefits and refunds are recognized when due and payable in accordance with the terms of the plan.

Use of Estimates

The preparation of the System's financial statements in conformity with accounting principles generally accepted in the U.S. requires the System Administrator to make significant estimates and assumptions that affect various data in the report, including the following:

- The net position restricted for pensions at the date of the financial statements
- The net pension liability and other actuarial information presented in Note 5
- The required supplementary information as of the benefit information date
- The changes in fiduciary net position during the reporting period

Estimates may also be involved in formulating disclosures of contingent assets and liabilities at the date of the financial statements. Actual results could differ from these estimates.

Cash and Cash Equivalents

Cash and cash equivalents include demand accounts, imprest accounts, cash in the state treasury, and short-term investment funds (STIF). The STIF accounts are created through daily sweeps of excess cash by the System's custodial bank into bank-sponsored commingled funds that are invested in U.S. Government and agency securities and other short-term investments. The STIF accounts had an average weighted maturity of 90 days or less and are stated at fair value.

Note 3: Deposits and Investments

Deposits

Deposits are carried at cost and are included in "cash and cash equivalents". Cash and cash equivalents include demand accounts, cash in state treasury, and short-term investment funds. As of June 30, 2024, these totals were \$17,916, \$599,785, and \$24,233,773 respectively. State Treasury Management Law governs the management of funds held in the State Treasury (cash in state treasury), and it is the responsibility of the Treasurer of State to ensure the funds are adequately insured and collateralized.

Financial

Custodial Credit Risk for Deposits

Custodial credit risk for deposits is the risk that, in the event of the failure of a depository financial institution, the System will not be able to recover deposits or collateral securities. The System's policy is to place deposits only in collateralized or insured accounts. As of June 30, 2024, the System's only deposits exposed to potential custodial credit risk were those holding its foreign currency balance which is detailed in the table "Foreign Currency Risk". The System holds foreign currency in banks outside the United States as a result of transactions by international investment managers.

Investments

Arkansas Code Annotated(A.C.A.) §§ 24-2-601 – 24-2-619 authorizes the Board to have full power to invest and reinvest monies of the System and to hold, purchase, sell, assign, transfer or dispose of any of the investments or proceeds of the investments in accordance with the prudent investor rule. Security transactions and any resulting gains or losses are accounted for on a trade basis. Net investment income includes net appreciation in the fair value

of investments, interest income, dividend income, and total investment expense, which includes investment management fees, custodial fees, and all other significant investment-related costs.

A.C.A. § 24-2-608 also states that the System shall seek to invest not less than 5% nor more than 10% of the System's portfolio in Arkansas-related investments. ASPRS recognizes a legal responsibility to seek to invest in the Arkansas economy while realizing that its primary, legal, and fiduciary commitment is to beneficiaries of the retirement System. As stated in A.C.A. § 24-2-608 (d), "nothing in this section shall in any way limit or impair the responsibility of a fiduciary to invest in accordance with the prudent investor rule set forth in §§ 24-2-610 – 24-2-619."

Investments are reported at fair value as determined by the custodial bank. The custodial bank's determination of fair values includes, among other things, using pricing services or quotes by major independent brokers at current exchange rates as available. The schedule on the following page reflects the fair value of investments.

Statement of Invested Assets

*(Assets by type at fair value in dollars as of June 30, 2024)**

Category	
Government Securities	\$18,239,685
Corporate Securities	\$196,275,448
International Securities	\$110,383,175
Core Plus Bond Fund	\$25,569,934
Real Estate	\$42,011,610
Private Markets	\$10,488,405
Timberland	\$13,177,736
Commercial Loans	\$24,282
	<hr/>
	\$416,170,275
Securities Lending Collateral Investments, at Fair Value:	
Tri-party REPO	\$6,491,334
CD's	\$1,768,794
Commercial Paper	\$8,324,882
Asset Backed Securities	\$3,802,282
Corporate Bonds	\$4,943,079
	<hr/>
	\$25,330,373

*Totals may not add due to rounding.

Custodial Credit Risk for Investments

Custodial credit risk for investments is the risk that, in the event of failure of the counterparty to a transaction, the System will not be able to recover the value of its investments or collateral securities that are in the possession of an outside party. Investment securities are exposed to custodial credit risk if the securities are (a) uninsured, (b) not registered in the name of the government, and (c) held by either the counterparty or the counterparty’s trust department or agent but not in the System’s name. Arkansas Code Annotated § 24-2-606 does address the custodianship of assets, and the investment policy states that “the custodian bank shall, by nominee agreement, hold any and all securities for the beneficial interest of the APERS fund.” As of June 30, 2024, there were no investments exposed to custodial credit risk.

Credit Risk for Investments

Credit risk of investments is the risk that the issuer or other counterparty will not fulfill its obligation to the holder of the investment. Credit risk exposure is dictated by each investment manager’s agreement. This credit risk is measured by the credit quality of investment in debt securities as described by nationally recognized statistical rating organizations. Each portfolio is managed in accordance with investment guidelines that are specific as to permissible credit quality ranges, exposure levels within individual security quality rating tiers, and the average credit quality of the overall portfolio.

The System’s Exposure to Credit Risk

Moody’s Quality Ratings *(in dollars as of June 30, 2024)*

Moody’s Ratings	Aaa	Aa	A	Baa	Ba	B	Caa or below	Not Rated	Base Market Value
Total	491,868,947	11,720,888	90,668,482	293,629,337	55,609,292	27,399,721	23,659,951	1,534,660,743	2,529,217,360

S&P’s Quality Ratings *(in dollars as of June 30, 2024)*

S&P Rating	AAA	AA	A	BBB	BB	B	CCC or below	Not Rated	Base Market Value
Totals	7,802,513	493,762,714	84,216,269	331,031,238	59,853,344	24,294,941	13,164,160	1,515,092,181	2,529,217,360
Securities Lending Collateral	107,318,962	160,465,387	234,172,853				2,128,354	173,314,335	

All figures are APERS and ASPRS combined.

Financial

Concentration of Credit Risk for Investments

The concentration of credit risk is the risk of loss attributed to the magnitude of the System's investment in a single issuer (not including investments issued or guaranteed by the U.S. government or investments in mutual funds or external investment pools). The System has a formal investment policy for concentration of credit risk. None of the System's investments in any one issuer (other than those issued or guaranteed by the U.S. government) represented more than 5% of total investments.

Interest Rate Risk for Investments

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of investments. Investments can be highly sensitive to changes in interest rates due to their terms or characteristics. Interest rate risk is the greatest risk

faced by an investor in the debt securities market since the price of a debt security will often move in the opposite direction of the change in interest rates.

The System's external fixed income investment managers use the measurement of effective duration to mitigate the interest rate risk of the fixed income investments. Each fixed income investment manager monitors and reports the effective duration monthly. The effective duration of the investment portfolio is required to be +/- 10% of the benchmark's duration. The benchmark for the U.S. fixed income markets is the Barclays Capital U.S. Aggregate Bond Index.

As of June 30, 2024, the System had the following debt security investments and maturities:

Debt Security Investments and Maturities

(in dollars as of June 30, 2024)

	Market Value	Less than 1	1 - 5	6 - 10	More than 10	Fund - No Maturities
Government Securities	486,440,113	17,188,130	44,948,050	54,760,387	369,543,546	0
Corporate Securities	935,144,186	69,996,160	370,324,735	163,349,341	331,473,950	0
International Securities	185,100,477	11,788,534	72,127,206	60,452,128	40,732,609	0
Floating Rate Fund	21,005,776	0	0	0	0	21,005,776
Core Plus Bond Fund	682,700,350	0	0	0	0	682,700,350
Commercial Loans	648,303	0	648,303	0	0	0
Municipal Bonds	547,427	0	0	0	547,427	0
Co-Mingled Funds	8,742,767	0	0	0	0	8,742,767
High Yield Income Fund	208,887,959	208,887,959	0	0	0	0
	<u>2,529,217,360</u>	<u>307,860,784</u>	<u>488,048,295</u>	<u>278,561,856</u>	<u>742,297,532</u>	<u>712,448,894</u>
Securities Lending Collateral	676,304,219	511,428,666	164,344,649	530,904	0	0
	<u>\$3,205,521,579.62</u>	<u>\$819,289,450.16</u>	<u>\$652,392,943.18</u>	<u>\$279,092,760.39</u>	<u>\$742,297,531.80</u>	<u>\$712,448,894.09</u>

All figures are APERS and ASPRS combined.

Foreign Currency Risk

Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment. The System's currency risk resides within the international equity investments as well as within the fixed income investments and the fixed income managers. The System's policy is to allow the external investment managers to decide what action to take regarding their respective portfolio's foreign currency exposure using currency forward contracts. The System has a formal investment policy for foreign currency risk which limits foreign currency exposure to 10% of the investment manager's respective portfolio.

Foreign Currency Risk table

(as of June 30, 2024)

Currency	Fair Value	Percentage
Australian Dollar	\$5,906,480	0.47%
Brazilian Real	\$10,003,131	0.80%
British Pound Sterling	\$277,264,082	22.23%
Canadian Dollar	\$167,341	0.01%
Danish Krone	\$37,386,478	3.00%
Euro Currency	\$380,700,025	30.52%
Hong Kong Dollar	\$50,159,794	4.02%
Israeli Shekel	\$7,790,478	0.62%
Japanese Yen	\$168,426,858	13.50%
Mexican New Peso	\$9,567,930	0.77%
Norwegian Krone	\$228	0.00%
Singapore Dollar	\$12,868,961	1.03%
South Korean Won	\$56,152,851	4.50%
Swedish Krone	\$48,777,292	3.91%
Swiss Franc	\$182,162,529	14.60%
	<hr/>	
	\$1,247,334,457	100.00%

Financial

Asset-Backed Securities

Asset-backed securities (ABSs) are bonds or notes backed by loan paper or accounts receivable originated by banks, credit card companies, or other credit providers. The System's ability to recover the amount of principal invested in these securities depends on the performance and quality of the trust assets.

Mortgage-Backed Securities

A mortgage-backed security (MBS) is a type of asset-backed security that is secured by a mortgage or collection of mortgages. MBSs depend on the underlying pool of mortgage loans to provide cash flow to make principal and interest payments on the security to its holders. The payments are usually periodic, similar to coupon payments. MBSs are subject to credit risk, prepayment risk, and extension risk.

A collateralized mortgage obligation (CMO) is an MBS that comprises classes of bonds created by prioritizing the cash flows of the underlying mortgage pool. CMOs may be collateralized by whole-loan mortgages, mortgage pass-through securities, or stripped mortgage-backed securities.

The System invests in MBSs and CMOs for diversification and to enhance fixed income returns. These instruments are reported at fair value in the Statement of Fiduciary Net Position.

Corporate Bonds

Corporate bonds are a debt security issued by a corporation. The backing for the bond is usually the payment ability of the company, which is typically money to be earned from future operations.

Convertible Corporate Bonds

Convertible bonds convey an option to the bondholders to be exchanged for another asset, generally a fixed number of shares of common stock at a pre-stated price.

Pooled Funds

Pooled funds are funds from many individual investors that are aggregated for the purposes of investment and benefit from economies of scale. The System could be indirectly exposed to credit and market risks associated with forward currency contracts to the extent that these pooled funds hold forward currency contracts for purposes of managing exposure to fluctuations

in foreign exchange rates. The System has a total of \$647,675,792 invested in international pooled funds.

Securities Lending

Arkansas Code Annotated § 24-2-602 and the Board's investment policy permit the System to participate in a securities lending program to augment investment income. The System lends its securities to brokers-dealers and other entities with a simultaneous agreement to return the collateral for the same securities in the future.

Derivative Instruments

The System adheres to the Governmental Accounting Standards Board (GASB) Statement No. 53: Accounting and Financial Reporting for Derivative Instruments, which addresses the recognition, measurement, and disclosure of information regarding derivative instruments entered into by state and local governments.

Derivative instruments are financial contracts or agreements whose values depend on the values of one or more underlying assets, reference rates, or financial indexes. Derivative instruments include futures contracts, forward contracts, swap contracts, options contracts, and forward foreign currency exchange. ASPRS, through its external investment managers, can hold such instruments.

ASPRS does comply with GASB No. 53 and will disclose its exposure to derivative instruments if there is exposure. ASPRS had no exposure to any GASB No. 53 derivative instruments at June 30, 2022.

Foreign Currency Forward Contracts

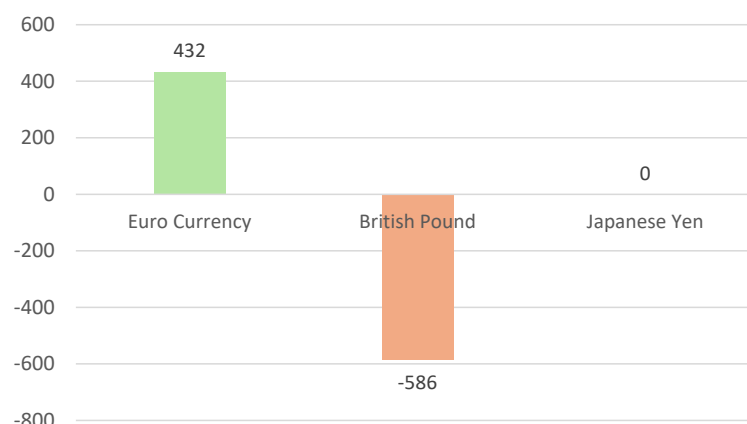
A foreign currency forward is a contractual agreement between two parties to pay or receive specific amounts of foreign currency at a future date in exchange for another currency at an agreed upon exchange rate. Forward commitments are not standardized and carry credit risk due to the possible nonperformance by one of the counterparties. The maximum potential loss is the aggregate face value in U.S. dollars at the time the contract was opened. These transactions are entered in order to hedge risks from foreign currency rate fluctuation and to facilitate trade settlement of foreign security transactions. Forwards carry foreign currency risk resulting from adverse fluctuations in foreign exchange rates.

Foreign Currency Forwards

(in dollars as of June 30, 2024)

	Pay	Receive	Notional Value	Market Value	Unrealized G/L
Euro Currency	USD	EUR	1,316,477	1,316,909	432
British Pound	USD	GBP	799,117	798,532	-586
Japanese Yen	JPY	USD	-2,334	2,334	0
			(1,703,503)	1,570,384	7,006

All figures are APERS and ASPRS combined.



Financial Futures

A financial future is an agreement to purchase or sell a specific amount of an asset at a specified delivery or maturity date for an agreed upon price. These derivative securities are used to improve

yield, adjust duration of the portfolio, circumvent changes in interest rates, or to replicate an index. Futures contracts are standardized and traded on organized exchanges, thereby reducing credit risk.

Financial Futures

(in dollars as of June 30, 2024)

Futures Contract	Expiration	Notional Value	Fair Value	Unrealized Gain/(Loss)
U.S. 2-year Treasury Note	Sept 2024	368,339,398	369,840,156	1,500,758
U.S. 5-year Treasury Note	Sept 2024	14,268,359	14,388,047	119,688
U.S. 10-year Treasury Note	Sept 2024	67,868,438	68,300,297	431,859
U.S. 10-year Ultra Treasury Note	Sept 2024	(8,338,047)	(8,287,781)	50,266
U.S. Long Bond Treasury	Sept 2024	13,265,781	13,487,625	221,844
U.S. Ultra Bond Treasury	Sept 2024	21,059,982	21,183,094	123,111
		476,463,912	478,911,438	2,447,526

Fair Value Measurements

ASPRS categorizes its fair value measurements within the fair value hierarchy by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure the fair value of the asset and give the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lower priority to unobservable inputs (Level 3 measurements).

- Level 1 – Unadjusted quoted prices for identical instruments in active markets.
- Level 2 – Quoted prices for similar instruments in active markets; quoted prices for identical or similar instruments in markets that are not active; and model-derived valuations in which all significant inputs are observable.
- Level 3 – Valuations derived from valuation techniques in which significant inputs are unobservable.

Investments that are measured at fair value using the net asset value per share (or its equivalent) as a practical expedient are not classified in the fair value hierarchy.

In instances where inputs used to measure fair value fall into different levels in the fair value hierarchy, fair value measurements in their entirety are categorized based on the lowest level input that is significant to the valuation. The System assessment of the significance of particular inputs to these fair value measurements requires judgment and considers factors specific to each asset or liability. The table(s) on the following pages shows the fair value leveling of the investments for the System.

Assets classified in Level 1 of the fair value hierarchy are valued directly from a predetermined primary external pricing vendor. Assets classified in Level 2 are subject to pricing by an alternative pricing source due to lack of information available by the primary vendor. Real estate, timberland, and partnership assets classified in Level 3, due to lack of an independent pricing source, are valued using an internal fair value as provided by the investment manager.

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

Investments classified as Level 3 in the Investments and Derivative Instruments Measured at Fair Value table are unobservable, meaning that the assets lack an independent pricing source. Values are provided by the investment manager or an external pricing source such as an independent appraiser.

Investments Measured at the Net Asset Value (NAV)

The fair value of investments that are organized as commingled funds or limited partnerships have no readily ascertainable fair value. The value is determined by using the net asset value per share or its equivalent. Commingled fund values are based on each investor's proportionate share of the total underlying assets in the fund less any liabilities for client withdrawals, investment purchases or other accrued expenses. Limited partnership values are based on the capital account balance the general partner reports at the end of each reporting period, adjusted by subsequent contributions, distributions, management fees, and changes in values of foreign currency and published market prices for certain securities. Even though the limited partnerships and commingled funds issue annual financial statements audited by independent auditors, the year-end for the state and these entities do not always agree.

There are inherent uncertainties in estimating fair values for these types of investments, and it is possible that the estimates will change in the near-term or the subsequent sale of assets will be different from the reported net asset value. With certain exceptions, mainly the equity and the fixed income funds, these investments cannot be redeemed, or, have certain restrictions regarding redemption. The real estate investments distributions are through the liquidation of the underlying assets or net operating cash flows. Each investment has a different redemption frequency and notice period as noted in the Investments Measured at the Net Asset Value table.

Investments and Derivative Instruments Measured at Fair Value

(in dollars as of June 30, 2024)

	Fair Value	Level 1	Level 2	Level 3
Investments At Fair Value				
U.S Domestic Equities	\$2,962,341,050	\$2,962,341,050	\$-	\$-
Convertible Securities	\$346,300,239	\$11,476,950	\$334,823,289	\$-
Preferred Securities	\$1,254,128	\$-	\$1,254,128	\$-
International Equities	\$1,768,181,282	\$1,768,181,282	\$-	\$-
Convertible Securities	\$44,897,988	\$-	\$44,897,988	\$-
Preferred Securities	\$11,929,193	\$11,751,314	\$177,878	\$-
Fixed Income	\$133,269,715	\$-	\$133,269,715	\$-
Domestic Fixed Income	\$833,565,379	\$-	\$833,565,379	\$-
Global Bond Fund	\$8,415,315	\$8,415,315	\$-	\$-
Floating Rate Fund	\$20,219,024	\$20,219,024	\$-	\$-
U.S. Government Securities	\$171,025,061	\$171,025,061	\$-	\$-
Futures	\$2,355,856	\$2,355,856	\$-	\$-
Corporate Bonds	\$-	\$-	\$-	\$-
Loans	\$624,022	\$-	\$-	\$624,022
Total Investments	6,304,378,250	4,955,765,851	1,347,988,378	624,022
Securities Lending Collateral Investments, at Fair Value				
Tri-party REPO	\$166,853,454	\$-	\$166,853,454	\$-
CD's	\$45,465,147	\$-	\$45,465,147	\$-
Commercial Paper	\$213,983,033	\$-	\$213,983,033	\$-
Asset Backed Securities	\$97,733,984	\$-	\$97,733,984	\$-
Floating Rate Securities	\$127,057,063	\$-	\$127,057,063	\$-
Total Securities Lending Collateral	651,092,680		651,092,680	
Total Investments Measured at Fair Value	6,955,470,930	4,955,765,851	1,999,081,058	624,022
Investments Measured at the Net Asset Value (NAV)				
High Yield Core Fund	\$1,124,834			1,124,834
Defensive Bond Fund	\$42,263,062			42,263,062
Domestic Equity Index Funds	\$780,050,857			780,050,857
Core Plus Bond Fund	\$657,250,374			657,250,374
Timberland	\$97,342,734			97,342,734
Global Equity Pooled Funds				
MCM REIT Index	\$11,979,931			11,979,931
MCM ACWI ex-US Index	\$606,841,574			606,841,574
Acadian	\$207,303,011			207,303,011
Franklin Templeton	\$158,355,291	\$158,355,291		
Core Real Estate				
Invesco Core	\$493,046,188			493,046,188
Heitman Core	\$308,289,180			308,289,180
Carlyle Property	\$78,448,351			78,448,351
Clarion	\$75,103,137			75,103,137
Principal Enhanced	\$82,609,917			82,609,917
Value Add/Real Estate				
Heitman Value Add	\$43,755,369			43,755,369
TA Fund X	\$350,410			350,410
TA Fund XI	\$90,973,672			90,973,672
TA Fund XII	\$35,005,762			35,005,762
LaSalle Fund Fund VI	\$4,429,632			4,429,632
LaSalle Fund Fund VII	\$14,760,097			14,760,097
Harrison Street VIII	\$46,961,588			46,961,588
Harrison Street IX	\$30,315,886			30,315,886
Starwood SOF XII	\$39,800,790			39,800,790
Agriculture/Farmland				
PGIM Agricutture	\$46,497,063			46,497,063
IFC	\$50,753,737			50,753,737
Diversified Strategies				
Blackstone	\$233,709,444			233,709,444
HarbourVest	\$104,326,604			104,326,604
NB FOO	\$35,884,838			35,884,838
Total Investments Measured at the NAV	4,377,533,333			

Financial

Investments Measured at the Net Asset Value *(in dollars as of June 30, 2024)*

	Fair Value	Strategy Type	Fund Life of Non-redeemable mandates	Unfunded Commitments
High Yield Core Fund	\$1,124,834	Active High Yield Fixed Income	N/A	none
Defensive Bond Fund	\$42,263,062	Income Oriented	N/A	none
Domestic Equity Index Funds	\$780,050,857	S & P 500 Index	N/A	none
Core Plus Bond Fund	\$657,250,374	Active Global Fixed Income	N/A	none
Timberland	\$97,342,734	Timber	N/A	none
International Equity Pooled Funds				
MCM REIT Index	\$11,979,931	Global Real Estate securities	N/A	none
MCM ACWI ex-US Index	\$606,841,574	International Equities	N/A	none
Acadian	\$207,303,011	International Equities	N/A	none
Franklin Templeton	\$158,355,291	International Equities	N/A	none
Core/Core Plus Real Estate				
Heitman	\$308,289,180	Core Real Estate	N/A	none
Invesco	\$493,046,188	Core Real Estate	N/A	none
Value Add Real Estate				
Heitman Value Partners IV	\$43,755,369	Value Add Real Estate	N/A	\$-
TA Fund X	\$350,410	Value Add Real Estate	N/A	none
TA Fund XI	\$90,973,672	Value Add Real Estate	N/A	none
TA Fund XII	\$35,005,762	Value Add Real Estate	N/A	\$12,172,586
TA Fund XIII	\$4,429,632	Value Add Real Estate	N/A	none
LaSalle Fund Fund VI	\$14,760,097	Value Add Real Estate	N/A	none
LaSalle Fund Fund VII	\$46,961,588	Value Add Real Estate	N/A	\$7,165,057
Harrison Street Fund VIII	\$30,315,886	Value Add Real Estate	N/A	\$48,127,295
Harrison Street Fund IX	\$39,800,790	Value Add Real Estate	N/A	\$36,095,471
Starwood SOF XII	\$75,103,137	Value Add Real Estate	N/A	none
Clarion LIT Fund	\$82,609,917	Value Add Real Estate	N/A	none
Principal Enhanced Fund	\$78,448,351	Value Add Real Estate	N/A	none
Carlyle Property				
Agriculture/Farmland	\$46,497,063	Agriculture/Farmland	N/A	none
PGIM Agriculture	\$50,753,737	Agriculture/Farmland	N/A	\$-
International Farmland				
Diversified Strategies:				
Blackstone	\$233,709,444	Fund of Funds	N/A	none
HarbourVest Dover Street XI	\$104,326,604	Secondary P/E Fund	N/A	\$311,864,868
NB FOO	\$35,884,838	P/E Fund of Funds	N/A	\$284,672,947
Total	<u>\$4,377,533,333</u>			<u>\$700,098,223</u>

Redemption Frequency (if currently eligible)	Redemption Notice Period	Other Redemption Restrictions	Restriction Time Remaining
monthly	T + 3	N/A	N/A
daily	T + 1	N/A	N/A
daily	T + 3	N/A	N/A
daily	T + 3	N/A	N/A
none	N/A	N/A	partnership terminates in December 2027
daily	T + 1	N/A	N/A
daily	T + 1	N/A	N/A
daily w 10day notice	T + 1	N/A	N/A
daily	T + 1	N/A	N/A
quarterly	T + 45	N/A	N/A
quarterly	T + 90	N/A	N/A
7-year lock up	N/A	N/A	the lock up period starts on the day of the last capital call
7-year lock up	N/A	N/A	currently in capital redistribution phase
7-year lock up	N/A	N/A	currently in capital redistribution phase
7-year lock up	N/A	N/A	the lock up period starts on the day of the last capital call
7-year lock up	N/A	N/A	currently in capital redistribution phase
7-year lock up	N/A	N/A	currently in capital redistribution phase
7-year lock up	N/A	N/A	the lock up period starts on the day of the last capital call
7-year lock up	N/A	N/A	the lock up period starts on the day of the last capital call
7-year lock up	N/A	N/A	the lock up period starts on the day of the last capital call
7-year lock up	N/A	N/A	the lock up period starts on the day of the last capital call
7-year lock up	N/A	N/A	the lock up period starts on the day of the last capital call
7-year lock up	N/A	N/A	the lock up period starts on the day of the last capital call
open end w/ 2-year lock up	N/A	N/A	the lock up period starts on the day of the last capital call
open end w/ 2-year lock up	N/A	N/A	the lock up period starts on the day of the last capital call
last day of each quarter	1yr; 2yrs; 3yrs; >3yrs	55% liquidity; then 20%; then 15%; then 10%	N/A
7-year lock up	N/A	N/A	the lock up period starts on the day of the last capital call
7-year lock up	N/A	N/A	the lock up period starts on the day of the last capital call

Financial

High Yield Core Fund

The High Yield Active Core philosophy is centered on the belief that the best risk-adjusted returns and, ultimately, the best absolute returns are generated by a strategy of yield capture and error avoidance.

Defensive Bond Fund

The investment objective is to exploit different sources of return available in high yield corporate securities in a way that generates risk-adjusted returns superior to those available from conventional high yield securities. The investment strategy is based on the assumption and observation that numerous market inefficiencies exist throughout the capital markets (particularly in the high yield bond markets) and that the prudent, active and Systematic exploitation of these inefficiencies can generate returns consistent with these objectives.

Domestic Equity Index Funds

This is a Standard and Poor's 500 (S&P 500) Index fund.

Core Plus Bond Fund

The Core Plus Fixed Income strategy seeks excess return from multiple sources, including sector allocation and subsector and security selection. Duration, yield curve, and currency positioning is moderate. The largest component of the Core Plus Fixed Income risk budget is allocated to portfolio strategies that have consistently generated the highest return for the lowest unit of risk over time, such as sector allocation and subsector security selection.

The Core Plus Fixed Income portfolios may emphasize spread product in the sector allocation process and therefore may hold larger-than-benchmark allocations to corporate bonds, structured product, high yield bonds, and emerging markets debt.

As a result, the strategy would likely outperform in a 'risk on' environment where corporate bonds, for example, are outperforming. The reverse would also likely be true. The Core Plus Fixed Income portfolios take an actively-managed, relative-value driven approach. The strategy is expected to perform best in markets with excess spread dislocations that it can capitalize on through relative value trading.

Timberland

An objective of a timber investment is to provide the fund with diversification from traditional asset classes. The goal of the timber investment is to get a stable core-type return with very low or little volatility.

International Equity Pooled Funds

- **The Bank of New York Mellon Employee Benefit Daily Valued Non-Securities Lending Real Estate Investment Trust (REIT) Index Fund** — This REIT Index Fund seeks to match the performance and the characteristics of the Dow Jones U.S. Select REIT Index which tracks the performance of publicly traded REITs and REIT-like securities and designed to serve as a proxy for direct real estate investments.
- **Mellon All Country World Index (ACWI) ex-US** — This Index captures large and mid-cap representation across 22 of 23 Developed Markets (DM) countries (excluding the U.S.) and 24 Emerging Markets (EM) countries. With 2,166 constituents, the index covers approximately 85% of the global equity opportunity set outside the U.S.
- **Acadian All Country World ex-US Small Cap** — The Acadian All Country World ex-US Small Cap strategy employs a combination of top-down and bottom-up multi-factor models to construct the strategy. The top-down consists of value, growth, momentum, volatility, and macro factors. The bottom up drives 80% of the process.
- **Franklin Templeton** – this is an international equity small cap value strategy. The fund seeks long-term capital growth by investing in securities of smaller companies located anywhere in the world, including emerging markets.

Real Estate

This asset class provides diversification to the total portfolio and strives to reduce total fund volatility while also enhancing the total return of the portfolio. Real estate has a low, and in some cases, negative, correlation with other major investment asset classes. The following are the strategies that comprise the Real Estate asset class and are explained in greater detail.

Core Real Estate

- **Invesco Core Real Estate (ICRE)** — The ICRE strategy is a portfolio of U.S. properties diversified by property type and geographic location, with an emphasis on attractive current income returns and the opportunity for both income and capital growth. It is based on top-down economic fundamentals combined with bottom-up local market intelligence.
- **Heitman America Real Estate Trust (HART)** — The HART strategy creates a high-quality, low-risk portfolio of stabilized, income-producing assets diversified by property type and economic exposure through acquiring assets in infill locations within major metropolitan areas, focusing on strong site attributes such as proximity to amenities and transportation networks, and ensuring that assets are well constructed with features that will appeal to tenants over long periods of time.

Value Added Real Estate

- **Heitman Value Partners IV (“HVP IV”)** - is the fourth offering in Heitman’s North American value-add series. It is a closed-end, commingled fund that will pursue a diverse set of real estate opportunities with value-added business plans. The objective is to provide investors with attractive risk-adjusted returns. The strategy seeks to benefit from Heitman’s extensive research, real estate, and capital markets expertise to identify emerging investment opportunities and trends before they are fully appreciated by the broader market. The Fund will execute investment strategies that capitalize on those opportunities.
- **TA Realty Funds XI, XII and XIII** — TA Realty has managed value-add, commingled real estate funds for approximately 30 years. They have investments in 35 markets, and four property types (office, industrial, multifamily, and retail). The firm has developed and refined a consistent approach focused on creating diversified real estate portfolios that can generate strong cash flow, benefit from an intensive asset management approach, and result in the long-term creating of value of the life of the fund(s).
- **LaSalle Funds VI and VII** — The Funds pursue non-core properties that exhibit strong

fundamentals and are expected to generate both income and appreciation. The sectors focused upon are office, multifamily, retail, industrial, and specialty.

- **Harrison Street Fund VIII and IX** — The Fund acquires, develops, and/or redevelops assets in the education, healthcare, life science, and storage sectors. The majority of the return is anticipated to be generated through appreciation.
- **Starwood Distressed Opportunity Fund XII** —The strategy pursues distressed investment opportunities which are expected to arise from economic disruptions. Investments will be made across multiple sectors, including multifamily, affordable housing, hotels, office, and industrial. The Fund will invest primarily in the United States and Europe. The fund will pursue both debt and equity investments, including the acquisition of distressed or non-performing loans.
- **Clarion Partners Lion Industrial Trust** — This is a \$26 billion open-end industrial fund. It is one of the largest private industrial funds in the U.S. and one of the few “pure-play.” The strategy is to invest in warehouse/distribution facilities that appeal to companies focused on e-commerce, logistics, and supply-chain management, with an emphasis on large core industrial markets throughout the United States.
- **Principal Enhanced Property Fund** — This is an open-end, commingled fund sponsored and managed by Principal Real Estate Investors. The features and objectives of the Fund include: pursues a nationally diversified portfolio of high-quality assets, pursues an “enhanced” or “core plus” investment strategy, and provides market competitive total return.
- **Carlyle Property Investors** — This U.S. focused core-plus fund has its focus on sectors where accelerating demographic trends drive demand. The fund objectives: target investments with a Core+ return profile, seek attractive property rent and NOI growth, seek to generate attractive levels of income and quarterly distributions, and construct a highly diversified portfolio by sector and geography.

Agriculture / Farmland

- **PGIM U.S. Agriculture Fund** — PGIM manages \$2 billion in assets and over 173,000 acres under management. PGIM began investing on behalf of investors in 1989. PGIM seeks to build diversified portfolios of assets with good quality soils and water security located in microclimates with favorable growing conditions. Targeted investments typically fall within one of the following investment themes: healthier lifestyles, farm tech efficacies and higher productivity, competitive advantage/scale, and opportunistic.
- **International Farm Corporation Core Farmland Fund** - This fund seeks to generate stable income and attractive risk-adjusted financial returns. The strategy has a lower correlation to other asset classes, has a lease strategy that reduces risk, and seeks long-term appreciation. The strategy may enable food sourcing solutions for core fund and IFC growers as well.

Diversified Strategies

This asset class provides diversification to the total portfolio and strives to reduce total fund volatility while also enhancing the total return of the portfolio. The following are the strategies that comprise the Diversified Strategies asset class and are explained in greater detail:

- **Blackstone (Fund of Funds)** — The System hired Blackstone to manage a fund-of-funds strategy. As the name suggests Blackstone invests APERS' funds in other hedge funds. The number of funds that APERS invests in varies on market conditions. The types of strategies that are contained within APERS' portfolio also vary. On June 30 there were fundamental equity strategies, event driven strategies, fundamental credit strategies, credit trading strategies, distressed credit strategies, RMBS strategies, structured ABS strategies, multi-strat strategies, commodity strategies, macro rates strategies, thematic macro strategies, quantitative strategies, CTA strategies, and special situation strategies in the portfolio.

- **HarbourVest Dover Street Fund XI** — This is a Private Equity ("P/E") secondaries strategy. It is primarily domestic secondary P/E funds. The fund is diversified by vintage year and strategy types. Investment types vary between buyout, venture, growth equity, and distressed.
- **Neuberger Berman Fund of One** — This is a Private Equity fund of fund strategy similar to the Blackstone strategy. Neuberger Berman invests APERS' funds in other P/E strategies. Neuberger Berman will diversify the strategy by vintage years and style.

Note 4: Legally Required Reserves

- The Employers' Accumulation Account accumulates employers' contributions to be used in providing the reserves required for transfer to the Retirement Reserve Account as members retire or become eligible for disability benefits.
- The Retirement Reserve Account is the account to which member contributions, interest on those contributions, and employer contributions are transferred upon member retirement.
- The Deferred Annuity Account is the amount set up to cover estimated retirement benefits to inactive vested members who are not currently receiving benefit payments.

As a by-product of achieving level contribution financing, actuarial accrued liabilities usually become increasingly well funded over a period of years. Funded ratios in the 70% to 90% range are well funded in public sector retirement plans.

The reserve strength of APERS remains strong both by absolute and relative measures. Sufficient assets were available to pay estimated retirement benefits applicable to retired individuals or beneficiaries currently receiving benefits and inactive vested individuals who are not currently receiving benefits.

Reserve Balances*

(as of June 30, 2024)

Member Deposit Account Reserve	456,095
MDA Interest Reserve	16,969
Employer Accumulation Account	97,569,471
Retirement Reserve Account	329,702,458
DROP Reserve Account	4,744,178
Deferred Annuity Reserve	7,014,407
Outlawed Warrants Reserve	1,095
TOTAL	<u>439,504,672</u>

* Before recommended actuarial transfers. Totals may not add due to rounding.

Note 5: Net Pension Liability

The components of the net pension liability of the System at June 30, 2024 were as follows:

Total Pension Liability	\$574,074,407
Fiduciary Net Position	\$439,504,672
Net Pension Liability	<u>\$134,569,735</u>
Fiduciary Net Position as a Percentage of Total Pension Liability	76.56%

Long-Term Expected Return on Plan Assets

The System's policy in regard to the allocation of its invested assets was established by the Board and is reviewed at least annually to determine if the asset allocation is consistent with an acceptable level of risk and volatility.

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the current asset allocation percentage and by adding expected price inflation.

Best estimates of arithmetic real rates of return for the 10-year period from 2024 to 2033 were based upon capital market assumptions provided by the plan's investment consultants. For each major asset class that is included in the pension plan's current asset allocation as of June 30, 2024, the best estimates are summarized in the following table:

Asset Class	Current Allocation	Long-Term Expected Real Rate of Return
Broad Domestic Equity	39%	5.03%
International Equity	17%	6.34%
Real Estate	16%	4.51%
Private Equity	5%	9.00%
Hedge Funds	2%	3.63%
Domestic Fixed	<u>21%</u>	<u>3.38%</u>
Total	100%	
Total Real Rate of Return		5.00%
Plus: Price Inflation - Actuary's Assumption		2.50%
Less: Investment Expenses (Passive)		<u>0.00%</u>
Net Expected Return		<u>7.50%</u>

Discount Rate

A single discount rate of 7% was used to measure the total pension liability. This single discount rate was based on the expected rate of return on pension plan investments of 7%. The projection of cash flows used to determine this single discount rate assumed that plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the difference between actuarially determined contribution rates and the member rate.

Based on these assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Sensitivity of the Net Pension Liability

Regarding the sensitivity of the net pension liability to changes in the single discount rate, the following presents the plan's net pension liability, calculated using a single discount rate of 7%, as well as what the plan's net pension liability would be if it were calculated using a single discount rate that is 1-percentage-point lower or 1-percentage-point higher:

1% Decrease	Current Discount Rate	1% Increase
6.00%	7.00%	8.00%
\$206,890,479	\$134,569,735	\$74,718,201

Financial

Note 6: Deferred Retirement Option Plan

A Deferred Retirement Option Plan (DROP) is available to members of the System as authorized by A.C.A. §§ 24-4-801 - 24-4-806. In lieu of terminating employment and accepting a retirement benefit under the System, any member who has at least 28 years of actual service in the System can elect to participate in the DROP. The DROP allows a member to defer the receipt of retirement benefits for a maximum of 7 years. During that time, a percentage of a member's chosen benefit is deposited into an account that accrues interest at a rate of 3.25% annually. The System had a balance of \$4,744,178 in the DROP reserve as of June 30, 2024.

Required Supplementary Information

Schedule of Employer Contributions

(dollars in millions)

Years Ended June 30	Actuarially Determined Contribution	Actual Contribution	Contribution Deficiency (Excess)	Covered Employee Payroll	Actual Contributions as a % of Covered Payroll
2015	14.2	19.8	(5.6)	29.9	66.22%
2016	14.3	19.7	(5.4)	29.4	67.01%
2017	14.1	20.0	(5.9)	29.1	68.73%
2018	15.2	21.0	(5.8)	30.0	70.00%
2019	15.6	21.3	(5.7)	30.3	70.30%
2020	16.9	21.9	(5.0)	33.3	65.77%
2021	16.7	22.8	(6.1)	33.6	67.86%
2022	15.9	22.7	(6.8)	32.8	69.21%
2023	18.3	24.0	(5.7)	37.7	63.66%
2024	\$24.3	\$29.6	(5.3)	42.9	69.00%

Schedule of the Net Pension Liability

FY Ending June 30	Total Pension Pension Liability	Fiduciary Net Position	Net Pension Liability	Fiduciary Net Position as a % of Total Pension Liability	Covered Payroll	Net Pension Liability as a % of Covered Payroll
2015	403,202,550	279,657,570	123,544,980	69.36	29,929,358	412.79
2016	413,882,894	272,920,012	140,962,882	65.94	29,448,593	478.67
2017	437,870,023	299,525,117	138,344,906	68.41	29,076,764	475.79
2018	446,878,220	324,938,251	121,939,969	72.71	29,593,145	412.05
2019	458,133,785	337,739,012	120,394,773	73.72	30,287,691	397.50
2020	476,569,897	338,183,678	138,386,219	70.96	33,311,093	415.44
2021	495,913,550	434,873,081	61,040,469	87.69	33,585,266	181.75
2022	504,594,302	381,940,750	122,653,552	75.69%	32,757,302	374.43%
2023	551,397,552	402,335,114	149,062,438	72.97%	37,711,310	395.27%
2024	\$574,074,407	\$439,504,672	\$134,569,735	76.56%	\$42,912,787	313.59%

Schedule of Investment Returns

(annual money-weighted rate of return, net of investment expense, for years ended June 30)

2015	2.26%
2016	-0.08%
2017	11.82%
2018	9.82%
2019	5.36%
2020	2.03%
2021	30.59%
2022	-10.82%
2023	8.43%
2024	9.94%

Financial

Schedule of Changes in the Net Pension Liability and Related Ratios

(for years ended June 30)

	2024	2023	2022	2021
TOTAL PENSION LIABILITY				
Service Cost	9,795,799	7,156,062	\$7,194,124	\$6,536,818
Interest	37,841,301	35,098,769	34,672,914	33,332,676
Benefit Changes	0	0	0	9,589,716
Differences Between Expected and Actual Experience	6,450,634	24,739,809	(4,036,777)	(2,821,477)
Assumption Changes	0	14,369,541	0	0
Benefit Payments	(31,410,879)	(34,560,931)	(29,149,509)	(27,294,080)
NET CHANGE IN TOTAL PENSION LIABILITY	22,676,855	46,803,250	8,680,752	19,343,653
TOTAL PENSION LIABILITY, BEGINNING OF YEAR	551,397,552	504,594,302	495,913,550	476,569,897
TOTAL PENSION LIABILITY, END OF YEAR (a)	574,074,407	551,397,552	504,594,302	495,913,550
FIDUCIARY NET POSITION				
Contributions - Employer	29,585,618	23,989,270	22,693,976	22,783,661
Contributions - Member	0	0	0	0
Net Investment Income	39,221,918	31,210,504	(46,247,450)	101,415,206
Benefit Payments	(31,410,879)	(34,560,931)	(29,149,509)	(27,294,080)
Administrative Expense	(227,099)	(244,479)	(229,348)	(215,384)
Other	0	0	0	0
NET CHANGE IN FIDUCIARY NET POSITION	37,169,558	20,394,364	(52,932,331)	96,689,403
FIDUCIARY NET POSITION, BEGINNING OF YEAR	402,335,114	381,940,750	434,873,081	338,183,678
FIDUCIARY NET POSITION, END OF YEAR (b)	439,504,672	402,335,114	381,940,750	434,873,081
NET PENSION LIABILITY, END OF YEAR (a) - (b)	134,569,735	\$149,062,438	\$122,653,552	\$61,040,469
FIDUCIARY NET POSITION AS A PERCENTAGE OF THE TOTAL PENSION LIABILITY	76.56%	72.97%	75.69%	87.69%
COVERED - EMPLOYEE PAYROLL	\$42,912,787	\$37,711,310	\$32,757,302	\$33,585,266
NET PENSION LIABILITY AS A PERCENTAGE OF COVERED - EMPLOYEE PAYROLL	313.59%	395.27%	374.43%	181.75%

2020	2019	2018	2017	2016	2015
\$5,861,499	\$6,691,528	\$6,577,148	\$5,473,626	\$5,488,445	\$6,101,608
31,967,469	31,299,758	30,678,211	30,322,786	29,469,678	29,218,802
997,533	0	0	0	0	0
7,543,752	(1,805,446)	467,389	(3,052,763)	1,757,687	(3,107,531)
0	0	(4,529,133)	15,875,267	0	8,703,080
(27,934,141)	(24,930,275)	(24,185,418)	(24,631,787)	(26,035,466)	(23,358,801)
18,436,112	11,255,565	9,008,197	23,987,129	10,680,344	17,557,158
458,133,785	446,878,220	437,870,023	413,882,894	403,202,550	385,645,392
476,569,897	458,133,785	446,878,220	437,870,023	413,882,894	403,202,550
21,873,425	21,254,010	21,003,650	19,961,066	19,713,295	19,784,130
0	0	0	0	0	94,814
6,700,845	17,031,467	28,823,333	31,484,250	(210,045)	6,131,684
(27,934,141)	(24,930,275)	(24,185,419)	(24,631,787)	(26,035,466)	(23,358,801)
(195,463)	(554,441)	(228,430)	(208,424)	(205,342)	(196,231)
0	0	0	0	0	6
444,666	12,800,761	25,413,134	26,605,105	(6,737,558)	2,455,602
337,739,012	324,938,251	299,525,117	272,920,012	279,657,570	277,201,968
338,183,678	337,739,012	324,938,251	299,525,117	272,920,012	279,657,570
\$138,386,219	\$120,394,773	\$121,939,969	\$138,344,906	\$140,962,882	\$123,544,980
70.96%	73.72%	72.71%	68.41%	65.94%	69.36%
\$33,311,093	\$30,287,691	\$29,593,145	\$29,076,764	\$29,448,593	\$29,929,358
415.44%	397.50%	412.05%	475.79%	478.67%	412.79%



ASPRS

ARKANSAS STATE POLICE
RETIREMENT SYSTEM

INVESTMENTS



Investment Overview

Investment returns play an important role in the funded ratio of the Arkansas State Police Retirement System and the Arkansas Public Employees' Retirement System's combined portfolio, referred to as "combined portfolio" throughout the remainder of the Investment Section.

The Board of Trustees of the Arkansas Public Employees' Retirement System (the Board) has adopted an Investment Policy Statement with the purpose of the exclusive benefit of the participants and beneficiaries of the System and with the objective of maximizing the total rate of return on investments within prudent risk parameters. The overall goal is to achieve an annualized rate of return which, when combined with employee and employer contributions, will meet or exceed the benefit and administrative requirements of the System.

The System's investments are managed by professional investment management firms based upon statutory investment authority as well as the investment policies adopted by the Board. The investment staff coordinates and monitors the investment of the trust fund's assets and assists in the formulation and implementation of investment policies and long-term investment strategy.

The net investment portfolio fair values shown in this section, and used for the basis of calculating investment returns, may differ from those shown in other sections of this report. The values shown in this section are the appropriate industry standard basis for investment return calculation.

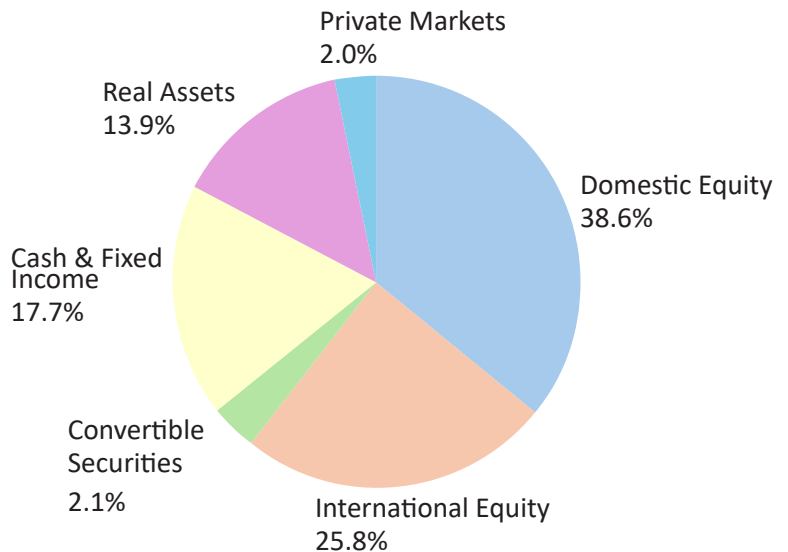
Asset Allocation and Diversification

Asset allocation is a process which is designed to construct an optimal long-term asset mix which achieves a specific set of investment objectives. The Investment Policy Statement establishes the System's asset allocation policy as designed to meet those objectives.

The System's asset allocation policy has been adopted to provide diversification. The goal is to maximize the investment return as well as to be consistent with prudent levels of market and economic risks. The most important investment decision is the determination of asset allocation targets.

The pie chart illustrates the actual asset allocation to each type of investment as of the June 30, 2024.

Summary of Investments by Asset Class
as of June 30, 2024



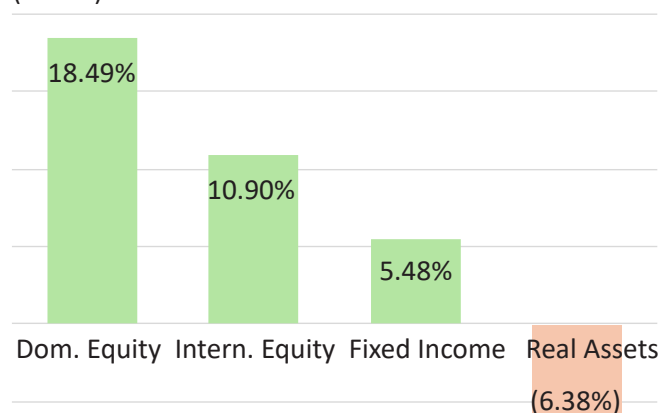
Due to rounding, chart may not equal 100%

Risk is further diversified by utilizing active and passive management as well as by retaining multiple investment management firms with varying investment styles.

The System also places restrictions on the investment managers. The combined portfolio has investment guidelines that manage the risk of high concentrations in a particular sector, industry, or security.

Capital Markets Commentary

The System posted a return of **10.42%**. Domestic Equity posted a 18.49% return for the fiscal year. International Equity posted a 10.90% return. Fixed Income posted a 5.48% return. Real Assets posted a (6.38%) return.



Investments

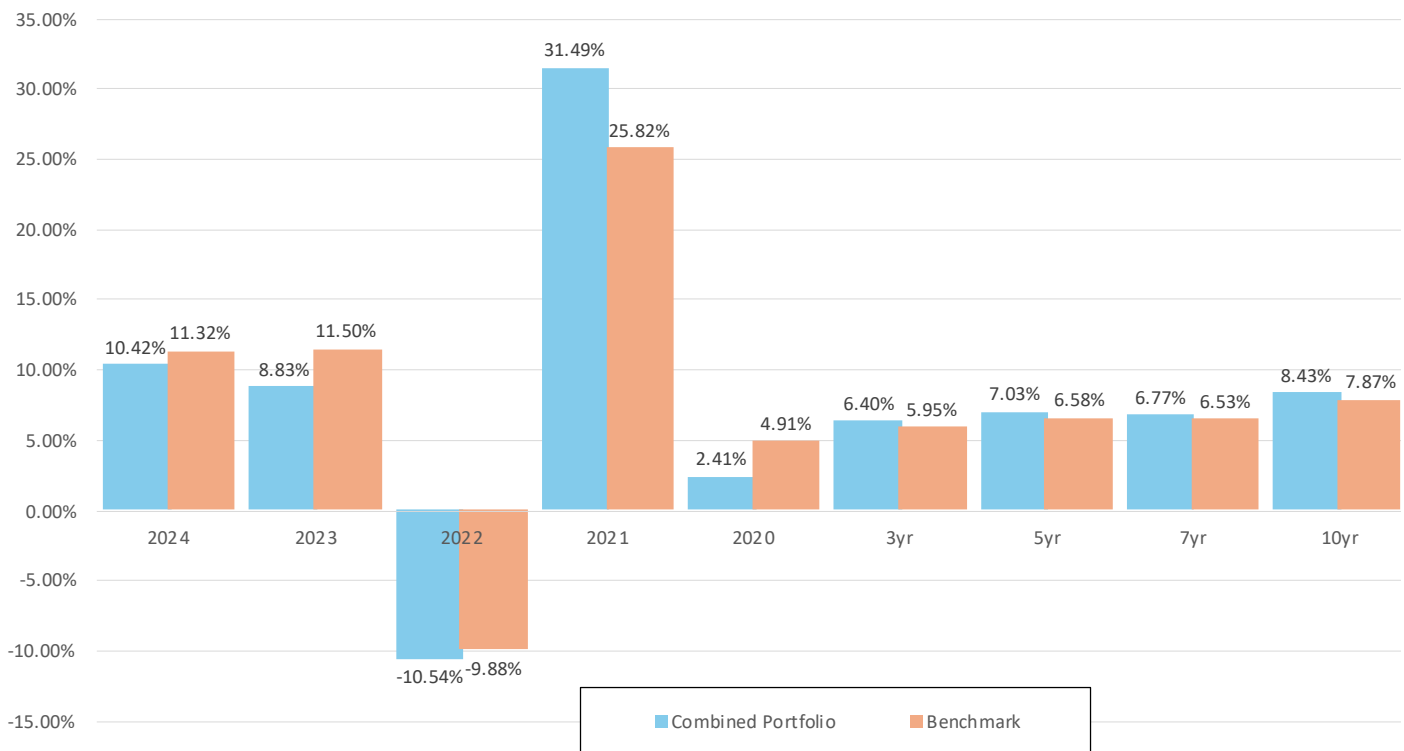
Investment Results

For the fiscal year ending June 30, 2024, the combined portfolio realized a total investment return of +10.42%. The return slightly underperformed the 11.32% return of the combined portfolio's policy benchmark, a set of market indexes and weightings to those indexes that reflect the combined portfolio's asset class targets. Outperformance was aided by active investment management, especially in the international equity allocation.

The combined portfolio's +10.42% return exceeded the actuarial assumed rate of return of 7.15%.

The following tables provide a historical perspective of the combined portfolio's investment returns and performance over the past few years. The investment returns are shown for the total combined portfolio as well as for each asset class over various time periods, including benchmark or target for each asset class.

Investment Performance Summary



Schedule of Comparative Investment Results by Year

	2024	2023	2022	2021	2020	2019	2018	2017
Total Fund								
ASPRS	10.42%	8.83%	-10.54%	31.49%	2.41%	5.78%	10.25%	12.30%
Benchmark	11.32%	11.50%	-9.88%	25.82%	4.91%	6.68%	8.40%	12.90%
Actuarial Assumed Investment Return	7.15%	7.15%	7.15%	7.15%	7.15%	7.15%	7.15%	7.15%
Domestic Equities								
ASPRS	18.49%	15.24%	-14.22%	43.65%	6.06%	8.12%	16.27%	17.52%
Russell 3000 Index	23.13%	18.95%	-13.87%	44.16%	6.53%	8.98%	14.78%	18.51%
International Equities								
ASPRS	10.90%	17.06%	-22.24%	41.35%	(1.45)%	1.98%	7.22%	18.39%
MSCI - EAFE Index	11.57%	18.77%	-17.77%	32.35%	(5.13)%	1.08%	6.84%	20.27%
Fixed Income								
ASPRS	5.48%	0.82%	-11.39%	4.32%	6.81%	8.57%	0.79%	3.04%
Bloomberg Aggregate Index	2.63%	-0.94%	-10.29%	(0.33)%	8.74%	7.87%	(0.40)%	(0.31)%
Private Market								
ASPRS	24.56%	4.75%	-4.53%	17.26%	(1.17)%	10.20%	6.43%	5.51%
Diversified Strategy Target	N/A	10.49%	-12.51%	22.15%	6.45%	7.41%	6.40%	10.51%
Real Assets								
ASPRS	-6.38%	-7.53%	29.59%	18.52%	(4.37)%	1.72%	11.34%	3.27%
Consumer Price Index - U + 4%	-5.53%	6.97%	13.06%	9.39%	4.65%	5.65%	6.87%	5.63%

Investments

Schedule of Comparative Annualized Investment Results

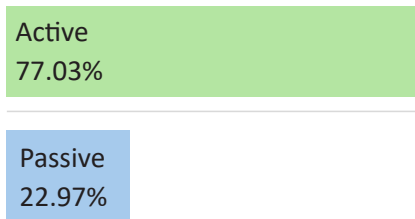
	3-year	5-year	7-year	10-year
Total Fund				
ASPRS	2.44%	7.65%	6.77%	6.90%
Benchmark	3.60%	8.01%	6.53%	7.06%
Actuarial Assumed Investment Return	7.15%	7.15%		
Domestic Equities				
ASPRS	5.41%	12.28%	12.23%	10.91%
Russell 3000 Index	8.05%	14.14%	13.48%	12.15%
International Equities				
ASPRS	0.31%	7.05%	6.34%	5.16%
MSCI - EAFE Index	0.19%	4.92%	4.63%	3.57%
Fixed Income				
ASPRS	-1.96%	0.98%	2.00%	2.34%
Bloomberg Aggregate Index	-3.02%	-0.23%	0.86%	1.35%
Private Market				
ASPRS	7.60%	7.62%	7.81%	6.48%
Diversified Strategy Target	N/A	N/A	N/A	N/A
Real Assets				
ASPRS	3.91%	4.92%	5.35%	4.90%
Consumer Price Index - U + 4%	4.54%	5.52%	5.73%	5.49%

Domestic Equity

As of June 30, 2024, 39.56% of the combined portfolio was invested in domestic equities (U.S. stocks). The fair value of the domestic equity component was \$4.541 billion.

The portfolio takes an active management approach to the U.S. stock markets with 77.03% invested with active investment managers.

Active vs. Passive Portfolio Assets



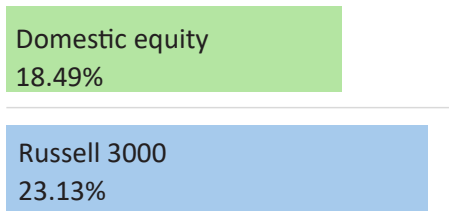
The passive component is primarily an S&P 500 Index fund and a Large Cap Growth Index Fund. It constitutes an efficient, low-cost means of obtaining market exposure and provides liquidity should it be needed for benefit payments.

Combined Portfolio Strategies

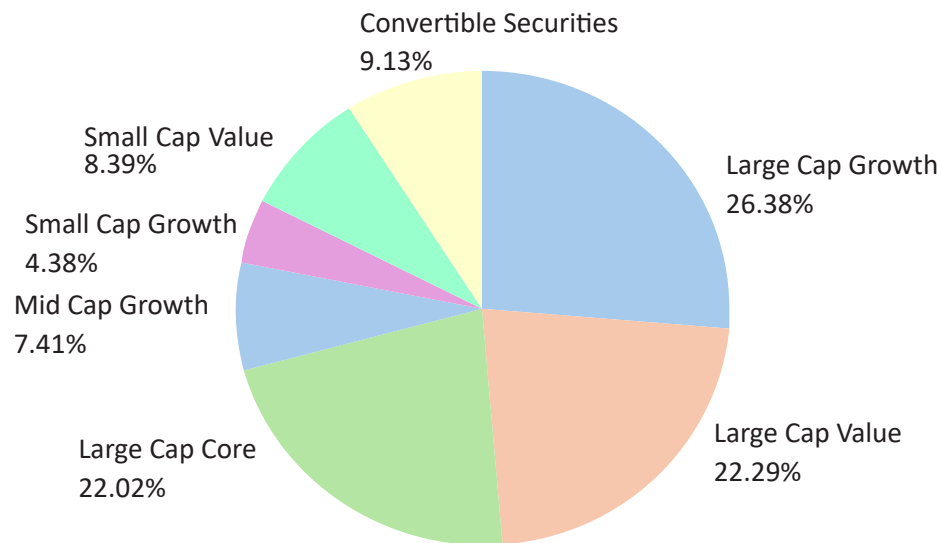
The combined portfolio utilizes active management in small, mid, and large capitalization stock strategies. The portfolio is also invested in strategies that focus on different investment styles: a value portfolio which focuses on companies undervalued relative to their prospective dividend and earnings growth; a growth portfolio which focuses on companies whose earnings are expected to grow at rates which exceed the general economy; and a core portfolio which seeks to add value across all sectors through stock selection.

Results

The domestic equity portfolio returned 18.49% for the fiscal year, the Russell 3000 Index, returned 23.13%.



Combined Portfolio Strategies



The portfolio is widely diversified across various equity market sectors and industries.

Investments

International Equity

As of June 30, 2024, 24.63% of the combined portfolio was invested in international equities (non-U.S. stocks). The fair value of the international equity portfolio of the combined portfolio was \$2.827 billion.

The international equity portfolio takes an active management approach to international markets with approximately 77.71% invested with active investment managers. The international portfolio assets are allocated across developed and emerging markets. The combined portfolio utilizes the MSCI EAFE (Europe, Asian, and Far East) Index as its benchmark for the international equity index.

Active
77.71%

Passive
22.29%

The passive component is an ACWI ex-US Index Fund. Similar to the S&P 500 Index Fund, it constitutes an efficient, low-cost means of obtaining market exposure and provides liquidity should it be needed for benefit payments.

Results

The international equity portfolio returned 17.16% for the fiscal year, the MSCI EAFE Index, returned 12.5%.

International equity portfolio
17.16%

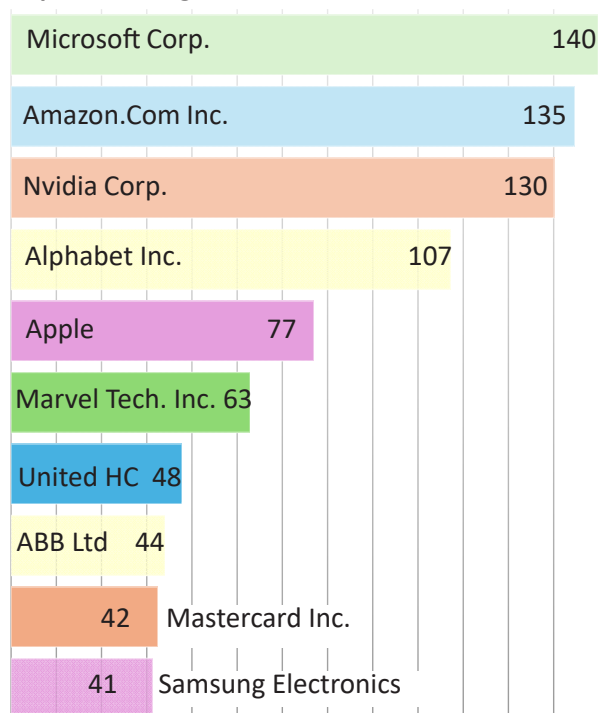
MSCI EAFE
12.50%

Top 10 Holdings

The top 10 holdings within the public equity portfolio (domestic and international combined) as of June 30, 2024

	Holding	Market Value*
1	MICROSOFT CORP	139,879,260
2	AMAZON.COM INC	134,672,253
3	NVIDIA CORP	130,115,293
4	ALPHABET INC	107,164,856
5	APPLE INC	76,951,913
6	MARVELL TECHNOLOGY INC	62,869,178
7	UNITEDHEALTH GROUP INC	47,786,921
8	ABB LTD	44,032,151
9	MASTERCARD INC	42,432,975
10	SAMSUNG ELECTRONICS CO LTD	41,341,774

Top 10 Holdings



The top 10 holdings within the public equity portfolio in millions of dollars.

Fixed Income

As of June 30, 2024, 17.31% of the combined portfolio was invested in fixed income securities. The fair value of the fixed income equity portfolio was \$1.987 billion.

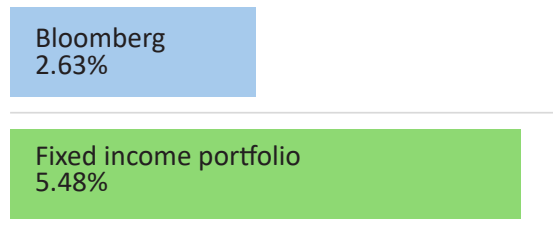
Core-Plus Fixed Income

the fixed income portfolio of the combined portfolio is invested in core-plus fixed income strategies. The objective is to generate a return above the core fixed income investment. The fixed income portfolio is 100% invested in core plus and is 100% actively managed.

The core-plus portfolio is a diversified portfolio of fixed income securities, utilizing cash and cash equivalents, forward foreign exchange contracts, swaps, currency options, financial futures, government and government agency bonds, Eurobonds, nondollar bonds, nonconvertible preferred stock, options on fixed income instruments, mortgage-backed bonds, corporate bonds, commercial mortgage-backed securities, private placement corporate bonds, and asset-backed securities.

Results

The fixed income portfolio returned 5.48% for the fiscal year, the Bloomberg Aggregate Index, returned 2.63%.



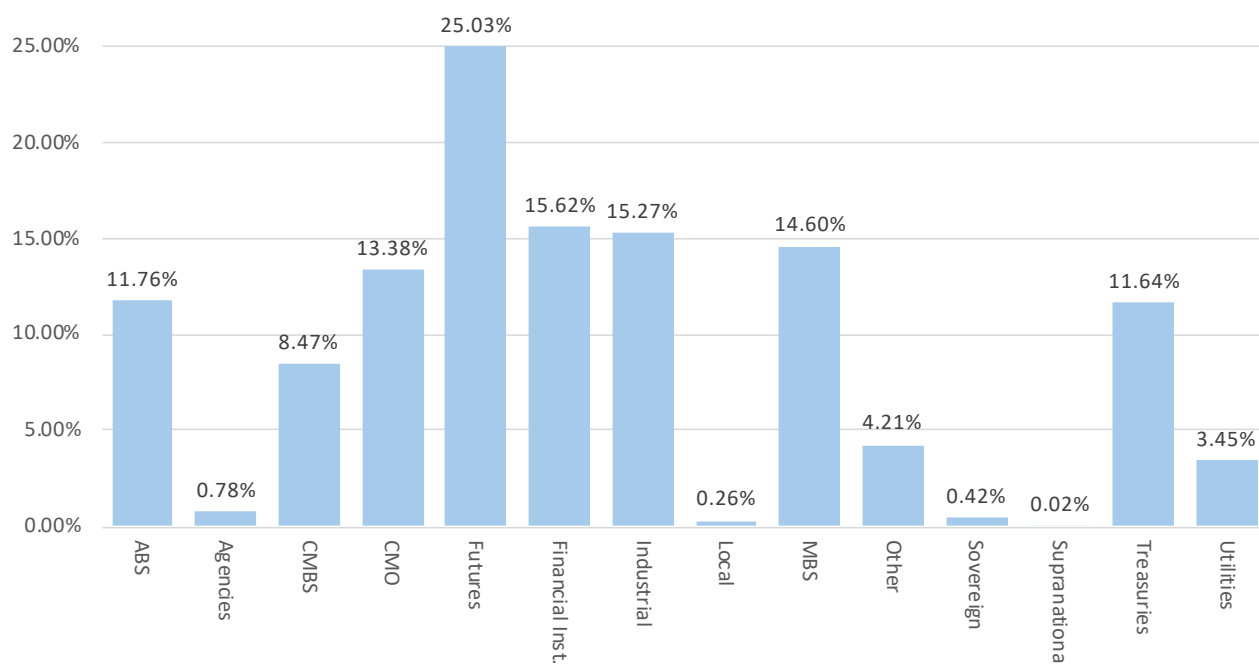
Top 10 Holdings

The top 10 holdings within the fixed income portfolio as of June 30, 2024

	Holdings	Description	Market Value*
1	U S TREASURY BOND	1.125% 08/15/2040	24,776,280
2	U S TREASURY NOTE	0.875% 11/15/2030	23,645,284
3	U S TREASURY BOND	4.625% 05/15/2044	22,642,861
4	U S TREASURY NOTE	0.750% 03/31/2026	16,787,160
5	U S TREASURY BOND	1.875% 02/15/2041	15,018,379
6	U S TREASURY BILL	0.000% 10/01/2024	14,740,605
7	U S TREASURY NOTE	4.500% 04/15/2027	12,413,468
8	U S TREASURY NOTE	0.625% 08/15/2030	11,913,710
9	U S TREASURY NOTE	0.625% 05/15/2030	11,732,530
10	U S TREASURY BOND	4.625% 05/15/2054	11,153,700

*Figures are APERS and ASPRS combined

Core-Plus Fixed Income Distribution



Investments

Private Markets

As of June 30, 2024, 3.38% of the combined portfolio was invested in diversified strategies. This asset class has the smallest allocation target. The fair value of the portfolio was \$388 million.

The Fund-of-Funds strategy invests in hedge funds. The total number of funds varies as does the types of strategies. On June 30, 2024, there were fundamental equity strategies, event driven strategies, fundamental credit strategies, credit trading strategies, distressed credit strategies, Residential Mortgage Backed Securities (RMBS) strategies, structured Asset-Backed Securities (ABS) strategies, “multi-strat” strategies, commodity strategies, macro rates strategies, thematic macro strategies, quantitative strategies, Commodity Trade Advisor (CTA) strategies, and special situation strategies in the portfolio.

The private markets sector also includes private equity which is a new asset class for the fund.

Results

The Private Markets Strategies portfolio returned 24.56% for the fiscal year. The combined portfolio’s hedge fund targeted performance returned 10.58%.

Private Market Portfolio

Target
10.58%

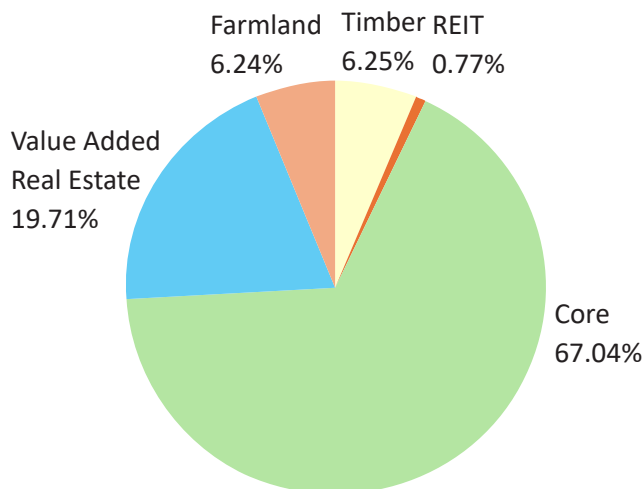
Actual
24.56%

Real Assets

As of June 30, 2024, 14.10% of the combined portfolio was invested in real assets. The fair value of the real asset component of the combined portfolio was \$1.618 billion.

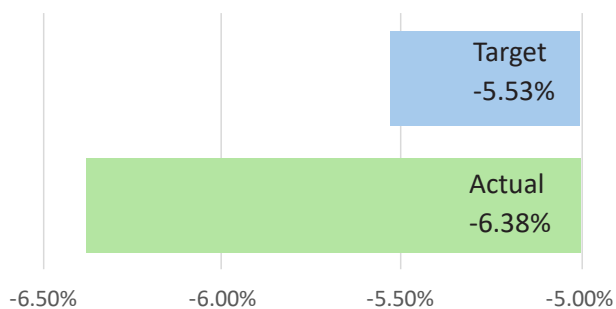
The asset allocation comprises five different sub-categories: core real estate, value add real estate, timber, agriculture, and a passive REIT index.

Real Assets Portfolio

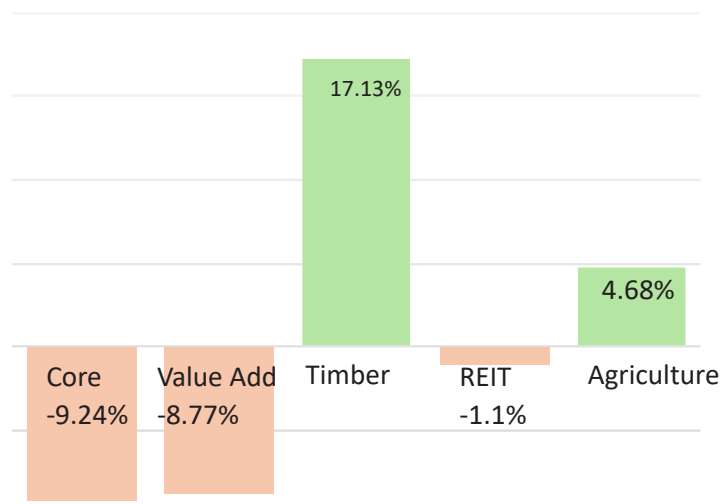


Results

The Real Assets portfolio returned -6.38% for the fiscal year. The combined portfolio’s targeted performance returned -5.53% which is not a benchmark because a benchmark does not exist.



Core Real Estate returned -9.24% for the fiscal year, Value Add Real Estate returned -8.77%, Timber returned 17.13%, REITs returned -1.1%, and Agriculture returned 4.68%



Investment Managers

Acadian Asset Management
Boston, MA 02110

Artisan Partners
Milwaukee, WI 53202

Baillie Gifford Overseas Ltd.
Edinburgh, Scotland

Blackstone Alternative Asset Management, LP
New York, NY 10154

The Carlyle Group
Washington, D.C. 20001

CastleArk Management, LLC
Chicago, IL 60606

Clarion Partners
New York, NY 10169

DoubleLine Capital
Los Angeles, CA 90071

Franklin Templeton Institutional
Coral Gables, FL

HarbourVest Partners, LLC
Boston, MA 02111

Harrison Street Real Estate Partners
Chicago, IL 60606

Heitman America Real Estate
Chicago, IL 60606

Horrell Capital Management
Little Rock, AR 72211

International Farming Investment Management, LLC.
Kinston, NC 28504

Invesco Real Estate
Dallas, TX 75240

LaSalle Investment Management
San Francisco, CA 94111

Lazard Asset Management
New York, NY 10020

LSV Asset Management
Chicago, IL 60606

Mackay Shields
New York, NY 10105

Mellon Capital
Pittsburgh, PA 15258

Neuberger Berman Group, LLC
New York, NY 10104

PGIM U.S. Agriculture
San Francisco, CA 94111

Pinnacle Forest Investments, LLC
Little Rock, AR 72211

PGIM, Inc.
Newark, NJ 07102

Principal Real Estate Investors, LLC
Des Moines, IA 50309

SSI Investment Management
Beverly Hills, CA 90210

Starwood Management LLC
Los Angeles, CA 90025

Stephens Investment Management Group
Houston, TX 77046

TA Associates Realty
Boston, MA 02109

Wellington Management Company
Boston, MA 02210

William Blair, LLC
Chicago, IL 60606

Investments

Schedule of Manager Distribution

(for the year ended June 30, 2024)

Asset Allocation	ASPRS
Domestic Equity	
SSI INVESTMENT MGMT	15,534,379.91
LAZARD ASSET MGMT	19,202,275.09
WELLINGTON	18,703,861.63
CASTLEARK MGMT	25,126,268.44
STEPHENS SMALL CAP GROWTH	7,457,302.45
STEPHENS MID CAP GROWTH	12,606,497.45
LSV ASSET MANAGEMENT	14,270,286.67
HORRELL CAPITAL (PASSIVE)	8,726,663.76
MCM EB LARGE CAP GROWTH	1,624,009.92
WILLIAM BLAIR - LARGE CAP GROWTH	18,114,288.85
MCM EB DV STOCK INDEX	<u>28,723,403.70</u>
	170,089,237.88
Domestic Fixed Income	
MACKAY CP II (PARETO)	25,464,969.52
DOUBLELINE CAPITAL	23,400,760.70
PRUDENTIAL INVESTMENTS	<u>25,569,934.02</u>
	74,435,664.24
International Equity	
MCM ACWI EX-US INDEX FUND	23,608,809.71
ACADIAN ASSET MANAGEMENT	8,065,000.08
FRANKLIN TEMPLETON	6,160,718.22
MANNING & NAPIER	9,119.41
LAZARD ASSET MGMT	21,685,489.29
ARTISAN PARTNERS	27,263,355.74
BAILLIE GIFFORD	<u>19,131,085.11</u>
	105,923,577.55
Private Markets/ Diversified Strategies	
HARBOURVEST DOVER XI	4,058,764.33
NEUBERGER BERMAN	1,396,078.24
BLACKSTONE	<u>9,092,326.62</u>
	14,547,169.20
Real Assets	
CASTLEARK (GLOBAL ENERGY)	416.82
PGIM AGRICULTURE	1,808,940.51
IFC INTERNATIONAL FARMING	1,974,543.87
HARRISON STREET FUND VIII	1,827,012.57
STARWOOD SOF XII	1,548,426.02
INVESCO REALTY (CORE FUND)	19,335,685.04
HEITMAN VALUE FD IV	1,731,200.04
TA ASSOC. REALTY - FUND XI	13,632.51
TA ASSOC. REALTY - FUND XII	3,539,276.50
TA ASSOC. REALTY - FUND XIII	1,361,878.29
LASALLE INV MGMT - FUND VI	172,332.20
LASALLE INV MGMT- FUND VII	574,232.77
HEITMAN REAL ESTATE	12,115,624.94
PINNACLE FOREST INVEST.	3,787,061.03
MCM EB DV NON ST RT	466,072.09
CARLYLE PROP INV FUND	3,051,986.32
PRINCIPLE ENHANCED PF	3,213,889.59
CLARION LION IND TRUST	2,921,842.76
HARRISON STREET FUND IX	<u>1,179,421.46</u>
	60,623,475.35
Short-term Investment Fund	<u>13,893,904.67</u>
TOTAL FUND	<u>27,787,809.34</u>

Schedule of Brokerage Commissions

(for the year ended June 30, 2024)

Brokerage firm

GOLDMAN SACHS & CO, NY	2,153
J.P MORGAN SECURITIES INC, NEW YORK	2,813
JEFFERIES & CO INC, NEW YORK	1,558
MERRILL LYNCH PIERCE FENNER SMITH INC NY	1,936
MORGAN STANLEY AND CO., LLC, NEW YORK	1,785
CITIGROUP GLOBAL MARKETS, INC., NEW YORK	832
BMO CAPITAL MARKETS CORP, NEW YORK	1,249
BNP PARIBAS PEREGRINE SEC LTD, HONG KONG	1,053
ISI GROUP INC, NEW YORK	788
PIPER JAFFRAY & CO., JERSEY CITY	1,253
All Others (165)	14,791
	\$ 30,211

Schedule of Investment Fees

(for the year ended June 30, 2024)

Domestic Equity	485,782.54
Fixed Income	142,094.14
International Equity	375,210.19
Private Markets / Diversified Strategies	265,465.79
Real Assets	320,716.35
Consulting Services †	68,065.95
Bank of New York Mellon*	19,855.66
	1,677,190.62

*Custodian bank

† Investment consultant

Investments

ASPRS

ARKANSAS STATE POLICE
RETIREMENT SYSTEM

ACTUARIAL





November 1, 2024

Board of Trustees
Arkansas State Police Retirement System
Little Rock, Arkansas

Dear Board Members:

The basic financial objective of the Arkansas State Police Retirement System (ASPRS) as provided in the Arkansas Code is to establish and receive contributions which, expressed as percents of active member payroll, will remain approximately level from generation to generation of Arkansas citizens and when combined with present assets and future investment return will be sufficient to meet the financial obligations of ASPRS to present and future benefit recipients. The progress towards meeting this financial objective is illustrated in the Schedule of Funding Progress and the Schedule of Employer Contributions.

We performed an actuarial valuation and issued an actuarial valuation report for ASPRS as of June 30, 2024. The purpose of the June 30, 2024 annual actuarial valuation was to determine the contribution requirement for the fiscal year ending June 30, 2025 and to measure the System's funding progress. The actuarial valuation report should not be relied upon for any other purpose. The valuation process develops contribution rates that are sufficient to fund the plan's normal cost (i.e., the cost assigned by the valuation method to the year of service about to be rendered) as well as to fund unfunded actuarial accrued liabilities as a level percent of active member payroll over a period of up to 30 years. The most recent valuations were completed based upon population data, asset data, and plan provisions as of June 30, 2024. In addition, a separate report was issued (dated October 31, 2024) to provide actuarial information for GASB Statement No. 67 and GASB Statement No. 68.

The ASPRS administrative staff provides the actuary with data for the actuarial valuation. The actuary relies on the data after reviewing it for internal and year-to-year consistency. The actuary summarizes and tabulates population data in order to analyze longer term trends. We are not responsible for the accuracy or completeness of the data provided by staff.

The actuarial valuation report and GASB Statement Nos. 67 and 68 report contain the following supporting schedules for use in the Actuarial and Financial Sections of the Annual Comprehensive Financial Report:

Actuarial Section

- Summary of Assumptions Used
- Summary of Actuarial Methods and Assumptions
- Active Member Valuation Data
- Short Condition Test
- Analysis of Financial Experience
- Analysis of Financial Experience – Gains and Losses by Risk Area

Board of Trustees
Arkansas State Police Retirement System
November 1, 2024
Page 2

Financial Section

- Schedule of Funding Progress
- Schedule of Changes in Net Pension Liability and Related Ratios
- Schedule of the Net Pension Liability
- Schedule of Contributions
- Notes to Schedule of Contributions

For actuarial valuation purposes, assets are valued on a market related basis that recognizes each year's difference between actual and assumed investment return over a closed four-year period.

Actuarial valuations are based upon assumptions regarding future activity in specific risk areas, including the rates of investment return and payroll growth, eligibility for the various classes of benefits, and longevity among retired lives. These assumptions are adopted by the Board after considering the advice of the actuary and other professionals. The actuarial assumptions used for the valuation produce results which, individually and in the aggregate, are reasonable. The combined effect of the assumptions, excluding prescribed assumptions or methods set by law, is expected to have no significant bias (i.e., not significantly optimistic or pessimistic). The assumptions and the methods comply with the requirements of the Actuarial Standards of Practice. Each actuarial valuation takes into account all prior differences between actual and assumed experience in each risk area and adjusts the contribution rates as needed. The June 30, 2024 valuations were based upon assumptions that were recommended in connection with a study of experience covering the period 2017-2022.

The computed employer contribution rate to satisfy the statutory funding requirements set forth in Section 24-6-209 of the Arkansas Code is 52.00% of covered payroll for the year beginning July 1, 2024. Actual revenues were greater than the statutory requirement for the last 18 years. *ASPRS' ongoing ability to satisfy statutory funding requirements is dependent upon its access to sufficient annual transfers from the remainder of insurance premium taxes enumerated in A.C.A.19-6-301(27) to finance unfunded actuarial accrued liabilities over a closed period of 15 years.*

We have assessed that the contribution rate calculated under the current funding policy is a reasonable Actuarially Determined Employer Contribution (ADEC) and it is consistent with the plan accumulating adequate assets to make benefit payments when due.

Future actuarial measurements may differ significantly from those presented in the annual valuations due to such factors as experience differing from that anticipated by actuarial assumptions, or changes in plan provisions, actuarial assumptions/methods or applicable law. Due to the limited scope of the assignment, we did not perform an analysis of the potential range of future measurements.



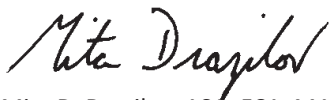
Board of Trustees
Arkansas State Police Retirement System
November 1, 2024
Page 3

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

The signing actuaries are independent of the plan sponsor.

Mita D. Drazilov and Heidi G. Barry are Members of the American Academy of Actuaries (MAAA) and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

Respectfully submitted,
Gabriel, Roeder, Smith & Company



Mita D. Drazilov, ASA, FCA, MAAA



Heidi G. Barry, ASA, FCA, MAAA

MDD/HGB:rmn



Summary of Actuarial Assumptions*

Economic Assumptions

The investment return assumption used in making the valuation was 7.00% per year, compounded annually (net after investment expenses). The assumed real rate of return is the portion of investment return which is more than the wage inflation rate. Considering assumed wage inflation of 3.25%, the 7.00% investment return rate translates to an effective assumed real rate of return of 3.75%. The wage inflation assumption was revised for the June 30, 2015, valuation and the investment return assumption was revised for the June 30, 2023, valuation.

Pay increase assumptions for individual active members are shown on page D-5. Part of the assumption for each age is for a merit and/or seniority increase, and the other 3.25% recognizes wage inflation. The wage inflation assumption consists of 2.50% for price inflation and 0.75% for real wage growth. The pay increase assumption for individual active members was revised for the June 30, 2023 valuation.

Total active member payroll is assumed to increase 3.25% a year, which is the portion of the individual pay increase assumptions recognizing wage inflation.

The number of active members is assumed to continue at the present number.

Non-Economic Assumptions

The healthy retiree mortality tables, for post-retirement mortality, used in evaluating allowances to be paid were the PubS-2010 Amount-Weighted Below-Median Income Safety Retiree Mortality tables for healthy retirees, multiplied by 114% for males and 108% for females. The disabled retiree mortality tables, for post-retirement disabled mortality, used in evaluating allowances to be paid were the PubNS-2010 Amount-Weighted Safety Disabled Retiree Mortality tables for disabled retirees, multiplied by 114% for males and 108% for females. The pre-retirement mortality tables used were 75% of the PubS-2010 Amount-Weighted Below-Median Safety Employee Mortality tables

for active mortality experience. Mortality rates for a particular calendar year are determined by applying the MP-2021 mortality improvement scale to the above described tables. Related values are shown on pages D-3 (post-retirement) and D-5 (pre-retirement). These assumptions were first used for the June 30, 2023 valuation.

The probabilities of retirement for members eligible to retire are shown on page D-4. The assumption was revised for the June 30, 2023 valuation.

The probabilities of death-in-service, disability and withdrawal from service are shown for sample ages on page D-5. The assumption for death-in-service was revised for the June 30, 2023 valuation.

The individual entry-age normal actuarial cost method of the valuation was used in determining liabilities and normal cost.

Differences in the past between assumed experience and actual experience (“actuarial gains and losses”) become part of actuarial accrued liabilities.

Unfunded actuarial accrued liabilities are amortized to produce contribution amounts (principal & interest) which are level percent-of-payroll contributions.

Present assets (cash & investments) were valued on a market related basis in which differences between actual and assumed returns are phased-in over a four-year period.

The data about persons now covered and about present assets was furnished by the System’s administrative staff. Although examined for general reasonableness, the data was not audited by the Actuary.

The actuarial valuation computations were made by or under the supervision of a Member of the American Academy of Actuaries (MAAA).

*The data referenced in this section is taken from the actuary’s report, Arkansas State Police Retirement System Actuarial Valuation and Experience Gain/(Loss) Analysis June 30, 2024, prepared by Gabriel Roeder Smith & Co. A PDF copy of the report is available for download at www.apers.org.

Supplementary Information

(as of June 30, 2024)

The information presented in the required supplementary schedules was determined as part of the actuarial valuations at the dates indicated. Additional information as of the latest valuation date follows:

Valuation Date	June 30, 2024
Actuarial Cost Method	Entry Age Normal Cost
Amortization Method	Level Percent-of-Payroll
Remaining Amortization Period	15-Year Closed
Asset Valuation Method	4-Year Smoothed Market
Actuarial Assumptions:	
Investment Rate of Return	7.00%
Projected Salary Increases	4.05% -8.25%
Including Wage Inflation at	3.25%
Cost-of-Living Adjustments	3.0% Annual Compound Increases
Retirees and Beneficiaries Receiving Benefits	755
Terminated Plan Members Entitled to But Not Yet Receiving Benefits	121
DROP Members	34
Active Plan Members	527
Total	1,437

Actuarial

Actuarial Data

Single Life Retirement Values

(as of June 30, 2024)

Sample Attained Ages	Present Value of \$1.00 Monthly for Life		Present Value of \$1.00 Monthly for Life Increasing 3% Annually		Future Life Expectancy (Years) 2024 *	
	Men	Women	Men	Women	Men	Women
40	\$ 161.57	\$ 166.22	\$ 240.56	\$ 252.13	42.69	46.87
45	156.38	162.13	226.84	239.90	37.60	41.64
50	150.07	156.45	211.47	225.12	32.69	36.44
55	141.70	148.96	193.42	207.86	27.88	31.35
60	131.23	139.61	173.08	188.41	23.26	26.47
65	118.75	128.27	151.04	167.04	18.95	21.87
70	104.00	114.51	127.42	143.63	14.95	17.55
75	87.35	98.31	103.08	118.69	11.35	13.58
80	69.71	80.58	79.36	93.73	8.25	10.08
85	52.93	62.97	58.36	70.78	5.77	7.21

* Applicable to calendar year 2024. Life expectancies and rates in future years are determined by the fully generational MP-2021 projection scale.

Sample Attained Ages	\$100 Benefit Increasing 3% Yearly
55	\$100.00
60	115.93
65	134.39
70	155.79
75	180.60
80	209.36

Active Members in Actuarial Valuation *(for fiscal years ended June 30, 2024)*

June 30	No. #	Group Averages		
		Age	Service	Pay
2015	558	41.0	13.0	53,637
2016	554	40.9	13.1	53,156
2017	528	41.7	13.8	55,070
2018	528	41.4	12.7	56,048
2019	529	41.0	12.5	57,255
2020	541	40.9	12.5	61,573
2021	545	41.1	12.6	61,624
2022	519	40.8	12.6	63,116
2023	517	40.4	13.8	72,943
2024	561	39.7	12.6	76,493

Includes DROP participants.

Tier One and Tier Two Participants *(as of June 30, 2024)*

	No.	Group Averages		
		Age	Vesting Service	Pay
Tier One	7	53.4 yrs.	28.0 yrs.	\$113,754
Tier Two	520	38.5	11.3	74,514
Tier One - DROP	22	56.2	29.5	102,866
Tier Two - DROP	12	53.3	31.0	92,167
Total	561	39.7	12.6	\$ 76,493

Separations from Active Employment Before Retirement *(as of June 30, 2024)*

Sample Ages	Percent of Active Members Separating Within the Next Year				Pay Increase Assumptions for Active Members		
	Death		Disability	Other	Merit & Seniority	Base (Economic)	Increase Next Year
	Male	Female					
20	0.03%	0.02%	0.06%	5.50%	5.00%	3.25%	8.25%
25	0.04%	0.02%	0.09%	5.50%	4.40%	3.25%	7.65%
30	0.06%	0.04%	0.19%	5.50%	3.40%	3.25%	6.65%
35	0.07%	0.05%	0.31%	4.18%	2.40%	3.25%	5.65%
40	0.08%	0.06%	0.43%	2.64%	1.88%	3.25%	5.13%
45	0.09%	0.07%	0.55%	1.43%	1.60%	3.25%	4.85%
50	0.11%	0.08%	0.67%	0.55%	1.30%	3.25%	4.55%
55	0.17%	0.12%	0.79%	0.00%	1.10%	3.25%	4.35%

Probabilities of death are for calendar year 2024.

Actuarial

Probabilities of Retirement for Members Eligible to Retire

(as of June 30, 2024)

Retirement Ages	Percent of Eligible Active Members Retiring Within Next Year		Years of Service	Percent of Eligible Active Members Retiring Within Next Year
	Tier One	Tier Two		Tier Two
47	1%	-		
48	1%	-	28	20%
49	3%	-	29	10%
50	7%	3%	30	10%
51	10%	3%	31	10%
52	8%	3%	32	10%
53	10%	6%	33	20%
54	10%	10%	34	35%
55	8%	35%	35	40%
56	8%	25%	36 & Over	100%
57	10%	25%		
58	18%	25%		
59	40%	25%		
60	50%	25%		
61	50%	30%		
62	50%	100%		
63	80%	100%		
64	100%	100%		
65	100%	100%		

A member is assumed to be eligible to retire at age 52 (55 for Tier Two) with 17 years of service, or at age 50 with 28 years of service (Tier One), or at any age with 28 years of service (Tier Two). A member is assumed to be eligible to retire early at age 47 (50 for Tier Two) with 17 years of service. For a Tier Two member with 28 or more years of service at the beginning of a year, the percentages shown for service based retirement (28 or more years) take precedence over the percentages associated with age based retirement.

For purposes of modeling, Tier Two members who are eligible to retire under the service based condition are assumed to have one year of credited service in addition to the credited service that is reported for valuation purposes.

It was assumed that members eligible to enter the DROP will do so to maximize the value of their benefits.

Short Condition Test

(as of June 30, 2024)

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

A **short condition test** is one means of checking a System's progress under its funding program. In a short condition test, the plan's valuation assets (cash and investments) are compared with:

- 1) Member accumulated contributions;
- 2) The liabilities for future benefits to present

retired lives; and

- 3) The employer financed portion of liabilities for service already rendered by non-retired members.

In a System that has been following the discipline of level percent-of-payroll financing, active member contributions (liability 1) and the liabilities for future benefits to present retired lives (liability 2) will be fully covered by valuation assets (except in rare circumstances). In addition, the liabilities for service already rendered by active members (liability 3) will be partially covered by the remainder of valuation assets. The larger the funded portion of liability 3, the stronger the condition of the System.

Ten-Year Comparative Statement

Valuation Date	Entry Age Accrued Liability			Valuation Assets	Portion of Present Values Covered by Valuation Assets			
	(1) Active Members Contr.	(2) Retirees and Benef.	(3) Active Member (Employer Financed Portion)		(1)	(2)	(3)	Total
June 30								
	(\$ in Millions)							
2015*	\$0.37	\$252.79	\$145.80	\$274.83	100%	100%	15%	69%
2016	0.57	260.49	147.68	297.91	100%	100%	19%	71%
2017@	0.57	273.86	154.62	305.85	100%	100%	20%	71%
2018	0.62	284.61	157.70	319.79	100%	100%	22%	72%
2019	0.57	296.12	157.93	335.97	100%	100%	25%	74%
2020#	0.65	301.96	170.31	352.08	100%	100%	29%	74%
2021#	0.61	305.18	185.72	387.54	100%	100%	44%	79%
2022	0.58	319.89	179.80	403.30	100%	100%	46%	81%
2023@	0.54	335.64	211.38	418.03	100%	100%	39%	76%
2024	0.46	348.70	220.80	449.03	100%	100%	45%	79%

@ After changes in actuarial assumptions and/or methods.

After legislated changes in benefit provisions.

* (1) was estimated based on reported member contribution balances on data received by the actuary from ASPRS.

Actuarial

Derivation of Experience (Gain/Loss)

(as of June 30, 2024)

Actual experience will not (except by coincidence) coincide exactly with assumed experience. Gains and losses often cancel each other over a period of years, but sizable year-to-year fluctuations are common. Detail on the derivation of the experience gain/loss is shown below:

(1) UAAL* at start of year	\$ 129,531
(2) Normal cost from last valuation	10,548
(3) Employer contributions	29,586
(4) Interest accrual: $(1) \times 0.07 + ((2) - (3)) \times 0.035$	8,401
(5) Expected UAAL before changes: $(1) + (2) - (3) + (4)$	118,894
(6) Change for revised actuarial assumptions and/or valuation methods	0
(7) Change from benefit changes	0
(8) Expected UAAL after changes: $(5) + (6) + (7)$	118,894
(9) Actual UAAL at end of year	120,924
(10) Gain/(loss): $(8) - (9)$	\$ (2,030)
<hr/>	
(11) Actuarial accrued liability at start of year	\$ 547,557
(12) Gain/(loss) as percent of actuarial accrued liabilities at start of year: $(10) / (11)$	(0.4)%
(13) Investment gain/(loss) As a percent of AAL at the start of the year: $(13) / (11)$	\$ 3,869 0.7%
(14) Liability gain/(loss) As a percent of AAL at the start of the year: $(14) / (11)$	\$ (5,899) (1.1)%

* *Unfunded actuarial accrued liability.*

Gains/Losses by Risk Area

(for the fiscal year ended June 30, 2024)

Type of Risk Area	\$ Millions	Liabilities
ECONOMIC RISK AREAS ...		
Pay Increases. If there are smaller pay increases than assumed, there is a gain. If greater increases, a loss.	\$(6.1)	(1.1)%
Investment Return. If there is greater recognized investment return than assumed, there is a gain. If less return, a loss.	3.9	0.7 %
NON-ECONOMIC RISK AREAS ...		
Age & Service Retirements. If members retire at older ages or with lower final average pays than assumed, there is a gain. If younger ages or higher average pays, a loss.	0.4	0.1 %
Disability Retirements. If there are fewer disabilities than assumed, there is a gain. If more, a loss.	0.1	0.0 %
Death-in-Service Benefits. If more liabilities are released by deaths-in-service, there is a gain. If smaller releases, a loss.	(0.1)	0.0 %
Withdrawal. If more liabilities are released by other separations than assumed, there is a gain. If smaller releases, a loss.	(0.3)	(0.1)%
Actuarial Gain/Loss	\$(2.1)	(0.4)%
Other. Gains and losses resulting from group size change, data adjustments, timing of financial transactions, and retiree mortality.	0.1	0.0 %
TOTAL GAIN (OR LOSS) DURING PERIOD	\$(2.0)	(0.4)%



ASPRS

ARKANSAS STATE POLICE
RETIREMENT SYSTEM

STATISTICAL



The System

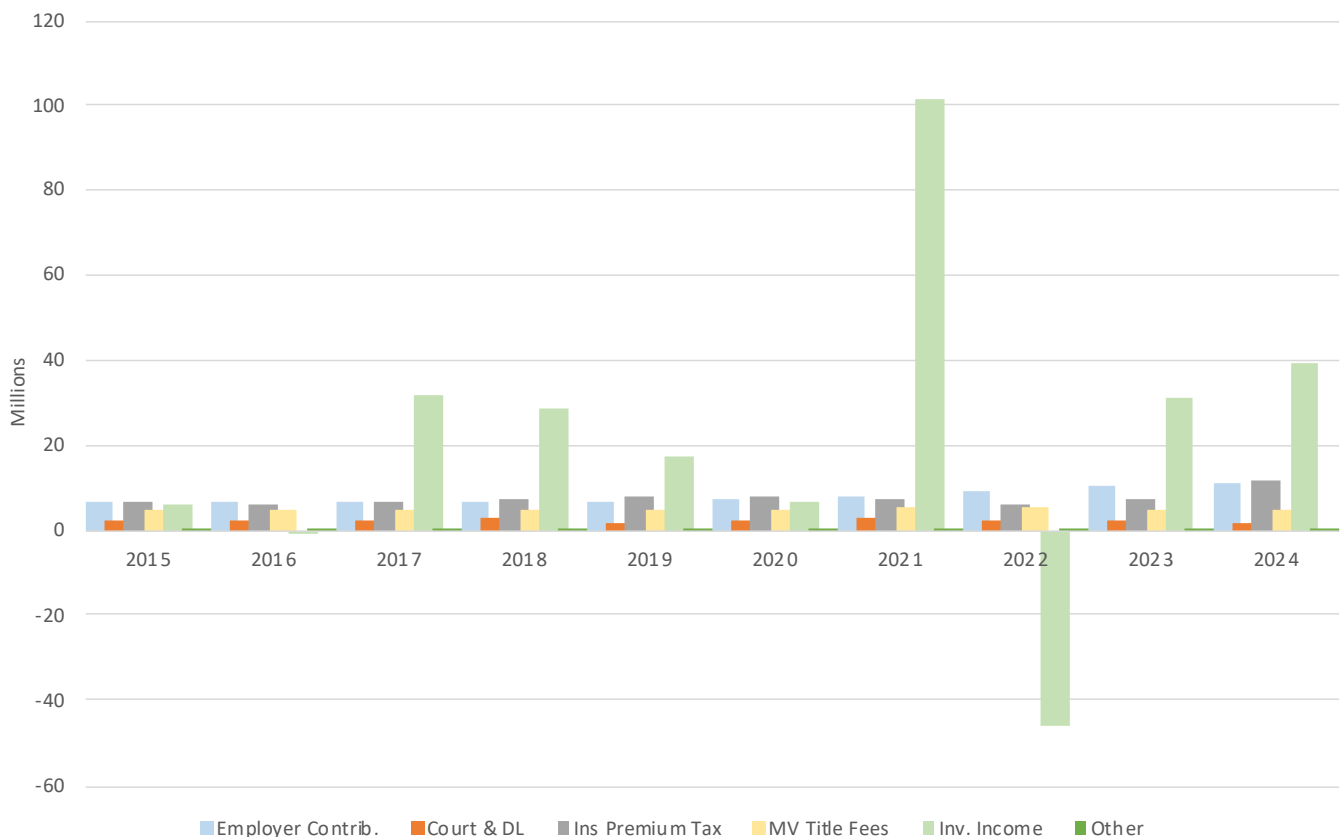
Schedule of Revenues by Source

(for fiscal years ended June 30)

	Employer Contributions	Court & Driver's License Reinst. Fees	Insurance Premium Tax	Motor Vehicle Title Fees	Investment Income	Other Income	Total
2015	6,409,752	2,234,350	6,574,376	4,565,652	6,131,684	94,820	26,010,634
2016	6,581,580	2,206,082	6,233,769	4,661,683	(210,045)	30,181	19,503,250
2017	6,416,736	2,139,475	6,693,915	4,667,895	31,484,250	43,045	51,445,316
2018	6,515,063	2,580,695	7,109,703	4,664,315	28,823,333	133,871	49,826,982
2019	6,727,409	1,864,132	8,035,962	4,598,976	17,031,466	27,532	38,285,476
2020	7,205,047	2,114,797	7,705,096	4,754,635	6,700,847	93,849	28,574,271
2021	7,706,274	2,646,549	7,139,013	5,250,891	101,415,154	40,986	124,198,867
2022	8,908,482	2,243,224	6,165,687	5,235,756	(46,247,489)	140,865	(23,553,475)
2023	\$10,197,986	\$1,942,333	\$6,952,517	\$4,838,091	\$31,210,504	\$58,344	\$55,199,775
2024	\$11,012,463	\$1,547,229	\$11,427,008	\$4,915,733	\$39,221,918	\$8,521	\$68,132,872

Chart of Revenues by Source

(for fiscal years ended June 30)



Statistical

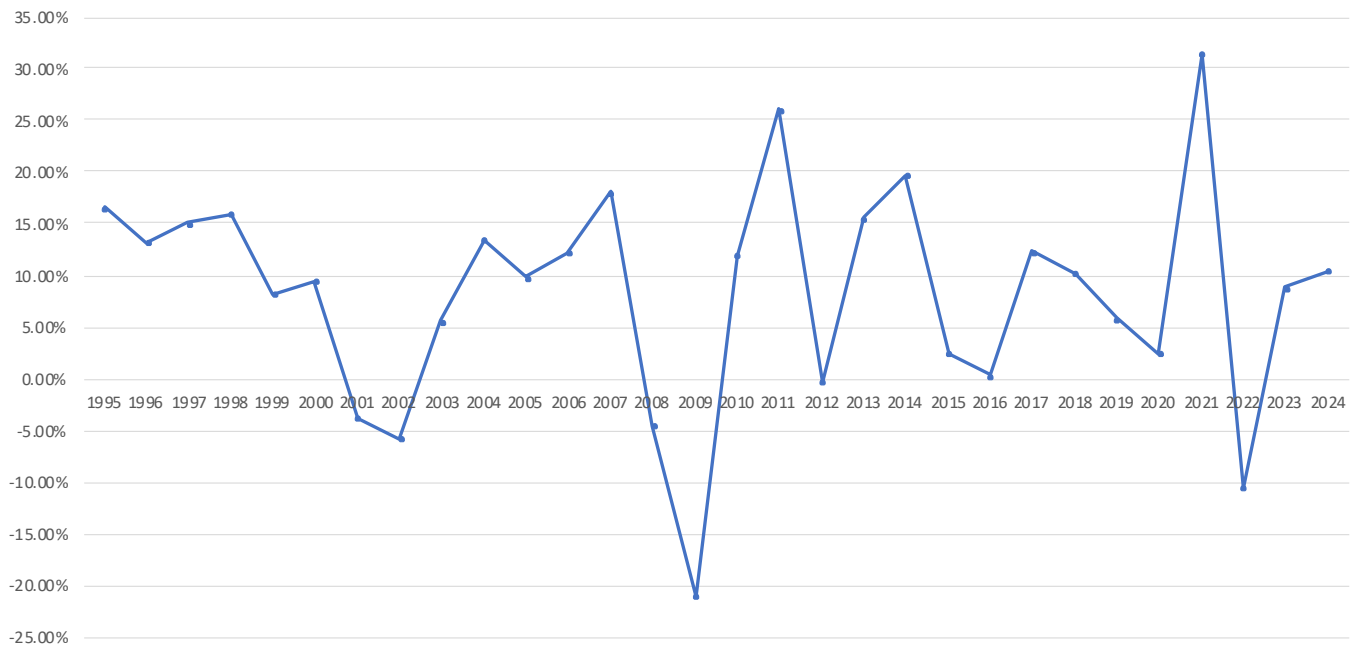
Schedule of Investment Return Rate

(for fiscal years ended June 30)

Year	Rate	Year	Rate
1995	16.6	2010	11.95
1996	13.23	2011	26
1997	15.11	2012	-0.33
1998	15.91	2013	15.58
1999	8.16	2014	19.68
2000	9.42	2015	2.45
2001	-3.82	2016	0.3
2002	-5.72	2017	12.3
2003	5.53	2018	10.25
2004	13.42	2019	5.78
2005	9.85	2020	2.41
2006	12.24	2021	31.49
2007	18.01%	2022	-10.54%
2008	-4.45%	2023	8.83%
2009	-20.89	2024	10.42%

Chart of Investment Return Percentage Rate

(for fiscal years ended June 30)



Schedule of Expenses by Type

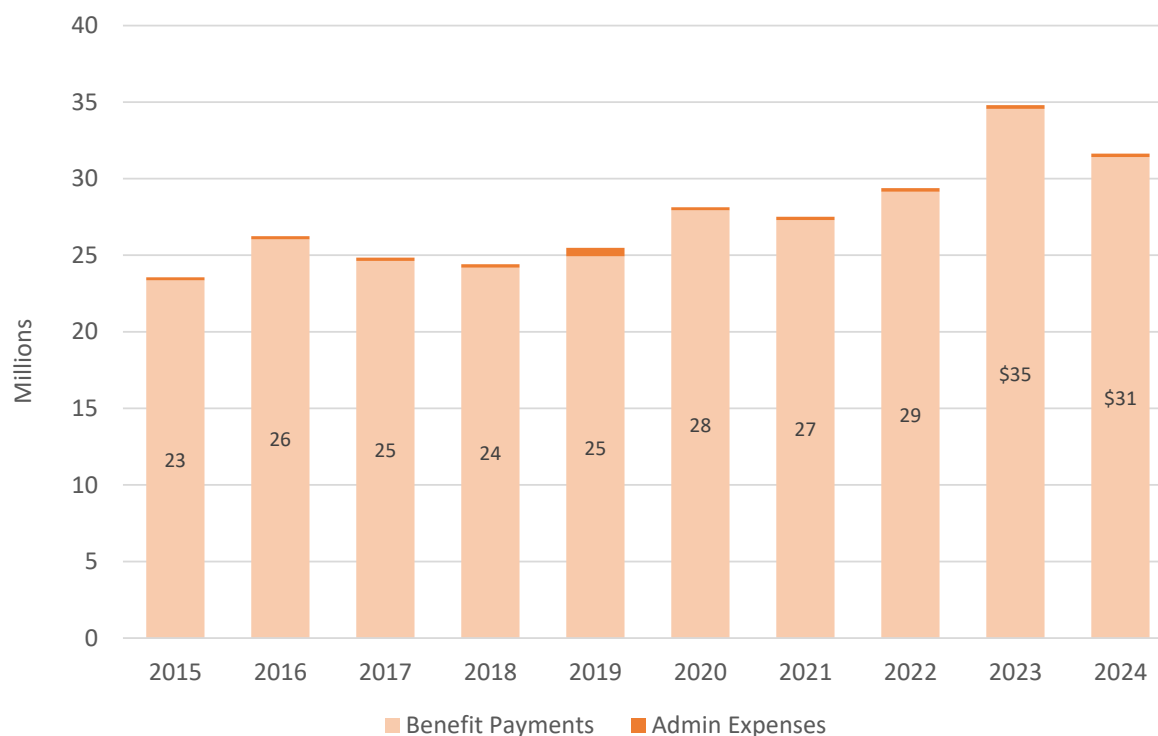
(for fiscal years ended June 30)

Year Ended June 30	Benefit Payments*	Administrative Expenses	Total
2015	23,358,801	196,231	23,555,032
2016	26,035,466	205,342	26,240,808
2017	24,631,787	208,424	24,840,211
2018	24,185,419	228,430	24,413,849
2019	24,930,274	554,441	25,484,715
2020	27,934,142	195,463	28,129,605
2021	27,294,080	215,384	27,509,464
2022	29,149,508	229,348	29,378,856
2023	\$ 34,560,932	\$ 244,479	\$ 34,805,411
2024	\$31,410,879	\$227,099	\$31,637,978

*Includes DROP and PAW distribution.

Chart of Expenses by Type

(for fiscal years ended June 30)



Statistical

Schedule of Benefit Expenses by Type*

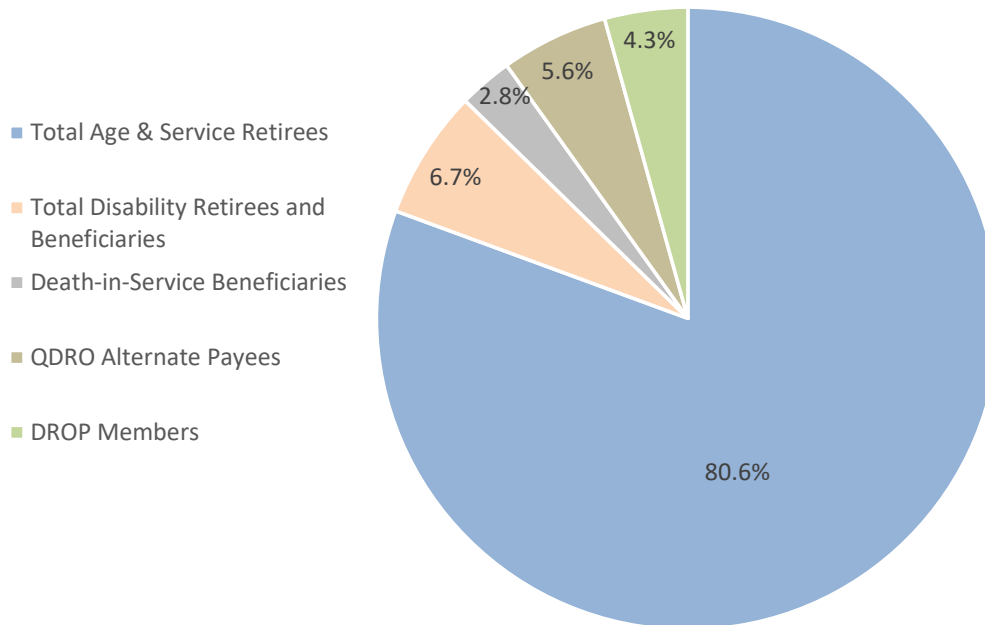
(for fiscal years ended June 30)

	Age & Service Retirees	Age & Service Beneficiaries	Disability Retirees	Disability Beneficiaries	Death in Service	QDRO Alternative Payees	DROP Participants
2015	17,963,207	2,325,900	1,016,556	13,944	76,872	471,880	3,126,156
2016	18,805,319	2,355,686	1,064,772	14,364	79,188	532,792	3,434,940
2017	18,769,461	2,320,702	1,350,504	7,140	491,004	607,318	3,281,616
2018	19,037,338	2,702,300	1,400,784	7,368	508,092	634,167	3,630,132
2019	19,922,625	2,942,626	1,413,720	0	510,120	637,202	3,334,908
2020	20,318,260	3,229,236	1,442,208	0	527,664	687,097	3,477,012
2021	20,799,930	3,312,885	1,461,060	0	500,460	687,593	3,387,900
2022	21,352,320	3,600,540	1,372,704	0	518,928	685,068	2,188,500
2023	\$22,230,444	\$3,993,408	\$1,442,540	0	533,340	719,472	1,888,296
2024	\$23,330,568	\$4,128,852	\$1,450,356	0	533,544	740,136	2,146,236

*Expenses are based on annualized June 30 benefits amounts.

Chart of Benefit Expenses by Type (Percentages)**

(for the fiscal year ended June 30, 2024)



** Figures in chart are rounded and may not equal 100 percent.

Membership

The Arkansas State Police Retirement System includes active members in a two tier program, retired members, beneficiaries, participants in the Deferred Retirement Option Plan (DROP), and deferred members.

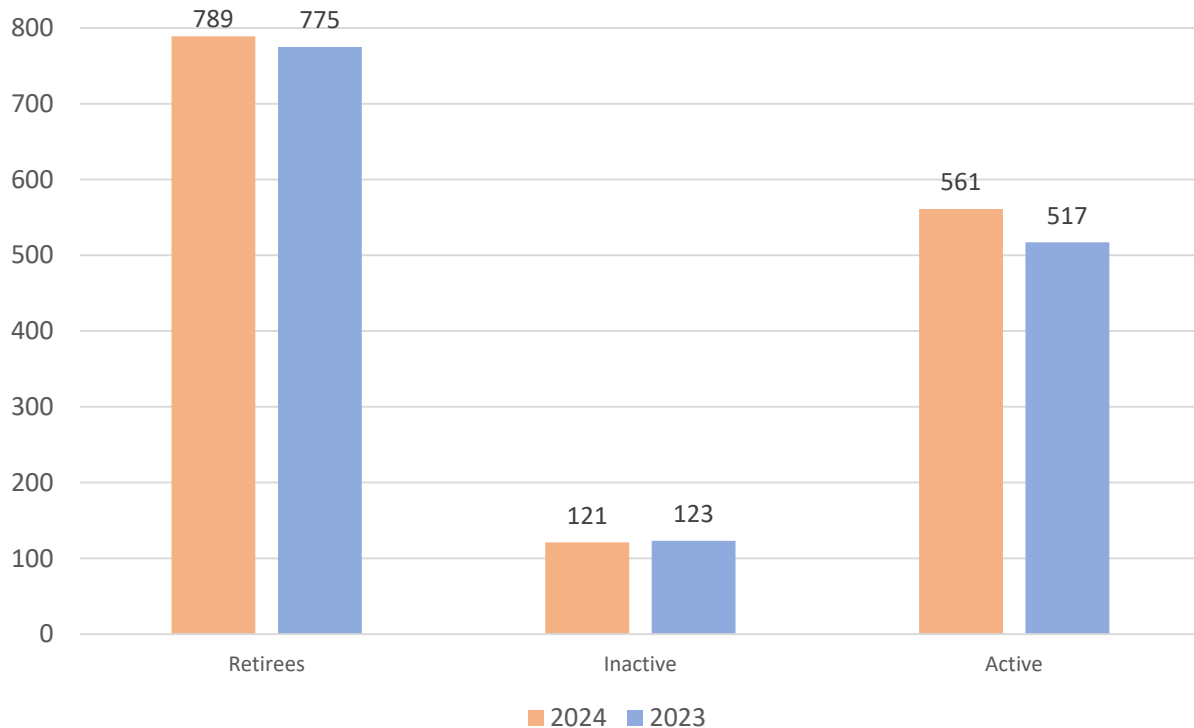
Members

(for fiscal years ended June 30, 2024)

	2024	2023
Retirees and Beneficiaries Receiving Benefits (includes DROP participants)	789	775
Terminated Plan Members Entitled to But Not Yet Receiving Benefits	121	123
Active Plan Members	561	517

Chart of Memberships by Type

(for fiscal years ended June 30)



Statistical

Schedule of Retired Members by Type of Benefit

(for the fiscal year ended June 30, 2024)

Type of Benefit Being Paid	Number	Annual Pensions	Liability
Age & Service Retirees			
Life	64	\$ 2,068,032	\$ 29,544,208
B-50	423	21,262,536	249,092,360
Totals	487	23,330,568	278,636,568
Beneficiaries of Age & Service Retirees			
B-50	149	4,128,852	37,751,721
Total Age & Service Retirees	636	27,459,420	316,388,289
Disability Retirees			
Life	21	433,968	5,761,761
B-50	32	1,016,388	12,338,326
Totals	53	1,450,356	18,100,087
Beneficiaries of Disability Retirees	0	0	0
Total Disability Retirees and Beneficiaries	53	1,450,356	18,100,087
Death-in-Service Beneficiaries	22	533,544	5,290,068
QDRO Alternate Payees	44	740,136	8,924,981
Total Retirees and Beneficiaries *	755	30,183,456	348,703,425
DROP Members	34	2,146,236	38,842,474
Total Retirees, Beneficiaries and DROP Participants	789	\$ 32,329,692	\$ 387,545,899

Also included in the valuation were 121 inactive members eligible to receive vested deferred benefits, commencing at normal retirement age, totaling \$1,372,368 annually.

Chart of Retired Members and Beneficiaries by Type of Benefit

(for the fiscal year ended June 30, 2024)

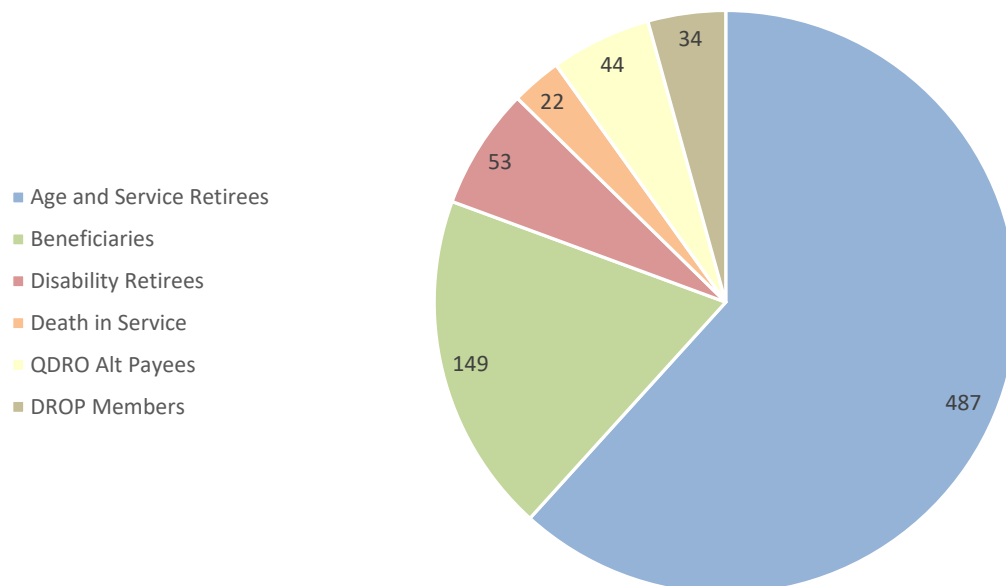


Chart of Members by Status in System

(for the fiscal year ended June 30, 2024)

