



Austin Police Retirement System

2022 Annual Comprehensive Financial Report

For the Fiscal Year Ended December 31, 2022
Austin, Texas

“To serve the APRS membership and protect the retirement benefits for the past, present and future members of the System”



Austin Police Retirement System
A Pension Trust Fund of the City of Austin, Texas

ANNUAL COMPREHENSIVE
FINANCIAL REPORT
FOR THE FISCAL YEAR ENDED DECEMBER 31, 2022

Issued by:

Pattie Featherston
Executive Director

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INTRODUCTORY SECTION



July 19, 2023

Board of Trustees and Members of the System
Austin Police Retirement System
Austin, Texas

Ladies and Gentlemen:

We are pleased to present the 2022 Annual Comprehensive Financial Report of the Austin Police Retirement System (APRS or System). This annual report covers the period from January 1 through December 31, 2022. It includes the operations and financial status of the retirement system, a summary description of the retirement plan, investment objectives and policy, actuarial reports, and historical and statistical information about active members, annuitants and benefit payments. This transmittal letter is designed to complement the Management Discussion and Analysis (MD&A) in the Financial Section of this report.

Management Responsibility

This report consists of management’s representations concerning APRS finances. Management assumes full responsibility for the completeness and reliability of all information presented in this report. The System’s management is responsible for the accuracy, completeness and fair presentation of the information, as well as all disclosures in this report. To the best of our knowledge, the included data is accurate in all material respects and fairly represents our financial position and operating results.

Audited Financial Statements and Summary

The financial statements included in this Annual Comprehensive Financial Report have been prepared by APRS management in accordance with Generally Accepted Accounting Principles (GAAP) and presented in accordance with guidelines established by the Governmental Accounting Standards Board (GASB). An independent certified public accounting firm, Montemayor Britton & Bender PC, conducted an independent audit of the System’s financial statements for Fiscal Year 2022. The audit was conducted in accordance with Generally Accepted Auditing Standards (GAAS) and resulted in an unmodified opinion of the financial statements. The Financial Section contains the audit opinion letter and additional information including Management’s Discussion and Analysis (MD&A) that provides a narrative introduction, overview, and analysis of the basic financial statements.

Internal Controls

APRS maintains a framework of internal controls to establish reasonable assurance that assets are safeguarded, transactions are completed accurately, financial statements are fair and reliable, and that the governing statute and policies are correctly followed. There are inherent limitations to internal controls, and risk cannot always be foreseen or completely eliminated. Our objective is to provide reasonable, rather than absolute, assurance that the financial statements are free of any material misstatements, since the cost of internal control should not exceed the benefits obtained.

System Profile

The Austin Police Retirement System is a defined benefit plan that was established in 1991 by the 72nd Legislature and is governed by state statute at Article 6243n-1, Vernon's Texas Civil Statutes. APRS was created for the exclusive purpose of providing retirement, death and disability benefits to members of the System. Members of the System include full-time City of Austin police officers and employees of the System. APRS membership consists of approximately 1,500 active members and provides retirement benefits to over 1,300 annuitants. The ratio of active members to annuitants is rapidly changing, as the System has experienced record retirements since 2020 plus an increase in exiting police officers not yet eligible for retirement as city policies have been changing the course of policing in Austin.

APRS is administered by an eleven-member Board of Trustees. Both the City of Austin, as the employer, and its participating members make contributions to fund APRS. Retirement benefits are determined by a formula that applies a multiplier to final average compensation for each year of creditable service. Disability retirement is available pursuant to specific criteria established by the governing statute. A death benefit of \$10,000 is payable upon the death of a retired member of APRS. Vesting occurs at 10 years of creditable service. Additional information concerning current APRS plan provisions is contained in the Membership and Benefits Overview report in this section.

Investment Performance

APRS recognizes that the System is an essential vehicle for providing income benefits to retired participants or their beneficiaries. APRS also recognizes that the obligations of the System are long-term and so the investment policy is constructed with a view toward performance and return over a number of years. The general investment objective is to obtain a reasonable total rate of return – defined as interest and dividend income plus realized and unrealized capital gains or losses – commensurate with its fiduciary duties under Texas law and any other applicable statutes.

Reasonable consistency of return and protection of assets against the inroads of inflation is paramount. However, interest rate fluctuations and volatility of securities markets make it necessary to judge results within the context of several years rather than over short periods of five years or less.

The Board of Trustees maintains an Investment Policy Statement and directs that it applies to all assets under control. The Board also employs investment professionals to whom Trustees delegate certain authority for the oversight and investment of the assets of the System.

During 2022, the return on System investments totaled a loss of -11.54% net of fees. On a three-year annualized basis, the System has returned 5.14%. Annual rates of return for the five and ten-year periods ending December 31, 2022, were 5.69% and 6.27%, respectively. Please refer to the Investment Section for additional information about the System's investment policies, strategies, safeguards and fees.

Funding Status

APRS is funded by employee contributions, employer contributions, and investment income. Prior to 2022, APRS members and the plan sponsor contributed a fixed rate contribution. However, beginning in January 2022 and in accordance with the 2021 amended governing statute, APRS enacted an Actuarially Determined Employer Contribution (ADEC) to improve the funding status of the System. The statutory amendments resulted in the APRS amortization period for the Unfunded Actuarial Accrued Liability (UAAL) changing from Infinite in 2020 to 30 years in 2021. Due to the structure of the ADEC, the amortization period remained at 30 years in 2022. As of December 31, 2022, the actuarial accrued liability is \$1,688,755,684, and the actuarial value of assets is \$1,015,080,603. The System's 2022 funded ratio is 60.1%. A detailed discussion of funding is provided in the Actuarial Section of this report.

Major Initiatives

In 2021, the APRS governing statute was amended by the 87th Texas Legislature in House Bill 4368 to improve the funding status of the System. Beginning in Fiscal Year 2022, the System implemented the changes enacted. These changes included an increase of contributions by both the active contributing members and the plan sponsor, a new benefit tier for employees hired after January 1, 2022, and the implementation of an Actuarially Determined Employer Contribution or ADEC.

APRS also continued with the implementation of a new multi-million-dollar pension administration software, scheduled to be operational by the end of Fiscal Year 2024.

System staff expanded slightly in 2022 to ensure the best possible customer service for APRS members and stakeholders. To further the goal of prioritizing service, APRS also launched a revised and improved new web site.

Awards

APRS is pleased to announce that it received the Public Pension Standards Award for Funding & Administration in 2022 from the Public Pension Coordinating Council. This award was received in recognition of meeting professional standards for both plan funding and administration as set forth in the Public Pension Standards.

This year's financial report has been restructured to adhere to the guidance of the Government Finance Officers Association (GFOA). The 2022 Annual Comprehensive Financial Report will be submitted for the first time to GFOA in hopes of being awarded a Certificate of Achievement for Excellence in Financial Reporting.

Acknowledgements

This annual comprehensive financial report is the result of a significant team effort, both by APRS staff and advisors. We express our gratitude to our entire group of dedicated staff and advisors whose work this report represents. The report is an important asset to our organization, and we hope it provides meaningful information to System membership and stakeholders. We also thank the APRS Board of Trustees for its leadership and willingness to serve the members of this System by accepting the substantial responsibilities of serving as a Trustee.

Sincerely,



Pattie Featherston
Executive Director



Sheldon Askew
2022 Chairman of the Board

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Public Pension Coordinating Council

***Public Pension Standards Award
For Funding and Administration
2022***

Presented to

Austin Police Retirement System

In recognition of meeting professional standards for
plan funding and administration as
set forth in the Public Pension Standards.

Presented by the Public Pension Coordinating Council, a confederation of

National Association of State Retirement Administrators (NASRA)
National Conference on Public Employee Retirement Systems (NCPERS)
National Council on Teacher Retirement (NCTR)

A handwritten signature in cursive script that reads "Alan H. Winkle".

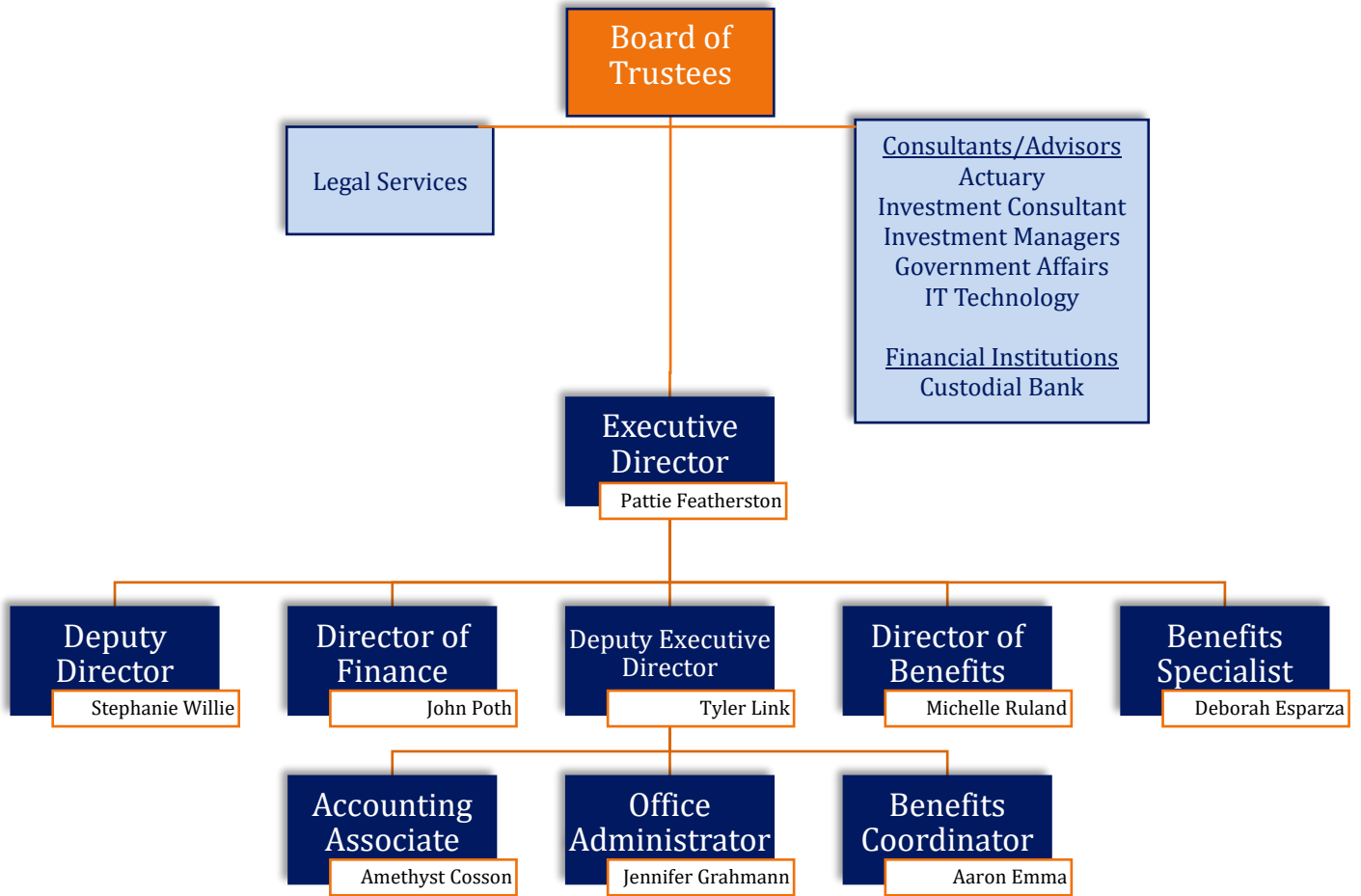
Alan H. Winkle
Program Administrator

BOARD OF TRUSTEES

POLICE MEMBER	Sheldon Askew, Chair
RETIRED MEMBER	Keith Harrison, Vice Chair
POLICE MEMBER	Michael Cowden
CITY COUNCIL CITIZEN APPOINTEE	Michael Granof
POLICE MEMBER	Nicholas Moore
POLICE MEMBER	Christopher Salacki
CITY DIRECTOR OF FINANCE DESIGNEE	Diana Thomas
DESIGNATED CITY COUNCIL MEMBER	Kathie Tovo
CITY MANAGER DESIGNEE	Belinda Weaver
APRS BOARD APPOINTEE	Chesley Wood
RETIRED MEMBER	Carl Zimmerman

Board composition reflects Trustees as of 12/31/2022.

ORGANIZATIONAL CHART



Custodian Bank

The Northern Trust Company, Chicago, Illinois

Investment Consultant & Performance Evaluator

AndCo Consulting, Orlando, Florida

Actuary

Gabriel, Roeder, Smith & Company, Dallas, Texas

Auditor

Montemayor Britton Bender PC, Austin, Texas

Legal Counsel

Chuck Campbell, Jackson Walker, L.L.C., Austin, Texas

Domestic Equity

Baird Investment Management, Milwaukee, Wisconsin
Kennedy Capital Management, Inc., St. Louis, Missouri
Northern Trust (NTGI Russell 3000 Index Fund), Chicago, Illinois
Nuance Investments, Kansas City, Missouri

International Equity

Driehaus International Securities, LLC, Chicago, Illinois
Thompson, Siegel & Walmsley (TSW), LLC, Richmond, Virginia
WCM Investment Management, Laguna Beach, California
Wellington Management Co., Boston, Massachusetts

Other Equity

Excelsior Investors, LTD, Dallas, Texas
Franklin Park Associates, LLC, Bala Cynwyd, Pennsylvania
Sail Capital Partners, LLC, Irvine, California
WR Huff Energy Fund, LP, Morristown, New Jersey

Total Fixed Income

Orleans Capital, Mandeville, Louisiana
PIMCO, Newport Beach, California

Other Fixed Income

Benefit Street Partners (Providence Debt Fund), New York, NY
Capital Point Partners, Houston, Texas
LBC Credit Partners, Inc., Philadelphia, Pennsylvania

Multi Asset Class

BlackRock, Inc., New York, New York

Real Estate

AEW Capital Management, LP, Boston, Massachusetts
Apollo Global Management (India Property Fund), LLC, New York, New York
Artemis Real Estate Partners, Chevy Chase, Maryland
Avison & Young, LLC (Gainesville Property), Atlanta, Georgia
Bentall-Green Oak (Green Oak US III), New York, New York
Brookfield Asset Management, Inc., New York, New York
Edison Investments, Inc., Wichita, Kansas
Morgan Stanley (Prime Property Fund), New York, New York
Stockbridge (Smart Markets Fund), San Francisco, CA

Timber

Timberland Investment Resources (Capital Timberland Investments), Atlanta, Georgia
Domain Capital Group (Domain Timber Advisors), Atlanta, Georgia

For more information on investment professionals who provide services to APRS, including schedules of fees and commissions, refer to Other Supplementary Information on page 65, Schedule of Investment Results on page 77, and Broker Commissions on page 82.

Introduction

This is a general overview of the Austin Police Retirement System (APRS or System) membership and benefits. In the event of any inconsistency between this general overview and state or federal law as modified, interpreted, and applied from time to time, the state or federal law will govern and control.

APRS is an IRS tax-qualified 401(a) defined benefit plan governed by Texas state law.

Membership Requirements

All cadets upon enrollment in the Austin Police Academy, and commissioned law enforcement officers employed by the City of Austin Police Department, as well as full time employees of the Austin Police Retirement System (after serving a 6-month probationary period), become members of the Austin Police Retirement System at the date of employment.

Contributions

The City of Austin (City) contributes a rate based on employee payroll as calculated by an Actuarially Determined Employer Contribution (ADEC), keeping the rate within a certain corridor to ensure long-term funding. The City also contributes a fixed dollar amount to pay off the legacy unfunded liability over 30 years that existed as of December 31, 2020. For 2022, the combination of the two contributions from the City produced an overall contribution rate of 27.983% if expressed as a percentage of employee payroll.

Each member of the System contributes a percentage of bi-weekly base pay and annual longevity pay through payroll deduction. Overtime pay and special pay are not included for the calculation of contributions nor for the final average salary used to calculate benefits. Contributions continue unless a member is on leave of absence or withdraws by terminating or retiring. The member contribution rate for 2022 is 15%. The member contribution rate could vary in the future if the ADEC corridor is breached and the City contribution rate is capped; however, the member contribution rate is capped at 17%.

Creditable Service

Creditable service is service that is used in computing retirement benefits. There are seven types of creditable service:

- Membership Service
- Probationary Service
- Pre-Membership Military Service
- Uniformed Leave of Absence Service
- Reinstated Forfeited Service
- Cadet Service
- Permissive Service Credit
- Deferred Retirement Permissive Service Credit

Proportionate Retirement Program

The Proportionate Retirement Program is established in state law. It provides that participating Texas public retirement systems recognize service from other participating systems. A member with service credit in more than one participating retirement system may be eligible to combine that service to satisfy the length of service requirements used to determine eligibility for service retirement. Proportionate service counts for eligibility purposes only and does not add to additional service credit years for pension calculation purposes. Participating systems include:

- Austin Police Retirement System (APRS)
- City of Austin Employees' Retirement System (COAERS)
- The El Paso City Employees' Pension Fund
- El Paso Firemen and Policemen's Pension Fund
- Employees Retirement System of Texas (ERS)
- Judicial Retirement System of Texas I & II
- Teacher Retirement System of Texas (TRS)
- Texas Municipal Retirement System of Texas (TMRS)
- Texas County and District Retirement System (TCDRS)
- Other Texas retirement systems covering municipal employees who have qualified plans and have elected to participate in the Proportionate Retirement Program.

Vesting

When a member reaches ten (10) years of creditable service, which may include approved Proportionate Service Credit if applicable, they become a vested member of the retirement System.

Retirement Eligibility

Members are eligible for normal retirement when they meet one of the following age and service requirements, excluding pre-membership military service:

Group A Members (hired on or before 12/31/2021)

- Age 62
- Age 55 with 20 years of creditable service
- Any age with 23 years creditable service

Group B Members (hired on or after 1/1/2022)

- Age 62
- Age 50 with 25 years of creditable service

Retirement Benefit Calculation

The basic retirement benefit Life Annuity is calculated by using the following formula:

Group A Members (hired on or before 12/31/2021)

3.2% times the years of creditable service times the average monthly salary for the highest 36 months of the last ten years of contributing service.

Group B Members (hired on or after 1/1/2022)

2.5% times the years of creditable service times the average monthly salary for the highest 60 months of the last ten years of contributing service.

The monthly annuity benefit payment begins the month following the member's retirement from the System.

Retirement Benefit Options

The Austin Police Retirement System provides several options under which monthly benefits may be paid. The options below require verifiable information to be submitted to the System for calculation. The options that include benefits to a survivor are calculated using the ages of both the member and survivor included in the plan. A member's benefit is permanently reduced if an option is chosen that provides survivor benefits. A member may not change their chosen option or survivor after they have already retired.

Options Provided:

- Life Annuity
- 100% Joint and Survivor Annuity
- 50% Joint and Survivor Annuity
- 66-2/3% Joint and Survivor Annuity
- Joint and 66-2/3% Last Survivor Annuity
- Fifteen Year Certain and Life Annuity

Retroactive Deferred Retirement Option (Retro DROP)

The retroactive deferred retirement option plan, referred to as Retro DROP, is a one-time benefit paid at retirement to a member with a subsequent associated reduced monthly annuity. To be eligible, a Group A member must qualify with a normal service retirement of 23 years at any age, excluding pre-membership military or permissive service credit. The maximum amount of service to be used in computation of the Retro DROP after normal service retirement of 23 years is 36 months. Effective April 1, 2015, the Retro DROP program will only apply to Group A members with 23 years of creditable service as of that date; therefore, Group B members are not eligible.

Forward Deferred Retirement Option (Forward DROP)

The Forward DROP allows active police officers to freeze their retirement benefit calculation, but continue working and drawing a paycheck from APD, while their retirement annuity is deferred into a DROP account on their behalf at the System. To be eligible a member must qualify with a normal service retirement applicable to their Group, as of the date of his or her election to participate in the Forward DROP.

- Five-Year Forward DROP for Group A members with 23 years of creditable service as of February 17, 2016:

The maximum amount of service to be used in computation of the Forward DROP after normal service retirement of 23 years, excluding pre-membership service credit and permissive service credit, is sixty (60) months. During the period that a member participates in Forward DROP, retirement contributions shall be made to the member's Forward DROP account. The Forward DROP benefit balance will include the accumulated monthly benefits during Forward DROP participation, member contributions and a simple interest calculation on December 31st for balances on deposit as of January 1st of the same calendar year. Effective August 1, 2015, the interest rate for new DROP members will be the same as PROP, which was 2.25% in fiscal year 2022. Members with 23 years of service by July 31, 2015, earn interest at 5.0%.

- Seven-Year Forward DROP for members:
 - Group A members with 23 years of creditable service after February 17, 2016;
 - Group B members who have attained age 50 and have 25 years of creditable service;

The maximum amount of service to be used in computation of the Forward DROP after normal service retirement, excluding pre-membership service credit and permissive service credit, is eighty-four (84) months. During the period that a member participates in Forward DROP, employee contributions will be collected but not credited to the member's Forward DROP account. There will be no interest applied to the member's Forward DROP account. In addition, a fee is applied to the participant's monthly Forward DROP amount.

Post Retirement Option Plan (PROP)

Instead of receiving a single lump-sum payment, a member may elect to receive partial payments from the member's RETRO or Forward DROP account by transferring the funds into a PROP account, in an amount elected by the member.

Post Retirement Option Plan (PROP) Monthly Annuity Deferral Program

The PROP Monthly Annuity Deferral plan allows retired members to defer receipt of a minimum of \$250 of their monthly annuity in order to defer the taxation of the deferred payments and to have the monthly benefits accumulate for later disbursement and later taxation in a Post Retirement Option Plan account.

Disability Retirement Benefits

To be eligible for disability retirement, the applicant must be unable to perform their employment duties due to becoming physically or mentally incapacitated. The disability must be considered a permanent job performance disability. The disability must also be subsequent to the member's effective date of membership AND,

- If the member has less than 10 years of creditable service, the disability must have been a direct or proximate result of the performance of the member's employment duties with the City or the System (known as on-duty disability). For Group A, the disability will be calculated at 20 years of service, and for Group B, the disability will be calculated at 25 years of service.
- If the member has 10 years or more of creditable service, the disability does not have to be a direct or proximate result of the performance of the member's employment duties with the City or the System. As mentioned above, on-duty disabilities will be calculated for Group A at 20 years of service and 25 years of service for Group B. Off-duty disabilities will be calculated using the actual number of years of service the member has once the disability is granted.

Death and Survivor Benefits

- At the death of an active or vested member, the designated beneficiary(ies) are entitled to a lump sum benefit of twice the members accumulated contributions with a \$10,000 minimum payment.
- At the death of an active or vested member who is eligible to retire, the designated survivor will be entitled to receive monthly payments under a retirement option in lieu of a lump sum death benefit. In the event a member who is eligible for service retirement dies without making a written option selection, and the member leaves a surviving spouse, the surviving spouse may select a retirement option in the same manner as the member would have made or may select a lump sum payment equal to twice the members accumulated deposits. If there is no surviving spouse, the deceased member's designated beneficiary may elect to receive payment under Option V, a Fifteen Year Certain and Life Annuity, which will pay monthly benefits for a period of fifteen years, or a lump sum payment equal to twice the member's accumulated deposits. When monthly benefits are payable in lieu of a lump sum, a \$10,000 taxable death benefit will be paid to the beneficiary(ies).
- At the death of a retiree, a tax-free death benefit of \$10,000 (or a proportionate amount if the member retired under the Proportionate Retirement Program) is paid to the designated beneficiary(ies) or estate. If the member has a PROP or DROP account at the time of their death, those funds are paid to the designated beneficiary(ies) for those programs. If a survivor option was chosen, the elected survivor begins to receive the elected portion of the annuity. If the Life Annuity was chosen, the monthly benefits cease.



FINANCIAL SECTION



Montemayor Britton Bender PC
CERTIFIED PUBLIC ACCOUNTANTS

Board of Trustees
City of Austin Police Retirement System

INDEPENDENT AUDITOR'S REPORT

Opinion

We have audited the accompanying statements of fiduciary net position of the City of Austin Police Retirement System (System) as of 31 December 2022 and 31 December 2021, the related statement of changes in fiduciary net position for the years then ended, which collectively comprise the System's financial statements, and the related notes to the financial statements.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial status of the System as of 31 December 2022 and 31 December 2021, and the changes in its financial status for the years then ended, in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinions

We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of the System and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Responsibilities of Management for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the System's ability to continue as a going concern for twelve months beyond the financial statement date, including any currently known information that may raise substantial doubt shortly thereafter.

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Management is also responsible for maintaining a current plan instrument, including all plan amendments; administering the plan; and determining that the plan's transactions that are presented and disclosed in the financial statements are in conformity with the plan's provisions, including maintaining sufficient records with respect to each of the participants, to determine the benefits due or which may become due to such participants.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinions. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with generally accepted auditing standards will always detect a material misstatement when it exists. The risk of not detecting material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misinterpretations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing our audit in accordance with generally accepted auditing standards, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion of the effectiveness of the System's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the System's ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control-related matters that are identified during the audit.



Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management’s discussion and analysis on pages 26–32 and 61–65 and the supplemental schedules be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management’s responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

7 July 2023
Austin, Texas

This section of the Austin Police Retirement System's (the System) financial report presents our discussion and analysis of the System's financial performance during calendar years 2022 and 2021. We encourage readers to consider the information presented here in conjunction with our financial statements that follow.

Financial Highlights

- Fiduciary net assets held in trust by the System decreased by \$147.6 million in 2022, and increased by \$142.5 million in 2021. The decrease in 2022 is attributed to rising interest rates, slowing economic growth, the war in Ukraine and persistently high inflation. The 2021 increase in fiduciary net assets was primarily due to positive market and economic indicators increasing net investment income. See Investment Section for more information.
- Contributions increased in 2022 by \$10.2 million and decreased in 2021 by \$90.28 thousand. The increase in 2022 is primarily due to the System receiving additional payments from the City beginning in 2022 to amortize the legacy liability, the Unfunded Actuarial Accrued Liability as of December 31, 2021. The decrease in 2021 was primarily due to a decrease in active membership, which resulted in less contributions.
- The benefits paid to retired members and beneficiaries, including refunds to terminating employees, increased by \$7.53 million in 2022 and increased by \$3.25 million in 2021. The increases in 2022 and 2021 are due to an increase in the number of retirements by members and refunds for terminating employees.
- The System's rate of return on investments for the year ended December 31, 2022, was -11.36% gross of fees and -11.54% net of fees, on a time-weighted basis, as compared to 17.86% gross of fees and 17.68% net of fees for the year ended December 31, 2021.
- The funding objective of the System is to meet long-term benefit obligations through contributions and investment income. As of December 31, 2022, the date of the most recent actuarial valuation, the System's funded ratio of actuarial assets as a percentage of actuarial liabilities is 60.1%, as compared to 60.2% at December 31, 2021.

See independent auditor's report.

Overview of the Financial Statements

The following discussion and analysis are intended to serve as an introduction to the Systems’ financial statements, which are comprised of the following:

- **Statement of Fiduciary Net Position** - presents the Systems’ assets and liabilities and the resulting Net Position for pension benefits. This statement reflects a year-end snapshot of the Plan's assets at fair market value, along with cash and short-term investments, receivables and other assets and liabilities.
- **Statement of Changes in Fiduciary Net Position** - provides a view of the current year’s additions to and deductions from the fund.
- **Notes to the Financial Statements** - provides additional information that is essential to a full understanding of the data provided in the financial statements.

Collectively, this information presents the Fiduciary Net Position as of the end of each of the last three years and summarizes the changes in Fiduciary Net Position for the year.

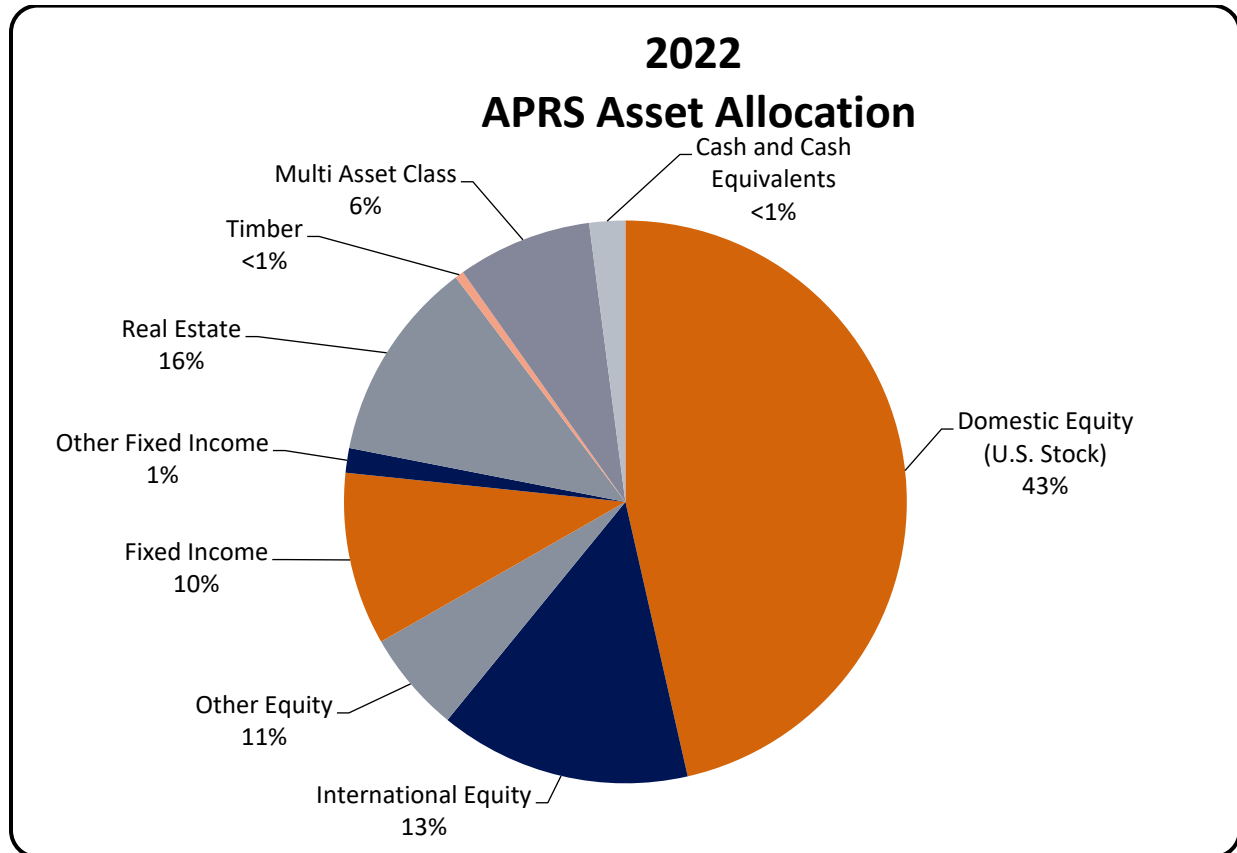
**Summary of Fiduciary Net Position
December 31, 2022, 2021 and 2020**

<u>Assets</u>	<u>2022</u>	<u>2021</u>	<u>2020</u>
Receivables	\$ 3,618,912	\$ 2,792,741	\$ 2,244,105
Investments	930,892,502	1,076,543,597	934,681,170
Fixed assets, net	787,002	839,668	659,298
Retiree Death Benefit Fund	1,615,369	1,722,774	1,653,699
Total assets	<u>\$ 936,913,785</u>	<u>\$ 1,081,908,780</u>	<u>\$ 939,238,272</u>
<u>Liabilities</u>			
Total Liabilities	<u>3,829,308</u>	<u>1,174,792</u>	<u>1,011,973</u>
Fiduciary net position for pension benefits	<u>\$ 933,084,477</u>	<u>\$ 1,080,733,988</u>	<u>\$ 938,226,299</u>

See independent auditor’s report.

The total Fiduciary Net Position decreased by \$147.6 million, or -15.8%, to \$933.1 million at the end of 2022, compared to an increase of \$142.5 million in 2021, or 15.2% from the prior year. The decrease in 2022 was primarily due to rising interest rates, slowing economic growth, the war in Ukraine and persistently high inflation. See Investment Section for more information.

Below is a chart of the System's asset allocation percentages for the year ending December 31, 2022:

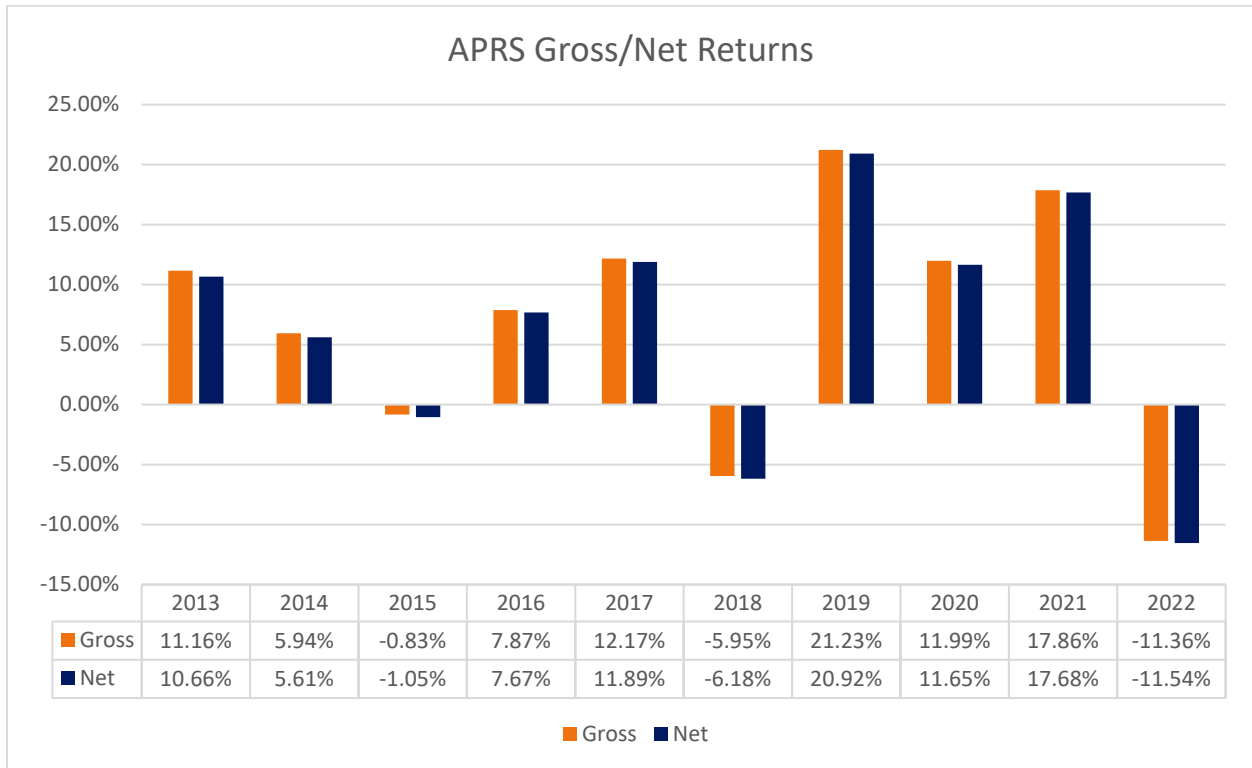


See independent auditor's report.

Investment Returns and Assumptions. The Systems’ rate of return in 2022 is negative -11.54% net of expenses. The following chart exhibits the short- and long-term gains and losses.

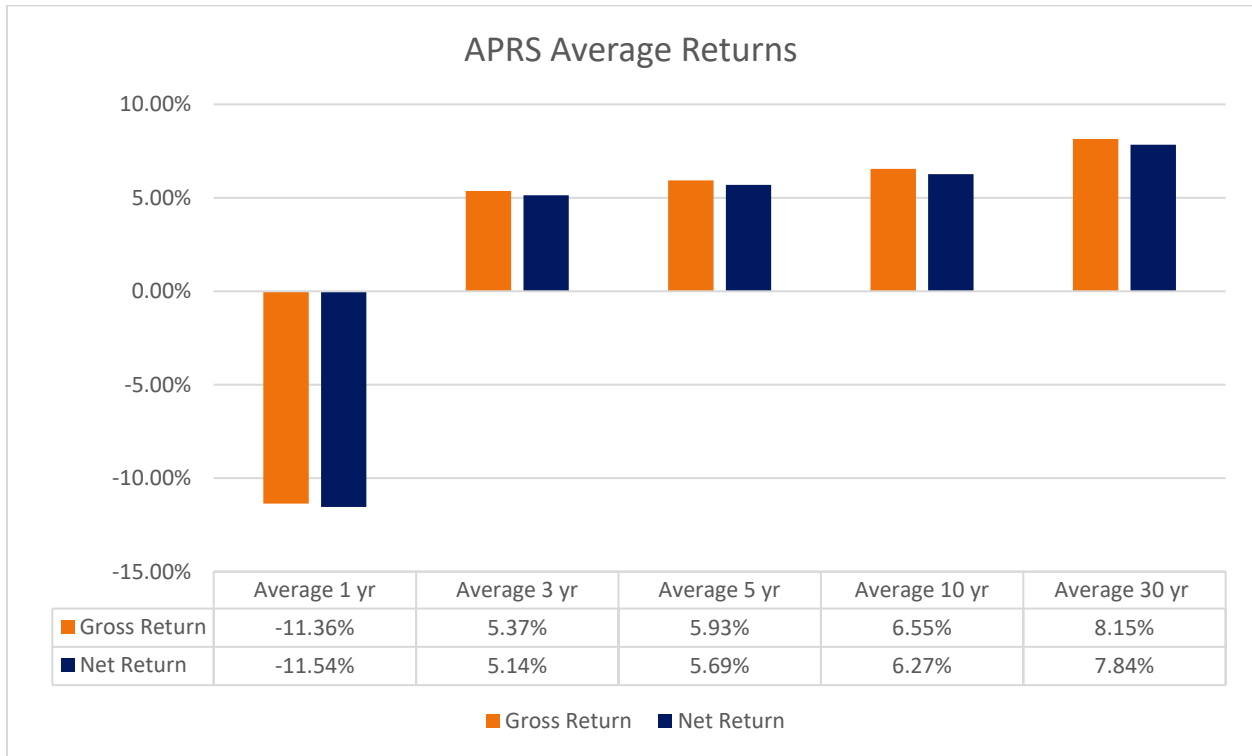
Note: Historical returns for 2000-2015 have been adjusted from previous annual reports to align with the calculations of the current investment consultant using time-weighted annualized returns.

10 Fiscal Year Returns



See independent auditor’s report.

Annualized Rolling Gross & Net Investment Returns



See independent auditor’s report.

Summary of Changes in Fiduciary Net Positions

Years Ended December 31, 2022, 2021 and 2020

Additions. Funds to pay benefits are accumulated through contributions and returns on invested funds.

<u>Additions</u>	<u>2022</u>	<u>2021</u>	<u>2020</u>
Contributions ¹	\$ 70,784,110	\$ 60,608,888	\$ 60,699,163
Investment income	(125,775,039)	166,476,383	100,887,162
Investment expense ²	(1,914,990)	(1,966,926)	(2,313,799)
Net investment income	(127,690,029)	164,509,457	98,573,363
Total additions	\$ (56,905,919)	\$ 225,118,345	\$ 159,272,526
 <u>Deductions</u>			
Benefit payments & contributions refunded ³	\$ 87,733,795	\$ 80,206,801	\$ 76,956,288
General and administrative expenses	3,009,797	2,403,855	1,929,168
Total deductions	\$ 90,743,592	\$ 82,610,656	\$ 78,885,456
Net increase/decrease	\$ (14,7649,511)	\$ 142,507,689	\$ 80,387,070
Fiduciary Net position beginning of year	\$ 1,080,733,988	\$ 938,226,299	\$ 857,839,229
Fiduciary Net position end of year	\$ 933,084,477	\$ 1,080,733,988	\$ 938,226,299

¹ Includes COA Contributions, Member Contributions, Contributions Applied to Death Benefits, Contributions Applied to Proportional Retirement, Service Credit Purchases plus System and Staff Contributions.

² Custodian, investment consultant and direct investment expenses paid from Trust.

³ Includes Retirement Annuity, PROP, DROP, Death Benefit and Refund payments.

Additions. Member and City of Austin contributions for 2022 and 2021 totaled \$70.8 million and 60.6 million, respectively. The 2022 contributions represent an increase of \$10.2 million, or 16.79%, above 2021. The 2021 contributions represent a decrease of \$90.28 thousand, or 0.2%, below 2020. The 2020 contributions represent an increase of \$1.5 million, or 2.5%, above 2019.

The total net rate of return for the System's investment portfolio in 2022 was -11.54%, net investment expense, as compared to 17.68% for 2021 on a time-weighted basis.

See independent auditor's report.

Deductions. The expenses paid by the System encompass benefit payments and administrative costs. Benefit payments, comprising the vast majority of the System's expenses, include payments to retirees, beneficiaries and alternate payees, as well as refunds of member contributions. Administrative expenses support the direct operations of the System, and include employee salaries and benefits, rent, utilities, and office expenses.

In 2022, benefits paid to retirees, beneficiaries and alternate payees plus contribution refunds to terminating members totaled \$87.7 million, an increase of \$7.53 million or 9.4% over the \$80.2 million paid in 2021. The total number of retirees, beneficiaries and alternate payees increased to 1,258 in 2022 compared to 1,164 in 2021.

Refunds to terminating employees in 2022 increased by 40.7% to \$3.04 million compared to \$2.16 million in 2021. General and administrative expenses increased to \$3.01 million in 2022, up from \$2.40 million in 2021. The general and administrative expense increase is primarily due to the implementation of a new benefit software system and the addition of new staff.

Overall Analysis. As of December 31, 2022, the System's Fiduciary Net Position decreased by \$-147.6 million from the prior year. Over the last three-year period ending December 31, 2022, the System's Fiduciary Net Position has decreased by \$-5.15 million.

Request for Information. This financial report is designed to provide a general overview of the finances of the Austin Police Retirement System for all parties with an interest. Questions concerning any of the information provided in this report or requests for additional financial information should be addressed to the Executive Director, Austin Police Retirement System, P.O. Box 40609, Austin, Texas 78704.

See independent auditor's report.

STATEMENT OF FIDUCIARY NET POSITION DECEMBER 31, 2022 & 2021

ASSETS¹	2022	2021
Investments, at fair value:		
Domestic Equity (U.S. Stock)	\$397,665,320	\$500,818,781
International Equity	120,605,612	155,796,153
Other Equity	98,342,705	62,935,535
Total Fixed Income	92,785,706	107,024,498
Other Fixed Income	1,2063,285	15,247,349
Real Estate	148,252,053	125,398,752
Timber	2,340,880	5,398,054
Multi Asset Class	53,241,377	83,396,375
Cash & Cash Equivalents ²	7,210,936	22,260,874
Total Investments	932,507,871	1,078,276,371
Interest and dividends receivable	787,058	851,400
City of Austin retirement contributions receivable ³	1,925,042	1,207,158
City of Austin death benefit contributions receivable	12,790	7,653
Member contributions receivable	894,023	726,529
Fixed assets, net	787,002	839,668
Total assets	936,913,785	1,081,908,780
LIABILITIES		
Less Accounts payable and accrued liabilities	3,829,308	1,174,792
Total liabilities	3,829,308	1,174,792
FIDUCIARY NET POSITION	\$933,084,477	\$1,080,733,988

1 Assets at custodian bank

2 Includes cash assets at custodian bank, and local operating banks.

3 Includes City Regular Contributions and Legacy Liability Contributions.

The accompanying notes are an integral part of this financial statement presentation.

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION

FOR YEARS ENDED DECEMBER 31, 2022 & 2021

ADDITIONS TO PLAN NET POSITION:

	2022	2021
Contributions:		
City of Austin Retirement Contributions	\$15,722,616	\$33,908,030
City of Austin Legacy Liability Contributions ¹	28,330,814	0
City of Austin Contributions applied to the Retiree Death Benefit Fund	279,256	214,501
City of Austin Contributions applied to Proportional Retirement ²	0	1,154,275
Member Contributions	23,682,260	21,093,235
Service Credit Purchases	2,554,013	3,993,033
APRS Employer Contributions	86,739	152,560
APRS Employee Contributions	128,412	93,254
Total contributions	70,784,110	60,608,888
Investment income:		
Net increase (decrease) in the fair value of investments	(129,056,649)	142,882,236
Interest and dividends	3,112,725	23,162,394
Other income	168,885	431,753
Total investment gain (loss) before expenses	(125,775,039)	166,476,383
Investment expenses ³	(1,914,990)	(1,966,926)
Net gain (loss) from investments	(127,690,029)	164,509,457
Total additions (deletions) to Fiduciary Net Position	(56,905,919)	225,118,345
 DEDUCTIONS FROM FIDUCIARY NET POSITION:		
Retirement benefit payments ⁴	84,513,980	77,897,407
Death benefit payments	175,000	145,000
Contributions refunded to terminating employees	3,044,815	2,164,394
General and administrative expenses	3,009,797	2,403,855
Total deductions from Fiduciary Net Position	90,743,592	82,610,656
 NET INCREASE (DECREASE) IN FIDUCIARY NET POSITION	(147,649,511)	142,507,689
 Beginning fiduciary Net Position	1,080,733,988	938,226,299
ENDING FIDUCIARY NET POSITION	\$933,084,477	\$1,080,733,988

¹ Beginning in 2022, APRS began receiving an additional Legacy Liability contribution from the City of Austin. Amount varies slightly from 2022 actuarial valuation due to the timing of City contributions.

² Beginning in 2022, Proportionate Retirement assets are now incorporated with the Legacy Liability Contributions.

³ Includes custodian bank, consultant, and direct investment expenses.

⁴ Retirement Annuities, PROP and DROP.

The accompanying notes are an integral part of this financial statement presentation.

Note 1: Organization and System Description

Board of Trustees. The Board of Trustees (Board) of the Austin Police Retirement System (System) is the administrator of a single employer (City of Austin) defined benefit pension plan; however, System employees are also members of the System. In 2022, the System Board is composed of 11 members. One (1) council member designated by the city council; one (1) city manager or city manager's designee; one (1) city director of finance or the director's designee; four (4) active police officer members elected by the police officer members of the System; two (2) retired members elected by the retired members of the System; one (1) legally qualified voter of the city appointed by the police retirement board; one (1) legally qualified voter of the city appointed by the city council. Elected members serve staggered four-year terms.

History. The System was originally established in 1979 by a City Council ordinance. However, in 1991, the System became governed by state law. The System provides retirement, death, disability and withdrawal benefits to plan members and their beneficiaries. Benefits vest after 10 years of credited service.

Benefits. Monthly annuity distributions are available to members who have attained retirement eligibility, their designated survivors, or in the event of total and permanent disability, provided the member has completed 10 years of service or the injury was sustained during the performance of employment duties. The terms of the benefit payments are determined by certain elections made by the members, their level of earnings and length of service.

The System is comprised of two benefit tiers: Group A and Group B. Group A participants may retire at 23 years of service excluding any purchased military service credit regardless of age, or at age 55 with 20 years of service excluding any purchased military service or at age 62. The monthly benefit is equal to 3.2% of the highest 36-month average salary multiplied by years and months of service. Group B participants may retire at age 50 with 25 years of service excluding any purchased military service credit regardless of age, or at age 62. The monthly benefit for Group B participants is equal to 2.5% of the highest 60-month average salary multiplied by years and months of service.

Proportionate Retirement. In 2009, the System and the City began participating in the Texas Proportionate Retirement Program (PRP). Service in other participating public employment retirement systems can be combined with service in the System to satisfy the System's eligibility requirements. Other participating systems include the Texas statewide systems, the City of Austin Employees' Retirement System, and the systems for the City of El Paso employees.

Retro DROP. The Retroactive Deferred Retirement Option Plan (Retro DROP) provisions require that a Group A participant must have 23 years of creditable service with the System excluding purchased military service credit on the date the participant elects the Retro DROP benefit computation date. As of Board action on February 18, 2015, the Retro DROP option is open only to Group A members with 23 years of creditable service as of March 31, 2015. Further, the Retro DROP provisions may be changed in the future by Board rule with approval of the System's actuary.

Forward DROP. The Forward Deferred Retirement Option Plan (Forward DROP) provisions require that a Group A participant must have 23 years of creditable service and a Group B participant must be age 50 and have 25 years of creditable service with the System excluding any purchased military service credit on the date the participant elects to enter the Forward DROP. There are two Forward DROP plans: (1) the Five-Year Forward DROP which is only open to Group A members with 23 years of creditable service as of February 17, 2016; and (2) the Seven-Year Forward DROP which is open to Group A members with 23 years of creditable service after February 17, 2016, and Group B members who are age 50 with 25 years of creditable service. Forward DROP provisions may be changed in the future by Board rule with approval by the System's actuary.

PROP. The Post Retirement Option Plan (PROP) is a program allowing retiring members to transfer a DROP lump sum amount or defer a portion of the monthly annuity payments to an interest-bearing PROP account. Interest will be paid on the participant's PROP account until the entire lump sum is distributed. Interest is payable on PROP accounts at a rate adopted annually by the Board of Trustees upon recommendation by the System's actuary in accordance with Board policy.

Permissive Service Credit. Group A members with at least 20 years of creditable service (including Proportionate Retirement) and Group B members who are age 50 with at least 22 years of creditable service may purchase Permissive Service credit (PSC) up to a maximum of five years in order to become retirement eligible and/or increase the final benefit amount. The purchase constitutes an immediate retirement. In addition, PSC deferred retirement is an option allowing a Group A member with 20 years of creditable service or a Group B member who is age 50 with 22 years of creditable service to purchase service credit necessary to become eligible to retire at a more reasonable cost due to a delay in payment of the retirement benefit.

Retiree Death Benefit. A \$10,000 post-retirement lump sum death benefit is payable from the System.

Membership. System membership consists of full-time police officers, including cadets, employed by the police department of the City and employees of the System. The following membership status of the System was reflected in the actuarial valuation as of December 31, 2022 and 2021:

	<u>2022</u>
Retirees and beneficiaries currently receiving benefits	1,415
(1,258) and terminated employees entitled to future monthly benefits (157)	
Current participating members	<u>1,633</u>
2022 Total	<u>3,048</u>
	<u>2021</u>
Retirees and beneficiaries currently receiving benefits	1,302
(1,164) and terminated employees entitled to future monthly benefits (138)	
Current participating members	<u>1,673</u>
2021 Total	<u>2,975</u>

Note 2: Summary of Significant Accounting Policies

BASIS OF ACCOUNTING

The System's financial statements are prepared using the accrual basis of accounting under which expenses are recorded when the liability is incurred. Revenues are recorded in the accounting period in which they are earned and become measurable.

Investment purchases and sales are recorded as of their settlement date. Contributions are recognized as revenues in the period in which the related employees' payroll is earned. Benefits and refunds are recognized when due and payable in accordance with the terms of the plan.

CONTRIBUTIONS RECEIVABLE

The final biweekly payroll contributions of employees for the years ended December 31, 2022 and 2021, and the City's related contributions were not deposited in the System by year end and are shown as contributions receivable in both years.

ESTIMATES

The preparation of financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of additions and deductions to net position held in trust available for pension benefits during the reporting period. Actual results could differ from those estimates.

METHOD USED TO VALUE INVESTMENTS

The System's investments are reported at fair value. Securities traded on a national or international exchange are valued at the last reported sales price at current exchange rates. Investments that do not have an established market are reported at estimated fair value. The System's real estate investments are appraised periodically, and the System receives audited financial statements from the real estate investment managers, which are used to estimate fair value. For other types of investments, the System uses financial statements submitted by investment managers, reviewed for alignment with values held by the external investment consultant and custodian bank.

Investment income is recognized in the period earned, and purchases and sales of investments are recorded on a settlement-date basis.

SYSTEM EXPENSES

All System administrative costs are the responsibility of the System.

SUBSEQUENT EVENTS

Management has evaluated subsequent events for disclosure through the date of the Independent Auditor's Report, the date the financial statements were available to be issued.

Note 3: Fixed Assets

Fixed assets are recorded at cost. Depreciation is computed using the straight-line method over the asset's estimated useful life of 30 years for the building and five to seven years for furniture and equipment. Fixed asset activity for the year ended December 31, 2022, is as follows:

	Beginning Balance	Additions	Deletions	Ending Balance
Assets not being depreciated:				
Land	\$ 150,000	\$ -	\$ -	\$ 150,000
Assets being depreciated:				
Building and improvements	1,701,375			1,701,375
Furniture and equipment	532,747		(15,372)	517,375
Leasehold improvements	69,094	56,619		125,713
Accumulated depreciation:	(1,613,548)		(93,913)	(1,707,461)
Net Fixed Assets	\$ 839,668	\$ 56,619	\$ (109,285)	\$ 787,002

Note 4: Federal Income Taxes

The System is a public employee retirement system and is exempt from federal income taxes. Favorable determination letters from the Internal Revenue Service were issued in September 1996, April 2007, July 2009, and August 2014.

Note 5: Deposit and Investment Risk

The System is authorized as an independent, defined benefit retirement plan in Article 6243n-1, Vernon's Texas Civil Statutes, which was originally signed into law on June 11, 1991. The Board is the trustee of System funds and has the power to invest and reinvest such funds in instruments or investments the Board considers prudent in accordance with the System's investment policy and state and federal law.

The Board annually adopts an Investment Policy Statement (IPS) to set forth the factors involved in the management of investment assets for the System, and the IPS is included with every investment manager's agreement. The fair values of the System's investments at December 31, 2022 and 2021 are presented, by type, as follows:

Total Investments by Asset Class¹

	2022	2021
Domestic Equity (U.S. Equity)	\$ 397,665,320	\$ 500,818,781
International Equity	120,605,612	155,796,153
Other Equity	98,342,702	62,935,535
Fixed Income	92,785,706	107,024,498
Other Fixed Income	12,063,285	15,247,349
Real Estate	148,252,053	125,398,752
Timber	2,340,880	5,398,054
Multi Asset Class	53,241,377	83,396,375
Cash & Cash Equivalents ²	7,210,936	22,260,874
Total Investments	\$ 932,507,871	\$ 1,078,276,371

¹ Assets by class at custodian bank

² Includes cash assets at custodian and local operating banks.

CUSTODIAL CREDIT RISK

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 its deposits or will not be able to recover collateral securities that are in the possession of an outside party. Deposits are exposed to custodial credit risk if they are uninsured and uncollateralized.

Custodial credit risk for investments is the risk that, in the event of the failure of the counterparty to a transaction, a government will not be able to recover the value of the investment or collateral securities that are in the possession of an outside party. Investment securities are exposed to custodial credit risk if the securities are uninsured, are not registered in the name of the System and are held by either the counterparty or the counterparty's trust department or agent but not in the System's name. As of December 31, 2022, and 2021, the System's investment securities are not exposed to custodial credit risk because all securities are held by the System's custodial bank in the System's name.

CONCENTRATION OF CREDIT RISK

Concentration of credit risk is the risk of loss attributed to the magnitude of the System's investment in a single issuer. Investments issued or explicitly guaranteed by the U.S. government are excluded from this requirement. As of December 31, 2022, and December 31, 2021.

The Board has adopted an Investment Policy Statement (IPS) with a general investment objective to obtain a total rate of return commensurate with the Prudent Investor Rule and any other applicable statutes. Reasonable consistency of return and protection of assets against the inroads of inflation is paramount. Performance results will be compared over the long-term in the context of five years or more given interest rate fluctuations and volatility of securities markets.

The Board and Investment Policy Statement (IPS) adopts the philosophy that the most effective risk control procedure is to adequately diversify the investments of the Fund among different asset classes with differing risk profiles. Diversification is achieved through providing a wide variety of investment classes in which to invest the System's Funds.

As of December 31, 2022, the System had the following investment asset allocations:

Asset Class	Target	Allowable Range
Domestic Equity (U.S. Equity)	42.5%	30%-50%
International Equity	15.0%	5%-25%
Other Equity (Private Equity)	12.5%	0%-15%
Total Fixed Income	10.0%	5%-30%
Other Fixed Income (Private Lending)	0.0%	0%-5%
Real Estate	15.0%	0%-30%
Timber	0.0%	0%-5%
Multi Asset Class	5.0%	0%-10%
Cash & Cash Equivalents	0.0%	0%-5%

The Board will employ investment professionals to oversee and invest the assets within the parameters allowed by the IPS and the agreements. The investment managers will have investment discretion over their mandates, including security selection, sector weightings and investment style, subject to certain constraints of the IPS.

The Investment Policy Statement states that no more than 5% of the total Plan’s assets may be invested in the common stock, capital stock or convertible stock of any one issuing company. Furthermore, no more than 5% of the Plan’s total assets may be invested in fixed income securities of any single corporate issuer. The Investment Section of this report contains a breakdown of the System’s largest direct portfolio holdings.

The responsibilities of the Board Investment Committee, the investment consultants, custodians, and investment managers operate in conjunction with the goals and guidelines of the IPS. The IPS also outlines the review and control procedures that the Board will monitor for compliance.

INTEREST RATE RISK

Interest rate risk is the risk that measures whether changes in interest rates will adversely affect the fair value of an investment. The System does not have a formal policy that limits investment maturities as a means of managing its exposure to fair value losses arising from increasing interest rates.

As of December 31, 2022, the System had the following investments:

Investment Type¹	Fair Value	Less Than 1 Year	1 to 6 Years	6 to 10 Years	Over 10 Years
Bonds	\$45,374,813	\$2,970,749	\$11,231,625	\$9,234,107	\$21,938,333

As of December 31, 2021, the System had the following investments:

Investment Type¹	Fair Value	Less Than 1 Year	1 to 6 Years	6 to 10 Years	Over 10 Years
Bonds	\$49,687,561	\$1,211,794	\$12,645,150	\$11,837,733	\$23,992,885

¹ Source: 2022 & 2021 GASB 40 Reports

CREDIT RISK

Credit risk is the risk associated with an issuer or other counterparty to an investment that does not fulfill its obligations to the System. While the System has no formal investment policy regarding credit quality rating guidelines, the IPS allows investment managers full discretion in adopting investment strategies to deal with these risks and the portfolios are monitored quarterly by the investment committee.

The quality ratings of investments in fixed income securities as described by nationally recognized statistical rating organizations at December 31, 2022, are as follows:

Quality Rating¹	Total Fair Value	International Securities	Corporate Bonds	Government Bonds
Aaa / AAA	\$ 828,970			\$ 828,970
Aa1 / AA+	949,291		\$ 949,291	
Aa2 / AA	984,396		984,396	
Aa3 / AA-	926,410		926,410	
A1 / A+	-			
A2 / A	4,313,772		4,313,772	
A3 / A-	5,966,881		5,966,881	
Baa1 / BBB+	6,267,480		6,267,480	
Baa2 / BBB	5,708,148		5,708,148	
Baa3 / BBB-	651,333		651,333	
Ba1 / BB+	-			
Ba2 / BB	-			
Ba3 / BB-	-			
B1 / B+	-			
B2 / B	-			
B3 / B-	-			
Caa / CCC	-			
Ca / CC	-			
C and below	-			
Not Rated	99,986,892		99,986,892	
US Gov't Guaranteed	18,781,143			18,781,143
Cash & Equivalent	16,398,353	\$ -		16,398,353
Total	\$ 161,763,058	\$ -	\$ 125,754,593	\$ 36,008,465

¹ Source: 2022 GASB 40 Report

The quality ratings of investments in fixed income securities as described by nationally recognized statistical rating organizations at December 31, 2021, are as follows:

Quality Rating¹	Total Fair Value	International Securities	Corporate Bonds	Government Bonds
Aaa / AAA	\$ 1,108,651			\$ 1,108,651
Aa1 / AA+	1,079,122		\$ 1,079,122	
Aa2 / AA	1,072,594		1,072,594	
Aa3 / AA-	1,054,857		1,054,857	
A1 / A+	-			
A2 / A	5,435,212		5,435,212	
A3 / A-	8,386,444		8,386,444	
Baa1 / BBB+	6,666,226		6,666,226	
Baa2 / BBB	6,639,302		6,639,302	
Baa3 / BBB-	961,492		961,492	
Ba1 / BB+	-			
Ba2 / BB	-			
Ba3 / BB-	-			
B1 / B+	-			
B2 / B	-			
B3 / B-	-			
Caa / CCC	-			
Ca / CC	-			
C and below	-			
Not Rated	137,590,242		137,590,242	
US Gov't Guaranteed	17,283,662			17,283,662
Cash & Equivalent	32,688,005	\$ -		32,688,005
Total	\$ 219,965,808	\$ -	\$ 168,885,490	\$ 51,080,318

¹ Source: 2021 GASB 40 Report

FOREIGN CURRENCY RISK

Foreign currency risk is the risk that occurs when changes in exchange rates adversely affect the fair value of an investment or a deposit. Although the System does not have a formal investment policy governing foreign currency risk, the System does manage its exposure to fair value loss by requiring international investment managers to maintain diversified portfolios to limit foreign currency risk.

The System holds investments in ADRs (American Depository Receipts) which are not included in the schedule below since they are denominated in U.S. dollars and accounted for at fair market value.

The System's exposure to foreign currency risk as of December 31, 2022, is as follows:

2022 Foreign Currency Risk¹

Country	Non-Securities²	International Equities	Other³
Canada, Dollar		\$ 138,871	
France, Euro		268,979	
Germany, Euro		5,892,801	
India, Rupee		406,749	
Ireland, Euro		1,125,485	
Israel, Shekel		337,220	
Taiwan, Dollar		391,713	
United Kingdom, Pound	-	3,501,821	-
	\$	\$ 12,063,637	\$

¹ Source: 2022 GASB 40 Report

² Represents cash and cash-equivalents, and adjustments to cash

³ Represents fixed income, hedge funds, real estate, venture capital, and other assets

The System's exposure to foreign currency risk as of December 31, 2021, is as follows:

2021 Foreign Currency Risk¹

Country	Non-Securities²	International Equities	Other³
Canada, Dollar		\$ 204,082	
Germany, Euro		3,819,505	
India, Rupee		295,272	
Ireland, Euro		1,794,402	
Israel, Shekel		766,821	
Netherlands, Euro		451,314	
Taiwan, Dollar		922,623	
United Kingdom, Pound	-	5,534,289	-
	\$	\$ 13,788,307	\$

¹ Source: 2021 GASB 40 Report

² Represents cash and cash-equivalents, and adjustments to cash

³ Represents fixed income, hedge funds, real estate, venture capital, and other assets

Note 6: Fair Market Measurement

In accordance with GASB 72, the System categorizes the fair measurement of its investments within a fair value hierarchy as established by generally accepted accounting principles. Fair value measurements are classified as Level 1, Level 2 or Level 3, based on inputs utilized to establish fair values:

Level-1 inputs are based on quoted prices (unadjusted) in active markets for identical assets or liabilities in active markets that an entity can access at the measurement date.

Level-2 inputs (other than quoted prices included within Level 1) are observable for similar assets or liabilities.

Level-3 inputs are developed by the reporting entity based on unobservable inputs for an asset or liability.

The categorization of investments described below is based solely on the objectivity of the inputs used, to reflect relative reliability in the measurement of an investment's fair value and does not reflect the level of risk associated with the investment.

APRS investments have the following fair value measurements as of December 31, 2022.

2022 GASB 72 Fair Value Measurement

Investments by fair value level ¹	Total	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2) ⁴	Significant Unobservable Inputs (Level 3) ⁵	Percentage
Short-Term Securities ²					
Cash - STIF Account			7,210,936		
Total	\$7,210,936		\$7,210,936		0.77%
Debt Securities ³					
Debt Securities			92,785,706		
Total	\$92,785,706		\$92,785,706		9.95%
Equity Securities					
US Denominated Equities		173,736,276			
Total	\$173,736,276	\$173,736,276			18.63%
Pooled Funds					
Domestic equity collective trust		223,929,044			
International equity collective trust		83,817,538			
Emerging markets collective trust		17,993,789			
International equity mutual fund		18,794,285			
Total	\$344,534,656	\$344,534,656			36.95%
Total investments by fair value level	\$618,267,574	\$518,270,932	\$99,996,642		
Investments Measured at Level 3					
Timber	a, b,		2,340,880		
Real Estate	c, d, e, f, g, h, i, j, k,		148,252,053		
Other Fixed Income (Private Lending)	l, m, n,		12,063,285		
Other Equity (Private Equity)	o, p, q, r, s, t,		98,342,702		
Multi Asset Class	u		53,241,377		
Total	\$314,240,297		\$314,240,297		33.73%
Total investments measured at fair value	\$932,507,871				100.00%

¹ Source: Northern Trust Bank (Book of Record)

² Includes: Cash accounts at custodian bank and local operating bank.

³ Includes: Commercial mortgage-backed securities, Corporate Bonds, Government mortgage-backed securities, Government agencies and Government Bonds.

⁴ Level 2 investments are valued based on quoted market prices in active markets as well as market valuation methodologies using discounted cash flows and observable credit ratings.

⁵ Level 3 investments include investments in a group of non-registered private equity investment partnerships, private equity real estate and private natural resources funds. Fair value determinations by the underlying funds take into consideration the operating results, financial conditions, real estate appraisals and recent sales prices of issuers' securities.

2022 Financial Notes and Security Descriptions Footnotes:

		Liquidity	Notice
a) Capital Timberland Investments	Actively managed diversified timber holdings located in Texas, USA.	Illiquid	N/A
b) Domain Environmental (formerly Timbervest)	Actively managed real estate portfolio of environmental preservation and restoration projects located in the USA. This fund is near the end of its expected term.	Illiquid	N/A
c) Artemis Real Estate Fund	Actively manage portfolio of real estate investments located in the USA.	Illiquid	N/A
d) Brookfield Real Estate Fund	Actively manage value-added real estate portfolio of primarily equity real estate investments located in the USA.	Illiquid	N/A
e) Edison Investments (Jayhawk)	Actively managed opportunistic and value-added real estate portfolio of primarily equity real estate investments located in the USA. The investment is in liquidation.	Illiquid	N/A
f) India Property Fund (Apollo)	Actively managed opportunistic and value-added real estate portfolio of equity real estate investments located in India. This fund is near the end of its expected term.	Illiquid	N/A
g) Gainesville Property (formerly Vision Capital)	Actively managed portfolio of real estate property located in the Georgia, USA.	Illiquid	N/A
h) Morgan Stanley Prime Property Fund	Actively managed core portfolio of primarily equity real estate investments located in the USA.	Quarterly	90 days
i) AEW Partners Fund VIII	Actively managed core portfolio of primarily equity real estate investments located in the USA.	Illiquid	N/A
j) Green Oak US III	Actively managed core portfolio of primarily equity real estate investments located in the USA.	Illiquid	N/A
k) Stockbridge (Smart Markets)	Actively managed core portfolio of primarily equity real estate investments located in the USA.	Illiquid	N/A
l) LBC Credit Partners	Actively managed private investment fund of private loan investments located in the USA.	Illiquid	N/A
m) Providence Debt Fund III	Actively managed private investment fund of private loan investments located in the USA.	Illiquid	N/A
n) Capital Point Partners	Actively managed private investment fund of private loan investments located in the USA. This investment is in liquidation.	Illiquid	N/A
o) Huff Energy	Actively managed portfolio of private energy investments located in the USA. The fund is nearing the end of its expected term.	Illiquid	N/A
p) Sail Venture I	Actively managed private equity portfolio of venture capital investments located in the USA. This fund has liquidated but pending its expected termination.	Illiquid	N/A
q) Sail Ventures II	Actively managed private equity portfolio of venture capital investments located in the USA. This fund has liquidated but pending its expected termination.	Illiquid	N/A
r) Sail Pre-Exit Acceleration Fund	Actively managed private equity portfolio of venture capital investments located in the USA. This fund has liquidated but pending its expected termination.	Illiquid	N/A
s) Excelsior Investors	Actively managed private equity portfolio of private finance oriented investments located in the USA. This fund is near the end of its expected term.	Illiquid	N/A
t) Franklin Park Private Equity Fund	Actively managed portfolio of private finance oriented investments located in the USA.	Illiquid	N/A
u) BlackRock Multi Asset Fund	Diversified fund of hedge funds with blending global macro, long/short equity and diversified credit strategies.	Daily	None

APRS investments have the following fair value measurements as of December 31, 2021.

2021 GASB 72 Fair Value Measurement

Investments by fair value level ¹	Total	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2) ⁴	Significant Unobservable Inputs (Level 3) ⁵	Percentage
Short-Term Securities ²					
Cash - STIF Account			22,260,874		
Total	\$22,260,874		\$22,260,874		2.06%
Debt Securities ³					
Debt Securities			107,024,499		
Total	\$107,024,499		\$107,024,499		9.93%
Equity Securities					
US Denominated Equities		207,578,956			
Total	\$207,578,956	\$207,578,956			19.25%
Pooled Funds					
Domestic equity collective trust		293,239,825			
International equity collective trust		105,840,704			
Emerging markets collective trust		23,643,449			
International equity mutual fund		26,312,000			
Total	\$449,035,978	\$449,035,978			41.64%
Total investments by fair value level	\$785,900,307	\$656,614,934	\$129,285,373		
Investments Measured at Level 3					
Timber	a, b,			5,398,054	
Real Estate	c, d, e, f, g, h, i, j,			125,398,751	
Other Fixed Income (Private Lending)	k, l, m,			15,247,349	
Other Equity (Private Equity)	n, o, p, q, r, s,			62,935,535	
Multi Asset Class	t			83,396,375	
Total	\$292,376,064			\$292,376,064	27.12%
Total investments measured at fair value	\$1,078,276,371				100.00%

¹ **Source:** Northern Trust Bank (Book of Record)

² **Includes:** Cash accounts at custodian bank and local operating bank.

³ **Includes:** Commercial mortgage-backed securities, Corporate Bonds, Government mortgage-backed securities, Government agencies and Government Bonds.

⁴ Level 2 investments are valued based on quoted market prices in active markets as well as market valuation methodologies using discounted cash flows and observable credit ratings.

⁵ Level 3 investments include investments in a group of non-registered private equity investment partnerships, private equity real estate and private natural resources funds. Fair value determinations by the underlying funds take into consideration the operating results, financial conditions, real estate appraisals and recent sales prices of issuers' securities.

2021 Financial Notes and Security Descriptions Footnotes:

		Liquidity	Notice
a) Capital Timberland Investments	Actively managed diversified timber holdings located in Texas, USA.	Illiquid	N/A
b) Domain Environmental (formerly Timbervest)	Actively managed real estate portfolio of environmental preservation and restoration projects located in the USA. This fund is near the end of its expected term.	Illiquid	N/A
c) RockSpring Funds	Actively manage portfolio of real estate investments located in Texas, USA.	Illiquid	N/A
d) Brookfield Real Estate Fund	Actively manage value-added real estate portfolio of primarily equity real estate investments located in the USA.	Illiquid	N/A
e) Edison Investments (Jayhawk)	Actively managed opportunistic and value-added real estate portfolio of primarily equity real estate investments located in the USA. The investment is in liquidation.	Illiquid	N/A
f) India Property Fund (Apollo)	Actively managed opportunistic and value-added real estate portfolio of equity real estate investments located in India. This fund is near the end of its expected term.	Illiquid	N/A
g) Gainesville Property (formerly Vision Capital)	Actively managed portfolio of real estate property located in the Georgia, USA.	Illiquid	N/A
h) Morgan Stanley Prime Property Fund	Actively managed core portfolio of primarily equity real estate investments located in the USA.	Quarterly	90 days
i) AEW Partners Fund VIII	Actively managed core portfolio of primarily equity real estate investments located in the USA.	Illiquid	N/A
j) Green Oak US III	Actively managed core portfolio of primarily equity real estate investments located in the USA.	Illiquid	N/A
k) LBC Credit Partners III	Actively managed private investment fund of private loan investments located in the USA.	Illiquid	N/A
l) Providence Debt Fund III	Actively managed private investment fund of private loan investments located in the USA.	Illiquid	N/A
m) Capital Point Partners	Actively managed private investment fund of private loan investments located in the USA. This investment is in liquidation.	Illiquid	N/A
n) Huff Energy	Actively managed portfolio of private energy investments located in the USA. The fund is nearing the end of its expected term.	Illiquid	N/A
o) Sail Venture I	Actively managed private equity portfolio of venture capital investments located in the USA. This fund has liquidated but pending its expected termination.	Illiquid	N/A
p) Sail Ventures II	Actively managed private equity portfolio of venture capital investments located in the USA. This fund has liquidated but pending its expected termination.	Illiquid	N/A
q) Sail Pre-Exit Acceleration Fund	Actively managed private equity portfolio of venture capital investments located in the USA. This fund has liquidated but pending its expected termination.	Illiquid	N/A
r) Excelsior Investors	Actively managed private equity portfolio of private finance oriented investments located in the USA. This fund is near the end of its expected term.	Illiquid	N/A
s) Franklin Park Private Equity Fund	Actively managed portfolio of private finance oriented investments located in the USA.	Illiquid	N/A
t) BlackRock Multi Asset Fund	Diversified fund of hedge funds with blending global macro, long/short equity and diversified credit strategies.	Daily	None

Note 7: Schedule of Investment Returns

For the year ended December 31, 2022 and 2021 the annual money-weighted rate of return on investments, net of investment expense, was -11.9% and 17.7%, respectively, as calculated by the System actuary.

Note 8: Contributions

The System is funded by biweekly contributions from both employees and the City based on employee compensation, consisting of base pay and longevity pay. Due to the passage of House Bill 4368 of the 87th Legislature in 2021, the member contribution rate was increased from 13% to 15% effective January 1, 2022. The City's contribution rate is calculated in two parts. Part One: The UAAL as of December 31, 2020 (referred to as the Legacy Liability) was set as a predetermined payment amount expressed in dollars in accordance with a payment schedule in the initial risk sharing valuation study which amortizes the Legacy Liability over 30 years. Part Two: An Actuarially Determined Employer Contribution (ADEC) was implemented which pre-calculates the City's contribution rate prior to the start of each fund fiscal year. The City's required contribution rate for fiscal year 2022 was 10.10%; however, when combined with the payments toward the Legacy Liability, the overall City contribution rate based on employee payroll was 27.983%. This compares to 21.737% in fiscal year 2021. More information on the ADEC is available in the Actuarial Section of this report.

As established by statute, the Risk Sharing Valuation Study (RSVS) establishes the contributions by members and the City for the calendar year beginning one year after the date of the RSVS. The RSVS specifies the Legacy Liability payment which is a pre-determined dollar amount and the City Contribution Rate which is determined as a percentage of payroll. The City Contribution Rate is comprised of the normal cost and an amortization payment towards the portion of the unfunded actuarial accrued liability that is not associated with the current Legacy Liability. The aforementioned amortization payment is the sum of individual payments towards liability layers established with each RSVS after the initial RSVS. Each of these layers has its own closed amortization period. The period is 30 years if it is a liability loss layer or is equal to the remaining amortization period of the largest loss layer if the layer is a gain layer. Based on the actuarial valuation as of December 31, 2022, and the plan provisions recognized in the valuation, the normal cost is 24.846% of pay and the period to amortize unfunded liabilities is 29 years. On December 31, 2021, with the plan provisions recognized in the valuation, the normal cost was 25.134% of pay and the period to amortize unfunded liabilities was 30 years. Legislation passed by the 87th Legislature in 2021 requires funding sufficient to remain within a period to amortize unfunded liabilities in 30 years.

Note 9: Commitments and Contingencies

At December 31, 2022 and 2021, the total accumulated lump sum benefit due to the participants in the Forward Deferred Retirement Option Plan (DROP) was \$6,516,252 and \$8,181,922, respectively.

At December 31, 2022 and 2021, the total accumulated lump sum benefit due to participants in the Post Retirement Option Plan (PROP) was \$32,121,071 and \$30,262,165, respectively.

At December 31, 2022 and 2021, the total accumulated lump sum member account balances subject to be refunded to former active members was \$1,202,779 and \$1,679,177, respectively.

Note 10: Net Pension Liability of the Sponsor

The components of the Net Pension Liability of the Sponsor on December 31, 2022 are as follows:

Total Pension Liability	\$1,690,002,331
Plan Fiduciary Net Position	\$ (933,084,477)
Net Pension Liability	<u>\$ 756,917,854</u>
Plan Fiduciary Net Position as a percentage of Total Pension Liability	<u>55.21%</u>

Actuarial Assumptions:

The Total Pension Liability was determined by an actuarial valuation as of December 31, 2022 using the following actuarial assumptions:

Inflation	2.5%
Salary Increases	Services Based
Discount Rate	7.25%
Investment Rate of Return	7.25%

Mortality rates were based on the PubS-2020 gender-distinct mortality tables (employee, healthy retiree, disabled retiree) as appropriate, projected from 2010 with the ultimate mortality improvement rates from MP-2018.

A single discount rate of 7.25% was used to measure the total pension liability for the plan year ending December 31, 2022. This single discount rate was based on an expected rate of return on pension plan investments of 7.25% and a municipal bond rate of 4.05%. Based on the stated assumptions and the projection of cash flows, the pension plan’s fiduciary net position and future contributions were sufficient to finance the projected benefit payments. As a result, the long-term expected rate of return on pension plan investments was applied to all projected benefit payments, with the resulting single discount rate being 7.25%. The single discount rate was 7.25% as of the prior measurement date.

The source of the municipal bond rate is the rate for Fixed Income Market Data/Yield Curve/Data Municipal bonds with 20 years to maturity that include only federally tax-exempt municipal bonds as reported in Fidelity Index’s “20-Year Municipal GO AA Index.” In describing this index, Fidelity notes that the municipal curves are constructed using option adjusted analytics of a diverse population of over 10,000 tax exempt securities. The rate shown is as of the last date available on or before the measurement date.

The projection of cash flows used to determine this single discount rate assumed that plan member and employer contributions will be made in accordance with the provisions of House Bill 4368, 87th Texas Legislature. In other words, the Legacy Liability payments will be paid by the employer over the 30-year period that began January 1, 2022, and the employer will also contribute the ADEC for the appropriate period. The member rate increased to 15% of payroll effective January 1, 2022.

The components of the Net Pension Liability of the Sponsor on December 31, 2021 were as follows:

Total Pension Liability	\$1,625,186,897
Plan Fiduciary Net Position	\$ (1,080,733,988)
Net Pension Liability	<u>\$ 544,452,909</u>
Plan Fiduciary Net Position as a percentage of Total Pension Liability	<u>66.50%</u>

Actuarial Assumptions:

The Total Pension Liability was determined by an actuarial valuation as of December 31, 2021 using the following actuarial assumptions:

Inflation	2.5%
Salary Increases	Services Based
Discount Rate	7.25%
Investment Rate of Return	7.25%

Mortality rates were based on the PubS-2020 gender-distinct mortality tables (employee, healthy retiree, disabled retiree) as appropriate, projected from 2010 with the ultimate mortality improvement rates from MP-2018.

A single discount rate of 7.25% was used to measure the total pension liability for the plan year ending December 31, 2021. This single discount rate was based on an expected rate of return on pension plan investments of 7.25% and a municipal bond rate of 1.84%. Based on the stated assumptions and the projection of cash flows, the pension plan’s fiduciary net position and future contributions were sufficient to finance the projected benefit payments. As a result, the long-term expected rate of return on pension plan investments was applied to all projected benefit payments, with the resulting single discount rate being 7.25%. The single discount rate was 7.25% as of the prior measurement date.

The source of the municipal bond rate is the rate for Fixed Income Market Data/Yield Curve/Data Municipal bonds with 20 years to maturity that include only federally tax-exempt municipal bonds as reported in Fidelity Index’s “20-Year Municipal GO AA Index.” In describing this index, Fidelity notes that the municipal curves are constructed using option adjusted analytics of a diverse population of over 10,000 tax exempt securities. The rate shown is as of the last date available on or before the measurement date.

The projection of cash flows used to determine this single discount rate assumed that plan member and employer contributions will be made in accordance with the provisions of House Bill 4368, 87th Texas Legislature. In other words, the Legacy Liability payments will be paid by the employer over the 30-year period that began January 1, 2022, and the employer will also contribute the ADEC for the appropriate period. The member rate increased to 15% of payroll effective January 1, 2022.

Best estimates of arithmetic real rates of return for each major asset class included in the Pension Plan's target asset allocation as of December 31, 2022 are summarized in the following table:

Asset Class	Long Term Expected Real Rate of Return
Domestic Equity	7.50%
International Equity	8.50%
Other Equity	7.50%
Total Fixed Income	3.00%
Other Fixed Income	3.50%
Real Estate	4.50%
Timber	2.50%
Multi Asset Class	5.00%
Cash & Cash Equivalents	0.00%

Below is a table providing the sensitivity of the net pension liability to changes in the discount rate as of December 31, 2022. In particular, the table presents the plan’s net pension liability, if it were calculated using a single discount rate that is one-percentage-point lower or one-percentage-point higher than the single discount rate:

	1% Decrease	Current Single Rate Assumption	1% Increase
	6.25%	7.25%	8.25%
Sponsor's Net Pension Liability	\$ 959,458,161	\$ 756,917,854	\$ 584,162,076

Best estimates of arithmetic real rates of return for each major asset class included in the Pension Plan's target asset allocation as of December 31, 2021 are summarized in the following table:

Asset Class	Long Term Expected Real Rate of Return
Domestic Equity	7.50%
International Equity	8.50%
Other Equity	7.50%
Total Fixed Income	3.00%
Other Fixed Income	3.50%
Real Estate	4.50%
Timber	2.50%
Multi Asset Class	5.00%
Cash & Cash Equivalents	0.00%

Below is a table providing the sensitivity of the net pension liability to changes in the discount rate as of December 31, 2021. In particular, the table presents the plan's net pension liability, if it were calculated using a single discount rate that is one-percentage-point lower or one-percentage-point higher than the single discount rate:

	1% Decrease	Current Discount Rate	1% Increase
	6.25%	7.25%	8.25%
Sponsor's Net Pension Liability	\$ 735,778,974	\$ 544,452,909	\$ 373,548,916

Schedule of Changes in the Employer's Net Pension Liability and Related Ratios

Plan year ending December 31,	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Total pension liability										
Service Cost	\$ 38,394,210	\$ 40,069,732	\$ 84,469,392	\$ 71,333,761	\$ 33,757,344	\$ 35,322,361	\$ 32,989,949	\$ 32,138,760	\$ 30,253,628	\$ 28,769,060
Interest on the Total Pension Liability	116,130,073	110,640,907	89,375,792	89,680,333	90,478,785	84,471,608	80,845,879	76,999,651	72,442,934	68,919,471
Benefit Changes	0	0	0	0	0	0	0	(4,079,852)	(11,015,618)	0
Difference between expected and actual experience of the Total Pension Liability	(4,529,067)	6,536,539	10,320,384	(4,743,379)	(12,904,876)	17,240,801	7,454,959	(6,318,435)	0	0
Assumption Changes	0	0	(740,167,135)	179,003,031	666,872,780	0	5,148,318	3,903,538	14,137,496	0
Contributions - Buy Back	2,554,013	3,993,033	1,941,041	1,261,530	1,141,907	2,914,966	1,668,174	4,648,271	2,207,398	0
Benefit Payments and Refunds	(87,733,795)	(80,206,801)	(76,956,288)	(66,319,031)	(63,982,824)	(56,548,004)	(50,827,501)	(50,005,439)	(45,403,126)	(42,825,265)
Net Change in Total Pension Liability	64,815,434	81,033,410	(631,016,814)	270,216,245	715,363,116	83,401,732	77,279,778	57,286,494	62,622,712	54,863,266
Total Pension Liability - Beginning	1,625,186,897	1,544,153,487	2,175,170,301	1,904,954,056	1,189,590,940	1,106,189,208	1,028,909,430	971,622,936	909,000,222	854,136,958
Total Pension Liability - Ending	\$ 1,690,002,331	\$ 1,625,186,897	\$ 1,544,153,487	\$ 2,175,170,301	\$ 1,904,954,056	\$ 1,189,590,940	\$ 1,106,189,208	\$ 1,028,909,430	\$ 971,622,936	\$ 909,000,224
Plan Fiduciary Net Position										
Contributions - Employer	\$ 44,419,425	\$ 35,429,366	\$ 36,577,137	\$ 35,993,200	\$ 35,244,242	\$ 35,141,204	\$ 33,814,182	\$ 33,239,271	\$ 32,399,740	\$ 31,160,764
Contributions - Member	23,810,672	21,186,489	22,180,985	21,941,732	21,461,482	21,436,998	20,623,125	20,060,610	19,457,407	19,467,960
Contributions - Buy Back	2,554,013	3,993,033	1,941,041	1,261,530	1,141,907	2,914,966	1,668,174	4,648,271	2,207,398	0
Pension Plan Net Investment Income	(127,690,029)	164,509,457	98,573,363	148,162,708	(43,398,717)	82,072,002	37,964,881	(321,704)	35,574,317	49,524,150
Benefit Payments and Refunds	(87,733,795)	(80,206,801)	(76,956,288)	(66,319,031)	(63,982,824)	(56,548,004)	(50,827,501)	(50,005,439)	(45,403,126)	(42,825,265)
Pension Plan Administrative Expense	(3,009,797)	(2,403,855)	(1,929,168)	(1,720,551)	(1,421,192)	(1,562,685)	(1,396,736)	(1,465,939)	(1,327,071)	(1,114,856)
Other	0	0	0	0	0	0	0	0	0	0
Net Change in Plan Fiduciary Net Position	(147,649,511)	142,507,689	80,387,070	139,319,588	(50,955,102)	83,454,481	41,846,125	6,155,070	42,908,665	56,212,753
Plan Fiduciary Net Position - Beginning	1,080,733,988	938,226,299	857,839,229	718,519,641	769,474,743	686,020,262	644,174,137	638,019,067	595,110,402	538,897,649
Plan Fiduciary Net Position - Ending	\$ 933,084,477	\$ 1,080,733,988	\$ 938,226,299	\$ 857,839,229	\$ 718,519,641	\$ 769,474,743	\$ 686,020,262	\$ 644,174,137	\$ 638,019,067	\$ 595,110,402
Net Pension Liability - Ending	756,917,854	544,452,909	605,927,188	1,317,331,072	1,186,434,415	420,116,197	420,168,946	384,735,293	333,603,869	313,889,822
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	55.21 %	66.50 %	60.76 %	39.44 %	37.72 %	64.68 %	62.02 %	62.61 %	65.67 %	65.47 %
Covered Employee Payroll	\$ 158,737,813	\$ 162,972,992	\$ 170,622,962	\$ 168,782,554	\$ 165,088,323	\$ 164,899,985	\$ 158,655,196	\$ 154,243,493	\$ 149,790,754	\$ 144,089,468
Net Pension Liability as a Percentage of Covered Employee Payroll	476.84 %	334.08 %	355.13 %	780.49 %	718.67 %	254.77 %	264.83 %	249.43 %	222.71 %	217.84 %

Notes to Schedule:

For FYE 2017 and later, the covered payroll was determined by imputing the pay based on actual member contributions.

Prior to FYE 2017, the covered payroll was determined by the prior actuary.

See independent auditor's report.

Schedule of Employer Contributions

PY Ending December 31,	Last 10 Plan Years				
	Actuarially Determined Contribution	Actual Contribution	Contribution Deficiency (Excess)	Covered Payroll	Actual Contribution as a % of Covered Payroll
2013	N/A	\$ 31,160,764	N/A	\$ 144,089,468	21.630%
2014	N/A	32,399,740	N/A	149,790,754	21.630%
2015	N/A	33,239,271	N/A	154,243,493	21.550%
2016	N/A	33,814,182	N/A	158,655,196	21.313%
2017	N/A	35,141,204	N/A	164,899,985	21.313%
2018	N/A	35,244,242	N/A	165,088,323	21.313%
2019	N/A	35,993,200	N/A	168,782,554	21.313%
2020	\$ 55,244,302	36,577,137	\$ 18,667,165	170,622,962	21.313%
2021	55,446,671	35,429,366	20,017,305	162,972,992	21.737%
2022	44,419,425	44,419,425	-	158,737,813	27.983%

The Board of Trustees of APRS adopted the Policy to Determine Funding Goals and Guidelines on December 18, 2019. Therefore, beginning with the 2020 fiscal year it is appropriate to disclose an Actuarially Determined Contribution (ADC) that complies with the Policy. HB 4368 passed by the 87th Texas Legislature, Regular Session, in 2021, changed the City contribution to an ADC. The City began contributing the ADC in fiscal year 2022.

See independent auditor's report.

Notes to Schedule of Employer Contributions

Valuation Date: December 31, 2022
 Actuarially determined contribution rates are calculated as of December 31 for the fiscal year that begins one year after the valuation date.

Methods and Assumptions Used to Determine Contribution Rates:

Actuarial Cost Method	Entry Age Normal
Amortization Method	Level Percentage of Payroll, Open
Remaining Amortization Period	The ADC for fiscal years 2022 and beyond is determined using layered 30-year closed amortization periods.
Asset Valuation Method	Smoothed market value recognizing prior 5 years' differences between expected and actual investment income over a period of at most five years.
Inflation	2.50%
Salary Increases	0.00% to 12.20%, in addition to 3.00% general wage increases
Investment Rate of Return	7.25%
Retirement Age	Experience-based table of rates, last updated for the December 31, 2018 valuation.
Mortality	PubS-2010 gender-distinct mortality tables (employee, healthy retiree, disabled retiree) as appropriate, projected from 2010 with the ultimate mortality improvement rates from MP-2018.

Other Information:

Notes
 Prior to 2022, the members and employers contribute are based on statutorily fixed rates. Beginning with the January 1, 2022 contributions, the employer contribution rate is determined actuarially.
 Beginning December 31, 2017, the covered employee payroll is imputed pay based on actual employee contributions during the measurement period.

See independent auditor's report.

Schedule of Investment Returns

The returns for the Plan's fiscal years shown below were determined as annual money-weighted rates of returns net of investment expenses.

Last 10 Fiscal Years

<u>Fiscal Year Ending December 31, 2022</u>	<u>Annual Return</u>
2022	-11.93%
2021	17.74%
2020	11.60%
2019	20.75%
2018	-5.67%
2017	11.95%
2016	5.88%
2015	-0.05%
2014	5.71%
2013	8.90%

Investment Expenses		
	<u>2022</u>	<u>2021</u>
Custodial & Transaction Fees		
The Northern Trust Company	\$ 203,918	183,411
Transaction and other fees	-	-
	<u>203,918</u>	<u>183,411</u>
Investment Manager Fees	1,496,072	1,583,515
Other Investment-related Expenses		
Consultant Fees - AndCo	215,000	200,000
	<u>215,000</u>	<u>200,000</u>
Total	<u>\$ 1,914,990</u>	<u>1,966,926</u>

General & Administrative Expenses		
	<u>2022</u>	<u>2021</u>
Actuarial	\$ 53,330	93,674
Legal	171,254	255,638
Audit	27,500	27,500
Non-Investment Consultants	158,920	164,300
Administrative	2,504,880	1,776,984
Depreciation	93,913	85,759
Total	<u>\$ 3,009,797</u>	<u>2,403,855</u>

Professional Services and Consultant Expenses		
	<u>2022</u>	<u>2021</u>
Actuarial		
Gabriel, Roeder, Smith & Company	\$ 53,330	93,674
Legal		
Jackson Walker LLP	171,254	255,638
Audit		
Montemayor Britton Bender P.C.	27,500	27,500
Consultants		
Harkrider Group	150,000	162,000
Medical Board	8,920	2,300
	<u>158,920</u>	<u>164,300</u>
Total	<u>\$ 411,004</u>	<u>541,112</u>

**Information provided in accordance with Texas Government Code Sec. 802.103(a)(3). Also, see pages 77 and 82.*

**Investment Manager Fees reported here are direct pay fees. For more information, please refer to the Investment Section.*

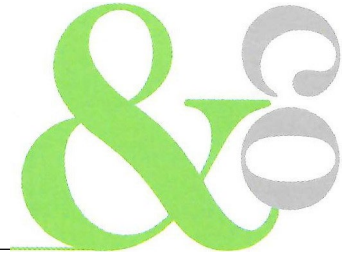
See independent auditor's report.



INVESTMENT SECTION

Clients first.

To: Austin Police Retirement System
From: John Breth and Peter Brown
Date: May 25, 2023
RE: 2022 Investment Review



2022 Investment Review

Prepared by: AndCo Consulting, Investment Consultant to the Board

Global markets fell sharply in 2022 pressured by rising interest rates, slowing economic growth, the war in Ukraine and persistently high inflation not seen in the U.S. since the early 1980s. Inflation peaked in June when the Consumer Price Index rose 9.1% year-over-year in June forcing the Federal Reserve to hike its policy rate 425 basis points over seven meetings by year-end. Several key benchmarks fell into bear territory at times. Towards the end of the year, hints that inflation may have peaked fueled a rally that eased some of the losses.

U.S. equities experienced their worst calendar year since 2008 as high inflation and aggressive rate hikes sparked recession fears. In 2022, the Russell 3000 Index, which tracks approximately 97% of U.S. Stocks, declined 19% and entered its first bear market since 2020. The NASDAQ Composite fared even worse, falling 33% with growth stocks reporting the sharpest declines across U.S. equities in 2022. Investors penalized companies with declining growth or inconsistent profitability because of higher costs of capital. Yet, for the second straight year, Energy was the top performing sector, rising 65% on rising oil and gas prices after the Russian invasion of Ukraine.

Similar losses were reported in the overseas stock markets in both developed and emerging markets. Nearly all non-U.S. holdings were negatively impacted in 2022 effected by a steadily rising U.S. dollar relative to foreign currencies as illustrated with the MSCI Europe Index decline of 7% in local currency magnified to over a 14% decline in dollars. European and Japanese stocks were impacted by increasing inflation, rising interest rates, weakening local currencies and supply chain challenges stemming from the Ukrainian war. Emerging markets fell, undercut by China's economic slowdown. Chinese stocks declined by more than 20% for the second consecutive year led by a growing liquidity crisis in real estate and temporary shutdowns in key manufacturing and technology hubs due to virus-related outbreaks. Only the Latin American market bucked the wider selloff and reported positive returns for the year mostly as the MSCI Brazil Index advanced on higher commodity prices.

Fixed income markets fell across the board, as the Federal Reserve raised the federal funds rate by 425 basis points from near zero to counter the highest inflation since the 1980s. U.S. Treasury yields rose across the curve. The 10-year Treasury climbed 237 basis points to 3.9% and the Bloomberg U.S. Aggregate Index declined 13%. As spreads widened, the Bloomberg U.S. Corporate Investment Grade Index reported the worse decline in the U.S. bond market, falling by 15.8%.

With struggling markets across the globe, The Austin Police Retirement System investment portfolio produced a negative time weighted net return of 11.5% for the full year of 2022. The portfolio generated a net loss on investment of nearly \$123 million and finished the year with a total value of \$933.9 million.

The Equity allocation, which represents 66% of the total Fund, drove portfolio returns as equities declined 15.1% for the year. U.S. equities (43% of the Fund) generated a loss of 18.1% which was 90 basis points better than the broad U.S. market in 2022. The international equity allocation (13% of the Fund) reported a decline of 22%, underperforming the broad non-U.S. equity market. Returns were supported by the private equity allocation (11% of the Fund) which gained 26.5% in 2022.

The Fixed Income allocation (11% of the Fund) posted a negative return of 11.3% but outperformed the broad U.S. bond market in 2022 as interest rates moved significantly higher. Returns within fixed income were supported by allocations to private credit strategies. Certain private credit managers realized gains in their loan books as positions matured.

The Real Estate allocation (16% of the Fund) reported a positive performance for the year. Overall, the portfolio's real estate holdings gained 6.3% in 2022 led by both its core and non-core real estate holdings seeing modest price appreciation through the first nine months of the year dampened by slight depreciation recorded in the fourth quarter. The Timber allocation (0.3% of the Fund) was the strongest performing asset class gaining 28.8% in 2022 amidst a strong sales market for timberland in the southeast. Overall, the timber allocation declined by more than half in 2022 with the full liquidation of one of the two remaining portfolio managers. The timber allocation is expected to be fully liquidated over the next few years. The portfolio's Multi Asset allocation (6% of the Fund) declined 11.5% for the year, which was impacted by high yield bonds, covered calls and global equities.

The Board of Trustees remains committed to investing for the long haul using a well-diversified mix of investments among various asset classes managed by professional money managers who have demonstrated their professionalism over time, with a goal of generating a return that equals or exceeds the actuarial return assumption of 7.25%.

Sincerely,



Jon Breth
Consulting Department



Peter Brown
Consulting Department

Investment Policy Statement

Purpose of Investment Policy Statement

The Board of Trustees (the “Board”) maintains that an important determinant of future investment returns is the expression and periodic review of the Austin Police Retirement System (the “Plan”) investment objectives. To that end, the Board has adopted this statement of investment policy and directs that it apply to all assets under its control. Based on the size of the Plan and frequency of meetings, the Investment Committee of the Board of Trustees (the “Investment Committee”) will review the investments of the Plan and offer recommendations to the full Board regarding design and general administrative issues pertaining to the investments of the Plan.

In fulfilling their fiduciary responsibility, the Board recognizes that the Plan is an essential vehicle for providing income benefits to retired participants or their beneficiaries. The Board also recognizes that the obligations of the Plan are long-term and that the investment policy should be constructed with a view toward performance and return over a number of years. The general investment objective is to obtain a reasonable total rate of return - defined as interest and dividend income plus realized and unrealized capital gains or losses - commensurate with its fiduciary duties under Texas law and any other applicable statutes.

Reasonable consistency of return and protection of assets against the inroads of inflation is paramount. However, interest rate fluctuations and volatility of securities markets make it necessary to judge results within the context of several years rather than over short periods of five years or less.

The Board will employ investment professionals to oversee and invest the assets of the Plan. Within the parameters allowed in this document and their agreements with the Board, the investment management professionals shall have investment discretion over their mandates, including security selection, sector weightings and investment style. The Board, in performing their investment duties, shall comply with Article 6243n-1 Vernon’s Annotated Texas Civil Statutes, Article IX, Section 9.01 and other applicable Texas law.

Target Allocations

In order to provide for a diversified portfolio, the Board has engaged investment professional(s) to manage and administer the Plan. The Investment Manager(s) are responsible for the assets and allocation of their mandate only and may be provided an addendum to this policy with their specific performance objectives and investment criteria. The Board has established long term asset allocation targets and ranges for the total Plan which can be found in Attachment B of this document:

The Board, with assistance from the Investment Consultant, will monitor the aggregate asset allocation of the portfolio, and will rebalance to the target asset allocation based on market conditions. If at the end of any calendar quarter, the allocation of an asset class falls outside of its allowable range, barring extenuating circumstances such as pending cash flows or allocation levels viewed as temporary, the asset allocation will be rebalanced into the allowable range. To the extent possible, contributions and withdrawals from the portfolio will be executed proportionally based on the most current market values available and with reasonable notice provided to the Investment Managers. The Board does not intend to exercise short-term changes to the target allocation.

Investment Performance Objectives

The following performance measures will be used as objective criteria for evaluating the effectiveness of the Investment Managers and the overall investment performance of the Plan.

A. Total Portfolio Performance

1. The performance of the total portfolio will be measured for rolling three (3) and five (5) year periods. The performance of the total portfolio will be compared to a customized market index comprised of 40% Russell 3000, 15% MSCI ACWI ex US, 12.5% Bloomberg Barclays Aggregate, 5% Bloomberg Barclays Global Credit, 15% NCREIF NPI, 12.5% Asset Specific (Private Investments).
2. On a relative basis, it is expected that the total portfolio performance will rank in the top 50th percentile of the appropriate peer universe over (3) and five (5) year time periods.
3. On an absolute basis, the objective is that the return of the total portfolio will equal or exceed the actuarial earnings assumption (7.25%) over the long term. This absolute return objective will be evaluated in the context of the prevailing market conditions.

B. Equity Performance

The combined equity portion of the portfolio, defined as common stocks and convertible bonds, is expected to perform at a rate at least equal to a blended index comprised of 75% Russell 3000 and 25% MSCI ACWI ex US index. Individual components of the equity portfolio will be compared to the specific benchmarks defined in each Investment Manager addendum. All portfolios are expected to rank in the top 50th percentile of the appropriate peer universe over three (3) and five (5) year time periods.

C. Fixed Income Performance

The overall objective of the fixed income portion of the portfolio is to add stability to the total portfolio. The fixed income portion of the portfolio is expected to perform at a rate at least equal to a blended index comprised of 75% Bloomberg Barclays Aggregate Bond Index and 25% Bloomberg Barclays Global Credit. Individual components of the fixed income portfolio will be compared to the specific benchmarks defined in each Investment Manager addendum. All portfolios are expected to rank in the top 50th percentile of the appropriate peer universe over three (3) and five (5) year time periods.

D. Real Estate Performance

The overall objective of the real estate portfolio is to add diversification, another stable income stream and the possibility of enhanced returns to the total portfolio. The real estate portion of the portfolio, defined as operating, substantially leased properties or, open-ended core private real estate funds, is expected to perform at a rate similar to the NCREIF Property Index (NPI) over the three (3) and five (5) year time periods.

E. Timber Performance

The overall objective of the timber portfolio if utilized is to reduce the volatility of the total portfolio and enhance returns. The timber portion of the total portfolio is expected to perform at a rate similar to the NCREIF Timber Index over the three (3) and five (5) year time periods and as outlined in the manager addendums.

F. Private Investment Performance

The overall objective of the private investment portion of the portfolio if utilized is to reduce the volatility of the total portfolio and enhance returns. The private investment portion of the total portfolio is expected to exceed benchmarks chosen for each specific investment.

G. Multi Asset Class Performance

The overall objective of the multi asset class portion of the portfolio is to reduce the volatility of the total portfolio and enhance returns. The multi asset class portion of the portfolio is expected to perform at a rate at least equal to the benchmarks chosen for each specific investment.

Investment Guidelines

A. Authorized Investments

1. Equities

- a. Investments in equity securities must be traded on a national exchange or electronic network.
- b. No more than 5% of the total Plan's assets may be invested in the common stock, capital stock or convertible stock of any one issuing company. In addition, the aggregate investment in any one company shall not exceed 5% of the outstanding capital stock of that company.
- c. No more than 15% of the Plan's assets, at the time of purchase, may be invested in the shares of companies that have been publicly traded for less than one year.
- d. If expressly permitted in the individual mandate of the Investment Manager, investments may be traded on a government regulated Canadian exchange which exchange is also a participant in the Canadian Securities Administrator. The investment on Canadian exchanges shall be limited to 5% of the portfolio at cost.

2. Fixed Income

- a. No more than 5% of the Plan's total assets may be invested in the securities of any single corporate issuer.

3. Real Estate

- a. Investments in real estate strategies shall not exceed 30% of the market value of the total Plan assets.
- b. The Board will seek to diversify its real estate investments by investment strategy, property type (multi-family residential, industrial, office, retail, timberland, etc.) and property location (geographic region).
- c. All real estate investments shall be managed by experienced and qualified professional real property investment managers.

4. Alternative Investments

- a. The Plan may invest in limited partnerships and/or private equity structures in order to diversify the Plan's portfolio and/or to enhance the Plan's return opportunities. It is understood that these types of investments may have limited liquidity and/or "lock-up" periods with no liquidity. It is also recognized that these types of investments may have higher fees and demonstrate highly variable returns over short periods of time. Given the factors previously listed, the Board shall consider special criteria including, but not limited to, the following in evaluation of any investments in this category:
 - Tenure, expertise and track record of management team;
 - Diversification potential of the alternative investment relative to other Plan investments
 - Risk control provisions of the alternative investment;
 - Liquidity provisions of the alternative investment;
 - Use of leverage or other means of return enhancement by the alternative investment;
 - Fees and potential conflicts of interest associated with the alternative investment.

5. Cash Equivalent Securities

- a. The Investment Managers may invest only in the money market(s) or short-term investment fund (STIF) provided by the Plan's custodian.

6. Pooled Funds:

- a. Investments made by the Plan may include pooled funds. For purposes of this policy, pooled funds may include, but are not limited to, mutual funds, commingled funds, exchange-traded funds, limited partnerships and private equity.
- b. Pooled funds may be governed by separate documents which may include investments not expressly permitted in this investment policy. In the event of investment by the Plan into a pooled fund, the prospectus or governing policy of that pooled fund, as updated from time to time, shall be treated as the Investment Manager addendum to this Investment Policy Statement and included as Attachment A. The Investment Consultant shall periodically review with the Board any material changes in the prospectus or governing policy of a pooled fund.

7. Securities Lending:

- a. This is strictly prohibited with all separate account managers and any account utilized with the Plan Custodian. Some pooled funds may permit securities lending within their vehicle structure as outlined in Section IV. A. 6. In those instances where pooled funds are utilized, this practice may be employed as outlined in the offering documents or prospectus.

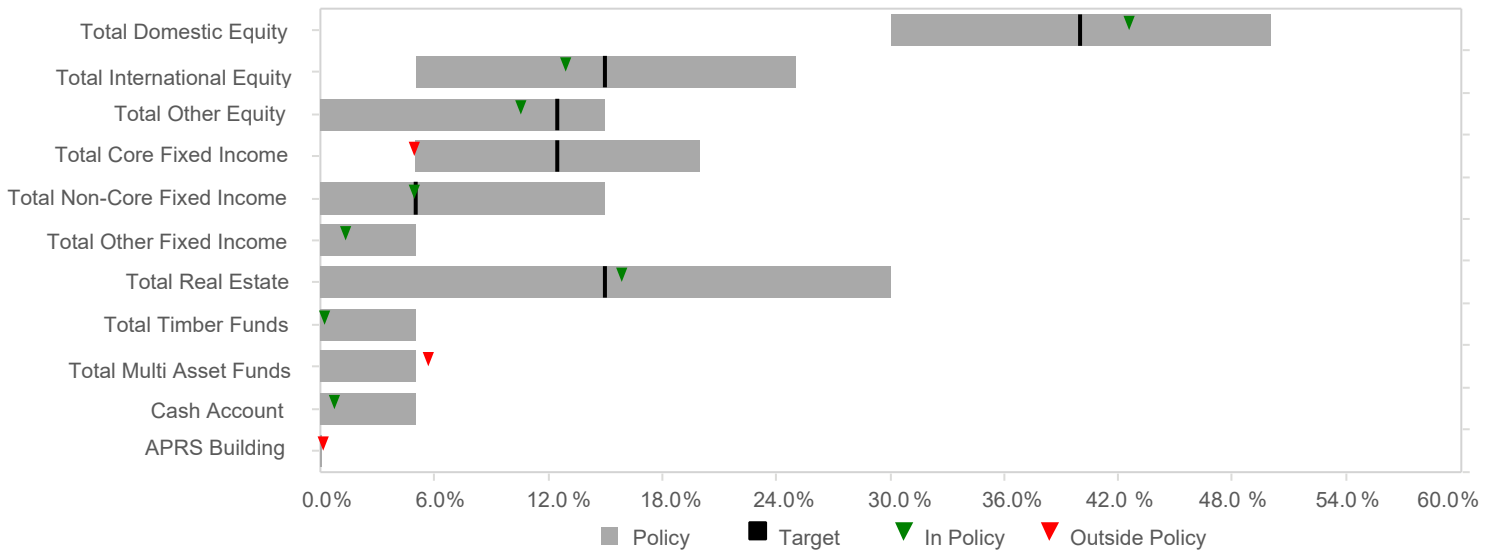
8. Trading Parameters

- a. When feasible and appropriate, all securities shall be competitively bid. Except as otherwise required by law, the most economically advantageous bid shall be selected. Commissions paid for purchase of securities must meet the prevailing best-execution rates. The responsibility of monitoring best price and execution of trades placed by each Investment Manager on behalf of the Plan will be governed by the Portfolio Management Agreement between the Plan and the Investment Manager.

9. Limitations

- a. Investment in equity & equity equivalent securities shall not exceed 80% of the market value of the Plan's assets.
- b. Any investment not specifically allowed as part of this policy.

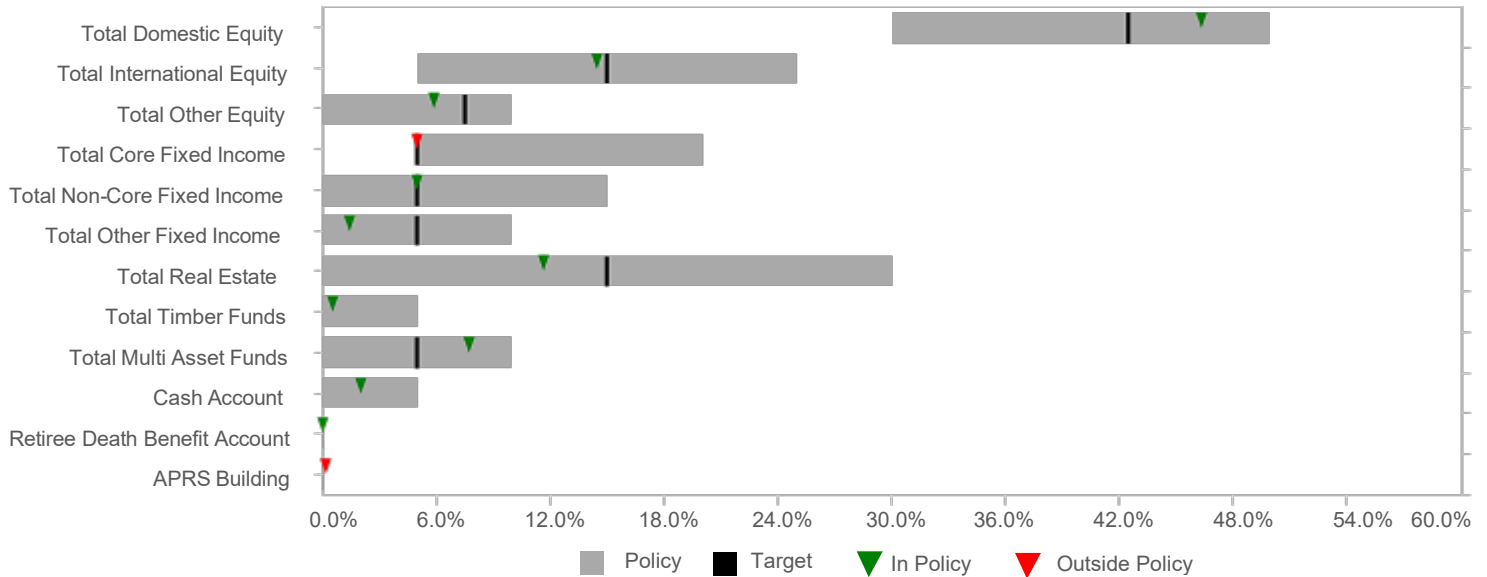
Executive Summary



Asset Allocation Compliance

	Asset Allocation \$	Current Allocation (%)	Minimum Allocation (%)	Maximum Allocation (%)	Target Allocation (%)
Total Retirement System	933,934,678	100.0	N/A	N/A	100.0
Total Domestic Equity	397,664,840	42.6	30.0	50.0	40.0
Total International Equity	120,605,613	12.9	5.0	25.0	15.0
Total Other Equity	98,342,702	10.5	0.0	15.0	12.5
Total Core Fixed Income	46,504,138	5.0	5.0	20.0	12.5
Total Non-Core Fixed Income	46,278,146	5.0	0.0	15.0	5.0
Total Other Fixed Income	12,063,285	1.3	0.0	5.0	0.0
Total Real Estate	148,252,053	15.9	0.0	30.0	15.0
Total Timber Funds	2,340,850	0.3	0.0	5.0	0.0
Total Multi Asset Funds	53,241,377	5.7	0.0	5.0	0.0
Cash Account	6,940,300	0.7	0.0	5.0	0.0
APRS Building	1,701,375	0.2	0.0	0.0	0.0

Executive Summary



Asset Allocation Compliance

	Asset Allocation \$	Current Allocation (%)	Minimum Allocation (%)	Maximum Allocation (%)	Target Allocation (%)
Total Retirement System	1,079,736,817	100.0	N/A	N/A	100.0
Total Domestic Equity	500,819,086	46.4	30.0	50.0	42.5
Total International Equity	155,796,142	14.4	5.0	25.0	15.0
Total Other Equity	62,935,535	5.8	0.0	10.0	7.5
Total Core Fixed Income	53,328,462	4.9	5.0	20.0	5.0
Total Non-Core Fixed Income	53,696,036	5.0	0.0	15.0	5.0
Total Other Fixed Income	15,247,349	1.4	0.0	10.0	5.0
Total Real Estate	125,398,749	11.6	0.0	30.0	15.0
Total Timber Funds	5,398,054	0.5	0.0	5.0	0.0
Total Multi Asset Funds	83,396,375	7.7	0.0	10.0	5.0
Cash Account	22,019,654	2.0	0.0	5.0	0.0
Retiree Death Benefit Account	-	0.0	0.0	0.0	0.0
APRS Building	1,701,375	0.2	0.0	0.0	0.0

SCHEDULE OF INVESTMENT RESULTS

	Balance 12/31/2021	Balance 12/31/2022	FY 2022 Net Return %	FY 2022 Mgmt Fees (Cash Basis)	Annualized Net Return (%)		
					1 Year	3 Years	5 Years
Total Fund	\$ 1,079,736,817	\$ 933,934,678	-11.54%	\$ 5,570,694	-11.54%	5.14%	5.69%
Total Equity	\$ 719,550,764	\$ 616,613,154	-15.13%	\$ 2,755,300	-15.13%	6.02%	6.89%
Domestic Equity	\$ 500,819,086	\$ 397,664,840	-18.31%	\$ 1,238,514	-18.31%	6.60%	8.08%
NT Collective Russell 3000 Index	\$ 293,239,825	\$ 223,929,044	-19.15%	\$ 39,727	19.15%	7.08%	8.80%
<i>Russell 3000 Index</i>			-19.21%		-19.21%	7.07%	8.79%
Baird Mid Cap Growth	\$ 73,001,233	\$ 53,296,257	-27.51%	\$ 405,291	-27.51%	6.06%	9.85%
<i>Russell Midcap Growth Index</i>			-26.72%		-26.72%	3.85%	7.64%
Nuance Mid Cap Value	\$ 66,439,229	\$ 63,994,131	-3.68%	\$ 355,428	-3.68%	4.39%	N/A
<i>Russell Midcap Value Index</i>			-12.03%		-12.03%	5.82%	5.72%
Kennedy Small Cap Value	\$ 68,138,799	\$ 56,445,407	-17.75%	\$ 438,068	-17.75%	6.24%	3.80%
<i>Russell 2000 Value Index</i>			-14.48%		-14.48%	4.70%	4.13%
International Equity	\$ 155,796,142	\$ 120,605,613	-21.97%	\$ 1,018,523	-21.97%	-0.58%	-0.11%
Driehaus International Small Cap Growth ³	\$ 26,312,000	\$ 18,794,285	-24.34%	\$ 251,782	-24.34%	3.37%	3.68%
<i>MSCI AC World ex USA Small Growth</i>			-25.85%		-25.85%	0.93%	1.03%
Thompson Siegel & Walmsley	\$ 56,167,444	\$ 48,366,324	-13.89%	\$ 317,680	-13.89%	1.48%	1.26%
<i>MSCI EAFE (Net) Index</i>			-14.45%		-14.45%	0.87%	1.54%
WCM Focused Intl Growth LP	\$ 49,673,250	\$ 35,451,214	-28.63%	\$ 293,595	-28.63%	N/A	N/A
<i>MSCI AC World ex USA Growth (Net)</i>			-23.05%		-23.05%	-0.40%	1.49%
Wellington Emerging Markets Fund	\$ 23,643,448	\$ 17,993,789	-24.51%	\$ 155,467	-24.51%	N/A	N/A
<i>MSCI Emerging Markets (Net) Index</i>			-20.09%		-20.09%	-2.69%	-1.40%
Other Equity	\$ 62,935,535	\$ 98,342,702	26.45%	\$ 498,263	26.45%	10.74%	11.72%
Huff Energy Fund	\$ 6,749,813	\$ 19,396,200	187.36%	\$ -	187.36%	2.20%	10.18%
Excelsior Investors, Ltd.	\$ 192,563	\$ 122,366	N/A	\$ -	N/A	N/A	N/A
Franklin Park Private Equity	\$ 55,993,156	\$ 78,824,133	6.42%	\$ 498,263	6.42%	20.99%	18.79%
Total Fixed Income	\$ 122,271,847	\$ 104,845,570	-11.28%	\$ 754,669	-11.28%	-2.07%	-0.44%
Orleans Capital	\$ 53,328,462	\$ 46,504,138	-12.93%	\$ 73,684	-12.93%	-2.72%	0.05%
<i>Blmbg. U.S. Aggregate Index</i>			-13.01%		-13.01%	-2.71%	0.02%
Pimco Diversified Income Fund ³	\$ 53,696,036	\$ 46,278,146	-13.81%	\$ 355,531	-13.81%	N/A	N/A
<i>Blmbg. Global Credit (Hedged)</i>			-13.75%		-13.75%	-2.61%	0.53%
Other Fixed Income	\$ 15,247,349	\$ 12,063,285	4.87%	\$ 325,454	4.87%	5.92%	4.52%
Capital Point Partners	\$ 3,269,282	\$ 3,257,754	25.97%	\$ 60,670	25.97%	5.78%	-0.48%
LBC Credit Partners III	\$ 2,427,674	\$ 1,531,158	-14.76%	\$ 19,735	-14.76%	2.70%	1.68%
LBC Credit Partners IV	\$ 5,977,334	\$ 4,295,655	3.43%	\$ 212,310	3.43%	6.27%	6.78%
Providence Debt Fund III	\$ 3,573,059	\$ 2,978,718	-1.85%	\$ 32,739	-1.85%	3.74%	3.19%
Multi Asset	\$ 83,396,375	\$ 53,241,377	-11.47%	\$ 270,204	-11.47%	0.38%	2.18%
BlackRock Mult Asset Fund ³	\$ 83,396,375	\$ 53,241,377	-11.47%	\$ 270,204	-11.47%	0.36%	N/A
<i>BlackRock Multi Hybrid</i>			-15.33%		-15.33%	1.47%	3.41%
Real Estate	\$ 129,027,771	\$ 150,592,903	6.27%	\$ 1,790,521	6.27%	9.55%	7.89%
Morgan Stanley Prime Property	\$ 77,832,113	\$ 82,607,316	6.14%	\$ 990,193	6.14%	9.30%	8.40%
<i>NCREIF Fund Index-ODCE (EW)</i>			7.56%		7.56%	9.72%	8.31%
Brookfield Premier Real Estate Partners	\$ 25,496,230	\$ 28,185,074	10.55%	\$ 297,668	10.55%	11.79%	N/A
<i>NCREIF Fund Index-ODCE (EW)</i>			7.56%		7.56%	9.72%	8.31%
Stockbridge Smart Markets	-	\$ 19,193,461	N/A	\$ 66,519	N/A	N/A	N/A
<i>NCREIF Fund Index-ODCE (EW)</i>			7.56%		7.56%	9.72%	8.31%
Edison Investments ³	\$ 2,265,439	\$ 2,304,992	3.15%	\$ 22,783	3.15%	3.03%	9.30%
India Property Fund	\$ 219,287	\$ 173,212	-21.01%	\$ -	-21.01%	-30.59%	-32.25%
Gainesville Property	\$ 1,644,315	\$ 1,644,315	-0.76%	\$ 13,744	-0.76%	-0.86%	-0.88%
AEW Partners Fund VIII	\$ 6,067,306	\$ 3,725,317	22.29%	\$ 67,167	22.29%	25.36%	22.50%
GreenOak US III	\$ 10,105,027	\$ 10,019,132	-0.85%	\$ 134,163	-0.85%	1.20%	N/A

SCHEDULE OF INVESTMENT RESULTS (CONCLUDED)

Artemis Real Estate IV	-	\$ 399,234	N/A	\$ 171,780	N/A	N/A	N/A
Capitol Timberland Investments	\$ 3,555,618	\$ 1,021,897	63.08%	\$ 11,702	63.08%	11.77%	5.06%
Domain Environmental Investments II	\$ 1,842,436	\$ 1,318,953	-10.18%	\$ 11,840	-10.18%	-8.55%	-7.55%
Rockspring Capital Land Fund II ¹	\$ 1,147,405	-	N/A	\$ 2,962	N/A	N/A	N/A
Rockspring Capital Land Fund III ¹	\$ 621,627	-	N/A	\$ -	N/A	N/A	N/A
Other	\$ 1,701,375	\$ 1,701,375	N/A	N/A	N/A	N/A	N/A
APRS System Building ²	\$ 1,701,375	\$ 1,701,375	N/A	N/A	N/A	N/A	N/A

**All fees reported on cash basis accounting.*

**Calculated using time-weighted rate of return based on market rate of return.*

¹ *Rockspring Capital Land Fund II & III liquidated in 2022.*

² *APRS owns the System office building to conduct its daily operations.*

³ *Management Fee Derived from Net Asset Value*

**Information provided in accordance with Texas Government Code Sec. 802.103(a)(3). Also, see pages 65 and 82.*

Top Ten Direct Holdings - Equities

Shares	Description	Fair Value	% of Fund
132,476	DENTSPLY SIRONA INC COM	\$ 4,218,036	0.89%
24,473	KIMBERLY-CLARK CORP COM	\$ 3,322,209	0.70%
120,117	ADR SMITH & NEPHEW GROUP P L C SPONSOREDADR NEW	\$ 3,229,946	0.68%
31,697	NORTHERN TR CORP COM	\$ 2,804,868	0.59%
13,824	TRAVELERS COS INC COM STK	\$ 2,591,862	0.55%
21,479	3M CO COM	\$ 2,575,762	0.54%
50,001	BAXTER INTL INC COM	\$ 2,548,551	0.54%
17,001	CLOROX CO COMMON STOCK USD 1 PAR	\$ 2,385,750	0.50%
15,816	UNVL HEALTH SERVICES INC CL B COM	\$ 2,228,316	0.47%
114,044	HEALTHCARE REALTY TRUST INC COM	\$ 2,197,627	0.46%
Top 10 Direct Holdings - Equities		\$ 28,102,926	5.93%
Total APRS Investment Portfolio as of 12/31/2022		\$ 933,934,678	100.00%

*Full listing available upon request.

Top Ten Direct Holdings - Fixed Income

Shares	Description	Fair Value	% of Fund
1,867,159	FHLMC POOL #SD8189 2.5% 21-01-2051	\$ 1,583,376	0.17%
1,608,118	FNMA POOL #MA4327 3% 05-01-2051 BEO	\$ 1,415,473	0.15%
1,453,969	FNMA POOL #MA4701 4.5% 08-01-2052 BEO	\$ 1,401,076	0.15%
1,500,000	VALERO ENERGY CORP NEW 2.8% 12-01-2031	\$ 1,226,767	0.13%
1,300,000	VERIZON 3.875% DUE 02-08-2029	\$ 1,222,368	0.13%
1,300,000	DEERE JOHN CAP CORP MEDIUM TERM 3.45% 03-07-2029	\$ 1,208,647	0.13%
1,300,000	JPMORGAN CHASE & CO NT FIXED/FLTG RATE Due 05-01-2028/10-25-2017 R	\$ 1,202,557	0.13%
1,370,668	FHLMC POOL #QC-6752 2.5% DUE 09-01-2051 REG	\$ 1,165,536	0.13%
1,250,000	MCDONALD'S CORPORATION 3.6% DUE 07-01-2030	\$ 1,149,565	0.12%
1,250,000	AFLAC INC FIXED 3.6% DUE 04-01-2030	\$ 1,134,261	0.12%
Top 10 Direct Holdings - Fixed Income		\$ 12,709,626	1.36%
Total APRS Investment Portfolio as of 12/31/2022		\$ 933,934,678	100.00%

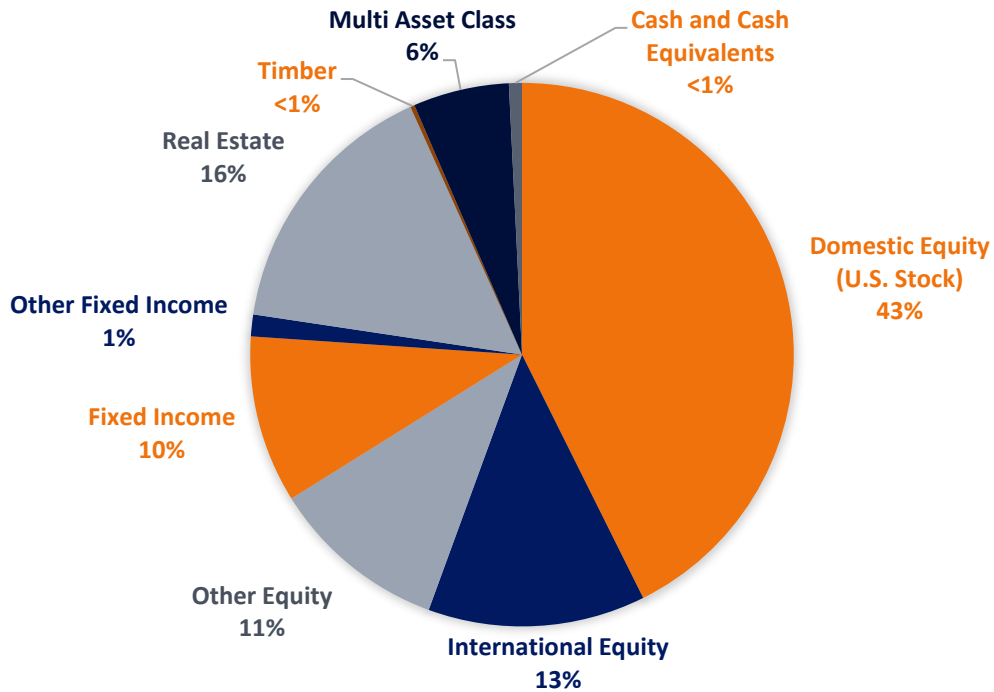
*Full listing available upon request.

INVESTMENT SUMMARY AT FAIR VALUE

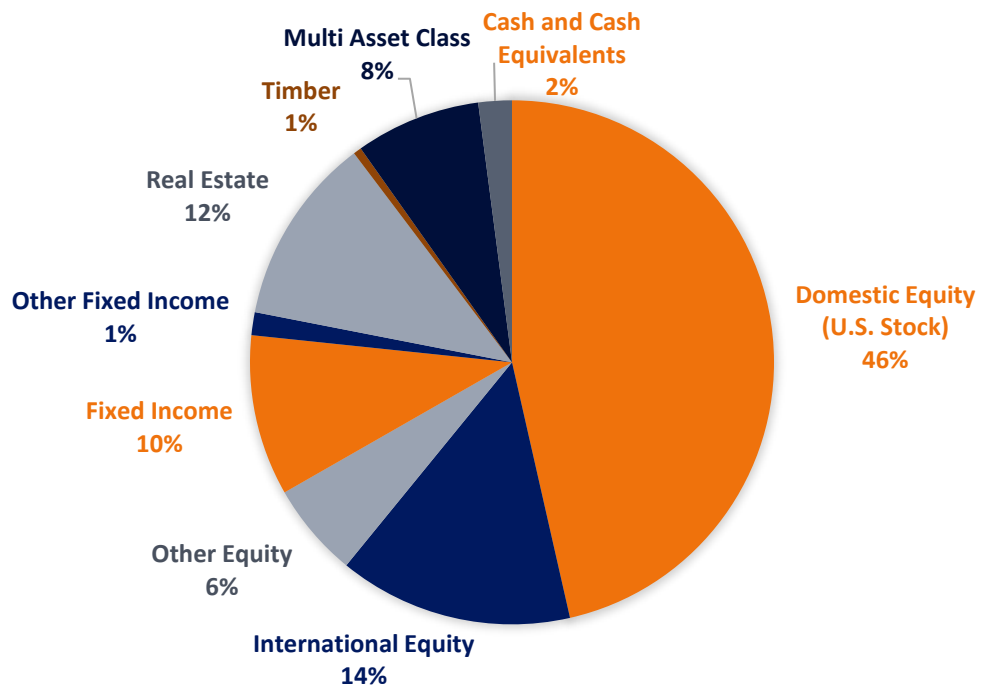
APRS Investment Portfolio

Asset Class/Sub-Asset Class	12/31/2022 Fair Value	Percentage of Total
<u>Total Equity</u>		
Domestic Equity	\$ 397,664,840	42.58%
International Equity	\$ 120,605,613	12.91%
Other Equity	\$ 98,342,702	10.53%
<u>Total Fixed Income</u>		
Fixed Income	\$ 92,782,284	9.93%
Other Fixed Income	\$ 12,063,285	1.29%
<u>Multi Asset</u>		
Multi Asset	\$ 53,241,377	5.70%
<u>Real Estate</u>		
Real Estate	\$ 150,592,903	16.12%
<u>Other</u>		
APRS Building	\$ 1,701,375	0.18%
Cash	\$ 6,940,300	0.74%
Total	\$ 933,934,679	100.00%

2022 APRS Asset Allocation



2021 APRS Asset Allocation



BROKER COMMISSIONS OVER \$5,000

Broker Commissions Over \$5,000

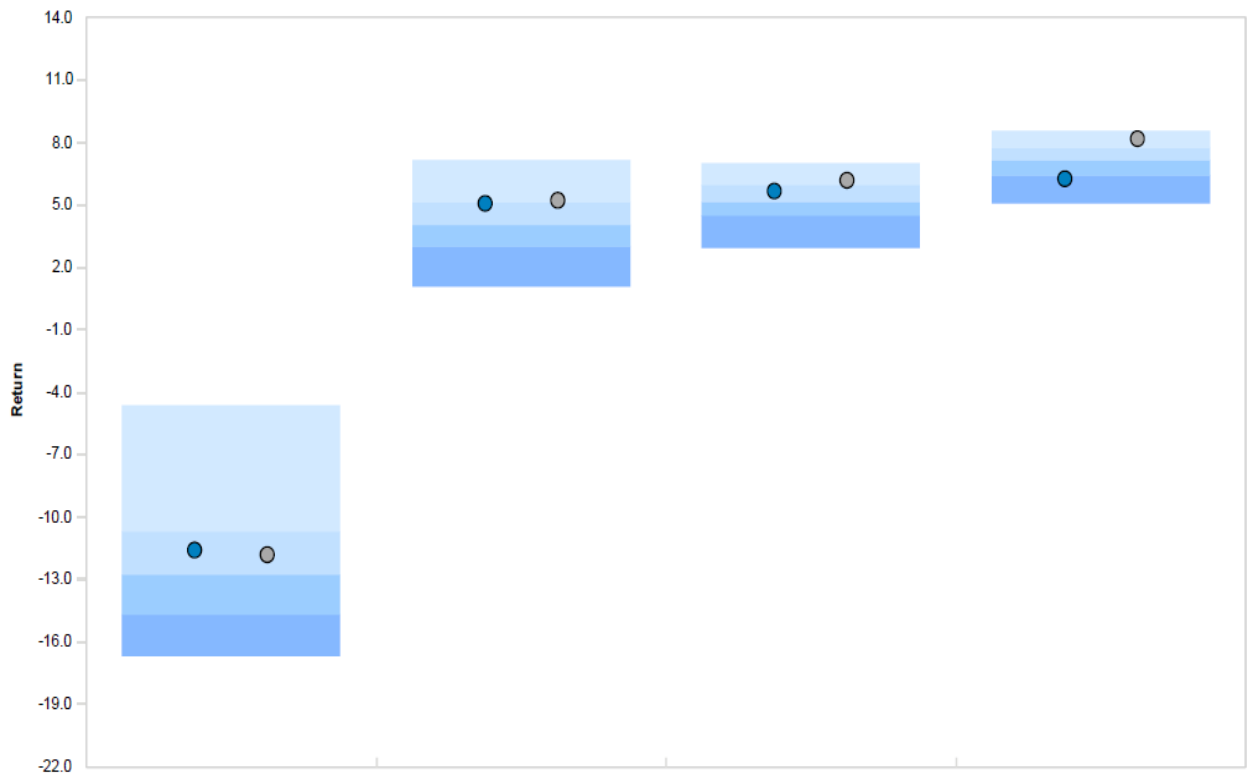
Broker Name	# of Shares / Par Traded	Commission Paid	Cost per Share
Northern Trust Company	2,247,951	\$ 34,667	\$ 0.02
<i>COMBINED - 32 Brokers with Commissions < \$5,000</i>	55,818,939	\$ 48,558	\$ 0.001
2022 Total Broker Commissions	58,066,890	\$ 83,226	\$ 0.001

Total Manager Fees and Broker Commissions

Asset Class	Manager Fees	Commissions Paid	Total Cost
Total Equity	\$ 2,755,300	\$ 83,225	\$ 2,838,525
Domestic Equity	\$ 1,238,514	\$ 83,225	\$ 1,321,739
International Equity	\$ 1,018,523	\$ -	\$ 1,018,523
Other Equity	\$ 498,263	\$ -	\$ 498,263
Total Fixed Income	\$ 754,669	\$ -	\$ 754,669
Fixed Income	\$ 429,215	\$ -	\$ 429,215
Other Fixed Income	\$ 325,454	\$ -	\$ 325,454
Multi Asset	\$ 270,204	\$ -	\$ 270,204
Real Estate	\$ 1,790,521	\$ -	\$ 1,790,521
2022 Total Manager Fees and Broker Commissions	\$ 5,570,694	\$ 83,225	\$ 5,653,919

**Information provided in accordance with Texas Government Code Sec. 802.103(a)(3). Also see pages 65 and 77.*

2022 Fund Performance vs Peers



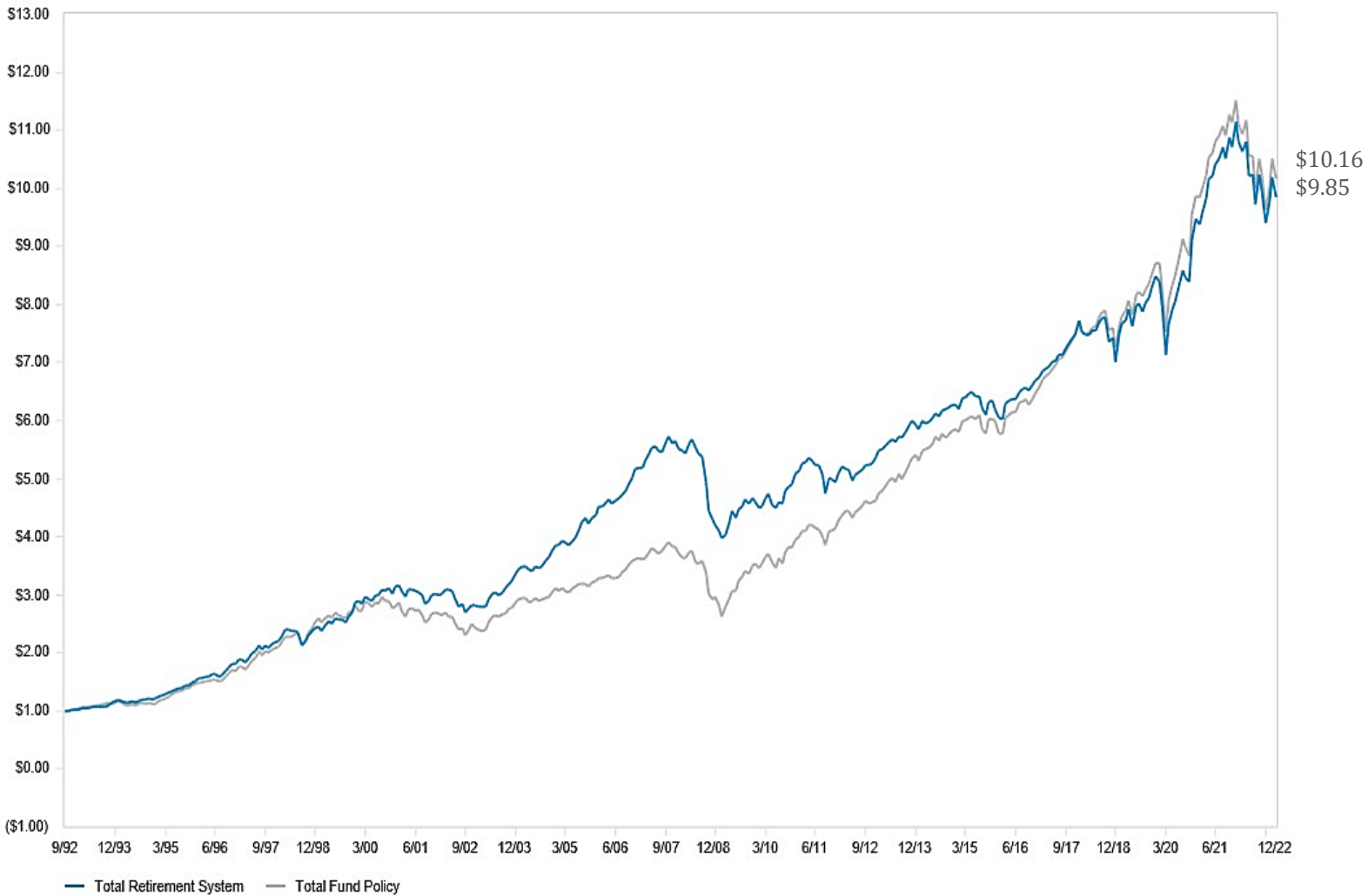
	1 YR	3 YR	5 YR	10 YR
● Total Retirement System	-11.54 (34)	5.14 (26)	5.69 (35)	6.27 (81)
● Total Fund Policy	-11.78 (39)	5.28 (24)	6.25 (17)	8.23 (12)
5 th Percentile	-4.59	7.16	7.05	8.56
1 st Quartile	-10.67	5.16	5.99	7.78
Median	-12.77	4.07	5.22	7.20
3 rd Quartile	-14.67	3.06	4.49	6.47
95 th Percentile	-16.67	1.09	2.97	5.10

*Parentheses contain percentile rankings.

*Calculation based on monthly periodicity.

TOTAL GROWTH OF \$1.00 VS. STRATEGIC BENCHMARKS

Total Growth of \$1: APRS Fund vs. Strategic Benchmarks



*Calculation based on monthly periodicity.

*Total Fund Policy is comprised of 45% Russell 3000 Index, 15% MSCI World ex U.S., 5% Blmbg. U.S. Aggregate Index, 5% Blmbg. Global Credit, 15% NCREIF Property Index, 5% HFRI Fund of Funds Composite Index, 2.5% Credit Suisse Leveraged Loan Index, and 7.50% Cambridge Associates Private Equity Index.



ACTUARIAL SECTION

Source: Gabriel, Roeder, Smith & Company



June 16, 2023

Board of Trustees

Austin Police Retirement System
2520 South IH35, Suite 100

Austin, TX 78704

Re: Actuarial Valuation for Funding Purposes as of December 31, 2022

Members of the Board:

We certify that the information contained in this report is accurate and fairly presents the actuarial position of the Austin Police Retirement System (APRS) as of December 31, 2022. This report was prepared at the request of the Board and is intended for use by APRS staff and those designated or approved by the Board. This report may be provided to parties other than APRS only in its entirety and only with the permission of the Board.

Actuarial Valuation

The primary purposes of the actuarial valuation report are to determine the actuarially determined contribution (ADC) rates for the City and members, describe the current financial condition of APRS, analyze changes in the condition of APRS, and provide various summaries of the data.

Plan Provisions

There were no changes to the plan provisions during the past year. The current plan provisions are outlined in Section E of this report.

Risk Sharing Valuation

This valuation includes special calculations referred to as the "Risk Sharing Valuation" in statute. There is a section in the report (Section RSV) that contains information which is required as part of this valuation. Page RSV-1 contains a discussion of the RSV exhibits. Page RSV-2 contains the contribution corridor for the City's ADC. The corridor mid-point is the minimum City Contribution Rate until APRS is 90% funded. Page RSV-3 shows the calculation of the ADC for the current valuation. This calculated rate will be the City Contribution Rate if it exceeds the corridor mid-point and is less than the corridor maximum. The rate will be contributed in the calendar year that begins one year after the valuation date. Page RSV-4 shows the remaining liability layers and the corresponding amortization payment for the liability layers created after the establishment of the Legacy Liability. Page RSV-5 shows a projection of the Legacy Liability and the schedule of payments to pay-off the Legacy Liability over a 30-year period beginning in 2022.

Actuarial Assumptions and Methods

The assumptions and methods applied in this actuarial valuation were adopted by the Board of Trustees effective with the December 31, 2018 actuarial valuation. The actuarial assumptions used for the December 31, 2022 actuarial valuation are based on an experience review for the five-year period from January 1, 2013 through December 31, 2017. All actuarial assumptions used in this report are reasonable for the purposes of this actuarial valuation. The current actuarial assumptions and methods are outlined in Section F of this report.

Data

The valuation was based upon information as of December 31, 2022 furnished by APRS staff, concerning system benefits, financial transactions, plan provisions and active members, terminated members, retirees and beneficiaries. We checked for internal and year-to-year consistency, but did not audit the data. We are not responsible for the accuracy or completeness of the information provided by APRS staff.

Certification

All of our work conforms with generally accepted actuarial principles and practices, and to the Actuarial Standards of Practice issued by the Actuarial Standards Board. In our opinion, our calculations also comply with the requirements of, where applicable, the Internal Revenue Code and ERISA.

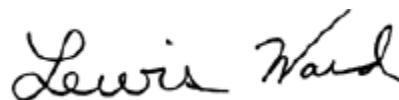
The signing actuaries and consultants are independent of the plan sponsor. Mr. Wood is an Associate of the Society of Actuaries, a Fellow of the Conference of Consulting Actuaries, and a Member of the American Academy of Actuaries, and meets the Qualification Standards of the American Academy of Actuaries. Finally, each of the undersigned is experienced in performing valuations for large public retirement systems.

Respectfully submitted,

Gabriel, Roeder, Smith & Company



Paul Wood ASA, FCA, MAAA
Senior Consultant



Lewis Ward
Consultant



RSVS DISCUSSION

The purpose of the Risk Sharing Valuation Study (RSVS) is to determine the City Contribution Rate for the APRS fiscal year beginning one year after the valuation date.

The exhibit on page RSV-2 shows the RSVS Corridor which was created from the Initial RSVS. Column 3 shows the Corridor Midpoint for each fiscal year. Columns 2 and 4 show the Corridor Minimum and Corridor Maximum, respectively. Column 5 shows the actual City Contribution Rate for the applicable fiscal year. As shown in the table, the actual City Contribution Rate for FY 2024 is 9.59% of pay.

The exhibit on page RSV-3 shows the individual pieces and total calculated City Contribution Rate. As shown in the table, the calculated City Contribution Rate from this valuation is 9.11% of pay. Because the System is less than 90% funded, the actual City Contribution Rate will be set equal to the greater of the calculated City Contribution Rate and the Corridor Midpoint of 9.59% of pay.

The exhibit on page RSV-4 shows the Liability (Gain)/Loss Layers established each year. Columns 2 and 3 show the original liability layer and any remaining liability layer, respectively. Column 4 is the payment on that particular layer for the fiscal year beginning one year after the valuation date. The payment is determined using a level percentage of payroll and the remaining amortization period as shown in column 5. The payments reflect the one-year delay between the determination of the payment and the beginning of the fiscal year in which the payment is made. The dollar amounts of the payments are summed and then converted to a percentage of payroll based on the projected payroll for the fiscal year beginning one year after the valuation date. As shown in the table, the current year's payment is negative, which means it is a credit toward the contribution rate. The credit is determined to be 0.48% of projected payroll.

The exhibit on page RSV-5 is the Legacy Liability schedule. This table shows the amortization schedule of the Legacy Liability for each of the 30 years over which it is scheduled to be paid. Column 2 shows the remaining Legacy Liability as of that measurement date while Column 3 shows the payment on the Legacy Liability for the fiscal year in which it is contributed.

The unfunded actuarial accrued liability is equal to the sum of the Remaining Layer column on the Liability Gain/Loss Layers exhibit and the Remaining Legacy Liability column as of the valuation date. This illustrates that there is a schedule to pay off every dollar of the current unfunded actuarial accrued liability.

ACTUARIALLY DETERMINED CONTRIBUTION CORRIDOR

Fiscal Year Ending	Corridor Minimum	Corridor Midpoint	Corridor Maximum	Actual City Contribution Rate
(1)	(2)	(3)	(4)	(5)
December 31, 2022	5.10%	10.10%	15.10%	10.10%
December 31, 2023	4.85%	9.85%	14.85%	9.85%
December 31, 2024	4.59%	9.59%	14.59%	9.59%
December 31, 2025	4.33%	9.33%	14.33%	
December 31, 2026	4.08%	9.08%	14.08%	
December 31, 2027	3.83%	8.83%	13.83%	
December 31, 2028	3.58%	8.58%	13.58%	
December 31, 2029	3.32%	8.32%	13.32%	
December 31, 2030	3.05%	8.05%	13.05%	
December 31, 2031	2.79%	7.79%	12.79%	
December 31, 2032	2.53%	7.53%	12.53%	
December 31, 2033	2.27%	7.27%	12.27%	
December 31, 2034	2.02%	7.02%	12.02%	
December 31, 2035	1.75%	6.75%	11.75%	
December 31, 2036	1.47%	6.47%	11.47%	
December 31, 2037	1.21%	6.21%	11.21%	
December 31, 2038	0.94%	5.94%	10.94%	
December 31, 2039	0.67%	5.67%	10.67%	
December 31, 2040	0.39%	5.39%	10.39%	
December 31, 2041	0.12%	5.12%	10.12%	
December 31, 2042	-0.13%*	4.87%	9.87%	
December 31, 2043	-0.36%*	4.64%	9.64%	
December 31, 2044	-0.57%*	4.43%	9.43%	
December 31, 2045	-0.77%*	4.23%	9.23%	
December 31, 2046	-0.92%*	4.08%	9.08%	
December 31, 2047	-1.03%*	3.97%	8.97%	
December 31, 2048	-1.13%*	3.87%	8.87%	
December 31, 2049	-1.20%*	3.80%	8.80%	
December 31, 2050	-1.25%*	3.75%	8.75%	
December 31, 2051	-1.29%*	3.71%	8.71%	

* The City Contribution Rate cannot go below zero. In other words, a negative City Contribution Rate will not result in a reduction in the Legacy Liability Payment.

CALCULATED ACTUARIALLY DETERMINED CITY CONTRIBUTION RATE

Fiscal Year <u>Ending</u> (1)	Employer Normal Cost ¹ <hr style="width: 50%; margin: auto;"/> (2)	Amortization <u>Payment</u> (3)	Calculated City Contribution <u>Rate</u> (4)
December 31, 2022	10.10%	0.00%	10.10%
December 31, 2023	9.89%	-0.81%	9.08%
December 31, 2024	9.59%	-0.48%	9.11%

¹ Normal Cost for Actuarially Determined City Contribution Rate is projected from valuation date one year prior to the applicable fiscal year.

RISK SHARING VALUATION - LIABILITY (GAIN)/LOSS LAYERS

Valuation Date Base Established	Original Layer	Remaining Layer	Payment for 2024 Fiscal Year ¹	Remaining Payments
(1)	(2)	(3)	(4)	(5)
December 31, 2022	\$ 9,412,866	\$ 9,412,866	\$ 589,577	30
December 31, 2021	(21,593,325)	(23,158,841)	(1,393,078)	29
Total		\$ (13,745,975)	\$ (803,501)	

Projected Payroll for Fiscal Year +1 \$ 166,857,998

Amortization Payments as % of Projected Pay -0.48%

Single Equivalent Amortization Period from the Valuation Date ² 29.0

¹ The first payment for each new layer will be made during the fiscal year beginning one year after the valuation date.

² The single equivalent amortization period includes all liability layers including the Legacy Liability.

PROJECTION OF REMANING LEGACY LIABILITY AND LEGACY LIABILITY PAYMENTS

<u>Fiscal Year Ending</u>	<u>Remaining Legacy Liability</u>	<u>Fiscal Year Payment</u>
(1)	(2)	(3)
December 31, 2020	\$ 637,738,287	\$ -
December 31, 2021	667,018,611	-
December 31, 2022	687,421,056	26,994,958
December 31, 2023	701,289,811	34,732,256
December 31, 2024	708,151,183	42,469,554
December 31, 2025	714,190,540	43,743,641
December 31, 2026	719,308,702	45,055,950
December 31, 2027	723,398,111	46,407,629
December 31, 2028	726,342,188	47,799,858
December 31, 2029	728,014,642	49,233,854
December 31, 2030	728,278,727	50,710,870
December 31, 2031	726,986,449	52,232,196
December 31, 2032	723,977,707	53,799,162
December 31, 2033	719,079,373	55,413,137
December 31, 2034	712,104,308	57,075,531
December 31, 2035	702,850,301	58,787,797
December 31, 2036	691,098,932	60,551,431
December 31, 2037	676,614,348	62,367,974
December 31, 2038	659,141,954	64,239,013
December 31, 2039	638,407,004	66,166,183
December 31, 2040	614,113,088	68,151,168
December 31, 2041	585,940,511	70,195,703
December 31, 2042	553,544,549	72,301,574
December 31, 2043	516,553,580	74,470,621
December 31, 2044	474,567,077	76,704,740
December 31, 2045	427,153,454	79,005,882
December 31, 2046	373,847,751	81,376,058
December 31, 2047	314,149,155	83,817,340
December 31, 2048	247,518,334	86,331,860
December 31, 2049	173,374,579	88,921,816
December 31, 2050	91,092,737	91,589,470
December 31, 2051	-	94,337,154

EXECUTIVE SUMMARY

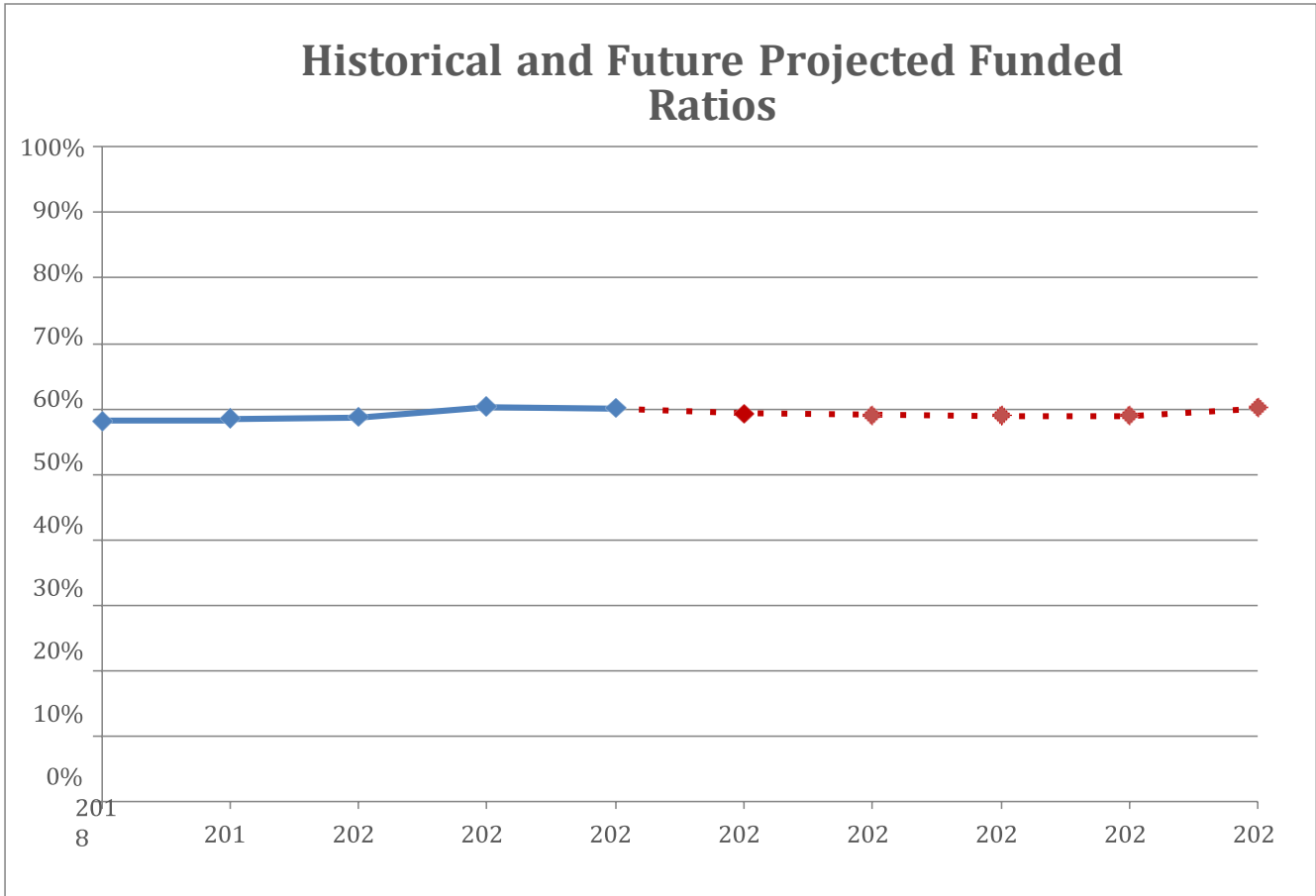
Item	December 31, 2022	December 31, 2021
Membership <ul style="list-style-type: none"> • Number of <ul style="list-style-type: none"> - Active members - Inactive, vested - Inactive, nonvested - Annuitants - Total • Annualized Payroll on Valuation Date 	1,633 61 96 <u>1,258</u> 3,048 \$ 157,279,666	1,673 59 79 <u>1,164</u> 2,975 \$ 157,820,000
Statutory member contribution rate for fiscal year following the valuation date	15.000%	15.000%
Estimated RSV Total City Contribution for Fiscal Year	<u>2024</u>	<u>2023</u>
<ul style="list-style-type: none"> • Estimated City Contribution Rate Payment • Legacy Liability Payment (City Contribution Amount) • Total • Contribution as % of Projected Payroll¹ 	\$ 16,001,682 <u>42,469,554</u> \$ 58,471,236 35.04%	\$ 16,491,977 <u>34,732,256</u> \$ 51,224,233 30.59%
Assets <ul style="list-style-type: none"> • Market value (MVA) • Actuarial value (AVA) • Return on market value • Return on actuarial value 	\$ 933,084,477 \$ 1,015,080,603 -11.9% 5.9%	\$ 1,080,733,988 \$ 977,909,434 17.7% 10.7%
Actuarial Information on AVA (smoothed) <ul style="list-style-type: none"> • Normal cost %² • Total normal cost • Actuarial accrued liability • Unfunded actuarial accrued liability (UAAL) • Funded ratio 	24.846% \$ 40,250,037 \$ 1,688,755,684 \$ 673,675,081 60.1%	25.134% \$ 40,856,473 \$ 1,623,334,720 \$ 645,425,286 60.2%
Actuarial Information on MVA <ul style="list-style-type: none"> • Unfunded actuarial accrued liability (UAAL) • Funded ratio 	\$ 755,671,207 55.3%	\$ 542,600,732 66.6%

Notes:

¹ Based on projected payroll determined as of the valuation date but beginning one year after valuation date.

² Includes normal cost associated with the Retiree Death Benefit Fund and a load for assumed administrative expenses of the System.

The following chart illustrates the recent history and outlook of the funded status of APRS:



December 31,	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Funded Ratio	58.1%	58.4%	58.6%	60.2%	60.1%	59.3%	59.1%	59.0%	59.0%	60.1%
UAAL (millions)	\$582	\$607	\$638	\$645	\$674	\$712	\$741	\$768	\$793	\$797

The projections beyond 2022 are based on the same assumptions, methods and provisions used for the December 31, 2022 valuation. Additionally, the market value of assets is assumed to earn 7.25% per year.

Based on the new statutory contribution patterns, the new benefit provisions and the actuarial assumptions, APRS's UAAL is projected to continue to increase the next several years due to negative amortization and the recognition of deferred investment losses. In consistent financial markets, the funded ratio is expected to improve once the deferred investment losses are recognized (or offset by future gains), until APRS is 100% funded.

DISCUSSION

Introduction

The results of the December 31, 2022 actuarial valuation of the Austin Police Retirement System (APRS) are presented in this report.

The primary purposes of the actuarial valuation report are to determine the actuarially determined contribution rates for the City and members, describe the current financial condition of APRS, analyze changes in the condition of APRS, and provide various summaries of the data.

The City Contribution Rate determined by this valuation will begin one year after the valuation date. In addition to this actuarially determined rate, the City contributes a Legacy Liability payment as shown on page RSV - 5.

There was an unexpected increase in the unfunded actuarial liabilities of approximately \$9.2 million. The net unexpected increase in the unfunded actuarial accrued liability includes an asset experience loss of

\$13.0 million and a liability experience gain of \$3.9 million.

The Retiree Death Benefit Fund was established in 2003 as a separate account within the system to advance fund and to pay the \$10,000 post-retirement lump sum death benefits for retirees. Table 11 outlines the portion of the City contribution rate that should be allocated to the Retiree Death Benefit Fund such that the Retiree Death Benefit Plan will be fully funded 13 years following December 31, 2022. With the exception of Table 11, the amounts outlined in this report represent the total assets and liabilities of APRS, inclusive of the Retiree Death Benefit Plan.

Assessment of Risk

Section D of this report, titled "Assessment and Disclosure of Risk Associated with Measuring Pension Obligations and Determining Pension Plan Contributions," outlines a series of risk measures that are intended to aid in the understanding of the effects of future experience differing from the assumptions used in the course of the actuarial valuation.

Plan Provisions

There were no changes to the plan provisions since the prior valuation. The current plan provisions are outlined in Section E of this report.

Actuarial Assumptions and Methods

There were no changes to the actuarial assumptions and methods during the past year. The current actuarial assumptions and methods are outlined in Section F of this report. The assumptions and methods applied in this actuarial valuation were adopted by the Board of Trustees effective with the December 31, 2018 actuarial valuation. The actuarial assumptions used are based on an experience review for the five- year period from January 1, 2013 through December 31, 2017, dated May 15, 2019. The actuarial assumptions used in this report are reasonable for the purposes of this valuation.

Funding Adequacy

The City contribution in calendar year 2023 is comprised of two pieces: 1) a Legacy Liability payment of \$34.7 million, and 2) and the City Contribution Rate of 9.85% of payroll (since the system is less than 90% funded, the City Contribution Rate is equal to the greater of the corridor midpoint of 9.85% and the actuarially determined contribution (ADC) rate of 9.08%). Members contribute 15.000% of payroll. This actuarial valuation determines the ADC for fiscal year 2024. As shown on page RSV-3, the calculated ADC is 9.11%. However, because the System is less than 90% funded and this rate is less than the corridor midpoint (see page RSV-2), the APRS statute states that the City Contribution Rate will be set to the corridor midpoint of 9.59% of payroll. In addition, to this contribution, the City will make a Legacy Liability payment for calendar year 2024 of \$42.5 million.

The unfunded actuarial accrued liability (UAAL) of APRS increased from \$645 million as of December 31, 2021 to \$674 million as of December 31, 2022. The increase was more than expected due to the loss on the actuarial value of assets. The funded ratio of APRS—actuarial value of assets divided by the actuarial accrued liability—decreased from 60.2% to 60.1% as of December 31, 2022. The funded status is one of many metrics used to show trends and develop future expectations about the health of a retirement system. The funded status measure itself is not appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan's benefit obligations or assessing the need for or the amount of future contributions since it does not reflect normal cost contributions, the timing of amortization payments, or future experience other than expected.

System Assets

This report contains several tables that summarize key information with respect to the APRS assets.

The total market value of assets decreased from \$1,081 million as of December 31, 2021 to \$933 million as of December 31, 2022. Table 5 reconciles the changes in the fund during the year. Total contributions increased from \$60.6 million to \$70.8 million.

Table 6 shows the development of the actuarial value of assets. The actuarial value of asset method generally recognizes the difference between the actual and expected market value of assets over a five-year period. The total actuarial value of assets is \$1,015 million, which is greater than the market value of assets of \$933 million. This indicates that there are currently deferred losses to be recognized in the future.

When measured on a market value, the approximate investment return net of investment-related expenses for the fiscal year ending December 31, 2022 was -11.9%. When measured on an actuarial value, the net investment return was 5.9%, which is lower than the assumed return of 7.25%. APRS experienced a \$13.0 million actuarial asset loss over the past year. Table 7 shows a history of investment return rates. The APRS five-year average market return is 5.6% and the five-year average actuarial return is 7.2%.

Table 8 provides a history of the contributions paid into APRS and the administrative expenses and benefit payments that have been paid out of APRS. This table shows that APRS received less contributions than it paid out in administrative expenses and benefit payments, or -\$20.0 million (or -2.1% of assets) for the year ending December 31, 2022. Negative cashflow is expected for a pre-funded pension program. The entire reason for setting aside assets is to have the ability to use investment earnings to pay for benefits. If the cashflow was always going to be positive, there would be no reason to pre-fund the system

Data

The valuation was based upon information as of December 31, 2022 furnished by APRS staff, concerning system benefits, financial transactions, plan provisions and active members, terminated members, retirees and beneficiaries. We checked for internal and year-to-year consistency, but did not audit the data. We are not responsible for the accuracy or completeness of the information provided by APRS staff. The tables in Section G show key census statistics for the various groups included in the valuation.

Sustainability

The passage of HB 4368 during the 2021 legislative session put in place a new lower tier of benefits which will slow the growth of APRS liabilities over the long-term, but more importantly the legislation changed the financing structure of APRS to a methodology that is intended to insure the long-term sustainability of APRS.

TABLE 1
Comparison of Valuation Liabilities
(Inclusive of the Retiree Death Benefit Fund)

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
1. Payroll		
a. Annualized Payroll on Valuation Date	\$ 157,279,666	\$ 157,820,000
b. Projected Contributory Payroll	161,998,056	162,554,600
2. Total Normal Cost Rate		
a. Gross normal cost rate	23.946%	24.234%
b. Administrative expenses	<u>0.900%</u>	<u>0.900%</u>
c. Total (Item 2a + Item 2b)	24.846%	25.134%
3. Actuarial Accrued Liability for Active and Active DROP Members		
a. Present value of future benefits for active members	\$ 1,019,802,335	\$ 1,038,865,299
b. Less: present value of future normal costs	<u>(339,471,408)</u>	<u>(337,512,485)</u>
c. Actuarial accrued liability	\$ 680,330,927	\$ 701,352,814
4. Total Actuarial Accrued Liability for:		
a. Retirees and beneficiaries	\$ 997,116,702	\$ 910,108,231
b. Inactive members	11,308,055	11,873,675
c. Active and Active DROP members (Item 3c)	<u>680,330,927</u>	<u>701,352,814</u>
d. Total	\$ 1,688,755,684	\$ 1,623,334,720
5. Actuarial Value of Assets	\$ 1,015,080,603	\$ 977,909,434
6. Unfunded Actuarial Accrued Liability (UAAL) (Item 4d - Item 5)	\$ 673,675,081	\$ 645,425,286
7. Funded Ratio	60.1%	60.2%

Table 2
Actuarial Present Value of Future Benefits
(Inclusive of the Retiree Death Benefit Fund)

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
1. Active Members (not in DROP at the valuation date)		
a. Service Retirement	\$ 954,659,344	\$ 962,053,864
b. Disability Benefits	5,520,736	5,334,123
c. Death Before Retirement	6,174,029	6,209,105
d. Termination	<u>17,795,352</u>	<u>17,560,409</u>
e. Total	\$ 984,149,461	\$ 991,157,501
2. Active DROP Members	\$ 35,652,874	\$ 47,707,798
3. Inactive Members		
a. Vested Terminated	\$ 10,074,840	\$ 10,896,084
b. Non-Vested Terminated	<u>1,233,215</u>	<u>977,591</u>
c. Total	\$ 11,308,055	\$ 11,873,675
4. Annuitants		
a. Service Retirement	\$ 942,559,988	\$ 862,461,808
b. Disability Retirement	2,684,896	2,701,941
c. Beneficiaries and QDROs	<u>51,871,818</u>	<u>44,944,482</u>
d. Total	\$ 997,116,702	\$ 910,108,231
5. Total Actuarial Present Value of Future Benefits	\$ 2,028,227,092	\$ 1,960,847,205

Table 3
Analysis of Normal Cost
(Inclusive of the Retiree Death Benefit Fund)

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
1. Gross Normal Cost Rate ¹		
a. Service Retirement	22.249%	22.532%
b. Disability Benefits	0.290%	0.285%
c. Death Before Retirement	0.213%	0.216%
d. Termination	<u>1.194%</u>	<u>1.201%</u>
e. Total	23.946%	24.234%
2. Administrative Expenses ²	0.900%	0.900%
3. Total Normal Cost	24.846%	25.134%
4. Less: Member Rate	15.000%	15.000%
5. Employer Normal Cost Rate	9.846%	10.134%

¹ Normal cost based on the census data as of the stated valuation date.

² Includes normal cost associated with the Retiree Death Benefit Fund and a load for assumed administrative expenses of the System.

Table 4
Historical Summary of Active Member Data

Valuation as of December 31 ¹ ,	Active Members		Covered Payroll		Average Salary		Average Age	Average Service
	Number ²	Percent Increase	\$ Amount (thousands)	Percent Increase	\$ Amount	Percent Increase		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
2011	1,679		133,709		79,636		39.7	11.7
2012	1,709	1.8%	140,273	4.9%	82,079	3.1%	39.6	11.5
2013	1,732	1.3%	145,871	4.0%	84,221	2.6%	39.9	11.6
2014	1,777	2.6%	150,860	3.4%	84,896	0.8%	40.0	11.7
2015	1,761	-0.9%	151,855	0.7%	86,232	1.6%	40.1	11.1
2016	1,837	4.3%	158,761	4.5%	86,424	0.2%	39.8	10.8
2017	1,866	1.6%	162,491	2.3%	87,080	0.8%	40.3	11.7
2018	1,892	1.4%	166,565	2.5%	88,036	1.1%	40.5	12.0
2019	1,872	-1.1%	168,732	1.3%	90,135	2.4%	40.9	12.5
2020	1,775	-5.2%	164,962	-2.2%	92,936	3.1%	41.1	12.7
2021	1,673	-5.7%	157,820	-4.3%	94,334	1.5%	41.0	12.6
2022	1,633	-2.4%	157,280	-0.3%	96,313	2.1%	40.7	12.4

Notes:

¹ Information prior to December 31, 2017 is based on the information provided in the prior actuary's actuarial valuation reports

² Information for December 31, 2017 and later includes all active and active DROP members

Information prior to December 31, 2017 includes only active members not in DROP at the valuation date

Table 5

Reconciliation of Plan Net Assets

	Total	Pension	RDBF
1. Market value of assets at beginning of year	\$ 1,080,733,988	\$ 1,079,011,214	\$ 1,722,774
2. Revenue for the year			
a. Contributions for the year			
i. Member Contributions - Payroll	\$ 23,810,672	\$ 23,810,672	\$ 0
ii. Member Contributions - Service Credit Purchases	2,554,013	2,554,013	0
iii. City Contributions - Pension (Contribution Rate Payment)	15,809,355	15,809,355	0
iv. City Contributions - Pension (Legacy Liability Payment)	28,330,814	28,330,814	0
v. City Contributions - Retiree Death Benefit	279,256	0	279,256
vi. City Contributions - Proportionate Retirement	<u>0</u>	<u>0</u>	<u>0</u>
vii. Total	\$ 70,784,110	\$ 70,504,854	\$ 279,256
b. Net Investment income for the year	\$ (127,690,029)	\$ (127,478,368)	\$ (211,661)
c. Total revenue	\$ (56,905,919)	\$ (56,973,514)	\$ 67,595
3. Disbursements for the year			
a. Retirement and disability benefits	\$ 77,953,942	\$ 77,953,942	\$ 0
b. Lump Sum DROP Distributions	3,342,212	3,342,212	0
c. Lump Sum PROP Distributions	3,217,826	3,217,826	0
d. Retiree Death Benefits	175,000	0	175,000
e. Refund of Member Contributions	3,044,815	3,044,815	0
f. Administrative expenses	<u>3,009,797</u>	<u>3,009,797</u>	<u>0</u>
g. Total disbursements	\$ 90,743,592	\$ 90,568,592	\$ 175,000
4. Increase in net assets (Item 2c - Item 3g)	\$ (147,649,511)	\$ (147,542,106)	\$ (107,405)
5. Market value of assets at end of year (Item 1 + Item 4)	\$ 933,084,477	\$ 931,469,108	\$ 1,615,369
6. Actual net investment income (Item 2b)	\$ (127,690,029)	\$ (127,478,368)	\$ (211,661)
7. Expected net income at 7.25%			
a. Market value of assets at beginning of year	\$ 78,353,214		
b. Contributions for the year	2,565,924		
c. Disbursements	<u>(3,289,455)</u>		
d. Total	\$ 77,629,683		
8. Excess investment income (Item 6 - Item 7d)	\$ (205,319,712)		
9. Estimated dollar weighted market yield	-11.9%		
10. Actuarial Value of Assets			
a. Actuarial value of assets at the beginning of year	\$ 977,909,434	\$ 976,186,660	\$ 1,722,774
b. Actuarial value of assets at the end of year	\$ 1,015,080,603	\$ 1,013,465,234	\$ 1,615,369
c. Investment income for the year	\$ 57,130,651	\$ 57,342,312	\$ (211,661)
d. Estimated dollar weighted actuarial yield	5.9%		
e. Expected return on the actuarial value of assets	\$ 70,174,903		
f. Asset gain/(loss) (Item 10c - Item 10e)	\$ (13,044,252)		

Table 6 Development of Actuarial Value of Assets

							Year Ending December 31, <u>2022</u>
1. Excess/(Shortfall) of investment income for 2022 (Table 5, Item 8)							\$ (205,319,712)
2. Development of amounts to be recognized as of December 31, 2022:							
Fiscal Year End	Remaining Deferrals of Excess (Shortfall) of Investment Income (1)	Offsetting of Gains/(Losses) (2)	Net Deferrals Remaining (3) = (1) + (2)	Years Remaining (4)	Recognized for This Valuation (5) = (3) / (4)	Remaining after This Valuation (6) = (3) - (5)	
2018	\$ 0	\$ 0	\$ 0	1	\$ 0	\$ 0	
2019	2,772,500	(2,772,500)	0	2	0	0	
2020	22,223,563	(22,223,563)	0	3	0	0	
2021	77,828,491	(77,828,491)	0	4	0	0	
2022	<u>(205,319,712)</u>	<u>102,824,554</u>	<u>(102,495,158)</u>	5	<u>(20,499,032)</u>	<u>(81,996,126)</u>	
Total	\$ (102,495,158)	\$ 0	\$ (102,495,158)		\$ (20,499,032)	\$ (81,996,126)	
3. Market value of assets including RDFB assets							
a. Including RDFB assets							\$ 933,084,477
b. Excluding RDFB assets							\$ 931,469,108
4. Actuarial value of assets							
a. Including RDFB assets (Item 3.a. - Item 2, Column 6)							\$ 1,015,080,603
b. Excluding RDFB assets							\$ 1,013,465,234
5. Ratio of actuarial value to market value							108.8%

Notes: Remaining deferrals in Column (1) for prior years are from Table 6 of the prior year's report. Column (2) is a direct offset of the current year's excess/(shortfall) return against prior years' excess/(shortfall) of the opposite type (offset against oldest base first).

Table 7

History of Investment Return Rates

Year Ending December 31, ¹	Market Returns ²	Actuarial
(1)	(2)	(3)
2008	-26.3%	
2009	8.8%	
2010	11.8%	
2011	-3.5%	
2012	9.7%	-0.4%
2013	8.9%	6.9%
2014	5.7%	6.5%
2015	-0.3%	4.4%
2016	5.7%	5.4%
2017	11.7%	5.9%
2018	-5.8%	4.5%
2019	20.7%	6.6%
2020	11.6%	8.3%
2021	17.7%	10.7%
2022	-11.9%	5.9%
Average Returns		
Last Five Years:	5.6%	7.2%
Last Ten Years:	6.0%	6.5%
Last Fifteen Years:	3.6%	N/A

Notes:

¹ Results prior to December 31, 2017 are based on the information provided in the prior actuary's actuarial valuation reports

² Net of Administrative Expenses through December 31, 2018

Table 8

History of Cash Flow

(thousands \$)

Year Ending December 31 ¹	Distributions and Expenditures				External Cash Flow for the Year	Market value of Assets	External Cash Flow as Percent of Market Value
	Contributions	Benefit Payments and Refunds	Administrative Expenses ²	Total			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
2008	\$ 34,943	\$ (26,118)		\$ (26,118)	\$ 8,825	\$ 387,120	2.3%
2009	38,448	(28,173)		(28,173)	10,275	432,028	2.4%
2010	40,081	(30,876)		(30,876)	9,205	492,545	1.9%
2011	43,641	(34,863)		(34,863)	8,778	484,089	1.8%
2012	47,302	(40,009)	(1,163)	(41,172)	6,130	538,898	1.1%
2013	50,629	(42,825)	(1,115)	(43,940)	6,689	595,110	1.1%
2014	54,065	(45,403)	(1,327)	(46,730)	7,335	638,019	1.1%
2015	57,948	(50,005)	(1,466)	(51,471)	6,477	644,174	1.0%
2016	56,105	(50,828)	(1,397)	(52,225)	3,880	686,020	0.6%
2017	59,493	(56,548)	(1,563)	(58,111)	1,382	769,475	0.2%
2018	57,848	(63,983)	(1,421)	(65,404)	(7,556)	718,520	-1.1%
2019	59,196	(66,319)	(1,721)	(68,040)	(8,844)	857,839	-1.0%
2020	60,699	(76,956)	(1,929)	(78,885)	(18,186)	938,226	-1.9%
2021	60,609	(80,207)	(2,404)	(82,611)	(22,002)	1,080,734	-2.0%
2022	70,784	(87,734)	(3,010)	(90,744)	(19,960)	933,084	-2.1%

Notes:

¹ Results prior to December 31, 2017 are based on the information provided in the prior actuary's actuarial valuation reports

² Information was not provided in the prior actuary's valuation reports

Table 9
Total Experience Gain or Loss
(Inclusive of the Retiree Death Benefit Fund)

Item (1)	Year Ending December 31, 2022 (2)
A. Calculation of total actuarial gain or loss	
1. Unfunded actuarial accrued liability (UAAL), previous year	\$ 645,425,286
2. Normal cost for the year, including service purchases	41,022,535
3. Administrative expenses for the year	3,009,797
4. Contributions for the year	(70,784,110)
5. Interest at 7.25%	
a. On UAAL	\$ 46,793,333
b. On normal cost	1,487,067
c. On administrative expenses	109,105
d. On contributions	<u>(2,565,924)</u>
e. Total	\$ 45,823,581
6. Changes due to assumptions	0
7. Expected UAAL, end of year (Sum of Items 1 through 6)	664,497,089
8. Actual UAAL, end of year	673,675,081
9. Total (gain)/loss for the year (Item 8 - Item 7)	\$ 9,177,992
B. Source of gains and losses	
	% of AAL ¹
1. Asset (Gain)/Loss	0.77% \$ 13,044,252
2. Demographic (Gains)/Losses	0.23% <u>(3,866,260)</u>
3. Total	0.54% \$ 9,177,99

¹Percent of expected Actuarial Accrued Liability

Table 10 Funding History

(Inclusive of the Retiree Death Benefit Fund)

Valuation Date December 31 ¹ ,	Actuarial Value of Assets (AVA)	Actuarial Accrued Liability (AAL)	Unfunded Actuarial Accrued Liability (UAAL) (3) - (2)	Funded Ratio (2)/(3)	Annual Covered Payroll	UAAL as % of Payroll (4)/(6)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
2009	\$ 518,433,065	\$ 735,334,345	\$ 216,901,280	70.5%	\$ 122,928,285	176.4%
2010	547,364,486	778,005,374	230,640,888	70.4%	127,731,696	180.6%
2011	554,190,027	826,366,581	272,176,554	67.1%	135,264,530	201.2%
2012	559,077,407	858,949,998	299,872,591	65.1%	141,561,047	211.8%
2013	605,530,903	913,591,470	308,060,567	66.3%	147,138,718	209.4%
2014	653,980,764	971,213,766	317,233,002	67.3%	152,544,227	208.0%
2015	690,696,986	1,039,229,249	348,532,263	66.5%	155,832,755	223.7%
2016	733,105,429	1,109,862,137	376,756,708	66.1%	163,894,324	229.9%
2017	779,484,342	1,185,017,294	405,532,952	65.8%	162,490,560	249.6%
2018	807,978,988	1,389,660,616	581,681,628	58.1%	166,564,996	349.2%
2019	852,294,229	1,459,529,788	607,235,559	58.4%	168,732,391	359.9%
2020	904,436,131	1,542,174,418	637,738,287	58.6%	164,961,691	386.6%
2021	977,909,434	1,623,334,720	645,425,286	60.2%	157,820,000	409.0%
2022	1,015,080,603	1,688,755,684	673,675,081	60.1%	157,279,666	428.3%

Notes:

¹ Results prior to December 31, 2017 are based on the information provided in the prior actuary's actuarial valuation reports

Table 11

Retiree Death Benefit Fund

The Retiree Death Benefit Fund was established effective September 1, 2003. The Fund operates as a separate account within the system that is used to advance fund and to pay the \$10,000 post-retirement lump sum death benefits for retirees. The following table illustrates the allocation of the total plan assets and liabilities between the primary pension fund and the Retiree Death Benefit Fund.

	<u>Pension Fund</u>	<u>Retiree Death Benefit Fund</u>	<u>Total</u>
1. Total Actuarial Present Value of Future Benefits			
a. Active Members	\$1,018,829,097	\$ 973,238	\$1,019,802,335
b. Inactive Members	11,241,915	66,140	11,308,055
c. Annuitants	<u>993,836,218</u>	<u>3,280,484</u>	<u>997,116,702</u>
d. Total	\$2,023,907,230	\$ 4,319,862	\$2,028,227,092
2. Present Value of Future Normal Costs	\$ 339,155,601	\$ 315,807	\$ 339,471,408
3. Actuarial Accrued Liability (item 1 - item 2)	\$1,684,751,629	\$ 4,004,055	\$1,688,755,684
4. Valuation Assets	\$1,013,465,234	\$ 1,615,369	\$1,015,080,603
5. Unfunded Actuarial Accrued Liability (UAAL) (item 3 - item 4)	\$ 671,286,395	\$ 2,388,686	\$ 673,675,081
6. City Contribution Rate to be Allocated to the Retiree Death Benefit Fund			
a. Normal Cost Rate		0.022%	
b. Payment Required to Amortize UAAL over 13 years (as of 12/31/2022)		0.148%	
c. Total Allocated Rate		0.170%	

ASSESSMENT AND DISCLOSURE OF RISK ASSOCIATED WITH MEASURING PENSION OBLIGATIONS AND DETERMINING PENSION PLAN CONTRIBUTIONS

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

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

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

1. Investment risk – actual investment returns may differ from the expected returns;
2. Asset/Liability mismatch – changes in asset values may not match changes in liabilities, thereby altering the gap between the accrued liability and assets and consequently altering the funded status and contribution requirements;
3. Contribution risk – actual contributions may differ from expected future contributions. For example, actual contributions may not be made in accordance with the plan's funding policy or material changes may occur in the anticipated number of covered employees, covered payroll, or other relevant contribution base;
4. Salary and Payroll risk – actual salaries and total payroll may differ from expected, resulting in actual future accrued liability and contributions differing from expected;
5. Longevity risk – members may live longer or shorter than expected and receive pensions for a period of time other than assumed;
6. Other demographic risks – members may terminate, retire or become disabled at times or with benefits other than assumed resulting in actual future accrued liability and contributions differing from expected.

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

The actuarially determined employer contribution rates shown on the Executive Summary provide a guide for the adequacy of the current statutory contribution rates received from the membership and the City. As shown on the exhibit, the current contribution rates are not sufficient to ensure the sustainability of the System. The timely receipt of the actuarially determined contributions is critical to support the financial health of the System. Users of this report should be aware that contributions made at the actuarially determined rate do not necessarily guarantee benefit security.

PLAN MATURITY MEASURES

Risks facing a pension plan evolve over time. A young plan with virtually no investments and paying few benefits may experience little investment risk. An older plan with a large number of members in pay status and a significant trust may be much more exposed to investment risk. Generally accepted plan maturity measures include the following (please see a description of the measures following the table):

Valuation as of December 31 st	<u>2022</u>	<u>2021</u>	<u>2020</u>	<u>2019</u>	<u>2018</u>	<u>2017</u>
Ratio of market value of assets to payroll	5.9	6.8	5.7	5.1	4.3	4.7
Ratio of actuarial accrued liability to payroll	10.7	10.3	9.3	8.6	8.3	7.3
Ratio of actives to retirees and beneficiaries	1.3	1.4	1.7	2.0	2.1	2.2
Ratio of net cash flows to market value of assets	-2.1%	-2.0%	-1.9%	-1.0%	-1.1%	0.2%
Duration of actuarial accrued liability	14.1	14.3	14.6	14.8	15.1	Not available

RATIO OF MARKET VALUE OF ASSETS TO PAYROLL

The relationship between assets and payroll is a useful indicator of the potential volatility of contributions. For example, if the market value of assets is 2.0 times the payroll, a return on assets 5% different than assumed would equal 10% of payroll. A higher (lower) or increasing (decreasing) level of this maturity measure generally indicates a higher (lower) or increasing (decreasing) volatility in plan sponsor contributions as a percentage of payroll.

RATIO OF ACTUARIAL ACCRUED LIABILITY TO PAYROLL

The relationship between actuarial accrued liability and payroll is a useful indicator of the potential volatility of contributions for a fully funded plan. A funding policy that targets a funded ratio of 100% is expected to result in the ratio of assets to payroll and the ratio of liability to payroll converging over time.

The ratio of liability to payroll may also be used as a measure of sensitivity of the liability itself. For example, if the actuarial accrued liability is 2.5 times the payroll (5 to 2 ratio), a change in liability 2% other than assumed would equal 5% of payroll. A higher (lower) or increasing (decreasing) level of this maturity measure generally indicates a higher (lower) or increasing (decreasing) volatility in liability (and also plan sponsor contributions) as a percentage of payroll.

RATIO OF ACTIVES TO RETIREES AND BENEFICIARIES

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

RATIO OF NET CASH FLOW TO MARKET VALUE OF ASSETS

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

DURATION OF ACTUARIAL ACCRUED LIABILITY

The duration of the actuarial accrued liability may be used to approximate the sensitivity to a 1% change in the assumed rate of return. For example, a duration of 10 indicates that the liability would increase approximately 10% if the assumed rate of return were lowered 1%.

ADDITIONAL RISK ASSESSMENT

Additional assessment may include scenario tests, sensitivity tests, stochastic modeling, stress tests, and a comparison of the present value of accrued benefits at low-risk discount rates with the actuarial accrued liability. A robust measurement of additional risk assessment is outside the scope of the annual actuarial valuation. However, we recommend that some scenario testing and sensitivity testing be included in any sustainability study conducted in the future.

SUMMARY OF PLAN PROVISIONS FOR AUSTIN POLICE RETIREMENT SYSTEM

Creditable Service (APRS Service)

Total years and completed months (excluding a month in which service amount to fewer than 15 days) during which a Member makes contributions to the System.

Earnings

Base pay plus longevity pay. Overtime or special pay is not included.

Average Final Compensation

Average Earnings for the highest 36 months (60 months for new members beginning January 1, 2022) over the last 120 months of service.

Member Contributions

15.000% of Earnings beginning January 1, 2022. Subject to a possible increase of up to 2% of pay (17% of pay total) if the ADC exceeds the corridor maximum.

City Contributions

Beginning January 1, 2022, City contribution will consist of two components:

- City Contribution Amount – Fixed City payment plan established to eliminate the legacy unfunded liability existing as of December 31, 2020 over a 30-year period (see page RSV-5), plus
- City Contribution Rate – An actuarially determined contribution (ADC) based on plan costs (reduced by the member rate) in addition to the fixed payment plan for the legacy unfunded liability, subject to certain constraints. A contribution rate corridor (see page RSV-2) for the ADEC was established (beginning with contributions being paid in fiscal year 2022) to keep the rate within a certain range to ensure long-term funding but moderating volatility. The City Contribution Rate is the ADC except:
 - If the ADC is less than the corridor midpoint but APRS is less than 90% funded then the City Contribution Rate is the corridor midpoint,
 - If the ADC exceeds the corridor maximum the City Contribution Rate is the corridor maximum.

Normal Retirement

Date:

Earlier of age 62, age 55 and 20 years of Creditable Service, or 23 years of Creditable Service, regardless of age. For new members beginning January 1, 2022, age 62, or age 50 and 25 years of Creditable Service. Creditable Service for retirement eligibility includes Proportionate Service Credit and excludes pre-membership military service.

Benefit:

3.20% of Average Final Compensation (2.50% for new member beginning January 1, 2022) times Creditable Service (including pre-membership military service).

Form of Benefit:

Life Annuity. At the death of the member, the excess, if any, of the member's accumulated contributions over the amount of payments made to the member will be paid in a lump sum to the member's beneficiary. (Other benefit options available).

Vesting

Schedule:

100% after 10 years of Creditable Service, including Proportionate Service Credit.

Benefit Amount:

Members will receive his (her) accrued benefit payable at the Normal Retirement Date based upon actual Creditable Service prior to termination.

Non-vested members receive a refund of accumulated contributions.

Disability

Eligibility:

10 years of Creditable Service (service requirement is waived if the disability is a direct or proximate result of the performance of the member's employment). Members who are eligible for normal retirement may not apply for disability benefits.

Benefit:

Monthly benefit is calculated in the same manner as the member's normal retirement benefit. Benefit will be calculated with a minimum of 20 years of Creditable Service if the disability is a direct or proximate result of the performance of the member's employment.

Death Benefits

Before Retirement Eligibility:

Lump sum payment equal to twice the amount of the member's accumulated contributions, subject to a minimum of \$10,000.

After Retirement Eligibility (member is married at the time of death):

In lieu of the lump sum benefit described above, the surviving spouse may select a retirement option in the same manner as if the member had retired immediately prior to his death. When monthly benefits are payable in lieu of the lump sum, a \$10,000 death benefit will be paid to the surviving spouse.

After Retirement Eligibility (member is not married at the time of death):

In lieu of the lump sum benefit described above, the member's beneficiary may select a Fifteen Year Certain benefit calculated in the same manner as if the member had retired immediately prior to his death. When monthly benefits are payable in lieu of the lump sum, a \$10,000 death benefit will be paid to the beneficiary.

Retiree Death Benefit Fund

Effective September 1, 2003, a separate fund (funded as a portion of the City's contribution rate) was established to pay post-retirement lump sum death benefits. Effective September 1, 2007, the amount of these benefits was increased to \$10,000.

Proportionate Retirement Program

Effective September 1, 2009, the System and the City began participating in the statewide Proportionate Retirement Program (PRP). Service in other participating public employee retirement systems can be combined with service in the System to satisfy the System's requirements for service retirement eligibility and for eligibility for vested benefits of a terminated Member. The participating systems, in addition to the System, are the six statewide systems, the City of Austin Employees' Retirement System, and the systems for the City of El Paso employees.

The cost of the PRP is included as part of the Legacy Liability and the actuarially determined City Contribution Rate.

Forward DROP

Eligibility:

Completion of 23 years of Creditable Service (including Proportionate Service Credit and excluding pre-membership military service). For members hired on or after January 1, 2022 eligibility is age 50 and 25 years of service.

Participation Period:

Not to exceed 60 months. For members with less than 23 years of APRS Service as of February 17, 2016, the maximum participation period was extended to 84 months.

Rate of Return:

Effective August 1, 2015, equal to the PROP interest rate (currently 2.25%). Members with 23 years of APRS service as of July 31, 2015 will receive 5.00% interest credit per year. Additionally, members with less than 23 years of APRS Service as of February 17, 2016 will not receive interest crediting while in DROP.

DROP Fee/Charge:

For members with less than 23 years of APRS Service as of February 17, 2016, a charge for DROP participation will be applied as shown below. The charge will only apply during the period of DROP participation.

<u>Year of DROP Participation</u>	<u>Fee/Charge</u>
1	25%
2	20
3	15
4	10
5	5
6	5
7	5

Form of Distribution:

Cash lump sum (or rollover to PROP account) at termination of employment.

Miscellaneous:

For members with less than 23 years of APRS Service as of February 17, 2016, member contributions will continue to be required during the DROP participation period, but these contributions will be retained by the System.

Retro DROP

Eligibility:

Completion of 23 years of Creditable Service (included Proportionate Service Credit and excluding pre-membership military service). Members with less than 23 years on April 1, 2015 will not be eligible to participate in Retro DROP.

Participation Period:

Not to exceed 36 months.

Rate of Return:

5.0%.

Form of Distribution:

Cash lump sum (or rollover to PROP account) at termination of employment.

Post-Retirement Option Plan (PROP)

Retiring members who have participated in DROP may transfer all or a portion of their DROP lump sum into their PROP account for later disbursement.

Retired members may defer receipt of a minimum of \$250 of their monthly annuity. These deferred benefits will be accumulated and available for later disbursement. Participants may change their deferral amount twice per calendar year. The interest crediting rate on a member's PROP deferrals is set by the Board. The current crediting rate is 2.25%.

Cost of Living Adjustment

None.

SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

The assumptions and methods applied in this actuarial valuation were adopted by the Board of Trustees effective with the December 31, 2018 actuarial valuation. The actuarial assumptions used for the December 31, 2022 actuarial valuation are based on an experience review for the five-year period from January 1, 2013 through December 31, 2017, dated May 15, 2019. Please see this report for a discussion of the analysis and rationale for the recommended assumptions.

I. Valuation Date

The valuation date is December 31 of each plan year. This is the date as of which the actuarial present value of future benefits and the actuarial value of assets are determined.

II. Actuarial Cost Method

The actuarial valuation is used to determine the adequacy of the current City contribution rate, describe the current financial condition of APRS, analyze changes in the condition of APRS, and provide various summaries of the data.

The actuarial valuation uses the Entry Age Normal (EAN) actuarial cost method. Under this method, the first step is to determine the contribution rate (level as a percentage of pay) required to provide the benefits to each member, or the normal cost rate. The normal cost rate consists of two pieces: (i) the member's contribution rate, and (ii) the remaining portion of the normal cost rate which is the employer's normal cost rate. The total normal cost rate is based on the benefits payable to each individual active member.

The Unfunded Actuarial Accrued Liability (UAAL) is the liability for future benefits which is in excess of (i) the actuarial value of assets, and (ii) the present value of future normal costs. The employer contribution provided in excess of the employer normal cost is applied to amortize the UAAL.

The Entry Age actuarial cost method is an "immediate gain" method (i.e., experience gains and losses are separately identified as part of the UAAL). However, they are amortized over the same period applied to all other components of the UAAL.

III. Actuarial Value of Assets

The actuarial value of assets is based on the market value of assets with a five-year phase-in of actual investment returns in excess of (less than) expected investment income. Offsetting unrecognized gains and losses are immediately recognized, with the shortest remaining bases recognized first and the net remaining bases continuing to be recognized on their original timeframe. Expected investment income is determined using the assumed investment return rate and the market value of assets (adjusted for receipts and disbursements during the year).

IV. Actuarial Assumptions

Investment Return: 7.25% per year, net of investment-related expenses (composed of an assumed 2.50% inflation rate and a 4.75% real rate of return)

Mortality Decrements:

Pre-Retirement

PubS-2010 Employee Mortality Table for males and females. Generational mortality improvements projected from the year 2010 using the ultimate mortality improvement rates in the MP-2018 tables.

Healthy Annuitants

PubS-2010 Healthy Retiree Mortality Table for males and females. Generational mortality improvements projected from the year 2010 using the ultimate mortality improvement rates in the MP-2018 tables.

Disabled Annuitants

PubS-2010 Disability Mortality Table for males and females. Generational mortality improvements projected from the year 2010 using the ultimate mortality improvement rates in the MP-2018 tables.

Service Retirement Decrements:

Members Who Have 23 Years of Service by Age 55

The following rates reflect the members expected departure from active service and are applied based on years of service:

Years of Service	Probability of Retirement
23	28%
24	18
25	18
26	18
27	25
28	25
29	25
30+	35

Years of Service includes APRS Service and Proportionate Service Credit. 100% probability of retirement at age 62.

Members Who Do Not Have 23 Years of Service by Age 55

The following rates reflect the members expected departure from active service and are applied based on the member’s age:

Age	Probability of Retirement
55	50%
56	25
57	25
58	25
59	25
60	25
61	25
62+	100

Deferred Retirement Option Program (DROP)

Members eligible for either the Back DROP or 5-year Forward DROP (or both) are assumed to select the most valuable option based on their individual situation at each possible retirement age. Members eligible for only the 7-year Forward DROP are assumed to not participate in DROP.

Post-Retirement Option Plan (PROP) Investment Accounts

75% of members with a PROP account at the valuation date will elect to leave their lump sum in APRS until age 60 and 25% of members will elect to receive their PROP balance at the valuation date. No future PROP deferrals are assumed and current active members are not assumed to enter PROP. Average annual rate credited to the PROP accounts will be 2.25%.

Withdrawal of Employee Contributions

Members that terminate with a vested benefit are assumed to choose the most valuable option available to them at the time of termination: withdrawal of contributions or deferred annuity. Non-vested members are assumed to receive an immediate refund of accumulated contributions.

Disability Retirement Decrements:

Disability Rates

Rates for males and females at selected ages are shown below:

Age	Rate
20	0.0004%
25	0.0025
30	0.0099
35	0.0259
40	0.0494
45	0.0804
50	0.1188
55	0.1647
60	0.2180

Disability rates are set to zero when members become eligible for retirement In

Line of Duty Disability

55% of disability retirements assumed to be in the line of duty.

Termination Decrements for Reasons Other Than Death or Retirement:

Withdrawal Rates

The following service-based rates apply:

Years of Service	Probability of Termination
0	12.00%
1	6.00
2-5	2.00
6-22	0.75
23+	0.00

Years of Service includes APRS Service and Proportionate Service Credit. Termination rates are set to zero when members reach 23 years of service.

Salary Increases: Increases are assumed to vary by years of APRS Service. Salary increases include an underlying inflation component of 2.50% and a productivity component of 0.50%.

Anniversary of Academy Graduation	Percentage Increase
1*	15.20%
2	3.00
3	3.00
4	3.00
5	3.00
6	10.00
7	3.00
8	3.00
9	3.00
10	10.00
11	3.00
12	3.00
13	3.00
14	10.00
15	3.00
16	10.00
17+	3.00

*Rate of Increase for 1st Anniversary of Graduation is for an Officer Position. If member is still a cadet on the valuation date then the increase in the upcoming year will be, either: (1) 46.70% for a regular Academy graduate, or (2) 17.40% plus the 15.20% Step Rate for a Modified Academy graduate.

Cost-of-Living Adjustments (COLA): Cost of living adjustments are granted on an ad hoc basis. No future COLAs are assumed.

Administrative Expenses: are assumed to be 0.90% of payroll.

Payroll Growth: Member Payroll is assumed to grow at 3.00% per year.

Marital Assumptions: 85% of active members are assumed to be married. Male spouses are assumed to be three years older than female spouses.

Decrement Timing: All decrements – mortality, service retirement, disability retirement, and termination of employment for reasons other than death or retirement – are assumed to occur at the middle of the valuation year.

Census Data and Assets

- The valuation was based on members of APRS as of the valuation date and does not take into account future members.
- All census data was supplied by APRS and was subject to reasonable consistency checks.
- There were data elements that were modified for some members as part of the valuation in order to make the data complete. However, the number of missing data items was immaterial.
- Asset data was supplied by APRS.

Other Actuarial Valuation Procedures

- No provision was made in this actuarial valuation for the limitations of Internal Revenue Code Sections 415 or 401(a)17.
- Annualized Payroll on Valuation Date is the annualized payroll of active members on the valuation date. Projected Contributory Payroll for the upcoming fiscal year (used in determining the amortization period) is the estimated pensionable earnings received by all plan members for the just completed calendar year (including earnings for members who are no longer active employees on the valuation date) increased by the assumed payroll growth rate.

Actuarial Model: This report was prepared using our proprietary valuation model and related software which in our professional judgment has the capability to provide results that are consistent with the purposes of the valuation. We performed tests to ensure that the model reasonably represents that which is intended to be modeled.

DETAILED SUMMARIES OF MEMBERSHIP DATA

Table A

Summary of Active Membership Data

December 31, 2022

Active members

a. Number		1,607
b. Total payroll at the valuation date	\$	154,250,780
	\$	95,987
c. Average salary		
d. Average age		40.5
e. Average benefit service		12.1

Active members currently in DROP

a. Number		26
b. Total payroll at the valuation date	\$	3,028,886
c. Average salary	\$	116,496
d. Average age		54.5
e. Average benefit service		28.3
f. Total annual benefits	\$	2,335,834
g. Average annual benefit	\$	89,840
	\$	6,774,280
h. Total DROP Balance		

Vested inactive members

a. Number		61
b. Total annual deferred benefits	\$	1,970,028
	\$	32,296
c. Average annual deferred benefit		
d. Average age		48.6

Nonvested inactive members

a. Number		96
b. Member contributions due	\$	1,233,215
c. Average refund due	\$	12,846

Table B

Summary of Annuitant Membership Data

December 31, 2022

Service Retirees

a. Number		1,093
b. Total annual benefits	\$	78,784,994
c. Average annual benefit	\$	72,081
d. Average age		62.6
e. Total PROP Balance	\$	31,655,326

Disability Retirees

a. Number		6
b. Total annual benefits	\$	209,742
c. Average annual benefit	\$	34,957
d. Average age		52.5
e. Total PROP Balance	\$	0

Beneficiaries

a. Number		89
b. Total annual benefits	\$	3,991,479
c. Average annual benefit	\$	44,848
d. Average age		73.0
e. Total PROP Balance	\$	465,744

QDROs

a. Number		70
b. Total annual benefits	\$	1,318,449
c. Average annual benefit	\$	18,835
d. Average age		58.6
e. Total PROP Balance	\$	0

Total Members in Payment

a. Number		1,258
b. Total annual benefits	\$	84,304,664
c. Average annual benefit	\$	67,015
d. Average age		63.1
e. Total PROP Balance	\$	32,121,070

Table C
Status Reconciliation

	Active	Active DROP	Vested Terminated	Non-vested Terminated	Retiree	Disability Retiree	Beneficiary	QDRO
Beginning of Year	1,637	36	59	81	1,014	6	81	63
Re-hired	-	-	-	1	-	-	-	-
Termination, non-vested	16	-	-	-	-	-	-	-
Termination, vested	7	-	-	-	-	-	-	-
Entered DROP	3	-	-	-	-	-	-	-
Retirement	81	13	3	-	-	-	-	-
Disability retirement	-	-	-	-	-	-	-	-
Contribution refund	30	-	2	22	-	-	2	1
Death	3	-	-	-	18	-	2	2
Total Out	140	13	5	23	18	0	4	3
Continuing	1,497	23	54	58	996	6	77	60
Total In	110	3	7	38	97	0	12	10
End of Year	1,607	26	61	96	1,093	6	89	70

DEFINITION OF TERMS

Actuarial Accrued Liability (AAL): That portion, as determined by a particular Actuarial Cost Method, of the Actuarial Present Value of Future Plan Benefits which is not provided for by future Normal Costs. It is equal to the Actuarial Present Value of Future Plan Benefits minus the actuarial present value of future Normal Costs.

Actuarial Assumptions: Assumptions as to future experience under the Fund. These include assumptions about the occurrence of future events affecting costs or liabilities, such as:

- mortality, withdrawal, disablement, and retirement;
- future increases in salary;
- future rates of investment earnings and future investment and administrative expenses;
- characteristics of members not specified in the data, such as marital status;
- characteristics of future members;
- future elections made by members; and
- other relevant items.

Actuarial Cost Method or Funding Method: A procedure for allocating the Actuarial Present Value of Future Benefits to various time periods; a method used to determine the Normal Cost and the Actuarial Accrued Liability. These items are used to determine the ADC.

Actuarial Gain or Actuarial Loss: A measure of the difference between actual experience and that expected based upon a set of Actuarial Assumptions, during the period between two Actuarial Valuation dates. Through the actuarial assumptions, rates of decrements, rates of salary increases, and rates of fund earnings have been forecasted. To the extent that actual experience differs from that assumed, Actuarial Accrued Liabilities emerge which may be the same as forecasted, or may be larger or smaller than projected. Actuarial gains are due to favorable experience, e.g., the Fund's assets earn more than projected, salaries do not increase as fast as assumed, members retire later than assumed, etc. Favorable experience means actual results produce actuarial liabilities not as large as projected by the actuarial assumptions. On the other hand, actuarial losses are the result of unfavorable experience, i.e., actual results that produce actuarial liabilities which are larger than projected. Actuarial gains will shorten the time required for funding of the actuarial balance sheet deficiency while actuarial losses will lengthen the funding period.

Actuarially Equivalent: Of equal actuarial present value, determined as of a given date and based on a given set of Actuarial Assumptions.

Actuarial Present Value (APV): The value of an amount or series of amounts payable or receivable at various times, determined as of a given date by the application of a particular set of Actuarial Assumptions. For purposes of this standard, each such amount or series of amounts is:

- a. Adjusted for the probable financial effect of certain intervening events (such as changes in compensation levels, marital status, etc.),
- b. Multiplied by the probability of the occurrence of an event (such as survival, death, disability, termination of employment, etc.) on which the payment is conditioned, and
- c. Discounted according to an assumed rate (or rates) of return to reflect the time value of money.

Actuarial Present Value of Future Plan Benefits: The Actuarial Present Value of those benefit amounts which are expected to be paid at various future times under a particular set of Actuarial Assumptions, taking into account such items as the effect of advancement in age and past and anticipated future compensation and service credits. The Actuarial Present Value of Future Plan Benefits includes the liabilities for active members, retired members, beneficiaries receiving benefits, and inactive, nonretired members either entitled to a refund or a future retirement benefit. Expressed another way, it is the value that would have to be invested on the valuation date so that the amount invested plus investment earnings would be provide sufficient assets to pay all projected benefits and expenses when due.

Actuarial Valuation: The determination, as of a valuation date, of the Normal Cost, Actuarial Accrued Liability, Actuarial Value of Assets, and related Actuarial Present Values for a plan. An Actuarial valuation for a governmental retirement system typically also includes calculations of items needed for compliance with GASB.

Actuarial Value of Assets or Valuation Assets: The value of the Fund's assets as of a given date, used by the actuary for valuation purposes. This may be the market or fair value of plan assets, but commonly actuaries use a smoothed value in order to reduce the year-to-year volatility of calculated results, such as the funded ratio and the ADC.

Actuarially Determined: Values which have been determined utilizing the principles of actuarial science. An actuarially determined value is derived by application of the appropriate actuarial assumptions to specified values determined by provisions of the law.

Amortization Method: A method for determining the Amortization Payment. The most common methods used are level dollar and level percentage of payroll. Under the Level Dollar method, the Amortization Payment is one of a stream of payments, all equal, whose Actuarial Present Value is equal to the UAAL. Under the Level Percentage of Pay method, the Amortization payment is one of a stream of increasing payments, whose Actuarial Present Value is equal to the UAAL. Under the Level Percentage of Pay method, the stream of payments increases at the assumed rate at which total covered payroll of all active members will increase.

Amortization Payment: That portion of the pension plan contribution or ADC which is designed to pay interest on and to amortize the Unfunded Actuarial Accrued Liability.

Actuarially Determined Contribution (ADC) or Annual Required Contribution (ARC): A calculated contribution for a defined benefit pension plan for the reporting period, most often determined based on the funding policy of the plan. Typically, the calculated contribution has a normal cost payment and an amortization payment.

Closed Amortization Period: A specific number of years that is counted down by one each year and therefore declines to zero with the passage of time. For example, if the amortization period is initially set at 30 years, it is 29 years at the end of one year, 28 years at the end of two years, etc. See Funding Period and Open Amortization Period.

Decrements: Those causes/events due to which a member's status (active-inactive-retiree-beneficiary) changes, that is: death, retirement, disability, or termination.

Defined Benefit Plan: An employer-sponsored retirement benefit that provides workers, upon attainment of designated age and service thresholds, with a monthly benefit based on the employee's salary and length of service. The value of a benefit from a defined benefit plan is generally not affected by the return on the assets that are invested to fund the benefit.

Defined Contribution Plan: A retirement plan, such as a 401(k) plan, a 403(b) plan, or a 457 plan, in which the contributions to the plan are assigned to an account for each member, and the plan's earnings are allocated to each account, and each member's benefits are a direct function of the account balance.

Employer Normal Cost: The portion of the Normal Cost to be paid by the employers. This is equal to the Normal Cost less expected member contributions.

Experience Study: A periodic review and analysis of the actual experience of the Fund which may lead to a revision of one or more actuarial assumptions. Actual rates of decrement and salary increases are compared to the actuarially assumed values and modified as deemed appropriate by the Actuary.

Funded Ratio: The ratio of the actuarial value of assets (AVA) to the actuarial accrued liability (AAL). Plans sometimes calculate a market funded ratio, using the market value of assets (MVA), rather than the AVA.

Funding Period or Amortization Period: The term "Funding Period" is used in two ways. In the first sense, it is the period used in calculating the Amortization Payment as a component of the ADC. This funding period is chosen by the Board of Trustees. In the second sense, it is a calculated item: the number of years in the future that will theoretically be required to amortize (i.e., pay off or eliminate) the Unfunded Actuarial Accrued Liability, based on the statutory employer contribution rate, and assuming no future actuarial gains or losses.

GASB: The Governmental Accounting Standards Board is an organization that exists in order to promulgate accounting standards for governmental entities.

Normal Cost: That portion of the Actuarial Present Value of pension plan benefits and expenses which is allocated to a valuation year by the Actuarial Cost Method. Any payment in respect of an Unfunded Actuarial Accrued Liability is not part of Normal Cost (see Amortization Payment). For pension plan benefits which are provided in part by employee contributions, Normal Cost refers to the total of employee contributions and employer Normal Cost unless otherwise specifically stated. Under the entry age normal cost method, the Normal Cost is intended to be the level cost (when expressed as a percentage of pay) needed to fund the benefits of a member from hire until ultimate termination, death, disability or retirement.

Open Amortization Period: An open amortization period is one which is used to determine the Amortization Payment but which does not change over time. In other words, if the initial period is set as 30 years, the same 30-year period is used in determining the Amortization Period each year. In theory, if an Open Amortization Period is used to amortize the Unfunded Actuarial Accrued Liability, the UAAL will never completely disappear, but will become smaller each year, either as a dollar amount or in relation to covered payroll.

Unfunded Actuarial Accrued Liability: The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets. This value may be negative in which case it may be expressed as a negative Unfunded Actuarial Accrued Liability, also called the Funding Surplus.

Valuation Date or Actuarial Valuation Date: The date as of which the value of assets is determined and as of which the Actuarial Present Value of Future Plan Benefits is determined. The expected benefits to be paid in the future are discounted to this date.



T

STATISTICAL SECTION

Table D-1

Group A Active Members – Distribution by Age and Service

Age	Years of Service									Total
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	
Under 25	10									10
	\$ 63,137									\$ 63,137
25 - 29	95	35	1							131
	\$ 74,289	\$ 80,458	*							\$ 76,072
30 - 34	79	119	25							223
	\$ 76,166	\$ 82,487	\$ 91,356							\$ 81,242
35 - 39	30	101	124	56						311
	\$ 75,757	\$ 84,982	\$ 94,631	\$ 105,347						\$ 91,606
40 - 44	3	32	80	145	34	2				296
	\$ 73,466	\$ 84,276	\$ 95,116	\$ 108,331	\$ 115,907	*				\$ 102,755
45 - 49	1	22	41	71	131	22				288
	* \$ 86,065	\$ 95,763	\$ 108,880	\$ 121,487	\$ 127,204					\$ 112,299
50 - 54	1	5	15	41	69	48	13			192
	* \$ 85,953	\$ 93,448	\$ 111,572	\$ 116,988	\$ 120,875	\$ 128,999				\$ 114,657
55 - 59			4	16	13	15	11			59
			\$ 100,664	\$ 106,231	\$ 119,445	\$ 119,595	\$ 121,700			\$ 115,047
60 - 64			1	2	3	3		2		11
			*	*	\$ 110,732	\$ 112,341		*		\$ 107,946
Over 64		1			1	1				3
		*			*	*				\$ 165,028
Total	219	315	291	331	251	91	24	2		1,524
	\$ 74,587	\$ 84,071	\$ 94,691	\$ 108,202	\$ 119,270	\$ 121,930	\$ 125,654	*		\$ 98,717

*For privacy reasons, average salary is not shown for cells with two or fewer employees. Service includes proportionate service.

Table D-2

Group B Active Members – Distribution by Age and Service

Age	Years of Service									Total
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	
Under 25	18									18
	\$ 60,522									\$ 60,522
25 - 29	58									58
	\$ 62,109									\$ 62,109
30 - 34	22									22
	\$ 63,774									\$ 63,774
35 - 39	6									6
	\$ 62,971									\$ 62,971
40 - 44	4									4
	\$ 77,946									\$ 77,946
45 - 49					1					1
					*					*
50 - 54										
55 - 59										
60 - 64										
Over 64										
Total	108				1					109
	\$ 62,818				*					\$ 62,702

*For privacy reasons, average salary is not shown for cells with two or fewer employees. Service includes proportionate service.

Table E
**Annuitants - Distribution
 by Age**

Age	Number	Annual Benefit	Average Annual Benefit
Under 60	522	39,535,413	75,738
60 - 64	223	15,402,170	69,068
65 - 69	220	13,749,578	62,498
70 - 74	155	8,705,592	56,165
75 - 80	61	3,218,577	52,764
Over 80	77	3,693,332	47,965
Total	1,258	84,304,663	67,015

Table F

Schedule of Average Benefit Payments

Retirement Effective Dates January 1, 2017 to December 31, 2022	Years Creditable Service						
	0-4	5-9	10-14	15-19	20-24	25-29	30+
Period 01/01/2018 to 12/31/2018							
Average Monthly Benefit	\$0	\$0	\$0	\$4,671	\$6,339	\$7,691	\$6,111
Average Final Salary	\$0	\$0	\$0	\$92,165	\$109,940	\$110,726	\$99,460
Number of Active Retirees	0	0	0	1	12	9	19
Period 01/01/2019 to 12/31/2019							
Average Monthly Benefit	\$0	\$0	\$2,174	\$4,623	\$6,568	\$6,772	\$7,109
Average Final Salary	\$0	\$0	\$83,574	\$106,427	\$111,655	\$101,112	\$90,557
Number of Active Retirees	0	0	1	1	24	15	6
Period 01/01/2020 to 12/31/2020							
Average Monthly Benefit	\$0	\$0	\$2,569	\$4,523	\$6,926	\$6,851	\$7,077
Average Final Salary	\$0	\$0	\$88,626	\$88,114	\$114,938	\$100,276	\$96,764
Number of Active Retirees	0	0	2	5	39	38	14
Period 01/01/2021 to 12/31/2021							
Average Monthly Benefit	\$0	\$0	\$2,690	\$4,790	\$6,756	\$7,378	\$8,954
Average Final Salary	\$0	\$0	\$84,610	\$103,537	\$116,678	\$112,937	\$127,144
Number of Active Retirees	0	0	2	3	70	34	6
Period 01/01/2022 to 12/31/2022							
Average Monthly Benefit	\$0	\$0	\$0	\$5,738	\$6,562	\$7,400	\$6,848
Average Final Salary	\$0	\$0	\$0	\$113,367	\$114,397	\$114,792	\$95,359
Number of Active Retirees	0	0	0	2	63	22	10

Table G
Retired Members by Type of Benefit

Monthly Benefit Amount	Number of Retired Members	Type of Retirement ^a				Option Selected ^b						
		1	2	3	4	Unmod.	2	3	4	5	6	
Deferred						61						
\$1-1,000	36	8	0	0	28	34	2					
1,001-2,000	46	18	7	1	20	35	7		4			
2,001-3,000	59	26	20	3	10	41	12	1	3			2
3,001-4,000	155	112	32	1	10	91	41	4	17			2
4,001-5,000	181	163	16	1	1	104	43	13	19	1		1
5,001-6,000	214	205	8	0	1	101	75	21	12	2		3
6,001-7,000	254	249	5	0	0	130	74	24	19	3		4
7,001-8,000	161	160	1	0	0	74	55	18	10	4		
Over \$8,000	152	152	0	0	0	79	41	15	15	2		
Total	1,258	1,093	89	6	70	750	350	96	99	12		12

Notes:

^a Type of Retirement:

1. Normal Retirement for age and service
2. Beneficiary payment, normal retirement or death in service
3. Disability retirement
4. QDRO - alternate payee

^b Option Selected:

Unmodified Plan: life annuity (includes Type 2 receiving survivor benefit for life)

The following options reduce the retired member's monthly benefit:

Option 2 - Beneficiary receives 100% of member's reduced monthly benefit

Option 3 - Beneficiary receives 50% of member's reduced monthly benefit

Option 4 - Beneficiary receives 66 -2/3% of member's reduced monthly benefit

Option 5 - Survivor receives 66-2/3% of member's reduced monthly benefit upon first death

Option 6 - Life annuity with 15 years guaranteed

Note: The number of Retired Members and number of options selected are not equal due to the inclusion of 61 deferred vested members in the Unmodified option selection.

Table H
**Schedule of Participating
Employers**

The City of Austin and the Austin Police Retirement System are the only participating employers in the plan.

Table I
**Change in Net Position, Last Ten Fiscal
Years**

	Fiscal Year									
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Additions										
Member Contributions	\$19,468	\$21,665	\$24,709	\$22,291	\$24,352	\$22,603	\$23,203	\$24,122	\$25,180	\$26,365
Employer Contributions	31,161	32,400	33,239	33,814	35,141	35,244	35,993	36,577	35,429	44,419
Investment Income (net of expenses)	<u>49,524</u>	<u>35,574</u>	<u>(322)</u>	<u>37,965</u>	<u>82,072</u>	<u>(43,399)</u>	<u>148,163</u>	<u>98,573</u>	<u>164,509</u>	<u>(127,690)</u>
Total additions to plan net assets	\$100,153	\$89,639	\$57,626	\$94,070	\$141,565	\$14,449	\$207,359	\$159,272	\$225,118	(\$56,906)
Deductions										
Benefit Payments	\$36,356	\$39,209	\$42,414	\$45,661	\$49,174	\$53,476	\$56,414	\$62,027	\$70,280	\$78,129
Refunds	954	499	994	996	1,529	3,015	1,048	1,463	2,164	3,045
Administrative Expenses	1,115	1,327	1,466	1,397	1,563	1,421	1,721	1,929	2,404	3,010
Lump-sum Payments	5,515	5,695	6,597	4,170	5,845	7,491	8,858	13,466	7,763	6,560
Total deductions from plan net assets	\$43,940	\$46,730	\$51,471	\$52,224	\$58,111	\$65,404	\$68,040	\$78,885	\$82,611	\$90,744
Change in net assets	\$56,213	\$42,909	\$6,155	\$41,846	\$83,454	(\$50,955)	\$139,319	\$80,387	\$142,507	(\$147,650)

Notes: Dollar amounts in thousands
Columns may not add due to rounding

Table J
**Benefit and Refund Deductions from Net
Position by Type, Last Ten Fiscal Years**

	Fiscal Year									
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Type of Benefit										
Age and service benefits:										
Retirees ^a										
Beneficiaries ^a	\$36,292	\$39,129	\$42,364	\$45,591	\$49,065	\$53,394	\$56,298	\$61,937	\$70,135	\$77,954
Lump-sum payments	\$5,515	\$5,695	\$6,597	\$4,170	\$5,845	\$7,491	\$8,858	\$13,466	\$7,763	\$6,560
In service death benefits: ^b	\$65	\$80	\$50	\$70	\$109	\$83	\$116	\$90	\$145	\$175
Disability benefits: ^c										
Total benefits	\$41,872	\$44,904	\$49,011	\$49,831	\$55,019	\$60,968	\$65,272	\$75,493	\$78,043	\$84,689
Type of Refund										
Death ^b										
Separation	\$954	\$499	\$994	\$996	\$1,529	\$3,015	\$1,048	\$1,463	\$2,164	\$3,045
Total refunds	\$954	\$499	\$994	\$996	\$1,529	\$3,015	\$1,048	\$1,463	\$2,164	\$3,045

Notes: Dollar amounts in thousands

^a Segregation of age benefits for beneficiaries not currently available

^b Segregation of death benefits between refunds and in service death benefits not currently available

^c Segregation of disability benefits from age and service benefits not currently available

Columns may not add due to rounding

Excludes administrative expenses

Comparative Statement of Membership

Active Members	<u>2022</u>	<u>2021</u>
Total Number of Active Members, January 1	1,673	1,775
Add: New Members	113	84
Deduct: Members Terminated/Refunded	(53)	(58)
Deceased Members	(3)	(6)
Members Transferred to Retiree/DROP System	(97)	(122)
TOTAL ACTIVE MEMBERS, DECEMBER 31	<u>1,633</u>	<u>1,673</u>
 Vested Terminated		
TOTAL VESTED TERMINATED MEMBERS, DECEMBER 31	<u>61</u>	<u>59</u>
 Non-Vested Terminated		
TOTAL NONVESTED TERMINATED MEMBERS, DECEMBER 31	<u>96</u>	<u>81</u>
 Retired Members		
Total Number of Retired Members, January 1	1,164	1,045
Add: New Retired Members	119	135
Deduct: Retired Members Deceased	(25)	(16)
TOTAL RETIRED MEMBERS, DECEMBER 31	<u>1,258</u>	<u>1,164</u>
 TOTAL APRS MEMBERS, DECEMBER 31	<u>3,048</u>	<u>2,975</u>

August 1991

The governance of the System changed from City ordinance to state law.

The maximum annual cost-of-living increase which can be granted to retired officers was increased from 4% to 6%.

October 1993

Member contribution rate was increased from 6% to 9%.

October 1994

The City's contribution rate was increased from 12% to 14%.

September 1995

Provision added for retirement eligibility with unreduced benefits to include members who have 25 years of creditable service.

Benefit formula multiplier was increased from 2.3% to 2.8%.

Special increase granted to retirees based on benefit formula multiplier in use at date of Retirement.

The retiree death benefit is increased from \$2,000 to \$5,000.

October 1995

The City's contribution rate was increased from 14% to 16%.

October 1996

The City's contribution rate was increased from 16% to 18%.

September 1997

Benefit formula multiplier was increased from 2.8% to 2.88%.

Special Ad hoc increase granted to retirees based on benefit multiplier 2.88% divided by benefit multiplier 2.8%, minus one, and multiplied by 100.

The retiree death benefit is increased from \$5,000 to \$7,500.

April 1998

Officers who had non-membership time after they were enrolled in Cadet class are now able to buy back that non-membership time as retirement service credit.

Cadets are now members of the Retirement System at enrollment date and upon contributing 9% of their biweekly payroll.

September 1999

Board Membership changed to allow for greater membership participation by adding one active officer and one retired officer position to the Board of Trustees.

July 2000

Benefit formula multiplier was increased from 2.88% to 3.0% with an equivalent special ad hoc increase granted to retirees.

September 2001

Provision added for retirement eligibility with unreduced benefits to include members who have 23 years of creditable service excluding pre-membership military service.

Post Retirement Option Plan (PROP) provision added for members who select the Retroactive Deferred Retirement Option Plan (DROP) and instead of receiving a single lump-sum payment, elect to receive partial payments from the member's DROP account for each calendar year, in an amount elected by the member.

September 2003

IRS Code adopted to allow the retiree death benefit amount of \$7,500 to be distributed to beneficiary of retired member as a tax-free lump sum amount.

Permissive Service Credit provision added, which allows members with 20 years of service to purchase additional time at actuarially neutral cost to the System.

April 2006

The PROP Monthly Annuity Deferral Option was added for retiree members.

October 2006

Member contribution rate was increased from 9% to 11%.

April 2007

Forward Deferred Retirement Option Plan (Forward DROP) provision added for a one-time benefit whereby active police officers can choose to retire, continue working for and receiving a paycheck from APD, while their retirement annuity is deferred into a DROP account on their behalf at the retirement System.

September 2007

Permissive service credit was changed to: (1) allow the purchase by a deceased member's designated beneficiary if there is no surviving spouse; and (2) allow the purchase to be based on deferring the actual date when retirement benefits would begin in order to reduce the member's cost (Deferred Permissive Service).

The retiree death benefit was increased from \$7,500 to \$10,000.

October 2007

Member contribution rate increased from 11% to 13 %.

December 2007

Benefit formula multiplier was increased from 3.0% to 3.2% with an equivalent special ad hoc increase granted to retirees.

January 2009

The City's contribution rate was increased from 18% to 18.25% to fund APRS participation in Texas Proportionate Retirement System.

March 2009

APRS joined the Texas Proportionate Retirement System, which allows members with service credit in more than one participating retirement system to be eligible to combine their service credits in order to satisfy the length of service requirements used to determine eligibility for service retirement.

September 2009

The City's contribution rate was increased from 18.25% to 18.63% to fund APRS participation in Texas Proportionate Retirement Program.

October 2010

The City's contribution rate increased from 18.63% to 19.63%.

October 2011

The City's contribution rate increased from 19.63% to 20.63%.

October 2012

The City's contribution rate increased from 20.63% to 21.63%.

February 2015

Effective February 18, 2015, the opportunity to purchase permissive service in conjunction with utilizing the Forward or Retro DROP was eliminated.

Effective February 18, 2015, permissive service credit factors shall be determined based on an interest rate that is 50 basis points lower than the valuation assumption and generational mortality.

Effective April 1, 2015, Retro DROP was eliminated for members with less than 23 years of APRS service.

Effective August 1, 2015, the Forward DROP interest rate will be set annually in the same manner as the PROP interest rate, except for those with 23 years of APRS service as of July 31, 2015 who will not be affected.

New hires beginning February 1, 2016, will be required to pay the full actuarial cost to purchase military service. All others will continue to pay 25% of the actuarial cost, which will be based on an interest rate that is 50 basis points lower than the valuation assumption and generational mortality.

October 2015

The City's contribution rate decreased from 21.63% to 21.313% on October 1, 2015. The change was due to an actuarial study conducted to assess the cost of participation in the Proportionate Retirement Program.

February 2016

A new Forward DROP program was created. Modifications included elimination of interest paid to the account, elimination of member contributions being credited to the account, a graduated fee in each year of the Forward DROP period, and an option to elect up to seven years in the new Forward DROP.

Changes would not apply to members with 23 years of creditable service as of February 17, 2016. Grandfathered members could choose either the old Five Year Forward DROP or the new Seven Year Forward DROP.

October 2020

The City's contribution rate was increased from 21.313% to 21.737% to fund APRS participation in the Texas Proportionate Retirement Program, as required by state law and following an actuarial review of costs as required every five years.

September 2021

House Bill 4368, 87th Legislature, 2021, made various plan changes including the creation of Group B members, which will have different eligibility requirements and benefit calculations. In addition, the contributions for both members and the City of Austin changed in January of 2022. After September 1, 2021, all benefit changes are determined by the legislature, including the granting of COLAs.

Although the bill became effective September 1, 2021, most key provisions were implemented in Fiscal Year 2022.

January 2022

Members hired after January 2022 are considered Group B members and are eligible to retire after 25 years of service and who have attained a minimum age of 50. Group B member's benefit multiplier is 2.5%. Group B member's final average salary is calculated using the member's highest 60 months of the last 10 years of contributing service.

The member contribution rate was increased from 13% to 15%. The City's contribution rate is calculated in two parts. Part One: The UAAL as of December 31, 2020 (referred to as the Legacy Liability), was set as a predetermined payment amount expressed in dollars in accordance with a payment schedule in the initial risk sharing valuation study which amortizes the Legacy Liability over 30 years. Part Two: An Actuarially Determined Employer Contribution (ADEC) was implemented which pre-calculates the City's contribution rate prior to the start of each fund fiscal year. For 2022, the City's combined total contribution rate as defined by the ADEC and the Legacy Liability Payment was 27.983%, compared to the 2021 City contribution rate of 21.737%.

HISTORY OF CONTRIBUTIONS AND BENEFIT RATES

Year	Employer Contribution Rate	Member Contribution Rate	Interest Paid on Member Deposits	Benefits Multiplier	Cost of Living Adjustment
1991	12.00%	6.0%	5.50%	2.30%	6.00%
1992	"	"	5.50%	"	6.00%
1993	"	9.00%	4.50%	"	5.00%
1994	"	"	5.00%	"	0.00%
1995	14.00%	"	5.00%	2.80%	2.00%
1996	16.00%	"	5.00%	"	3.00%
1997	18.00%	"	5.00%	2.88%	2.00%
1998	"	"	5.00%	"	4.00%
1999	"	"	5.00%	"	3.00%
2000	"	"	5.00%	3.00%	3.00%
2001	"	"	4.00%	"	3.00%
2002	"	"	2.00%	"	1.50%
2003	"	"	2.00%	"	3.00%
2004	"	"	1.75%	"	1.75%
2005	"	"	0.00%	"	0.00%
2006	"	11.00%	0.00%	"	0.00%
2007	"	13.00%	5.00%	3.20%	1.00%
2008	"	"	0.00%	"	0.00%
2009	18.63%	"	0.00%	"	0.00%
2010	19.63%	"	0.00%	"	0.00%
2011	20.63%	"	0.00%	"	0.00%
2012	21.63%	"	0.00%	"	0.00%
2013	"	"	0.00%	"	0.00%
2014	"	"	0.00%	"	0.00%
2015	21.313%	"	0.00%	"	0.00%
2016	"	"	0.00%	"	0.00%
2017	"	"	0.00%	"	0.00%
2018	"	"	0.00%	"	0.00%
2019	"	"	0.00%	"	0.00%
2020	21.737%	"	0.00%	"	0.00%
2021	"	15.00%	0.00%	"	0.00%
2022	27.983%	"	0.00%	3.20%/2.5%	0.00%

*Effective, September 1, 2021, COLAs are granted by the State Legislature.

*Interest Paid on Member Deposits is credited by the Board of Trustees.