COAERS

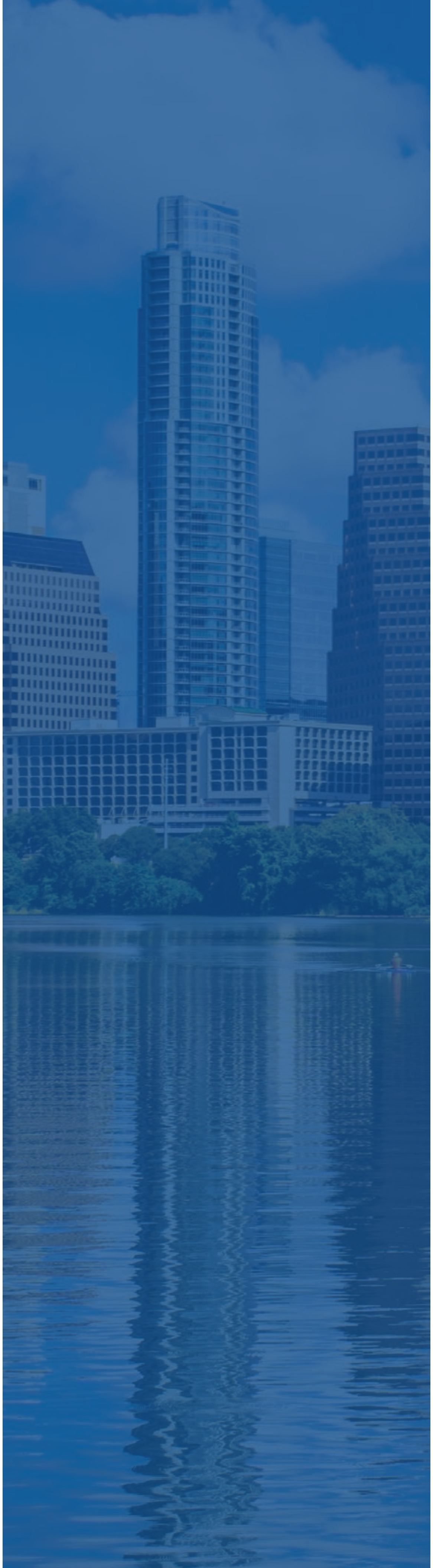
CITY OF AUSTIN

EMPLOYEES' RETIREMENT SYSTEM

# 2021
# ANNUAL COMPREHENSIVE FINANCIAL REPORT

## CITY OF AUSTIN EMPLOYEES' RETIREMENT SYSTEM

For the fiscal years ended
December 31, 2021 & 2020



# CITY OF AUSTIN EMPLOYEES' RETIREMENT SYSTEM

## 2021 ANNUAL COMPREHENSIVE FINANCIAL REPORT

For the fiscal years ended
December 31, 2021 & 2020

Prepared through the joint efforts of COAERS team members.

COAERS
CITY OF AUSTIN
EMPLOYEES' RETIREMENT SYSTEM

6850 Austin Center Boulevard
Suite 320
Austin, Texas 78731

## Our Mission:

The mission of the City of Austin Employees' Retirement System is to provide our members their promised benefits.

## We Value:

Accessibility

Accountability

Cooperation

Ethical Behavior

Fairness

Innovation

Integrity

Open Communication

Respect

Responsiveness

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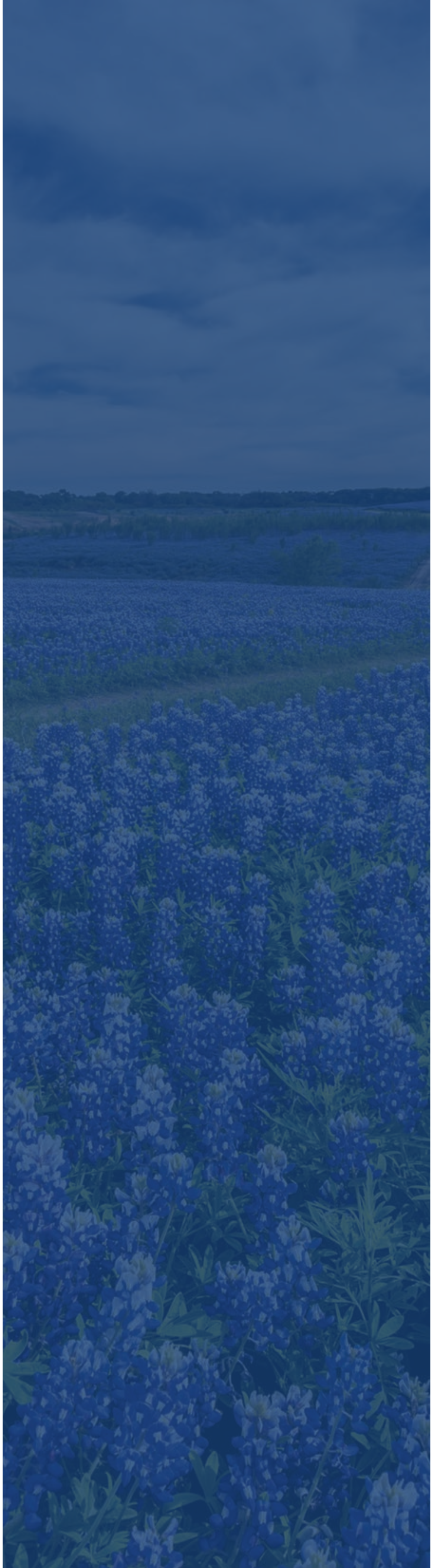


# INTRODUCTORY SECTION

COAERS
CITY OF AUSTIN
EMPLOYEES' RETIREMENT SYSTEM

May 19, 2022

Board of Trustees
City of Austin Employees' Retirement System
Austin, Texas

Ladies and Gentlemen:

It is our pleasure to submit to you the Annual Comprehensive Financial Report of the City of Austin Employees' Retirement System (COAERS or System) for the year ended December 31, 2021. The management of COAERS assumes full responsibility for the accuracy, completeness, and fair presentation of information as well as all disclosures in this report. As management, we assert that, to the best of our knowledge and belief, this financial report is complete and reliable in all material respects.

## Plan Profile and Demographic Highlights

COAERS was established in 1941 and has provided retirement benefits to eligible City of Austin employees since that time. Though originally created by City ordinance, COAERS is now governed by State law and administered by an eleven-member Board of Trustees.

The Plan provides retirement, disability, and death benefits to eligible employees of the City of Austin. Both the City of Austin, as the employer, and its employees make contributions to COAERS. Retirement benefits are determined by a formula that considers final average compensation, as defined, multiplied by the number of years of creditable service. Disability retirement is available pursuant to specific criteria established by statute. A death benefit of $10,000 is payable upon the death of a retired member of COAERS. Vesting occurs at five years of creditable service.

Additional information concerning current COAERS plan provisions is contained in the Membership and Benefits Overview report in this section.

## Audited Financial Statements and Summary

The financial statements included in this Annual Comprehensive Financial Report have been prepared by the management of COAERS in accordance with Generally Accepted Accounting Principles (GAAP) and presented in accordance with guidelines established by the Governmental Accounting Standards Board (GASB). The governing statute requires an annual audit of COAERS' accounts by a Certified Public Accountant. The Board of Trustees has retained CliftonLarsonAllen (CLA) as their independent external auditor.

CLA's 2021 financial audit was conducted in accordance with Generally Accepted Auditing Standards (GAAS) and resulted in an unmodified opinion on the financial statements. The Financial Section contains CLA's 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. The MD&A complements this letter of transmittal and should be read in conjunction with it.

### Internal Controls

The concept of reasonable assurance recognizes first that the cost of a control should not exceed the benefits likely to be derived, and second, that the valuation of costs and benefits requires estimates and judgments by management. A framework of internal controls has been established by the management of COAERS to provide reasonable assurance that assets are properly safeguarded, that financial records are fairly and accurately maintained, and that the governing statute and policies are correctly followed.

### Investments

Essential to the mission of COAERS is the responsibility to ensure that System assets will be sufficient over the long term to fulfill its liabilities. A key foundation of this duty is the prudent pursuit of investment returns by the Fund, which over the long term provide for most of the retirement and other benefits promised to current and future members.

Investments are made with the care, skill, prudence, and diligence under the circumstances then prevailing that a prudent person acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of a like character and with like aims. Funds of COAERS are invested solely in the interest of the membership and their beneficiaries, and for the exclusive purpose of providing benefits to such membership and their beneficiaries while defraying reasonable expenses of administering COAERS.

The Board of Trustees has established an Investment Policy Statement, Investment Implementation Policy, and other guidelines which provide for the delegation of investment authority to Staff and professional investment advisors. COAERS employs professional staff to provide ongoing management to the Fund and assist the Board in devising and implementing strategic investment decisions. The Board also retains RVK, Inc. to provide independent investment consulting services and long-range asset liability analyses.

The investments of the Fund are strategically allocated to maximize returns relative to risk by using a highly diversified and cost-effective portfolio structure. COAERS has consistently followed a conservative investment philosophy that employs a long-term time horizon, which is consistent with the nature of the System’s liabilities.

During 2021, the return on Fund investments totaled 13.0% net of fees. Additional information regarding the investments of the pension trust funds can be found in the Investment Section of this report.

### Funding Overview

COAERS is funded by investment income and employer and employee contributions. City employees provide regular contributions equal to 8% of base compensation. For 2021, the City of Austin increased its employer contribution 1% for a total contribution rate of 19% of base compensation. For the December 31, 2021, actuarial valuation, COAERS lowered its assumed rate of return from 7.00% to 6.75%, reflecting the current outlook for future capital market returns.  COAERS' funded position is now 66.0% and the amortization period for the Unfunded Actuarial Accrued Liability (UAAL) is 33 years. The actuarial accrued liability and the actuarial value of assets of COAERS, as of December 31, 2021, amounted to $5.032 billion and $3.320 billion, respectively. A detailed discussion of funding is provided in the Actuarial Section of this report.

### Major Initiatives

In 2021, COAERS implemented a new custodial banking relationship, completed a due diligence effort for financial statement audit services, expanded its customer outreach with new event offerings, implemented new disaster recovery systems, continued to improve its information security maturity, and redesigned its website. COAERS also created a new Enterprise Risk Management Policy and associated report for detailed oversight of organization-wide risks as well as a new Funding Report to provide an overview of the System's funded status, future funding risks, and alignment with the Board's Funding Policy goals.

### Awards

For the twenty-third consecutive year, COAERS was awarded a Certificate of Achievement for Excellence in Financial Reporting for its Annual Comprehensive Financial Report for the fiscal year ended December 31, 2020, by the Government Finance Officers' Association of the United States and Canada (GFOA). COAERS is pleased to have achieved this prestigious award. To be awarded a Certificate of Achievement, a government must publish an easily readable and efficiently organized Annual Comprehensive Financial Report. This report must satisfy both generally accepted accounting principles and applicable legal requirements. A Certificate of Achievement is valid for a period of one year only. We believe that our current Annual Comprehensive Financial Report continues to meet the Certificate of Achievement Program's requirements, and we are submitting it to the GFOA to determine its eligibility for another certificate.

For 2021, COAERS has again earned the Public Pension Coordinating Council Recognition Award for Administration. This award is in recognition of meeting professional standards for plan administration as set forth by the Council. The standards reflect minimum expectations for public retirement system administration, serving as a benchmark by which to measure public defined benefit plans.

### Acknowledgments

This report reflects the combined efforts of COAERS Staff under the leadership of the Board of Trustees. We express our gratitude to the staff, advisors, and members of the Board who have contributed to the preparation of this report and to the continued successful operation of the City of Austin Employees' Retirement System.

Respectfully Submitted,

Christopher Noak
2021 Board Chair

Christopher D. Hanson
Executive Director

Government Finance Officers Association

# Certificate of Achievement for Excellence in Financial Reporting

Presented to

**City of Austin Employees' Retirement System**
**Texas**

For its Annual Comprehensive
Financial Report
For the Fiscal Year Ended

December 31, 2020

Christopher P. Morrill

Executive Director/CEO

PPC

Public Pension Coordinating Council

***Recognition Award for Administration***
***2021***

Presented to

**City of Austin Employees Retirement System**

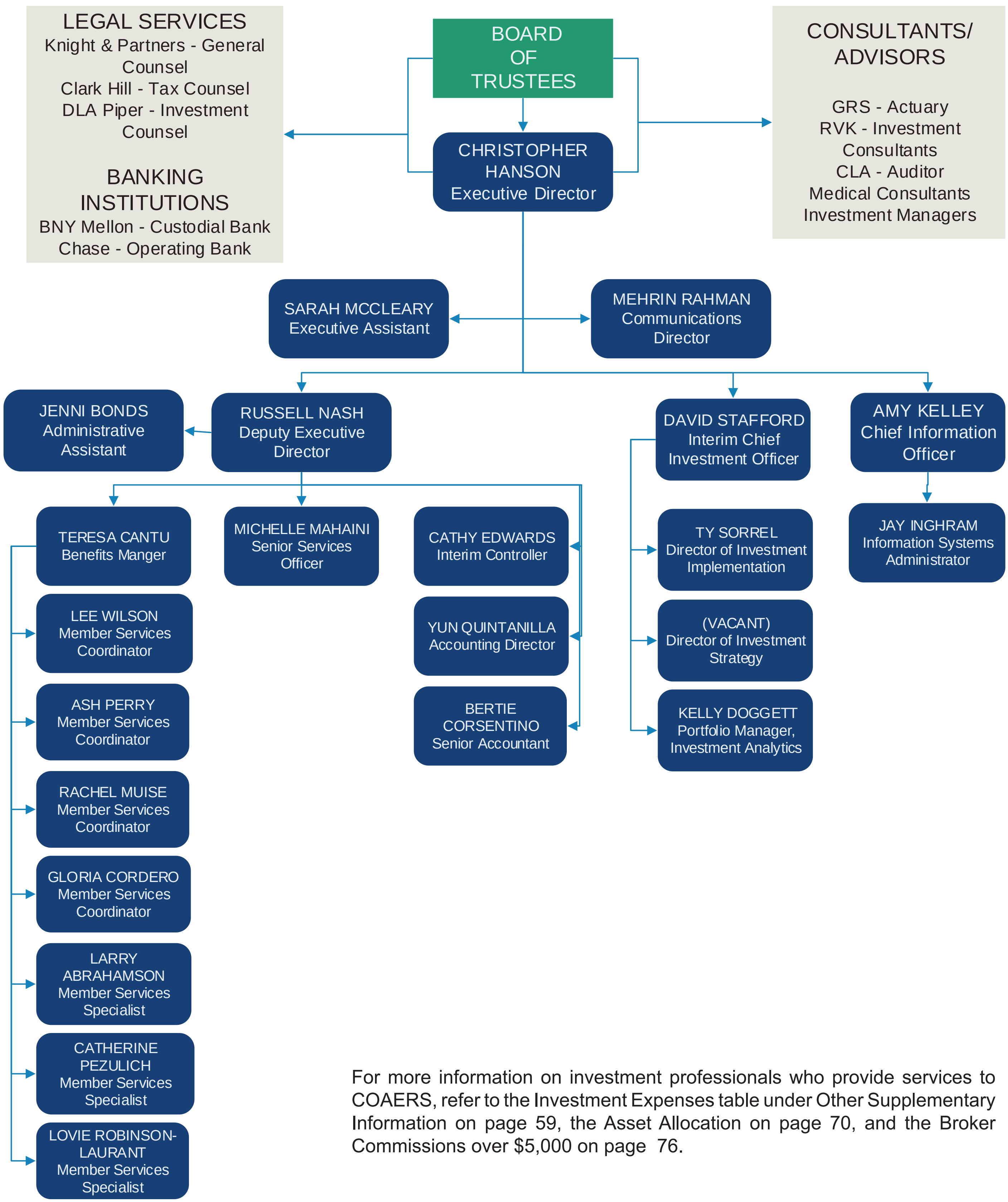
In recognition of meeting professional standards for
plan administration as
set forth in the Public Pension Standards.

*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)

Alan H. Winkle

Alan H. Winkle
Program Administrator




For more information on investment professionals who provide services to COAERS, refer to the Investment Expenses table under Other Supplementary Information on page 59, the Asset Allocation on page 70, and the Broker Commissions over $5,000 on page 76.

# BOARD OF TRUSTEES

### Investment Consultant
RVK Inc

### General Counsel
The Knight Law Firm

### Custodial Bank
BNY MELLON

### Tax Counsel
Clark Hill PLC

### Independent Auditors
CliftonLarsonAllen LLP
RSM US LLP

### Investments Counsel
Jackson Walker LLP
DLA Piper LLP

### Actuary
GRS Retirement Consulting Group

### Operating Bank
JPMorgan Chase Bank

*A list of investment managers can be found in the Investment Section of this report.*

## INTRODUCTION

This is a general overview of the City of Austin Employees' Retirement System (COAERS) 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.

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

### Membership Requirements

City of Austin regular employees working 30 or more hours per week become Members of COAERS on the date of employment as mandated by Statute. Members do not include:

- Temporary employees
- Part-time employees working less than 30 hours per week
- Civil service employees of the Fire Department and the Police Department
- The Mayor and members of the City Council

### Contributions

**Employee:** Members of COAERS contribute 8% of their base compensation calculated on a 40-hour work week. Contributions are made through payroll deduction each pay period (every two weeks). Overtime and special pay are not included.

**Employer:** By State Statute, the employer contributes an amount equal to 8% of the employee's base compensation or a higher rate established by the employer. For the calendar year 2020, the employer contribution, established by a City Council Resolution, was 18% of compensation. Effective January 1, 2021, the City increased the employer contribution to 19% of base compensation.

## RETIREMENT BENEFITS

### Retirement Eligibility

Members are eligible for retirement when they meet one of the following age and service requirements for the membership group to which they belong:

**Group A Members (Normal Retirement)**
- Age 62,
- Age 55 with 20 years of Creditable Service, or
- Any age with 23 years Creditable Service

**Group B Members (Normal Retirement)**
- Age 65 with 5 years of Creditable Service (excluding Supplementary Service Credit), or
- Age 62 with 30 years of Creditable Service (excluding Supplementary Service Credit)

**Group B Members (Early Retirement – Reduced Benefits)**
- Age 55 with at least 10 years of Creditable Service (excluding Supplementary Service Credit)

### Vesting

Members become vested with COAERS when they have five years of Creditable Service. Members who leave active membership before attaining retirement eligibility must have five years of Creditable Service to be considered vested. Verified service credit with a participating proportionate retirement system(s) or in the limited proportionate service arrangement between COAERS and the Travis County Healthcare District may also be combined with COAERS service credit in determining vested status and eligibility to receive a future benefit. The member is not entitled to receive the employer contribution at any time. Instead, vesting means that a member is entitled to receive a lifetime benefit as long as their contributions are on deposit in the System upon reaching retirement eligibility. COAERS refers to vested members as either having a “Deferred” or “Deferred Reciprocal” status.

### Creditable Service

Creditable Service is a combination of membership Service and other types of Creditable Service described below.

Current Active-Contributing/Vested Members, as of October 1, 1995, were granted service credit for the period between their date of hire and their date of participation, up to six months. All members hired after October 1, 1995 become members on their date of hire or on their date of regular employment at 30 or more hours per calendar week.

### Types of Creditable Service

**Membership Service** – The employment period during which a member makes payroll contributions to the System is considered the “Membership Service” period.

**Reinstated Membership Service** (Prior City of Austin Service) – When members leave City employment, withdraw their deposits, and later return to City employment or employment with a participating proportionate system, they may purchase and reinstate the earlier time with the City. To purchase this service, they must become a member of COAERS or another proportionate system. The cost to purchase prior service credit is based on the amount previously withdrawn, plus interest, as required by law.

**Non-Contributory Service Credit** – Members may purchase service credit for the following non-contributory categories:

- Non-contributory service, such as temporary or part-time service (less than 30 hours per week)
- Approved leave of absence
- Workers’ compensation leave because of an injury sustained in the course and scope of employment with the employer

### Credit for Federal Active Duty Military Service

**Prior Federal Active Duty Military Service** – Members may establish up to 48 months Creditable Service for prior military service. Military service eligible for purchase is full-time active duty service in the armed forces of the United States performed before the first day of the most recent period of active membership in COAERS. Military service in the reserves, a service academy, or for less than 90 consecutive days is not eligible for purchase. To purchase prior military service, members must present an original DD214 showing honorable discharge.

**Military Leave of Absence** – Members may establish Creditable Service for an authorized leave of absence from employment for military service. The member may establish such Creditable Service during the authorized leave of absence by continuing to make retirement contributions during the period of service. Alternatively, if the member returns to employment within the applicable period (that varies from 14 to 90 days, depending on the length of service) after the completion of the military service, the member and the employer may secure such Creditable Service by making a lump-sum payment within five years of the date the member returns to employment and Active-Contributing Member status.

**Supplementary Service Credit** (Previously known as Permissive Time) – Group A members may purchase up to five years of Creditable Service to advance their retirement eligibility date and/or increase the amount of their monthly annuity upon retirement. Group B members may purchase up to five years of Creditable Service only to increase the amount of their annuity but not to advance their retirement eligibility. Only vested active-contributing or inactive members are eligible to purchase Supplementary Service Credit, provided they have five years of membership service.

**Sick Leave Conversion –** Retiring members may convert sick leave hours to increase Creditable Service time. Employees eligible to be paid by the City of Austin for up to 720 hours of sick leave upon retirement cannot convert the eligible hours to Creditable Service. Converted sick leave hours cannot be used to reach retirement eligibility. Sick leave must be converted in pay period (80-hour) increments. Both the Member and the employer must pay the current contribution rate at the time of retirement to convert hours.

**Proportionate Service**

In 1991 the Texas Legislature established a Proportionate Retirement Program for the benefit of members of participating public retirement systems. A member of two or more of the following participating retirement systems may be eligible for proportionate benefits:

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

Participating systems recognize service from other participating systems upon proper notice. A member with service credit in more than one participating retirement system may be eligible to retire in another system based on the combined service of two or more systems in order to satisfy the length of service requirements used to determine eligibility for service retirement.

Members must qualify for retirement eligibility independently in each system. Retirement benefits will be paid separately from each system and will be determined based on the actual amount of Creditable Service earned and the benefit structure of each plan. Military service may only be used once in determining the amount of the member's combined service credit. Proportionate participation is generally based on funded service.

A limited proportionate service arrangement was also established in 2007 for individuals who have membership in COAERS and a retirement system within the Travis County Healthcare District (District) organization. This arrangement, effective with employees transitioning into the District effective March 1, 2009, is similar to the general proportionate program except that it applies only between these two retirement systems. Participation in the District retirement system can be used to establish retirement eligibility with COAERS.

**Calculation of Retirement Benefits**

**Factors used to calculate COAERS retirement benefits:**

**Total Creditable Service** – Total years and months of Creditable Service, including:

- Regular membership service
- Reinstated membership service
- Military service purchased
- Non-contributory service purchased
- Supplementary service purchased
- Converted sick leave
- Up to one six-month probationary period granted at retirement to Active-Contributing/Vested Members hired on or before October 1, 1995
- Note: Proportionate service is only used to reach eligibility; it is not used to calculate retirement benefits.

**Multiplier for Group A Members – 3.0% Multiplier for Group B Members – 2.5%**

**Average Final Compensation** – The average base salary for the highest 36 months of contributory service during the last 10 years of salary prior to retirement.

**Important Dates in the Retirement Process**

Members must apply for retirement no later than the 15th day of the month in which they are terminating employment. The last date of that month is the member's actual retirement date. The first day of the following month marks the beginning of the member's "retired" status; the first monthly benefit payment is issued on the last business day of that month.

**Retirement Options**

COAERS provides several options for payment of monthly benefits. All payment options are actuarially equivalent to the basic Member Only Life Annuity benefit.

The options that include benefits to a survivor are calculated according to the ages of both the member and the surviving beneficiary. The member's benefits are reduced if an option is chosen that provides survivor benefits. This reduction is applied to the member's basic Life Annuity benefit according to the option the member chooses. Some restrictions may apply to non-spouse survivor benefits.

If the member is married, spousal consent is required. A member cannot change options or the survivor beneficiary after retirement. Even if a Retiree and the beneficiary spouse later divorce, the survivor beneficiary cannot be changed. Only the survivor beneficiary named at retirement will receive survivor benefits.

**Life Annuity** – A basic monthly benefit payable for the life of the Retiree.

**Option I: 100% Joint and Survivor** – A reduced monthly benefit payable throughout the Retiree's life. At the Retiree's death, the survivor beneficiary will continue to receive the Retiree's benefit for the remainder of his/her life.

**Option II: 50% Joint and Survivor** – A reduced monthly benefit payable throughout the Retiree's life. At the Retiree's death, the survivor beneficiary will continue to receive 50% of the Retiree's benefit for the remainder of his/her life.

**Option III: 66 ⅔ Joint and Survivor** – A reduced monthly benefit payable throughout the Retiree's life. At the Retiree's death, the survivor beneficiary will continue to receive 66 2/3% of the Retiree's benefit for the remainder of his/her life.

**Option IV: Joint and 66 ⅔ Last Survivor** – A reduced monthly benefit payable until the death of either the Retiree or the survivor beneficiary. After death of the Retiree or the survivor beneficiary, the last survivor of the two will receive 66 2/3% of the Retiree's benefit for the remainder of his/her life.

**Option V: Fifteen Year Certain and Life Annuity (180 payments)** – A monthly benefit payable to the Retiree. If the Retiree's death occurs before 180 payments are made, the Retiree's beneficiary, spouse (if applicable), or estate will receive remaining monthly payments until all 180 payments have been made. If the Retiree is still living after receiving 180 payments, payments to the retiree will continue until the Retiree's death.

**Option VI: Actuarial Equivalent of Life Annuity** – This option allows members to develop their own benefit payment plan with the assistance and approval of the System's actuary. Members have flexibility to design a retirement benefit that is most appropriate for the needs of both the member and the member's beneficiary, subject to limitations established in Board policy. All options are subject to approval by the Board of Trustees.

A "Pop-up" benefit is provided for Retirees choosing Options I, II, or III as well as Retirees who selected any Joint and Survivor option other than Joint and Last Survivor option. The "Pop-up" increases the Retiree's benefits to the Member Only Life Annuity level if the survivor beneficiary predeceases the Retiree. Benefits are increased only after COAERS is properly notified of the death of the survivor.

**Lump-Sum Payments**

**Backward DROP Program** – The Backward Deferred Retirement Option Program (Back DROP) allows a member to receive a lump-sum payment in addition to receiving a monthly annuity.

Members who have already reached retirement eligibility, excluding proportionate service, and who continue to work and contribute to COAERS beyond retirement eligibility, may elect to receive a lump-sum amount and have their retirement calculated as though they had retired at an earlier date. The Back DROP period can be no earlier than:

- The day of first retirement eligibility,
- The date of the last purchase of Creditable Service of any type other than Sick Leave Conversion, or
- 60 months (in one-month increments) prior to the retirement date.

The lump-sum amount is 90% of the sum of the monthly annuity payments and is based on the Member Only Life Annuity benefit the participant would have received had the Member retired at the earlier date. The lump-sum amount may be rolled over to other qualified plans, paid in one lump-sum to the Member, or a combination of both.

Cost-of-living adjustments, interest, and Member or employer contributions do not increase the amount credited to the Back DROP.

**Partial Lump-Sum Payment** – As an alternative to the Back DROP, a member may select a retirement option and request a one-time, lump-sum payment to be paid at the same time as the member's first annuity payment. The member's annuity amount will be actuarially reduced for the lump-sum payment. The partial lump sum amount cannot exceed the equivalent of 60 monthly annuity payments.

### IRS Section 415 Restoration of Retirement Income Plan

Certain highly compensated members may have their retirement annuity limited because of Section 415(b)(1) of the Internal Revenue Code. A plan amendment, effective January 1, 2000, provides for COAERS to pay a benefit that exceeds the limitation imposed by the Internal Revenue Code from a separate, non-qualified, and unfunded "Restoration of Retirement Income Plan." Additional details are made available to affected members during the retirement process.

### Retirees Returning to Work

The retirement allowance of a retired member who resumes employment with an employer within 90 days after retirement and has not attained age 55, or who resumes employment after retirement as a regular full-time employee of an employer is subject to suspension. Suspension also occurs if a retired member resumes employment with an employer in a position that is not required to participate in another retirement system maintained by an employer, and works for, or is compensated by, an employer for more than 1,508 hours in any rolling 12-month period after the member resumes employment with the employer.

## DISABILITY RETIREMENT BENEFITS

### Disability Retirement Requirements

Members may apply for disability retirement benefits if:

- They are mentally or physically incapacitated for the performance of all employment duties; AND
- The incapacity is likely to be permanent.

### Disability Retirement Eligibility

Active-Contributing members with less than five years Creditable Service may only apply for disability retirement if the disability is a result of an on-the-job accident or injury. Active-Contributing members with five or more years of Creditable Service may apply for disability retirement even if the disability is not job-related. Members who are already eligible to retire may not apply for disability retirement.

Members are considered to remain in the same membership category in effect on the date of termination for 90 days following termination. Members are allowed to apply for disability retirement for up to 90 days following termination for inability to perform all employment duties.

Disability retirees are periodically required to provide proof of continued disability and are annually required to provide employment and income documentation to the COAERS Board of Trustees.

### Disability Retirement Options

A Member approved for disability retirement may choose a Member Only Life Annuity benefit or a benefit described in Options I, II, III, or IV. Disability Retirees are not eligible for any type of lump-sum payment.

## DEATH AND SURVIVOR BENEFITS

### Retired Members

Upon the death of a Retiree, a death benefit of $10,000 is paid by COAERS to the designated beneficiary(ies) of the deceased. This $10,000 death benefit is paid to the beneficiary(ies) in addition to any of the following benefits that are applicable:

If the Retired member chose the Member Only Life Annuity option, the monthly benefit stops the month following the death of the Retiree. However, if death occurs before the Retiree's accumulated deposits have been paid out, the Retiree's remaining deposits will be paid in a lump-sum to the Retiree's designated beneficiary(ies), spouse (if applicable), or estate.

If the Retired member chose an option providing benefits to a survivor beneficiary, upon the Retiree's death, such benefits will be paid to the designated survivor. If the survivor beneficiary does not survive the Retiree, monthly benefits cease. However, if the survivor beneficiary does not survive the Retiree, and the Retiree's deposits have not been paid out, the Retiree's remaining deposits will be paid in a lump-sum to the Retiree's designated beneficiary(ies), spouse (if applicable), or estate.

### Active Members

### Not Eligible to Retire

Upon the death of an Active member who was not yet eligible for retirement, the designated beneficiary(ies) is entitled to a lump-sum payment of the member's accumulated deposits (contributions and interest) plus a death benefit from COAERS equal to the member's deposits (excluding any purchases for non-contributory time, prior military service purchases, or Supplementary Service Credit).

### Eligible to Retire

If the Active member was eligible for retirement prior to death and had not yet retired:

- A surviving spouse may choose any retirement option that would have been available to the member, except for member Only Life Annuity, and receive the $10,000 death benefit. Alternatively, a surviving spouse may choose to receive a one-time lump-sum payment of the member's accumulated deposits and a death benefit from COAERS equal to the Member's deposits (excluding any purchases for non-contributory time, prior military service purchases, or Supplementary Service Credit).
- If there is no spouse, the deceased member's designated beneficiary may elect to receive payments under Option V, Fifteen Year Certain and Life Annuity, and receive the $10,000 death benefit. The non-spouse beneficiary may otherwise choose to receive a one-time lump-sum payment as described above.
- The $10,000 death benefit is not paid to beneficiaries electing a one-time lump-sum payment.

**Inactive Vested Members**

Beneficiaries of Inactive Vested members receive the same death benefits as beneficiaries of Active members as described above.

## OTHER INFORMATION

**Compliance with Applicable Law**

Article 6243n of Vernon's Texas Civil Statutes, the Internal Revenue Code, and other state and federal laws are applicable to the operation and management of, and the benefits provided by, the System. Such laws place restrictions and limitations on retirement systems, including COAERS, and directly or indirectly affect member benefits and options. Deposits or retirement benefits may not be transferred or assigned except pursuant to a Qualified Domestic Relations Order (QDRO). All QDROs are subject to approval and must meet all statutory requirements. In addition, funds actually due and payable to a Member, beneficiary, or alternate payee may be subject to IRS levy. The Internal Revenue Code also sets limits which affect purchases of service credit, final average salary, and monthly benefits for certain individuals.

**Determining Interest on Members' Contributions**

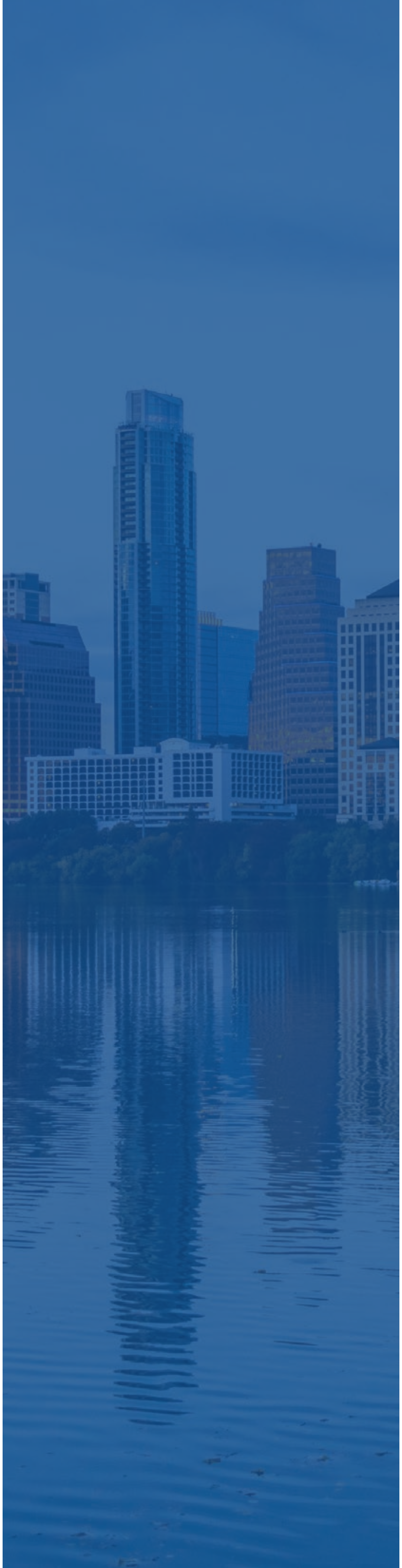
The Board of Trustees annually determines the amount of interest paid on Members' accumulated deposits, taking into consideration the average yield of the 10-year U.S. Treasury note during the 12-month period ending on October 31st and recommendations of the System's actuary. Retirement interest is accrued on the last day of the calendar year based on the amount that each Member had in the System on the first day of the calendar year. The money must remain on deposit for the entire calendar year in order to accrue interest.

**Prohibition on COAERS Loans and Withdrawals**

Plan provisions do not allow Active Members to make a partial withdrawal of deposits or to receive loans from their retirement funds.

**Request for Hearing**

A Member or Beneficiary directly affected by a decision of the Executive Director of the City of Austin Employees' Retirement System may appeal to the Board of Trustees. The Member or Beneficiary must appeal the decision within 30 days of notification of denial by the Executive Director or his/her designee.



# FINANCIAL SECTION

CliftonLarsonAllen LLP
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# INDEPENDENT AUDITORS' REPORT

Audit and Risk Committee of the Board of Directors
City of Austin Employees' Retirement System
Austin, Texas

## Report on the Audit of the Financial Statements

### *Opinion*

We have audited the accompanying financial statements of the City of Austin Employees' Retirement System (COAERS), as of and for the year ended December 31, 2021, and the related notes to the financial statements, which collectively comprise the City of Austin Employees' Retirement System's basic financial statements as listed in the table of contents.

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective fiduciary net position of the City of Austin Employees' Retirement System, as of December 31, 2021, and the respective changes in fiduciary net position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

### *Basis for Opinion*

We conducted our audit in accordance with auditing standards generally accepted in the United States of America (GAAS). Our responsibilities under those standards are further described in the Auditors' Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of the City of Austin Employees' Retirement 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 opinions.

### *Other Matter*

The financial statements of COAERS as of December 31, 2020, and for the year then ended were audited by other auditors. Those auditors expressed an unmodified opinion on those financial statements in their report dated May 20, 2021.

### *Responsibilities of Management for the Financial Statements*

Management is responsible for the preparation and fair presentation of the financial statements in accordance with accounting principles generally accepted in the United States of America, and for 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 City of Austin Employees' Retirement 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.

***Auditors' 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 auditors' report that includes our opinion. 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 GAAS will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, 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 an audit in accordance with GAAS, 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 on the effectiveness of the City of Austin Employees' Retirement 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 City of Austin Employees' Retirement 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 we 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, the Schedule of Changes in Net Pension Liability and Related Ratios, the Schedule of Contributions, and the Schedule of Investment Returns be presented to supplement the basic financial statements. Such information is the responsibility of management and, 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.

***Supplementary Information***

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the City of Austin Employees' Retirement System's basic financial statements. The Other Supplementary Information – Investment, General & Administrative, and Professional Services and Consultant Expenses on page 59 is presented for purposes of additional analysis and are not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. The information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with GAAS. In our opinion, the Other Supplementary Information is fairly stated, in all material respects, in relation to the basic financial statements as a whole. The 2020 information included in the Other Supplementary Information – Investment, General & Administrative, and Professional Services and Consultant Expenses was subjected to the auditing procedures applied in the 2020 audit of the basic financial statements by other auditors, whose report on such information stated that it was fairly stated in all material respects in relation to the 2020 consolidated financial statements as a whole.

***Other Information***

Management is responsible for the other information included in the annual report. The other information comprises the Introductory Section on pages 1-22; the Investment Section on pages 60-78; the Actuarial Section on pages 79-128; and the Statistical Section on pages 129-148 but does not include the basic financial statements and our auditors' report thereon. Our opinions on the basic financial statements do not cover the other information, and we do not express an opinion or any form of assurance thereon.

In connection with our audit of the basic financial statements, our responsibility is to read the other information and consider whether a material inconsistency exists between the other information and the basic financial statements, or the other information otherwise appears to be materially misstated. If, based on the work performed, we conclude that an uncorrected material misstatement of the other information exists, we are required to describe it in our report.

CliftonLarsonAllen LLP

**CliftonLarsonAllen LLP**

Austin, Texas
May 24, 2022

This section of the City of Austin Employees' Retirement System's (COAERS, or, the System) financial report presents our discussion and analysis of the System's financial performance during fiscal years 2021 and 2020. We encourage readers to consider the information presented here in conjunction with our financial statements that follow.

## FINANCIAL HIGHLIGHTS

Net position held in trust by the System increased by $365.6 million, or 11.4%, in 2021, and increased by $271.5 million, or 9.3%, in 2020. All changes primarily correlate with investment returns.

Contributions increased by $5.9 million, or 2.9%, in 2021, and by $15.0 million, or 8.0%, in 2020. The 2021 increase was due to a $7.3 million increase in the City's supplemental funding, an increase of $4.7 million in employee and employer contributions based on payroll, and a $6.1 million decrease in employee creditable service purchases. The 2020 increase was due to a $7.1 million increase in the employer contributions, an increase of $3.0 million in employee contributions, and a $4.9 million increase in employee creditable service purchases.

The amount of benefits paid to retired members and beneficiaries, and refunded to terminating employees, increased by approximately $15.8 million, or 6.8% during 2021, and by approximately $13.2 million, or 6.0%, during 2020. This is the result of increases in the number of System retirees and the average annuity payment. Benefit payments exceeded employee and City contributions by $39.1 million in 2021, and by $29.2 million in 2020.

The System's time-weighted rate of return on investments for the year ended December 31, 2021, was 13.2% gross of fees, and 13.0% net of fees, on a fair value basis, which was an increase from the return of 11.1% gross of fees and 10.8% net of fees for the year ended December 31, 2020. The actuarial investment return assumption is 6.75%.

## OVERVIEW OF THE FINANCIAL STATEMENTS

This discussion and analysis is intended to assist the reader in better understanding the purpose and meaning of each of the key components of COAERS' financial statements, which are comprised of the following:

- Statement of Fiduciary Net Position
- Statement of Changes in Fiduciary Net Position
- Notes to the Financial Statements

Collectively, this information presents the net position held in trust for pension benefits as of the end of each year and summarizes the changes in net position held in trust for pension benefits for the year. The information available in each of these components is briefly summarized below:

### Financial Statements

- The *Statement of Fiduciary Net Position* presents the System's assets and liabilities and the resulting net position, which is held in trust for pension benefits. This statement reflects a year-end comparison of the Plan's investments, at fair value, along with cash and short-term investments, receivables, and other assets and liabilities to the previous year.
- The *Statement of Changes in Fiduciary Net Position* provides a view of current year additions to and deductions from the plan.

(CONTINUED)

These two statements report the System's net fiduciary position held in trust for pension benefits (net position restricted for pensions), the difference between assets and liabilities, as one way to measure COAERS' financial position. Over time, increases and decreases in net position are one indicator of whether its financial health is improving or deteriorating.

- Notes to the Financial Statements provide important background and detailed information about COAERS, the plan, and the financial statements.

## FINANCIAL ANALYSIS

**Summary of Fiduciary Net Position December 31, 2021, 2020, 2019**

| Assets | | 2021 | 2020 | 2019 |
|---|---|---|---|---|
| Cash and receivables | $ | 33,705,576 | 24,715,443 | 23,062,058 |
| Investments | | 3,535,433,558 | 3,179,458,128 | 2,911,507,641 |
| Capital assets, net | | 4,125,172 | 4,825,644 | 5,468,035 |
| Total assets | | 3,573,264,306 | 3,208,999,215 | 2,940,037,734 |
| **Liabilities** | | | | |
| Total liabilities | | 8,104,462 | 9,432,632 | 11,984,658 |
| **Net position restricted for pensions** | $ | 3,565,159,844 | 3,199,566,583 | 2,928,053,076 |

### Assets

As shown in the table above, assets increased by $364.3 million in 2021, and increased by $269.0 million in 2020, due primarily to the changes in the value of investments.

- During 2021, there was a $9.0 million increase in the net amount of cash and receivables; this resulted from a $9.5 million increase in the amount of cash, which was offset by a $1.3 million decrease in investment receivables and an increase of $0.8 million in contributions and other receivables.
- During 2020, there was a $1.7 million increase in the net amount of cash and receivables; this resulted from a $2.6 million increase in the amount of cash, which was offset by a $2.4 million decrease in investment receivables and an increase of $1.5 million in contributions and other receivables.
- In 2021, investments increased by $356.0 million; in 2020, investments increased by $268.0 million, reflective of the changes in the financial markets.
- In both 2021 and 2020, the decrease in capital assets reflects depreciation of furniture and equipment.

(CONTINUED)

### Liabilities

Liabilities decreased by $1.3 million in 2021 and decreased by $2.6 million in 2020. These fluctuations were primarily due to changes in trades pending settlement.

**Summary of Changes in Fiduciary Net Position December 31, 2021, 2020, 2019**

| | 2021 | 2020 | 2019 |
|---|---|---|---|
| **Additions:** | | | |
| Contributions | $ 208,237,660 | 202,383,445 | 187,395,797 |
| Investment income | 417,958,864 | 313,802,945 | 507,269,478 |
| Investment expenses | 6,749,253 | 6,513,904 | 5,164,777 |
| Net investment income | 411,209,611 | 307,289,041 | 502,104,701 |
| Other income | 962 | 175 | 1,748,803 |
| Total additions | 619,448,233 | 509,672,661 | 691,249,301 |
| **Deductions:** | | | |
| Benefit payments and contribution refunds | 247,326,473 | 231,564,618 | 218,381,374 |
| General and administrative expenses | 6,528,499 | 6,594,536 | 6,218,288 |
| Total deductions | 253,854,972 | 238,159,154 | 224,599,662 |
| Net increase in net position | 365,593,261 | 271,513,507 | 466,649,639 |
| **Net position restricted for pensions:** | | | |
| Beginning of year | 3,199,566,583 | 2,928,053,076 | 2,461,403,437 |
| End of year | $ 3,565,159,844 | 3,199,566,583 | 2,928,053,076 |

### Additions

Additions needed to fund benefits are accumulated through contributions and returns on investments. Contributions from COAERS members and the City of Austin for 2021 and 2020 totaled $208.2 million and $202.4 million, respectively. The 2021 contributions represent an increase of $5.9 million, or 2.9% above 2020. 2020 contributions represent an increase of $15.0 million, or 8.0% above 2019. The 2021 increase was due primarily to an increase in the City’s supplemental funding from 18% to 19% starting in January 2021. The increase in 2020 was due to an increase in base salaries on which employee and employer contributions are made.

In 2021, COAERS had a net investment income on the fair value of its securities of $411.2 million, an increase of $103.9 million from 2020. In 2020, the net investment income on the market value of securities was $307.3 million, a decrease of $194.8 million from 2019. In 2021, interest and dividend income generated income of $39.7 million, a decrease from the 2020 income of $0.8 million. In 2021, investment expenses increased by $0.2 million; in 2020, investment expenses increased by $0.4 million. The total rate of return (net of fees) for the System’s investment portfolio in 2021 was 13.0%; in 2020 it was 10.8%.

### Deductions

The expenses paid by COAERS include benefit payments, refunds of member contributions, and administrative expenses.

Benefits paid in 2021 were $243.1 million, an increase of $15.2 million from payments made in 2020, which is consistent with an increase in the number of retirees to 7,221 in 2021. Refunds to terminating employees increased by $0.6 million. Administrative expenses in 2021 were $6.5 million, a decrease of $0.1 million, or 1.0% from 2020.

Benefits paid in 2020 were $227.9 million, an increase of $13.8 million from payments made in 2019, which is consistent with an increase in the number of retirees to 6,963 in 2020. Refunds to terminating employees decreased by $0.6 million. Administrative expenses in 2020 were $6.6 million, an increase of $0.4 million, or 6.1% over 2019.

### Overall Analysis

Overall, as of December 31, 2021, net position increased by $365.6 million, or 11.4%, from the prior year; over the five-year period ending December 31, 2021, net position increased by 55.0%.

## REQUEST FOR INFORMATION

This financial report is designed to provide a general overview of the finances of the City of Austin Employees’ 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 City of Austin Employees’ Retirement System, 6850 Austin Center Boulevard, Suite 320, Austin, Texas 78731.

| | Retirement Plan | Restoration Plan | Total |
|---|---|---|---|
| **Assets** | | | |
| Cash and cash equivalents (note 3) | $ 19,222,506 | 20,000 | 19,242,506 |
| Receivables | | | |
| Interest and dividends receivable | 6,383,276 | - | 6,383,276 |
| Trades pending settlement | 758,032 | - | 758,032 |
| Employer contributions receivable | 5,096,000 | - | 5,096,000 |
| Employee contributions receivable | 2,144,463 | - | 2,144,463 |
| Other | 81,299 | - | 81,299 |
| Total receivables | 14,463,070 | - | 14,463,070 |
| Investments, at fair value (note 3): | | | |
| US Equities | 1,226,040,135 | - | 1,226,040,135 |
| DM Equities | 462,472,831 | - | 462,472,831 |
| EM Equities | 275,518,081 | - | 275,518,081 |
| Fixed income | 736,814,659 | - | 736,814,659 |
| Real assets | 566,757,450 | - | 566,757,450 |
| Multi-asset | 175,339,728 | - | 175,339,728 |
| Cash and equivalents | 92,490,674 | - | 92,490,674 |
| Total investments | 3,535,433,558 | - | 3,535,433,558 |
| Capital assets, net (note 7) | 4,125,172 | - | 4,125,172 |
| Total assets | 3,573,244,306 | 20,000 | 3,573,264,306 |
| **Liabilities** | | | |
| Payables | | | |
| Accrued expenses | 2,132,209 | - | 2,132,209 |
| Trades pending settlement | 2,313,171 | - | 2,313,171 |
| Refunds and death benefits payable | 3,659,082 | - | 3,659,082 |
| Total liabilities | 8,104,462 | - | 8,104,462 |
| **Net position restricted for pensions** | **$ 3,565,139,844** | **20,000** | **3,565,159,844** |

See accompanying notes to financial statements.

| | Retirement Plan | Restoration Plan | Total |
|---|---|---|---|
| **Assets** | | | |
| Cash and cash equivalents (note 3) | $ 9,699,756 | 20,000 | 9,719,756 |
| Receivables | | | |
| Interest and dividends receivable | 7,318,469 | - | 7,318,469 |
| Trades pending settlement | 1,130,113 | - | 1,130,113 |
| Employer contributions receivable | 4,558,217 | - | 4,558,217 |
| Employee contributions receivable | 1,916,406 | - | 1,916,406 |
| Other | 72,482 | - | 72,482 |
| Total receivables | 14,995,687 | - | 14,995,687 |
| Investments, at fair value (note 3): | | | |
| US Equities | 1,064,515,590 | - | 1,064,515,590 |
| DM Equities | 447,308,583 | - | 447,308,583 |
| EM Equities | 294,199,713 | - | 294,199,713 |
| Fixed income | 621,428,221 | - | 621,428,221 |
| Real assets | 419,983,836 | - | 419,983,836 |
| Multi-asset | 245,874,545 | - | 245,874,545 |
| Cash and equivalents | 86,147,640 | - | 86,147,640 |
| Total investments | 3,179,458,128 | - | 3,179,458,128 |
| Capital assets, net (note 7) | 4,825,644 | - | 4,825,644 |
| Total assets | 3,208,979,215 | 20,000 | 3,208,999,215 |
| **Liabilities** | | | |
| Payables | | | |
| Accrued expenses | 1,813,752 | - | 1,813,752 |
| Trades pending settlement | 4,764,623 | - | 4,764,623 |
| Refunds and death benefits payable | 2,854,257 | - | 2,854,257 |
| Total liabilities | 9,432,632 | - | 9,432,632 |
| **Net position restricted for pensions** | **$ 3,199,546,583** | **20,000** | **3,199,566,583** |

See accompanying notes to financial statements.

# STATEMENT OF CHANGES IN FIDUCIARY NET POSITION

YEAR ENDED DECEMBER 31, 2021

| | | Retirement Plan | Restoration Plan | Total |
|---|---|---|---|---|
| **Additions:** | | | | |
| Contributions: | | | | |
| Employer contributions (note 6) | $ | 141,218,720 | 199,076 | 141,417,796 |
| Employee contributions (note 6) | | 66,819,864 | - | 66,819,864 |
| Total contributions | | 208,038,584 | 199,076 | 208,237,660 |
| Investment income: | | | | |
| Net appreciation in fair value of investments | | 378,217,863 | - | 378,217,863 |
| Interest | | 9,540,959 | - | 9,540,959 |
| Dividends | | 30,200,042 | - | 30,200,042 |
| Less: Investment expense | | (6,749,253) | - | (6,749,253) |
| Net investment appreciation | | 411,209,611 | - | 411,209,611 |
| Other income | | 962 | - | 962 |
| Total additions | | 619,249,157 | 199,076 | 619,448,233 |
| **Deductions:** | | | | |
| Retirement annuities | | 231,649,548 | 199,076 | 231,848,624 |
| Contributions refunded to terminating employees | | 4,266,759 | - | 4,266,759 |
| DROP disbursements | | 4,724,045 | - | 4,724,045 |
| Retiree lump-sum annuity | | 2,715,305 | - | 2,715,305 |
| Death benefits | | 3,771,740 | - | 3,771,740 |
| Total benefit payments, including refunds of member contributions | | 247,127,397 | 199,076 | 247,326,473 |
| General and administrative expenses | | 6,528,499 | - | 6,528,499 |
| Total deductions | | 253,655,896 | 199,076 | 253,854,972 |
| Net increase in net position | | 365,593,261 | - | 365,593,261 |
| Net position restricted for pensions: | | | | |
| Beginning of year | | 3,199,546,583 | 20,000 | 3,199,566,583 |
| **End of year** | **$** | **3,565,139,844** | **20,000** | **3,565,159,844** |

See accompanying notes to financial statements.

# STATEMENT OF CHANGES IN FIDUCIARY NET POSITION

YEAR ENDED DECEMBER 31, 2020

| | | Retirement Plan | Restoration Plan | Total |
|---|---|---|---|---|
| **Additions:** | | | | |
| Contributions: | | | | |
| Employer contributions (note 6) | $ | 130,742,811 | 170,932 | 130,913,743 |
| Employee contributions (note 6) | | 71,469,702 | - | 71,469,702 |
| Total contributions | | 202,212,513 | 170,932 | 202,383,445 |
| Investment income: | | | | |
| Net appreciation in fair value of investments | | 273,311,257 | - | 273,311,257 |
| Interest | | 12,545,383 | - | 12,545,383 |
| Dividends | | 27,946,305 | - | 27,946,305 |
| Less: Investment expense | | (6,513,904) | - | (6,513,904) |
| Net investment appreciation | | 307,289,041 | - | 307,289,041 |
| Other income | | 175 | - | 175 |
| Total additions | | 509,501,729 | 170,932 | 509,672,661 |
| **Deductions:** | | | | |
| Retirement annuities | | 219,410,787 | 170,932 | 219,581,719 |
| Contributions refunded to terminating employees | | 3,656,402 | - | 3,656,402 |
| DROP disbursements | | 4,093,912 | - | 4,093,912 |
| Retiree lump-sum annuity | | 1,354,674 | - | 1,354,674 |
| Death benefits | | 2,877,911 | - | 2,877,911 |
| Total benefit payments, including refunds of member contributions | | 231,393,686 | 170,932 | 231,564,618 |
| General and administrative expenses | | 6,594,536 | - | 6,594,536 |
| Total deductions | | 237,988,222 | 170,932 | 238,159,154 |
| Net increase in net position | | 271,513,507 | - | 271,513,507 |
| Net position restricted for pensions: | | | | |
| Beginning of year | | 2,928,033,076 | 20,000 | 2,928,053,076 |
| **End of year** | **$** | **3,199,546,583** | **20,000** | **3,199,566,583** |

See accompanying notes to financial statements.

## NOTE 1: PLAN DESCRIPTION

### Plan Administration

The City of Austin Employees’ Retirement System (COAERS, or the System) administers the Plan, a single employer defined benefit pension plan that provides pensions for eligible employees of the City of Austin.

The System was created under Article 6243n, Vernon’s Texas Civil Statutes (the Pension Statute), as amended. The Pension Statute grants the authority to establish and amend the benefit terms to the Texas State Legislature. Management of the Plan is vested in the eleven-member COAERS Board of Trustees, which is composed of:

- 4 active members elected by the active membership
- 2 retired members elected by the retired membership
- 2 City Council Appointed Citizen Members
- 1 Board Appointed Citizen Member
- 1 City Manager of the City of Austin or Designee
- 1 City Council Member

### Plan Membership

Participating employees include all regular, full-time employees who work at least 30 hours per week, except for civil service firefighters and civil service police officers.  On December 31, 2021, 2020, and 2019 membership consisted of the following:

| | 2021 | 2020 | 2019 |
|---|---|---|---|
| Inactive plan members or beneficiaries currently receiving benefits | 7,221 | 6,963 | 6,703 |
| Inactive plan members entitled to but not yet receiving benefits | 3,459 | 3,118 | 3,057 |
| Active plan members | 10,228 | 10,138 | 10,149 |
| **Total plan members** | **20,908** | **20,219** | **19,909** |

### Benefits Provided

The System provides service retirement, death, disability, and withdrawal benefits.  Benefits vest with five years of creditable service.

Membership in the System is comprised of two benefit tiers:  Group A and Group B.

Group A members continue under the plan originated in 1941. Participants may retire at age 62, at age 55 with 20 years of service, or at any age with 23 years of service. Prior to October 1, 1999, the monthly benefit was equal to 2.6% of the highest 36-month average annual salary of the last ten years multiplied by years and months of service. Effective October 1, 1999, the monthly benefit multiplier was increased to 2.7%. Effective April 1, 2000, the monthly benefit multiplier was increased to 2.98%. Effective January 1, 2002, the monthly benefit multiplier was increased to 3.0%. Effective January 1, 2001, the System approved a 3.5% ad hoc retiree increase and a 2.5% increase effective January 1, 2002.

Group B members are employees who were hired on and after January 1, 2012, with the following provisions:

- Normal retirement eligibility at age 65 with 5 years of service credit; or at age 62 with 30 years of service credit;
- Early reduced retirement eligibility at age 55 with 10 years of service credit;
- An annuity formula multiplier of 2.5%;
- The purchase of nonqualified permissive service (supplementary service credit) for annuity calculations only, not for eligibility purposes.

The following apply to both Group A and Group B:

- Effective in 2002, a member may elect to retroactively participate in the System's Backward DROP (Deferred Retirement Option Program). This program benefits retiring employees by allowing a lump-sum payment in lieu of additional creditable service time after reaching retirement eligibility. The Member would receive a lump-sum payment equal to 90% of the sum of the monthly annuities the participant would have received if the member had retired at the DROP entry date. While the nomenclature used in the Pension Statute resembles that of an arrangement requiring additional disclosures under GASB 67, the COAERS Backward Drop benefit is technically different.
- The lump sum death benefit payable upon the death of a retiree is $10,000.
- There is no guaranteed cost of living increase.

**Contributions**

Section 10 of Article 6243n of the Texas Civil Statutes sets the minimum contribution requirements of the City of Austin and active plan members. For the year ended December 31, 2021 the active employee contribution rate was 8% of base compensation and the City of Austin's contribution rate was 19% of base compensation.

Prior to October 1, 1999, active member contributions to the Plan were 7%. Effective October 1,1999, active member contributions increased to 8%. Pursuant to a 2005 City Council COAERS Supplemental Funding Plan and beginning in October 2006, the City contributed an additional 4% subsidy for their 2010 fiscal year ended September 30, 2010. An Amended Supplemental Funding Plan (ASFP), adopted by the City Council in October 2010, incrementally increased the supplemental contribution to the Plan from 6% of base compensation to 10% of base compensation effective October 1, 2012 for fiscal year 2012-13, and each fiscal year thereafter. Effective January 1, 2021, the City increased its supplemental employer contribution 1% to a total 19% of base compensation.

Under the terms of the Plan, the System's employees obtain membership in the Plan on the same basis as City employees. Accordingly, the System contributes 8% of base employee compensation to the Plan, plus a 11% subsidy, as described above, for its current employees; System employees also contribute 8% of their base compensation to the Plan. Since there is only one Plan, all actuarial calculations are provided on an aggregate basis.

The System participates in the Proportionate Retirement Program through which a member of the System may meet requirements for service retirement eligibility by combining COAERS membership service with service credit from the following participating entities: City of Austin Police Retirement System, The El Paso City Employees' Pension Fund and Firemen and Policemen's Pension Fund, Employees' Retirement System of Texas, Judicial Retirement System of Texas I & II, Texas Municipal Retirement System, Texas County and District Retirement System, Teacher Retirement System of Texas, or any other Texas retirement systems covering municipal employees who have qualified plans and have elected to participate in the Proportionate Retirement Program. A limited proportionate service arrangement was established in 2007 between COAERS and individuals who have membership in a retirement system within the Travis County Healthcare District.

**Restoration Plan**

On November 23, 1999, the Board adopted a resolution to establish a "Restoration of Retirement Income Plan for Certain Participants in the City of Austin Employees' Retirement System" (Restoration Plan).

This Restoration Plan is effective as of January 1, 2000 and is intended to be a "qualified governmental excess benefit arrangement" within the meaning of Section 415(m) of the Internal Revenue Code, and shall be construed, interpreted, and administered in accordance with such provision. The Restoration Plan shall be administered as an unfunded plan which is not intended to meet the qualification requirements of Section 401 of the Internal Revenue Code. Eligible members are those who are members in the Plan whose pension or pension related benefits under the Plan are limited due to the provision of Section 415 of the Internal Revenue Code.

All benefits payable under this Restoration Plan shall be paid by the City of Austin Employees' Retirement System from contributions provided by the employer and not from the Fund or any other trust unless such trust is maintained solely for the purpose of providing benefits from this Restoration Plan. No contribution receivable is due for the years ended December 31, 2021, and 2020 for the Restoration Plan. Assets remaining in this plan as of December 31, 2021, and 2020, were $20,000.

On December 31, 2021, 2020, and 2019, membership in the Restoration Plan included the following:

| | 2021 | 2020 | 2019 |
|---|---|---|---|
| Retirees and beneficiaries currently receiving benefits | **19** | **17** | **16** |

**Other Information**

The System is required by the state statute to maintain two separate funds in its internal accounting records. The first fund, defined in the statute as "Fund 1", shall be maintained to account for all accumulated deposits (contributions and interest) of Members who have not withdrawn from the System. The second fund, defined as "Fund 2", shall be maintained to account for all other net position of the System less the amount held in "Fund 3"; this third fund is maintained to account for accumulated contributions by the employer for the Internal Revenue Code Section 415 Restoration Plan as adopted by Board Resolution on November 23, 1999. On December 31, 2021, the balances of Fund 1, Fund 2, and Fund 3 were $606,670,096, $2,958,469,748, and $20,000, respectively. On December 31, 2020, the balances of Fund 1, Fund 2, and Fund 3 were $595,004,859, $2,604,541,724, and $20,000, respectively.

## NOTE 2: SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES AND SYSTEM ASSET MATTERS

The System is not included in any other governmental "reporting entity" as defined by the Governmental Accounting Standards Board (GASB). The System has no component units and is not a component unit of any other entity.

a. **Basis of Accounting**

The System's financial statements are prepared using the economic resources measurement focus and the accrual basis of accounting. Contributions are recognized when due pursuant to formal commitments, as well as statutory or contractual requirements; accordingly, contributions are recognized as revenues in the period in which the employer reports compensation for their employees. Benefits and refunds are recognized when due and payable in accordance with the terms of the Plan.

b. **Cash and Cash Equivalents**

Cash and cash equivalents include demand deposit accounts and money market checking accounts. As of December 31, 2021 and 2020, the book balances of the demand deposit accounts totaled $19,242,506 and $9,719,756, respectively.

c. **Method Used to Value Investments**

Plan investments are reported at fair value. Fair value is the amount at which an investment could be exchanged in a current transaction between willing parties, other than in a forced or liquidation sale. Refer to Note 5(c) for more detail regarding the System's policy on accounting for investments.

d. **Contributions Receivable**

The employee and City contributions for the years ended December 31, 2021 and 2020 that were not deposited with the System by year end are shown as contributions receivable.

e. **Capital Assets**

Capital assets are recorded at cost. The System capitalizes computers and electronic equipment purchased as well as any other assets greater than $1,000. Depreciation is computed using the straight-line method over the assets' estimated useful lives. Furniture and Equipment are scheduled with a useful life from three to twelve years.

**f. System Expenses**

Substantially, all System administrative costs are the responsibility of the System. The administrative costs are funded through the investment income.

**g. Use of Estimates**

The preparation of financial statements in conformity with United States Generally Accepted Accounting Principles (GAAP) 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 revenues and expenses during the reporting period. Actual results could differ from those estimates.

**h. Reclassification**

Reclassification of certain prior year investment amounts has been made to conform with current-year presentation.

## NOTE 3: DEPOSIT AND INVESTMENT RISK DISCLOSURE

Bank deposits and investments are exposed to risks that have the potential to result in losses that could impact delivery of System services. The Board has adopted an Investment Policy Statement and Investment Implementation Policy to set forth the processes and procedures to be used in the management of investment assets for the System. These policies are incorporated by reference into every investment management agreement. These documents are designed to mitigate risk by requiring that investment activities be conducted in compliance with these policy guidelines by ensuring portfolio diversification, qualifying counterparties, establishing sufficient collateralization, and limiting maturity. The System's Board, in accordance with the power and authority conferred under the Texas Statutes, has employed The Bank of New York Mellon as the master custodian of the investment assets of the System.

The following summary of total investments by type presents the System's investment mix as of December 31, 2021 and 2020.

| | | 2021 | 2020 |
|---|---|---|---|
| Summary of investments by type: | | | |
| Global equities: | | | |
| US equities | $ | 1,655,741,264 | 1,483,408,106 |
| Developed markets equities | | 308,289,783 | 322,615,780 |
| | | 1,964,031,047 | 1,806,023,886 |
| Fixed income: | | | |
| Corporate bonds | | 127,084,019 | 127,553,289 |
| Government bonds | | 503,269,453 | 385,622,277 |
| Government mortgage-backed securities | | 106,461,187 | 108,252,655 |
| | | 736,814,659 | 621,428,221 |
| Real assets: | | | |
| Real estate equity | | | |
| US REITs | | 212,428,546 | 140,729,752 |
| Real estate institutional collective trust | | 176,772,484 | 143,976,246 |
| | | 389,201,030 | 284,705,998 |
| Infrastructure | | | |
| US equities | | 49,954,028 | 34,261,663 |
| Developed markets equities | | 45,968,017 | 31,534,757 |
| Limited partnership | | 81,634,375 | 69,481,418 |
| | | 177,556,420 | 135,277,838 |
| Multi-asset: | | | |
| Asset allocation | | 138,500,388 | 54,274,931 |
| Strategic partnership | | - | 163,602,475 |
| Commodities & other | | 36,839,340 | 27,997,139 |
| | | 175,339,728 | 245,874,545 |
| Short-term investments | | | |
| US Dollar | | 89,462,234 | 86,147,640 |
| Foreign currency | | 3,028,440 | - |
| | | 92,490,674 | 86,147,640 |
| Investments at fair value on balance sheet | | 3,535,433,558 | 3,179,458,128 |
| Receivables, payables and pending trades, net | | 3,299,181 | 3,683,959 |
| **Total investments (per investment consultant)** | **$** | **3,538,732,739** | **3,183,142,087** |

### 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. COAERS' operating bank account deposits in excess of Federal Deposit Insurance Corporation (FDIC) insured amounts are backed by US government, treasury and agency securities, repurchase agreements, and pledged securities held as collateral. As of December 31, 2021 and 2020, the System’s operating bank balances of $19,242,506, and $9,719,756, respectively, were not exposed to custodial credit risk.

Custodial credit risk for investments is the risk that, in the event of the failure of the counterparty to a transaction, the System will not be able to recover the value of its investment or collateral securities that are in the possession of an outside party. Investment securities are exposed to custodial risk if the securities are uninsured, are not registered in the name of the System, and/or are not held by the counterparty in the System's name. 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. The following restrictions apply to System investments by asset class as of December 31, 2021:

a. **Global Equity**
   - The aggregate exposure to the global equity asset class should be no less than 46% and may not exceed 66% of the fund:
   - US equity investments should total no less than 21%, and no more than 46%, of the total fund measured at fair value.
   - Developed market investments should total no less than 10%, and no more than 19% of total value of the System's investments at fair value.
   - Emerging market equity investments should total no less than 3%, and no more than 15% of the total fund measured at fair value.
   - No single company's securities shall represent more than 6% of the fair value of any manager's portfolio.
   - SEC Rule 144(a) securities shall be limited to no more than 5% of the portfolio at market value of any manager's portfolio.

b. **Fixed Income**
   - Fixed income investment should be no less than 16% and no more than 33% of the fund measured at fair value.
   - No single issuer's securities shall represent more than 6% of the Portfolio at market. This restriction also applies to asset-backed securities, non-agency mortgage-backed securities (including commercial mortgage-backed securities) and taxable municipal securities. This restriction does not apply to any agency mortgage-backed securities (including agency commercial mortgage-backed securities).
   - The total holdings of a federal agency issued mortgage backed security of the same coupon and maturity series of the same agency (i.e., issuance by issuance as identified by the same CUSIP) shall not exceed 20% of the Portfolio at fair value. Such securities include, but are not limited to, those issued by Government National Mortgage Association (GNMA), Federal National Mortgage Association (FNMA), and Federal Home Loan Mortgage Corporation (FHMLC).
   - The direct debt of the U.S. government (Treasury bonds, TIPS, bills and notes) and its agencies (including any mortgage-backed securities issued or guaranteed by GNMA, FNMA and FHLMC) shall not be restricted as a percentage of the Portfolio.
   - SEC Rule 144(a) securities shall be limited to no more than 5% of the portfolio at market value of any manager's portfolio.

**c. Real Assets**

- The aggregate exposure to Real Assets should total no less than 10%, and no more than 20% of the portfolio:
- Total investments in Real Estate Equity, while not exposed to concentration of credit risk, should be no less than 5% and no more than 15% of the investment portfolio measured at fair value.
- Infrastructure Equity investments should total no more than 10% of the total fund measured at fair value.

**d. Multi-Asset Investments**

- The aggregate exposure to Multi-Asset classes should total no less than 2.5%, and no more than 15% of the Portfolio.
- Asset Allocation investments should total no less than 2.5%, and no more than 10% of the total fund measured at fair value.
- Commodities & Other should total no more than 10% of the total fund measured at fair value.

**e. Cash**

- Cash investments should total no more than 10.0% of the investment portfolio measured at fair value.

**f. Other Investment Information**

- As of December 31, 2021 and 2020, the following was the composition of the System's portfolio:

| | 2021 | 2020 |
|---|---|---|
| US equities | 46.83% | 46.66% |
| Developed markets equities | 8.72% | 10.15% |
| Fixed income | | |
| Corporate bonds | 3.59% | 4.01% |
| Government bonds | 14.24% | 12.13% |
| Government mortgage-backed securities | 3.01% | 3.40% |
| Real estate equity | | |
| US REITs | 6.01% | 4.42% |
| Real estate institutional collective trust | 5.00% | 4.53% |
| Infrastructure | | |
| US equities | 1.41% | 1.08% |
| International equities | 1.30% | 0.99% |
| Limited partnership | 2.31% | 2.19% |
| Strategic partnership | - | 5.14% |
| Multi-asset | 3.92% | 1.71% |
| Commodities & other | 1.04% | 0.88% |
| Short-term investments | | |
| US Dollar | 2.53% | 2.71% |
| Foreign currency | 0.09% | - |
| | 100.00% | 100.00% |

The asset allocation policy noted in footnote 3 (a to f) is based on the type of investment strategy. The composition percentages in this table reflect the classification of investments for GASB 40 presentation purposes. Certain amounts have been reclassified from international to U.S. equities as they are denominated in U.S. dollars.

**Interest Rate Risk**

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. The System's policies regarding interest rate risk do not explicitly limit maturities of investments by type but do require fixed income managers to disclose the credit exposure and portfolio duration of their portfolios in their quarterly reports. The System monitors the level interest rate risk primarily using duration, which is a widely used measure of interest rate sensitivity. Mortgage obligations are sensitive to changes in prepayments that may arise from a change in interest rates.

As of December 31, 2021, the System held the following investments and duration:

| Investment type | Fair value | Effective Duration |
|---|---|---|
| Corporate Bonds | $ 127,084,019 | 8.57 |
| Government Bonds | 503,269,453 | 9.61 |
| Government mortgage-backed Securities | 106,461,187 | 4.47 |
| | $ 736,814,659 | 8.67 |

As of December 31, 2020, the System held the following investments and duration:

| Investment type | Fair value | Effective Duration |
|---|---|---|
| Corporate bonds | $ 127,553,289 | 8.64 |
| Government bonds | 385,622,277 | 13.00 |
| Government mortgage-backed securities | 108,252,655 | 1.54 |
| | $ 621,428,221 | 10.11 |

**Credit Risk**

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations to the System. To control credit risk, credit quality guidelines are incorporated into the Investment Policy Statement and Investment Implementation Policy as follows:

- Fixed income securities shall not be rated lower than investment grade (Baa3 by Moody's or BBB by Standard & Poor's or Fitch) by any of the three designated rating agencies unless authorization is granted to a Manager by the Board, or the mandate provided to a Manager specifies otherwise.
- Split rated securities in which the middle rating is below investment grade shall not comprise more than 5% of the fair value of any manager's portfolio unless specific authority has been granted.
- The issues of individual entities rated AAA to Aa3 (Moody's) or AA (Standard & Poor's and Fitch) may have a 7% position at market value.
- Issues of individual entities rated below Aa3 (Moody's) or AA (Standard & Poor's and Fitch) may have a 3% position at fair value.
- The ratings criteria and percentage limit requirements do not apply to direct obligations of the US Government and its agencies (including GNMA, FNMA and FHLMC) as defined in the Permissible Investments section of Investment Implementation Policy, but the securities issued by any one issuer shall not otherwise, in the aggregate, exceed the foregoing limitations.

- If specific managers are given latitude to invest in securities issued by non-U.S. entities, the same quality restrictions apply.
- Money market instruments shall have a minimum quality rating comparable to an A3 (Moody's) or A (Standard & Poor's and Fitch) bond rating and commercial paper shall be rated A1/P1 unless held in a diversified short term commingled fund.

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

| Standard & Poor's Quality Rating | | Total fair value | Corporate bonds | US govt. & agencies |
|---|---|---|---|---|
| AAA | $ | 106,461,187 | - | 106,461,187 |
| BBB | | 127,084,019 | 127,084,019 | - |
| Total credit risk of debt securities | | 233,545,206 | 127,084,019 | 106,461,187 |
| US govt. & agencies* | | 503,269,453 | | |
| | $ | **736,814,659** | | |

*Obligations of the US government or obligations explicitly guaranteed by the US government are not considered to have credit risk and do not have purchase limitations.

The quality ratings of investments in fixed income securities as described by nationally recognized statistical rating organizations on December 31, 2020, are as follows:

| Standard & Poor's Quality Rating | | Total fair value | Corporate bonds | US govt. & agencies |
|---|---|---|---|---|
| AAA | $ | 108,252,655 | - | 108,252,655 |
| BBB | | 127,553,289 | 127,553,289 | - |
| Total credit risk of debt securities | | 235,805,944 | 127,553,289 | 108,252,655 |
| US govt. & agencies* | | 385,622,277 | | |
| | $ | **621,428,221** | | |

*Obligations of the US government or obligations explicitly guaranteed by the US government are not considered to have credit risk and do not have purchase limitations.

**Foreign Currency Risk**

Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment or a deposit.

The System's exposure to currency risk, or exchange rate risk, primarily resides within the System's international equity investment holdings. The System's Investment Policy is to allow its active managers to decide whether to hedge the currency risk in their respective portfolios.

The System's exposure to foreign currency risk includes the following international investments (cash and equity) as of December 31, 2021 and December 31, 2020:

| Currency | | 2021 Fair value | 2020 Fair value |
|---|---|---|---|
| UK Pound Sterling | $ | 103,407,645 | 99,982,258 |
| Euro | | 89,400,020 | 80,681,717 |
| Japanese Yen | | 54,235,022 | 68,196,146 |
| Swiss Franc | | 31,222,629 | 27,711,910 |
| Danish Krone | | 21,696,287 | 19,980,895 |
| Canadian Dollar | | 21,448,869 | 16,956,012 |
| Australian Dollar | | 17,682,651 | 18,648,664 |
| Hong Kong Dollar | | 13,875,207 | 18,137,944 |
| Singapore Dollar | | 3,806,078 | 3,343,118 |
| New Zealand Dollar | | 471,622 | 458,517 |
| Norwegian Krone | | 40,211 | 53,356 |
| **Total securities subject to foreign currency risk** | **$** | **357,286,241** | **354,150,537** |

**Foreign Currency Options**

The System periodically invests in foreign currency options in order to hedge the value of a portion of its investments denominated in foreign currencies. Financial options are an agreement giving one party the right, but not the obligation, to buy or sell a specific amount of an asset for a specified price on or before a specified expiration date. The foreign currency options held by the System entitle the System to convert the value of certain foreign equities into US dollars at an agreed rate. On December 31, 2021 and 2020, the System held no foreign currency options.

## NOTE 4: FAIR VALUE MEASUREMENT

In accordance with GASB 72, COAERS categorizes the fair value measurements 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 the inputs utilized to establish fair value:

**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, either directly or indirectly. These include quoted prices of securities that are comparable in coupon, rating, maturity and industry. Inputs other than observable quoted prices take into account operational, market, financial and non-financial factors (interest rates, yield curves, credit risk, and default rates) or other market corroborated inputs that are observable at commonly quoted intervals for the full term of the investment.

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

For investments in certain entities that calculate net asset value and do not have a readily determinable fair value, fair value reporting is permitted based on the NAV per share (or its equivalent) as a practical expedient, where certain conditions are met. These investments are not included in the leveling hierarchy.

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

All equities securities, which include U.S., International, Emerging Markets, Real Estate Investment Trusts, and Infrastructure, are classified in Level 1 of the fair value hierarchy as these are valued using quoted prices in active markets for those investments.

The investments classified in Level 2 of the fair value hierarchy have available prices but are not traded in an active market. Short-term investment funds, and domestic fixed income, all fall into this category based on this criteria. Additionally, the short-term investment fund is a highly liquid instrument that is priced based on the fair values of its underlying investments which are less liquid than equities. Collective Trusts have daily liquidity available at a single NAV are classified as Level 2.

COAERS' investments have the following fair value measurements as of December 31, 2021 and 2020, respectively.

| | | 2021 Fair value measurements using | | | |
|---|---|---|---|---|---|
| **Investments at fair value:** | Total | Quoted prices in active markets for identical assets (Level 1) | Significant other observable inputs (Level 2) | Significant unobservable inputs (Level 3) | Net asset value (NAV) |
| **Short-term investments** | | | | | |
| US Dollar | $ 89,462,234 | 3,479,448 | 85,982,786 | - | - |
| Foreign currency | 3,028,440 | 3,028,440 | - | - | - |
| | **92,490,674** | **6,507,888** | **85,982,786** | | |
| **Fixed income** | | | | | |
| Corporate bonds | 127,084,019 | - | 127,084,019 | - | - |
| Government bonds | 503,269,453 | 98,182,895 | 405,086,558 | - | - |
| Government mortgage-backed securities | 106,461,187 | - | 106,461,187 | - | - |
| | **736,814,659** | **98,182,895** | **638,631,764** | **-** | **-** |
| **Global equities** | | | | | |
| **US equities** | | | | | |
| US equities | 949,298,529 | 949,298,529 | - | - | - |
| US equity collective trust | 276,741,606 | - | 276,741,606 | - | - |
| | **1,226,040,135** | **949,298,529** | **-** | **-** | **-** |
| **Developed markets equities** | | | | | |
| Developed markets equities | 380,130,667 | 380,130,667 | - | - | - |
| Developed markets equity collective trust | 82,342,164 | - | 82,342,164 | - | - |
| | **462,472,831** | **380,130,667** | **-** | **-** | **-** |
| **Emerging markets equities** | | | | | |
| Emerging markets equities | 34,137,969 | 34,137,969 | - | - | - |
| Emerging markets collective trust | 87,545,226 | - | 87,545,226 | - | - |
| Emerging markets equity mutual fund | 153,834,886 | 153,834,886 | - | - | - |
| | **275,518,081** | **187,972,855** | **-** | **-** | **-** |
| **Real assets** | | | | | |
| **Real estate equity** | | | | | |
| US REITS | 212,428,546 | 212,428,546 | - | - | - |
| Real estate institutional collective trust | 176,772,484 | - | 176,772,484 | - | - |
| | **389,201,030** | **212,428,546** | **-** | **-** | **-** |
| **Infrastructure & other** | | | | | |
| US equities | 49,954,028 | 49,954,028 | - | - | - |
| International equities | 45,968,017 | 45,968,017 | - | - | - |
| | **95,922,045** | **95,922,045** | **-** | **-** | **-** |
| **Multi-asset** | | | | | |
| **Asset allocation** | 113,021,024 | 113,021,024 | - | - | - |
| **Asset allocation mutual fund** | 25,479,364 | 25,479,364 | - | - | - |
| **Commodities & other** | 36,839,340 | 36,839,340 | - | - | - |
| | **175,339,728** | **175,339,728** | **-** | **-** | **-** |
| **Total investments by fair value level** | **3,453,799,183** | **2,105,783,153** | **1,348,016,030** | **-** | **-** |
| **Investments measured at NAV:** | | | | | |
| **Infrastructure** | | | | | |
| Infrastructure limited partnership | **81,634,375** | **-** | **-** | **-** | 81,634,375 |
| **Total investments** | **$ 3,535,433,558** | | | | |

| Investments measured at the net asset value (NAV) | | | | | |
|---|---|---|---|---|---|
| **2021** | **Fair Value** | **Unfunded Commitments** | **Redemption Frequency** | **Redemption Notice** |
| Infrastructure limited partnership | 81,634,375 | - | Quarterly | 90 days |

IFM's Global Infrastructure Fund invests in core infrastructure assets in developed markets. The investment in the fund is through a Delaware limited partnership, which offers quarterly redemptions given 90 days' notice.

| | 2020 Fair value measurements using | | | | | |
|---|---|---|---|---|---|---|
| **Investments at fair value:** | | Total | Quoted prices in active markets for identical assets (Level 1) | Significant other observable inputs (Level 2) | Significant unobservable inputs (Level 3) | Net asset value (NAV) |
| **Short-term investments** | $ | **86,147,640** | 1,000,000 | 85,147,640 | - | - |
| **Fixed income** | | | | | | |
| Corporate bonds | | 127,553,289 | - | 127,553,289 | - | - |
| Government bonds | | 385,622,277 | 102,214,205 | 283,408,072 | - | - |
| Government mortgage-backed securities | | 108,252,655 | - | 108,252,655 | - | - |
| | | **621,428,221** | **102,214,205** | **519,214,016** | - | - |
| **Global equities** | | | | | | |
| **US equities** | | | | | | |
| US equities | | 729,325,616 | 729,325,616 | - | - | - |
| US equity collective trust | | 335,189,974 | - | 335,189,974 | - | - |
| | | **1,064,515,590** | **729,325,616** | - | - | - |
| **Developed markets equities** | | | | | | |
| Developed markets equities | | 339,766,655 | 339,766,655 | - | - | - |
| Developed markets equity collective trust | | 107,541,928 | - | 107,541,928 | - | - |
| | | **447,308,583** | **339,766,655** | - | - | - |
| **Emerging markets equities** | | | | | | |
| Emerging markets equities | | 35,222,105 | 35,222,105 | - | - | - |
| Emerging markets collective trust | | 89,872,271 | - | 89,872,271 | - | - |
| Emerging markets equity mutual fund | | 169,105,337 | 169,105,337 | - | - | - |
| | | **294,199,713** | **204,327,442** | - | - | - |
| **Real assets** | | | | | | |
| **Real estate equity** | | | | | | |
| US REITS | | 140,729,752 | 140,729,752 | - | - | - |
| Real estate institutional collective trust | | 143,976,246 | - | 143,976,246 | - | - |
| | | **284,705,998** | **140,729,752** | - | - | - |
| **Infrastructure & other** | | | | | | |
| US equities | | 34,261,663 | 34,261,663 | - | - | - |
| International equities | | 31,534,757 | 31,534,757 | - | - | - |
| | | **65,796,420** | **65,796,420** | - | - | - |
| **Multi-asset** | | | | | | |
| **Asset allocation** | | 30,424,426 | 30,424,426 | - | - | - |
| **Asset allocation mutual fund** | | 23,850,505 | 23,850,505 | - | - | - |
| **Strategic partnership collective funds** | | 163,602,475 | - | 163,602,475 | - | - |
| **Commodities & other** | | 27,997,139 | 27,997,139 | - | - | - |
| | | **245,874,545** | **82,272,070** | - | - | - |
| **Total investments by fair value level** | | **3,109,976,710** | **1,665,432,160** | **1,444,544,550** | - | - |
| **Investments measured at NAV:** | | | | | | |
| **Infrastructure** | | | | | | |
| Infrastructure limited partnership | | **69,481,418** | - | - | - | 69,481,418 |
| **Total investments** | $ | **3,179,458,128** | | | | |

**Investments measured at the net asset value (NAV)**

| 2020 | Fair Value | Unfunded Commitments | Redemption Frequency | Redemption Notice |
|---|---|---|---|---|
| Infrastructure limited partnership | 69,481,418 | - | Quarterly | 90 days |

IFM's Global Infrastructure Fund invests in core infrastructure assets in developed markets. The investment in the fund is through a Delaware limited partnership, which offers quarterly redemptions given 90 days' notice.

## NOTE 5: PENSION PLAN INVESTMENTS

### a. Investment Policy

The Board has the authority to establish the investment policy and the asset allocation policy. The general investment objective is to obtain a reasonable long-term total return consistent with the degree of risk assumed, while emphasizing the preservation of capital. There were no significant investment policy changes during the period ending December 31, 2021.

### b. Asset Allocation

The System's strategic asset allocation neutral weights as of December 31, 2021 and 2020, as adopted by the Board of Trustees, are as follows:

| | 2021 | 2020 |
|---|---|---|
| US equities | 33.0% | 32.0% |
| Developed markets equities | 15.0% | 15.0% |
| Emerging markets equities | 8.0% | 8.0% |
| Fixed income | 21.0% | 20.0% |
| Real estate | 10.0% | 10.0% |
| Infrastructure | 5.0% | 5.0% |
| Strategic partnership | - | 5.0% |
| Multi-asset | 5.0% | 4.0% |
| Commodities & other | 2.0% | - |
| Cash & equivalents | 1.0% | 1.0% |
| | 100.0% | 100.0% |

### c. Method Used to Value Investments

- The System's equity and fixed income investments are reported at fair value based on independent pricing services.
- Short-term cash investments are reported at cost, which approximates fair value.
- International securities are reported at fair value in US dollars converted at current exchange rates.
- Investments that do not have an established market are valued based on the net asset value provided by independent audits.
- The System's pooled investments include collective investment trusts, mutual funds, and limited partnerships. The investments are priced at the net asset value per share by the fund administrators or general partners, and pricing of securities and financial instruments is according to each funds' established framework to ensure a fair, accurate and consistent valuation.
- The System's derivative instruments include futures, options, and warrants. They are executed on an exchange, priced at the last sale price in their respective active markets.
- The System's strategic partnership with BlackRock Institutional Trust Company invests in BlackRock managed funds. Each fund's net asset value is based on the fair value of the fund's assets on the valuation date minus the Fund's liabilities on the valuation date. The fund's unit value is calculated by dividing the Fund's net asset value on the valuation date by the number of units of the Fund that are outstanding on the valuation date.

- Investment income is recognized in the period earned, and purchases and sales of investments are recorded on a trade date basis. Net appreciation/depreciation in Plan investments includes both realized and unrealized gains and losses.

**d. Rate of Return**

For the year ended December 31, 2021, the annual money-weighted rate of return on System investments net of pension plan investment expense was 13.01%, an increase from 10.65% on December 31, 2020. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

**e. Concentrations**

If the pension plan held investments (other than those issued or explicitly guaranteed by the U.S. government, commingled funds, and other pooled investments) in any one organization representing 5% or more of the pension plan's fiduciary net position, the pension plan should disclose this information. On December 31, 2021 and 2020, there are no holdings that exceeded this disclosure trigger.

## NOTE 6: CONTRIBUTIONS AND FUNDING POLICY

As of December 31, 2021, and 2020, state law requires contributions equal to 8% of base compensation by the participants and by the City.

While the contribution requirements are not actuarially determined, state law requires that each plan of benefits adopted by the System must be approved by a qualified actuary. The actuary certifies that the contribution commitment by the participants and the City provides an adequate financing arrangement. Using the entry age actuarial cost method, the System's normal cost is determined as a percentage of payrolls. The excess of the total contribution rate over the normal cost rate is used to amortize the System's unfunded actuarial accrued liability, if any exists, and the number of years needed to amortize the System's unfunded actuarial accrued liability is determined using a level percentage of payroll method.

The funding objective of the System is for contribution rates to be sufficient to cover the normal cost of the plan and to amortize any Unfunded Actuarial Accrued Liabilities (UAAL) as of December 31, 2020 over a closed period of 25 years, with subsequent unanticipated changes in the UAAL amortized over closed 15-year periods (layers).

In 2005, the City of Austin City Council approved a Supplemental Funding Plan (SFP) relating to the System. The basic elements of this plan provided for an initial 1% contribution from the City beginning in October 2006 and increasing 1% each year until reaching a cap of 4%. This additional funding would continue as long as necessary, and in an amount necessary, up to 4%, to sustain a 25-year funding period. While compliance with the SFP continued into 2010, the negative impact of 2008 capital markets on the Plan rendered the effect of SFP, the contributions of which had reached the 4% maximum, inadequate to achieve the System's funding goal.

An Amended Supplemental Funding Plan, adopted by the City Council in October 2010, increased the total employer contribution to the System to 14% of base compensation effective October 1, 2010. The Amended Supplemental Funding Plan also increases future employer contributions as follows: 16% of base compensation effective October 1, 2011 for fiscal year 2011-12; and 18% of base compensation effective October 1, 2012 for fiscal year 2012-13, and each fiscal year thereafter. Effective January 1, 2021, the City increased its supplemental employer contribution to 19% of base compensation.

## NOTE 7: CAPITAL ASSETS

The following summarizes the capital asset account balances as of December 31, 2021 and December 31, 2020, and changes to the accounts during the years then ended:

| | | Balance 12/31/2019 | Additions | Disposals | Balance 12/31/2020 | Additions | Disposals | Balance 12/31/2021 |
|---|---|---|---|---|---|---|---|---|
| **Capital assets being depreciated:** | | | | | | | | |
| Furniture and equipment | $ | 6,658,708 | 85,321 | - | 6,744,029 | 30,837 | - | 6,774,866 |
| **Total** | | **6,658,708** | **85,321** | **-** | **6,744,029** | **30,837** | **-** | **6,774,866** |
| **Less accumulated depreciation:** | | | | | | | | |
| Furniture and equipment | | 1,190,673 | 727,712 | - | 1,918,385 | 731,309 | - | 2,649,694 |
| **Total** | | **1,190,673** | **727,712** | **-** | **1,918,385** | **731,309** | **-** | **2,649,694** |
| **Total capital assets, net of accumulated depreciation** | $ | **5,468,035** | **(642,391)** | **-** | **4,825,644** | **(700,472)** | **-** | **4,125,172** |

## NOTE 8: FEDERAL INCOME TAXES

The Plan is a Public Employee Retirement System and is exempt from federal income taxes. A favorable determination letter from the Internal Revenue Service was issued in February 2014.

## NOTE 9: RISK MANAGEMENT

The System is exposed to various risks of loss related to torts; errors; omission; theft of, damage to, and destruction of assets; and natural disasters. The risk of loss for such events is transferred through the purchase of various commercial insurance policies. Insurance for workers compensation is maintained in accordance with Texas state law. Management has in place a system of managing risk and reporting mitigation activities to the Board periodically.

## NOTE 10: NET PENSION LIABILITY

The net pension liability is measured as the total pension liability, less the amount of the pension plan's fiduciary net position. In actuarial terms, this will be the accrued liability less the fair value of assets. The components of COAERS' net pension liability on December 31, 2021 and December 31, 2020 were as follows:

**Schedule of Net Pension Liability**

| FY Ending December 31 | Total Pension Liability | Plan Net Position | Net Pension Liability | Plan Net Position as a % of Total Pension Liability |
|---|---|---|---|---|
| 2021 | $5,032,043,201 | $3,565,139,844 | $1,466,903,357 | 70.85% |
| 2020 | $4,701,215,166 | $3,199,546,583 | $1,501,668,583 | 68.06% |

In addition to the above, this information is presented in the Required Supplementary Information section. The Schedule of Changes in Net Pension Liability and Related Ratios presents multi-year trend information (beginning with FY 2014) to illustrate changes in the plan fiduciary net positions over time, relative to the total pension liability.

a. **Actuarial Methods and Assumptions Used to Determine Total Pension Liability**
The total pension liability was determined by an actuarial valuation as of December 31, 2021, using the following actuarial assumptions:

**Summary of Actuarial Assumptions**

| | |
|---|---|
| **Valuation date:** | December 31, 2021 |
| Notes | Members and employers contribute based on statutorily fixed or negotiated rates. A funding period is solved for through open group projections. The actuarially determined contribution is determined by applying the contribution rate from the funding valuation based on the Board's Funding Policy to the calendar year payroll following the valuation date. In other words, the contribution rate determined by the December 31, 2020 valuation is used to determine the actuarially determined contribution amount for the period January 1, 2021 through December 31, 2021. |

**Methods and Assumptions Used to Determine Total Pension Liability:**

| | |
|---|---|
| Actuarial Cost method | Entry Age Normal |
| Inflation | 2.50% |
| Salary increases | 3.50% to 5.75% |
| Investment Rate of Return | 6.75% |
| Retirement Age | Experience-based table of rates that are gender specific. Last updated for December 31, 2019 valuation pursuant to an experience study of the 5-year period ending December 31, 2018. |
| Mortality | PubG-2010 Healthy General Tables with full generational projection assuming immediate convergence of rates in the mortality projection scale MP-2018, 2D for male and female. Mortality improvement is projected from the mortality table's base year of 2010. |
| **Other Information:** | |
| Notes | There were no benefit changes during the year. |

The Plan does not require regular ad hoc post-employment benefits, and none have been made since 2002.

**b. Single Discount Rate**

The Single Discount Rate of 6.75% used to measure the total pension liability, was based on the expected rate of return on pension plan investments. The projection of cash flows used to determine this Single Discount Rate assumed that plan member contributions will be made at the current contribution rate and that employer contributions will be made in accordance with the Supplemental Funding Plan. Based on these assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability. The COAERS Board elected to decrease the Single Discount Rate from 7.0% to 6.75% in 2021.

**Long-Term Expected Real Rate of Return**

| Asset Class | 2021 | 2020 |
|---|---|---|
| Global equities | 7.05% | 7.25% |
| Fixed income | 1.88% | 3.00% |
| Real assets | 6.42% | 6.00% |
| Multi-asset | 5.77% | 5.50% |
| Cash & equivalents | 1.50% | 2.25% |

*Estimates are nominal and arithmetic as provided by RVK.*

**c. Sensitivity of the Net Pension Liability to Changes in the Discount Rate**

Regarding the sensitivity of the net pension liability to changes in the Single Discount Rate, the following presents the plan's net pension liability, calculated using a Single Discount Rate of 6.75%, as well as what the plan's net pension liability would be if it were calculated using a Single Discount Rate that is one percent lower or one percent higher:

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

| 1% Decrease 5.75% | Current Single Discount Rate Assumption 6.75% | 1% Increase 7.75% |
|---|---|---|
| $ 2,110,564,700 | $ 1,466,903,357 | $ 936,048,971 |

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

| Fiscal year ending December 31, | 2021 | 2020 | 2019 | 2018 | 2017 | 2016 | 2015 | 2014 |
|---|---|---|---|---|---|---|---|---|
| **Total Pension Liability** | | | | | | | | |
| Service Cost | $ 122,860,286 | $ 121,881,354 | $ 117,635,215 | $ 111,438,032 | $ 107,767,510 | $ 107,111,330 | $ 93,506,590 | $ 89,235,267 |
| Interest on the Total Pension Liability | 324,735,713 | 310,318,953 | 295,341,490 | 281,403,651 | 266,257,048 | 251,684,051 | 236,843,912 | 222,709,911 |
| Benefit Changes | - | - | - | - | - | - | - | - |
| Difference between Expected and Actual Experience | (11,910,396) | 12,524,483 | 23,671,597 | 1,882,436 | 22,754,618 | 19,913,690 | 13,413,789 | 33,911,010 |
| Assumption Changes | 142,269,829 | - | 279,897,169 | - | - | - | 123,493,165 | - |
| Benefit Payments | (242,860,638) | (227,737,284) | (213,956,372) | (198,846,376) | (186,286,855) | (175,218,095) | (165,464,616) | (157,563,807) |
| Refunds | (4,266,759) | (3,656,402) | (4,265,174) | (4,140,909) | (4,045,324) | (3,910,786) | (4,052,436) | (4,154,419) |
| **Net Change in Total Pension Liability** | 330,828,035 | 213,331,104 | 498,323,925 | 191,736,834 | 206,446,997 | 199,580,190 | 297,740,404 | 184,137,962 |
| **Total Pension Liability - Beginning** | 4,701,215,166 | 4,487,884,062 | 3,989,560,137 | 3,797,823,303 | 3,591,376,306 | 3,391,796,116 | 3,094,055,712 | 2,909,917,750 |
| **Total Pension Liability - Ending (a)** | $ 5,032,043,201 | $ 4,701,215,166 | $ 4,487,884,062 | $ 3,989,560,137 | $ 3,797,823,303 | $ 3,591,376,306 | $ 3,391,796,116 | $ 3,094,055,712 |
| | | | | | | | | |
| **Plan Fiduciary Net Position** | | | | | | | | |
| Employer Contributions | $ 141,218,720 | $ 130,742,811 | $ 123,609,683 | $ 116,485,749 | $ 110,846,582 | $ 104,272,794 | $ 100,484,694 | $ 93,331,482 |
| Employee Contributions | 66,819,864 | 71,469,702 | 63,626,285 | 58,713,327 | 56,193,592 | 60,801,253 | 54,065,793 | 50,489,091 |
| Pension Plan Net Investment Income | 411,209,611 | 307,289,216 | 503,853,505 | (157,242,103) | 376,820,025 | 171,640,015 | (47,607,661) | 99,704,100 |
| Benefit Payments | (242,860,638) | (227,737,284) | (213,956,372) | (198,846,376) | (186,286,855) | (175,218,096) | (165,464,616) | (157,563,807) |
| Refunds | (4,266,759) | (3,656,402) | (4,265,174) | (4,140,909) | (4,045,324) | (3,910,786) | (4,052,436) | (4,154,419) |
| Pension Plan Administrative Expense | (6,528,499) | (6,594,536) | (6,218,288) | (4,024,367) | (2,778,290) | (2,700,916) | (2,421,331) | (2,631,218) |
| Other | 962 | - | - | - | - | - | - | - |
| **Net Change in Plan Fiduciary Net Position** | 365,593,261 | 271,513,507 | 466,649,639 | (189,054,679) | 350,749,730 | 154,884,264 | (64,995,557) | 79,175,229 |
| **Plan Fiduciary Net Position - Beginning** | 3,199,546,583 | 2,928,033,076 | 2,461,383,437 | 2,650,438,116 | 2,299,688,386 | 2,144,804,122 | 2,209,799,679 | 2,130,624,450 |
| **Plan Fiduciary Net Position - Ending (b)** | $ 3,565,139,844 | $ 3,199,546,583 | $ 2,928,033,076 | $ 2,461,383,437 | $ 2,650,438,116 | $ 2,299,688,386 | $ 2,144,804,122 | $ 2,209,799,679 |
| **Net Pension Liability - Ending (a) - (b)** | 1,466,903,357 | 1,501,668,583 | 1,559,850,986 | 1,528,176,700 | 1,147,385,187 | 1,291,687,920 | 1,246,991,994 | 884,256,033 |
| **Plan Fiduciary Net Position as a Percentage of Total Pension Liability** | 70.85% | 68.06% | 65.24% | 61.70% | 69.79% | 64.03% | 63.24% | 71.42% |
| **Covered Payroll** | 743,256,421 | 726,348,950 | 686,720,461 | 647,143,050 | 615,814,344 | 579,293,294 | 558,248,300 | 518,508,233 |
| **Net Pension Liability as a Percentage of Covered Payroll** | 197.36% | 206.74% | 227.14% | 236.14% | 186.32% | 222.98% | 223.38% | 170.54% |

**Notes to Schedule:**

1. Covered payroll is imputed from the actual employer contributions during the calendar year.
2. Schedule will be built out to 10 years.
3. For 2014, there were no assumption changes. For 2015, changes in assumptions included a decrease in the investment rate of return to 7.5%; inflation decrease to 2.75%; rate of salary increase range changed to 4.00% - 6.25%; retirement age experience-based table updated; mortality changed to the RP-2014 Mortality Table with Blue Collar adjustments and generational mortality improvements. For 2018, 2017 and 2016 there were no changes in assumptions. For 2019, changes in assumptions included a decrease in the investment return to 7%, a decrease in inflation to 2.5%, the salary increase range set at 3.5% - 5.75%, retirement age experience-based table updated; and a change in mortality tables to the PubG-2010 Healthy Retiree Mortality Table with full generational projection. For 2020, there were no assumption changes. For 2021, the investment return assumption was decreased to 6.75% while keeping the inflation assumption at 2.5%.

*See accompanying Independent Auditors' report*

## Schedule of Contributions

| FY Ending December 31 | Actuarially Determined Contribution | Actual Contribution | Contribution Deficiency (Excess) | Covered Payroll | Actual Contribution as a % of Covered Payroll |
|---|---|---|---|---|---|
| 2014 | $ 94,627,753 | $ 93,331,482 | $ 1,296,271 | $ 518,508,233 | 18.00% |
| 2015 | 98,419,175 | 100,484,694 | (2,065,519) | 558,248,300 | 18.00% |
| 2016 | 114,931,790 | 104,272,793 | 10,658,997 | 579,293,294 | 18.00% |
| 2017 | 120,761,193 | 110,846,582 | 9,914,611 | 615,814,344 | 18.00% |
| 2018 | 125,092,752 | 116,485,749 | 8,607,003 | 647,143,050 | 18.00% |
| 2019 | 133,017,753 | 123,609,683 | 9,408,070 | 686,720,461 | 18.00% |
| 2020 | 156,528,199 | 130,742,811 | 25,785,388 | 726,348,950 | 18.00% |
| 2021 | 156,232,500 | 141,218,720 | 15,013,780 | 743,256,421 | 19.00% |

## Schedule of Investment Returns

| Year | Annual Return * |
|---|---|
| 2021 | 13.01% |
| 2020 | 10.65% |
| 2019 | 20.70% |
| 2018 | -5.97% |
| 2017 | 16.61% |
| 2016 | 8.08% |
| 2015 | -2.19% |
| 2014 | 4.75% |

** Annual money-weighted rate of return is calculated as the internal rate of return on pension plan investments, net of investment expenses*

Note: Both schedules above will be built out to 10 years.

*See accompanying Independent Auditors' report*

## Investment Expenses

| | | 2021 | 2020 |
|---|---|---|---|
| **Custodial & Transaction Fees** | | | |
| The Bank of New York Mellon | $ | 260,000 | - |
| The Northern Trust Company | | - | 183,028 |
| Transaction and other fees | | 64,153 | 986,340 |
| | | **324,153** | **1,169,368** |
| **Investment Manager Fees** | | **5,776,497** | **4,481,344** |
| **Other Investment-related Expenses** | | | |
| Consultant Fees - RVK | | 264,452 | 348,750 |
| Investment Research | | 143,920 | 144,774 |
| Reporting and Monitoring | | 36,500 | 22,000 |
| Investment Systems | | 112,558 | 157,785 |
| Investment Legal Counsel | | 58,179 | 122,517 |
| Staff Professional Development | | 8,092 | 35,572 |
| Other | | 24,902 | 31,794 |
| | | **648,603** | **863,192** |
| **Total** | $ | **6,749,253** | **6,513,904** |

*Note: Investment Manager Fees are presented on an accrual basis and do not include fees directly charged against commingled funds. For more information, please refer to the Investment Section.*

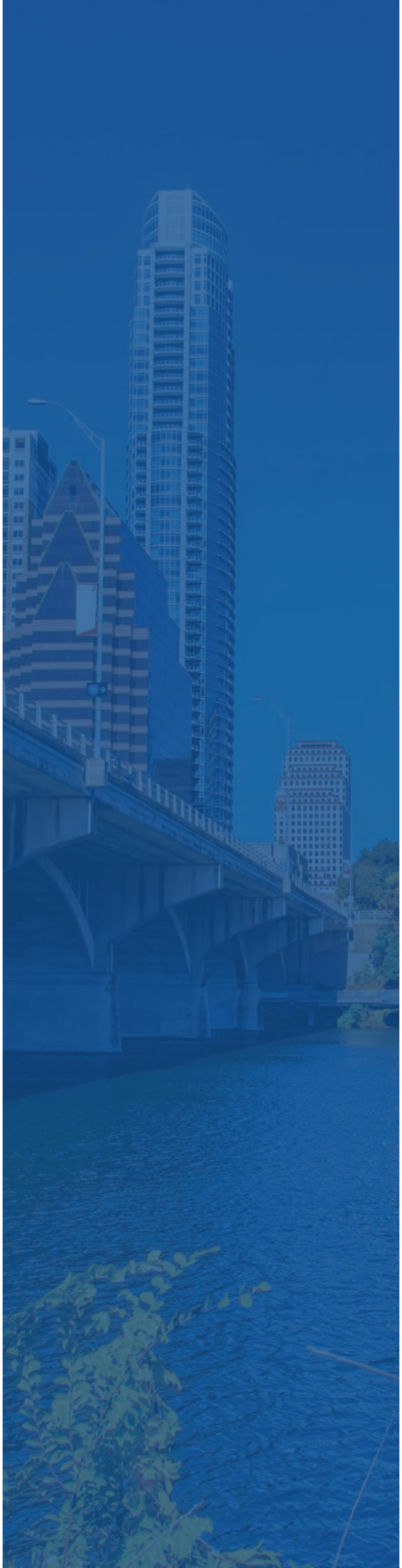
## General & Administrative Expenses

| | | 2021 | 2020 |
|---|---|---|---|
| Actuarial | $ | 62,541 | 139,803 |
| Legal | | 62,801 | 73,598 |
| Audit | | 121,375 | 100,000 |
| Consultants | | 396,959 | 326,717 |
| Information Technology | | 391,905 | 492,347 |
| Administrative | | 4,431,848 | 4,438,553 |
| Depreciation | | 731,309 | 727,712 |
| Insurance | | 193,217 | 161,797 |
| Member Communications | | 100,576 | 78,577 |
| Professional Development | | 35,968 | 55,432 |
| Total | $ | **6,528,499** | **6,594,536** |

## Professional Services and Consultant Expenses

| | | | |
|---|---|---|---|
| **Actuarial** | | | |
| GRS Retirement Consulting Group | $ | **62,541** | **139,803** |
| **Legal** | | | |
| Clark Hill Strasburger | | 5,320 | 10,800 |
| The Knight Law Firm LLP | | 57,481 | 62,798 |
| | | **62,801** | **73,598** |
| **Audit** | | | |
| KPMG LLP | | 103,000 | 100,000 |
| RSM US LLP | | 18,375 | - |
| | | **121,375** | **100,000** |
| **Consultants** | | | |
| Express Information Systems | | 14,474 | 11,967 |
| Freeit Data Solutions | | 19,648 | 38,842 |
| Gartner | | 82,384 | 82,300 |
| Global Governance Advisors | | 74,747 | 43,623 |
| Harold Skaggs MD | | 2,930 | 4,453 |
| Hillco Partners LLC | | 48,000 | 48,000 |
| Jonathan Decherd MD | | 837 | 2,429 |
| Kudelski Security | | 2,432 | 10,255 |
| Ntirety | | 69,666 | 33,977 |
| Whitehat Virtual Technologies | | 81,841 | 50,871 |
| | | **396,959** | **326,717** |
| **Total** | $ | **643,676** | **640,118** |

*See accompanying Independent Auditors' report*



# INVESTMENT SECTION

COAERS
CITY OF AUSTIN
EMPLOYEES' RETIREMENT SYSTEM

May 19, 2022

Fellow COAERS Members:

I am proud to update you on the continued evolution of our strategic goal of becoming a best-in-class investment program by implementing what is known internally as the "Austin Model" for investment management. The Austin Model seeks to contribute meaningfully to the sustainability of the valuable benefit we share by sharpening the focus of the investment program on the key drivers of long-term value. Additionally, it seeks to build upon a long tradition of strong stewardship at COAERS that is grounded in bedrock fiduciary principles. As the graphic below indicates, the significant progress seen in recent years has carried over into 2021.

| Year | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|
| | Strategy vs. implementation | Investment Beliefs | A/L Study complete | Premier List process | Approval of IRF | Custodian Transition |
| | Use of active management | Topical education | Governance models | Portfolio restructure | Refine Allocation | Refine Allocation |
| | Consultant objectivity | Consultant RFP | Updates to the IPS | Introduction to IRF | Optimize resources | Review of Horizon Issues |
| Costs | 40 bps | 37 bps | 39 bps | 35 bps | 37 bps | 32 bps |

Strategic focus, internal capabilities, and alignment increasing

During 2021, this continuing commitment to best-in-class stewardship of the Fund led us to undertake several important strategic initiatives with respect to the investment program.

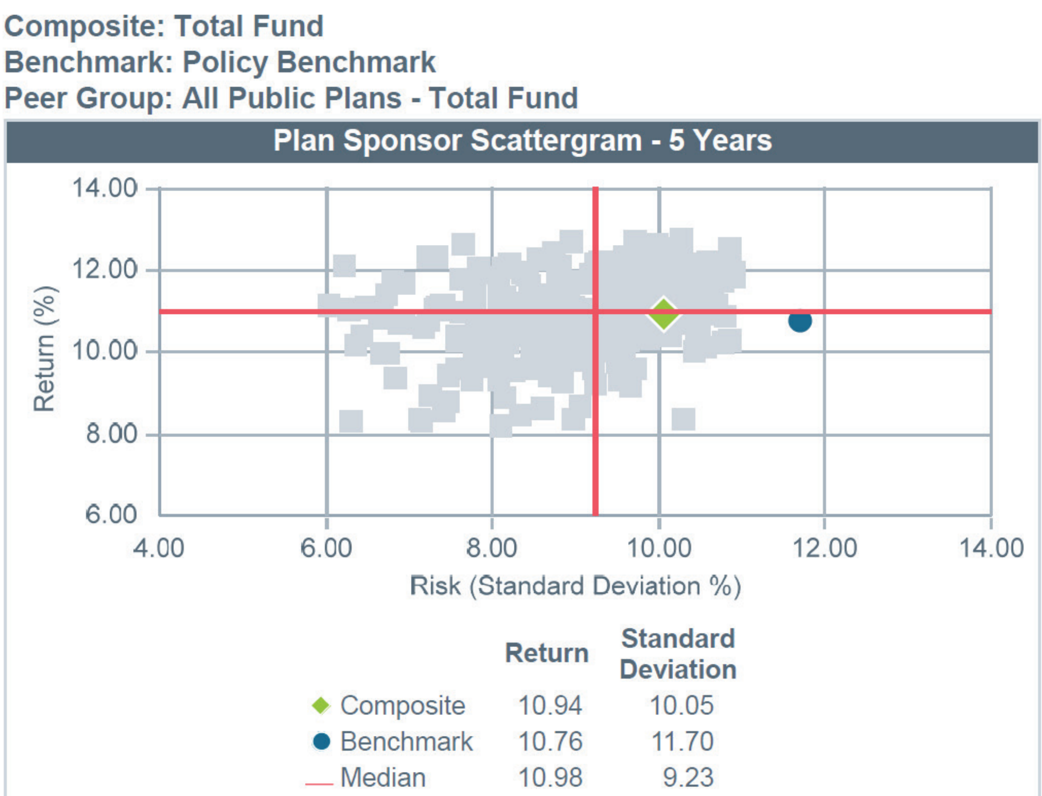
- The migration of custodial banking to BNY Mellon was completed, enabling new capabilities while also reducing counterparty risk.
- A continued focus on risk management in equities led to new ways to implement mandates including currency hedged exposures in international equities and options-based exposures in US equities to limit downside risk.
- The addition of new potential sources of diversification continued with the addition of inflation protection through new mandates in inflation protected treasuries and inflation-oriented US equities.
- A rethinking of the multi-asset class structure led to the inclusion of the commodities & other sub-asset class to provide additional sources of diversification for the Fund.

As a long-term investor, the Fund maintains sound investment processes across investment cycles, and 2021 continued this record of stewardship to strong gains. Recall that during 2020, nearly all asset classes saw particularly healthy gains on the back of significant monetary and fiscal stimulus following the onset of COVID-19. In 2021, stalled reopening efforts caused by supply disruptions and inflationary issues led to a wide range of outcomes across different asset and sub-asset classes as seen below:

| Index | Asset Class | 1 Year | 3 Year | 5 Year | 10 Year |
|---|---|---|---|---|---|
| MSCI AC World IMI | Global All-Cap Equities | 18.2% | 20.2% | 14.1% | 11.8% |
| MSCI USA | US Equities | 26.5% | 25.9% | 18.1% | 16.0% |
| MSCI World ex-US | Developed Market Equities | 12.6% | 14.1% | 9.6% | 7.8% |
| MSCI Emerging Markets | Emerging Market Equities | -2.5% | 10.9% | 9.9% | 5.5% |
| FTSE All Equity REIT | US Real Estate Investment Trusts | 43.2% | 18.4% | 10.8% | 11.4% |
| S&P Global Infrastructure | Global Infrastructure | 11.0% | 9.3% | 6.9% | 6.8% |
| BB Global Aggregate | Global Investment Grade Bonds | -4.7% | 3.6% | 3.4% | 1.8% |
| BB Corporate Credit | US Investment Grade Credit | -1.0% | 7.6% | 5.3% | 4.7% |
| BB U.S. MBS | US Mortgages | -1.0% | 3.0% | 2.5% | 2.3% |
| BB U.S. Treasury Bonds | US Treasury Bonds | -2.3% | 4.1% | 3.1% | 2.1% |
| BB U.S. Treasury Bills | US Treasury Bills | 0.0% | 0.9% | 1.1% | 0.6% |
| BB Commodity | Global Commodities | 27.1% | 9.9% | 3.7% | -2.9% |

As a result of the System's highly diversified approach, the Fund ended the year at $3.54 billion, up +13.0% net of fees for the full year 2021. This figure marks a new record level for the Fund and an increase of **over $350 million** from the year-end 2020 despite negative cash flows for benefits payments.

In addition, five-year returns on Fund investments totaled +10.6% net of fees. What is particularly noteworthy about this figure is that it represents significantly better risk-adjusted returns than the Policy Benchmark by experiencing much less risk with comparable return levels. We believe this is a strong testament to the value that well-aligned and professional management of the Fund can contribute.

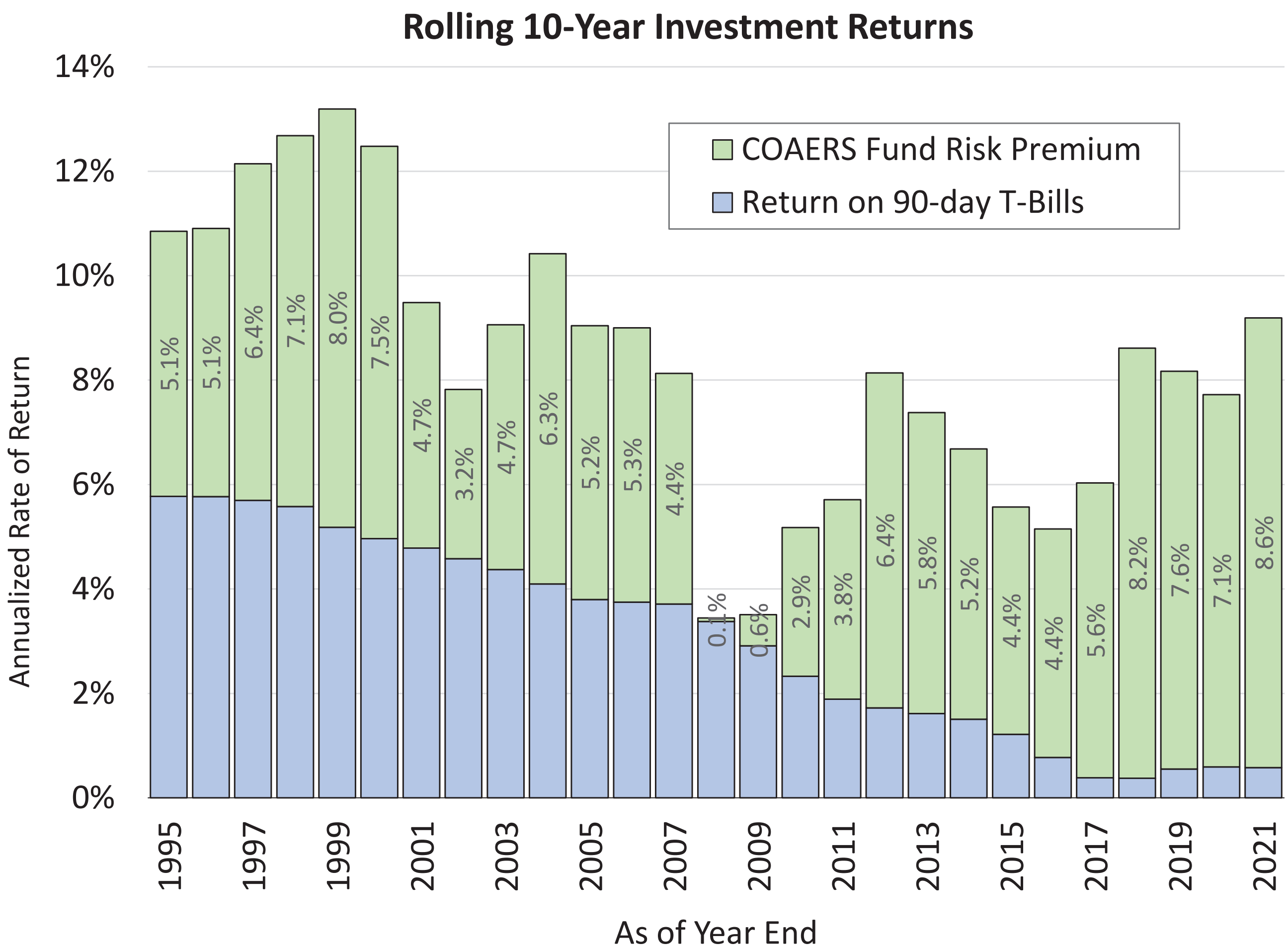



*Source: RVK Q4 2021 Quarterly Investment Performance Analysis report, performance is shown gross of fees*

During the year, the Fund remained well diversified across a wide range of assets as shown in the allocation table below. Diversification is often called "the only free lunch" in finance since it represents the only way to reduce the risk of a portfolio without decreasing its expected return. At the end of 2021, all of the allocations were within the designated strategic ranges which provided the Fund with broad market participation and limited exposure to the asset classes that performed poorly throughout the year.

| FUND POSITIONING VS. KEY STRATEGIC ASSET ALLOCATION PARAMETERS | | | | |
|---|---|---|---|---|
| **ASSET CLASS/SUB-ASSET CLASS** | **12/31/21** | **Minimum[S]** | **Neutral** | **Maximum[S]** |
| **GLOBAL EQUITIES** | **56.91%** | **46.0%** | **56.0%** | **66.0%** |
| US Equity | 34.31% | 21.0% | 33.0% | 46.0% |
| Intl Developed Markets Equity | 14.82% | 10.0% | 15.0% | 19.0% |
| Intl Emerging Markets Equity | 7.79% | 3.0% | 8.0% | 15.0% |
| **REAL ASSETS** | **16.06%** | **10.0%** | **15.0%** | **20.0%** |
| Real Estate Equity | 11.02% | 5.0% | 10.0% | 15.0% |
| Infrastructure Equity | 5.04% | 0.0% | 5.0% | 10.0% |
| **FIXED INCOME** | **21.01%** | **16.0%** | **21.0%** | **33.0%** |
| US Treasuries | 14.28% | 9.0% | 13.0% | 25.0% |
| US Mortgages | 3.13% | 2.0% | 4.0% | 8.0% |
| US Credit | 3.59% | 1.0% | 4.0% | 10.0% |
| **MULTI-ASSET** | **5.03%** | **2.5%** | **7.0%** | **15.0%** |
| Asset Allocation | 3.96% | 2.5% | 5.0% | 10.0% |
| Commodities & Other | 1.07% | 0.0% | 2.0% | 10.0% |
| **CASH & EQUIVALENTS** | **1.00%** | **-10.0%** | **1.0%** | **10.0%** |
| US Dollar Instruments | 0.94% | -10.0% | 1.0% | 10.0% |
| Other Currencies | 0.06% | 0.0% | 0.0% | 2.0% |

Over the last 10 years, returns for the Fund have compounded at +9.2% annually net of fees. These strong gains, which are well above the System's actuarially assumed rate of return, come despite the low levels of interest rates prevailing since the 2008-2009 global financial crisis. The table below illustrates that over the long-term, the Fund has earned an average of 4-5% annually above the risk-free return that owning US Treasury bills would have provided. For the period ending in 2021, returns for the Fund were 8.6% over the meager 0.6% return of risk-free investments, which represents the **highest compensation for bearing investment risk in more than 25 years.**




In this way, effective diversification across stocks, bonds, and other assets continues to deliver steady growth in the Fund's principal balance in order to meet its obligations to both current and future generations. These results are another example of how the Fund continues to be managed in a highly professional and principled manner amid an increasingly unpredictable market environment. This high level of stewardship will continue to improve in the years ahead as we remain committed to providing best-in-class performance that enhances the long-term sustainability of the System.

Sincerely,

David Stafford, CFA, CAIA, FRM
Interim Chief Investment Officer

## Memorandum

| | |
|---|---|
| To | Board of Trustees |
| From | RVK, Inc. |
| Subject | 2021 Annual Report |
| Date | May 5, 2022 |

Dear Trustees:

This letter provides an overview of the capital markets and the City of Austin Employees' Retirement System (the "System") portfolio's positioning for the fiscal year ended December 31, 2021.

The first half of 2021 was marked by a global COVID-19 vaccine rollout, as countries around the world attempted the largest vaccine campaign in history. An uneven pace of coronavirus vaccine distribution outside of North America and Europe contributed to delayed reopening efforts in certain regions. The emergence of more transmissible coronavirus variants such as "delta", further slowed reopening efforts worldwide.

Jerome Powell and the Federal Open Market Committee ("FOMC") kept the federal funds rate at 0%-0.25% over the course of the fiscal year, though comments made towards the end of the year hinted at interest rate increases in 2022 as well as the wind-down of the Fed's bond buying program, putting upward pressure on interest rates. As of the end of the fiscal year, the unemployment rate in the U.S. was 3.9% while year-over-year inflation, as measured by the Consumer Price Index, ended the year at 7.0%, a level of inflation not seen since 1982. The U.S. Federal government passed the American Rescue Plan and an infrastructure bill, which provided $1.9 trillion and $1.2 trillion in fiscal stimulus, respectively.

Fiscal and monetary support in the U.S. helped lead domestic markets to new all-time highs. U.S. equity markets, as measured by the S&P 500 Index, returned 28.7% in 2021. International developed equity markets posted strong results but lagged their U.S. counterparts. Developed non-U.S. equity markets, as measured by the MSCI EAFE Index, returned 11.3% in 2021, while emerging markets, as measured by the MSCI Emerging Markets Index, returned -2.5%. Emerging market index performance was dragged down, in part, by stalled reopening efforts in many economies as well as a sharp decline in Chinese equity markets driven by increased government regulation and concerns surrounding Chinese debt markets.

While the Federal Funds rate remained low throughout 2021 in the U.S., the prospect of rising interest rates in 2022 and beyond likely weighed on bond investor's outlook. Treasury yields moved slightly higher on the short end of the yield curve towards the end of 2021, as the Bloomberg U.S. Aggregate Bond Index returned -1.5%. Lower-quality, higher-yielding bonds generally outperformed their investment-grade counterparts in the US. Internationally, the Bloomberg Global Aggregate Index returned -4.7% during the year.

The price of oil increased sharply from $49 per barrel to $75 per barrel during the year, contributing to the Bloomberg Commodity Index returning 27.1%. After a flat year in 2020, private real estate assets, as measured by the NCREIF ODCE Index, returned 22.2% on a gross of fees basis in 2021. Despite the strong year for private real estate assets, public market real estate outperformed private markets as the FTSE NAREIT Equity REITs (TR) index returned 43.2% during 2021.

The market value of the System's investments increased from $3.18 billion to $3.54 billion in the year ended December 31, 2021. The System's overall investment return over the past year was 13.0% while the three-year annualized return was 14.7%. The five-year annualized return for System investments was 10.6% and the ten-year annualized return was 9.2%.[1] At year end, all major asset classes were within the strategic rebalancing ranges outlined within the System's Investment Policy Statement.

During 2021, the Board approved a new structure for the global equity and multi-asset portfolios, revised the Strategic Asset Allocation parameters of the Fund, and revised language within the existing policies. The Board also approved several changes to the current manager lineup. Additionally, the custodial banking RFP undertaken in 2020 resulted in a transition from the incumbent, Northern Trust, to The Bank of New York (BNY) Mellon in early 2021.

The System's investment policies, goals, objectives, performance, and costs are regularly monitored by Staff, the Board, and by RVK. These evaluations include analysis of the investment managers and the custodial bank that serve the System. Staff, the Board, and RVK will continue to monitor the portfolio, recommending changes as deemed appropriate to improve potential risk-adjusted return and/or diversification.

The System's publicly traded assets managed through separate accounts, commingled vehicles, and mutual funds were held in custody at The Bank of New York (BNY) Mellon and BlackRock Trust Company during the fiscal year ending December 31, 2021. Market values and returns referenced above are based upon statements prepared by The Bank of New York (BNY) Mellon. Their statements are, to the best of our knowledge, reliable and accurate. Investment performance is calculated using a time-weighted rate of return methodology (net of fees) based upon market values and cash flows.

We look forward to continuing to work with Staff and the Board to monitor, review, and attempt to position the System's portfolio to meet its long-term goals and objectives.

Sincerely,

James Voytko
President
RVK, Inc.

[1] All stated returns are net of fees.

## INVESTMENT RESPONSIBILITIES

The COAERS Board of Trustees has the fiduciary duty of overseeing the Fund and the associated investment process. To assist in the fulfillment of its duties in this regard, the Board will select, engage, monitor, and evaluate a number of parties including the Professional Staff, Investment Consultant, Investment Managers, and Global Custodian.

To establish long-term goals of the investment program, provide a framework for the investment process, and to guide the efforts of parties; the Board has adopted two key policies:

- The Investment Policy Statement, which sets out specific duties and responsibilities for each party as a means to achieve the objectives of the Fund, and the Board requires compliance from all parties.
- The Investment Implementation Policy, which provides the basis for selecting, contracting, monitoring, and retaining investment managers.

The major elements of these documents, which are reviewed annually and are available in their entirety upon request and also on the website, are summarized in this section.

## INVESTMENT GOALS

The purpose of the COAERS Trust Fund (the Fund) is to accumulate the financial reserves necessary to provide for the retirement or pensioning of eligible COAERS members and their beneficiaries. To this end, the Fund will be structured and managed to maximize, net of fees and expenses, the probability of:

1. Achieving a long-term, annualized absolute rate of return that:
   - Meets or exceeds the assumed actuarial rate of return for the System;
   - Ranks in the top quartile of peer comparisons consistently.

2. Achieving a long-term, risk-adjusted relative rate of return that:
   - Meets or exceeds the Passive Benchmark (i.e., the Reference Portfolio); and
   - Meets or exceeds the Policy Benchmark (i.e., the Strategic Benchmark).

3. Achieving these strategic objectives via fiduciary best practices that:
   - Ensure proper diversification of asset classes and factor exposures;
   - Maintain appropriate long-term risk and return expectations; and
   - Adapt the asset allocation to changing market conditions.

The Board, with consultation, advice and assistance from the System's Staff and Investment Consultant, will use the Fund's Strategic Asset Allocation process and its effective implementation as the primary tools to achieve these goals. A primary emphasis of the management of the Fund is consistency of growth by seeking to avoid both the permanent impairment of capital and the risk of inadequate long-term returns.

## INVESTMENT BELIEFS

The COAERS Board of Trustees, in fulfilling its responsibility of ensuring that these assets are invested in a manner consistent with high fiduciary standards, has adopted the following investment beliefs to guide its asset allocation and investment implementation decisions.

- The Fund is a permanent entity with long-lived liabilities and, as such, it should strive to be a thoughtful, analytical, and patient investor that is focused on achieving successful outcomes.
- Clear governance and decision-making structures that promote decisiveness, simplicity, efficiency, and accountability are effective and add value to the Fund.
- To the extent possible, investment decision-making should be driven by data and analysis, including the findings of relevant research on financial markets and investment management.
- Strategic asset allocation is the most critical aspect of the investment process, with the level of risk assumed by the Fund driven primarily by its allocation to equity investments.
- The Fund should seek to be well compensated for the investment risks it chooses to bear, risks that should be articulated at the time of investment and revisited regularly.
- Diversification across asset classes and risk factors is integral to the Fund's design and investments that may improve the Fund's risk/return profile will be considered.
- Equities are the most prudent investment vehicle for long-term growth of real values, and the associated drawdown risk should be carefully managed in light of the Fund's liabilities.
- Costs can significantly reduce net returns and therefore must be carefully measured and managed when making decisions regarding investment strategy and implementation.
- Implementation should occur passively and in public markets unless a high likelihood of success on a risk-adjusted, net-of-fees basis can be expected from other approaches.

## RISK MANAGEMENT

The Board recognizes that bearing prudent levels of compensated investment risk is critical in meeting the Fund's long-term return objectives, which are in turn essential to the sustainable provision of adequate benefits. The Board uses a risk budgeting framework to define its tolerance for volatility and tracking error at the Fund level and to provide a transparent, measurable methodology for allocating risk to implementation efforts in pursuit of the System's investment objectives.

Given the System's purpose, liquidity requirements, and predictability of contributions, the Board elects to assume levels of market risk that rank in the second or third quartile of its comparable peers in pursuing the investment program. Based on this philosophy and its absolute return objective, the Fund's long-term volatility is expected to be approximately 10%-12% on an annualized basis. Tracking error budgets relative to the assigned benchmarks are established for the total Fund (neutral at 150 bps and maximum at 300 bps) and its actively managed public market portfolios.

To ensure that this Risk Budget continues to be appropriate it will be reviewed at least annually concurrent with the Strategic Asset Allocation review and formal Asset Allocation studies. A more in-depth review will be done at least every five years and coincide with the formal Asset/Liability Study.

## ASSET ALLOCATION

Asset allocation refers to process by which the Fund is allocated among various types of investments that share certain fundamental and risk-based characteristics. The Board, in conjunction with advice from Staff and the Investment Consultant, is responsible for establishing and reviewing the Strategic Asset Allocation (SAA) process for the Fund. This oversight includes the selection of well-aligned strategic advisors, the use of a diverse range of forecasting approaches, the determination of appropriate risk budgets, and appropriate levels of delegated authority.

Asset/Liability studies provide the primary basis for changes to the target allocations of the SAA and are conducted at least every five years. Relevant policies are amended when a proposed investment strategy is adopted. The Board may review its target allocations more frequently if necessary due to material changes in either the liability structure of the plan or the capital markets.

Based on its determination of the appropriate risk tolerance of the Fund and its long-term return expectations, the Board in consultation with the Staff and Investment Consultant establishes the following SAA parameters as percentages of the Fund's asset classes and sub-asset classes:

- Strategic Neutral Allocations that represent neutral weights to asset classes and sub-asset classes selected to play a distinct and purposeful a distinct and purposeful role within the Fund.
- Tactical Rebalancing Ranges allow for routine fluctuations in the fair values of portfolio investments and establish parameters for management of the Fund's risk exposures by Staff.
- Strategic Rebalancing Ranges establish the outer bounds for the allocation of the Fund and allow for flexibility during times of market stress or dislocation.

Rebalancing activities ensure that the long-term investment objectives of the System are achieved by allowing Investment Staff the flexibility to adjust for market movements and to incorporate current market conditions into the asset allocation. The Board has chosen to adopt a rebalancing policy that allows Investment Staff to rebalance the portfolio between major asset classes as well as within the sub-asset classes, a framework that is governed by the Board approved ranges rather than fixed time periods. Investment Staff uses an analytical framework referred to as the Investment Risk Framework (IRF) to make determinations about positioning the Fund appropriately to achieve the Board's strategic goals.

## MANAGER SELECTION

The Board believes that developing long-term relationships with a small group of high potential managers allows for a more thoughtful and robust evaluation of potential candidates than starting every search from scratch. As such, the Investment Staff is required to develop and maintain a "Premier List" of 3-4 viable managers (including at least one passive index option) for potential inclusion within each allocation of the Fund. Doing so is intended to allow for (1) ongoing competitive benchmarking of existing managers and (2) rapid, effective replacement of any Manager deemed no longer able to accomplish its mandate.

The Premier List for each allocation is presented to the Investment Committee for ongoing review at least annually. Investment Staff proposes candidates for the Premier List to the Investment Committee for potential recommendation to the Board, with all proposals including a proposed neutral and maximum allocation. Since manager retention decisions have the same potential impact on returns as do the initial selection of the Manager, Investment Staff shall also propose any removals from the Premier List to the Investment Committee for potential recommendation to the Board.

## PERMISSIBLE INVESTMENTS

The Investment Implementation Policy includes a list of investment vehicles that are specifically permitted for the Fund. They are categorized according to asset class to indicate how they are classified for purposes of the SAA guidelines. Unless given authorization in writing, managers are allowed to invest only in the security types listed for the asset classes for which they have been hired and, when included in the Investment Policy or the IMA, the assigned benchmark. Permissible assets may be held in separately managed accounts as well as commingled funds.

| ASSET CLASS/SUB-ASSET CLASS | STYLE | VEHICLE | 12/31/2021 VALUE | % OF FUND | ASSET ALLOCATION NEUTRAL $ | ASSET ALLOCATION NEUTRAL % | VARIANCE FROM NEUTRAL AMOUNT | VARIANCE FROM NEUTRAL % |
|---|---|---|---|---|---|---|---|---|
| **Global Equity** | | | **$ 2,013,903,347** | **56.91%** | **$ 1,981,691,228** | **56.00%** | **$ 32,213,716** | **0.91%** |
| **US Equities** | | | **1,214,040,653** | **34.31%** | **1,167,782,331** | **33.00%** | **46,258,322** | **1.31%** |
| MELLON CAPITAL - DYNAMIC US EQUITY | ACTIVE | SMA | 266,691,086 | 7.54% | | | | |
| LGIMA - MSCI USA INDEX FUND | PASSIVE | FUND | 226,938,061 | 6.41% | | | | |
| SSGA - MSCI USA EW INDEX | PASSIVE | SMA | 212,918,195 | 6.02% | | | | |
| MELLON CAPITAL - SCIBETA US MAX DECORRELATION | PASSIVE | SMA | 144,951,544 | 4.10% | | | | |
| TOBAM - MAX DIVERSIFICATION USA | PASSIVE | SMA | 133,495,218 | 3.77% | | | | |
| COAERS LGIMA INFLATION PLUS | PASSIVE | SMA | 101,233,261 | 2.86% | | | | |
| NISA - S&P 500 INDEX FUTURES | PASSIVE | SMA | 72,894,812 | 2.06% | | | | |
| SSGA - MSCI SMALL CAP INDEX FUND | PASSIVE | FUND | 49,781,918 | 1.41% | | | | |
| NISA SP 500 INDEX OP | PASSIVE | SMA | 5,136,558 | 0.15% | | | | |
| **Developed Market Equities** | | | **524,373,588** | **14.82%** | **530,810,150** | **15.00%** | **(6,436,563)** | **-0.18%** |
| WALTER SCOTT & PARTNERS LTD - INT'L EQUITIES | ACTIVE | SMA | 223,788,903 | 6.32% | | | | |
| 1607 CAPITAL PARTNERS LLC - INT'L EQUITIES | ACTIVE | SMA | 146,443,276 | 4.14% | | | | |
| NTAM - MSCI WORLD EX-US SMALL CAP INDEX FUND | PASSIVE | FUND | 50,749,215 | 1.43% | | | | |
| NISA - FX HEDGED EAFE FUT | PASSIVE | SMA | 36,026,790 | 1.02% | | | | |
| NISA - EAFE INDEX FUTURES | PASSIVE | SMA | 35,807,512 | 1.01% | | | | |
| MELLON CAPITAL - DYNAMIC GLOBAL EX-US EQUITY FUND | ACTIVE | FUND | 31,557,892 | 0.89% | | | | |
| **Emerging Market Equities** | | | **275,490,703** | **7.79%** | **283,098,747** | **8.00%** | **(7,608,044)** | **-0.21%** |
| BAILLIE GIFFORD - EMERGING MARKETS FUND | ACTIVE | FUND | 153,834,886 | 4.35% | | | | |
| LGIMA - MSCI EM INDEX FUND | PASSIVE | FUND | 87,522,861 | 2.47% | | | | |
| NISA - EM INDEX FUTURES | PASSIVE | SMA | 34,132,957 | 0.96% | | | | |
| **Real Assets** | | | **$ 568,291,310** | **16.06%** | **$ 530,810,150** | **15.00%** | **$ 37,481,159** | **1.06%** |
| **Real Estate Equity** | | | **390,036,310** | **11.02%** | **353,873,434** | **10.00%** | **36,162,876** | **1.02%** |
| FIDELITY - US REITS COMPLETION INDEX | PASSIVE | SMA | 187,823,304 | 5.31% | | | | |
| PRINCIPAL GLOBAL INVESTORS - US PROPERTY ACCOUNT | ACTIVE | FUND | 176,772,484 | 5.00% | | | | |
| AGINCOURT FTSE NAREIT EQUITY REITs | PASSIVE | SMA | 25,440,522 | 0.72% | | | | |
| **Infrastructure Equity** | | | **178,255,000** | **5.04%** | **176,936,717** | **5.00%** | **1,318,283** | **0.04%** |
| FIDELITY - GLOBAL INFRASTRUCTURE INDEX | PASSIVE | SMA | 96,620,624 | 2.73% | | | | |
| IFM GLOBAL - GLOBAL INFRASTRUCTURE FUND | ACTIVE | FUND | 81,634,375 | 2.31% | | | | |
| **Fixed Income** | | | **$ 743,457,905** | **21.01%** | **$ 743,134,210** | **21.00%** | **$ 323,695** | **0.01%** |
| **US Treasuries** | | | **505,482,945** | **14.28%** | **460,035,464** | **13.00%** | **45,447,481** | **1.28%** |
| AGINCOURT - 1-3 YEAR TREASURY INDEX | PASSIVE | SMA | 129,067,039 | 3.65% | | | | |
| HOISINGTON - MACROECONOMIC FIXED INCOME | ACTIVE | SMA | 122,075,833 | 3.45% | | | | |
| AGINCOURT - 1-5 YEAR US TIPS | PASSIVE | SMA | 64,612,304 | 1.83% | | | | |
| AGINCOURT - 10 YEAR TREASURY INDEX | PASSIVE | SMA | 56,847,130 | 1.61% | | | | |
| NISA - 30 YEAR TREASURY INDEX FUTURES | PASSIVE | SMA | 50,952,943 | 1.44% | | | | |
| NISA - 10 YEAR TREASURY INDEX FUTURES | PASSIVE | SMA | 47,216,853 | 1.33% | | | | |
| LGIMA - 5-15 YEAR US TIPS | PASSIVE | SMA | 34,710,842 | 0.98% | | | | |
| **US Mortgages** | | | **110,890,941** | **3.13%** | **141,549,373** | **4.00%** | **(30,658,432)** | **-0.87%** |
| DOUBLELINE CAPITAL LP - AGENCY MBS | ACTIVE | SMA | 110,890,941 | 3.13% | | | | |
| **US Credit** | | | **127,084,019** | **3.59%** | **141,549,373** | **4.00%** | **(14,465,354)** | **-0.41%** |
| PGIM - US INVESTMENT GRADE CREDIT FUND | ACTIVE | FUND | 127,084,019 | 3.59% | | | | |
| **Multi-Asset** | | | **$ 177,832,874** | **5.03%** | **$ 247,711,403** | **7.00%** | **$ (69,878,530)** | **-1.97%** |
| **Asset Allocation** | | | **139,987,188** | **3.96%** | **176,936,717** | **5.00%** | **(36,949,529)** | **-1.04%** |
| AGINCOURT - 60/40 PASSIVE INDEX | PASSIVE | SMA | 114,507,824 | 3.24% | | | | |
| GMO - GLOBAL ASSET ALLOCATION FUND | ACTIVE | FUND | 12,980,102 | 0.37% | | | | |
| BAILLIE GIFFORD - MULTI-ASSET FUND | ACTIVE | FUND | 12,499,262 | 0.35% | | | | |
| **Commodities & Other** | | | **37,845,686** | **1.07%** | **70,774,687** | **2.00%** | **(32,929,000)** | **-0.93%** |
| NISA - GOLD FUTURES | PASSIVE | SMA | 37,845,686 | 1.07% | | | | |
| **Cash & Equivalents** | | | **$ 35,247,303** | **1.00%** | **$ 35,387,343** | **1.00%** | **$ (140,040)** | **0.00%** |
| **US Dollar Instruments** | | | **33,247,303** | **0.94%** | **35,387,343** | **1.00%** | **(2,140,040)** | **-0.06%** |
| AGINCOURT - 1-3 MONTH TREASURY BILLS | PASSIVE | SMA | 27,134,948 | 0.77% | | | | |
| BNYMellon - GOVERNMENT SHORT TERM INVESTMENT FUND | PASSIVE | FUND | 3,112,267 | 0.09% | | | | |
| BNYMellon - MONEY MARKET FUND(S) | PASSIVE | SMA | 2,000,000 | 0.06% | | | | |
| COAERS USD ACCOUNT | PASSIVE | SMA | 1,000,088 | 0.03% | | | | |
| **Other Currencies** | | | **2,000,000** | **0.06%** | **0** | **0.00%** | **2,000,000** | **0.06%** |
| NISA - SHORT TERM SOVEREIGNS | ACTIVE | SMA | 2,000,000 | 0.06% | | | | |
| **TOTAL** | | | **$ 3,538,734,335** | **100.00%** | **$ 3,538,734,335** | **100.00%** | | |

**Reconciliation to Statement of Net Position:**

| | |
|---|---|
| **Investments** | **3,535,433,558** |
| **Interest and dividends receivable** | **$ 6,383,276** |
| **Trades pending settlement (net)** | **(1,555,139)** |
| **Investment Manager Fee Payable** | **(1,527,360)** |
| **Total investments (per global custodian)** | **$ 3,538,734,335** |

| | Balance 12/31/2020 | Balance 12/31/2021 | CY 2021 Gross Return (%) | CY 2021 Mgmt Fees (Cash Basis) | Annualized Net Return (%) 1 Year | 3 Years | 5 Years |
|---|---|---|---|---|---|---|---|
| **US EQUITY** | $ 1,032,502,489 | $ 1,214,040,653 | 25.3 % | $ 1,466,583 | 25.1 % | 23.1 % | 15.9 % |
| **MELLON CAPITAL - DYNAMIC US EQUITY** | $ 204,588,315 | $ 266,691,086 | 30.9 % | $773,636 | 30.4 % | 28.9 % | N/A |
| *S&P 500 Index* | | | *28.7 %* | | *28.7 %* | *26.1%* | *N/A* |
| **LGIMA - MSCI USA INDEX FUND** | $ 212,346,623 | $ 226,938,061 | 27.0 % | $67,804 | 26.9 % | N/A | N/A |
| *MSCI USA Index* | | | *26.5 %* | | *26.5 %* | *N/A* | *N/A* |
| **SSGA - MSCI USA EW INDEX** | $ 169,505,017 | $ 212,918,195 | 25.7 % | $44,307 | 25.6 % | N/A | N/A |
| *MSCI USA Equal Weighted Index* | | | *25.1 %* | | *25.1 %* | *N/A* | *N/A* |
| **MELLON CAPITAL - SCIBETA US MAX DECORRELATION** | $ 116,910,567 | $ 144,951,544 | 24.2 % | $164,225 | 24.0 % | N/A | N/A |
| *SciBeta United States Maximum Decorrelation Index* | | | *24.2 %* | | *24.2 %* | *N/A* | *N/A* |
| **TOBAM - MAX DIVERSIFICATION USA** | $ 120,471,145 | $ 133,495,218 | 11.1 % | $313,204 | 10.8 % | N/A | N/A |
| *MSCI USA Index* | | | *26.5 %* | | *26.5 %* | *N/A* | *N/A* |
| **LGIMA - INFLATION PLUS** | (1) | $ 101,233,261 | N/A | $0 | N/A | N/A | N/A |
| *SciBeta Inflation Plus Index* | | | *N/A* | | *N/A* | *N/A* | *N/A* |
| **NISA - S&P 500 INDEX FUTURES** | $ 85,837,471 | $ 72,894,812 | 27.3 % | $66,232 | 27.2 % | N/A | N/A |
| *S&P 500 Index* | | | *28.7 %* | | *28.7 %* | *N/A* | *N/A* |
| **SSGA - MSCI SMALL CAP INDEX FUND** | $ 41,642,695 | $ 49,781,918 | 19.6 % | $19,406 | 19.5 % | N/A | N/A |
| *MSCI USA Small Cap Index* | | | *19.1 %* | | *19.1 %* | *N/A* | *N/A* |
| **NISA - S&P 500 INDEX OPTIONS** | (1) | $ 5,136,558 | N/A | $6,443 | N/A | N/A | N/A |
| *S&P 500 Index* | | | *N/A* | | *N/A* | *N/A* | *N/A* |
| **LGIMA - S&P 500 INDEX FUND** | $ 81,200,656 | (2) | 26.4 % | $11,327 | 28.2 % | N/A | N/A |
| *S&P 500 Index* | | | *28.7 %* | | *28.7 %* | *N/A* | *N/A* |
| **DM EQUITY** | $ 532,321,696 | $ 524,373,588 | 12.3 % | $ 2,647,257 | 11.6 % | 17.4 % | 12.5 % |
| **WALTER SCOTT - INTERNATIONAL EQUITIES** | $ 243,603,108 | $ 223,788,903 | 13.3 % | $947,582 | 12.7 % | 20.5 % | 15.8 % |
| *MSCI EAFE Index* | | | *11.3 %* | | *11.3 %* | *13.5%* | *9.6 %* |
| **1607 CAPITAL - INTERNATIONAL EQUTIES** | $ 164,025,785 | $ 146,443,276 | 12.9 % | $1,464,906 | 11.5 % | 17.1 % | 12.5 % |
| *90% MSCI EAFE/10% MSCI EM Indexes* | | | *9.9 %* | | *9.9 %* | *13.3%* | *9.6 %* |
| **NTAM - MSCI WORLD EX-US SMALL CAP INDEX FUND** | $ 45,641,446 | $ 50,749,215 | 11.2 % | $21,438 | 11.1 % | 16.6 % | N/A |
| *MSCI World ex US Small Cap Index* | | | *11.1 %* | | *11.1 %* | *16.3%* | *N/A* |
| **NISA - FX HEDGED EAFE FUT** | (1) | $ 36,026,790 | N/A | $0 | N/A | N/A | N/A |
| *MSCI ACW Ex US Index HEDGED* | | | *N/A* | | *N/A* | *N/A* | *N/A* |
| **NISA - EAFE INDEX FUTURES** | $ 17,150,875 | $ 35,807,512 | 11.1 % | $18,262 | 11.0 % | N/A | N/A |
| *MSCI EAFE Index* | | | *11.3 %* | | *11.3 %* | *N/A* | *N/A* |
| **MELLON CAPITAL - DYNAMIC GLOBAL EX-US EQUITY** | $ 61,900,482 | $ 31,557,892 | 8.5 % | $195,070 | 8.1 % | N/A | N/A |
| *MSCI ACW Ex US Index* | | | *7.8 %* | | *7.8 %* | *N/A* | *N/A* |
| **EM EQUITY** | $ 294,199,713 | $ 275,490,703 | (6.3)% | $ 1,162,809 | (6.4)% | 9.9 % | 9.3 % |
| **BAILLIE GIFFORD - EMERGING MARKETS FUND** | $ 169,105,337 | $ 153,834,886 | (9.0)% | $1,051,455 | (9.0)% | 14.7 % | 14.5 % |
| *MSCI Emerging Markets Index* | | | *(2.5)%* | | *(2.5)%* | *10.9%* | *9.9 %* |
| **LGIMA - MSCI EM INDEX FUND** | $ 89,872,272 | $ 87,522,861 | (2.6)% | $90,729 | (2.7)% | N/A | N/A |
| *MSCI Emerging Markets Index* | | | *(2.5)%* | | *(2.5)%* | *N/A* | *N/A* |
| **NISA - EM INDEX FUTURES** | $ 35,222,105 | $ 34,132,957 | (3.0)% | $20,626 | (3.1)% | N/A | N/A |
| *MSCI Emerging Markets Index* | | | *(2.5)%* | | *(2.5)%* | *N/A* | *N/A* |
| **REAL ESTATE EQUITY** | $ 285,487,926 | $ 390,036,310 | 28.4 % | $ 1,348,984 | 28.4 % | 11.2 % | 10.0 % |
| **FIDELITY - US REITS INDEX** | $ 141,511,680 | $ 187,823,304 | 32.8 % | $107,468 | 32.7 % | N/A | N/A |
| *FTSE NAREIT REITs Completion Index* | | | *32.9 %* | | *32.9 %* | *N/A* | *N/A* |
| **PRINCIPAL GLOBAL - US PROPERTY ACCOUNT** | $ 143,976,246 | $ 176,772,484 | 22.8 % | $1,237,453 | 22.8 % | 9.5 % | 9.0 % |
| *NCREIF NFI-ODCE Index* | | | *21.0 %* | | *21.0 %* | *8.2%* | *7.7 %* |
| **AGINCOURT FTSE NAREIT EQ REITs** | (1) | $ 25,440,522 | N/A | $4,063 | N/A | N/A | N/A |
| *FTSE NAREIT ALL EQUITY REITs* | | | *N/A* | | *N/A* | *N/A* | *N/A* |
| **INFRASTRUCTURE EQUITY** | $ 135,626,421 | $ 178,255,000 | 16.5 % | $ 649,177 | 16.4 % | N/A | N/A |
| **IFM GLOBAL - GLOBAL INFRASTRUCTURE FUND** | $ 69,481,418 | $ 81,634,375 | 17.5 % | $579,209 | 17.5 % | N/A | N/A |
| *S&P Global Infrastructure Index* | | | *11.0 %* | | *11.0 %* | *N/A* | *N/A* |
| **FIDELITY - GLOBAL INFRASTRUCTURE INDEX** | $ 66,145,003 | $ 96,620,624 | 20.9 % | $69,968 | 20.8 % | N/A | N/A |
| *Dow Jones Brookfield Global Infrastructure* | | | *20.2 %* | | *20.2 %* | *N/A* | *N/A* |
| **US TREASURIES** | $ 387,258,458 | $ 505,482,945 | (3.7)% | $ 460,689 | (3.8)% | N/A | N/A |
| **AGINCOURT - 1-3 YEAR TREASURY** | $ 64,916,170 | $ 129,067,039 | (0.7)% | $31,502 | (0.7)% | N/A | N/A |
| *BB Barclays US Treasury 1-3Y Index* | | | *(0.6)%* | | *(0.6)%* | *N/A* | *N/A* |
| **HOISINGTON - LONG TREASURY** | $ 129,387,671 | $ 122,075,833 | (5.3)% | $337,602 | (5.7)% | N/A | N/A |
| *BB Barclays US Treasury Bonds Index* | | | *(2.3)%* | | *(2.3)%* | *N/A* | *N/A* |
| **AGINCOURT - 1-5 YEAR TIPS** | $ 31,804,826 | $ 64,612,304 | 5.3 % | $18,629 | 5.2 % | N/A | N/A |
| *BB Barclays US TIPS 1-5Y Index* | | | *5.5 %* | | *5.5 %* | *N/A* | *N/A* |
| **AGINCOURT - 10 YEAR TREASURY** | $ 58,935,586 | $ 56,847,130 | (3.5)% | $22,664 | (3.5)% | N/A | N/A |
| *BB Barclays US Treasury Bellwether 10Y Index* | | | *(3.6)%* | | *(3.6)%* | *N/A* | *N/A* |
| **NISA - 30 YEAR TREASURY FUTURES** | $ 53,654,730 | $ 50,952,943 | (5.0)% | $25,470 | (5.0)% | N/A | N/A |
| *BB Barclays US Treasury Bellwether 30Y Index* | | | *(4.6)%* | | *(4.6)%* | *N/A* | *N/A* |
| **NISA - 10 YEAR TREASURY FUTURES** | $ 48,559,475 | $ 47,216,853 | (2.7)% | $24,822 | (2.8)% | N/A | N/A |
| *BB Barclays US Treasury Bellwether 10Y Index* | | | *(3.6)%* | | *(3.6)%* | *N/A* | *N/A* |
| **LGIMA - 5-15 YR US TIPS** | (1) | $ 34,710,842 | N/A | $0 | N/A | N/A | N/A |
| *Bloomberg U.S. TIPS 5-10yr Index* | | | *N/A* | | *N/A* | *N/A* | *N/A* |
| **US MORTGAGES** | $ 112,175,682 | $ 110,890,941 | (0.9)% | $ 223,785 | (1.2)% | N/A | N/A |
| **DOUBLELINE CAPITAL LP - AGENCY MBS** | $ 112,175,682 | $ 110,890,941 | (0.9)% | $223,785 | (1.2)% | N/A | N/A |
| *BB Barclays US MBS Index* | | | *(1.0)%* | | *(1.0)%* | *N/A* | *N/A* |

| | Balance 12/31/2020 | Balance 12/31/2021 | CY 2021 Gross Return (%) | CY 2021 Mgmt Fees (Cash Basis) | Annualized Net Return (%) 1 Year | 3 Years | 5 Years |
|---|---|---|---|---|---|---|---|
| **US CREDIT** | $ 127,553,289 | $ 127,084,019 | (0.1)% | $ 282,964 | (0.4)% | N/A | N/A |
| **PRUDENTIAL - US INVESTMENT GRADE CREDIT FUND** | $ 127,553,289 | $ 127,084,019 | (0.1)% | $282,964 | (0.4)% | N/A | N/A |
| *BB Barclays US IG Credit Index* | | | *(1.1)%* | | *(1.1)%* | *N/A* | *N/A* |
| **STRATEGIC PARTNERSHIP** | $ 163,885,079 | $ - | N/A | $ 87,517 | N/A | N/A | N/A |
| **BLACKROCK MULTI-ASSET STRATEGIC PARTNERSHIP** | $ 163,885,079 | [2] | N/A | $87,517 | N/A | N/A | N/A |
| *BlackRock Custom Benchmark* | | | *N/A* | | *N/A* | *N/A* | *N/A* |
| **ASSET ALLOCATION** | $ 54,390,884 | $ 139,987,188 | 8.8 % | $ 121,920 | 8.8 % | N/A | N/A |
| **AGINCOURT - 60/40 PASSIVE INDEX** | $ 30,540,379 | $ 114,507,824 | 9.8 % | $27,158 | 9.7 % | N/A | N/A |
| *COAERS Passive Benchmark* | | | *8.8 %* | | *8.8 %* | *N/A* | *N/A* |
| **GMO - GLOBAL ASSET ALLOCATION FUND** | $ 12,127,746 | $ 12,980,102 | 7.0 % | $76,072 | 7.0 % | N/A | N/A |
| *COAERS Policy Benchmark* | | | *11.3 %* | | *11.3 %* | *N/A* | *N/A* |
| **BAILLIE GIFFORD - MULTI-ASSET FUND** | $ 11,722,759 | $ 12,499,262 | 6.6 % | $18,690 | 6.6 % | N/A | N/A |
| *COAERS Policy Benchmark* | | | *11.3 %* | | *11.3 %* | *N/A* | *N/A* |
| **COMMODITIES & OTHER** | $ 27,997,139 | $ 37,845,686 | (2.4)% | $ 18,503 | (2.5)% | N/A | N/A |
| **NISA - GOLD FUTURES** | $ 27,997,139 | $ 37,845,686 | (2.4)% | $18,503 | (2.5)% | N/A | N/A |
| *Bloomberg Gold Sub Index* | | | *(4.3)%* | | *(4.3)%* | *N/A* | *N/A* |
| **US DOLLAR INSTRUMENTS** | $ 29,743,310 | $ 33,247,303 | 0.8 % | $ 7,795 | 0.1 % | 0.9 % | 1.0 % |
| **AGINCOURT - 1-3 MONTH TREASURY** | $ 28,137,774 | $ 27,134,948 | 0.0 % | $7,795 | (0.0)% | N/A | N/A |
| *BB Barclays US Treasury 1-3M Index* | | | *0.0 %* | | *0.0 %* | *N/A* | *N/A* |
| **BNYMELLON - GOVERNMENT ST INVESTMENT FUND** | [1] | $ 3,112,267 | N/A | $0 | N/A | N/A | N/A |
| *BB Barclays US Treasury 1-3M Index* | | | *N/A* | | *N/A* | *N/A* | *N/A* |
| **COAERS USD ACCOUNT** | $ 1,000,000 | $ 1,000,088 | 0.0 % | $0 | 0.0 % | N/A | N/A |
| *BB Barclays US Treasury 1-3M Index* | | | *0.0 %* | | *0.0 %* | *N/A* | *N/A* |
| **BNYMELLON - MONEY MARKET FUND(S)** | [1] | $ 2,000,000 | N/A | $0 | N/A | N/A | N/A |
| *BB Barclays US Treasury 1-3M Index* | | | *N/A* | | *N/A* | *N/A* | *N/A* |
| **NT - GOVERNMENT ST INVESTMENT FUND** | $ 605,536 | [2] | N/A | $0 | N/A | N/A | N/A |
| *BB Barclays US Treasury 1-3M Index* | | | *N/A* | | *N/A* | *N/A* | *N/A* |
| **OTHER CURRENCIES** | $ - | $ 2,000,000 | N/A | $ - | N/A | N/A | N/A |
| **NISA - ST SOVEREIGNS** | [1] | $ 2,000,000 | N/A | $0 | N/A | N/A | N/A |
| *BB Barclays US Treasury 1-3M Index* | | | *N/A* | | *N/A* | *N/A* | *N/A* |
| **Total Fund** | $ 3,183,142,087 | $ 3,538,734,335 | 13.2 % | $ 8,477,984 | 13.0 % | 14.7 % | 10.6 % |
| ***COAERS Policy Index** | | | **8.8 %** | | **8.8 %** | **13.7 %** | **10.1 %** |

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

*** Historical Composition of Policy Benchmarks as of Year End:**

**YE 2021**: 56% MSCI ACW IM Index (USD) (Net), 10% FTSE NAREIT Eq REITs Index (TR), 5% S&P Gbl Infrastructure Index (Net), 21% Bloomberg Gbl Agg Bond Index, 7% Multi-Asset Benchmark, and 1% Bloomberg US T-Bills 1-3 Mo Index.

**YE 2020**: 32% MSCI USA, 15% MSCI WORLD xUS, 8% MSCI EM, 12% BB UST, 4% BB US MBS, 4% BB US Credit, 10% FTSE NAREIT Eq REITs, 5% S&P Gbl Infra, 5% BlackRock Custom, 4% Policy BM, 1% BB US T-BILL 1-3M.

[1] Investment initiated during 2021.
[2] Investment terminated during 2021.

## TOP TEN DIRECT HOLDINGS - EQUITIES

| SHARES | DESCRIPTION | FAIR VALUE | | % of FUND |
|---|---|---|---|---|
| 24,875 | EQUINIX INC | $ | 21,040,270 | 0.59% |
| 46,119 | PUBLIC STORAGE | $ | 17,274,333 | 0.49% |
| 80,588 | DIGITAL REALTY TRUST INC | $ | 14,253,600 | 0.40% |
| 162,469 | REALTY INCOME CORP | $ | 11,631,126 | 0.33% |
| 127,223 | WELLTOWER INC | $ | 10,911,917 | 0.31% |
| 46,442 | EXTRA SPACE STORAGE INC | $ | 10,529,795 | 0.30% |
| 91,400 | GROUPE BRUXELLES LAMBERT SA | $ | 10,202,758 | 0.29% |
| 15,340 | KEYENCE CORP | $ | 9,628,546 | 0.27% |
| 11,600 | LVMH MOET HENNESSY LOUIS VUITT | $ | 9,590,235 | 0.27% |
| 32,366 | AMERICAN TOWER CORP | $ | 9,467,055 | 0.27% |
| | **Top 10 Direct Holdings - Equities** | **$** | **124,529,634** | **3.52%** |
| | **Total COAERS Investment Portfolio as of 12/31/2021** | **$** | **3,538,734,335** | **100.00%** |

*Full listing available upon request.*

## TOP TEN DIRECT HOLDINGS - FIXED INCOME

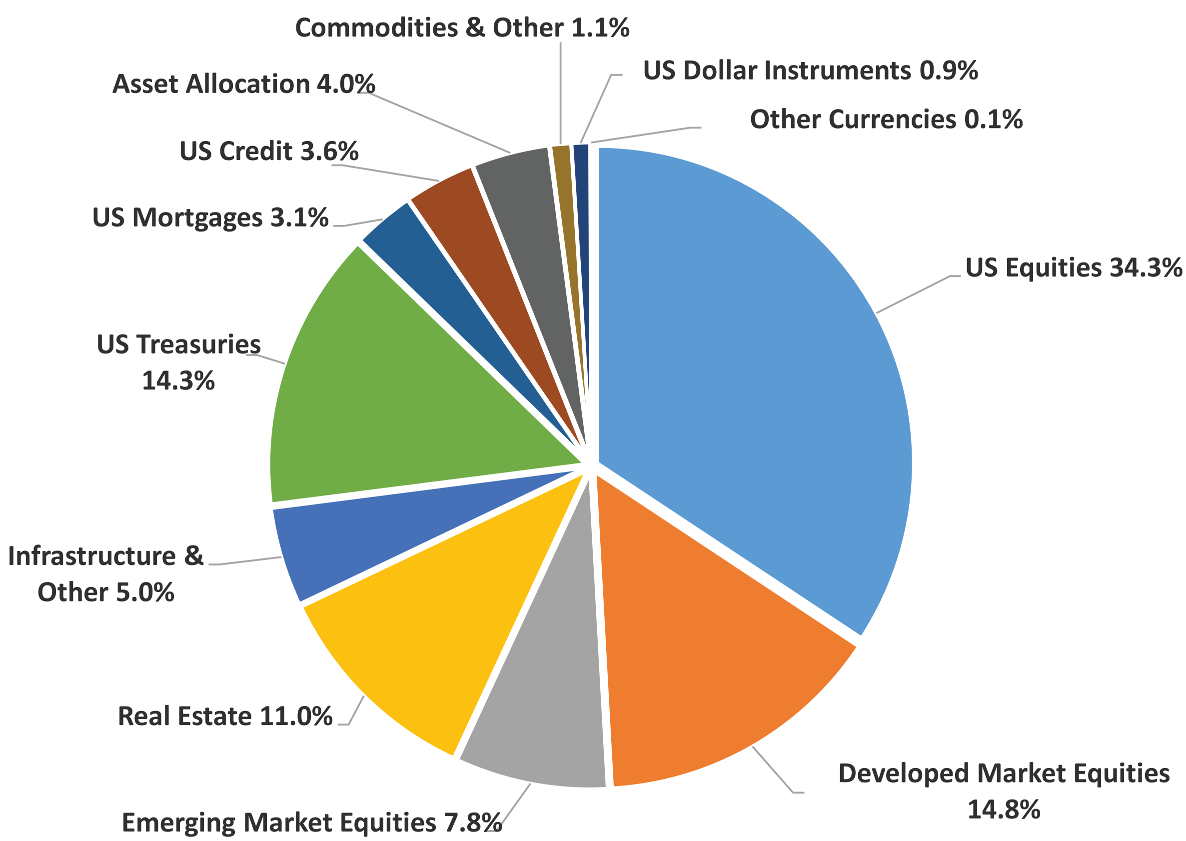
| PAR | DESCRIPTION | FAIR VALUE | | % of FUND |
|---|---|---|---|---|
| 55,165,000 | U S TREASURY NOTE :: 2.500% 01/31/2024 DD 01/31/19 | $ | 57,147,630 | 1.61% |
| 42,725,000 | U S TREASURY NOTE :: 1.375% 11/15/2031 DD 11/15/21 | $ | 42,237,508 | 1.19% |
| 30,520,000 | U S TREASURY BOND :: 2.250% 08/15/2046 DD 08/15/16 | $ | 32,397,590 | 0.92% |
| 27,590,000 | U S TREASURY NOTE :: 2.875% 10/31/2023 DD 10/31/18 | $ | 28,680,633 | 0.81% |
| 25,050,000 | U S TREASURY BOND :: 2.500% 02/15/2046 DD 02/15/16 | $ | 27,778,196 | 0.78% |
| 22,000,000 | U S TREASURY BOND :: 2.500% 05/15/2046 DD 05/15/16 | $ | 24,407,900 | 0.69% |
| 21,276,776 | US TREAS-CPI INFLAT :: 0.250% 01/15/2025 DD 01/15/15 | $ | 22,797,427 | 0.64% |
| 17,430,000 | U S TREASURY NOTE :: 1.750% 05/15/2023 DD 05/15/13 | $ | 17,717,944 | 0.50% |
| 13,881,000 | U S TREASURY NOTE :: 2.000% 11/30/2022 DD 11/30/15 | $ | 14,082,136 | 0.40% |
| 20,000,000 | U S TREASURY BD PRIN STRIP :: 0.000% 05/15/2045 DD 05/15/15 | $ | 12,635,200 | 0.36% |
| | **Top 10 Direct Holdings - Fixed Income** | **$** | **279,882,163** | **7.91%** |
| | **Total COAERS Investment Portfolio as of 12/31/2021** | **$** | **3,538,734,335** | **100.00%** |

*Full listing available upon request.*

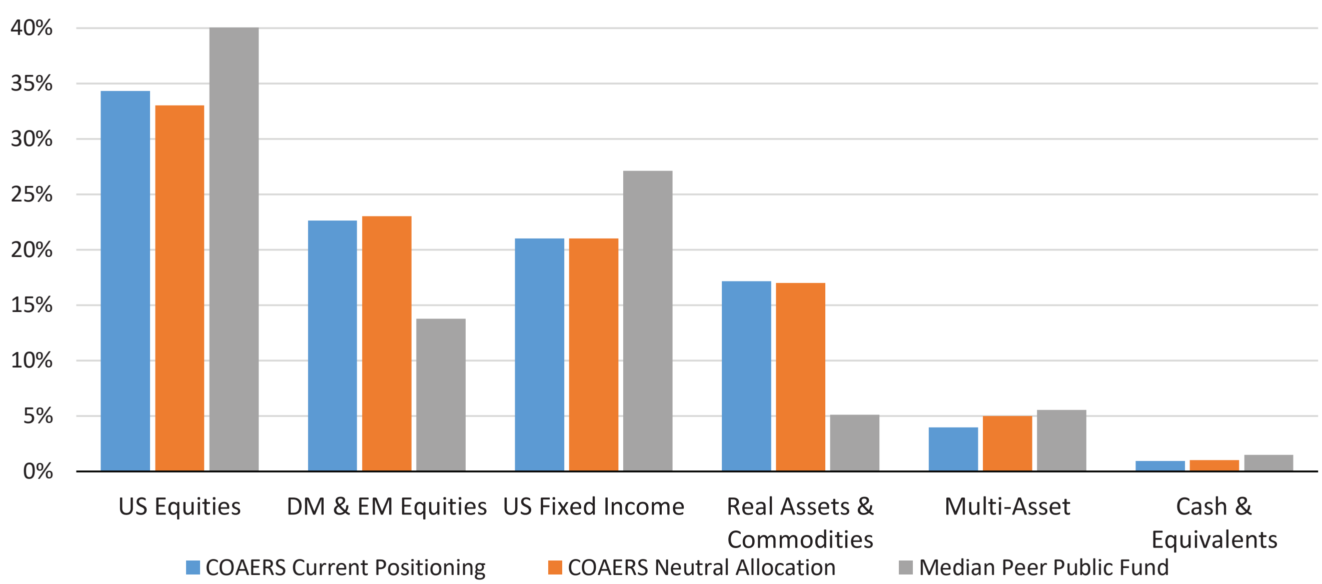
## COAERS INVESTMENT PORTFOLIO

| Asset Class/Sub-Asset Class | | 12/31/2021 Fair Value | Percentage of Total |
|---|---|---|---|
| Global Equities | | | |
| US Equities | | 1,214,040,653 | 34.3% |
| Developed Market Equities | | 524,373,588 | 14.8% |
| Emerging Market Equities | | 275,490,703 | 7.8% |
| Real Assets | | | |
| Real Estate | | 390,036,310 | 11.0% |
| Infrastructure & Other | | 178,255,000 | 5.0% |
| Fixed Income | | | |
| US Treasuries | | 505,482,945 | 14.3% |
| US Mortgages | | 110,890,941 | 3.1% |
| US Credit | | 127,084,019 | 3.6% |
| Multi-Asset | | | |
| Asset Allocation | | 139,987,188 | 4.0% |
| Commodities & Other | | 37,845,686 | 1.1% |
| Cash & Equivalents | | | |
| US Dollar Instruments | | 33,247,303 | 0.9% |
| Other Currencies | | 2,000,000 | 0.1% |
| **TOTAL** | **$** | **3,538,734,335** | **100.0%** |

## COAERS INVESTMENT ALLOCATION BY SUB-ASSET CLASS




## COAERS INVESTMENT ALLOCATION VS. PEERS



## BROKER COMMISSIONS OVER $5,000

| Broker Name | # of Shares / Par Traded | Commission Paid | Cost per Share |
|---|---|---|---|
| MORGAN STANLEY & CO INC, NY | 351,403 | $ 21,457 | $ 0.06 |
| MORGAN J P SECS INC, NEW YORK | 2,453 | 17,998 | 7.34 (1) |
| J P MORGAN SECS LTD, LONDON | 879,118 | 16,791 | 0.02 |
| BNY CAPITAL MARKETS INC, NEW YORK | 1,083,640 | 16,255 | 0.02 |
| MERRILL LYNCH PIERCE FENNER SMITH INC NY | 1,976,430 | 14,719 | 0.01 |
| WINTERFLOOD SECS, LONDON | 1,671,491 | 13,317 | 0.01 |
| JEFFERIES & CO LTD, LONDON | 1,523,942 | 11,882 | 0.01 |
| NUMIS SECURITIES INC., NEW YORK | 1,737,892 | 10,938 | 0.01 |
| PERSHING SECS AUSTRALIA PTY LTD, SYDNEY | 3,657,998 | 10,671 | 0.00 |
| MORGAN INTL/MSBAG, NEW YORK | 573,418 | 7,910 | 0.01 |
| PEEL HUNT LLP, LONDON | 885,961 | 7,587 | 0.01 |
| JONESTRADING INST SVCS LLC, NEW YORK | 994,704 | 7,491 | 0.01 |
| CITIGROUP GLOBAL MARKETS LTD, LONDON | 563,991 | 6,237 | 0.01 |
| MERRILL LYNCH & CO INC ATLAS GLOBAL, NY | 630,987 | 5,797 | 0.01 |
| LIQUIDNET EUROPE LIMITED, LONDON | 318,414 | 5,591 | 0.02 |
| PANMURE GORDON & CO LTD, LONDON | 1,493,400 | 5,482 | 0.00 |
| EXANE, PARIS (EXANFRPP) | 133,519 | 5,352 | 0.04 |
| BNP PARIBAS SEC SVCS, LONDON (PARBGB2L) | 867,040 | 5,117 | 0.01 |
| *COMBINED - 64 Brokers with Commissions < $5,000* | 6,328,189 | 35,353 | 0.01 |
| **Total Broker Commissions** | **25,673,990** | **$ 225,945** | **$ 0.009** |

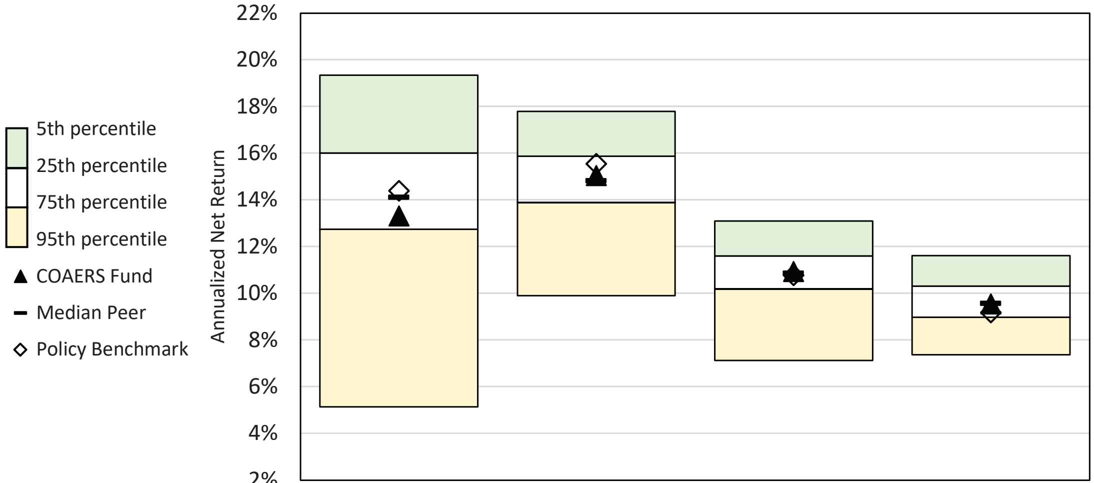
1) *MORGAN J P SECS INC, NEW YORK acted as a futures broker and commissions were paid for futures contracts totaling $55,527,595 in notional value.*

## TOTAL MANAGER FEES AND BROKER COMMISSIONS*

| Asset Class | Manager Fees | Commissions Paid | Total Cost |
|---|---|---|---|
| Global Equities | | | |
| US Equities | $ 1,466,583 | $ 41,383 | $ 1,507,967 |
| Developed Market Equities | $ 2,647,257 | $ 148,873 | $ 2,796,131 |
| Emerging Market Equities | $ 1,162,809 | $ 8,926 | $ 1,171,735 |
| Fixed Income | | | |
| US Treasuries | $ 460,689 | $ 6,473 | $ 467,162 |
| US Mortgages | $ 223,785 | $ - | $ 223,785 |
| US Credit | $ 282,964 | $ - | $ 282,964 |
| Real Assets | | | |
| Real Estate | $ 1,348,984 | $ 1,299 | $ 1,350,282 |
| Infrastructure | $ 649,177 | $ 2,217 | $ 651,394 |
| Multi-Asset | | | |
| Strategic Partnership | $ 87,517 | $ - | $ 87,517 |
| Asset Allocation | $ 121,920 | $ 15,448 | $ 137,367 |
| Commodities & Other | $ 18,503 | $ 1,326 | $ 19,829 |
| US Dollar & Cash Equivalents | | | |
| US Dollar Instruments | $ 7,795 | $ - | $ 7,795 |
| Other Currencies | $ - | $ - | $ - |
| **Total Manager Fees and Broker Commissions** | **$ 8,477,983** | **$ 225,945** | **$ 8,703,928** |

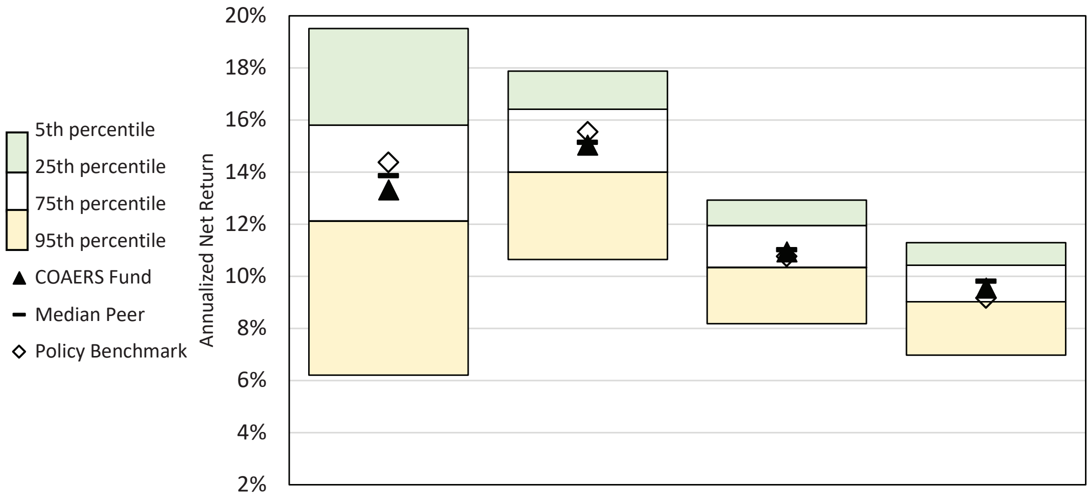
** Information provided in accordance with Texas Government Code 802.103(a)(3)*

## COAERS FUND VS. $1-5B PEERS




| | 1 Year | 3 Years | 5 Years | 10 Years |
|---|---|---|---|---|
| COAERS Fund | 13.32% | 15.04% | 10.94% | 9.55% |
| Policy Benchmark | 14.38% | 15.54% | 10.76% | 9.17% |
| Passive Benchmark | 8.78% | 13.72% | 10.11% | 7.91% |
| 5th Percentile | 19.34% | 17.79% | 13.10% | 11.61% |
| 1st Quartile | 16.00% | 15.87% | 11.60% | 10.30% |
| Median | 14.12% | 14.83% | 10.87% | 9.57% |
| 3rd Quartile | 12.74% | 13.88% | 10.18% | 8.97% |
| 95th Percentile | 5.13% | 9.90% | 7.12% | 7.36% |
| Observations | 87 | 85 | 84 | 80 |

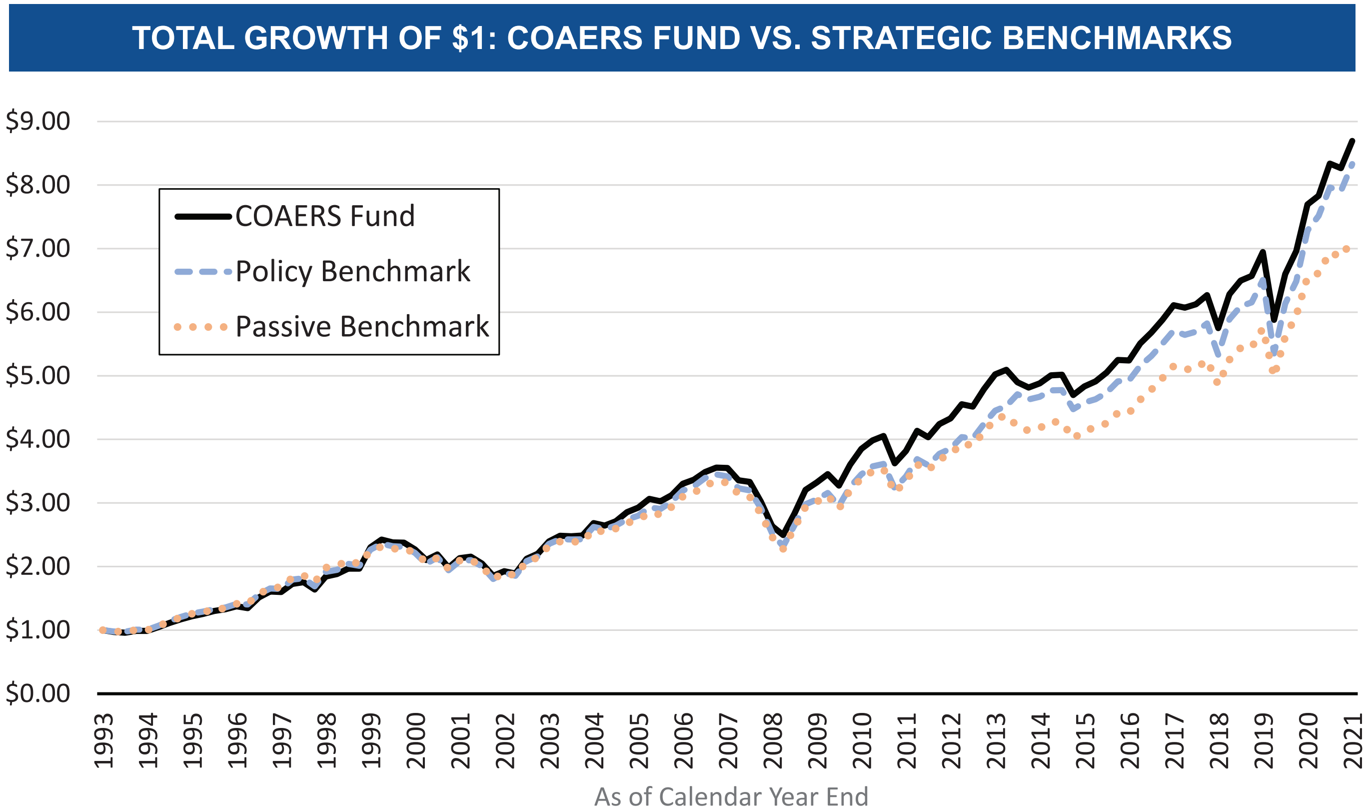
## COAERS FUND VS. ALL PEERS




| | 1 Year | 3 Years | 5 Years | 10 Years |
|---|---|---|---|---|
| COAERS Fund | 13.32% | 15.04% | 10.94% | 9.55% |
| Policy Benchmark | 14.38% | 15.54% | 10.76% | 9.17% |
| Passive Benchmark | 8.78% | 13.72% | 10.11% | 7.91% |
| 5th Percentile | 19.52% | 17.88% | 12.93% | 11.30% |
| 1st Quartile | 15.81% | 16.42% | 11.95% | 10.43% |
| Median | 13.87% | 15.15% | 11.03% | 9.82% |
| 3rd Quartile | 12.12% | 14.00% | 10.34% | 9.03% |
| 95th Percentile | 6.21% | 10.65% | 8.18% | 6.98% |
| Observations | 502 | 481 | 462 | 418 |

*All figures are Gross of Fees.*

# TOTAL GROWTH OF $1.00 VS. STRATEGIC BENCHMARKS




The Passive Benchmark aims to reflect the investment mix prevailing among institutional peer portfolios as implemented via low cost passive investable indices. Outperformance verses this benchmark should represent the value added through decisions made in the strategic asset allocation process.

The Policy Benchmark aims to reflect a passive implementation of the neutral parameters of the strategic target allocations established by the Board. Outperformance verses this benchmark should represent the value added by investment implementation and rebalancing activities.

The historical composition of these benchmarks, including their current composition, is available upon request.

# ACTUARIAL SECTION

P: 469.524.0000 | www.grsconsulting.com

April 26, 2022

Mr. Christopher Hanson
Executive Director
City of Austin Employees' Retirement System
6850 Austin Center Blvd., Suite 320
Austin, TX 78752

Dear Mr. Hanson:

**Subject: Actuarial Valuation as of December 31, 2021**

We are pleased to present our report on the actuarial valuation of the City of Austin Employees' Retirement System (COAERS or the System). This report describes the current actuarial condition of COAERS, determines the period over which the unfunded liabilities of the System are expected to be paid off, and determines the funded status of the System.

In addition, the report provides various summaries of the data. A separate report is issued with regard to valuation results determined in accordance with Governmental Accounting Standards Board (GASB) Statements 67 and 68. Results of this report should not be used for any other purpose without consultation with the undersigned. Valuations are prepared annually as of December 31st, the last day of the COAERS plan year. This report was prepared at the request of the Board and is intended for use by the COAERS staff and those designated or approved by the Board. This report may be provided to parties other than COAERS staff only in its entirety and only with the permission of the Board.

As you know, the employee and employer contribution rates are set by statute. It is expected that these contribution rates will remain level as a percentage of payroll. The System's funding policy is for the contribution rates to be sufficient to cover the normal cost of the plan and to amortize the unfunded actuarial accrued liability (UAAL) as of December 31, 2020 over a closed period of 25 years, with subsequent unanticipated changes in the UAAL amortized over closed 15-year periods (layers).

Currently, the total contribution rate is sufficient to amortize the System's unfunded liabilities in approximately 33 years. Therefore, the Board's funding policy is not currently being met. As of the prior valuation, the total contribution rate was sufficient to amortize the unfunded liabilities in 32 years. The increase in the funding period is due to the change in the investment return assumption from 7.00% to 6.75%. In absence of this change the funding period would have been 28 years.

In 2010, the City of Austin adopted the Amended Supplemental Funding Plan (ASFP). The ASFP provides for an additional City contribution rate of up to a maximum of 10.0% above the statutory 8.0% rate. Beginning in January 2021, the City increased its contribution rate an additional 1.0% of pay and is now contributing an additional 11.0% of pay above the statutory rate, or a total rate of 19.0%. For purposes of determining the funding period, it is assumed that this additional City contribution rate will remain in place until the System's unfunded actuarial accrued liability is eliminated.

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All of the supporting schedules and tables contained in this actuarial valuation report were prepared by Gabriel, Roeder, Smith and Company (GRS), including various accounting and statistical tables which should help you compare the results of this plan year with prior years. The information presented in the trend data schedules of this report has been prepared by GRS.

The following schedules in the actuarial section of the COAERS Comprehensive Annual Financial Report were prepared by GRS: Summary of Cost Items, Analysis of Normal Cost by Component, Actuarial Present Value of Future Benefits and Calculation of Actuarial Accrued Liability, Development of Actuarial Value of Assets, Change in Net Position, Change in Unfunded Actuarial Accrued Liability, Relative Size of Unfunded Actuarial Accrued Liability, Schedule of Active Member Valuation Data, Schedule of Retirees and Beneficiaries Added to and Removed from Rolls, Solvency Test, Schedule of Funding Progress.

GRS provided COAERS with the information used in preparing the following trend schedules in the financial section of the Comprehensive Annual Financial Report: Notes to the Financial Statements - Schedule of Net Pension Liability, and Sensitivity of the Net Pension Liability to Changes in the Discount Rate; Required Supplementary Information - Schedule of Changes in the Net Pension Liability and Related Ratios. GRS provided no additional assistance in the preparation of any other schedules in the financial section of the Comprehensive Annual Financial Report. These schedules were provided to COAERS in a separate GASB report.

As authorized under Article 6243n of the Vernon's Civil Statutes of the State of Texas, actuarial assumptions and methods are set by the Board of Trustees, based upon recommendations made by the plan's actuary. An experience investigation was performed for the five-year period ending December 31, 2018. As a result of that study, revised assumptions were adopted by the Board effective with the valuation as of December 31, 2019. In conjunction with this valuation, the Board elected to decrease the investment return assumption from 7.00% to 6.75%. All other assumptions and methods used in this valuation are the same as used in the prior valuation.

We believe the assumptions are internally consistent, reasonable, and, where appropriate, based on the actual experience of COAERS. All of the assumptions and methods used in this valuation were selected in compliance with the Actuarial Standards of Practice. Additional information about the assumptions and methods is included in the Section of this report titled Statement of Actuarial Assumptions and Methods.

The results of the actuarial valuation are dependent on the actuarial assumptions used. Actual results can and almost certainly will differ, as actual experience deviates from the assumptions. Even seemingly minor changes in the assumptions can materially change the liabilities, calculated contribution rates, and funding periods. Due to the limited scope of this assignment, GRS did not perform an analysis of the potential range of such possible future differences. The actuarial calculations are intended to provide information for rational decision making.

Member data for retired, active, and inactive participants was supplied as of December 31, 2021 by the COAERS staff. We have not subjected this data to any auditing procedures, but have examined the data for reasonableness and consistency with the prior year's data. Asset information was also supplied by the COAERS staff.

The last actuarial valuation of COAERS was prepared as of December 31, 2020 by GRS. Valuations are prepared annually as of December 31st.

This report has been prepared by actuaries who have substantial experience valuing public employee retirement systems. We certify that the information presented herein is accurate and fairly portrays the actuarial position of COAERS as of December 31, 2021. All calculations have been made in conformity with generally accepted actuarial principles and practices, with the Actuarial Standards of Practice issued by the Actuarial Standards Board, and with applicable governing statutes.

The undersigned are independent actuaries and consultants. Mr. Falls is an Enrolled Actuary and a Member of the American Academy of Actuaries and he meets the Qualification Standards of the American Academy of Actuaries. Both Mr. Falls and Mr. Ward are experienced in performing valuations for large public retirement systems.

We would like to thank you and your staff for your assistance in providing all necessary information to complete this valuation. Your courteous help is very much appreciated. We look forward to discussing this actuarial valuation report with you at your convenience. Please do not hesitate to let us know if you have any questions or need additional information.

Sincerely,

Lewis Ward

| | |
|---|---|
| Lewis Ward | R. Ryan Falls, F.S.A, E.A., M.A.A.A. |
| Consultant | Senior Consultant |

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# Executive Summary

The key results from the valuation of the City of Austin Employees' Retirement System as of December 31, 2021 may be summarized as follows:

| | December 31, 2021 (1) | December 31, 2020 (2) |
|---|---|---|
| • Members | | |
| — Actives | 10,228 | 10,138 |
| — Retirees (including disabled) and beneficiaries | 7,221 | 6,963 |
| — Vested - terminated | 1,369 | 1,264 |
| — Total | 18,818 | 18,365 |
| • Covered payroll | $ 752,180,499 | $ 729,252,035 |
| • Normal cost as % of payroll* | 17.69% | 17.04% |
| • Actuarial accrued liability | $ 5,032,043,201 | $ 4,701,215,166 |
| • Actuarial value of assets | $ 3,320,288,049 | $ 3,069,233,497 |
| • Unfunded actuarial accrued liability (UAAL) | $ 1,711,755,152 | $ 1,631,981,669 |
| • Estimated yield on assets | | |
| — Actuarial value basis | 9.74% | 9.04% |
| — Market value basis | 12.94% | 10.56% |
| • Contribution rate | | |
| — Employee | 8.00% | 8.00% |
| — Employer | 19.00% | 19.00% |
| • Benefit and refund payments | $ 247,127,397 | $ 231,393,686 |
| • Amortization period of unfunded actuarial accrued liability | 33 years | 32 years |
| • Funding Policy employer contribution rate | 21.88% | 21.02% |
| • Funded ratio using actuarial value of assets | 66.0% | 65.3% |
| • Funded ratio using market value of assets | 70.8% | 68.1% |

* Includes 0.51% of payroll for administrative expenses.

# Introduction

This December 31, 2021 actuarial valuation of the City of Austin Employees' Retirement System has been prepared by GRS. The primary purpose of the valuation is to value the liabilities of the System as of December 31, 2021, determine the funding period of any unfunded liability for the plan year beginning January 1, 2022, and to provide certain required disclosure information. We are pleased to have the privilege of working for the Board, and look forward to discussing the results with you at your convenience.

Pages 86 and 87 of this report provide the current funded status of the plan and review the valuation results. Assets are discussed on page 88, while page 89 contains an analysis of the actuarial gains and losses during the past year.

Page 90 discusses some of the historical comparisons and statistical summaries for the plan. Pages 91 through 94 provide an assessment and disclosure of risk associated with measuring pension obligations and determining pension plan contributions. Page 95 provides a summary of the valuation results along with other comments.

Various tables supporting the report are contained in Actuarial Tables section and Statistical Tables section. Statement of Actuarial Methods and Assumptions describes the actuarial methods and assumptions used in the valuation, and the Summary of Benefits Provisions outlines the Plan’s benefit provisions, including any changes since the last valuation. Finally, the Definition of Terms provides definitions of terms used throughout this report.

# Funded Status of the Plan

The funded status of the plan is shown in Table 1, Table 2, and Table 3. Table 1 summarizes the various cost items from the current year's and prior year's actuarial valuations, while Table 2 provides an allocation of the normal cost by its various components. Table 3 shows the components of the actuarial liability (including the impact of the change in assumptions).

Reviewing the composition of normal cost of the System, Table 2 indicates that the normal cost as of December 31, 2021 is 17.69% of pay. This compares with 17.04% of pay as of the prior valuation on December 31, 2020. This normal cost is developed based on the Individual Entry Age Normal (EAN) actuarial cost method. As may be seen in Item 1, the normal cost for the retirement benefits is 13.79% of pay. Similarly, the normal cost is 1.27% for the deferred termination benefits, 1.64% for refunds of terminated employees (both vested and non-vested), 0.21% for disability benefits, and 0.27% for death benefits. In addition, the cost of anticipated administrative expenses is being added to the normal cost rate. This adds 0.51% of pay to the normal cost rate as of December 31, 2021. The increase in the normal cost as a percentage of pay is soley due to the change in the investment return assumption from 7.00% to 6.75%. The normal cost as of December 31, 2021 prior to the assumption change is shown in Column 3. In absence of the assumption change, the normal cost would have declined to 16.83% of pay. The expected decline in the average normal cost reflects the continued shift in the active membership from Group A to Group B. We expect this pattern of declining normal costs (as a percentage of payroll) to continue until the active population is mostly Group B.

Table 1 illustrates a number of the key actuarial items for the 2021 valuation. As mentioned above, the total normal cost rate is 17.69% of covered payroll. The actuarial accrued liability is $5,032.0 million as shown in Item 5 and as detailed in Table 1. The actuarial value of assets equals $3,320.3 million, as shown in Item 6. Item 7 of Table 1 shows that the plan has a $1,711.8 million unfunded liability (i.e. liabilities exceed plan assets) as of the valuation date. As of the last valuation (December 31, 2020), the System was underfunded by $1,632.0 million. The increase in the unfunded liability is described in greater detail on page 87 and in Table 7.

The City is now contributing 19.00% of payroll and the employees are contributing 8.00% of payroll. Combining the employees' contributions with the City contribution, the System will have 27.00% of payroll to fund benefits. The current normal cost of the plan is 17.69%, which means that the System is currently receiving contributions in excess of the normal cost equal to 9.31% of pay (27.00% less 17.69%). These excess contributions are available to amortize any unfunded actuarial accrued liability. Based on these contribution rates, if all assumptions are exactly met then the current unfunded liability will be fully amortized over the next 33 years.

# Funded Status of the Plan
# (Continued)

The actuarial valuation report as of December 31, 2021 reveals that the funded ratio (the ratio of actuarial assets to actuarial accrued liability) is 66.0%. On a market value of asset basis, the funded status is 70.8%. The funded status is one of many metrics used to show trends and develop future expectations about the health of the 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.

As stated previously, the total City contribution rate is now 19.00% of pay (effective January 1, 2021). For purposes of determining the funding period, it is assumed that this contribution rate will remain in effect until the unfunded actuarial accrued liability is eliminated.

The normal cost was determined using the Individual Entry Age Normal (EAN) actuarial cost method. This method determines the normal cost for all employees on an individual basis, based on the benefits applicable to each individual member. Because employees hired on or after January 1, 2012 (Group B) have a less valuable benefit tier than employees hired prior to that date (Group A), the normal cost for Group B is less than the normal cost of Group A. With the application of the Individual EAN method, the normal cost is equal to the average of the individual members' normal costs. Since the current group of employees is still approximately 39% Group A, the average normal costs for the System will continue to decline over time as Group B employees replace Group A employees.

Because the contributions to the System are a fixed percentage of payroll, this means that the percentage of payroll that will go to pay off the unfunded liability will increase in the future as the average normal cost decreases. This result makes it difficult to calculate the funding period using a mathematical formula since the amount of contributions to pay off the unfunded liability will not be either a constant dollar amount or a constant percentage of payroll in the future. For this reason, we are using an open group projection to determine when the System is expected to pay off its unfunded liability. The open group projection assumes a constant active population and that there will be no actuarial gains or losses on liabilities or the actuarial value of assets. Based on the open group projection, the funding period of the System as of the valuation date is 33 years. Please see Table 5, which shows selected information from this projection.

# Change in Assets

Table 4 shows the development of the actuarial value of assets. Item 11 of Table 4 shows that the actuarial value of assets as of December 31, 2021 is $3,320.3 million. Table 4 also shows the development of the gain/(loss) on the actuarial value of assets for the prior plan year. As shown in Item 12, the System had a gain on an actuarial asset basis of $83.4 million in 2021. This compares to the $57.9 million gain in 2020.

The method for determining the actuarial value of assets offsets excesses or shortfalls in the current year's investment income dollar for dollar against prior years' deferred excesses or shortfalls. Any remaining amounts from the current or prior years continue to be recognized over a five-year period. The investment income exceeded the prior year's assumed 7.00% rate of return on a market value of assets (MVA) basis, by $188.8 million. Since the System was deferring investment gains, there is no offsetting against prior years' bases, which means as shown in column 3 of Table 4, $319.2 million in excess income remains to be recognized. Each base is recognized in equal installments over its remaining period. As a result, $74.3 million of this excess investment income will be recognized in this year's actuarial value of assets. The remaining deferral of all excess/(shortfall) investment income for all prior years (shown in Table 4, column 5 of Item 8) to be recognized in future valuations is $244.9 million.

An analysis of the change in the System's market value of assets for the last two plan years and an estimate of the return on assets for the System are included in Table 6. The estimated average annual rate of return for the year ending December 31, 2021 assuming that income, revenue, and expenditures are evenly distributed throughout the year is 12.94% on a market value of assets basis. The rate of return for the year ending December 31, 2021 on an actuarial value basis was 9.74% . This compares with the actuarial assumed investment return at the beginning of the year of 7.00%. Since the return on an actuarial basis was greater than 7.00%, an actuarial gain has occurred as shown in Item 12 on Table 4.

# Actuarial Gains and Losses

An important part of the change in unfunded actuarial accrued liability from year to year is due to the impact of actuarial gains and losses of the System. This section summarizes the combined asset and liability experience changes since the prior valuation on December 31, 2020.

As can be seen in Item 7 of Table 7, the expected value of the unfunded actuarial accrued liability as of December 31, 2021 was an underfunded position of $1,671.4 million. This expected value reflects the prior year's assumed investment return assumption of 7.00% applied to the beginning of year unfunded actuarial accrued liability, normal cost, and contributions during 2021.

Since the actual unfunded actuarial accrued liability as of December 31, 2021 is $1,711.8 million, it represents a total unexpected net increase for the period of $40.3 million, as shown in Item 9 of Table 7. That is, the unfunded actuarial accrued liability is greater than expected. The net increase in the unfunded actuarial accrued liability includes an asset experience gain of $83.4 million as shown in Table 4 and an unanticipated increase on the liability equal to $123.7 million. This is split between the change in assumptions which increased the UAAL by $142.3 million and the liability experience gain of $18.5 million, which is broken out by source in Items 16-23 of Table 7.

Please see the Statement of Actuarial Methods and Assumptions for a more detailed description of the assumptions and methods.

# Historical Comparisons and Statistical Summaries

Various statistical data on the System is shown in the tables contained in the Statistical Tables section. In addition, Tables 8 through 11 of the Actuarial Tables section contain certain actuarial trend information which may be of interest.

Table 8 relates the size of the unfunded actuarial accrued liability (UAAL) to three different measurements. In Columns 3 and 4, the UAAL is related to the covered payroll of the System. Columns 5 and 6 relate the UAAL to the actuarial value of assets, while Columns 7 and 8 relate the UAAL to the total actuarial liabilities of the System.

Tables 9 through 11 provide information which should be included in your annual report. Table 9 provides a schedule of active member valuation data. Table 10 provides a schedule of retirees and beneficiaries added to and removed from payment rolls. Solvency test results are presented in Table 11.

# 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.

# Assessment and Disclosure of Risk Associated with Measuring Pension Obligations and Determining Pension Plan Contributions (Continued)

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 Funding Policy employer contribution rate shown on the Executive Summary may be considered as a minimum contribution rate that complies with the Board’s funding policy. The timely receipt of the actuarially determined contributions is critical to support the financial health of the plan. 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. Several generally accepted plan maturity measures are described below and are followed by a table showing a 10-year history of the measurements for COAERS.

**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.

# Assessment and Disclosure of Risk Associated with Measuring Pension Obligations and Determining Pension Plan Contributions (Continued)

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 of 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 percent 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, 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. While a robust measurement of additional risk assessment is outside the scope of the annual actuarial valuation, some scenario tests and sensitivity tests are included in the valuation summary PowerPoint presentation presented to the Board at the Board’s March Board Meeting.

## Assessment and Disclosure of Risk Associated with Measuring Pension Obligations and Determining Pension Plan Contributions (Continued)

| | 2021 | 2020 | 2019 | 2018 | 2017 | 2016 | 2015 | 2014 | 2013 | 2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Ratio of the market value of assets to payroll | 4.74 | 4.39 | 4.14 | 3.71 | 4.21 | 3.84 | 3.83 | 4.10 | 4.34 | 3.96 |
| Ratio of actuarial accrued liability to payroll | 6.69 | 6.45 | 6.34 | 6.01 | 6.03 | 5.99 | 6.06 | 5.74 | 5.93 | 6.31 |
| Ratio of actives to retirees and beneficiaries | 1.42 | 1.46 | 1.51 | 1.53 | 1.54 | 1.58 | 1.60 | 1.67 | 1.68 | 1.74 |
| Ratio of net cash flow to market value of assets | -1.3% | -1.1% | -1.3% | -1.3% | -1.0% | -0.7% | -0.8% | -0.9% | -0.9% | -1.2% |
| Duration of the actuarial accrued liability* | 14.12 | 13.89 | 14.01 | 13.81 | NA | NA | NA | NA | NA | NA |

*Duration measure not available prior to 2018

# Summary and Closing Comments

It is our opinion that the results of this valuation provide a reasonable reflection of the funded status of the System as of the valuation date. The System's contributions are currently sufficient to amortize the unfunded liability of the System.

As previously mentioned, in 2010 the City of Austin adopted an Amended Supplemental Funding Plan (ASFP) which provides for an additional contribution from the City, above the 8.0% base rate, which has resulted in a gradual increase the City's total contribution rate to the System to 18.0%. In January 2021, the City increased its contribution an additional 1.0% of pay bringing its total contribution rate to 19.0% of pay. It is assumed that this contribution rate will remain unchanged until the System has eliminated its unfunded liability.

The overall funded position of the System increased from 65.3% at the prior valuation to 66.0% at this valuation. Using an open group projection, we have determined that the System is expected to be fully funded in 33 years, assuming all valuation assumptions are realized in the future. The increase in the funding period is due to the change in the investment return assumption from 7.0% to 6.75%. In absence of this change the funding period would have declined.

When compared to assumptions, the System had a favorable year in 2021. The System had experience gains on both the actuaruial value of assets and on the actuarial liabilities. These gains mostly offset the increase in liabilities associated with the change in the investment return assumption. However, as the System is well aware, a funding period of 33 years is still longer than the period outlined in the Board's Funding Policy. Because of the asymptotic nature of funding periods, even small differences between the expected and actual experience in the future could significantly increase the funding period. In addition, the unfunded actuarial accrued liability of the System is still expected to increase as a dollar amount for more than a decade if all assumptions are exactly met. Therefore, we recommend that the System's Board and Staff continue discussions with the City and other stakeholders about appropriate measures to ensure the solvency of the System on a long-term basis.

# Actuarial Tables


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# Table 1
# Summary of Cost Items

| | | December 31, 2021 | | | December 31, 2020 | |
|---|---|---|---|---|---|---|
| | | Cost Item | Cost as % of Pay | | Cost Item | Cost as % of Pay |
| | | (1) | (2) | | (3) | (4) |
| 1. Participants | | | | | | |
| a. Active | | 10,228 | | | 10,138 | |
| b. Terminated vested | | 1,369 | | | 1,264 | |
| c. Retired participants and beneficiaries | | 7,114 | | | 6,852 | |
| d. Disabled | | 107 | | | 111 | |
| e. Total | | 18,818 | | | 18,365 | |
| 2. Covered Payroll | $ | 752,180,499 | | $ | 729,252,035 | |
| 3. Averages for Active Participants | | | | | | |
| a. Average age | | 45.4 | | | 45.2 | |
| b. Average years of service | | 10.0 | | | 10.0 | |
| c. Average pay | $ | 73,541 | | $ | 71,933 | |
| 4. Total Normal Cost | | | | | | |
| a. Normal Cost Rate | | 17.18% | | | 16.53% | |
| b. Administrative Expenses | | 0.51% | | | 0.51% | |
| c. Total | | 17.69% | | | 17.04% | |
| 5. Actuarial Accrued Liability | | | | | | |
| a. Active participants | $ | 2,186,780,594 | | $ | 2,075,826,180 | |
| b. Terminated vested participants | | 103,691,750 | | | 91,930,581 | |
| c. Refunds of terminated nonvested participants | | 12,416,543 | | | 10,926,525 | |
| d. Retired participants and beneficiaries | | 2,707,381,439 | | | 2,500,999,200 | |
| e. Disabled participants | | 21,772,875 | | | 21,532,680 | |
| f. Total | $ | 5,032,043,201 | 668.99% | $ | 4,701,215,166 | 644.66% |
| 6. Actuarial Value of Assets | $ | 3,320,288,049 | 441.42% | $ | 3,069,233,497 | 420.87% |
| 7. Unfunded Actuarial Accrued Liability (UAAL) | $ | 1,711,755,152 | 227.57% | $ | 1,631,981,669 | 223.79% |
| 8. Relative Size of UAAL | | | | | | |
| a. As percent of actuarial value of assets | | 51.55% | | | 53.17% | |
| b. As percent of covered payroll | | 227.57% | | | 223.79% | |
| 9. Funding period using open group projection | | 33 | | | 32 | |
| 10. Employer contribution rate to satisfy funding policy* | | 21.88% | | | 21.02% | |

* Employer rate that amortizes the December 31, 2020 UAAL over 25 years and any subsequent layers over 15 years.

# Table 2
## Analysis of Normal Cost by Component

| Benefit Component | Cost as % of Pay<br>New Assumptions<br>December 31, 2021 | <br>Old Assumptions<br>December 31, 2021 | <br><br>December 31, 2020 |
|---|---|---|---|
| (1) | (2) | (3) | (4) |
| 1. Retirement Benefits | 13.79% | 13.01% | 13.23% |
| 2. Termination - Deferred Benefits | 1.27% | 1.11% | 1.12% |
| 3. Termination - Refund Benefits | 1.64% | 1.74% | 1.72% |
| 4. Disability Benefits | 0.21% | 0.20% | 0.20% |
| 5. Death Benefits | 0.27% | 0.26% | 0.26% |
| 6. Administrative Expenses | 0.51% | 0.51% | 0.51% |
| 7. Normal Cost | 17.69% | 16.83% | 17.04% |

# Table 3
# Actuarial Present Value of Future Benefits and Calculation of Actuarial Accrued Liability

| | New Assumptions December 31, 2021 (1) | Old Assumptions December 31, 2021 (2) | December 31, 2020 (3) |
|---|---|---|---|
| A. Present Value of Future Benefits | | | |
| 1. Active participants | | | |
| a. Retirement benefits | $ 2,893,317,803 | $ 2,767,390,403 | $ 2,728,495,491 |
| b. Deferred termination benefits | 117,347,301 | 102,075,511 | 99,722,139 |
| c. Refund of contributions terminations | 81,065,844 | 87,377,215 | 82,993,192 |
| d. Disability benefits | 20,820,438 | 19,882,361 | 18,821,138 |
| e. Death benefits | 39,107,456 | 37,552,221 | 36,718,188 |
| f. Total | $ 3,151,658,842 | $ 3,014,277,711 | $ 2,966,750,148 |
| 2. Retired participants | | | |
| a. Service retirements and beneficiaries | $ 2,707,381,439 | $ 2,646,841,984 | $ 2,500,999,200 |
| b. Disability retirements | 21,772,875 | 21,277,373 | 21,532,680 |
| c. Total | $ 2,729,154,314 | $ 2,668,119,357 | $ 2,522,531,880 |
| 3. Inactive participants | | | |
| a. Vested terminations with deferred benefits | $ 103,691,750 | $ 99,571,195 | $ 91,930,581 |
| b. Nonvested terminations with refunds payable | 12,416,543 | 12,416,543 | 10,926,525 |
| c. Total | $ 116,108,293 | $ 111,987,738 | $ 102,857,106 |
| 4. Total actuarial present value of future benefits | $ 5,996,921,449 | $ 5,794,384,806 | $ 5,592,139,134 |
| B. Normal Cost Rate (including administrative expenses) | 17.69% | 16.83% | 17.04% |
| C. Present Value of Future Normal Costs | $ 964,878,248 | $ 901,669,632 | $ 890,923,968 |
| D. Actuarial Accrued Liability for Active Members | | | |
| 1. Present value of future benefits (Item A.1.f) | $ 3,151,658,842 | $ 3,014,277,711 | $ 2,966,750,148 |
| 2. Less present value of future normal costs (Item C) | 964,878,248 | 901,669,632 | 890,923,968 |
| 3. Actuarial accrued liability | $ 2,186,780,594 | $ 2,112,608,079 | $ 2,075,826,180 |
| E. Total Actuarial Accrued Liability (Item A.2.c + Item A.3.c + Item D.3) | $ 5,032,043,201 | $ 4,892,715,174 | $ 4,701,215,166 |

# Table 4
# Development of Actuarial Value of Assets

| | | Year Ending December 31, 2021 |
|---|---|---|
| 1. | Market value of assets at beginning of year | $ 3,199,546,583 |
| 2. | Net new investments | |
| | a. Contributions | $ 208,038,584 |
| | b. Benefits and refunds paid | (247,127,397) |
| | c. Administrative expenses | (6,528,499) |
| | d. Subtotal | $ (45,617,312) |
| 3. | Assumed investment return rate for fiscal year | 7.00% |
| 4. | Expected net investment income | $ 222,371,655 |
| 5. | Expected market value at end of year (Item 1+ Item 2 + Item 4) | $ 3,376,300,926 |
| 6. | Market value of assets at end of year | $ 3,565,139,844 |
| 7. | Excess or Shortfall in Investment Income (Item 6 - Item 5) | $ 188,838,918 |

8. Development of amounts to be recognized as of December 31, 2021:

| Fiscal Year End | Remaining Deferrals of Excess (Shortfall) of Investment Income | Offsetting of Excesses/ (Shortfalls) | Net Deferrals Remaining | Years Remaining | Recognized for this Valuation | Remaining after this Valuation |
|---|---|---|---|---|---|---|
| | (1) | (2) | (3) = (1) + (2) | (4) | (5) = (3) / (4) | (6) = (3) - (5) |
| 2017 | $ 0 | $ 0 | $ 0 | 1 | $ 0 | $ 0 |
| 2018 | 0 | 0 | 0 | 2 | 0 | 0 |
| 2019 | 47,449,846 | 0 | 47,449,846 | 3 | 15,816,615 | 31,633,231 |
| 2020 | 82,863,240 | 0 | 82,863,240 | 4 | 20,715,810 | 62,147,430 |
| 2021 | 188,838,918 | 0 | 188,838,918 | 5 | 37,767,784 | 151,071,134 |
| Total | $ 319,152,004 | $ 0 | $ 319,152,004 | | $ 74,300,209 | $ 244,851,795 |

| | | |
|---|---|---|
| 9. | Preliminary actuarial value of plan assets, end of year (Item 6 - Item 8: Column 6) | $ 3,320,288,049 |
| 10. | Actuarial value of assets corridor | |
| | a. 80% of market value, end of year | $ 2,852,111,875 |
| | b. 120% of market value, end of year | $ 4,278,167,813 |
| 11. | Final actuarial value of plan net assets, end of year (Item 9, but recognize 1/3 of any deferred gains or losses outside of Item 10) | $ 3,320,288,049 |
| 12. | Actuarial Asset gain (loss) for year (Item 11 - Item 5) | |
| | a. Expected Actuarial Value of Assets | $ 3,236,865,924 |
| | b. Actuarial gain (loss) in actuarial value of assets (Item 11 - Item 12.a) | $ 83,422,125 |
| 13. | Asset gain (loss) as % of final actuarial value of assets | 2.51% |
| 14. | Ratio of actuarial value to market value | 93.13% |

Notes: Remaining deferrals in Column (1) for prior years are from Column (5) in last 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.

# Table 5
# Open Group Projection

| Valuation as of December 31, | Compensation (in Millions) | Contributions Year Following Valuation (in Millions) | Benefit Payments Year Following Valuation (in Millions) | Actuarial Accrued Liability (AAL, in Millions) | Actuarial Value of Assets (AVA, in Millions) | Unfunded Actuarial Accrued Liability (UAAL, in Millions) | Funded Ratio |
|---|---|---|---|---|---|---|---|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| 2021 | $752 | $205 | $269 | $5,032 | $3,320 | $1,712 | 66.0% |
| 2022 | 775 | 211 | 277 | 5,227 | 3,474 | 1,753 | 66.5% |
| 2023 | 798 | 217 | 296 | 5,426 | 3,636 | 1,790 | 67.0% |
| 2024 | 823 | 224 | 316 | 5,621 | 3,795 | 1,825 | 67.5% |
| 2025 | 848 | 231 | 335 | 5,810 | 3,952 | 1,858 | 68.0% |
| 2026 | 875 | 238 | 354 | 5,994 | 4,106 | 1,888 | 68.5% |
| 2027 | 903 | 246 | 374 | 6,174 | 4,258 | 1,916 | 69.0% |
| 2028 | 931 | 253 | 393 | 6,349 | 4,408 | 1,941 | 69.4% |
| 2029 | 961 | 262 | 413 | 6,518 | 4,556 | 1,962 | 69.9% |
| 2030 | 992 | 270 | 432 | 6,682 | 4,703 | 1,979 | 70.4% |
| 2031 | 1,025 | 279 | 451 | 6,840 | 4,847 | 1,993 | 70.9% |
| 2032 | 1,059 | 288 | 468 | 6,993 | 4,991 | 2,002 | 71.4% |
| 2033 | 1,094 | 298 | 485 | 7,142 | 5,136 | 2,005 | 71.9% |
| 2034 | 1,131 | 308 | 500 | 7,288 | 5,284 | 2,004 | 72.5% |
| 2035 | 1,170 | 319 | 513 | 7,433 | 5,436 | 1,997 | 73.1% |
| 2036 | 1,211 | 330 | 526 | 7,578 | 5,595 | 1,984 | 73.8% |
| 2037 | 1,253 | 341 | 537 | 7,727 | 5,763 | 1,964 | 74.6% |
| 2038 | 1,297 | 353 | 547 | 7,879 | 5,943 | 1,936 | 75.4% |
| 2039 | 1,342 | 366 | 556 | 8,038 | 6,137 | 1,901 | 76.4% |
| 2040 | 1,389 | 378 | 565 | 8,204 | 6,348 | 1,856 | 77.4% |
| 2041 | 1,438 | 392 | 574 | 8,378 | 6,576 | 1,803 | 78.5% |
| 2042 | 1,488 | 405 | 584 | 8,562 | 6,823 | 1,739 | 79.7% |
| 2043 | 1,539 | 419 | 594 | 8,754 | 7,091 | 1,663 | 81.0% |
| 2044 | 1,592 | 434 | 605 | 8,956 | 7,380 | 1,576 | 82.4% |
| 2045 | 1,647 | 449 | 617 | 9,168 | 7,692 | 1,476 | 83.9% |
| 2046 | 1,704 | 464 | 630 | 9,390 | 8,028 | 1,361 | 85.5% |
| 2047 | 1,762 | 480 | 643 | 9,621 | 8,389 | 1,231 | 87.2% |
| 2048 | 1,823 | 496 | 657 | 9,862 | 8,778 | 1,085 | 89.0% |
| 2049 | 1,885 | 513 | 673 | 10,114 | 9,194 | 920 | 90.9% |
| 2050 | 1,950 | 531 | 688 | 10,376 | 9,639 | 737 | 92.9% |
| 2051 | 2,018 | 550 | 704 | 10,649 | 10,117 | 532 | 95.0% |
| 2052 | 2,088 | 569 | 721 | 10,934 | 10,629 | 305 | 97.2% |
| 2053 | 2,160 | 588 | 739 | 11,231 | 11,178 | 53 | 99.5% |
| 2054 | 2,235 | 609 | 758 | 11,540 | 11,765 | -225 | 102.0% |
| 2055 | 2,313 | 630 | 777 | 11,861 | 12,393 | -532 | 104.5% |
| 2056 | 2,394 | 652 | 797 | 12,195 | 13,065 | -870 | 107.1% |
| 2057 | 2,478 | 675 | 819 | 12,542 | 13,783 | -1,241 | 109.9% |
| 2058 | 2,564 | 698 | 841 | 12,904 | 14,551 | -1,647 | 112.8% |
| 2059 | 2,654 | 723 | 864 | 13,279 | 15,372 | -2,093 | 115.8% |
| 2060 | 2,747 | 748 | 888 | 13,669 | 16,249 | -2,580 | 118.9% |
| 2061 | 2,843 | 774 | 913 | 14,074 | 17,186 | -3,112 | 122.1% |

Projection assumes all assumptions exactly met.

# Table 6
# Change in Net Position

| | | Valuation Period Ending December 31, | |
|---|---|---|---|
| | | 2021 | 2020 |
| | | (1) | (2) |
| 1. | Assets in plan at beginning of year **(A)** | $ 3,199,546,583 | $ 2,928,033,076 |
| 2. | Employer contributions | 141,218,720 | 130,742,811 |
| 3. | Employee contributions | 66,819,864 | 71,469,702 |
| 4. | Benefit payments made* | 242,860,638 | 227,737,284 |
| 5. | Refunds of contributions | 4,266,759 | 3,656,402 |
| 6. | Expenses paid from trust | 6,528,499 | 6,594,536 |
| 7. | Investment expense | 6,749,253 | 6,513,904 |
| 8. | Investment return | 417,959,826 | 313,803,120 |
| 9. | Assets in plan at end of year **(B)**<br>(1 + 2 + 3 - 4 - 5 - 6 - 7 + 8) | $ 3,565,139,844 | $ 3,199,546,583 |
| 10. | Approximate rate of return on average invested assets | | |
| | a. Net investment income (8 - 7 = **I**) | $ 411,210,573 | $ 307,289,216 |
| | b. Estimated yield based on **(2I/(A + B - I))** | 12.94% | 10.56% |

* Benefit payments exclude any distributions from the 415 Restoration Plan

# Table 7
## Change in Unfunded Actuarial Accrued Liability as of December 31, 2021

| CALCULATION OF TOTAL ACTUARIAL GAIN OR LOSS | 2021 | 2020 |
|---|---|---|
| 1. Unfunded actuarial accrued liability (UAAL) as of prior year | $ 1,631,981,669 | $ 1,638,934,062 |
| 2. Actual normal cost paid during year (includes service purchases) | 135,777,624 | 139,102,433 |
| 3. Subtotal (1 + 2) | $ 1,767,759,293 | $ 1,778,036,495 |
| 4. Interest at prior year assumption of 7.00% | 118,990,934 | 119,593,970 |
| 5. Contributions during year | (208,038,584) | (202,212,513) |
| 6. Interest on contributions for one-half year | (7,281,350) | (7,077,438) |
| 7. Expected UAAL as of December 31st (3 + 4 + 5 + 6) | 1,671,430,293 | 1,688,340,514 |
| 8. Actual UAAL as of December 31st | 1,711,755,152 | 1,631,981,669 |
| 9. Unexpected Change in UAAL for the period (8 - 7) | 40,324,859 | (56,358,845) |
| SOURCE OF CHANGE IN UAAL | | |
| 10. Asset (gain)/loss (See Table 4) | $ (83,422,125) | $ (57,884,856) |
| 11. Actuarial Value of Asset Method change | 0 | 0 |
| 12. Increase/(decrease) due to assumption & method changes | 142,269,829 | 0 |
| 13. Increase/(decrease) due to benefit enhancements | 0 | 0 |
| 14. Total unanticipated increase/(decrease) in liabilities for the period (9-10-11-12-13) | (18,522,845) | 1,526,011 |
| 15. Total liability changes (12 + 13 + 14) | $ 123,746,984 | $ 1,526,011 |
| SOURCE OF LIABILITY EXPERIENCE (GAINS) AND LOSSES | | |
| 16. Salary Increases | $ (13,659,356) | $ (547,348) |
| 17. Service Retirement | (8,231,806) | (8,988,757) |
| 18. Withdrawal | (1,617,944) | 8,518,520 |
| 19. Disability Retirement | 36,817 | 106,744 |
| 20. Active Mortality | (28,309) | (122,439) |
| 21. Retiree Mortality | (3,405,554) | (6,357,099) |
| 22. Rehires with past service | 1,722,660 | 966,567 |
| 23. Other (Data) including proportionate program | 6,660,647 | 7,949,823 |
| 24. Total Liability Experience (Gain)/Loss | $ (18,522,845) | $ 1,526,011 |

# Table 8
# Relative Size of Unfunded Actuarial Accrued Liability

| | | Relative to Covered Payroll | | Relative to Actuarial Value of Present Assets | | Relative to Total Actuarial Accrued Liability | |
|---|---|---|---|---|---|---|---|
| Valuation as of December 31, | Unfunded/ (Overfunded) Actuarial Accrued Liability | Covered Payroll | Percent of Covered Payroll | Present Assets | Percent of Present Assets | Actuarial Accrued Liability | Percent of Actuarial Accrued Liability |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| 2002 | 189,347,298 | 322,007,672 | 58.8% | 1,250,851,348 | 15.1% | 1,440,198,646 | 13.1% |
| 2003 | 203,040,300 | 312,790,966 | 64.9% | 1,348,790,502 | 15.1% | 1,551,830,802 | 13.1% |
| 2004 | 321,383,795 | 326,590,164 | 98.4% | 1,356,797,448 | 23.7% | 1,678,181,243 | 19.2% |
| 2005 | 395,382,953 | 348,619,141 | 113.4% | 1,398,798,722 | 28.3% | 1,794,181,675 | 22.0% |
| 2006 | 476,226,660 | 390,963,991 | 121.8% | 1,497,783,958 | 31.8% | 1,974,010,618 | 24.1% |
| 2007 | 459,277,808 | 417,450,797 | 110.0% | 1,653,533,484 | 27.8% | 2,112,811,292 | 21.7% |
| 2008 | 765,526,422 | 448,740,469 | 170.6% | 1,481,377,439 | 51.7% | 2,246,903,861 | 34.1% |
| 2009 | 658,466,636 | 422,539,199 | 155.8% | 1,672,470,344 | 39.4% | 2,330,936,980 | 28.2% |
| 2010 | 749,087,565 | 438,877,002 | 170.7% | 1,711,577,229 | 43.8% | 2,460,664,794 | 30.4% |
| 2011 | 932,942,173 | 451,831,198 | 206.5% | 1,790,902,641 | 52.1% | 2,723,844,815 | 34.3% |
| 2012 | 1,070,656,825 | 470,231,969 | 227.7% | 1,897,722,867 | 56.4% | 2,968,379,692 | 36.1% |
| 2013 | 861,988,246 | 490,553,170 | 175.7% | 2,047,929,504 | 42.1% | 2,909,917,750 | 29.6% |
| 2014 | 900,174,491 | 539,158,693 | 167.0% | 2,193,881,221 | 41.0% | 3,094,055,712 | 29.1% |
| 2015 | 1,083,708,976 | 559,829,504 | 193.6% | 2,308,087,140 | 47.0% | 3,391,796,116 | 32.0% |
| 2016 | 1,168,107,291 | 599,574,934 | 194.8% | 2,423,269,015 | 48.2% | 3,591,376,306 | 32.5% |
| 2017 | 1,205,362,672 | 629,943,122 | 191.3% | 2,592,460,631 | 46.5% | 3,797,823,303 | 31.7% |
| 2018 | 1,294,171,745 | 664,335,027 | 194.8% | 2,695,388,392 | 48.0% | 3,989,560,137 | 32.4% |
| 2019 | 1,638,934,062 | 707,534,152 | 231.6% | 2,848,950,000 | 57.5% | 4,487,884,062 | 36.5% |
| 2020 | 1,631,981,669 | 729,252,035 | 223.8% | 3,069,233,497 | 53.2% | 4,701,215,166 | 34.7% |
| 2021 | 1,711,755,152 | 752,180,499 | 227.6% | 3,320,288,049 | 51.6% | 5,032,043,201 | 34.0% |

# Table 9
## Schedule of Active Member Valuation Data

| Year Ending December 31, | Active Participants | Percent Change | Covered Payroll | Percent Change | Average Salary | Percent Change |
|---|---|---|---|---|---|---|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2002 | 7,647 | -0.9% | 322,007,672 | 1.6% | 42,109 | 2.5% |
| 2003 | 7,432 | -2.8% | 312,790,966 | -2.9% | 42,087 | -0.1% |
| 2004 | 7,489 | 0.8% | 326,590,164 | 4.4% | 43,609 | 3.6% |
| 2005 | 7,638 | 2.0% | 348,619,141 | 6.7% | 45,643 | 4.7% |
| 2006 | 8,055 | 5.5% | 390,963,991 | 12.1% | 48,537 | 6.3% |
| 2007 | 8,358 | 3.8% | 417,450,797 | 6.8% | 49,946 | 2.9% |
| 2008 | 8,643 | 3.4% | 448,740,469 | 7.5% | 51,920 | 4.0% |
| 2009 | 8,142 | -5.8% | 422,539,199 | -5.8% | 51,896 | 0.0% |
| 2010 | 8,270 | 1.6% | 438,877,002 | 3.9% | 53,069 | 2.3% |
| 2011 | 8,348 | 0.9% | 451,831,198 | 3.0% | 54,124 | 2.0% |
| 2012 | 8,387 | 0.5% | 470,231,969 | 4.1% | 56,067 | 3.6% |
| 2013 | 8,592 | 2.4% | 490,553,170 | 4.3% | 57,094 | 1.8% |
| 2014 | 9,028 | 5.1% | 539,158,693 | 9.9% | 59,721 | 4.6% |
| 2015 | 9,063 | 0.4% | 559,829,504 | 3.8% | 61,771 | 3.4% |
| 2016 | 9,364 | 3.3% | 599,574,934 | 7.1% | 64,030 | 3.7% |
| 2017 | 9,612 | 2.6% | 629,943,122 | 5.1% | 65,537 | 2.4% |
| 2018 | 9,838 | 2.4% | 664,335,027 | 5.5% | 67,527 | 3.0% |
| 2019 | 10,149 | 3.2% | 707,534,152 | 6.5% | 69,715 | 3.2% |
| 2020 | 10,138 | -0.1% | 729,252,035 | 3.1% | 71,933 | 3.2% |
| 2021 | 10,228 | 0.9% | 752,180,499 | 3.1% | 73,541 | 2.2% |

# Table 10

# Schedule of Retirees and Beneficiaries Added to and Removed from Rolls

| | Added to Rolls | | Removed from Rolls | | Rolls-End of Year | | | |
|---|---|---|---|---|---|---|---|---|
| Year Ending December 31, | Number | Annual Allowances | Number | Annual Allowances | Number | Annual Allowances | % Increase in Annual Allowances | Average Annual Allowances |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| 2002 | 309 | $ 7,754,803 | 118 | $2,534,050 | 2,783 | $ 72,520,159 | 10.5% | $ 26,058 |
| 2003 | 271 | 7,706,066 | 59 | 1,502,757 | 2,995 | 78,596,302 | 8.4% | 26,243 |
| 2004 | 227 | 5,619,478 | 85 | 1,741,624 | 3,137 | 82,121,249 | 4.5% | 26,178 |
| 2005 | 258 | 6,699,023 | 98 | 2,438,555 | 3,297 | 85,324,686 | 3.9% | 25,879 |
| 2006 | 259 | 6,788,190 | 89 | 1,883,938 | 3,467 | 90,312,037 | 5.8% | 26,049 |
| 2007 | 289 | 8,523,459 | 123 | 2,262,126 | 3,633 | 96,071,149 | 6.4% | 26,444 |
| 2008 | 290 | 8,299,468 | 88 | 2,056,217 | 3,835 | 101,840,870 | 6.0% | 26,556 |
| 2009 | 331 | 9,953,411 | 80 | 1,630,148 | 4,086 | 109,656,152 | 7.7% | 26,837 |
| 2010 | 341 | 10,495,807 | 92 | 2,029,423 | 4,335 | 117,954,059 | 7.6% | 27,210 |
| 2011 | 324 | 9,851,119 | 117 | 2,785,375 | 4,542 | 124,748,580 | 5.8% | 27,466 |
| 2012 | 405 | 13,035,228 | 116 | 3,011,032 | 4,831 | 134,653,163 | 7.9% | 27,873 |
| 2013 | 387 | 12,451,142 | 98 | 2,176,950 | 5,120 | 144,755,297 | 7.5% | 28,273 |
| 2014 | 397 | 12,737,257 | 121 | 2,568,479 | 5,396 | 154,937,553 | 7.0% | 28,713 |
| 2015 | 411 | 13,547,663 | 128 | 2,980,334 | 5,679 | 165,579,191 | 6.9% | 29,156 |
| 2016 | 385 | 12,920,841 | 130 | 3,199,901 | 5,934 | 175,327,721 | 5.9% | 29,546 |
| 2017 | 422 | 14,942,887 | 131 | 2,979,178 | 6,225 | 187,304,849 | 6.8% | 30,089 |
| 2018 | 338 | 12,352,947 | 149 | 3,496,334 | 6,414 | 196,302,394 | 4.8% | 30,605 |
| 2019 | 434 | 17,128,087 | 145 | 3,358,432 | 6,703 | 210,148,047 | 7.1% | 31,351 |
| 2020 | 453 | 17,927,288 | 193 | 4,828,468 | 6,963 | 223,247,694 | 6.2% | 32,062 |
| 2021 | 432 | 17,816,028 | 174 | 4,378,064 | 7,221 | 236,613,025 | 6.0% | 32,767 |

# Table 11
# Solvency Test

| | Aggregated Accrued Liabilities for | | | | Portions of Accrued Liabilities Covered by Reported Assets | | |
|---|---|---|---|---|---|---|---|
| Valuation Date | Active and Inactive Members Contributions | Retirees and Beneficiaries | Active and Inactive Members (Employer Financed Portion) | Reported Assets | (5)/(2) | [(5)-(2)]/3 | [(5)-(2)-(3)]/(4) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| December 31, 2005 | 280,994,642 | 848,185,652 | 665,001,381 | 1,398,798,722 | 100.0% | 100.0% | 40.5% |
| December 31, 2006 | 295,166,238 | 904,166,079 | 774,678,301 | 1,497,783,958 | 100.0% | 100.0% | 38.5% |
| December 31, 2007 | 333,340,167 | 968,493,997 | 810,977,128 | 1,653,533,484 | 100.0% | 100.0% | 43.4% |
| December 31, 2008 | 357,423,035 | 1,025,407,475 | 864,073,351 | 1,481,377,439 | 100.0% | 100.0% | 11.4% |
| December 31, 2009 | 362,288,592 | 1,109,773,550 | 858,874,838 | 1,672,470,344 | 100.0% | 100.0% | 23.3% |
| December 31, 2010 | 377,651,365 | 1,195,328,215 | 887,685,214 | 1,711,577,229 | 100.0% | 100.0% | 15.6% |
| December 31, 2011 | 413,944,399 | 1,267,467,354 | 1,042,433,062 | 1,790,902,641 | 100.0% | 100.0% | 10.5% |
| December 31, 2012 | 417,481,360 | 1,375,244,710 | 1,175,653,622 | 1,897,722,867 | 100.0% | 100.0% | 8.9% |
| December 31, 2013 | 436,164,975 | 1,478,146,019 | 995,606,756 | 2,047,929,504 | 100.0% | 100.0% | 13.4% |
| December 31, 2014 | 453,220,166 | 1,580,320,342 | 1,060,515,204 | 2,193,881,221 | 100.0% | 100.0% | 15.1% |
| December 31, 2015 | 471,000,910 | 1,771,674,810 | 1,149,120,396 | 2,308,087,140 | 100.0% | 100.0% | 5.7% |
| December 31, 2016 | 497,752,958 | 1,873,037,310 | 1,220,586,038 | 2,423,269,015 | 100.0% | 100.0% | 4.3% |
| December 31, 2017 | 517,234,871 | 2,007,105,437 | 1,273,482,995 | 2,592,460,631 | 100.0% | 100.0% | 5.3% |
| December 31, 2018 | 549,887,200 | 2,096,091,332 | 1,343,581,605 | 2,695,388,392 | 100.0% | 100.0% | 3.7% |
| December 31, 2019 | 572,708,759 | 2,378,309,300 | 1,536,866,003 | 2,848,950,000 | 100.0% | 95.7% | 0.0% |
| December 31, 2020 | 594,832,013 | 2,522,531,880 | 1,583,851,273 | 3,069,233,497 | 100.0% | 98.1% | 0.0% |
| December 31, 2021 | 606,219,719 | 2,729,154,314 | 1,696,669,168 | 3,320,288,049 | 100.0% | 99.4% | 0.0% |

# Table 12
# Schedule of Funding Progress

| Valuation Date | 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) |
| December 31, 2002 | 1,250.9 | 1,440.2 | 189.3 | 86.9% | 322.0 | 58.8% |
| December 31, 2003 | 1,348.8 | 1,551.8 | 203.0 | 86.9% | 312.8 | 64.9% |
| December 31, 2004 | 1,356.8 | 1,678.2 | 321.4 | 80.8% | 326.6 | 98.4% |
| December 31, 2005 | 1,398.8 | 1,794.2 | 395.4 | 78.0% | 348.6 | 113.4% |
| December 31, 2006 | 1,497.8 | 1,974.0 | 476.2 | 75.9% | 391.0 | 121.8% |
| December 31, 2007 | 1,653.5 | 2,112.8 | 459.3 | 78.3% | 417.5 | 110.0% |
| December 31, 2008 | 1,481.4 | 2,246.9 | 765.5 | 65.9% | 448.7 | 170.6% |
| December 31, 2009 | 1,672.5 | 2,330.9 | 658.5 | 71.8% | 422.5 | 155.8% |
| December 31, 2010 | 1,711.6 | 2,460.7 | 749.1 | 69.6% | 438.9 | 170.7% |
| December 31, 2011 | 1,790.9 | 2,723.8 | 932.9 | 65.7% | 451.8 | 206.5% |
| December 31, 2012 | 1,897.7 | 2,968.4 | 1,070.7 | 63.9% | 470.2 | 227.7% |
| December 31, 2013 | 2,047.9 | 2,909.9 | 862.0 | 70.4% | 490.6 | 175.7% |
| December 31, 2014 | 2,193.9 | 3,094.1 | 900.2 | 70.9% | 539.2 | 167.0% |
| December 31, 2015 | 2,308.1 | 3,391.8 | 1,083.7 | 68.0% | 559.8 | 193.6% |
| December 31, 2016 | 2,423.3 | 3,591.4 | 1,168.1 | 67.5% | 599.6 | 194.8% |
| December 31, 2017 | 2,592.5 | 3,797.8 | 1,205.4 | 68.3% | 629.9 | 191.3% |
| December 31, 2018 | 2,695.4 | 3,989.6 | 1,294.2 | 67.6% | 664.3 | 194.8% |
| December 31, 2019 | 2,849.0 | 4,487.9 | 1,638.9 | 63.5% | 707.5 | 231.6% |
| December 31, 2020 | 3,069.2 | 4,701.2 | 1,632.0 | 65.3% | 729.3 | 223.8% |
| December 31, 2021 | 3,320.3 | 5,032.0 | 1,711.8 | 66.0% | 752.2 | 227.6% |

Note: Dollar amount in millions.

# Statement of Actuarial Methods and Assumptions
# (Effective as of December 31, 2021)

The most recent experience study was completed based on data collected through December 31, 2018. Except as noted below, the Board adopted the assumptions outlined below to be effective with the December 31, 2019 actuarial valuation. Please see our Experience Study report to see more detail of the rationale for the current assumptions. As authorized under Article 6243n of the Vernon's Civil Statutes of the State of Texas, actuarial assumptions and methods are set by the Board of Trustees, based upon recommendations made by the plan's actuary.

A. <u>ACTUARIAL ASSUMPTIONS</u>

1. <u>Investment Return Rate</u> (adopted effective December 31, 2021)

   6.75% per annum, compounded annually, composed of an assumed inflation rate of 2.50% and a real rate of return of 4.25%, net of investment expenses.

2. <u>Mortality</u>

   a. <u>Nondisabled annuitants</u> (adopted effective December 31, 2019)

      Healthy retirees and beneficiaries – The PubG-2010 Healthy Retiree Mortality Table (for General employees) for males and females with full generational projection assuming immediate convergence of rates in the mortality projection scale MP-2018, 2D for male and female. Mortality improvement is projected from the mortality table's base year of 2010.

   b. <u>Disabled annuitants</u> (adopted effective December 31, 2019)

      Disabled annuitants – The PubG-2010 Healthy Retiree Mortality Table (for General employees) for males and females, set forward three years with full generational projection assuming immediate convergence of rates in the mortality projection scale MP-2018, 2D for male and female. Mortality improvement is projected from the mortality table's base year of 2010. A minimum 3% rate of mortality applies at all ages.

   c. <u>Active members</u> (adopted effective December 31, 2019)

      Active employees – The PubG-2010 Employee Mortality Table (for General employees) for males and females with full generational projection assuming immediate convergence of rates in the mortality projection scale MP-2018, 2D for male and female. Mortality improvement is projected from the mortality table's base year of 2010.

   <u>Note regarding mortality table extensions</u>:

   Pub-2010 mortality tables are not inclusive of all ages. Mortality rates for active members were extended above age 80 by a constant exponential rate to the Healthy Retiree rate at age 100. Mortality rates for nondisabled annuitants below age 50 were extended using a constant exponential rate to the Juvenile rates.

# Statement of Actuarial Methods and Assumptions (Effective as of December 31, 2021) (Continued)

3. Retirement Rates: (adopted effective December 31, 2019)
   The following rates of retirement are assumed for members eligible for normal retirement.

| Age | Rates of Retirement | |
|---|---|---|
| | Males | Females |
| 44 & under | 22.0% | 25.0% |
| 45 | 20.0% | 20.0% |
| 46 | 20.0% | 20.0% |
| 47 | 20.0% | 20.0% |
| 48 | 20.0% | 20.0% |
| 49 | 20.0% | 20.0% |
| 50 | 22.0% | 24.0% |
| 51 | 22.0% | 24.0% |
| 52 | 22.0% | 24.0% |
| 53 | 22.0% | 24.0% |
| 54 | 22.0% | 24.0% |
| 55 | 21.0% | 26.0% |
| 56 | 21.0% | 26.0% |
| 57 | 21.0% | 26.0% |
| 58 | 21.0% | 26.0% |
| 59 | 21.0% | 26.0% |
| 60 | 22.0% | 21.0% |
| 61 | 22.0% | 21.0% |
| 62 | 27.0% | 24.0% |
| 63 | 18.0% | 16.0% |
| 64 | 18.0% | 16.0% |
| 65 | 18.0% | 24.0% |
| 66 | 30.0% | 24.0% |
| 67 | 30.0% | 26.0% |
| 68 | 22.0% | 26.0% |
| 69 | 22.0% | 26.0% |
| 70 | 30.0% | 26.0% |
| 71 | 22.0% | 24.0% |
| 72 | 22.0% | 24.0% |
| 73 | 22.0% | 24.0% |
| 74 & older | 100.0% | 100.0% |

Group B members are assumed to retire at twice the applicable rate upon the first year they attain eligibility for normal retirement. Early retirement rates (of 1% at age 55 increasing by 1% every two years to 5% at ages 63 and 64) apply for Group B members.

# Statement of Actuarial Methods and Assumptions
# (Effective as of December 31, 2021)
# (Continued)

4. Rates of Decrement Due to Withdrawal (adopted effective December 31, 2019)

Rates of withdrawal are comprised of a select period for the first 5 years of employment and ultimate rates based on years of service from retirement after the end of the select period. The following rates during the select period apply at all ages during the applicable year of employment:

| Years of Employment | Males | Females |
|---|---|---|
| 1 | 0.1100 | 0.1600 |
| 2 | 0.1050 | 0.1500 |
| 3 | 0.0925 | 0.1275 |
| 4 | 0.0675 | 0.1000 |
| 5 | 0.0600 | 0.0850 |

After the select period ends, rates of withdrawal are based on the number of years from retirement. The rates are shown below for males and females:

| Years from Eligibility for Unreduced Retirement | Rates of Withdrawal After Select Period | |
|---|---|---|
| | Males | Females |
| 1 | 0.0120 | 0.0080 |
| 2 | 0.0120 | 0.0175 |
| 3 | 0.0120 | 0.0175 |
| 4 | 0.0120 | 0.0200 |
| 5 | 0.0150 | 0.0200 |
| 6 | 0.0200 | 0.0200 |
| 7 | 0.0200 | 0.0250 |
| 8 | 0.0200 | 0.0250 |
| 9 | 0.0200 | 0.0250 |
| 10 | 0.0250 | 0.0300 |
| 11 | 0.0300 | 0.0350 |
| 12 | 0.0350 | 0.0375 |
| 13 | 0.0400 | 0.0400 |
| 14 | 0.0450 | 0.0700 |
| 15+ | 0.0560 | 0.0825 |

# Statement of Actuarial Methods and Assumptions
# (Effective as of December 31, 2021)
# (Continued)

5. Disability Rates* (adopted effective December 31, 2015)

Sample rates are shown below:

| Age | Rates of Decrement Due to Disability Males and Females |
|---|---|
| 20 | 0.000004 |
| 25 | 0.000025 |
| 30 | 0.000099 |
| 35 | 0.000259 |
| 40 | 0.000494 |
| 45 | 0.000804 |
| 50 | 0.001188 |
| 55 | 0.001647 |
| 60 | 0.002180 |

* Rates are for disability due to all causes. Occupational disability rates are assumed to be 10% of all causes.

6. Rates of Salary Increase (adopted effective December 31, 2019)

| Years of Service | Promotional Rate of Increase | Total Annual Rate of Increase Including 2.50% Inflation Component and 1.00% Productivity Component |
|---|---|---|
| 1 - 3 | 2.25% | 5.75% |
| 4 - 5 | 2.00% | 5.50% |
| 6 | 1.75% | 5.25% |
| 7 | 1.50% | 5.00% |
| 8 | 1.25% | 4.75% |
| 9 - 10 | 1.00% | 4.50% |
| 11 - 12 | 0.75% | 4.25% |
| 13 – 14 | 0.50% | 4.00% |
| 15 - 16 | 0.25% | 3.75% |
| 17 or more | 0.00% | 3.50% |

7. DROP Participation: (adopted effective December 31, 2019)

It was assumed that 15% of retiring active members with at least 20 years of service would elect a “Backward” DROP. Additionally, it was assumed that all members who Back Drop would elect to DROP back to the date that would provide the greatest actuarial value to the member.

# Statement of Actuarial Methods and Assumptions
# (Effective as of December 31, 2021)
# (Continued)

8. Married Percentage: (adopted effective December 31, 1997)

   100% of the active members are assumed to be married.

9. There will be no recoveries once disabled: (adopted effective December 31, 1997)

10. Spousal Age Difference: (adopted effective December 31, 2012)

    Males are assumed to be three years older than females.

11. Normal Form of Payment: (adopted effective December 31, 1997)

    It is assumed that all retiring members will elect the Life only form of payment with a guaranteed return of accumulated employee contributions.

12. Crediting Rate on Employee Contributions: (adopted effective December 31, 2002)

    It is assumed that the interest credit rate on employee contributions will be 6.0%.

13. Individual salaries used to project benefits: (adopted effective December 31, 1997)

    Rates of pay as of the valuation date are reported for all employees.

14. Pay increase timing: (adopted effective December 31, 1997)

    Middle of calendar year.

15. Decrement timing: (adopted effective December 31, 1997)

    Decrements of all types are assumed to occur mid-year.

16. Eligibility testing: (adopted effective December 31, 2002)

    Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur

17. Decrement relativity: (adopted effective December 31, 2002)

    Decrement rates are used directly from the experience study, without adjustment for multiple decrement table effects.

# Statement of Actuarial Methods and Assumptions (Effective as of December 31, 2021) (Continued)

18. Incidence of Contributions: (adopted effective December 31, 2002)

    Contributions are assumed to be received continuously throughout the year based upon the contribution rates as a percent of payroll (established in statute or agreed upon under the Supplemental Funding Plan) shown in this report and the actual payroll payable at the time contributions are made.

19. Benefit Service: (adopted December 31, 1997)

    All members are assumed to accrue one year of eligibility service each year.

20. Service Purchases (military, permissive, and sick leave conversion):

    No service purchases of any type are assumed. Any gains or losses due to these purchases are recognized in the valuation following the purchase.

21. Cost of Living Adjustments and One-time Payments:

    No future cost of living adjustments are assumed. In addition, no one-time payments ($13^{th}$ checks) are assumed.

B. ACTUARIAL VALUE OF ASSETS

The actuarial value of assets is equal to the market value of assets less a five-year phase in of the Excess (Shortfall) between expected investment return and actual income. The expected investment return each year is calculated based on the market value of assets with the difference from actual income smoothed in over five years in 20% increments. If the current year's difference is opposite sign of the prior years' deferred excesses/(shortfalls), then the prior years' bases (starting with the oldest) are reduced dollar for dollar along with the current year's base. Any remaining bases are then recognized over five years (20% per year) from their initial creation. This can and will result in some bases being recognized in a period shorter than five years.

If the resulting preliminary asset value is less than 80% or more than 120% of the market value of assets, then 1/3 of the amount outside of the 80% to 120% corridor is recognized in the final actuarial value of assets. In extreme market conditions, this could result in an actuarial value of assets outside of the 80% to 120% market value of assets corridor.

# Statement of Actuarial Methods and Assumptions
# (Effective as of December 31, 2021)
# (Continued)

C. ACTUARIAL FUNDING METHOD

The actuarial accrued liability is determined using the Entry Age Normal actuarial cost method. This method assigns the System's total actuarial present value of future benefits to various periods. The actuarial accrued liability is assigned to years prior to the valuation and the normal cost is assigned to the year following the valuation. The remaining costs are assigned to future years.

The normal cost is determined on an individual basis using the Individual Entry Age Normal Cost method. The actuarial accrued liability is the difference between the total present value of future benefits and the actuarial present value of future normal costs where future normal costs are based on the benefit provisions that are applicable to each individual member. The unfunded actuarial accrued liability is the excess of the actuarial accrued liability over the actuarial value of assets.

D. FUNDING PERIOD

The funding period is determined using an open group projection. In the open group projection, the demographic assumptions are applied to the current active employees and any employees that are assumed to leave employment are replaced one for one with a new employee. Over time this results in the change of the employee group from mostly Group A members to Group B members. The projection is built to assume no gains or losses on the actuarial accrued liability or the actuarial value of assets. The funding period is the length of time it takes in the open group projection for the actuarial value of assets to exceed the actuarial accrued liability.

In the projection, new members' pay are assumed to increase at 3.50% year over year (i.e. a new employee in 2021 is assumed to be hired at a salary that is 3.50% greater than a new employee hired in 2020). The 3.50% growth rate is equal to our wage inflation assumption of 3.50% (ultimate salary increase assumption shown in Item A.6.). Note that this is not an assumption that payroll will grow at 3.50% per year. Payroll could grow more slowly in the near-term due to membership demographics.

E. 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 and has no material limitations or known weaknesses. We performed tests to ensure that the model reasonably represents that which is intended to be modeled.

F. CHANGES IN ASSUMPTIONS AND METHODS

The assumptions are the same as the previouls valuation except for the investment return assumption which was decreased to 6.75% effective December 31, 2021.

# Summary of Benefit Provisions of the Retirement Plan as of December 31, 2021

A. EFFECTIVE DATE

January 1, 1941.

B. ELIGIBILITY AND PARTICIPATION

Any regular and permanent employee of the City of Austin, excluding all civil service commissioned police officers and firefighters, the Mayor and members of the City Council and all part-time employees who work less than 75 percent of a normal work week.

Members originally hired prior to January 1, 2012 are classified as Group A members and members hired on or after January 1, 2012 are classified as Group B members.

Unless noted otherwise, the provisions for Group A and Group B are the same.

C. MEMBERSHIP SERVICE

The period of time during which an eligible employee pays into and keeps on deposit the contribution prescribed to be paid by the employee into the System.

D. AVERAGE FINAL COMPENSATION

The average of the monthly compensation for the 36 calendar months of highest compensation during the last 120 months prior to termination. The compensation used in the determination of benefits cannot exceed the compensation limits of Internal Revenue Code §401(a)(17) for the applicable period. The limit for 2020 is up to $285,000 for persons who first become members after 1995 (members hired prior to 1996 have no limit on their compensation).

E. CITY AND MEMBER CONTRIBUTION RATES

The City currently contributes a base rate of 8.00% of pay for each active member. Under the Amended Supplemental Funding Plan, the City is providing an additional contribution for each active member. Beginning January 1, 2021, this additional contribution increased to 11% of pay, for a total City contribution rate of 19% of pay. Each active member contributes 8.00% of pay. The member contributions are made under a pre-tax 401(h) pick-up arrangement.

# Summary of Benefit Provisions
# of the Retirement Plan as of December 31, 2021
# (Continued)

F. RETIREMENT BENEFITS

1. Normal Retirement

a. Eligibility:

Group A – A participant may retire upon attaining age 62, or any age with 23 years of service, or attaining age 55 with 20 years of service.

Group B – A participant may retire upon attaining age 62 with 30 years of service, or at age 65 with 5 years of service.

b. Monthly Benefit:

Group A – 3.00% of average final compensation times years of service.

Group B – 2.50% of average final compensation times years of service.

c. Payment Form: Benefits are paid as a monthly life annuity to the participant, with a provision that should the participant die prior to receiving monthly payments whose sum is greater than or equal to the participant's accumulated employee contributions, then the participant's beneficiary shall receive a lump-sum equal to the excess of the participant's accumulated employee contributions with interest over the sum of the monthly payments received.

d. Optional Forms of Payment:

i) Joint and contingent annuity with either 100%, 66 2/3%, or 50% of the reduced retirement income payable for the life of the contingent annuitant upon the death of the retiring participant, with the provision that, should the contingent annuitant predecease the participant, the monthly annuity will revert to the amount that would have been payable under the normal form of payment,

ii) Joint and 66 2/3% last survivor provides a reduced retirement income payable as long as both the member and the joint annuitant are alive, and upon the death of either the member or the joint annuitant, the benefit reduces to 2/3 of such amount for the remainder of the life of the last survivor,

iii) Period certain and life annuity with 15 years of payments guaranteed, or

# Summary of Benefit Provisions of the Retirement Plan as of December 31, 2021 (Continued)

e. Deferred Retirement Option Program (DROP): A member may elect to retroactively participate in the System's DROP (i.e. a Backward DROP). The member would receive a lump-sum payment equal to 90% of the sum of the monthly annuities the participant would have received if the member had retired at the DROP entry date. No COLAs are included but changes in the benefit multiplier are reflected. The maximum period a member may retroactively elect under the DROP is 60 months.

2. Early Retirement:

a. Eligibility:

Group A – Currently there are no reduced retirement benefits under the plan.

Group B – A participant may retire with a reduced benefit upon attaining age 55 with 10 years of service.

b. Monthly Benefit:

Group A – Not applicable.

Group B – the same formula benefit as determined under normal retirement multiplied by an actuarial equivalent early retirement reduction factor.

G. DISABILITY RETIREMENT

1. Eligibility: If the employee is terminated by reason of a total and permanent disability which prevents the employee from engaging in any employment duties. If the employee has less than five years of service, the disability must be job related.

2. Monthly Benefit: Same as Normal Retirement benefit using pay and service at date of disability.

3. Form of Payment: The normal form of payment that is available to a member taking normal retirement and the optional forms of payments described in F.1.d.i) and F.1.d.ii) above.

# Summary of Benefit Provisions of the Retirement Plan as of December 31, 2021 (Continued)

H. VESTING OF BENEFITS

1. Vesting

An employee is vested according to the following schedule:

| Years of Vesting Service | Vested Percentage |
|---|---|
| Less than 5 | 0% |
| 5 or more | 100% |

Benefits Upon Vesting

A vested participant is entitled to the retirement benefit payable at normal retirement earned to the date of participant's termination multiplied by his/her vested percentage, or a refund of the employee's accumulated employee contributions with interest.

I. DEATH IN SERVICE

1. Eligibility: All active members.

2. Benefit: The amount of the benefit payable to the beneficiary is:

a. Employee eligible for retirement at date of death:

The surviving spouse if any may elect to receive an annuity equal to the monthly benefit as if the member had retired under any retirement option that would have been available to the member at the end of the month in which the member died. If there is no surviving spouse, then the beneficiary may elect to receive a 15 years certain and life annuity. The surviving spouse or beneficiary instead of electing the annuity may elect to receive a death benefit equal to twice the member's accumulated employee contributions with interest.

b. Employee not eligible for retirement at date of death:

A refund of the member's accumulated deposits (with interest) plus a death benefit from COAERS equal to the member's accumulated deposits (with interest), but excluding any purchases for Non-contributory time, prior military service purchases, or Supplementary Service Credit.

# Summary of Benefit Provisions
# of the Retirement Plan as of December 31, 2021
# (Continued)

J. RETIREE LUMP-SUM DEATH BENEFIT

Upon death of a retired member, a $10,000 lump-sum death benefit is payable. This benefit is also payable upon the death of an active member eligible for retirement whose surviving spouse or beneficiary elects to receive an annuity.

K. COST-OF-LIVING ADJUSTMENT (COLA)

On January 1 of each year the Board may approve a cost-of-living adjustment for those retirees who retired on or before December 31 of the previous year. The maximum adjustment which can be approved is 6%. The amount of the adjustment is set by the Board upon recommendation by the System's actuary that such an adjustment will not make the Fund financially unsound, and the adjustment is not inconsistent with the Code. The adjustment is prorated for any benefit which has been in effect for less than a year, with the proration being 1/12 for each monthly payment received during the prior year.

L. LUMP-SUM ADDITIONAL BENEFIT PAYMENT

Once each year the Board may approve a lump-sum additional benefit payment to be paid to those members and beneficiaries currently in payment status. The additional payment would be equal to a percentage of the member's monthly annuity with a maximum percentage of 100%.

M. LEGISLATED PLAN CHANGES ENACTED BY 1995 LEGISLATURE

1. 2.3% Multiplier

The benefit multiplier was increased from 2.2% per year of service to 2.3% per year of service effective October 1995.

2. 2.3% Retiree Gross-up

Effective October 1995, current retirees received an increase in their benefit amount to bring their retirement benefit amount up to what it would be currently if they had retired under the 2.3% multiplier.

# Summary of Benefit Provisions of the Retirement Plan as of December 31, 2021 (Continued)

3. $10,000 Retiree Lump-Sum Death Benefit

   The lump-sum death benefit payable upon the death of a retiree was increased from $2,000 to $10,000.

4. Plan Participation Begins at Date of Hire

   The six-month service requirement for participation was eliminated. Current active members were granted service for the period between their date of hire and their date of participation, up to six months.

N. LEGISLATED PLAN CHANGES ENACTED BY 1997 LEGISLATURE

1. 2.6% Multiplier

   The benefit multiplier was increased from 2.3% per year of service to 2.6% per year of service effective October 1997.

2. 2.6% Retiree Gross-up

   Effective October 1997, current retirees received an increase in their benefit amount to bring their retirement benefit amount up to what it would be currently if they had retired under the 2.6% multiplier.

3. Military Service Purchase

   Increased the number of months of military service that may be purchased from 24 to 48.

4. Noncontributory Service Purchase

   Allowed an employee to purchase noncontributory service for the following periods of time: (1) while employee was on workers' compensation leave, (2) while employee was on an authorized leave of absence, and (3) while employee performed service for the employer in a position for which the service was not otherwise creditable. The employee pays the full actuarial cost of the service purchase.

# Summary of Benefit Provisions of the Retirement Plan as of December 31, 2021 (Continued)

5. Employer Purchase of Creditable Service

   Allowed the employer to purchase the amount of service required to qualify an employee for an unreduced retirement benefit at age 55. To be eligible for the purchase, the employee must never have been a highly compensated employee within the meaning of IRC Section 414(q). The cost of the service purchase is the full actuarial cost of both the benefit and the retirement eligibility.

O. LEGISLATED PLAN CHANGES ENACTED BY 1999 LEGISLATURE

1. 2.7% Multiplier

   The benefit multiplier was increased from 2.6% per year of service to 2.7% per year of service effective October 1999.

2. 2.7% Retiree Gross-up

   Effective October 1999, current retirees received an increase in their benefit amount to bring their retirement benefit amount up to what it would be currently if they had retired under the 2.7% multiplier.

3. 23 & Out Provision

   The service requirement at which a participant may retire with an unreduced retirement benefit was decreased from 25 years of Creditable Service to 23 years of Creditable Service.

4. Pop-Up Provisions for Certain Joint and Survivor Payment Options

   Certain optional forms of payment which extend coverage to a joint annuitant (Options I, II, and III) were amended so that, should the contingent annuitant predecease the participant, the monthly annuity will revert to the amount that would have been payable under the normal form of payment.

5. LUMP-SUM ADDITIONAL BENEFIT PAYMENT

   The Board was given the ability to make an additional payment to members and beneficiaries in payment status in the form of a lump-sum additional benefit payment. The additional payment would be a percentage of the current monthly payment with a maximum percentage of 100%.

# Summary of Benefit Provisions of the Retirement Plan as of December 31, 2021 (Continued)

6. EMPLOYER PURCHASE OF CREDITABLE SERVICE

   Limitations on employer purchases of Creditable Service for a Member before actual retirement were removed.

P. BENEFIT ENHANCEMENTS ENACTED BY THE BOARD OF TRUSTEES IN 2000

1. "415 Restoration of Retirement Income Plan"

   Certain highly compensated members may have their retirement annuity limited because of Section 415(b)(1) of the Internal Revenue Code. A plan amendment effective January 1, 2000, provides for COAERS to pay a benefit payment that exceeds the maximum benefit limitation imposed by the Internal Revenue Code from a separate, non-qualified, pay-as-you-go "Restoration of Retirement Income Plan."

2. 2.98% Multiplier

   The benefit multiplier was increased from 2.7% per year of service to 2.98% per year of service effective April 2000.

3. 2.98% Retiree Gross-up

   Effective April 2000, current retirees received an increase in their benefit amount to bring their retirement benefit amount up to what it would be currently if they had retired under the 2.98% multiplier.

4. "Pop-up" Benefit Amendment

   The "pop-up" benefit is extended to retirees who selected the actuarial equivalent of Life Annuity option with underlying options of I, II, or III.

Q. BENEFIT ENHANCEMENTS ENACTED BY THE BOARD OF TRUSTEES IN 2001

None

# Summary of Benefit Provisions of the Retirement Plan as of December 31, 2021 (Continued)

R. BENEFIT ENHANCEMENTS ENACTED BY THE BOARD OF TRUSTEES IN 2002

1. 3.00% Multiplier

Benefit multiplier was increased from 2.98% per year of service to 3.00% per year of service effective January 2002.

2. 3.00% Retiree Gross-up

Effective January 2002, current retirees received an increase in their benefit amount to bring their retirement benefit amount up to what it would be currently if they had retired under the 3.00% multiplier.

3. Deferred Retirement Option Program

A “Backward” DROP was added as an optional benefit effective in 2002. The retiring member may elect to retroactively participate in a DROP. The member would receive a lump-sum payment equal to 90% of the sum of the monthly annuities the participant would have received if the member had retired at the DROP entry date. No COLAs are included but changes in the benefit multiplier are reflected.

4. Purchase of Permissive Time

A member may purchase up to five years of Permissive Time. The purchase price charged to the member is the anticipated actuarial cost to the System for the additional service. Minimum purchase is one month with a maximum of 60 months (5 years) or the number of months needed to reach first eligibility for retirement whichever is less.

5. Conversion of Unused Sick Leave

At retirement an employee may elect to purchase Creditable Service for unused sick leave. The Board requires payment by the Member, and then by the City of the equivalent amount of retirement contributions that would have been made had the sick hours been exercised as sick hours. An employee must already be eligible for retirement to purchase the service.

# Summary of Benefit Provisions of the Retirement Plan as of December 31, 2021 (Continued)

S. BENEFIT ENHANCEMENTS ENACTED BY THE BOARD OF TRUSTEES IN 2003

1. “Pop-up” Benefit Amendment

   “Pop-up” benefit was extended to any Joint and Survivor option (including level income options), other than Joint and Last Survivor.

2. Permissive Time Amendment

   Permissive Time resolution was amended removing the provision that restricts members from purchasing Permissive Time in excess of the amount needed to reach first retirement eligibility.

T. BENEFIT ENHANCEMENTS ENACTED BY THE BOARD OF TRUSTEES IN 2004

None

U. BENEFIT ENHANCEMENTS ENACTED BY THE BOARD OF TRUSTEES IN 2005

None

V. BENEFIT ENHANCEMENTS ENACTED BY THE BOARD OF TRUSTEES IN 2006

None

W. BENEFIT ENHANCEMENTS ENACTED BY THE BOARD OF TRUSTEES IN 2007

None

X. BENEFIT ENHANCEMENTS ENACTED BY THE BOARD OF TRUSTEES IN 2008

None

Y. BENEFIT ENHANCEMENTS ENACTED BY THE BOARD OF TRUSTEES IN 2009

None

Z. BENEFIT ENHANCEMENTS ENACTED BY THE BOARD OF TRUSTEES IN 2010

None

# Summary of Benefit Provisions of the Retirement Plan as of December 31, 2021 (Continued)

AA. LEGISLATED PLAN CHANGES ENACTED BY THE 2011 LEGISLATURE

1. Retirement Provisions

   For members hired on after January 1, 2012 (Group B members), changed the eligibility for normal retirement to age 65 with 5 years of service, or age 62 with 30 years of service. Also for members hired on or after January 1, 2012, added an eligibility for early retirement upon age 55 with 10 years of service.

2. Benefit Multiplier

   For members hired on after January 1, 2012, the benefit multiplier was changed to 2.5% per year of service. Early retirement benefits would be reduced on an actuarially equivalent basis.

BB. BENEFIT ENHANCEMENTS ENACTED IN 2012-2021

There have been no changes to the benefit provisions of the Plan since January 1, 2012.

# Definition of Terms

1. ***Actuarial Cost Method***

   A method for determining the actuarial present value of future benefits and allocating such value to time periods in the form of a normal cost and an actuarial accrued liability.

2. ***Present Value of Future Benefits***

   This is computed by projecting the total future benefit cash flow from the System, using actuarial assumptions, and then discounting the cash flow to the valuation date.

3. ***Normal Cost***

   Computed differently under different actuarial cost methods, the normal cost generally represents the value of the portion of the participant's anticipated retirement, termination, and/or death and disability benefits accrued during a year.

4. ***Actuarial Accrued Liability***

   Computed differently under different actuarial cost methods. Generally actuarial accrued liability represents the value of the portion of the participant's anticipated retirement, termination, and/or death and disability benefits accrued as of the valuation date.

5. ***Entry Age Actuarial Cost Method***

   A method under which a participant's actuarial present value of future benefits is allocated on a level basis over the earnings of the participant between his/her entry into the System and his/her assumed exit.

6. ***Unfunded Actuarial Accrued Liability***

   The difference between total actuarial present value of future benefits over the sum of the tangible assets of the System and the actuarial present value of the members' future normal costs. The System is underfunded if the difference is positive and overfunded if the difference is negative.

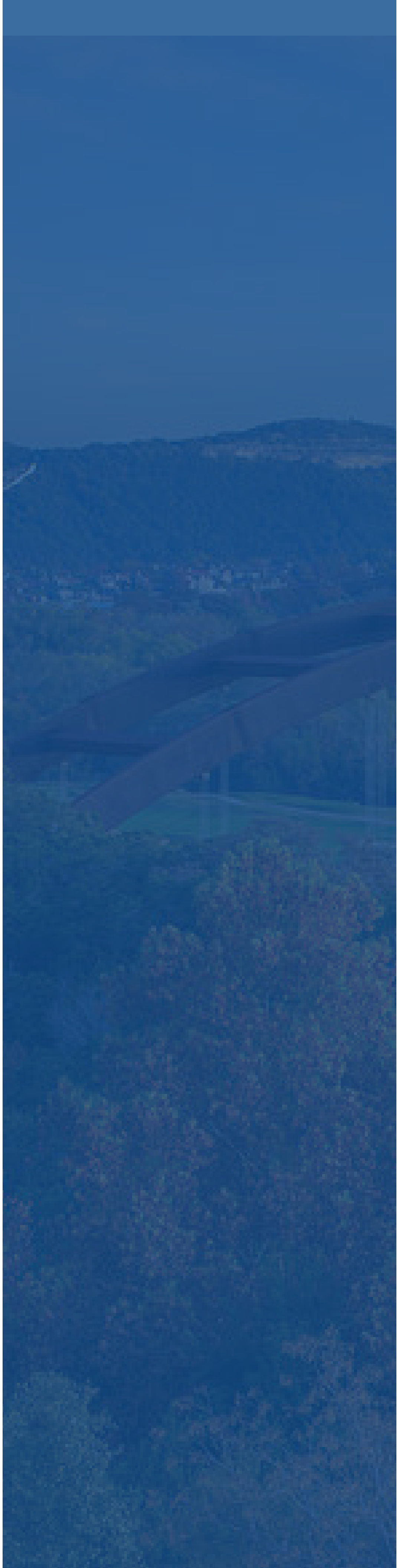
7. ***Actuarial Value of Assets***

   The value of cash, investments, and other property belonging to the System, as valued by the actuary for purposes of the actuarial valuation.

# Definition of Terms
# (Continued)

8. ***Actuarial Gain or Loss***

   From one valuation to the next, if the experience of the plan differs from that anticipated by the actuarial assumptions, an actuarial gain or loss occurs. For example, an actuarial gain would occur if the assets in the trust had a yield of 12% based on actuarial value, while the assumed yield on the actuarial value of assets was 7.50%.



# STATISTICAL SECTION

The Statistical Section provides additional historical perspective, context, and detail to assist the reader in using the information in the financial statements and note disclosures to understand and assess the economic condition of the City of Austin Employees' Retirement System (COAERS). In compliance with *GASB Statement No. 44, Economic Condition Reporting: The Statistical Section*, schedules are classified into the following categories: Demographic and Economic Information, Operating Information, and Financial Trends.


| Table Number | Contents of Tables | Page |
|---|---|---|
| | Demographic and Economic Information – designed to assist the reader in understanding the environment in which COAERS operates. | |
| 13A | Distribution of All Active Participants by Age and Length of Service | 131 |
| 13B | Distribution of Group A Active Participants by Age and Length of Service | 132 |
| 13C | Distribution of Group B Active Participants by Age and Length of Service | 133 |
| 14 | Distribution of All Active Participants by Service and Current Rate of Pay | 134 |
| | Operating Information – provides contextual information to help the reader understand how COAERS' financial information relates to the services it provides and the activities it performs. | |
| 15 | Schedule of Average Benefit Payments | 135 |
| 16 | Retired Members by Type of Benefit | 136 |
| 17 | Schedule of Participating Employers | 137 |
| | Financial Trends – schedules to help the reader understand and assess changes in COAERS' financial position over time. | |
| 18 | Change in Net Position, Last Ten Fiscal Years | 138 |
| 19 | Benefit and Refund Deductions from Net Position by Type, Last Ten Fiscal Years | 139 |


***Sources:*** *Schedules and data are provided by the consulting actuary*, *GRS Retirement Consulting, unless otherwise noted.*

# Table 13A
## Distribution of All Active Participants by Age and Length of Service
## As of December 31, 2021

| Attained Age | 0 | 1 | 2 | 3 | 4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35+ | Number of Employees | Average Annual Salary |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Under 25 | 83 | 35 | 21 | 12 | 4 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 158 | $ 42,713 |
| 25-29 | 185 | 106 | 120 | 98 | 60 | 91 | 0 | 0 | 0 | 0 | 0 | 0 | 660 | 51,476 |
| 30-34 | 142 | 98 | 193 | 136 | 103 | 399 | 50 | 4 | 0 | 0 | 0 | 0 | 1,125 | 60,147 |
| 35-39 | 156 | 95 | 136 | 127 | 125 | 483 | 233 | 88 | 8 | 0 | 0 | 0 | 1,451 | 68,854 |
| 40-44 | 103 | 63 | 94 | 84 | 110 | 405 | 306 | 235 | 115 | 1 | 0 | 0 | 1,516 | 76,405 |
| 45-49 | 70 | 51 | 87 | 71 | 71 | 345 | 253 | 268 | 208 | 39 | 1 | 0 | 1,464 | 80,336 |
| 50-54 | 59 | 43 | 69 | 77 | 66 | 279 | 273 | 225 | 260 | 95 | 24 | 0 | 1,470 | 81,052 |
| 55-59 | 58 | 36 | 51 | 52 | 33 | 194 | 190 | 186 | 189 | 98 | 39 | 18 | 1,144 | 80,407 |
| 60-64 | 25 | 16 | 32 | 22 | 30 | 158 | 143 | 162 | 151 | 71 | 30 | 18 | 858 | 79,674 |
| 65 & Over | 9 | 7 | 9 | 14 | 12 | 76 | 74 | 68 | 61 | 27 | 13 | 12 | 382 | 81,023 |
| All Ages | 890 | 550 | 812 | 693 | 614 | 2,433 | 1,522 | 1,236 | 992 | 331 | 107 | 48 | 10,228 | $ 73,541 |

Service includes proportionate service.

# Table 13B

## Distribution of Group A Active Participants by Age and Length of Service as of December 31, 2021

| Attained Age | 0 | 1 | 2 | 3 | 4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35+ | Number of Employees | Average Annual Salary |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Under 25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | $ 0 |
| 25-29 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 30-34 | 0 | 0 | 1 | 0 | 0 | 2 | 44 | 4 | 0 | 0 | 0 | 0 | 51 | 72,592 |
| 35-39 | 0 | 0 | 0 | 2 | 0 | 8 | 208 | 87 | 8 | 0 | 0 | 0 | 313 | 76,044 |
| 40-44 | 0 | 0 | 1 | 1 | 0 | 8 | 267 | 227 | 111 | 1 | 0 | 0 | 616 | 83,701 |
| 45-49 | 1 | 0 | 0 | 0 | 2 | 12 | 232 | 255 | 204 | 37 | 1 | 0 | 744 | 85,217 |
| 50-54 | 1 | 0 | 1 | 0 | 0 | 9 | 245 | 216 | 254 | 92 | 22 | 0 | 840 | 85,069 |
| 55-59 | 0 | 0 | 0 | 0 | 0 | 7 | 174 | 178 | 183 | 94 | 32 | 13 | 681 | 83,815 |
| 60-64 | 0 | 0 | 0 | 0 | 0 | 3 | 127 | 159 | 143 | 68 | 24 | 15 | 539 | 80,456 |
| 65 & Over | 0 | 0 | 0 | 0 | 0 | 1 | 70 | 67 | 59 | 25 | 12 | 9 | 243 | 84,288 |
| All Ages | 2 | 0 | 3 | 3 | 2 | 50 | 1,367 | 1,193 | 962 | 317 | 91 | 37 | 4,027 | $ 83,151 |

Service includes proportionate service.

# Table 13C
## Distribution of Group B Active Participants by Age and Length of Service as of December 31, 2021

| Attained Age | 0 | 1 | 2 | 3 | 4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35+ | Number of Employees | Average Annual Salary |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Under 25 | 83 | 35 | 21 | 12 | 4 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 158 | $ 42,713 |
| 25-29 | 185 | 106 | 120 | 98 | 60 | 91 | 0 | 0 | 0 | 0 | 0 | 0 | 660 | 51,476 |
| 30-34 | 142 | 98 | 192 | 136 | 103 | 397 | 6 | 0 | 0 | 0 | 0 | 0 | 1,074 | 59,556 |
| 35-39 | 156 | 95 | 136 | 125 | 125 | 475 | 25 | 1 | 0 | 0 | 0 | 0 | 1,138 | 66,876 |
| 40-44 | 103 | 63 | 93 | 83 | 110 | 397 | 39 | 8 | 4 | 0 | 0 | 0 | 900 | 71,412 |
| 45-49 | 69 | 51 | 87 | 71 | 69 | 333 | 21 | 13 | 4 | 2 | 0 | 0 | 720 | 75,292 |
| 50-54 | 58 | 43 | 68 | 77 | 66 | 270 | 28 | 9 | 6 | 3 | 2 | 0 | 630 | 75,696 |
| 55-59 | 58 | 36 | 51 | 52 | 33 | 187 | 16 | 8 | 6 | 4 | 7 | 5 | 463 | 75,393 |
| 60-64 | 25 | 16 | 32 | 22 | 30 | 155 | 16 | 3 | 8 | 3 | 6 | 3 | 319 | 78,352 |
| 65 & Over | 9 | 7 | 9 | 14 | 12 | 75 | 4 | 1 | 2 | 2 | 1 | 3 | 139 | 75,316 |
| All Ages | 888 | 550 | 809 | 690 | 612 | 2,383 | 155 | 43 | 30 | 14 | 16 | 11 | 6,201 | $ 67,301 |

Service includes proportionate service.

# Table 14
## Distribution of All Active Participants by Service and Current Rate of Pay as of December 31, 2021

| Completed Years of Service | Number of Employees | Total Average Salary |
|---|---|---|
| 0 | 890 | $ 58,578 |
| 1 | 550 | 62,435 |
| 2 | 812 | 63,683 |
| 3 | 693 | 66,200 |
| 4 | 614 | 66,895 |
| 5-9 | 2,433 | 71,447 |
| 10-14 | 1,522 | 79,803 |
| 15-19 | 1,236 | 82,807 |
| 20-24 | 992 | 84,972 |
| 25-29 | 331 | 91,499 |
| 30-34 | 107 | 96,901 |
| 35+ | 48 | 92,909 |
| All Years | 10,228 | $ 73,541 |

Service includes proportionate service.

# Table 15
## Schedule of Average Benefit Payments

| Retirement Effective Dates<br>January 1, 2016 to December 31, 2021 | Years Creditable Service<br>0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30+ |
|---|---|---|---|---|---|---|---|
| Period 01/01/2016 to 12/31/2016 | | | | | | | |
| Average Monthly Benefit | $205 | $1,072 | $1,801 | $2,320 | $3,592 | $4,801 | $6,625 |
| Average Final Salary | $35,701 | $66,456 | $64,162 | $60,699 | $69,051 | $75,365 | $85,827 |
| Number of Active Retirees | 22 | 43 | 50 | 44 | 108 | 49 | 21 |
| Period 01/01/2017 to 12/31/2017 | | | | | | | |
| Average Monthly Benefit | $371 | $925 | $1,788 | $3,032 | $3,871 | $4,630 | $6,037 |
| Average Final Salary | $50,749 | $54,135 | $61,636 | $71,751 | $73,301 | $74,520 | $80,261 |
| Number of Active Retirees | 21 | 43 | 63 | 61 | 114 | 43 | 28 |
| Period 01/01/2018 to 12/31/2018 | | | | | | | |
| Average Monthly Benefit | $293 | $1,112 | $1,772 | $2,863 | $3,979 | $5,495 | $6,080 |
| Average Final Salary | $56,345 | $69,022 | $64,441 | $70,931 | $78,425 | $87,300 | $84,409 |
| Number of Active Retirees | 10 | 44 | 45 | 39 | 78 | 43 | 23 |
| Period 01/01/2019 to 12/31/2019 | | | | | | | |
| Average Monthly Benefit | $371 | $1,053 | $1,923 | $2,916 | $3,899 | $5,097 | $6,723 |
| Average Final Salary | $51,792 | $64,130 | $68,532 | $73,958 | $74,027 | $81,487 | $91,779 |
| Number of Active Retirees | 14 | 37 | 51 | 46 | 138 | 64 | 27 |
| Period 01/01/2020 to 12/31/2020 | | | | | | | |
| Average Monthly Benefit | $209 | $935 | $2,103 | $2,961 | $4,020 | $5,400 | $6,620 |
| Average Final Salary | $36,278 | $59,966 | $73,939 | $75,450 | $77,580 | $86,388 | $88,646 |
| Number of Active Retirees | 23 | 47 | 47 | 46 | 134 | 61 | 30 |
| Period 01/01/2021 to 12/31/2021 | | | | | | | |
| Average Monthly Benefit | $411 | $1,033 | $2,058 | $3,085 | $4,377 | $5,554 | $7,073 |
| Average Final Salary | $60,936 | $64,068 | $73,405 | $77,396 | $84,850 | $86,953 | $95,822 |
| Number of Active Retirees | 16 | 42 | 42 | 43 | 149 | 49 | 21 |

# Table 16

## Retired Members by Type of Benefit (as of December 31, 2021)

| Amount of Monthly Benefit | Number of Retired Members | Type of Retirement[a] 1 | 2 | 3 | 4 | Option Selected[b] Unmod. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Deferred | | | | | | 1,369 | | | | | | | |
| $1-250 | 221 | 187 | 14 | 2 | 18 | 148 | 54 | 6 | 2 | | 11 | | |
| 251-500 | 313 | 257 | 31 | 11 | 14 | 180 | 94 | 15 | 7 | 3 | 13 | 1 | |
| 501-750 | 374 | 295 | 54 | 8 | 17 | 223 | 113 | 15 | 11 | 3 | 9 | | |
| 751-1,000 | 373 | 279 | 68 | 12 | 14 | 219 | 108 | 19 | 12 | 2 | 10 | | 3 |
| 1,001-1,250 | 361 | 268 | 68 | 15 | 10 | 196 | 114 | 20 | 18 | 4 | 9 | | |
| 1,251-1,500 | 403 | 313 | 69 | 14 | 7 | 203 | 136 | 30 | 21 | 2 | 7 | 1 | 3 |
| 1,501-1,750 | 419 | 350 | 57 | 11 | 1 | 199 | 130 | 31 | 41 | 4 | 11 | | 3 |
| 1,751-2,000 | 462 | 397 | 47 | 12 | 6 | 210 | 159 | 43 | 36 | 5 | 9 | | |
| Over $2,000 | 4,295 | 4,058 | 202 | 22 | 13 | 1,692 | 1,656 | 426 | 347 | 45 | 102 | 24 | 3 |
| **Total** | **7,221** | **6,404** | **610** | **107** | **100** | **4,639** | **2,564** | **605** | **495** | **68** | **181** | **26** | **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 1 - Beneficiary receives 100 percent of member's reduced monthly benefit

Option 2 - Beneficiary receives 50 percent of member's reduced monthly benefit

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

Option 4 - Survivor receives 66-2/3 percent of member's reduced monthly benefit upon first death

Option 5 - Life annuity with 15 years guaranteed

Option 6 - Other: participant created actuarial equivalent forms of payment

Option 7 - Beneficiary of Option 5 receiving payment until termination of guaranteed period

Note: The number of Retired Members and the number of options selected are not equal due to the inclusion of 1,369 deferred vested members in the Unmodified option selection.

# Table 17
## Schedule of Participating Employers

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

# Table 18

## Change in Net Position, Last Ten Fiscal Years

| | Fiscal Year | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
| **Additions** | | | | | | | | | | |
| Member Contributions | $43,922 | $47,449 | $50,489 | $54,066 | $60,801 | $56,194 | $58,713 | $63,626 | $71,470 | $66,820 |
| Employer Contributions | 76,217 | 86,713 | 93,470 | 100,637 | 104,488 | 111,058 | 116,671 | 123,770 | 130,914 | 141,418 |
| Investment Income (net of expenses) | 220,199 | 287,075 | 99,704 | (47,608) | 171,641 | 376,819 | (157,242) | 503,854 | 307,289 | 411,211 |
| Total additions to plan net assets | $340,338 | $421,237 | $243,663 | $107,095 | $336,930 | $544,071 | $18,142 | $691,250 | $509,673 | $619,449 |
| **Deductions** | | | | | | | | | | |
| Benefit Payments | $131,606 | $141,923 | $152,664 | $162,085 | $171,736 | $183,344 | $195,538 | $208,828 | $222,460 | $235,620 |
| Refunds | 4,916 | 4,738 | 4,154 | 4,052 | 3,911 | 4,045 | 4,141 | 4,265 | 3,656 | 4,267 |
| Administrative Expenses | 2,280 | 2,561 | 2,631 | 2,421 | 2,701 | 2,778 | 4,024 | 6,218 | 6,595 | 6,528 |
| Lump-sum Payments | 3,843 | 4,858 | 5,039 | 3,532 | 3,697 | 3,154 | 3,494 | 5,288 | 5,449 | 7,439 |
| Total deductions from plan net assets | $142,645 | $154,080 | $164,488 | $172,090 | $182,045 | $193,321 | $207,197 | $224,599 | $238,160 | $253,854 |
| **Change in net assets** | $197,693 | $267,157 | $79,175 | ($64,995) | $154,884 | $350,750 | ($189,055) | $466,651 | $271,513 | $365,595 |

Notes: Dollar amounts in thousands

Columns may not add due to rounding

Includes contributions to and benefit payments from 415 Restoration Plan

# Table 19

## Benefit and Refund Deductions from Net Position by Type, Last Ten Fiscal Years

| | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Type of Benefit** | | | | | | | | | | |
| Age and service benefits: | | | | | | | | | | |
| Retirees [a] | $130,019 | $139,667 | $150,335 | $160,219 | $170,031 | $181,270 | $192,905 | $205,575 | $219,582 | $231,849 |
| Beneficiaries [a] | | | | | | | | | | |
| Lump-sum payments | $3,843 | $4,858 | $5,039 | $3,532 | $3,697 | $3,154 | $3,494 | $5,288 | $5,449 | $7,439 |
| In service death benefits: [b] | $1,587 | $2,256 | $2,329 | $1,866 | $1,705 | $2,074 | $2,633 | $3,253 | $2,878 | $3,772 |
| Disability benefits: [c] | | | | | | | | | | |
| Total benefits | $135,449 | $146,781 | $157,703 | $165,617 | $175,433 | $186,498 | $199,032 | $214,116 | $227,909 | $243,060 |
| **Type of Refund** | | | | | | | | | | |
| Death [b] | | | | | | | | | | |
| Separation | $4,916 | $4,738 | $4,154 | $4,052 | $3,911 | $4,045 | $4,141 | $4,265 | $3,656 | $4,267 |
| Total refunds | $4,916 | $4,738 | $4,154 | $4,052 | $3,911 | $4,045 | $4,141 | $4,265 | $3,656 | $4,267 |

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

Includes benefit payments from 415 Restoration Plan

Excludes administrative expenses

## January 1, 1941

City Council established the City of Austin Employees' Retirement System.

Original City Ordinance provided a maximum annuity of $100 per month at age 65.

Contributions to retirement system set at 4.0%.

No survivor options, no early retirement eligibility, no vesting, no disability benefits, and no death benefits.

## 1951

Established two options for survivor benefits:

Option I – 100% Joint and Survivor

Option II – 66 ⅔ Joint and Survivor

Established eligibility for early retirement.

Established a provision for vested benefits after 15 years of Creditable Service.

Established disability retirement benefits.

Increased contribution rate to 5.0%.

## 1962

System changed from a money-purchase plan to a formula-based plan with a multiplier of 1.125%.

Established additional options for survivor benefits:

Option III – 50% Joint and Survivor

Option IV – 66 ⅔Joint and Last Survivor

## 1967

Multiplier increased from 1.125% to 1.25%.

Set Active Member death benefits at $2,000.

## 1969

Established provisions for cost-of-living adjustment (COLA).

Set Retired Member death benefits at $2,000.

## 1971

Increased multiplier from 1.25% to 1.5%.

Established a provision for unreduced retirement benefits at age 62 (lowered from age 65) with any number of years of service.

Provided free health insurance benefits, ages 62 - 65.

Increased contribution rate to 6.0%.

## 1972

Established a provision for vested eligibility after 10 years of Creditable Service.

Established a provision for regular employees working 30 or more hours per week to make retirement contributions.

Established a provision for Members eligible for early retirement benefits to choose Option I to provide survivor benefits.

## 1973

Increased multiplier from 1.5% to 1.75%.

Established a provision for Final Average Earnings based on highest 60 months of contributing service.

Allowed Members eligible for retirement to select option to provide survivor benefit before actually retiring.

Established disability retirement for line-of-duty disabilities regardless of Creditable Service. Disability retirement available for any disability after 10 years of service. Disability retirement benefits based on age and years of service at time of disability retirement; no penalty based on age.

## December 1977

Elimination of $2,000 death benefit for Active Members; continued for Retirees.

Established a provision for Active Members' designated beneficiaries to receive contributions and interest plus an equal amount from the System if Member dies prior to retirement eligibility.

## September 1978

Established additional retirement options.

## December 1979

Discontinued medical insurance payment for Retirees who were ages 62 - 65.

## July 1981

Established a provision for contributions to be required after age 62 until retirement. Members older than age 62 have option to make up missed contributions to benefit from higher salary averaging for retirement benefits.

Reduced Final Average Earnings period from 60 to 36 months.

## October 1982

Increased contribution rate to 6.6%, matched by City.

## November 1982

Established retirement benefits for Members age 55 or older with 20 years of service.

## March 1984

Adopted unisex option factors. The sex of the Member and the beneficiary no longer considered in the determination of any System benefits.

## December 1984

Increased Member contribution rate from 6.6% to 7.0%, matched by the City.

Increased multiplier from 1.75% to 1.85%.

Established a provision for a surviving spouse to select an optional benefit if Active Member dies who was already eligible to retire and had not yet selected a benefit option.

Implemented employer "pick up" of member contributions pursuant to 414(h)(2) of the Internal Revenue Code. Member contributions after January 1, 1985 not taxed until time when benefits are paid to the Member.

Limited "Prior Service" Purchase – Former Members who forfeited membership service by taking a refund when they left City employment may purchase their prior Creditable Service. Current Members allowed six months to reinstate former credit by repaying withdrawn deposits plus interest. Only former Members who had been reemployed by the City before December 20, 1984 are eligible.

Established that the 36 months of salary used to calculate monthly benefits need not be consecutive. Highest 36 months of salary during last 10 years of Creditable Service would be averaged to determine Final Average Earnings.

## March 1985

Granted a special one-time benefit increase based on year of retirement.

## October 1985

Increased multiplier from 1.85% to 2.0%.

## February 1986

Change in composition of Board of Trustees; replaced Council Member position with Retired Member Trustee to be appointed by the City Council.

## May 1987

Established that Members laid-off during the period from September 30, 1986 through October 1, 1989, and who were eligible for retirement would receive an unreduced current service annuity.

## October 1987

Reduced Member and City contribution rates to the System temporarily from 7.0% to 6.2% of basic compensation for the period from October 1, 1987 to September 30, 1988.

## March 1988

Established survivor benefit options for Disability Retirees effective March 13, 1988.

## August 1988

Established vesting eligibility at five years of Creditable Service.

Extension of “Prior Service Purchases” – Former Members who forfeited membership service by taking a refund of their retirement contributions when they left City employment, who have returned to City employment, may purchase and reinstate their prior Creditable Service.

For purposes of calculating benefits and determining eligibility, three years were added to both age and service for all Members retiring between September 1, 1988 and December 31, 1988.

## September 1988

Restored Member and employer contribution rates to 7.0% from 6.2% of basic earnings effective September 30, 1988.

## December 1989

Amended ordinance for Retiree Member Trustee position of the Board to be elected by Retired Members to a four-year term, instead of appointment by the City Council.

## January 1990

Granted a special one-time benefit increase ranging from 0.5% to 15% based on date benefit commenced.

## February 1990

Established unreduced retirement benefits for Members at any age with 30 years Creditable Service.

Increased multiplier from 2.0% to 2.1%.

## October 1990

Adopted limits on income of Social Security disability benefits for System Disability Retirees.

## August 1991

Established System governance by Article 6243n of Texas State Law effective August 26, 1991. All changes to the System made by the Texas State Legislature.

Became a member of Proportionate Retirement Program with five other statewide retirement systems. Membership service may be combined with other participating systems for meeting service requirements for retirement eligibility.

## July 1993

Increased multiplier from 2.1% to 2.2%, with commensurate increase for members retired before December 1, 1989.

Established a provision for unreduced retirement benefits for Members at any age with 25 years of service.

Allowed purchases for up to 24 months of former active duty U.S. military service.

## October 1995

Increased multiplier from 2.2% to 2.3%, with commensurate increase for previous Retirees.

Established that new City of Austin employees hired after October 1, 1995 become Members of COAERS at date of employment. Current employees as of October 1, 1995 are given retirement service credit for up to one six-month probationary period at time of retirement.

Change in composition of Board of Trustees; Director of Finance Designee replaced with additional Retired Member Trustee to be elected by Retired Members.

Increased death benefit for Retirees from $2,000 to $10,000.

## October 1997

Increased multiplier from 2.3% to 2.6%, with commensurate increase for previous Retirees.

Established a provision for unreduced retirement benefits for Members at age 55 with 20 years of service.

Increased purchases of former active duty U.S. military service from 24 to 48 months.

Allowed new purchase option of Creditable Service for non-contributory time including time while on workers' compensation, leaves of absence, part-time and temporary service.

Allowed for the City of Austin to purchase service credit for Members in order to qualify an employee for unreduced retirement benefit at age 55.

## October 1999

Increased multiplier from 2.6% to 2.7%, with commensurate increase for previous Retirees.

Increased Member contribution rate from 7.0% to 8.0% following vote by Active Members.

Established a provision for unreduced retirement benefits for Members at any age with 23 years of service.

Set new limits on Retirees returning to work for the City.

Added "pop-up" benefit for Retirees choosing Options I, II, or III (Joint and Survivor Annuities) to increase Retiree benefits if the survivor beneficiary predeceased the Retiree on, or after, October 1, 1999.

Granted Board authority to authorize certain benefit improvements subject to statutory guidelines.

Gave Board the ability to grant an additional payment to Members receiving monthly annuity payments in the form of an additional lump-sum benefit payment. The additional payment would be a percentage of the current monthly payment with a maximum percentage of 100%.

Established a provision for disability retirement benefits for off-the-job injury/illness after five years Creditable Service (previously 10 years).

Removed limitations on employer purchases of Creditable Service for a Member.

## January 2000

Established Restoration of Retirement Income Plan to restore retirement income otherwise limited by Section 415 of the Internal Revenue Code.

## April 2000

Increased multiplier from 2.7% to 2.98%, with commensurate increase for previous Retirees.

Increased employer contribution rate from 7.0% to 8.0%, matching Member contribution rate.

## July 2000

Extended “pop-up” benefit to Retirees who selected the actuarial equivalent of Life Annuity option with underlying options of I, II, or III.

## January 2002

Increased multiplier from 2.98% to 3.0%, with commensurate increase for previous Retirees.

Established a provision for purchases of Permissive Time to Active/Inactive Vested Members, based on EGTRRA federal law with a minimum purchase of one month and a maximum of 60 months (five years) or the number of months needed to reach first eligibility for retirement, whichever is less.

Amended Proportionate Retirement Program provided by Texas Government Code 803 to allow former members of participating proportionate systems to re-establish Creditable Service previously forfeited in that system without returning to membership in that system.

## April 2002

Established Sick Leave Conversion benefit. Allows Members to convert sick leave balances to Creditable Service at time of retirement with purchase paid by Member and City of Austin.

Established Backward DROP (Deferred Retirement Option Program) benefit up to five years for Members working beyond retirement eligibility.

## January 2003

Extended “pop-up” benefit to any Joint and Survivor option other than Joint and Last Survivor.

Amended Permissive Time resolution removing provision which restricted Members from purchasing Permissive Time in excess of the amount needed to reach first eligibility for retirement.

## May 2005

City Council adopted a Supplemental Funding Plan providing additional City contributions in Resolution No. 20050512-045. The Plan is structured to increase City contributions to achieve a 30-year amortization period as follows: 1% in fiscal year 2007, 2% in fiscal year 2008, 3% in fiscal year 2009, and 4% in fiscal year 2010 and thereafter, if necessary. If, during any calendar year, COAERS earns greater than a 12% time weighted rate of return net of fees, the increase is delayed one budget cycle. Any future benefit enhancements or cost of living adjustments require a recommendation from the City Manager and approval by the City Council. In addition, if the CPI index exceeds 3.0% in any calendar year, an actuarial study is to be performed to determine the additional subsidy needed if a cost of living adjustment were to be provided.

## October 2006

City Council adopted a budget including a Supplement Funding Plan contribution subsidy of 1% for fiscal year 2007.

## September 2007

Established a limited proportionate service arrangement exclusively for those individuals who have membership in COAERS and a retirement system within the Travis County Healthcare District (District) organization. This arrangement, effective with employees transitioning into the District effective March 1, 2009, is similar to the general proportionate program except that it applies only between these two retirement systems.

## October 2007

Scheduled increase in City Supplemental Funding Plan contribution subsidy postponed because of time-weighted rates of investment returns (net of fees) exceeding 12%.

## October 2008

City Council adopted a budget including a Supplement Funding Plan contribution subsidy of 2% for fiscal year 2009.

## March 2009

City of Austin Police Retirement System joins the Proportional Retirement Program.

## October 2009

City Council adopts a budget increasing Supplemental Funding Plan City contributions from 2% to 4% for fiscal year 2010.

## September 2010

City Council approves an Amended Supplemental Funding Plan establishing the City's total employer contribution to the System as follows:

- 14% of compensation effective October 1, 2010 for fiscal year 2010-11.
- 16% of compensation effective October 1, 2011 for fiscal year 2011-12; and
- 18% of compensation effective October 1, 2012 for fiscal year 2012-13, and each fiscal year thereafter.

The City's total employer contribution levels remain in effect until the Amended Supplemental Funding Plan is amended or repealed.

The Amended Supplemental Funding Plan also requires any future benefit enhancements or cost of living adjustments otherwise permitted under the System's governing documents to be recommended by the City Manager and approved by the City Council. Finally, the Amended Supplemental Funding Plan stated that it was the City and the System's intention to seek legislative amendments to state law to improve the overall financial condition of the System by establishing reasonable but different benefit levels for employees of the City who became members of the System on or after January 1, 2012.

## March 2011

The Board, through policy, increased the waiting period for certain retirees returning to work from 60 to 90 days.

## June 2011

Article 6243n was amended establishing a new benefit tier for employees hired on and after January 1, 2012. The following provisions apply to those employees:

- Normal retirement eligibility at age 65 with 5 years of service credit; or at age 62 with 30 years of service credit;
- Early reduced retirement eligibility at age 55 with 10 years of service credit;
- An annuity formula multiplier of 2.5%; and

- The purchase of nonqualified permissive service (supplementary service credit) for annuity calculations only and not for eligibility purposes.

Unrelated to the new benefit tier, Article 6243n was amended to revise the rules for retirees returning to work. The revised rules require the Board to suspend the retirement allowance of a retired member who resumes employment with an employer in a position that is not required to participate in another retirement system maintained by an employer, and who is not a regular full-time employee of an employer, if the member works for, or is compensated by, an employer for more than 1,508 hours in any rolling 12-month period after the member resumes employment with the employer.

## November 2014

The Board implemented a Funding Policy which established certain actuarial methods for funding and created long-term funding goals to ensure that COAERS is well funded into the future and to specify under what conditions future benefit enhancements would be considered.

## September 2020

The Board revised its Funding Policy adding a 25-year closed period as the benchmark funding period and establishing criteria to modify existing benefit and contribution policies based upon the funding period.

## January 2021

With the implementation of new actuarial assumptions, the Board added a 200-basis point premium on service purchases made at actuarial cost (supplementary, military, and noncontributory) effective January 1, 2021.

The City of Austin increased its employer contribution to 19% of base compensation.

# HISTORY OF CONTRIBUTIONS AND BENEFIT RATES

| Year | Employer Contribution Rate | Member Contribution Rate | Interest Paid on Member Deposits | Benefits Multiplier | Cost of Living Adjustment |
|---|---|---|---|---|---|
| 1941 | 4.00% | 4.00% | - | N/A | - |
| 1942 | " | " | - | " | - |
| 1943 | " | " | - | " | - |
| 1944 | " | " | - | " | - |
| 1945 | " | " | 2.00% | " | - |
| 1946 | " | " | 2.00% | " | - |
| 1947 | " | " | 2.00% | " | - |
| 1948 | " | " | 2.00% | " | - |
| 1949 | " | " | 2.00% | " | - |
| 1950 | " | " | 2.00% | " | - |
| 1951 | 5.00% | 5.00% | 2.00% | " | - |
| 1952 | " | " | 2.00% | " | - |
| 1953 | " | " | 1.91% | " | - |
| 1954 | " | " | 2.46% | " | - |
| 1955 | " | " | 2.52% | " | - |
| 1956 | " | " | 2.60% | " | - |
| 1957 | " | " | 2.00% | " | - |
| 1958 | " | " | 2.62% | " | - |
| 1959 | " | " | 2.79% | " | - |
| 1960 | " | " | 3.27% | " | - |
| 1961 | " | " | 2.77% | " | - |
| 1962 | " | " | 3.65% | 1.125% | - |
| 1963 | " | " | 3.76% | " | - |
| 1964 | " | " | 3.31% | " | - |
| 1965 | " | " | 3.25% | " | - |
| 1966 | " | " | 3.56% | " | - |
| 1967 | " | " | 3.68% | 1.25% | - |
| 1968 | " | " | 4.25% | " | - |
| 1969 | " | " | 4.66% | " | 0.50% [a] |
| 1970 | " | " | 4.98% | " | 1.50% |
| 1971 | 6.00% | 6.00% | 5.43% | 1.50% | 2.00% |
| 1972 | " | " | 6.04% | " | 3.00% |
| 1973 | " | " | 6.22% | 1.75% | 3.00% |
| 1974 | " | " | 6.33% | " | 3.00% |
| 1975 | " | " | 6.82% | " | 3.00% |
| 1976 | " | " | 6.94% | " | 3.00% |
| 1977 | " | " | 6.51% | " | 3.00% |
| 1978 | " | " | 6.66% | " | 3.00% |
| 1979 | " | " | 7.84% | " | 3.00% |
| 1980 | " | " | 8.01% | " | 3.00% |
| 1981 | 6.00% | 6.00% | 8.14% | " | 3.00% |
| 1982 | 6.60% | 6.60% | 8.21% | " | 3.00% |
| 1983 | " | " | 8.39% | " | 3.00% |

| Year | Employer Contribution Rate | Member Contribution Rate | Interest Paid on Member Deposits | Benefits Multiplier | Cost of Living Adjustment |
|---|---|---|---|---|---|
| 1984 | 7.00% | 7.00% | 8.29% | 1.85% | 3.00% |
| 1985 | " | " | 8.22% | 2.00% | 3.00% |
| 1986 | " | " | 8.00% | " | 3.00% |
| 1987 | 6.20% | 6.20% | 8.00% | " | 1.50% |
| 1988 | 7.00% | 7.00% | 8.00% | " | 3.00% |
| 1989 | " | " | 8.00% | " | 3.00% |
| 1990 | " | " | 8.00% | 2.10% | 3.00% |
| 1991 | " | " | 6.50% | " | 3.00% |
| 1992 | " | " | 6.00% | " | 4.00% |
| 1993 | " | " | 5.00% | 2.20% | 3.10% |
| 1994 | " | " | 6.00% | " | 6.00% |
| 1995 | " | " | 6.75% | 2.30% | 6.00% |
| 1996 | " | " | 6.75% | " | 6.00% |
| 1997 | " | " | 6.75% | 2.60% | 6.00% |
| 1998 | " | " | 5.00% | " | 5.00% |
| 1999 | " | 8.00% | 6.25% | 2.70% | 3.00% |
| 2000 | 8.00% | " | 5.75% | 2.98% | 0.00% |
| 2001 | " | " | 4.25% | " | 3.50% |
| 2002 | " | " | 3.75% | 3.00% | 2.50% |
| 2003 | " | " | 3.75% | " | 0.00% |
| 2004 | " | " | 3.75% | " | 0.00% |
| 2005 | " | " | 4.50% | " | 0.00% |
| 2006 | 9.00% [b] | " | 4.50% | " | 0.00% |
| 2007 | " | " | 4.50% | " | 0.00% |
| 2008 | 10.00% [b] | " | 4.00% | " | 0.00% |
| 2009 | 12.00% [b] | " | 3.25% | " | 0.00% |
| 2010 | 12.00% [c] | " | 2.75% | " | 0.00% |
| 2011 | 14.00% [c] | " | 2.25% | " | 0.00% |
| 2012 | 16.00% [c] | " | 1.85% | 3.00%/2.50% [d] | 0.00% |
| 2013 | 18.00% [c] | " | 2.17% | " | 0.00% |
| 2014 | " | " | 2.63% | " | 0.00% |
| 2015 | " | " | 2.14% | " | 0.00% |
| 2016 | " | " | 1.83% | " | 0.00% |
| 2017 | " | " | 2.32% | " | 0.00% |
| 2018 | " | " | 2.81% | " | 0.00% |
| 2019 | " | " | 2.32% | " | 0.00% |
| 2020 | " | " | 1.04% | " | 0.00% |
| 2021 | 19.00% [e] | " | 1.35% | " | 0.00% |

[a] In 1969, the adjustment was 1.5% prorated for 4 months, 4/12 x 1.5% or .05%.

[b] Includes City of Austin subsidy payment, effective at beginning of their fiscal year, October 1, pursuant to Supplemental Funding Plan.

[c] Increased to 14.00% effective October 1, 2010; increased to 16.00% effective October 1, 2011; increased to 18.00% effective October 1, 2012 and thereafter; pursuant to Amended Supplemental Funding Plan.

[d] The multiplier was set at 2.50% for those hired on and after January 1, 2012. The multiplier remained at 3.00% for those hired before January 1, 2012.

[e] The City of Austin budgeted a 19% employer contribution for fiscal year 2021.

***Notes**: The System was a money purchase plan until 1962 when a formula for computing benefits was introduced with a multiplier of 1.125%. Special adjustments based on years of retirement granted by City Council in 1985 and 1990 are not reflected in table.*

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